

National Weather Service Annual Study

2013 Final Report



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How this Report is Organized

This report is divided into the following sections:

- This introduction discusses the organization of the report, how the information in this report can be used, and provides definitions of key words needed to understand the findings.
- The summary results presents the satisfaction model.
- The detailed results section includes a discussion of the results, selected components, and other survey findings for National Weather Service.
- Three sections appear within the appendix.
 - Attribute tables present a full summary of all component and attribute scores from the National Weather Service survey.
 - Responses to non-modeled questions provide a summary of responses to all "yes/no" and other categorical questions from the National Weather Service survey.
 - The questionnaire used for this study.



How to Interpret and Use the Results

- ➤ In general, the results presented in this report serve as a decision tool for use in conjunction with other customer and management information available to National Weather Service. Use the results to assist with:
 - Determining those areas on which to focus quality improvements.
 - Monitoring changes in customer perceptions, attitudes, and behavior over time.
 - Evaluating the success of ongoing quality improvement efforts (long term).
- ➤ The Summary Results section provides a snapshot of National Weather Service's overall performance, identifies high-leverage areas where improvements will have significant impact on satisfaction, and provides comparisons against which performance can be gauged.
- Within the Detailed Results section is a review of the components and additional analysis relevant toward understanding the results. This section also pinpoints specific areas for improvement.



Key Words You Will Want to Understand in Reading this Report

Results from this analysis are presented through various discussions, charts, and tables provided in this report. To understand these clearly, some definitions are in order:

Attribute – Attributes reflect different aspects or qualities of a component experienced by customers, which may contribute to satisfaction. Each attribute is captured by a specific scaled question from the questionnaire.

Attribute Rating – An attribute rating is the average of all responses to each question. Each rating has been converted to a 0-100 scale. In general, it indicates how negatively (low ratings) or positively (high ratings) customers perceive specific issues.

Component – Each component is defined by a set of attributes that are conceptually and empirically related to each other. For example, a component entitled "Customer Service" may include the questions "representative's knowledge of industry practices" and "responsiveness to the needs of your agency."

Component Score (or simply "score") – A component score represents that component's "performance." In general, they tell how negatively (low scores) or positively (high scores) customers feel about the organization's performance in general areas. Quantitatively, the score is the weighted average of the attributes that define the component in the CFI Group model. These scores are standardized on a 0-100 scale.

Component Impact (or simply "impact") – The impact of a component represents its ability to affect customers' satisfaction and future behavior. Components with higher impacts have greater leverage on measures of satisfaction and behavior than those with lower impacts. Quantitatively, a component's impact represents the amount of change in overall Satisfaction that would occur if that component's score were to increase by 5 points.

Customer Satisfaction Index (CSI) – The Customer Satisfaction Index consists of three questions: satisfaction overall, satisfaction compared to expectations, and satisfaction compared to the ideal. Within this report, the Customer Satisfaction Index may be referred to as CSI, Customer Satisfaction, or Satisfaction.



ACSI Methodology

All scores and ratings presented in this report are calculated using the methodology of the American Customer Satisfaction Index (ACSI). The ACSI, established in 1994, is a uniform, cross-industry measure of satisfaction with goods and services available to U.S. consumers, including both the private and public sectors. ACSI has measured more than 100 programs of federal government agencies since 1999. Developed by Dr. Claes Fornell at the University of Michigan, the methodology for the ACSI has become the standard measure for other national indices as well.

CFI Group, a management consulting firm that specializes in the application of the ACSI methodology to individual organizations, uses the ACSI methodology to identify the causes of satisfaction and relates satisfaction to business performance measures such as propensity to recommend a product or service, trust, compliance, etc. The methodology measures quality, satisfaction, and performance, and links them using a structural equation model. By structurally exploring these relationships, the system overcomes the inherent inability of people to report precisely the relative impact of the many factors influencing their satisfaction. Using CFI Group's results, organizations can identify and improve those factors that will improve satisfaction and other measures of business performance.



Program Overview

Key Contacts

- NWS: Doug Young, Sal Romano
- CFI Group: Dave Keen, Paul Klimecki

Project Background

- CFI Group has been working with the National Weather Service since 2002
- Multiple studies have been conducted, including event driven studies, various user groups, and partner studies

Program Objective

- Help NWS achieve its strategic and tactical goals by providing:
 - Feedback on NWS products, services and overall customer satisfaction
 - Recommendations for future focus



Survey Methodology

Data Collection

- Survey link was made available on NWS web pages September 9th 30th
- A total of 27,973 surveys were completed and used for analysis

Survey Design

- The survey measured satisfaction with general NWS products and services
- > The survey further measured satisfaction with 4 (optional) specific service areas:
 - National Fire Weather Program
 - National Hurricane Center Program
 - National Hydrologic Services Program
 - National Climate Services Program



Key Findings

At 82, NWS CSI is still strong and exceeds key benchmarks

- > 14 points higher than the Federal Government ACSI and 5 points above the overall ACSI average
- Future behavior (loyalty and advocacy) scores perform extremely well, as respondents are very likely to use NWS again and recommend NWS to others

Almost 9 in 10 respondents use NWS information for personal reasons (including recreation) and a majority consider themselves Weather Enthusiasts

- Only 1 in 4 use NWS weather information for work related decisions
- The use of mobile devices to obtain information on the weather continues to grow dramatically (up from 37% in 2012 to 48%). While still an important source, commercial radio utilization is receding.
- Virtually all continue to use NWS Web Sources to get weather info, with local/cable TV, NOAA Weather Radio, and Non-NWS Web also important sources.

While already highly rated, the overall score for Hazardous Services improves further in 2013 (up 2 points compared with 2012). It is notable that scores for each specific warning measured have also improved slightly over the past year.

Hazardous Services scores are up for the Central, Eastern, Southern and Pacific regions.

Dissemination Services – Automated is another CSI driver that exhibits improvement in 2013 (also up 2 points from 2012).

> 'Ease of locating data on servers' is driving this increase, improving by 5 points over the past year.

Dissemination Services – Website is not only a highly rated CSI driver, it is also the strongest influence on CSI.

Information is found to be up-to-date and easy to understand. While performing well, ease of locating information could be improved.



Respondent Profile

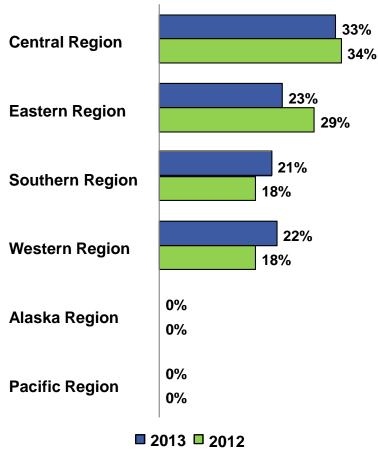
General Profile of NWS Respondent

- □ Private citizen who resides in the US a third in the Central region (33%) and the remainder evenly distributed across the Eastern (23%), Southern (21%), and Western Regions (22%)
- Overwhelmingly uses NWS information for personal use (recreational use to a lesser degree), with a majority describing themselves as Weather Enthusiasts.
- □ Is a white male, between the ages of 45 and 64, and has attended at least some college (56% have 4 year or post graduate degrees)
- Most commonly uses NWS Web Sources, followed by Local or cable TV, Mobile devices (trending up significantly in the past year), NOAA Weather Radio, Non-NWS Web Sources and Commercial radio to gather weather information. Product usage revolves around NOAA forecasts, watches, warnings, alerts, as well as Radar data and Observational data
- □ Future plans to obtain NWS information include the use of Desktop/Laptop Computers, Mobile devices, and NOAA Weather Radio All-Hazards
- Is familiar with a wide variety of Hazardous Services warnings, including Severe Thunderstorm Warnings, Severe Thunderstorm Watches, Winter Storm Warning, and Flash Flood warnings
- □ Is even more likely to have a hazardous weather safety plan than in 2012 (may or may not have a hazardous weather emergency preparedness kit)
- ☐ Typically not using NWS information to make job related decisions



A plurality of respondents are in Central Region

As in previous years, the Central Region remains the most strongly represented region (33%) in 2013. Both the Southern (21%) and Western (22%) Regions exhibit increases, while Eastern Region representation (23%) drops this year.





NWS Information is overwhelmingly for personal use; Aviation mostly private

While a majority of respondents in past years have indicated they use NWS information for Personal reasons, almost 9 in 10 respond this way in 2013 (88%). A majority also use NWS information for Recreational purposes (58%) and consider themselves Weather Enthusiasts (54%). Close to 1 in 4 (23%) use NWS information for Work-related decisions.

Uses of NWS information*		
Personal	88%	24,513
Recreation	58%	16,342
Weather Enthusiast	54%	15,149
Work-related decisions	23%	6,478
Agriculture	17%	4,630
NWS Data Provider	9%	2,627
Land Management Decisions	8%	2,217
Education	7%	1,935
Amateur Radio	6%	1,671
Research	6%	1,572
Aviation	5%	1,410
Broadcast/Print Media	3%	780
Health Services	3%	707
Marine	3%	896
Commodities Markets	1%	295
Consulting	1%	397
Other	8%	2,302
Number of Respondents	27,	973

^{*}Total percentage exceeds 100 due to multiple responses

For those respondents using NWS information for Aviation purposes, the majority are operating private aircrafts (73%).

Type of Aviation		
Private Aircraft	73%	1,036
Comm Aircraft	19%	271
Dispatcher	4%	54
Air Traffic Controller	3%	49
Number of Respondents	1,4	110

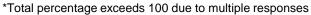


Respondents are primarily using NWS Web Sources, Local/Cable TV, Mobile devices, and/or NOAA Weather Radio to get their information (particularly the former)

NWS Web Sources easily remains the top weather information source in 2013, while Mobile devices continue to increase (up 11% percentage points this year). Local or cable TV, NOAA Weather Radio/All Hazards, and non-NWS Web Sources all rank in the top five as sources regularly used to obtain weather, water and climate information.

	2011	2012	2013
Information sources*			
NWS Web	95%	93%	93%
Local or cable TV	52%	52%	54%
Mobile devices	32%	37%	48%
NOAA Weather Radio/All Hazards	42%	41%	43%
Non-NWS Web	31%	33%	32%
Commercial Radio	30%	29%	24%
Cell Phone			19%
Newspaper	18%	19%	17%
Social Media	9%	11%	14%
Satellite TV	18%	16%	14%
Email		16%	11%
Landline Telephone			5%
NOAA Weather Wire	6%	5%	4%
Emerg Mgrs Weather Info Net	4%	4%	4%
Satellite radio	5%	4%	3%
Flight Services		5%	3%
NOAAPort	6%	5%	2%
DUATS	2%	2%	2%
U.S. Coast Guard Broadcasts	6%	6%	2%
Family of Services (FOS)	5%	4%	1%
World Area Forecast System	2%	2%	1%
NAVTEX receiver	1%	1%	0%
Immarsat-C SafetyNET	0%	0%	0%
Radiofacsimile	1%	1%	0%
Other	1%	2%	5%
Number of Respondents	32,532	23,607	27,973

Mobile device usage has been on the rise since 2011.





Virtually all respondents use NOAA Forecasts, outlooks, watches, warnings and/or alerts

As expected based on past findings, NOAA NWS products used most often are "Forecasts, outlooks, watches, warnings, alerts." Radar data and Weather observations round out the top three, while Weather outreach/educational materials are the least used (9%).

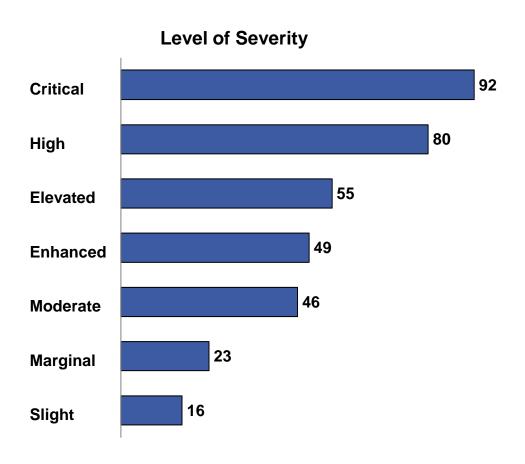
NOAA-NWS products used most often*		
Forecasts, outlooks, watches, warnings, alerts	97%	26,996
Radar data	80%	22,371
Weather observations	74%	20,604
Satellite data	48%	13,449
Computer weather model output	37%	10,324
Climate observations	33%	9,130
Weather outreach/educational materials	9%	2,387
Other products	5%	1,272
Number of Respondents	27,	973

^{*}Total percentage exceeds 100 due to multiple responses



"Critical" best describes the highest level of severity during a severe weather threat

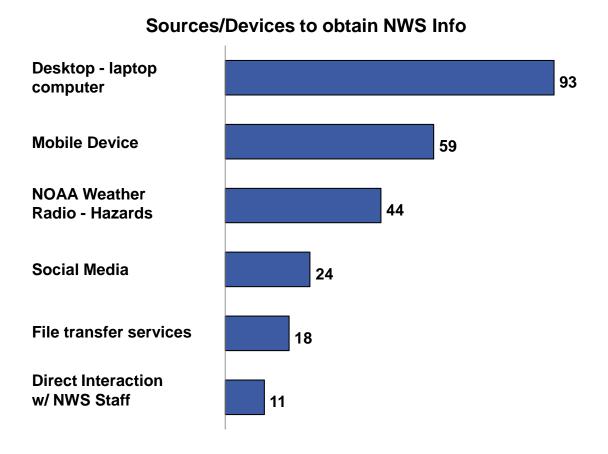
Respondents overwhelming feel the term "critical" best communicates the highest level of severity during the threat of severe weather, followed by "high". Not surprisingly, "elevated", "enhanced", and "moderate" are associated with less severe threats.





Computers are the favored device for obtaining NWS information in the next year, followed most closely by mobile devices

Desktops and laptops, followed by mobile devices and NOAA Weather Radio are the clear favorites for obtaining NWS information in the next year.



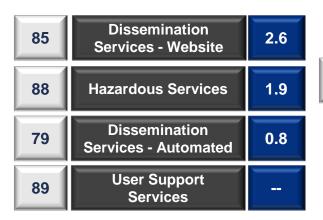


Summary Results

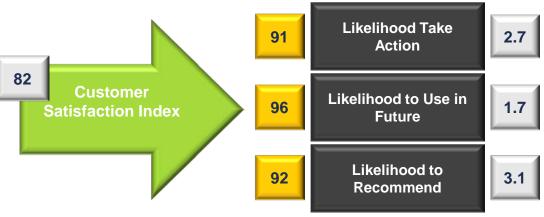
2013 Customer Satisfaction Model

From left to right are the components, Customer Satisfaction Index, and outcome measures (sometimes referred to as desired behaviors). Components are a weighted average of specific questions (attributes) asked on the survey. Components are general areas of customer experience that drive customer satisfaction. Impacts, in the dark blue boxes, indicate the degree to which each component drives overall customer satisfaction. Impacts on the right side of the customer satisfaction model represent the degree to which customer satisfaction drives each one of the desired behaviors.

Satisfaction Drivers



Future Behaviors



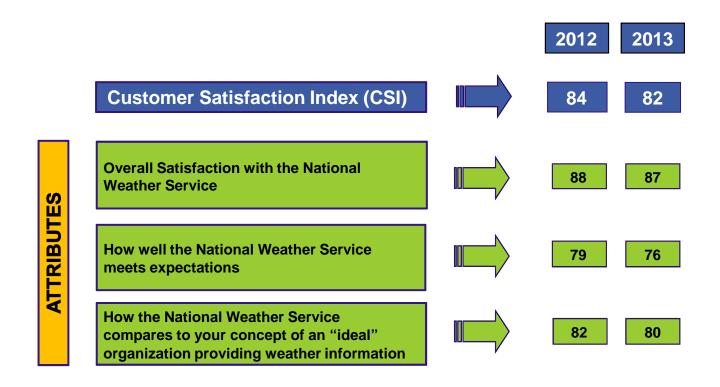
*Dissemination Services – Automated is asked among 7% of respondents who require these products **Scores** The performance of each component on a 0 to 100 scale. Component scores are made up of the weighted average of the corresponding survey questions.

Impacts The change in CSI or customer behaviors that results from a five point change in the variable to the left.



NWS Customer Satisfaction Index

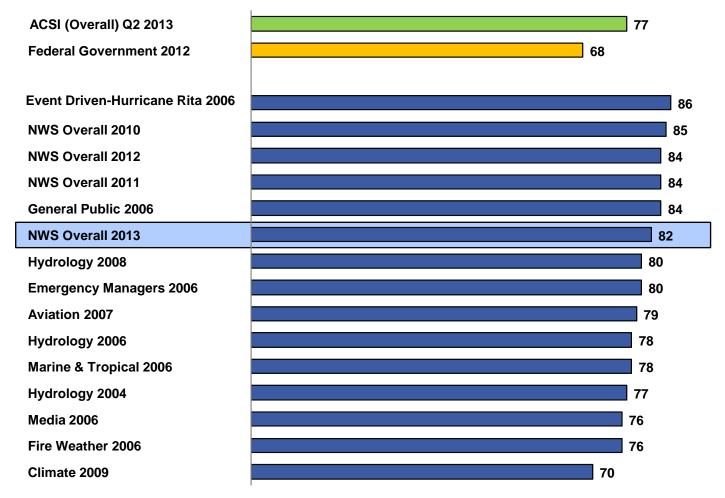
There are three standard questions on every CFI Survey that inquire about overall satisfaction, whether the program meets expectations, and how it compares to your concept of an ideal program – these three questions together create the Customer Satisfaction Index (CSI).





At 82, the NWS Overall CSI Score continues to easily outperform the Federal Government average, also exceeding the ACSI average

The chart below provides CSI scores for previous NWS projects to compare against the 2013 NWS Overall CSI metric. The 2013 Overall NWS CSI is 14 points above the Federal Government average (68), and is comparable to many of the NWS surveys conducted within the past several years (down 2 percentage points from 2012).





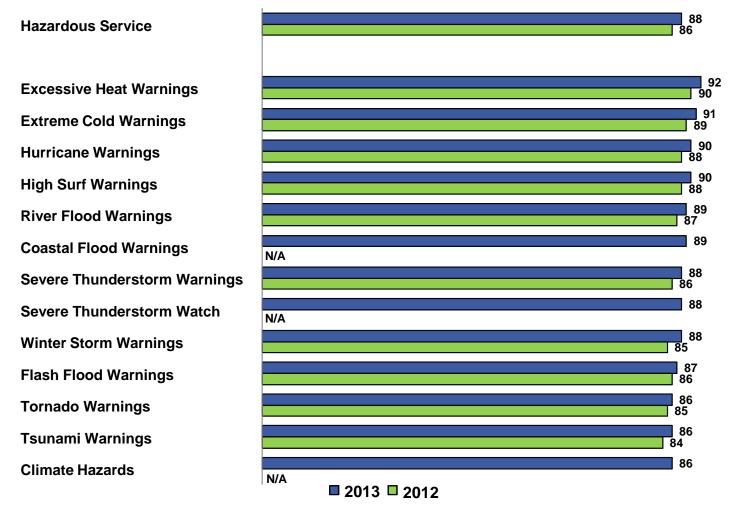
Core Survey Detailed Findings

Hazardous Services Detailed Results

Hazardous Services scores continue to perform very well and remains a very influential satisfaction driver

Impact: 1.9

The overall Hazardous Services score increases 2 points from last year, with 1 to 2 point increase in each specific area measured. Severe Thunderstorm Watch, Coastal Flood Warnings, and Climate Hazards, added this year, score highly in their debut.





NWS warnings/services score well across all regions, generally improving from 2012 levels

Scores are up across the board for the Central, Eastern, Southern, and Pacific regions, residing in the mid to upper 80's and 90's range. Although scores remain strong, the Alaska region experienced slight decreases in most areas. Scores in the Western region are generally stable in comparison with 2012.

	Cer	ntral	Eas	tern	Sout	hern	Wes	tern	Alas	ska*	Pac	ific*
Sample Size	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
Hazardous Services	86	89	86	88	87	89	86	86	87	86	80	90
Tornado Warnings	85	87	84	85	86	88	85	85	88	87	76	88
Severe Thunderstorm Warnings	87	89	86	88	87	90	85	86	89	85	79	88
Severe Thunderstorm Watch		89		88		90		86		87		89
Winter Storm Warnings	85	89	85	88	86	89	85	87	87	88	83	89
Hurricane Warnings	88	90	88	90	89	92	88	90	91	87	81	90
Flash Flood Warnings	86	88	85	87	86	89	86	86	89	86	81	91
River Flood Warnings	88	89	87	89	88	90	87	87	87	87	81	89
High Surf Warnings	88	90	88	90	89	91	89	89	89	87	82	94
Tsunami Warnings	84	88	86	87	84	86	86	86	88	84	79	88
Extreme Cold Warnings	90	92	89	91	89	92	88	89	91	90	81	93
Excessive Heat Warnings	90	93	90	92	91	93	89	90	96	88	83	93
Coastal Flood Warnings		89		88		89		87		86		93
Climate Hazards	-	86		86		87		84		86		85
Sample Size	5,595	9,236	4,747	6,415	2,899	5,796	2,890	6,234	71	99	69	85

*Caution: base sizes are low



Severe Thunderstorm Warnings (94%) and Watches (92%) are most familiar to respondents, followed closely by Winter Storm Warnings (90%)

Additionally, a majority of respondents are also familiar with Flash Flood Warnings, Tornado Warnings, Excessive Heat Warnings, Extreme Cold Warnings, River Flood Warnings and Hurricane Warnings. Coastal Flood, High Surf, and Tsunami Warnings are less familiar (regional issues).

Products familiar with*		
Severe Thunderstorm Warnings	94%	26,265
Severe Thunderstorm Watches	92%	25,726
Winter Storm Warnings	90%	25,056
Flash Flood Warnings	81%	22,585
Tornado Warnings	76%	21,308
Excessive Heat Warnings	76%	21,345
Extreme Cold Warnings	67%	18,615
River Flood Warnings	59%	16,632
Hurricane Warnings	50%	13,905
Climate Hazards	45%	12,615
Coastal Flood Warnings	32%	8,915
High Surf Warnings	25%	6,953
Tsunami Warnings	21%	5,771
Don't know	1%	239
Number of Respondents	27,	973

^{*}Total percentage exceeds 100 due to multiple responses



NWS warnings/services familiarity varies from region to region

Familiarity with NWS warnings/services vary in each geographical region. Awareness is high for Thunderstorm Warnings/Watches in Central, Eastern, Southern, and Western regions. Most respondents in the Alaska region are familiar with Winter Storm and River Flood Warnings and a high percentage in the Pacific region recognize Tsunami/Hurricane Warnings.

	Central	Region	Easterr	n Region	Souther	Southern Region		Western Region		Alaska Region		Region
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with*												
Tornado Warnings	93%	8,575	80%	5,128	90%	5,239	36%	2,241	30%	30	25%	21
Severe Thunderstorm Warnings	98%	9,010	97%	6,206	97%	5,639	84%	5,215	51%	50	68%	58
Severe Thunderstorm Watches	96%	8,903	96%	6,129	96%	5,563	79%	4,937	47%	47	69%	59
Flash Flood Warnings	83%	7,635	84%	5,410	86%	4,977	70%	4,349	60%	59	91%	77
Tsunami Warnings	14%	1,297	19%	1,189	18%	1,062	33%	2,034	75%	74	98%	83
Hurricane Warnings	31%	2,890	78%	5,011	69%	4,021	29%	1,804	37%	37	96%	82
Winter Storm Warnings	97%	8,953	95%	6,080	75%	4,354	88%	5,462	94%	93	39%	33
River Flood Warnings	64%	5,867	60%	3,831	57%	3,284	56%	3,501	79%	78	25%	21
Excessive Heat Warnings	82%	7,536	77%	4,927	77%	4,440	69%	4,317	31%	31	31%	26
Extreme Cold Warnings	78%	7,176	68%	4,368	54%	3,118	61%	3,802	77%	76	14%	12
High Surf Warnings	14%	1,322	29%	1,861	26%	1,534	34%	2,094	35%	35	89%	76
Coastal Flood Warnings	15%	1,413	47%	2,995	38%	2,180	35%	2,185	52%	51	65%	55
Climate Hazards	49%	4,515	40%	2,541	50%	2,914	41%	2,540	42%	42	32%	27
Don't know	0%	37	1%	51	0%	24	2%	118	1%	1	0%	0
Number of Respondents	9,2	236	6,	415	5,7	796	6,2	234	ç	9	8	35

^{*}Total percentage exceeds 100 due to multiple responses



The number of warnings issued is 'Just about right' for most respondents (70%)

40% of those surveyed indicate a proximity of 5 miles or less to be accurate for a tornado warning, with an additional 37% considering a proximity of 10 miles or less to be accurate. Additionally, most would take the same actions as they did previously if a tornado did not occur (when a warning was issued).

Number of tornado warnings issued		
Just about right	70%	19,444
Too many tornado warnings	6%	1,720
Too few tornado warnings	3%	874
Don't know	21%	5,935
Number of Respondents	27,	973
Proximity of tornado before considering warning accurate		
1 mile or less	5%	1,448
5 miles or less	35%	9,749
10 miles or less	37%	10,291
25 miles or less	20%	5,605
Other	3%	880
Number of Respondents	27,	973
Impact of tornado not occurring when warning issued		
Same actions as did previously	81%	22,707
Less likely to take same action	10%	2,791
Don't know	9%	2,475
Number of Respondents	27,	973



Almost all respondents are very (80%) or somewhat likely (14%) to take action when a tornado warning is issued

Among those who were somewhat or very unlikely to take cover, half list the main reason as they have never seen tornado damage in their area or they do not believe they would be directly impacted by a tornado.

Number of Respondents	27,	973
Don't Know	1%	392
Very Unlikely	2%	636
Somewhat Unlikely	3%	767
Somewhat Likely	14%	3,865
Very Likely	80%	22,313
Likelihood of taking protective action if tornado warning issued		

Reason for not taking action		
Have never seen tornado damage in my area	29%	406
Do not believe I would be directly impacted by the tornado	21%	288
Need to first see or hear tornado	14%	191
Do not take tornado warnings seriously	5%	66
Other	32%	452
Number of Respondents 1,403		



Almost three-fourths of respondents (74%) have a hazardous weather safety plan (up 14 percentage points from 2012)

Most of those who created a plan did so due to their overall desire to be prepared (also for friends and family and an extreme weather event). Those who do not have a plan are either not sure what to include or don't think its necessary as their main reasons.

20	12	20	13
60%	14,455	74%	20,662
40%	9,817	23%	6,473
		3%	838
24,	272	27,	973
36%	3,565	40%	2,572
45%	4,442	34%	2,172
2%	230	3%	222
1%	66	3%	199
15%	1,514	20%	1,308
9,817		6,4	173
83%	11,933	92%	18,939
42%	6,006	52%	10,814
43%	6,197	52%	10,807
5%	722	4%	779
1%	164	1%	281
11%	1,611	14%	2,887
14,	381	20,	662
	40% 24, 36% 45% 2% 1% 15% 9,8 83% 42% 43% 5% 1% 11%	40% 9,817 24,272 36% 3,565 45% 4,442 2% 230 1% 66 15% 1,514 9,817 83% 11,933 42% 6,006 43% 6,197 5% 722 1% 164	40% 9,817 23% 3% 24,272 27, 36% 3,565 40% 45% 4,442 34% 2% 230 3% 1% 66 3% 15% 1,514 20% 9,817 6,4 83% 11,933 92% 42% 6,006 52% 43% 6,197 52% 5% 722 4% 1% 164 1% 11% 1,611 14%

^{*}Total percentage exceeds 100 due to multiple responses



Almost half of respondents include a kit in their emergency preparedness plan (a consistent level over the past two years)

In 2013, 47% of respondents say their plan includes a emergency preparedness kit. Most say they created a kit due to either their overall desire to be prepared or in case of an extreme weather event. Those who did not include a kit in their plan generally indicate they weren't sure what to include, or they didn't think it was necessary to create one.

•	20	2012		2013	
Plan includes hazardous weather emergency preparedness kit					
Includes kit	48%	11,639	47%	13,129	
Does no include kit	52%	12,633	50%	13,958	
Don't know			3%	886	
Number of Respondents	24	24,272		27,973	
Main reason you do not have a kit					
Not sure what to include	34%	4,277	38%	5,257	
Don't think it's necessary	36%	4,525	31%	4,355	
Too expensive	6%	775	6%	888	
Takes too much time	3%	407	3%	468	
Other	21%	2,649	21%	2,990	
Number of Respondents	12	12,633		13,958	
Reason kit created*					
General desire to be prepared	85%	9,821	92%	12,136	
An extreme weather event	40%	4,651	54%	7,073	
Friends and family	33%	3,807	51%	6,631	
Weather-Ready Nation initiative	7%	765	4%	509	
Be a Force of Nature campaign	1%	152	1%	190	
Other	15%	1,756	14%	1,875	
Number of Respondents	11	11,562		13,129	
	*Total percentage exceeds 100 due to multiple responses				

^{*}Total percentage exceeds 100 due to multiple responses

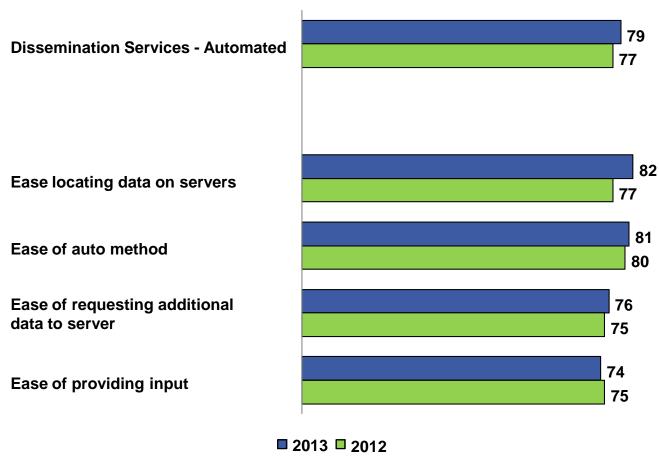


Dissemination Services - Automated Detailed Results

The overall Dissemination Services - Automated score improves by 2 points in 2013 (now at 79)

Impact: 0.8

With this overall improvement, scores for three of four specific attributes also increase, with only 'ease of providing input' showing a slight decline. In particular, respondents seem to be able to 'locate data on servers' more easily as noted by the five point increase in score.



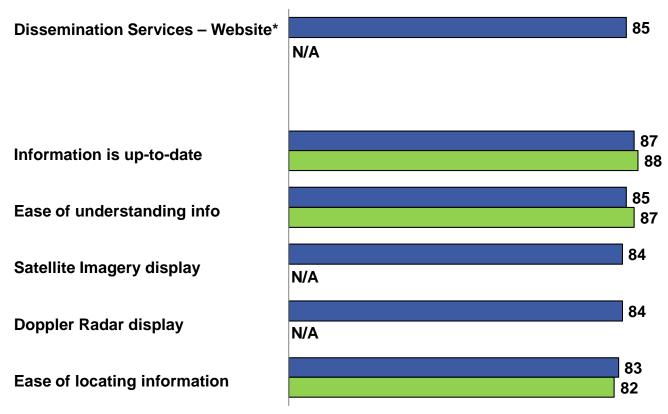


Dissemination Services - Website Detailed Results

The Dissemination Services – Website driver is both a very strong performer (85) and exerts considerable influence on NWS satisfaction

Impact: 2.6

While all aspects of Dissemination Services – Website are highly rated, respondents provide particularly high ratings when it comes to 'up-to-date information' and 'ease of understanding'. Both Satellite Imagery and Doppler Radar displays debut with strong scores (84 in each case).



^{*}Due to questionnaire changes, the 2012 Dissemination Services – Website driver score of 87 is not directly comparable.





Wireless Emergency Alerts (WEA) are received by one quarter (25%) of respondents

Most respondents have not received a WEA message (71%). However, among those who have received one, most (63%) say they are first notified about a weather related event though this medium (and only 15% have trouble deciphering the message).

Received WEA message on cell phone		
Received message	25%	6,992
Did not receive message	71%	19,734
Don't know	4%	1,247
Number of Respondents	27,	973
WEA message was first notification received		
First notification	63%	4,413
Not first notification	28%	1,977
Don't know	9%	602
Number of Respondents	6,9	92
Understood WEA message		
Fully understood	85%	5,949
Somewhat understood	14%	983
Did not understand	1%	60
Number of Respondents	6,9	92



Most respondents (70%) do not utilize Facebook and Twitter during weather events

However, some do read or comment on what others are positing or tweeting and/or write their own posts or tweets. Moreover, among those who do use Facebook and Twitter during weather events, 46% feel that there is the right amount of social media available from the NWS.

Facebook and Twitter during weather events*		
Do not use Facebook and Twitter for weather events	70%	19,604
Read what others are posting or tweeting	24%	6,807
Write own posts or tweets	18%	4,898
Comment on what others are posting or tweeting 17%		4,696
Number of Respondents	27,	973

Amount of social media content available		
Just about right	46%	3,872
Too little	22%	1,802
Too much	1%	107
Don't know	31%	2,588
Number of Respondents	8,369	

^{*}Total percentage exceeds 100 due to multiple responses



Graphical images within a WEA are viewed as the most beneficial enhancements

Graphics showing the warning area (60%) and current location with respect to the warning area (58%) are deemed most beneficial by respondents. Sound and color representing the type of warning are seen as less beneficial.

Beneficial enhancements to WEA message*		
Accompanying graphic showing warning area	60%	4,229
Accompanying graphic showing current location	58%	4,056
Sound representing urgency of warning	43%	2,972
More text containing details of warning	40%	2,796
Color representing urgency of warning	38%	2,653
Sound representing type of warning	27%	1,882
Color representing type of warning	25%	1,763
Number of Respondents	6,9	992

*Total percentage exceeds 100 due to multiple responses



Outreach and Weather Education Detailed Results

Respondents are most likely to have promoted a Severe Weather Safety campaign in their community

Of the weather safety awareness campaigns, Severe Weather (44%), Winter Weather (36%), and Lightening Safety (32%) are the most commonly promoted. Virtually all respondents have visited the National Weather Service website (97%) when looking for weather safety information, with commercial weather vendors a distant second (58%).

Promoted awareness campaigns*		
Severe Weather Safety	44%	4,080
Winter Weather Safety	36%	3,402
Lightning Safety	32%	2,954
Heat Safety	27%	2,540
Flood Safety	26%	2,430
Wildfire Safety	24%	2,246
Hurricane Safety	12%	1,102
Rip Currents Safety	5%	501
Tsunami Safety	3%	311
None of the above	38%	3,539
Number of Respondents	9,3	345

Websites visited for weather safety*		
National Weather Service	97%	27,011
Commercial weather vendor	58%	16,328
FEMA	15%	4,162
American Red Cross	9%	2,414
Centers for Disease Control and Prevention	5%	1,441
Other	11%	3,077
Number of Respondents	27,	973

^{*}Total percentage exceeds 100 due to multiple responses



Primary safety campaigns are generating some positive results

Over half of respondents (53%) seek shelter from lightning when thunder is heard in the distance and 35% say they wait until they see lightning (distant or nearby). For the most part, drivers have a strong understanding of the dangers of water covered roads.

When to seek shelter from lightning		
Distant thunder	53%	14,784
Distant lightning	19%	5,258
Nearby lightning	16%	4,576
Loud thunder	10%	2,914
Starts to rain	2%	441
Number of Respondents 27,973		973

If you encounter water covering a roadway when driving	True	False
Safe to drive through water when no Road Closed sign or police barricade	2%	98%
Not safe to drive when water is too deep to see road surface	96%	4%
Safe to drive through water slowly	4%	96%
Safe to drive through water in a large and heavy vehicle	3%	97%
Not safe to drive through swiftly moving water	97%	3%
Number of Respondents		973



Future Behaviors Detailed Results

Based on an exceptional score of 96, users remain very likely to use NWS as a source of weather information in the future

Likelihood to recommend NWS also remains strong (although down 1 point), as does the likelihood to take action on information (also down 1 point).

	2011	2012	2013	
	32,572	24,272	27,973	
	Score	Score	Score	Impacts
Likelihood take action on info	91	90	91	2.7
Likelihood use NWS in future	96	96	96	1.7
Likelihood to recommend	94	93	92	3.1



National Fire Weather Program – Optional Section Detailed Results

The Ease of accessing Fire Weather Information receives a relatively high rating (77)

The National Weather Service is most accessed for wildland fire weather information (81%). Graphical representation on the web is the most used fire weather forecast format (77%), followed by text (54%).

Sample Size		1,885	
Ease of Accessing Fire Weather Info		77	
Wildland fire weather information source*			
National Weather Service	819	%	1,520
National Interagency Fire Center	35%	%	660
Federal Land Management Agency	26%	%	493
State Land Management Agency	219	%	398
Local Land Management Authority	13%	%	253
Commercial/private provider	13%	%	253
Don't know	5%	, 0	90
Other	179	%	318
Number of Respondents	1,885		
Fire weather forecast info format*			
Graphical	77%	%	1,446
Text	54%	%	1,010
Audio	389	%	717
Video	36%	%	685
Tabular	8%	, 0	144
Raw graphical	8%	, 0	146
Raw text	2%	, 0	39
Number of Respondents		1,8	385

^{*}Total percentage exceeds 100 due to multiple responses



A website (e.g., NWS webpages, Facebook, Twitter) is clearly the most commonly used method to receive information on fires (70%)

After website, the most commonly used methods to receive information on fires are NOAA Weather Radio (38%) and Cell Phone or Smart Phone (35%).

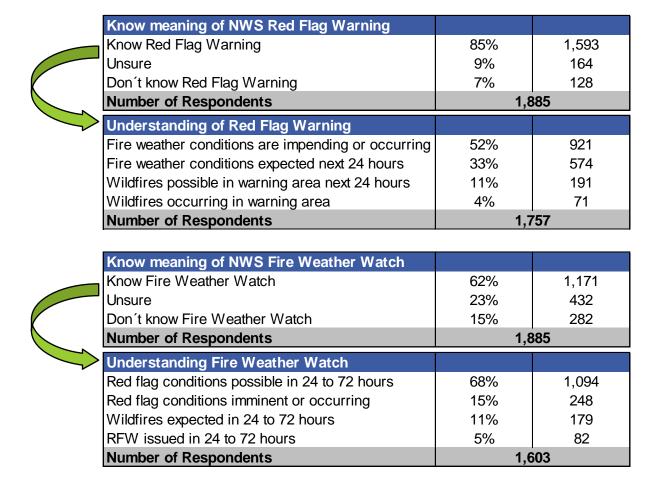
Methods used to receive or disseminate fire weather info*		
Web Site	70%	1,311
NOAA Weather Radio	38%	713
Cell Phone or Smart Phone	35%	656
AM FM Radio	34%	649
Broadcast TV	24%	445
Internet Subscriber Service	21%	401
Cable TV	19%	356
Satellite TV	19%	364
Home or Work Phone	15%	288
Satellite	14%	259
Dedicated Short Range Radio	6%	118
Satellite Radio	6%	110
Pager	4%	83
Voice over Internet Protocol	2%	46
IP Addressing	2%	41
Dedicated Phone Line	2%	38
Number of Respondents	1,8	885

^{*}Total percentage exceeds 100 due to multiple responses



Red Flag Warnings are understood by the vast majority of respondents

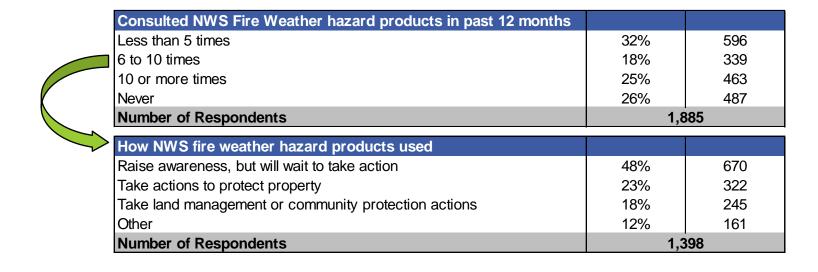
85% of respondents believe they know what a Red Flag Warning means, while just over half (52%) of this group believes that the warning means that fire weather conditions are impending or occurring. 62% believe they know the meaning of a NWS Fire Watch, with 68% of this group indicating it means red flag conditions are possible in 24 to 72 hours.





It is notable that one quarter of respondents (25%) consulted NWS Fire Weather hazard products 10 or more times

Conversely, one third of this group (32%) have consulted NWS Fire Weather hazard products less than 5 times in the past 12 months. About a quarter of respondents 26%) have never used these products. Almost half of these respondents (48%) say they use Fire Weather hazard products to raise awareness, but say they will wait to take action.

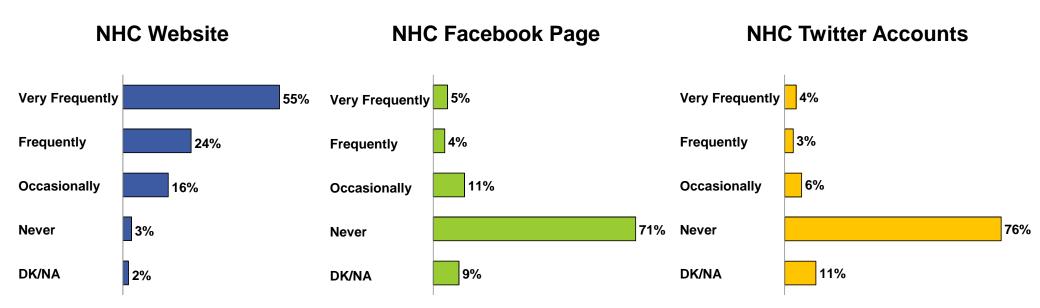




National Hurricane Center Program – Optional Section Detailed Results

While the NHC website is frequently used; related social media use is low

Over half of these respondents use the NHC website 'very frequently' (55%), while another quarter do so 'frequently' (24%). Most indicate they never view the Facebook (71%) or Twitter (76%) pages.





Non-NHC services and tools are used infrequently to not at all

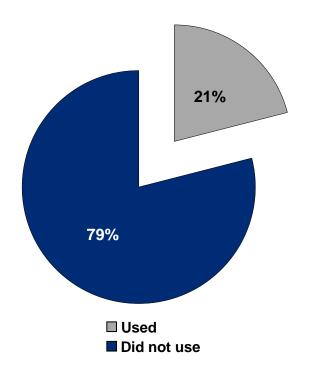
Free commercial services and other government services are used either very frequently or frequently a third (32%) and a quarter (24%) of the time, respectively. A large percentage of respondents say they never use the Hurrevac tool (72%) and or paid commercial services (74%).

	Hurrevac	Free commercial service	Paid commercial service	Other government services
Very Frequently	2%	16%	4%	12%
Frequently	2%	16%	3%	12%
Occasionally	5%	21%	6%	28%
Never	72%	37%	74%	36%
DK/NA	19%	10%	14%	11%

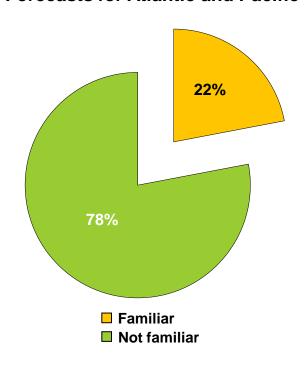


Only a minority of respondents use Graphical Gridded Forecasts (22%) or are familiar with the Marine Weather Discussion Product (21%)

Marine Weather Discussion Product



Experimental Graphical Gridded Forecasts for Atlantic and Pacific





National Hydrologic Services Program – Optional Section Detailed Results

Overall satisfaction with the Hydrologic Services Program is moderately strong (75)

In terms of the individual attributes that comprise overall satisfaction with the Hydrological Services Program, the comparison to expectations (70) is the lowest performing area.

Satisfaction	75
Satisfaction with Hydrologic Services Program	79
Hydrologic Services Program compared to expectations	70
Hydrologic Services Program compared to ideal	74



The number of flood warnings are 'just about right' according to a majority of respondents (57%) – that said, 16% are not aware of warnings

Almost half of these respondents (48%) of people feel only 0 to 1 occurrences are needed to be considered accurate for flash flood warnings. One quarter of this group (25%) also indicates that it only takes 0-1 flash flood warning misses to not view them as accurate.

Number of flood warnings issued			
Too many	8%	107	
Too few	3%	43	
Just about right	57%	730	
Not concerned with warnings	15%	193	
Not aware of warnings	16%	207	
Number of Respondents	1,280		

	0	1	2	3	4	5	6	7	8	9	10	No Action
Flash Flood occurrences to consider accurate	23%	25%	7%	6%	3%	11%	5%	7%	3%	1%	2%	7%
Flash Flood misses to no longer consider accurate	21%	4%	3%	8%	5%	13%	4%	5%	6%	6%	16%	8%



Current product names and headlines are preferred in this area

Most respondents (63%) prefer the current product names and headlines.

Two-thirds or respondents 68%) say they are not aware of the Advanced Hydrologic Prediction Service.

Preferred product names and headlines			
Current	63%	808	
Proposed	31%	403	
Neither	5%	69	
Number of Respondents	1,280		

Aware of Advanced Hydrologic Prediction Service AHPS		
Aware of service	32%	410
Not aware of service	68%	870
Number of Respondents	1,280	



National Climate Services Program – Optional Section Detailed Results

A week into the future is generally enough time for heat related decision making

73% of these respondents think three to seven days into the future is appropriate for the usefulness of an Excessive Heat Watch-Warning. Additionally, over half of this group (57%) do not use climate products for information beyond one week, and only one third (33%) use data tools to access past weather information.

Excessive Heat Watch-Warning outlook useful in decision-making			
Days 3-7 into future	73%	1,660	
Days 8-14 into future	39%	893	
Not useful	12%	263	
Number of Respondents	2,2	285	
Use climate products for info beyond one week			
Use products	43%	982	
Do not use products	57%	1,303	
Number of Respondents	2,285		
Use data tools for info on past weather			
Use tools	33%	754	
Do not use tools	67%	1,531	
Number of Respondents	2,285		



Over 90% of these respondents have not contacted NWS offices or Climate Prediction Centers

Requested info from local NWS office

Most respondents feel a three month precipitation outlook is useful (79%). Less than a quarter of respondents are aware of the new 8-14 day extended range outlooks. 88% would like to see other products using interactive displays.

Requested line it officeal NWS office			
Contacted	7%	152	
Not contacted	93%	2,133	
Number of Respondents	2,2	285	
Contacted Climate Prediction Center			
Contacted	3%	74	
Not contacted	97%	2,211	
Number of Respondents	2,2	285	
Usefulness of 3 Month Precipitation Outlook			
Useful	79%	1,815	
Not useful	21%	470	
Number of Respondents	2,2	285	
Aware of new 8-14 Day Extended Range Outlooks			
Aware	23%	529	
Not aware	77%	1,747	
Number of Respondents	2,276		
Would like to see other products using interactive displays			
Other products	88%	464	
Not necessary	12%	65	
Number of Respondents	529		



Weather (days 1-7) is the most used timeframe for utilizing NWS products and services for health forecasting (38%)

Next most frequently preferred timeframes are Monthly (days 8-31) at 15% and Seasonal at 17%.

Time frames utilizing NWS products and services for health forecasting*		
Weather (days 1-7)	38%	864
Monthly (days 8-31)	15%	345
Seasonal	17%	397
Annual	6%	128
Inter-annual	1%	19
Not applicable	59%	1,337
Number of Respondents		285

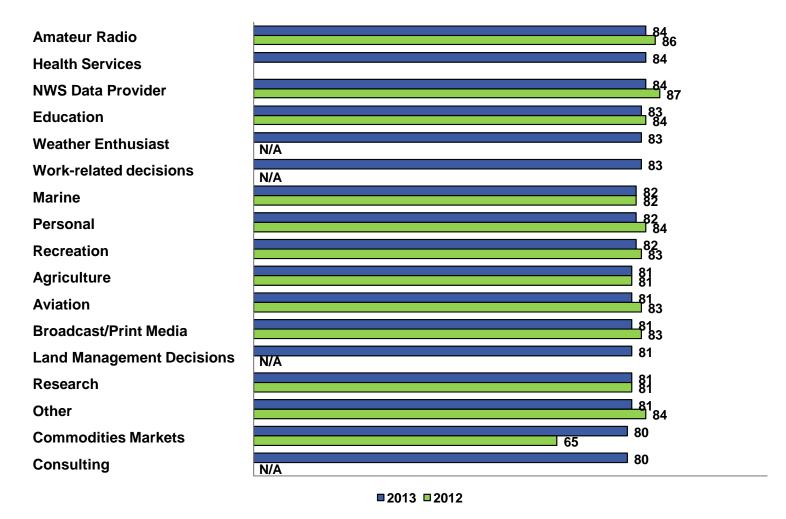
^{*}Total percentage exceeds 100 due to multiple responses



Key Segments and Additional Information

In 2013, CSI is strong across all primary uses of NWS information

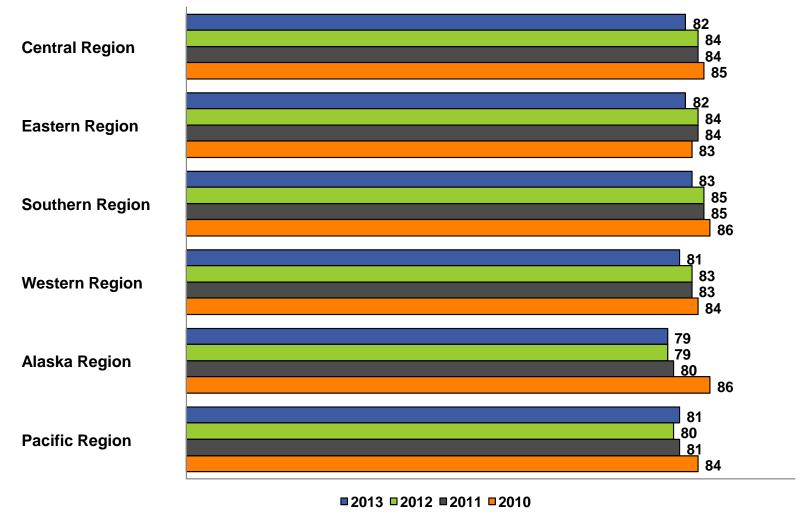
Among the primary uses of NWS information, CSI ranges in the low eighties. NWS Data Providers, Health Services, and Amateur Radio remain the highest scoring, while Commodities Markets and Consulting are at the bottom of this narrow range.





As in past years, the southern region is top scoring (by a narrow margin)

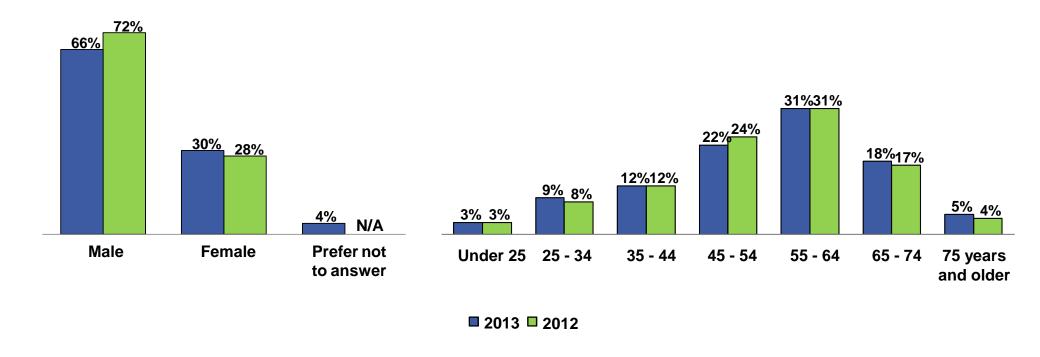
The Southern region (83) remains the highest rated despite a two-point decrease. Central and Eastern regions also drop two points down to 82. Alaska holds at 79 and Pacific rises one point to 81.





Respondents continue to be predominantly male and between the ages of 45 and 65

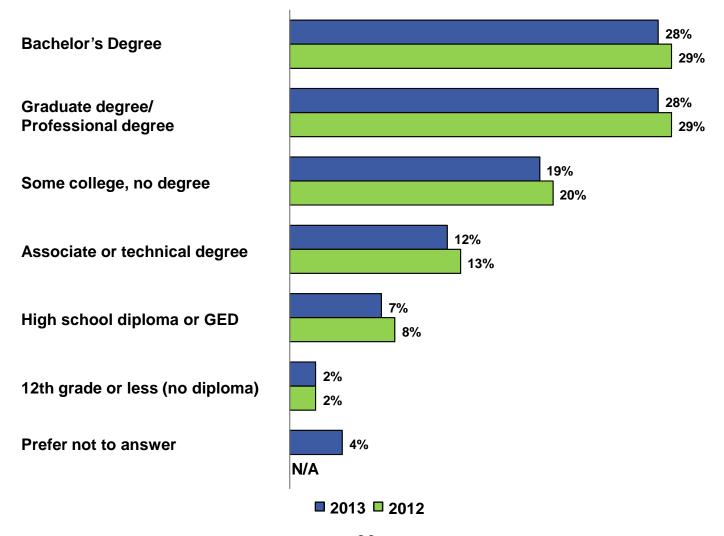
Gender and age distributions are comparable between 2012 and 2013, with males once again representing a large portion of responses.





Most respondents are in college or have obtained a degree

Over half of respondents have a bachelor or graduate degree (56%). Education levels are consistent year over year.





Recommendations

Recommendations

Priority Area 1

Key Finding: Dissemination Services – Website continues as the most influential driver of NWS Customer Satisfaction. While specific areas related to the website are highly rated, there is still relatively more opportunity to improve 'ease of finding information'.

Recommended Action: While the score for 'ease of finding information has improved by 1 point over the past year, take further action to facilitate the of ability website users to locate the content they are looking for.

Priority Area 2

Key Finding: The usage of mobile devices to access weather information continues to rise dramatically in 2013 (up to almost 50% of those surveyed). In addition, virtually all respondents still make use of NWS Web Sources for weather related information.

Recommended Action: Develop mobile applications to fill this significant and rapidly growing need. While a myriad of privately developed applications are available (many using NWS warning and products), can NWS do more to deliver timely weather warning information via the new generation of communication technology.

Priority Area 3

Key Finding: The proportion of respondents who have a hazardous weather safety plan has increased by 23 percent in the past year (now at 74%). However, the proportion who include an emergency preparedness kit in their plan is generally unchanged (now at 47%).

Recommended Action: Given most of those who do not have a kit aren't sure what to include - or don't think its necessary - promote the benefits of incorporating a kit into any hazardous emergency weather plan, including clear suggestions for appropriate content.



Appendix

	2011	2012	2013
Sample Size	32,572	24,272	27,973
Hazardous Services	87	86	88
Tornado Warnings	85	85	86
Severe Thunderstorm Warnings	87	86	88
Severe Thunderstorm Watch			88
Winter Storm Warnings	86	85	88
Hurricane Warnings	89	88	90
Flash Flood Warnings	87	86	87
River Flood Warnings	88	87	89
High Surf Warnings	89	88	90
Tsunami Warnings	86	84	86
Extreme Cold Warnings	90	89	91
Excessive Heat Warnings	90	90	92
Coastal Flood Warnings			89
Climate Hazards			86
Tornado Warnings	86	85	87
Ease of Understanding	89	89	93
Timeliness	86	85	86
Accuracy	82	81	78
Severe Thunderstorm Warnings	87	86	89
Ease of Understanding	90	90	93
Timeliness	87	86	89
Accuracy	84	83	81
Severe Thunderstorm Watch			89
Ease of Understanding			93
Timeliness			91
Accuracy			80
Flash Flood Warnings	87	86	88
Ease of Understanding	89	88	92
Timeliness	87	86	88
Accuracy	84	82	81
Tsunami Warnings	86	84	87
Ease of Understanding	88	87	91
Timeliness	87	85	86
Accuracy	82	79	77
Hurricane Warnings	89	88	91
Ease of Understanding	91	90	93
Timeliness	90	90	93
Accuracy	86	83	84
Winter Storm Warnings	86	85	89
Ease of Understanding	89	89	93
Timeliness	87	86	91
Accuracy	80	79	79

National Weather Service - Overall 2011-2013 Score Table

	2011	2012	2013
Sample Size	32,572	24,272	27,973
River Flood Warnings	88	87	89
Ease of Understanding	89	88	91
Timeliness	88	87	90
Accuracy	87	86	85
Excessive Heat Warnings	90	90	92
Ease of Understanding	91	91	94
Timeliness	90	90	93
Accuracy	89	89	90
Extreme Cold Warnings	90	89	92
Ease of Understanding	91	91	93
Timeliness	90	89	93
Accuracy	89	87	87
High Surf Warnings	89	88	90
Ease of Understanding	89	89	92
Timeliness	89	88	91
Accuracy	87	87	87
Coastal Flood Warnings			89
Ease of Understanding			91
Timeliness			90
Accuracy			84
Climate Hazards			86
Ease of Understanding			88
Timeliness			88
Accuracy			82
Weather-Sensitive Decision Making			87
Rely on NWS in making weather-sensitive decisions			87
User Support Services	89	90	89
Accessibility	87	88	87
Responsiveness	87	87	85
Subject-Matter Knowledge	91	92	92
Professionalism	92	93	93
Assisting in interpretation of weather-related information	89	89	89
Saving your organization money			77
Resolving a complaint	85	85	75
Dissemination Services - Website		-	85
Ease of locating information	83	82	83
Ease of understanding info	88	87	85
Information is up-to-date	87	88	87
Satellite Imagery display			84
Doppler Radar display			84

National Weather Service - Overall 2011-2013 Score Table

	2011	2012	2013
Sample Size	32,572	24,272	27,973
Dissemination Services - Automated	-	77	79
Ease locating data on servers	77	77	82
Ease of req add data to server	76	75	76
Ease of providing input	76	75	74
Ease of auto method		80	81
Usefulness of WEA Message	-		80
Usefulness of WEA message			80
Usefulness of NWS Presence	-		69
Usefulness of NWS presence on Facebook			77
Usefulness of NWS presence on Twitter			65
Usefulness of NWS presence on YouTube			45
Usefulness of NWS Graphical Summary	-		83
Usefulness of NWS graphical weather summaries on social n			83
Effectiveness of Safety Campaigns	-		75
Effectiveness of Turn Around Don't Drown			80
Effectiveness of When Thunder Roars, Go Indoors!			70
Effectiveness of RIP CURRENTS - Break the Grip of the Rip.			74
Customer Satisfaction Index	84	84	82
Overall Satisfaction	88	88	87
Meets expectations	80	79	76
Compared to ideal	82	82	80
Likelihood Take Action	91	90	91
Likelihood take action on info	91	90	91
Likelihood to Use in Future	96	96	96
Likelihood use NWS in future	96	96	96
Likelihood to Recommend	94	93	92
Likelihood to recommend	94	93	92
Desktop-laptop computed - Anticipated Use	-		93
Desktop-laptop computer			93
Mobile Device			59
Social Media			24
Direct Interaction w NWS Staff			11
NOAA Weather Radio All-Hazards			44
File transfer services			18
Marginal - Level of Severity	-		23
Marginal			23
Slight			16
Critical			92
Enhanced			49
Elevated			55
Moderate			46
High			80

	2012	2013	Difference	Significant
Sample Size	24,272	27,973		Difference
Hazardous Services	86	88	2	↑
Tornado Warnings	85	86	1	↑
Severe Thunderstorm Warnings	86	88	2	\uparrow
Severe Thunderstorm Watch		88		
Winter Storm Warnings	85	88	3	\uparrow
Hurricane Warnings	88	90	2	\uparrow
Flash Flood Warnings	86	87	1	\uparrow
River Flood Warnings	87	89	2	\uparrow
High Surf Warnings	88	90	2	↑
Tsunami Warnings	84	86	2	↑
Extreme Cold Warnings	89	91	2	↑
Excessive Heat Warnings	90	92	2	↑
Coastal Flood Warnings		89		
Climate Hazards		86		
Tornado Warnings	85	87	2	↑
Ease of Understanding	89	93	4	↑
Timeliness	85	86	1	1
Accuracy	81	78	-3	\downarrow
Severe Thunderstorm Warnings	86	89	3	^
Ease of Understanding	90	93	3	↑
Timeliness	86	89	3	1
Accuracy	83	81	-2	\downarrow
Severe Thunderstorm Watch		89		
Ease of Understanding		93		
Timeliness		91		
Accuracy		80		
Flash Flood Warnings	86	88	2	1
Ease of Understanding	88	92	4	1
Timeliness	86	88	2	1
Accuracy	82	81	-1	\downarrow
Tsunami Warnings	84	87	3	↑
Ease of Understanding	87	91	4	1
Timeliness	85	86	1	1
Accuracy	79	77	-2	\downarrow
Hurricane Warnings	88	91	3	↑
Ease of Understanding	90	93	3	1
Timeliness	90	93	3	1
Accuracy	83	84	1	1

	2012	2013	Difference	Significant
Sample Size	24,272	27,973		Difference
Winter Storm Warnings	85	89	4	1
Ease of Understanding	89	93	4	↑
Timeliness	86	91	5	↑
Accuracy	79	79	0	
River Flood Warnings	87	89	2	↑
Ease of Understanding	88	91	3	↑
Timeliness	87	90	3	↑
Accuracy	86	85	-1	\downarrow
Excessive Heat Warnings	90	92	2	↑
Ease of Understanding	91	94	3	1
Timeliness	90	93	3	↑
Accuracy	89	90	1	↑
Extreme Cold Warnings	89	92	3	↑
Ease of Understanding	91	93	2	↑
Timeliness	89	93	4	^
Accuracy	87	87	0	·
High Surf Warnings	88	90	2	↑
Ease of Understanding	89	92	3	^
Timeliness	88	91	3	↑
Accuracy	87	87	0	
Coastal Flood Warnings		89		
Ease of Understanding		91		
Timeliness		90		
Accuracy		84		
Climate Hazards		86		
Ease of Understanding		88		
Timeliness		88		
Accuracy		82		
Weather-Sensitive Decision Making		87		
Rely on NWS in making weather-sensitive decisions		87		
User Support Services	90	89	-1	\
Accessibility	88	87	-1	\downarrow
Responsiveness	87	85	-2	\downarrow
Subject-Matter Knowledge	92	92	0	
Professionalism	93	93	0	
Assisting in interpretation of weather-related information	89	89	0	\downarrow
Saving your organization money		77		
Resolving a complaint	85	75	-10	↓

	2012	2013	Difference	Significant
Sample Size	24,272	27,973		Difference
Dissemination Services - Website		85		
Ease of locating information	82	83	1	
Ease of understanding info	87	85	-2	\downarrow
Information is up-to-date	88	87	-1	\downarrow
Satellite Imagery display		84		
Doppler Radar display		84		
Dissemination Services - Automated	77	79	2	↑
Ease locating data on servers	77	82	5	↑
Ease of req add data to server	75	76	1	
Ease of providing input	75	74	-1	
Ease of auto method	80	81	1	
Usefulness of WEA Message		80		
Usefulness of WEA message		80		
Usefulness of NWS Presence		69		
Usefulness of NWS presence on Facebook		77		
Usefulness of NWS presence on Twitter		65		
Usefulness of NWS presence on YouTube		45		
Usefulness of NWS Graphical Summary		83		
Usefulness of NWS graphical weather summaries on social media		83		
Effectiveness of Safety Campaigns		75		
Effectiveness of Turn Around Don't Drown		80		
Effectiveness of When Thunder Roars, Go Indoors!		70		
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		74		
Customer Satisfaction Index	84	82	-2	↓
Overall Satisfaction	88	87	-1	\downarrow
Meets expectations	79	76	-3	\downarrow
Compared to ideal	82	80	-2	\downarrow
Likelihood Take Action	90	91	1	1
Likelihood take action on info	90	91	1	1
Likelihood to Use in Future	96	96	0	↑
Likelihood use NWS in future	96	96	0	个
Likelihood to Recommend	93	92	-1	Ψ
Likelihood to recommend	93	92	-1	\downarrow

	2012	2013	Difference	Significant
Sample Size	24,272	27,973		Difference
Anticipated Use Over Next Year				
Desktop-laptop computer		93		
Mobile Device		59		
Social Media		24		
Direct Interaction w NWS Staff		11		
NOAA Weather Radio All-Hazards		44		
File transfer services		18		
Level of Severity				
Marginal		23		
Slight		16		
Critical		92		
Enhanced		49		
Elevated		55		
Moderate		46		
High		80		

National Weather Service - Overall 2011-2013 Demographics

	20	11	20	12	20	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region						
Central Region	36%	10,376	34%	5,595	33%	9,236
Eastern Region	29%	8,299	29%	4,747	23%	6,415
Southern Region	18%	5,134	18%	2,899	21%	5,796
Western Region	17%	5,006	18%	2,890	22%	6,234
Alaska Region	0%	53	0%	71	0%	99
Pacific Region	0%	105	0%	69	0%	85
Number of Respondents	28,	973	16,	271	27	,865
Uses of NWS information~						
Agriculture					17%	4,630
Aviation					5%	1,410
Amateur Radio					6%	1,671
Broadcast/Print Media					3%	780
Commodities Markets					1%	295
Consulting					1%	397
Education					7%	1,935
Health Services					3%	707
Land Management Decisions					8%	2,217
Marine					3%	896
NWS Data Provider					9%	2,627
Personal					88%	24,513
Recreation					58%	16,342
Research					6%	1,572
Weather Enthusiast					54%	15,149
Work-related decisions					23%	6,478
Other					8%	2,302
Number of Respondents		_		<u>-</u>		,973
Type of Aviation						
Dispatcher	100%	24	100%	21	4%	54
Comm Aircraft					19%	271
Private Aircraft					73%	1,036
Air Traffic Controller					3%	49
Number of Respondents	2	24	2	21	1,	410

[~] Total percentage may exceed 100 due to multiple responses

	20	11	2012		20	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~						
NWS Web	95%	31,026	93%	21,870	93%	25,997
Non-NWS Web	31%	10,246	33%	7,750	32%	8,863
Mobile devices	32%	10,285	37%	8,794	48%	13,488
Social Media	9%	2,880	11%	2,608	14%	3,985
Email			16%	3,781	11%	3,126
Landline Telephone					5%	1,308
Cell Phone					19%	5,278
Local or cable TV	52%	16,971	52%	12,247	54%	15,182
Commercial Radio	30%	9,739	29%	6,897	24%	6,776
Satellite radio	5%	1,495	4%	1,004	3%	925
Satellite TV	18%	5,726	16%	3,853	14%	3,809
Newspaper	18%	5,922	19%	4,500	17%	4,635
NOAA Weather Radio/All Hazards	42%	13,763	41%	9,711	43%	12,006
NOAA Weather Wire	6%	1,907	5%	1,267	4%	1,012
Family of Services (FOS)	5%	1,620	4%	954	1%	373
Emerg Mgrs Weather Info Net	4%	1,202	4%	978	4%	1,208
NOAAPort	6%	1,908	5%	1,087	2%	624
World Area Forecast System	2%	505	2%	374	1%	202
DUATS	2%	735	2%	531	2%	486
Flight Services	4%	1,421	5%	1,072	3%	726
U.S. Coast Guard Broadcasts	6%	1,824	6%	1,503	2%	453
NAVTEX receiver	1%	171	1%	154	0%	55
Immarsat-C SafetyNET	0%	81	0%	68	0%	29
Radiofacsimile	1%	255	1%	216	0%	39
Other	1%	363	2%	420	5%	1,514
Number of Respondents	32,	532	23,	607	27	,973
NOAA-NWS products used most often~						
Forecasts, outlooks, watches, warnings, alerts					97%	26,996
Weather observations					74%	20,604
Climate observations					33%	9,130
Satellite data					48%	13,449
Radar data					80%	22,371
Computer weather model output					37%	10,324
Weather outreach/educational materials					9%	2,387
Other products					5%	1,272
Number of Respondents	-	-		-	27	,973

	20	11	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with~						
Tornado Warnings					76%	21,308
Severe Thunderstorm Warnings					94%	26,265
Severe Thunderstorm Watches					92%	25,726
Flash Flood Warnings					81%	22,585
Tsunami Warnings					21%	5,771
Hurricane Warnings					50%	13,905
Winter Storm Warnings					90%	25,056
River Flood Warnings					59%	16,632
Excessive Heat Warnings					76%	21,345
Extreme Cold Warnings					67%	18,615
High Surf Warnings					25%	6,953
Coastal Flood Warnings					32%	8,915
Climate Hazards					45%	12,615
Don't know					1%	239
Number of Respondents		_	-	_	27,	973
Likelihood of taking protective action if tornado warning issued						
Very Unlikely					2%	636
Somewhat Unlikely					3%	767
Somewhat Likely					14%	3,865
Very Likely					80%	22,313
Don't Know					1%	392
Number of Respondents	-	27		27,973		
Reason for not taking action						
Do not believe I would be directly impacted by the tornado					21%	288
Need to first see or hear tornado					14%	191
Have never seen tornado damage in my area					29%	406
Do not take tornado warnings seriously					5%	66
Other					32%	452
Number of Respondents	-	-	-	-	1,4	103
Proximity of tornado before considering warning accurate						
1 mile or less					5%	1,448
5 miles or less					35%	9,749
10 miles or less					37%	10,291
25 miles or less					20%	5,605
Other					3%	880
Number of Respondents	-	-	-	-	27,	973

National Weather Service - Overall 2011-2013 Demographics

	20)11	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Number of tornado warnings issued						
Too many tornado warnings					6%	1,720
Too few tornado warnings					3%	874
Just about right					70%	19,444
Don't know					21%	5,935
Number of Respondents		_		_	27,	973
Impact of tornado not occurring when warning issued						
Same actions as did previously					81%	22,707
Less likely to take same action					10%	2,791
Don't know					9%	2,475
Number of Respondents		_		-	27,	973
Heard the term Weather-Ready Nation						
Heard Weather-Ready Nation					17%	4,885
Have not heard Weather-Ready Nation					83%	23,088
Number of Respondents		-	•	-	27,	973
Have a hazardous weather safety plan						
Have a plan			60%	14,455	74%	20,662
Do not have a plan			40%	9,817	23%	6,473
Don't know					3%	838
Number of Respondents			24,	272	27,	973
Reason plan created~						
Friends and family			42%	6,006	52%	10,814
General desire to be prepared			83%	11,933	92%	18,939
An extreme weather event			43%	6,197	52%	10,807
Be a Force of Nature campaign			1%	164	1%	281
Weather-Ready Nation initiative			5%	722	4%	779
Other			11%	1,611	14%	2,887
Number of Respondents			14,	381	20,	662
Main reason you do not have a plan						
Takes too much time			2%	230	3%	222
Too expensive			1%	66	3%	199
Not sure what to include			36%	3,565	40%	2,572
Don't think it's necessary			45%	4,442	34%	2,172
Other			15%	1,514	20%	1,308
Number of Respondents		-	9,8	317	6,4	173

National Weather Service - Overall 2011-2013 Demographics

	20	D11	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Plan includes hazardous weather emergency preparedness kit						
Includes kit			48%	11,639	47%	13,129
Does no include kit			52%	12,633	50%	13,958
Don't know					3%	886
Number of Respondents		-	24,	272	27,	973
Reason kit created~						
Friends and family			33%	3,807	51%	6,631
General desire to be prepared			85%	9,821	92%	12,136
An extreme weather event			40%	4,651	54%	7,073
Be a Force of Nature campaign			1%	152	1%	190
Weather-Ready Nation initiative			7%	765	4%	509
Other			15%	1,756	14%	1,875
Number of Respondents		<u>-</u>	11,	562	13,	129
Main reason you do not have a kit						
Takes too much time			3%	407	3%	468
Too expensive			6%	775	6%	888
Not sure what to include			34%	4,277	38%	5,257
Don't think it's necessary			36%	4,525	31%	4,355
Other			21%	2,649	21%	2,990
Number of Respondents			12,	633	13,958	
NWS staff on-site at incident						
NWS staff on-site					8%	744
No staff on-site					59%	5,529
DK/NA					33%	3,072
Number of Respondents				. -	9,3	345
Require specific products and have automated methods						
Require specific products with automation					8%	2,175
Do not require specific products with automation					92%	25,798
Number of Respondents				-	27,	973
Received WEA message on cell phone						
Received message					25%	6,992
Did not receive message					71%	19,734
Don't know					4%	1,247
Number of Respondents					27,	973

National Weather Service - Overall 2011-2013 Demographics

	20)11	2012					
	Percent	Frequency	Percent	Frequency	Percent	Frequency		
WEA message was first notification received								
First notification					63%	4,413		
Not first notification					28%	1,977		
Don't know					9%	602		
Number of Respondents				-	6,	992		
Understood WEA message								
Fully understood					85%	5,949		
Somewhat understood					14%	983		
Did not understand					1%	60		
Number of Respondents				-	6,	992		
Beneficial enhancements to WEA message~								
More text containing details of warning					40%	2,796		
Accompanying graphic showing warning area					60%	4,229		
Accompanying graphic showing current location					58%	4,056		
Color representing urgency of warning					38%	2,653		
Color representing type of warning					25%	1,763		
Sound representing urgency of warning					43%	2,972		
Sound representing type of warning					27%	1,882		
Number of Respondents							6,992	
Facebook and Twitter during weather events~					700/	40.004		
Do not use Facebook and Twitter for weather events					70%	19,604		
Read what others are posting or tweeting					24%	6,807		
Comment on what others are posting or tweeting					17%	4,696		
Write own posts or tweets					18%	4,898		
Number of Respondents		-		-	21	,973		
Amount of social media content available								
Too little					22%	1,802		
Just about right					46%	3,872		
Too much					1%	107		
Don't know					31%	2,588		
Number of Respondents				-	8,	369		

National Weather Service - Overall 2011-2013 Demographics

	20)11	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Promoted awareness campaigns~						
Heat Safety					27%	2,540
Flood Safety					26%	2,430
Lightning Safety					32%	2,954
Severe Weather Safety					44%	4,080
Rip Currents Safety					5%	501
Hurricane Safety					12%	1,102
Tsunami Safety					3%	311
Winter Weather Safety					36%	3,402
Wildfire Safety					24%	2,246
None of the above					38%	3,539
Number of Respondents	-	-	•	. -	9,3	345
Websites visited for weather safety~						
National Weather Service					97%	27,011
FEMA					15%	4,162
American Red Cross					9%	2,414
Centers for Disease Control and Prevention					5%	1,441
Commercial weather vendor					58%	16,328
Other					11%	3,077
Number of Respondents		-		<u>-</u>	27,	973
Safe to drive through water when no Road Closed sign or police barricade					00/	5.40
True					2%	549
False					98%	27,424
Number of Respondents			27,	973		
Not safe to drive when water is too deep to see road surface						
True					96%	26,801
False					4%	1,172
Number of Respondents		. -		. -	27,	973

National Weather Service - Overall 2011-2013 Demographics

	20)11	20)12	20	2013	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Safe to drive through water slowly							
True					4%	1,213	
False					96%	26,760	
Number of Respondents		_		<u>.</u>	27	,973	
						T	
Safe to drive through water in a large and heavy vehicle					00/	207	
True					3%	967	
False					97%	27,006	
Number of Respondents					27	,973	
Not safe to drive through swiftly moving water							
True					97%	27,090	
False					3%	883	
Number of Respondents		-		-		,973	
<u> </u>	•					•	
When to seek shelter from lightning							
Distant lightning					19%	5,258	
Distant thunder					53%	14,784	
Nearby lightning					16%	4,576	
Loud thunder					10%	2,914	
Starts to rain					2%	441	
Number of Respondents				-	27	,973	
		•		•			
Age	=0/	4 - 4 -	224	272	00/	200	
Under 25 years	5%	1,517	3%	659	3%	626	
25 - 34 years	14%	4,290	8%	1,754	9%	2,191	
35 - 44 years	17%	5,152	12%	2,564	12%	2,939	
45 - 54 years	25%	7,438	24%	4,926	22%	5,393	
55 - 64 years	25%	7,494	31%	6,462	31%	7,554	
65 - 74 years	11%	3,123	17%	3,657	18%	4,465	
75 years and older	2%	607	4%	883	5%	1,099	
Number of Respondents	29	,621	20,	905	24	,267	
Gender							
Male	72%	23,065	72%	16,927	66%	18,107	
Female	28%	8,817	28%	6,703	30%	8,390	
Prefer not to answer					4%	1,122	
Number of Respondents	31.	.882		630		,619	
		=				,	

National Weather Service - Overall 2011-2013 Demographics

	20)11	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Race						
White, Caucasian			95%	22,055	85%	23,448
Black, African American			1%	122	0%	122
Hispanic, Latino, or Spanish			1%	235	1%	334
Pacific Islander			0%	50	0%	29
Asian			1%	144	1%	147
American Indian/Native Indian or Alaska Native			1%	165	1%	226
Other			2%	554	2%	656
Prefer not to answer			0%	0	10%	2,666
Number of Respondents		_	23,	325	27,	628
School completed						
12th grade or less (no diploma)	3%	428	2%	512	2%	466
High school diploma or GED	20%	2,775	8%	1,829	7%	1,987
Some college, no degree	2070	2,773	20%	4,768	19%	5,201
Associate or technical degree			13%	3,016	12%	3,442
Bachelor's degree	76%	10,367	29%	6,860	28%	7,721
Graduate degree/Professional degree			29%	6,874	28%	7,671
Prefer not to answer					4%	1,237
Number of Respondents	13	,570		859		725
Interests I South an array						
Interested in other areas~					- 0/	4.005
National Fire Weather Program					7%	1,885
National Hurricane Center Program					8%	2,237
National Hydrologic Services Program					6%	1,571
National Climate Services Program					10%	2,837
Do not wish to continue					79%	22,108
Number of Respondents				-	27,	973

[~] Total percentage may exceed 100 due to multiple responses

National Weather Service - National Fire Weather Program 2013 Score Table

	2013
	Scores
Sample Size	1,885
Ease of Accessing Fire Weather Info	77
Ease of accessing fire weather info on NWS website	77

National Weather Service - National Fire Weather Program 2013 Demographics

	2013	
	Percent	Frequency
Wildland fire weather information source~		
National Weather Service	81%	1,520
National Interagency Fire Center	35%	660
Federal Land Management Agency	26%	493
State Land Management Agency	21%	398
Local Land Management Authority	13%	253
Commercial/private provider	13%	253
Don't know	5%	90
Other	17%	318
Number of Respondents	1,8	885

Methods used to receive or disseminate fire weather info~		
Internet Subscriber Service	21%	401
Web Site	70%	1,311
Voice over Internet Protocol	2%	46
Satellite	14%	259
IP Addressing	2%	41
Cable TV	19%	356
Broadcast TV	24%	445
Satellite TV	19%	364
Home or Work Phone	15%	288
Dedicated Phone Line	2%	38
Cell Phone or Smart Phone	35%	656
Pager	4%	83
AM FM Radio	34%	649
Dedicated Short Range Radio	6%	118
Satellite Radio	6%	110
NOAA Weather Radio	38%	713
Number of Respondents	1,8	885

Fire weather forecast info format~		
Text	54%	1,010
Graphical	77%	1,446
Tabular	8%	144
Raw graphical	8%	146
Audio	38%	717
Video	36%	685
Raw text	2%	39
Number of Respondents	1,885	

National Weather Service - National Fire Weather Program 2013 Demographics

	2013	
	Percent	Frequency
Know meaning of NWS Red Flag Warning		
Know Red Flag Warning	85%	1,593
Don't know Red Flag Warning	7%	128
Unsure	9%	164
Number of Respondents	1,885	

Understanding of Red Flag Warning		
Wildfires occurring in warning area	4%	71
Wildfires possible in warning area next 24 hours	11%	191
Fire weather conditions are impending or occurring	52%	921
Fire weather conditions expected next 24 hours	33%	574
Number of Respondents	1,7	57

Know meaning of NWS Fire Weather Watch		
Know Fire Weather Watch	62%	1,171
Don't know Fire Weather Watch	15%	282
Unsure	23%	432
Number of Respondents	1,885	

Understanding Fire Weather Watch		
RFW issued in 24 to 72 hours	5%	82
Red flag conditions possible in 24 to 72 hours	68%	1,094
Red flag conditions imminent or occurring	15%	248
Wildfires expected in 24 to 72 hours	11%	179
Number of Respondents	1,603	

Consulted NWS Fire Weather hazard products in past 12 months		
Never	26%	487
Less than 5 times	32%	596
6 to 10 times	18%	339
10 or more times	25%	463
Number of Respondents	1,8	885

National Weather Service - National Fire Weather Program 2013 Demographics

	2013	
	Percent	Frequency
How NWS fire weather hazard products used		
Take actions to protect property	23%	322
Take land management or community protection actions	18%	245
Raise awareness, but will wait to take action	48%	670
Other	12%	161
Number of Respondents	1,398	

National Weather Service - National Hurricane Center Program 2013 Score Table

	2013
	Scores
Sample Size	2,237
Ease of Navigating NHC Website	82
Ease of navigating NHC website	82
Frequency of Use	22
How frequently use NHC website	78
How frequently use NHC Facebook page	12
How frequently use NHC Twitter accounts	9
How frequently use Hurrevac	6
How frequently use Free commercial service	38
How frequently use Paid commercial service	9
How frequently use Other government services	33
NHC Text Products	80
Tropical Cyclone Public Advisory (TCP)	82
Tropical Cyclone Forecast/Advisory (TCM)	84
Tropical Cyclone Forecast Discussion (TCD)	81
Tropical Cyclone Wind Speed Probabilities (PWS)	81
Tropical Cyclone Update (TCU)	86
Tropical Cyclone Valid Event Time Code (TCV)	70
Tropical Cyclone Aviation Advisory (TCA)	53
NHC Graphical Products	82
Tropical Cyclone Track/Forecast Cone	92
Tropical Cyclone Surface Wind Field/Coastal Watches and Warnings	88
Maximum 1-Minute Wind Speed Probability	72
Tropical Cyclone Wind Speed Probabilities	83
Tropical Cyclone Cumulative Wind History	67
Tropical Cyclone Storm Surge Probabilities 2-25 ft.	81
Tropical Cyclone Storm Surge Probabilities Exceedence	75
NHC Potential Products	88
Forecasts for systems not yet tropical cyclones	83
Watches/warnings before cyclone forms	75
6 and 7-day cyclone track and intensity forecasts	85
Map of areas at risk	90
Graphic showing potential arrival time of winds of tropical storm force	92
Landfall intensity probabilities	91
Satisfaction with new TCP	83
Overall satisfaction with content of new TCP	84
Overall satisfaction with organization and layout of new TCP	82
Overall satisfaction with length of new TCP	82

National Weather Service - National Hurricane Center Program 2013 Score Table

	2013
	Scores
Sample Size	2,237
Usefulness of NHC/TAFB Text Products	46
Atlantic High Seas forecast	45
East Pacific High Seas forecast	23
Southeast Pacific High Seas forecast	22
Offshore Waters forecasts for the Caribbean and Southwest North Atlantic	47
Offshore Waters for the Gulf of Mexico	47
NAVTEX Marine forecasts from Miami, San Juan, and New Orleans	38
High Frequency Voice Broadcasts (VOBRA)	30
Marine Weather Discussion	45
Atlantic Tropical Weather Discussion	59
East Pacific Tropical Weather Discussion	27
Satellite Tropical Disturbance Rainfall	47
Pan-Am Temperature and Precipitation Table	31
NHC/TAFB Graphical Products	76
Unified Surface Analysis (USA)	64
24, 48, and 72-hour Wind/Wave forecasts	75
24, 48, and 72-hour Surface forecasts	75
Tropical Cyclone Danger Area	80
48-hour High Wind	75
NHC/TAFB Experimental and Potential Products	70
EDSS Graphicast	65
Satellite Derived QPE/QPF page	68
Wind Speed Probabilities-based Tropical Cyclone Danger Graphic	78
Gridded Marine Forecasts on the National Digital Forecast Database (NDFD)	67
Spot EDSS Marine Forecasts for the Atlantic and East Pacific	63
96, 120, and 144-hour marine forecast graphics	68
Marine Forecast Matrices	63
5-Day High Seas Forecasts	68
Graphical/polygonal depiction of High Seas warnings	66
Offshore Waters Forecasts for the Northeast Pacific	43
Satisfaction with NHC Tropical Weather Discussions	83
Satisfaction with Tropical Weather Discussions for Atlantic and Pacific Oceans	83

National Weather Service - National Hurricane Center Program 2013 Demographics

		2013	
	Percent	Frequency	
How frequently use NHC website			
Very Frequently	55%	1,166	
Frequently	24%	506	
Occasionally	16%	348	
Never	3%	57	
DK/NA	2%	47	
Number of Respondents		2,124	
How frequently use NHC Facebook page			
Very Frequently	5%	105	
Frequently	4%	90	
Occasionally	11%	224	
Never	71%	1,511	
DK/NA	9%	194	
Number of Respondents		2,124	
II. C			
How frequently use NHC Twitter accounts	40/	00	
Very Frequently	4%	80	
Frequently	3%	59	
Occasionally	6%	136	
Never	76%	1,616	
DK/NA	11%	233	
Number of Respondents		2,124	
How frequently use Hurrevac			
Very Frequently	2%	42	
Frequently	2%	38	
Occasionally	5%	111	
Never	72%	1,533	
DK/NA	19%	400	
Number of Respondents		2,124	
		-, '	
How frequently use Free commercial service			
Very Frequently	16%	344	
Frequently	16%	336	
0	040/	450	

Number of Respondents	2,1	2,124	
DK/NA	10%	214	
Never	37%	780	
Occasionally	21%	450	
Frequently	16%	336	

National Weather Service - National Hurricane Center Program 2013 Demographics

	2013	
	Percent	Frequency
How frequently use Paid commercial service		
Very Frequently	4%	78
Frequently	3%	60
Occasionally	6%	118
Never	74%	1,575
DK/NA	14%	293
Number of Respondents	2,1	124

How frequently use Other government services		
Very Frequently	12%	248
Frequently	12%	260
Occasionally	28%	604
Never	36%	772
DK/NA	11%	240
Number of Respondents	2,1	24

Familiar with experimental graphical gridded forecasts for Atlantic and Pacific		
Familiar with forecasts	22%	458
Not familiar with forecasts	78%	1,666
Number of Respondents	2,1	24

Use Marine Weather Discussion product		
Use product	21%	448
Do not use product	79%	1,676
Number of Respondents	2,124	

National Weather Service - National Hydrologic Services Program 2013 Score Table

	2013
	Scores
Sample Size	1,571
Flood Inundation Mapping	86
Usefulness of flood inundation mapping libraries	86
Experimental Long-Range River Flood Risk	74
Visual appeal	73
Ease of understanding	74
Tells me what I need to know	74
Water Resources Decision Support Page	82
Visual appeal	83
Ease of understanding	79
Tells me what I need to know	82
Improves my ability to make decisions	83
River Forecast Center Quantitative Precipitation Forecasts	84
Visual appeal	85
Ease of understanding	83
Tells me what I need to know	82
Short-Term Probabilistic Forecasts	79
Visual appeal	81
Ease of understanding	77
Tells me what I need to know	80
Satisfaction with Advanced Hydrologic Prediction Service	83
Satisfaction with AHPS	83
Satisfaction with NWS Hydrologic Services Program	75
Satisfaction with Hydrologic Services Program	79
Hydrologic Services Program compared to expectations	70
Hydrologic Services Program compared to ideal	74

National Weather Service - National Hydrologic Services Program 2013 Demographics

	2013	
	Percent	Frequency
Action taken when flood warnings are issued~		
Evacuate	12%	148
Move personal property	29%	374
Choose not to travel	33%	421
Travel but use alternative route	31%	393
Move to higher ground	21%	275
Seek additional info before taking action	57%	726
Wait until flooding occurs before taking action	4%	50
No action - location not in danger	30%	383
No action - do not trust accuracy of info	1%	12
Number of Respondents	1,2	280

Number of flash flood occurrences to consider accurate		
0 or none	23%	296
1	25%	322
2	7%	93
3	6%	79
4	3%	44
5	11%	142
6	5%	58
7	7%	86
8	3%	41
9	1%	9
10	2%	21
No action	7%	89
Number of Respondents	1	,280

National Weather Service - National Hydrologic Services Program 2013 Demographics

	2013	
	Percent	Frequency
Number of flash flood misses to no longer consider accurate		
0 or none	21%	272
1	4%	54
2	3%	43
3	8%	101
4	5%	70
5	13%	172
6	4%	51
7	5%	67
8	6%	76
9	6%	74
10	16%	204
No action	8%	96
Number of Respondents	1,2	280

Number of flood warnings issued		
Too many	8%	107
Too few	3%	43
Just about right	57%	730
Not concerned with warnings	15%	193
Not aware of warnings	16%	207
Number of Respondents		1,280

National Weather Service - National Hydrologic Services Program 2013 Demographics

	20)13
	Percent	Frequency
Ability to overlay River Forecast Mapping Interface~		
Current river level	83%	1,063
Forecasted river level	78%	999
Observed precipitation	79%	1,011
Forecast precipitation	77%	990
Hazards	64%	816
Radar	69%	886
Satellite	41%	524
Flash flood guidance	36%	463
Climate outlooks	23%	294
Flood outlooks	48%	612
Severe weather outlooks	53%	683
Storm reports	48%	612
National Hurricane Center products	21%	263
Geographic overlays	66%	847
Federal agency overlays	27%	351
Snow depth	57%	730
Snow water equivalent	48%	614
River ice	31%	393
Soil moisture	45%	571
Evapotranspiration	22%	286
Water quality	27%	341
Runoff	42%	543
Groundwater	33%	419
Drought conditions	53%	673
Number of Respondents	1,:	280
Preferred product names and headlines		
Current	63%	808
Proposed	31%	403
Neither	5%	69
Number of Respondents	1,:	280
Aware of Advanced Hydrologic Prediction Service AHPS		
Aware of service	32%	410
Not aware of service	68%	870
Number of Respondents		1 070 280

National Weather Service - National Climate Services Program 2013 Score Table

	2013
	Scores
Sample Size	2,837
New Interactive Display of 8-14 Day Extended Range Outlooks	83
Easy to understand	86
Easy to use	86
Eye-appealing	83
Timeliness	84
Usefulness	82
Organization of information	84
Location selection	82
Ability to select variables	81
Length of data record	82
Meets my needs	82

National Weather Service - National Climate Services Program 2013 Demographics

	20	013
	Percent	Frequency
Excessive Heat Watch-Warning outlook useful in decision-making~		
Days 3-7 into future	73%	1,660
Days 8-14 into future	39%	893
Not useful	12%	263
Number of Respondents	2,	285
Use climate products for info beyond one week		
Use products	43%	982
Do not use products	57%	1,303
Number of Respondents	2,	285
Use data tools for info on past weather		
Use tools	33%	754
Do not use tools	67%	1,531
Number of Respondents	2,	285
Usefulness of 3 Month Precipitation Outlook		
Useful	79%	1,815
Not useful	21%	470
Number of Respondents	2,	285
Average of many 0.44 Day Extended Dange Outlanks		
Aware of new 8-14 Day Extended Range Outlooks Aware	220/	500
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	23% 77%	529
Not aware Number of Respondents		1,747 276
Number of Respondents	Ζ,	210
Would like to see other products using interactive displays		
Other products	88%	464
Not necessary	12%	65
Number of Respondents	5	29
Requested info from local NWS office		
Contacted	7%	152
Not contacted	93%	2,133
Number of Respondents	2,	285

National Weather Service - National Climate Services Program 2013 Demographics

	2013		
	Percent Freque		
Contacted Climate Prediction Center			
Contacted	3%	74	
Not contacted	97%	2,211	
Number of Respondents	2,285		

Time frames utilizing NWS products and services for health forecasting~		
Weather days 1-7	38%	864
Monthly days 8-31	15%	345
Seasonal	17%	397
Annual	6%	128
Inter-annual	1%	19
Not applicable	59%	1,337
Number of Respondents	2.285	

	Central Region		Eastern	Region	Southern Region	
	2012	2013	2012	2013	2012	2013
Sample Size	5,595	9,236	4,747	6,415	2,899	5,796
Hazardous Services	86	89	86	88	87	89
Tornado Warnings	85	87	84	85	86	88
Severe Thunderstorm Warnings	87	89	86	88	87	90
Severe Thunderstorm Watch		89		88		90
Winter Storm Warnings	85	89	85	88	86	89
Hurricane Warnings	88	90	88	90	89	92
Flash Flood Warnings	86	88	85	87	86	89
River Flood Warnings	88	89	87	89	88	90
High Surf Warnings	88	90	88	90	89	91
Tsunami Warnings	84	88	86	87	84	86
Extreme Cold Warnings	90	92	89	91	89	92
Excessive Heat Warnings	90	93	90	92	91	93
Coastal Flood Warnings		89		88		89
Climate Hazards		86		86		87
Tornado Warnings	86	88	84	86	86	88
Ease of Understanding	89	94	88	92	89	94
Timeliness	85	87	85	85	86	86
Accuracy	81	77	79	75	82	80
Severe Thunderstorm Warnings	87	89	86	89	87	90
Ease of Understanding	90	94	90	93	90	95
Timeliness	87	90	86	89	87	90
Accuracy	83	81	82	81	84	84
Severe Thunderstorm Watch		90		89		91
Ease of Understanding		94		93		94
Timeliness		91		90		91
Accuracy		80		80		83
Flash Flood Warnings	86	88	85	88	86	89
Ease of Understanding	88	92	88	92	89	93
Timeliness	86	89	86	88	86	89
Accuracy	83	82	81	80	83	84
Tsunami Warnings	84	88	86	87	84	86
Ease of Understanding	86	92	88	91	86	90
Timeliness	85	88	85	86	84	86
Accuracy	79	77	81	76	78	78

	Centra	Central Region		Eastern Region		Southern Region	
	2012	2013	2012	2013	2012	2013	
Sample Size	5,595	9,236	4,747	6,415	2,899	5,796	
Hurricane Warnings	89	91	88	90	89	92	
Ease of Understanding	90	93	90	93	91	95	
Timeliness	90	93	89	93	91	94	
Accuracy	85	84	83	83	84	85	
Winter Storm Warnings	85	90	85	89	86	90	
Ease of Understanding	89	94	89	93	89	93	
Timeliness	86	92	86	92	87	92	
Accuracy	78	78	79	78	80	81	
River Flood Warnings	88	89	87	89	88	91	
Ease of Understanding	89	92	89	91	89	93	
Timeliness	88	90	87	90	88	91	
Accuracy	86	86	85	85	87	87	
Excessive Heat Warnings	90	93	90	92	91	93	
Ease of Understanding	91	94	91	94	92	94	
Timeliness	90	94	90	93	91	93	
Accuracy	89	90	89	90	90	91	
Extreme Cold Warnings	90	92	89	92	90	92	
Ease of Understanding	91	94	91	94	91	94	
Timeliness	90	93	90	93	90	93	
Accuracy	88	88	87	88	88	88	
High Surf Warnings	88	91	88	91	89	91	
Ease of Understanding	88	92	89	92	90	93	
Timeliness	88	91	88	91	89	92	
Accuracy	87	87	86	87	88	88	
Coastal Flood Warnings		89		89		90	
Ease of Understanding		91		91		92	
Timeliness		90		90		91	
Accuracy		85		84		86	
Climate Hazards		86		87		88	
Ease of Understanding		88		89		90	
Timeliness		88		89		89	
Accuracy		82		83		84	

	Centra	l Region	Eastern	Region	Southern Region	
	2012	2013	2012	2013	2012	2013
Sample Size	5,595	9,236	4,747	6,415	2,899	5,796
Weather-Sensitive Decision Making		87		88		88
Rely on NWS in making weather-sensitive decisions		87		88		88
User Support Services	90	88	90	89	91	90
Accessibility	88	86	88	88	90	87
Responsiveness	88	85	86	86	89	87
Subject-Matter Knowledge	92	92	92	93	92	93
Professionalism	92	92	93	93	93	94
Assisting in interpretation of weather-related information	89	88	89	90	91	90
Saving your organization money		75		78		79
Resolving a complaint	86	75	84	77	86	77
Dissemination Services - Website	-	84	-	85		86
Ease of locating information	82	83	83	83	84	83
Ease of understanding info	87	85	87	85	89	86
Information is up-to-date	87	86	89	88	89	88
Satellite Imagery display		83		84		85
Doppler Radar display		84		84		85
Dissemination Services - Automated	76	79	75	79	80	81
Ease locating data on servers	76	82	74	82	80	84
Ease of req add data to server	74	76	70	77	78	78
Ease of providing input	75	74	73	75	77	74
Ease of auto method	79	80	76	80	82	82
Usefulness of WEA Message		80		80		82
Usefulness of WEA message		80		80		82
Usefulness of NWS Presence		68		68		72
Usefulness of NWS presence on Facebook		77		76		79
Usefulness of NWS presence on Twitter		62		66		71
Usefulness of NWS presence on YouTube		44		41		49
Usefulness of NWS Graphical Summary		82		81		86
Usefulness of NWS graphical weather summaries on social media		82		81		86

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	Centra	Region	Eastern Region		Southern Region	
	2012	2013	2012	2013	2012	2013
Sample Size	5,595	9,236	4,747	6,415	2,899	5,796
Effectiveness of Safety Campaigns		74		76		77
Effectiveness of Turn Around Don't Drown		80		81		83
Effectiveness of When Thunder Roars, Go Indoors!		69		71		71
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		72		75		75
Customer Satisfaction Index	84	82	84	82	85	83
Overall Satisfaction	88	87	88	88	89	88
Meets expectations	79	75	79	76	81	78
Compared to ideal	82	80	82	80	82	81
Likelihood Take Action	90	90	91	91	91	92
Likelihood take action on info	90	90	91	91	91	92
Likelihood to Use in Future	96	96	96	97	96	97
Likelihood use NWS in future	96	96	96	97	96	97
Likelihood to Recommend	93	92	93	92	94	93
Likelihood to recommend	93	92	93	92	94	93
Anticipated Use Over Next Year		93		93		93
Desktop-laptop computer		93		93		93
Mobile Device		60		58		64
Social Media		24		24		29
Direct Interaction w NWS Staff		11		11		14
NOAA Weather Radio All-Hazards		50		43		51
File transfer services		18		17		21
Level of Severity		24		22		25
Marginal		24		22		25
Slight		18		16		17
Critical		92		92		92
Enhanced		49		49		52
Elevated		55		55		56
Moderate		47		46		47
High		81		80		81

	Western Region		Alaska	Region	Pacific Region	
	2012	2013	2012	2013	2012	2013
Sample Size	2,890	6,234	71	99	69	85
Hazardous Services	86	86	87	86	80	90
Tornado Warnings	85	85	88	87	76	88
Severe Thunderstorm Warnings	85	86	89	85	79	88
Severe Thunderstorm Watch		86		87		89
Winter Storm Warnings	85	87	87	88	83	89
Hurricane Warnings	88	90	91	87	81	90
Flash Flood Warnings	86	86	89	86	81	91
River Flood Warnings	87	87	87	87	81	89
High Surf Warnings	89	89	89	87	82	94
Tsunami Warnings	86	86	88	84	79	88
Extreme Cold Warnings	88	89	91	90	81	93
Excessive Heat Warnings	89	90	96	88	83	93
Coastal Flood Warnings		87		86		93
Climate Hazards		84		86		85
Tornado Warnings	85	86	88	87	76	88
Ease of Understanding	88	91	93	90	82	93
Timeliness	85	83	88	88	75	83
Accuracy	81	78	82	80	73	79
Severe Thunderstorm Warnings	85	87	89	86	79	89
Ease of Understanding	88	91	93	88	80	95
Timeliness	85	88	87	86	79	88
Accuracy	81	78	86	80	76	81
Severe Thunderstorm Watch		87		88		90
Ease of Understanding		91		89		94
Timeliness		88		89		90
Accuracy		78		81		82
Flash Flood Warnings	86	86	89	86	82	91
Ease of Understanding	89	91	90	89	84	96
Timeliness	86	87	87	88	82	93
Accuracy	81	78	88	80	78	83
Tsunami Warnings	86	86	88	85	79	89
Ease of Understanding	88	90	90	90	85	95
Timeliness	87	86	88	87	80	92
Accuracy	80	77	84	73	75	74

	Wester	Western Region		Region	Pacific Region	
	2012	2013	2012	2013	2012	2013
Sample Size	2,890	6,234	71	99	69	85
Hurricane Warnings	88	90	92	88	81	91
Ease of Understanding	90	92	95	90	82	95
Timeliness	89	91	90	90	83	95
Accuracy	85	84	86	77	78	80
Winter Storm Warnings	85	88	87	89	83	89
Ease of Understanding	89	91	92	93	86	93
Timeliness	86	90	87	92	83	89
Accuracy	80	79	81	78	80	81
River Flood Warnings	87	88	87	87	81	90
Ease of Understanding	88	90	90	90	83	94
Timeliness	87	89	86	88	80	89
Accuracy	85	82	86	83	81	81
Excessive Heat Warnings	89	90	96	88	83	93
Ease of Understanding	90	92	98	90	85	95
Timeliness	89	92	97	90	83	94
Accuracy	87	87	94	84	82	88
Extreme Cold Warnings	88	90	91	90	81	93
Ease of Understanding	90	92	93	93	83	97
Timeliness	88	91	90	93	81	93
Accuracy	86	84	89	82	80	87
High Surf Warnings	89	89	89	87	82	94
Ease of Understanding	91	91	91	88	82	95
Timeliness	89	91	88	88	83	96
Accuracy	87	85	91	86	80	89
Coastal Flood Warnings		88		86		93
Ease of Understanding		90		88		97
Timeliness		89		88		96
Accuracy		83		80		85
Climate Hazards		84		87		85
Ease of Understanding		86		91		88
Timeliness		86		90		86
Accuracy		79		76		76

	Western Region		Alaska	Alaska Region		Region
	2012	2013	2012	2013	2012	2013
Sample Size	2,890	6,234	71	99	69	85
Weather-Sensitive Decision Making		84		86	-	93
Rely on NWS in making weather-sensitive decisions		84		86		93
User Support Services	88	87	84	86	83	83
Accessibility	87	86	81	85	79	83
Responsiveness	86	84	86	81	74	78
Subject-Matter Knowledge	90	91	86	90	86	90
Professionalism	92	92	93	91	81	92
Assisting in interpretation of weather-related information	88	87	85	84	80	85
Saving your organization money		76		71		87
Resolving a complaint	81	70	81	43	71	81
Dissemination Services - Website		84		84		87
Ease of locating information	80	82	76	82	76	84
Ease of understanding info	87	84	86	87	81	87
Information is up-to-date	87	87	84	86	82	86
Satellite Imagery display		84		81		92
Doppler Radar display		83		78		89
Dissemination Services - Automated	74	76	100	68	73	72
Ease locating data on servers	73	79		68	78	64
Ease of req add data to server	72	73		56	81	78
Ease of providing input	72	70		61	52	72
Ease of auto method	77	78	100	76	78	84
Usefulness of WEA Message		77		81		80
Usefulness of WEA message		77		81		80
Usefulness of NWS Presence		67		62		88
Usefulness of NWS presence on Facebook		75		70		87
Usefulness of NWS presence on Twitter		60		59		92
Usefulness of NWS presence on YouTube		46		33		85
Usefulness of NWS Graphical Summary		81		75		84
Usefulness of NWS graphical weather summaries on social media		81		75		84

	Wester	Western Region		Alaska Region		Pacific Region	
	2012	2013	2012	2013	2012	2013	
Sample Size	2,890	6,234	71	99	69	85	
Effectiveness of Safety Campaigns		75		75		82	
Effectiveness of Turn Around Don't Drown		78		78		87	
Effectiveness of When Thunder Roars, Go Indoors!		71		70		72	
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		74		76		81	
Customer Satisfaction Index	83	81	79	79	80	81	
Overall Satisfaction	88	86	85	85	84	87	
Meets expectations	78	75	74	73	77	74	
Compared to ideal	81	79	75	77	77	81	
Likelihood Take Action	90	90	88	91	87	92	
Likelihood take action on info	90	90	88	91	87	92	
Likelihood to Use in Future	96	96	95	97	93	97	
Likelihood use NWS in future	96	96	95	97	93	97	
Likelihood to Recommend	93	92	90	94	88	92	
Likelihood to recommend	93	92	90	94	88	92	
Anticipated Use Over Next Year		93		93		95	
Desktop-laptop computer		93		93		95	
Mobile Device		54		54		49	
Social Media		17		18		19	
Direct Interaction w NWS Staff		9		13		7	
NOAA Weather Radio All-Hazards		30		46		33	
File transfer services		17		24		19	
Level of Severity		21		23		20	
Marginal		21		23		20	
Slight		14		12		12	
Critical		92		93		95	
Enhanced		47		44		45	
Elevated		53		55		55	
Moderate		44		44		43	
High		79		78		82	

		Central	Region			Eastern Region			
	20	12	20	13	20	12	20	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Uses of NWS information~									
Agriculture	0%	0	18%	1,682	0%	0	14%	909	
Aviation	0%	0	5%	436	0%	0	4%	274	
Amateur Radio	0%	0	6%	560	0%	0	6%	375	
Broadcast/Print Media	0%	0	3%	273	0%	0	3%	161	
Commodities Markets	0%	0	2%	160	0%	0	1%	40	
Consulting	0%	0	1%	120	0%	0	2%	98	
Education	0%	0	7%	641	0%	0	7%	421	
Health Services	0%	0	3%	245	0%	0	3%	172	
Land Management Decisions	0%	0	8%	702	0%	0	5%	317	
Marine	0%	0	2%	198	0%	0	4%	250	
NWS Data Provider	0%	0	12%	1,097	0%	0	8%	543	
Personal	0%	0	88%	8,153	0%	0	87%	5,605	
Recreation	0%	0	58%	5,314	0%	0	58%	3,718	
Research	0%	0	5%	463	0%	0	6%	366	
Weather Enthusiast	0%	0	55%	5,050	0%	0	53%	3,384	
Work-related decisions	0%	0	24%	2,174	0%	0	24%	1,541	
Other	0%	0	7%	688	0%	0	8%	515	
Number of Respondents		0	9,2	236	(0	6,4	115	
Type of Aviation									
Dispatcher	100%	4	4%	18	100%	4	5%	13	
Comm Aircraft	0%	0	15%	65	0%	0	22%	61	
Private Aircraft	0%	0	78%	339	0%	0	69%	188	
Air Traffic Controller	0%	0	3%	14	0%	0	4%	12	
Number of Respondents		4	4:	36		4	2	74	

		Central	Region			Eastern	Region	
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	93%	5,080	94%	8,686	93%	4,333	92%	5,927
Non-NWS Web	34%	1,869	31%	2,837	36%	1,657	35%	2,219
Mobile devices	42%	2,283	50%	4,594	37%	1,711	47%	3,017
Social Media	14%	745	14%	1,308	10%	481	15%	958
Email	17%	930	11%	979	16%	724	13%	812
Landline Telephone	0%	0	5%	434	0%	0	4%	287
Cell Phone	0%	0	20%	1,890	0%	0	17%	1,083
Local or cable TV	57%	3,111	58%	5,399	52%	2,415	56%	3,577
Commercial Radio	35%	1,885	28%	2,561	31%	1,449	26%	1,640
Satellite radio	4%	213	3%	269	4%	185	4%	238
Satellite TV	18%	970	14%	1,309	12%	574	10%	630
Newspaper	19%	1,055	16%	1,470	20%	910	18%	1,140
NOAA Weather Radio/All Hazards	50%	2,728	49%	4,548	39%	1,797	43%	2,735
NOAA Weather Wire	5%	283	3%	317	5%	215	3%	211
Family of Services (FOS)	3%	186	1%	104	4%	164	1%	74
Emerg Mgrs Weather Info Net	4%	243	4%	383	4%	173	5%	317
NOAAPort	4%	218	2%	182	4%	202	2%	137
World Area Forecast System	1%	80	1%	61	1%	66	1%	55
DUATS	2%	133	2%	156	2%	88	2%	109
Flight Services	4%	234	2%	216	4%	188	2%	159
U.S. Coast Guard Broadcasts	4%	228	1%	95	7%	338	2%	146
NAVTEX receiver	1%	30	0%	8	1%	32	0%	19
Immarsat-C SafetyNET	0%	9	0%	5	0%	10	0%	10
Radiofacsimile	1%	41	0%	5	1%	43	0%	9
Other	1%	62	4%	380	2%	85	6%	377
Number of Respondents	5,4	55	9,2	236	4,6	553	6,4	115
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	8,959	0%	0	97%	6,195
Weather observations	0%	0	75%	6,909	0%	0	72%	4,644
Climate observations	0%	0	32%	2,963	0%	0	30%	1,956
Satellite data	0%	0	44%	4,031	0%	0	45%	2,857
Radar data	0%	0	86%	7,971	0%	0	79%	5,055
Computer weather model output	0%	0	36%	3,299	0%	0	37%	2,396
Weather outreach/educational materials	0%	0	8%	746	0%	0	9%	554
Other products	0%	0	4%	343	0%	0	5%	307
Number of Respondents)	9,2	236		0	6,4	115

Products familiar with~ Tornado Warnings Severe Thunderstorm Warnings Severe Thunderstorm Watches Flash Flood Warnings Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Coastal Flood Warnings Coastal Flood Warnings Coimate Hazards Don't know Number of Respondents Don't Likelihood of taking protective action if tornado warning issued Very Unlikely O% Pon't know Very Unlikely O% Freecht F	0 0 0 0 0 0 0 0 0 0 0 0 0	93% 98% 96% 83% 14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	8,575 9,010 8,903 7,635 1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	012 Frequency 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	80% 97% 96% 84% 19% 78% 95% 60% 77% 68% 29% 47% 40% 1%	5,128 6,206 6,129 5,410 1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Products familiar with~ Tornado Warnings Severe Thunderstorm Warnings Severe Thunderstorm Watches Flash Flood Warnings Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Coastal Flood Warnings Comments Don't know Number of Respondents Percent F Percent F Products familiar with~ 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	0 0 0 0 0 0 0 0 0 0 0 0 0	93% 98% 96% 83% 14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	8,575 9,010 8,903 7,635 1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	0 0 0 0 0 0 0 0 0 0 0 0 0	80% 97% 96% 84% 19% 78% 95% 60% 77% 68% 29% 47% 40% 1%	5,128 6,206 6,129 5,410 1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Products familiar with~ Tornado Warnings Severe Thunderstorm Warnings Severe Thunderstorm Watches Flash Flood Warnings Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Coastal Flood Warnings Command Warnings Co	0 0 0 0 0 0 0 0 0 0	98% 96% 83% 14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	8,575 9,010 8,903 7,635 1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0 0 0	97% 96% 84% 19% 78% 95% 60% 77% 68% 29% 47% 40%	5,128 6,206 6,129 5,410 1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Severe Thunderstorm Warnings Severe Thunderstorm Watches Flash Flood Warnings Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	0 0 0 0 0 0 0 0 0 0	98% 96% 83% 14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	9,010 8,903 7,635 1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0 0 0	97% 96% 84% 19% 78% 95% 60% 77% 68% 29% 47% 40%	6,206 6,129 5,410 1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Severe Thunderstorm Watches Flash Flood Warnings Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0 0 0	96% 83% 14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	8,903 7,635 1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0 0	96% 84% 19% 78% 95% 60% 77% 68% 29% 47% 40% 1%	6,129 5,410 1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Severe Thunderstorm Watches Flash Flood Warnings Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0 0 0	83% 14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	8,903 7,635 1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0 0	84% 19% 78% 95% 60% 77% 68% 29% 47% 40% 1%	6,129 5,410 1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Flash Flood Warnings Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	0 0 0 0 0 0 0 0	83% 14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	7,635 1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0	84% 19% 78% 95% 60% 77% 68% 29% 47% 40% 1%	5,410 1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Tsunami Warnings Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	0 0 0 0 0 0 0 0	14% 31% 97% 64% 82% 78% 14% 15% 49% 0%	1,297 2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0 0 0	19% 78% 95% 60% 77% 68% 29% 47% 40% 1%	1,189 5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Hurricane Warnings Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% Under Common Co	0 0 0 0 0 0 0 0	31% 97% 64% 82% 78% 14% 15% 49% 0%	2,890 8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0	78% 95% 60% 77% 68% 29% 47% 40%	5,011 6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
Winter Storm Warnings River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% Likelihood of taking protective action if tornado warning issued	0 0 0 0 0 0 0	97% 64% 82% 78% 14% 15% 49% 0%	8,953 5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0% 0%	0 0 0 0 0	95% 60% 77% 68% 29% 47% 40%	6,080 3,831 4,927 4,368 1,861 2,995 2,541 51
River Flood Warnings Excessive Heat Warnings Extreme Cold Warnings O% High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% Likelihood of taking protective action if tornado warning issued	0 0 0 0 0 0 0	64% 82% 78% 14% 15% 49% 0%	5,867 7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0%	0 0 0 0 0	60% 77% 68% 29% 47% 40% 1%	3,831 4,927 4,368 1,861 2,995 2,541 51
Excessive Heat Warnings Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents O Likelihood of taking protective action if tornado warning issued	0 0 0 0 0 0	82% 78% 14% 15% 49% 0%	7,536 7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0% 0%	0 0 0 0 0	77% 68% 29% 47% 40% 1%	4,927 4,368 1,861 2,995 2,541 51
Extreme Cold Warnings High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents 0% Likelihood of taking protective action if tornado warning issued	0 0 0 0 0	78% 14% 15% 49% 0% 9,2	7,176 1,322 1,413 4,515 37	0% 0% 0% 0% 0%	0 0 0 0 0	68% 29% 47% 40% 1%	4,368 1,861 2,995 2,541 51
High Surf Warnings Coastal Flood Warnings Climate Hazards Don't know Number of Respondents O Likelihood of taking protective action if tornado warning issued	0 0 0 0	14% 15% 49% 0% 9,2	1,322 1,413 4,515 37	0% 0% 0% 0%	0 0 0 0	29% 47% 40% 1%	1,861 2,995 2,541 51
Coastal Flood Warnings Climate Hazards Don't know Number of Respondents O Likelihood of taking protective action if tornado warning issued	0 0 0	15% 49% 0% 9,2	1,413 4,515 37	0% 0% 0%	0 0 0	47% 40% 1%	2,995 2,541 51
Climate Hazards Don't know Number of Respondents 0% Likelihood of taking protective action if tornado warning issued	0 0	49% 0% 9,2	4,515 37	0% 0%	0	40% 1%	2,541 51
Don't know Number of Respondents 0% Likelihood of taking protective action if tornado warning issued	0	0% 9,2	37	0%	0	1%	51
Number of Respondents 0 Likelihood of taking protective action if tornado warning issued	0	9,2			·		
Likelihood of taking protective action if tornado warning issued		·	236		U	b, ⁴	415
		2%					
		2%					
			184	0%	0	2%	123
Somewhat Unlikely 0%		3%	233	0%	0	3%	198
	0			0% 0%	0	16%	
	0	15%	1,349				1,024
Very Likely 0%	0	80%	7,414	0%	0	78%	5,008
Don't Know 0%	0	1%	56	0%	0	1%	62
Number of Respondents 0		9,4	236		0	6,4	415
Reason for not taking action							
Do not believe I would be directly impacted by the tornado 0%	0	23%	94	0%	0	24%	77
Need to first see or hear tornado 0%	0	22%	91	0%	0	11%	36
Have never seen tornado damage in my area 0%	ő	14%	57	0%	0	32%	102
Do not take tornado warnings seriously 0%	0	7%	30	0%	0	5%	17
Other 0%	0	35%	145	0%	0	28%	89
Number of Respondents 0	U	33 / ₀			0		21
Number of Respondents					0		<u></u>
Proximity of tornado before considering warning accurate							
1 mile or less 0%	0	5%	418	0%	0	6%	365
5 miles or less 0%	0	36%	3,332	0%	0	35%	2,255
10 miles or less	0	39%	3,567	0%	0	37%	2,345
25 miles or less 0%	0	19%	1,709	0%	0	20%	1,279
Other 0%	0	2%	210	0%	0	3%	171
Number of Respondents 0			236		0		415
						, , ,	
Number of tornado warnings issued							
Too many tornado warnings 0%	0	9%	828	0%	0	6%	389
Too few tornado warnings 0%	0	4%	342	0%	0	3%	192
Just about right 0%	0	75%	6,965	0%	0	71%	4,538
Don't know 0%	0	12%	1,101	0%	0	20%	1,296
Number of Respondents 0			236		0		415

	Central Region					Eastern	stern Region		
	20	12		13	20)12)13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Impact of tornado not occurring when warning issued									
Same actions as did previously	0%	0	84%	7,727	0%	0	82%	5,268	
Less likely to take same action	0%	0	11%	1,049	0%	0	11%	675	
Don't know	0%	0	5%	460	0%	0	7%	472	
Number of Respondents		0	9,2	236		0	6,4	415	
Heart de Grow Meed on Bee te Neder									
Heard the term Weather-Ready Nation	00/	0	000/	4.054	00/	0	4.00/	4.040	
Heard Weather-Ready Nation	0%	0	20%	1,851	0%	0	19%	1,218	
Have not heard Weather-Ready Nation	0%	0	80%	7,385	0%	0	81%	5,197	
Number of Respondents		J	9,2	236		0	6,4	415	
Have a hazardous weather safety plan									
Have a plan	66%	3,683	76%	7,009	52%	2,491	72%	4,610	
Do not have a plan	34%	1,912	21%	1,954	48%	2,256	25%	1,583	
Don't know	0%	0	3%	273	0%	0	3%	222	
Number of Respondents	5,5	5,595 9,236 4,747		6,4	415				
	•								
Reason plan created~	1-01								
Friends and family	45%	1,664	54%	3,772	40%	985	50%	2,317	
General desire to be prepared	83%	3,060	92%	6,426	83%	2,058	91%	4,218	
An extreme weather event	40%	1,471	50%	3,480	47%	1,154	57%	2,614	
Be a Force of Nature campaign	1%	39	2%	113	1%	19	1%	64	
Weather-Ready Nation initiative	6%	232	4%	305	5%	130	4%	174	
Other	10%	376	12%	837	12%	294	15%	682	
Number of Respondents	3,6	573	7,0	009	2,4	474	4,0	610	
Main reason you do not have a plan									
Takes too much time	3%	64	4%	79	2%	44	3%	47	
Too expensive	1%	16	3%	62	0%	11	3%	43	
Not sure what to include	41%	778	44%	867	35%	795	40%	641	
Don't think it's necessary	41%	781	30%	583	47%	1,051	36%	566	
Other	14%	273	19%	363	16%	355	18%	286	
Number of Respondents		12		954		256		583	
Plan includes hazardous weather emergency preparedness kit									
Includes kit	45%	2,524	41%	3,821	44%	2,095	47%	3,013	
Does not include kit	55%	3,071	56%	5,151	56%	2,652	49%	3,172	
Don't know	0%	0	3%	264	0%	0	4%	230	
Number of Respondents	5,5	595	9,2	236	4,7	747	6,4	415	

	Central Region					Eastern	Region	
	20	12		013	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Reason kit created~								
Friends and family	37%	920	53%	2,018	31%	638	49%	1,479
General desire to be prepared	86%	2,150	93%	3,539	85%	1,767	92%	2,765
An extreme weather event	38%	943	51%	1,952	44%	925	60%	1,811
Be a Force of Nature campaign	2%	38	2%	69	1%	18	1%	42
Weather-Ready Nation initiative	8%	212	5%	181	7%	142	4%	129
Other	13%	338	13%	478	14%	300	14%	417
Number of Respondents		508		821		082		013
Main reason you do not have a kit								
Takes too much time	4%	122	4%	190	3%	86	3%	108
Too expensive	6%	188	6%	310	5%	136	6%	188
Not sure what to include	39%	1,184	41%	2,107	32%	836	36%	1,130
Don't think it's necessary	32%	977	30%	1,526	38%	1,008	31%	984
Other	20%	600	20%	1,018	22%	586	24%	762
Number of Respondents	3,0	071	5,	151	2,	652	3,	172
NWS staff on-site at incident	00/		00/	10.1	201		00/	450
NWS staff on-site	0%	0	6%	184	0%	0	8%	158
No staff on-site	0%	0	62%	1,883	0%	0	62%	1,294
DK/NA	0%	0	32%	982	0%	0	31%	642
Number of Respondents		0	3,	049		0	2,0	094
Require specific products and have automated methods								
Require specific products with automation	0%	0	8%	736	0%	0	7%	464
Do not require specific products with automation	0%	o o	92%	8,500	0%	0	93%	5,951
Number of Respondents	070	0		236	070	0		415
Turniber of Respondents			3 ,			U	0 ,	410
Received WEA message on cell phone								
Received message	0%	0	25%	2,354	0%	0	30%	1,896
Did not receive message	0%	0	70%	6,479	0%	0	66%	4,217
Don't know	0%	0	4%	403	0%	0	5%	302
Number of Respondents		0		236		0		415
WEA message was first notification received								
First notification	0%	0	61%	1,434	0%	0	64%	1,215
Not first notification	0%	0	31%	721	0%	0	27%	515
Don't know	0%	0	8%	199	0%	0	9%	166
Number of Respondents		0	2,	354		0	1,	896
Understood WEA message								
Fully understood	0%	0	85%	1,993	0%	0	85%	1,618
Somewhat understood	0% 0%	0	65% 14%	340	0% 0%	0	65% 14%	268
		_						
Did not understand	0%	0	1%	21	0%	0	1%	10
Number of Respondents		0	2,	354		0	1,	896

		Central	Region			Region		
	20	12		013	20	012		113
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								
More text containing details of warning	0%	0	41%	968	0%	0	40%	766
Accompanying graphic showing warning area	0%	0	60%	1,411	0%	0	60%	1,138
Accompanying graphic showing current location	0%	0	57%	1,346	0%	0	58%	1,098
Color representing urgency of warning	0%	0	37%	866	0%	0	42%	789
Color representing type of warning	0%	0	27%	643	0%	0	24%	453
Sound representing urgency of warning	0%	0	41%	961	0%	0	45%	850
Sound representing type of warning	0%	0	30%	702	0%	0	24%	454
Number of Respondents		0	2,5	354		0	1,8	396
Ecohook and Twitter during weather events								
Facebook and Twitter during weather events~ Do not use Facebook and Twitter for weather events	0%	0	71%	6,542	0%	0	69%	4,405
Read what others are posting or tweeting	0% 0%	0	71% 24%	2,182	0% 0%	0	69% 26%	4,405 1,679
Comment on what others are posting or tweeting	0% 0%	0	24% 16%	1,486	0% 0%	0	26% 17%	1,079
· · · · · · · · · · · · · · · · · · ·	0%	0	17%	1,609	0%	0	18%	1,117
Write own posts or tweets Number of Respondents		0		236		0		1,139 115
Number of Respondents		9	9,	230		U	U ,.	+ 13
Amount of social media content available								
Too little	0%	0	23%	616	0%	0	20%	410
Just about right	0%	0	48%	1,286	0%	0	45%	913
Too much	0%	0	1%	35	0%	0	1%	30
Don't know	0%	0	28%	757	0%	0	33%	657
Number of Respondents		0	2,	694		0	2,0)10
Promoted awareness campaigns~								
Heat Safety	0%	0	27%	811	0%	0	23%	478
Flood Safety	0%	0	23%	709	0%	0	28%	592
Lightning Safety	0%	0	32%	968	0%	0	30%	619
Severe Weather Safety	0%	0	49%	1,487	0%	0	42%	886
Rip Currents Safety	0%	0	3%	84	0%	0	6%	128
Hurricane Safety	0%	0	1%	38	0%	0	25%	526
Tsunami Safety	0%	0	0%	12	0%	0	2%	37
Winter Weather Safety	0%	0	42%	1,287	0%	0	39%	825
Wildfire Safety	0%	0	17%	524	0%	0	12%	243
None of the above	0%	0	41%	1,250	0%	0	43%	890
Number of Respondents		0	3,	049		0	2,0	94
Websites visited for weather safety~								
National Weather Service	0%	0	97%	8,913	0%	0	97%	6,221
FEMA	0%	0	12%	1,152	0%	0	18%	1,169
American Red Cross	0%	0	8%	731	0%	0	10%	613
Centers for Disease Control and Prevention	0%	0	6% 4%	407	0%		6%	359
TOCHICIS FOI PISCASC COHILOI AND I TOVEHILOH		0						
	O%	0	58%	1 5 300 I	0%	(1	61%	3 4115
Commercial weather vendor Other	0% 0%	0	58% 10%	5,390 900	0% 0%	0	61% 10%	3,905 653

	Central Region East					Eastern	Region		
	20	12	20)13	20)12		013	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Safe to drive through water when no Road Closed sign or police barricade									
True	0%	0	2%	170	0%	0	2%	127	
False	0%	0	98%	9,066	0%	0	98%	6,288	
Number of Respondents		0	9,2	236		0	6,	415	
Not safe to drive when water is too deep to see road surface									
True	0%	0	96%	8,877	0%	0	96%	6,160	
False	0%	Ö	4%	359	0%	0	4%	255	
Number of Respondents)		236		0		415	
			-,				- ,	-	
Safe to drive through water slowly									
True	0%	0	4%	347	0%	0	4%	270	
False	0%	0	96%	8,889	0%	0	96%	6,145	
Number of Respondents		0	9,2	236		0	6,	415	
Safe to drive through water in a large and heavy vehicle									
True	0%	0	3%	256	0%	0	3%	215	
False	0%	0	97%	8,980	0%	0	97%	6,200	
Number of Respondents)		236		0		415	
Number of Respondents		9	<u> </u>	200			0,	410	
Not safe to drive through swiftly moving water									
True	0%	0	97%	8,947	0%	0	97%	6,231	
False	0%	0	3%	289	0%	0	3%	184	
Number of Respondents		0	9,2	236		0	6,	415	
When to seek shelter from lightning									
Distant lightning	0%	0	21%	1,897	0%	0	17%	1,084	
Distant hynder	0%	0	53%	4,900	0%		60%	3,864	
Nearby lightning	0%	0	16%	1,498	0%	0	12%	785	
Loud thunder	0%	0	9%	786	0%		9%	586	
Starts to rain	0%	0	2%	155	0%	0	1%	96	
Number of Respondents				236		0		415	
			-,				- ,	-	
Age									
Under 25 years	4%	221	3%	240	4%	174	3%	177	
25 - 34 years	12%	598	11%	890	9%	400	9%	499	
35 - 44 years	15%	774	13%	1,043	13%	544	12%	658	
45 - 54 years	25%	1,281	23%	1,865	25%	1,052	23%	1,271	
55 - 64 years	28%	1,410	30%	2,430	30%	1,294	30%	1,683	
65 - 74 years	13%	647	16%	1,243	15%	629	18%	974	
75 years and older	3%	169	4%	306	4%	164	5%	267	
Number of Respondents	5,1	100	8,0	017	4,2	257	5,	529	

Percent Per			Central	Region			Eastern	Region	
Gender		20)12	20	13	20	12	20	13
Cander		Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Female									
Prefer not to answer 0% 0 4% 351 0% 0 4% 246 Number of Respondents 5,476 9,122 4,611 6,339	Male	70%	3,854	66%	6,030	68%	3,145	65%	4,149
Number of Respondents	Female	30%	1,622	30%	2,741	32%	1,466	31%	1,944
Race White, Caucasian 96% 5,217 88% 7,993 95% 4,314 86% 5,457	Prefer not to answer	0%	0	4%	351	0%	0	4%	246
White Caucasian 96% 5,217 88% 7,993 95% 4,314 86% 5,457	Number of Respondents	5,4	476	9,	122	4,6	511	6,3	339
White Caucasian 96% 5,217 88% 7,993 95% 4,314 86% 5,457									
Black, African American									
Hispanic, Latino, or Spanish	· ·				· ·		•		
Pacific Islander									
Asian									
American Indian/Native Indian or Alaska Native 0% 20 1% 52 1% 26 0% 20 Other 2% 104 2% 161 2% 98 2% 126 Prefer not to answer 0% 0 9% 804 0% 0 9% 594 Number of Respondents 5,421 9,126 4,544 6,332 School completed 12th grade or less (no diploma) 2% 122 2% 161 3% 123 2% 123 High school diploma or GED 9% 510 8% 769 8% 365 8% 478 Some college, no degree 21% 1,136 20% 1,799 18% 824 16% 1,013 Associate or technical degree 15% 810 14% 1,277 11% 523 11% 668 Bachelor's degree 29% 1,617 28% 2,555 28% 1,312 27% 1,722 Graduate degree			5		6		5		
Cither	Asian	0%	27	0%	33	1%	30	1%	42
Prefer not to answer 0% 0 9% 804 0% 0 9% 594 Number of Respondents 5,421 9,126 4,544 6,332	American Indian/Native Indian or Alaska Native		20		52		26		
Number of Respondents 5,421 9,126 4,544 6,332	Other	2%	104	2%	161	2%	98	2%	126
School completed 2% 122 2% 161 3% 123 2% 123 High school diploma or GED 9% 510 8% 769 8% 365 8% 478 Some college, no degree 21% 1,136 20% 1,799 18% 824 16% 1,013 Associate or technical degree 15% 810 14% 1,277 11% 523 11% 668 Bachelor's degree 29% 1,617 28% 2,555 28% 1,312 27% 1,722 Graduate degree/Professional degree 24% 1,307 24% 2,202 32% 1,503 32% 2,057 Prefer not to answer 0% 0 4% 392 0% 0 5% 292 Number of Respondents 5,502 9,155 4,650 6,353 Interested in other areas- 1,503 3,50 492 0% 0 3% 201 National Fire Weather Program 0%	Prefer not to answer	0%	0	9%	804	0%	0	9%	594
12th grade or less (no diploma) 2% 122 2% 161 3% 123 2% 123 High school diploma or GED 9% 510 8% 769 8% 365 8% 478 Some college, no degree 21% 1,136 20% 1,799 18% 824 16% 1,013 Associate or technical degree 15% 810 14% 1,277 11% 523 11% 668 Bachelor's degree 29% 1,617 28% 2,555 28% 1,312 27% 1,722 Graduate degree/Professional degree 24% 1,307 24% 2,202 32% 1,503 32% 2,057 Prefer not to answer 0% 0 4% 392 0% 0 5% 292 Number of Respondents 5,502 9,155 4,650 6,353 Interested in other areas- National Fire Weather Program 0% 0 5% 492 0% 0 3% 201	Number of Respondents	5,4	421	9,	126	4,5	544	6,3	332
12th grade or less (no diploma) 2% 122 2% 161 3% 123 2% 123 High school diploma or GED 9% 510 8% 769 8% 365 8% 478 Some college, no degree 21% 1,136 20% 1,799 18% 824 16% 1,013 Associate or technical degree 15% 810 14% 1,277 11% 523 11% 668 Bachelor's degree 29% 1,617 28% 2,555 28% 1,312 27% 1,722 Graduate degree/Professional degree 24% 1,307 24% 2,202 32% 1,503 32% 2,057 Prefer not to answer 0% 0 4% 392 0% 0 5% 292 Number of Respondents 5,502 9,155 4,650 6,353 Interested in other areas- National Fire Weather Program 0% 0 5% 492 0% 0 3% 201									
High school diploma or GED									
Some college, no degree 21% 1,136 20% 1,799 18% 824 16% 1,013									
Associate or technical degree 15% 810 14% 1,277 11% 523 11% 668 Bachelor's degree 29% 1,617 28% 2,555 28% 1,312 27% 1,722 Graduate degree/Professional degree 24% 1,307 24% 2,202 32% 1,503 32% 2,057 Prefer not to answer 0% 0 4% 392 0% 0 5% 292 Number of Respondents 5,502 9,155 4,650 6,353 Interested in other areas~ National Fire Weather Program 0% 0 5% 492 0% 0 3% 201 National Hydrologic Services Program 0% 0 2% 177 0% 0 14% 879 National Climate Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7	1 9								
Bachelor's degree 29% 1,617 28% 2,555 28% 1,312 27% 1,722			· · · · · · · · · · · · · · · · · · ·		,				· ·
Graduate degree/Professional degree 24% 1,307 24% 2,202 32% 1,503 32% 2,057 Prefer not to answer 0% 0 4% 392 0% 0 5% 292 Number of Respondents 5,502 9,155 4,650 6,353 Interested in other areas~ National Fire Weather Program 0% 0 5% 492 0% 0 3% 201 National Hurricane Center Program 0% 0 2% 177 0% 0 14% 879 National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048	ŭ				, , , , , , , , , , , , , , , , , , ,				
Prefer not to answer 0% 0 4% 392 0% 0 5% 292 Number of Respondents 5,502 9,155 4,650 6,353 Interested in other areas~ National Fire Weather Program 0% 0 5% 492 0% 0 3% 201 National Hurricane Center Program 0% 0 2% 177 0% 0 14% 879 National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048					· ·		, , , , , , , , , , , , , , , , , , ,		
Number of Respondents 5,502 9,155 4,650 6,353 Interested in other areas~ National Fire Weather Program 0% 0 5% 492 0% 0 3% 201 National Hurricane Center Program 0% 0 2% 177 0% 0 14% 879 National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048			· ·		· ·		· · · · · · · · · · · · · · · · · · ·		· ·
Interested in other areas~ 0% 0 5% 492 0% 0 3% 201 National Hurricane Center Program 0% 0 2% 177 0% 0 14% 879 National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048									
National Fire Weather Program 0% 0 5% 492 0% 0 3% 201 National Hurricane Center Program 0% 0 2% 177 0% 0 14% 879 National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048	Number of Respondents	5,5	502	9,	155	4,6	550	6,3	353
National Fire Weather Program 0% 0 5% 492 0% 0 3% 201 National Hurricane Center Program 0% 0 2% 177 0% 0 14% 879 National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048	Interested in other areas~								
National Hurricane Center Program 0% 0 2% 177 0% 0 14% 879 National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048		0%	0	5%	492	0%	0	3%	201
National Hydrologic Services Program 0% 0 5% 499 0% 0 5% 329 National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048			_				~		
National Climate Services Program 0% 0 10% 965 0% 0 9% 573 Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048	ı		_				· ·		
Do not wish to continue 0% 0 84% 7,739 0% 0 79% 5,048	, , ,		_				· ·		
			_				· ·		
	Number of Respondents		_				-		

		Southern	n Region			Western	Region	
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Uses of NWS information~								
Agriculture	0%	0	16%	934	0%	0	17%	1,060
Aviation	0%	0	6%	328	0%	0	5%	335
Amateur Radio	0%	0	8%	474	0%	0	4%	245
Broadcast/Print Media	0%	0	4%	211	0%	0	2%	126
Commodities Markets	0%	0	1%	54	0%	0	1%	38
Consulting	0%	0	1%	85	0%	0	1%	91
Education	0%	0	8%	458	0%	0	6%	396
Health Services	0%	0	3%	153	0%	0	2%	128
Land Management Decisions	0%	0	8%	486	0%	0	11%	682
Marine	0%	0	3%	188	0%	0	4%	227
NWS Data Provider	0%	0	11%	648	0%	0	5%	313
Personal	0%	0	87%	5,053	0%	0	88%	5,459
Recreation	0%	0	54%	3,118	0%	0	64%	4,005
Research	0%	0	6%	372	0%	0	6%	347
Weather Enthusiast	0%	0	57%	3,306	0%	0	52%	3,258
Work-related decisions	0%	0	24%	1,402	0%	0	21%	1,291
Other	0%	0	8%	457	0%	0	10%	607
Number of Respondents		0	5,7	796	(0	6,2	234
Type of Aviation								
Dispatcher	100%	7	4%	13	100%	2	3%	9
Comm Aircraft	0%	0	23%	75	0%	0	18%	60
Private Aircraft	0%	0	69%	226	0%	0	77%	258
Air Traffic Controller	0%	0	4%	14	0%	0	2%	8
Number of Respondents		7	3:	28		2	3	35

		Southerr	n Region			Western	Region	
	20	12		13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	92%	2,606	92%	5,342	94%	2,647	93%	5,778
Non-NWS Web	36%	1,015	33%	1,935	30%	844	29%	1,788
Mobile devices	44%	1,263	54%	3,126	32%	902	42%	2,631
Social Media	17%	469	20%	1,131	7%	184	9%	562
Email	21%	599	13%	769	10%	269	9%	534
Landline Telephone	0%	0	5%	295	0%	0	4%	264
Cell Phone	0%	0	24%	1,383	0%	0	14%	876
Local or cable TV	56%	1,590	59%	3,423	39%	1,109	43%	2,652
Commercial Radio	28%	795	22%	1,282	24%	665	20%	1,227
Satellite radio	5%	150	4%	223	4%	111	3%	185
Satellite TV	21%	583	18%	1,028	14%	405	13%	818
Newspaper	16%	462	14%	787	22%	629	19%	1,180
NOAA Weather Radio/All Hazards	46%	1,294	50%	2,902	24%	662	27%	1,708
NOAA Weather Wire	5%	148	4%	214	6%	157	4%	254
Family of Services (FOS)	5%	143	2%	94	4%	103	1%	93
Emerg Mgrs Weather Info Net	6%	165	6%	339	3%	79	3%	158
NOAAPort	4%	114	3%	153	5%	145	2%	146
World Area Forecast System	2%	50	1%	40	1%	39	1%	43
DUATS	2%	70	2%	103	2%	62	2%	110
Flight Services	5%	138	3%	173	4%	125	3%	159
U.S. Coast Guard Broadcasts	6%	169	2%	89	6%	172	2%	102
NAVTEX receiver	1%	24	0%	14	1%	22	0%	10
Immarsat-C SafetyNET	0%	14	0%	7	0%	7	0%	6
Radiofacsimile	1%	25	0%	9	1%	24	0%	13
Other	2%	51	6%	320	2%	65	7%	407
Number of Respondents	2,8	342	5,7	796	2,8	311	6,2	234
•			·					
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	96%	5,545	0%	0	97%	6,016
Weather observations	0%	0	72%	4,190	0%	0	74%	4,637
Climate observations	0%	0	32%	1,862	0%	0	36%	2,241
Satellite data	0%	0	54%	3,126	0%	0	52%	3,266
Radar data	0%	0	88%	5,092	0%	0	65%	4,060
Computer weather model output	0%	0	43%	2,509	0%	0	32%	2,004
Weather outreach/educational materials	0%	0	11%	624	0%	0	7%	430
Other products	0%	0	5%	277	0%	0	5%	317
Number of Respondents		0		796		0		234
•								

		Southern	Region		Western Region			
	20	012		013	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with~								
Tornado Warnings	0%	0	90%	5,239	0%	0	36%	2,241
Severe Thunderstorm Warnings	0%	0	97%	5,639	0%	0	84%	5,215
Severe Thunderstorm Watches	0%	0	96%	5,563	0%	0	79%	4,937
Flash Flood Warnings	0%	0	86%	4,977	0%	0	70%	4,349
Tsunami Warnings	0%	0	18%	1,062	0%	0	33%	2,034
Hurricane Warnings	0%	0	69%	4,021	0%	0	29%	1,804
Winter Storm Warnings	0%	0	75%	4,354	0%	0	88%	5,462
River Flood Warnings	0%	0	57%	3,284	0%	0	56%	3,501
Excessive Heat Warnings	0%	0	77%	4,440	0%	0	69%	4,317
Extreme Cold Warnings	0%	0	54%	3,118	0%	0	61%	3,802
High Surf Warnings	0%	0	26%	1,534	0%	0	34%	2,094
	0%	0		· ·	0%	_		
Coastal Flood Warnings		_	38%	2,180		0	35%	2,185
Climate Hazards	0%	0	50%	2,914	0%	0	41%	2,540
Don't know	0%	0	0%	24	0%	0	2%	118
Number of Respondents		0	5,	796		0	6,2	234
Likelihood of taking protective action if tornado warning issued								
Very Unlikely	0%	0	2%	106	0%	0	3%	214
Somewhat Unlikely	0%	0	3%	152	0%	0	3%	175
Somewhat Likely	0%	0	3 <i>%</i> 12%	721	0%	0	12%	739
· ·	0%	0	82%	4,761	0%	0	79%	4,905
Very Likely				4,761 56			79% 3%	201
Don't Know	0%	0	1%	1	0%	0		
Number of Respondents		0	5,	796		U	0,,	234
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	0%	0	21%	55	0%	0	15%	59
Need to first see or hear tornado	0%	0	16%	41	0%	0	6%	22
Have never seen tornado damage in my area	0%	0	18%	47	0%	0	50%	195
Do not take tornado warnings seriously	0%	0	5%	14	0%	0	1%	5
Other	0%	0	39%	101	0%	0	28%	108
Number of Respondents		0		58		0		89
Proximity of tornado before considering warning accurate								
1 mile or less	0%	0	6%	361	0%	0	5%	293
5 miles or less	0%	0	38%	2,203	0%	0	30%	1,868
10 miles or less	0%	0	35%	2,039	0%	0	36%	2,247
25 miles or less	0%	0	18%	1,060	0%	0	24%	1,494
Other	0%	0	2%	133	0%	0	5%	332
Number of Respondents		0		796		0	6,2	234
Number of tornado warnings issued								
Too many tornado warnings	0%	0	8%	441	0%	0	1%	52
Too few tornado warnings	0%	0	4%	235	0%	0	2%	98
Just about right	0%	0	76%	4,401	0%	0	54%	3,392
Don't know	0%	0	12%	719	0%	0	43%	2,692
Number of Respondents		0	5,	796		0	6,2	234

		Southern	n Region			Western Region			
	20	12		13	20)12	20	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Impact of tornado not occurring when warning issued									
Same actions as did previously	0%	0	87%	5,060	0%	0	71%	4,449	
Less likely to take same action	0%	0	8%	474	0%	0	9%	569	
Don't know	0%	0	5%	262	0%	0	20%	1,216	
Number of Respondents)	5,7	796		0	6,2	234	
Heard the term Weather-Ready Nation									
Heard Weather-Ready Nation	0%	0	19%	1,128	0%	0	10%	638	
Have not heard Weather-Ready Nation	0%	0	81%	4,668	0%	0	90%	5,596	
Number of Respondents)	5,7	796		0	6,2	234	
Have a barradova weather reference									
Have a hazardous weather safety plan Have a plan	70%	2,042	82%	4,767	45%	1,309	65%	4,065	
Do not have a plan	30%	2,042 857	02% 16%	908	45% 55%	1,581	31%	1,957	
Don't know	0%		2%	121	0%	· ·	3%	212	
Number of Respondents		0				0			
Number of Respondents	2,8	199	5,1	796	۷,0	890	0,4	234	
Reason plan created~									
Friends and family	44%	895	56%	2,654	37%	484	48%	1,961	
General desire to be prepared	82%	1,669	91%	4,334	84%	1,096	93%	3,765	
An extreme weather event	51%	1,028	59%	2,802	36%	465	44%	1,798	
Be a Force of Nature campaign	1%	17	1%	56	2%	24	1%	45	
Weather-Ready Nation initiative	4%	90	4%	180	3%	40	3%	113	
Other	13%	256	14%	674	14%	179	16%	659	
Number of Respondents	2,0			767		301		065	
			·		,		ŕ		
Main reason you do not have a plan									
Takes too much time	3%	23	4%	33	2%	35	3%	62	
Too expensive	1%	10	5%	49	0%	2	2%	45	
Not sure what to include	38%	325	43%	391	34%	539	33%	642	
Don't think it's necessary	42%	360	26%	238	48%	757	39%	758	
Other	16%	139	22%	197	16%	248	23%	450	
Number of Respondents	8	57	9(08	1,	581	1,9	957	
				_					
Plan includes hazardous weather emergency preparedness kit	5007	4.510	5001	0.010	500/		5001	0.422	
Includes kit	52%	1,518	52%	3,016	50%	1,444	50%	3,123	
Does not include kit	48%	1,381	46%	2,644	50%	1,446	46%	2,871	
Don't know	0%	0	2%	136	0%	0	4%	240	
Number of Respondents	2,8	399	5,7	796	2,8	890	6,2	234	

2012 2013 2014			Southerr	n Region			Western	Region	
Reason kit recented		20)12			20		20	-
Filends and family 33% 503 52% 1,576 32% 451 47% 1,477 General desire to be prepared 84% 1,265 92% 1,878 36% 1,233 33% 2,903 An extreme weather event 44% 732 62% 1,870 30% 426 43% 1,345 Be a Force of Nature campaign 1% 18 1% 38 1% 20 11% 349 Weather-Ready Nation initiative 77% 111 4% 126 3% 45 29% 69 Other 17% 254 14% 427 21% 294 17% 524 Number of Respondents 7,511 3,016 1,330 3,123 Minin ceason you do not have a kit 1,511 3,016 1,330 3,123 Takes be much time 9% 120 9% 226 6% 31 5% 155 Not sure what to include 9% 120 9% 226 6% 31 5% 155 Not sure what to include 33% 441 39% 103 22% 449 33% 944 Other 22% 309 21% 549 23% 338 22% 635 Number of Respondents 1,381 2,644 179 0% 0 55% 1,116 NVS staff on-site 00% 0 57% 1,170 0% 0 54% 588 NUS staff on-site 00% 0 57% 1,170 0% 0 57% 1,170 0% 0 534 Number of Respondents 0 99% 5,214 0% 0 574 588 Number of Respondents 0 99% 5,214 0% 0 574 588 Number of Respondents 0 99% 5,214 0% 0 574 588 Number of Respondents 0 99% 5,214 0% 0 57% 532 Number of Respondents 0 99% 5,214 0% 0 57% 1,170 Number of Respondents 0 99% 5,214 0% 0 57% 1,170 Number of Respondents 0 99% 5,214 0% 0 57% 1,170 Number of Respondents 0 99% 5,214 0% 0 57% 3,228 Number of Respondents 0 99% 5,214 0% 0 57% 5,228 Number of Respondents 0 99% 5,214 0% 0 57% 5,228 Number of Respondents 0 99% 5,214 0% 0 57% 5,228 Number of Respondents 0 99% 5,214 0% 0 57% 5,228 Number of Respondents 0 99% 5,244 0% 0 57% 4,579 0% 0 5,234 VEA message was first notification received 0 99% 1,579 0% 0 1,579 0% 0 1,117 Understand of Respondents 0 99%		Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Section Sect									
An extreme weather event					·				
Be a Force of Nature campaign	· ·		· ·						
Weather-Ready Nation initialized 7%		48%	732		1,870		426		
Chem	Be a Force of Nature campaign	1%	18	1%	38	1%	20	1%	39
Number of Respondents	Weather-Ready Nation initiative	7%	111	4%	125	3%	45	2%	69
Main reason you do not have a kit Takes too much time 33%	Other	17%	254	14%	427	21%	294	17%	524
Takes to much time	Number of Respondents	1,	511	3,	016	1,	430	3,	123
Takes to much time	Main reason you do not have a kit								
Too expensive	·	3%	44	3%	84	4%	55	3%	83
Not sure what to include 35% 481 39% 1.033 28% 409 33% 944 Don't think it's necessary 31% 427 28% 752 38% 553 37% 1.054 Cither 22% 309 21% 549 23% 338 22% 635 Number of Respondents 1,381 2,644 1,446 2,871 NWS staff on-site at incident NWS staff on-site 0 0% 0 9% 179 0% 0 11% 214 No staff on-site 0 0% 0 57% 1,170 0% 0 55% 1,116 Cither 9 0% 0 57% 1,170 0% 0 55% 1,116 Don't Rome of Respondents Require specific products and have automated methods Require specific products with automation 0 0% 0 10% 582 0% 0 6% 698 Don on require specific products with automation 0 0% 0 90% 5,214 0% 0 94% 5,862 Number of Respondents Received WEA message on cell phone Received WEA message on cell phone Received message 0 0% 0 68% 3,944 0% 0 78% 4,859 Don't know 0 0 5,796 0 0 78% 4,859 Don't know 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 0 5,796 0 0 72% 803 Number of Respondents 0 0 0 5,796 0 0 0 72% 803 Number of Respondents 0 0 0 5,796 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									
Don't timik if s necessary 31%	· ·								
Other 22% 309 21% 549 23% 338 22% 635 Number of Respondents 1,381 2,644 1,446 2,871 NWS staff on-site on-site at incident 0% 0 9% 179 0% 0 11% 214 No staff on-site 0% 0 57% 1,170 0% 0 55% 1,116 DKNNA 0% 0 34% 710 0% 0 34% 698 Number of Respondents 0 2,059 0 34% 698 698 Require specific products and have automated methods 8 8 8 8 8 8 9 9 0 69% 372 9 9 2,214 0% 0 6% 372 2 0 0 6% 372 0 0 6,234 0 0 9 6,234 0 0 9 6,234 0 0 9 0 1,1									
Number of Respondents									
NWS staff on-site at incident 0%									
NWS staff on-site				·		·	_		
No staff on-site									
DK/NA 0% 0 34% 710 0% 0 34% 698 Number of Respondents 0 2,059 0 2,028			0				0		
Number of Respondents 0 2,059 0 2,028			0		· ·		0		
Require specific products with automation 0% 0 10% 582 0% 0 6% 372		0%	0		1	0%	0		1
Require specific products with automation 0% 0 10% 582 0% 0 94% 5,862	Number of Respondents		0	2,	059		0	2,	028
Require specific products with automation 0% 0 10% 582 0% 0 94% 5,862	Require specific products and have automated methods								
Do not require specific products with automation 0% 0 90% 5,214 0% 0 94% 5,862 Number of Respondents 0 5,796 0 6,234 Received WEA message on cell phone 27% 1,579 0% 0 18% 1,117 Did not receive message 0% 0 68% 3,944 0% 0 18% 1,117 Don't know 0% 0 68% 3,944 0% 0 78% 4,859 Number of Respondents 0 5,796 0 6,234 WEA message was first notification received 0 5,796 0 6,234 WEA message was first notification received 0 5,796 0 72% 803 Not first notification 0% 0 59% 932 0% 0 72% 803 Not first notification 0% 0 32% 505 0% 0 20% 223 Don't know 0 9%		0%	0	10%	582	0%	0	6%	372
Number of Respondents			0				0		
Received message	Number of Respondents		0	5,			0	6,	
Received message	Descived WEA massage on call phone								
Did not receive message		00/	0	270/	1.570	Λ0/	0	100/	1 117
Don't know Don									
Number of Respondents 0 5,796 0 6,234 WEA message was first notification received First notification 0% 0 59% 932 0% 0 72% 803 Not first notification 0% 0 32% 505 0% 0 20% 223 Don't know 0% 0 9% 142 0% 0 8% 91 Number of Respondents 0 1,579 0 1,117 Understood WEA message Fully understood 0 87% 1,369 0% 0 83% 931 Somewhat understood 0% 0 13% 204 0% 0 15% 165 Did not understand 0% 0 0% 0 0% 0 2% 21									
WEA message was first notification received 0% 0 59% 932 0% 0 72% 803 Not first notification 0% 0 32% 505 0% 0 20% 223 Don't know 0% 0 9% 142 0% 0 8% 91 Number of Respondents 0 1,579 0 1,117 Understood WEA message Fully understood 0 87% 1,369 0% 0 83% 931 Somewhat understood 0% 0 13% 204 0% 0 15% 165 Did not understand 0% 0 0% 0 0% 0 2% 21									
First notification 0% 0 59% 932 0% 0 72% 803 Not first notification 0% 0 32% 505 0% 0 20% 223 Don't know 0% 0 9% 142 0% 0 8% 91 Number of Respondents Understood WEA message Value Valu							•		
Not first notification 0% 0 32% 505 0% 0 20% 223 Don't know 0% 0 9% 142 0% 0 8% 91 Number of Respondents 0 1,579 0 1,117 Understood WEA message Fully understood 0% 0 87% 1,369 0% 0 83% 931 Somewhat understood 0% 0 13% 204 0% 0 15% 165 Did not understand 0% 0 0% 0 0 2% 21									
Don't know 0% 0 9% 142 0% 0 8% 91 Number of Respondents 0 1,579 0 1,117 Understood WEA message Substituting the stood of the stood			0				0		
Number of Respondents 0 1,579 0 1,117 Understood WEA message Sumbstant of the control o			_				0		
Understood WEA message 0% 0 87% 1,369 0% 0 83% 931 Fully understood 0% 0 13% 204 0% 0 15% 165 Did not understand 0% 0 0% 6 0% 0 2% 21	Don't know	0%	0						1
Fully understood 0% 0 87% 1,369 0% 0 83% 931 Somewhat understood 0% 0 13% 204 0% 0 15% 165 Did not understand 0% 0 0% 6 0% 0 2% 21	Number of Respondents		0	1,	579		0	1,	117
Fully understood 0% 0 87% 1,369 0% 0 83% 931 Somewhat understood 0% 0 13% 204 0% 0 15% 165 Did not understand 0% 0 0% 6 0% 0 2% 21	Understood WEA message								
Somewhat understood 0% 0 13% 204 0% 0 15% 165 Did not understand 0% 0 0% 6 0% 0 2% 21		0%	0	87%	1.369	0%	0	83%	931
Did not understand 0% 0 0% 0 2% 21	· ·						0		
			-				0		
Number of Respondents 0 1,579 0 1,117	Number of Respondents		1 -		1				1

		Souther	n Region			Western	Region	
	20	112)13	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								, ,
More text containing details of warning	0%	0	39%	621	0%	0	38%	420
Accompanying graphic showing warning area	0%	0	63%	997	0%	0	59%	656
Accompanying graphic showing current location	0%	0	61%	963	0%	0	56%	626
Color representing urgency of warning	0%	0	37%	586	0%	0	36%	397
Color representing type of warning	0%	0	29%	465	0%	0	17%	190
Sound representing urgency of warning	0%	0	46%	720	0%	0	38%	422
Sound representing type of warning	0%	0	33%	519	0%	0	17%	192
Number of Respondents		0	1,	579		0	1,	117
Facebook and Tuitten during constitutions								
Facebook and Twitter during weather events~ Do not use Facebook and Twitter for weather events	0%	0	669/	2 040	00/		740/	4 600
	0%	0	66%	3,818	0% 0%	0	74% 21%	4,620
Read what others are posting or tweeting	0%	0	27% 19%	1,589 1,126	0% 0%	0	21% 15%	1,302 928
Comment on what others are posting or tweeting				1		0		
Write own posts or tweets	0%	0 0	20%	1,186 796	0%	0	15%	924
Number of Respondents		0	5,	790		0	0,,	234
Amount of social media content available								
Too little	0%	0	24%	466	0%	0	18%	292
Just about right	0%	0	51%	999	0%	0	40%	645
Too much	0%	0	1%	24	0%	0	1%	15
Don't know	0%	0	25%	489	0%	0	41%	662
Number of Respondents		0	1,	978		0	1,0	614
Promoted awareness campaigns~								
Heat Safety	0%	0	34%	692	0%	0	27%	546
Flood Safety	0%	0	29%	600	0%	0	25%	499
Lightning Safety	0%	0	39%	798	0%	0	27%	546
Severe Weather Safety	0%	0	54%	1,114	0%	0	27%	555
Rip Currents Safety	0%	0	7%	136	0%	0	7%	139
Hurricane Safety	0%	0	22%	463	0%	0	2%	50
Tsunami Safety	0%	0	1%	30	0%	0	9%	188
Winter Weather Safety	0%	0	24%	502	0%	0	37%	750
Wildfire Safety	0%	0	25%	513	0%	0	46%	932
None of the above	0%	0	32%	657	0%	0	35%	705
Number of Respondents		0	2,	059		0	2,0	028
Walasias visited for weather selety								
Websites visited for weather safety~ National Weather Service	0%	0	97%	5 505	0%	0	96%	6,001
FEMA	0%	0	97% 16%	5,595 939	0% 0%	0	96% 14%	858
American Red Cross	0%	0	9%	532	0%	0	8%	511
Centers for Disease Control and Prevention	0%		9% 5%	312	0% 0%	0	6%	343
Commercial weather vendor	0%	0	5% 62%	3,588	0% 0%	0	53%	3,306
Other	0%	0	13%	757	0%	0	12%	724
Number of Respondents	0 /0	0		796		0		234
Number of Respondents		U	5,	1 30		U	0,,	LJ4

		Southern	n Region			Western	Region	
	20	12)13	20)12		013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	2%	101	0%	0	2%	137
False	0%	0	98%	5,695	0%	0	98%	6,097
Number of Respondents		0	5,	796		0	6,	234
Not safe to drive when water is too deep to see road surface								
True	0%	0	95%	5,535	0%	0	96%	5,956
False	0%	0	5%	261	0%	0	4%	278
Number of Respondents		0		796		0		234
Safe to drive through water slowly			45.		25.			
True	0%	0	4%	241	0%	0	5%	333
False	0%	0	96%	5,555	0%	0	95%	5,901
Number of Respondents		0	5,	796		0	6,	234
Safe to drive through water in a large and heavy vehicle								
True	0%	0	3%	193	0%	0	5%	292
False	0%	0	97%	5,603	0%	0	95%	5,942
Number of Respondents		0	5,	796		0	6,	234
						•		•
Not safe to drive through swiftly moving water	00/	0	070/	F C40	00/	0	070/	0.047
True False	0% 0%	0	97% 3%	5,618 178	0% 0%	0	97% 3%	6,017 217
Number of Respondents		0		796		0		234
Number of Respondents		0	3 ,	130		<u> </u>	,	237
When to seek shelter from lightning								
Distant lightning	0%	0	18%	1,022	0%	0	19%	1,199
Distant thunder	0%	0	57%	3,322	0%	0	41%	2,572
Nearby lightning	0%	0	14%	793	0%	0	23%	1,439
Loud thunder	0%	0	10%	560	0%	0	15%	944
Starts to rain	0%	0	2%	99	0%	0	1%	80
Number of Respondents		0	5,	796		0	6,	234
Age								
Under 25 years	3%	87	2%	124	2%	46	1%	80
25 - 34 years	9%	227	9%	461	7%	172	6%	323
35 - 44 years	14%	366	12%	631	10%	259	11%	590
45 - 54 years	24%	635	22%	1,145	23%	586	20%	1,068
55 - 64 years	29%	764	30%	1,546	33%	861	34%	1,810
65 - 74 years	17%	439	19%	957	22%	563	23%	1,239
75 years and older	4%	109	4%	228	4%	106	5%	287
Number of Respondents	2,6	527	5,0	092	2,	593	5,	397

		Southern	n Region			Western	Region	
	20)12	20)13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Gender								
Male	71%	1,998	69%	3,948	66%	1,852	62%	3,799
Female	29%	832	27%	1,569	34%	961	33%	2,052
Prefer not to answer	0%	0	4%	212	0%	0	5%	292
Number of Respondents	2,8	830	5,7	729	2,8	313	6,	143
Race								
White, Caucasian	93%	2,601	84%	4,800	92%	2,551	81%	4,990
Black, African American	1%	24	1%	40	0%	7	0%	13
Hispanic, Latino, or Spanish	2%	66	3%	163	1%	37	1%	67
Pacific Islander	0%	2	0%	4	0%	9	0%	14
Asian	0%	7	0%	22	1%	36	1%	42
American Indian/Native Indian or Alaska Native	1%	31	2%	90	1%	27	1%	60
Other	2%	55	2%	139	3%	94	4%	220
Prefer not to answer	0%	0	8%	469	0%	0	12%	749
Number of Respondents	2,	786	5,7	727	2,7	761	6,	155
School completed								
12th grade or less (no diploma)	2%	66	2%	107	1%	26	1%	64
High school diploma or GED	8%	224	7%	420	4%	116	5%	303
Some college, no degree	22%	622	20%	1,162	19%	547	19%	1,185
Associate or technical degree	12%	353	13%	729	11%	323	12%	736
Bachelor's degree	30%	868	28%	1,627	32%	897	28%	1,745
Graduate degree/Professional degree	25%	719	25%	1,466	33%	932	30%	1,853
Prefer not to answer	0%	0	4%	244	0%	0	5%	288
Number of Respondents	2,8	852	5,7	755	2,8	341	6,′	174
Interested in other areas~								
National Fire Weather Program	0%	0	5%	308	0%	0	14%	865
National Hurricane Center Program	0%	0	17%	977	0%	0	2%	154
National Hydrologic Services Program	0%	0	5%	311	0%	0	7%	412
National Climate Services Program	0%	0	9%	534	0%	0	12%	728
Do not wish to continue	0%	0	75%	4,330	0%	0	77%	4,785
Number of Respondents		0		796		0		234
italibor of Respondents			J,				0,2	.07

		Alaska Region				
	20)12	20	013		
	Percent	Frequency	Percent	Frequency		
Uses of NWS information~						
Agriculture	0%	0	19%	19		
Aviation	0%	0	25%	25		
Amateur Radio	0%	0	6%	6		
Broadcast/Print Media	0%	0	2%	2		
Commodities Markets	0%	0	0%	0		
Consulting	0%	0	1%	1		
Education	0%	0	3%	3		
Health Services	0%	0	2%	2		
Land Management Decisions	0%	0	14%	14		
Marine	0%	0	22%	22		
NWS Data Provider	0%	0	8%	8		
Personal	0%	0	86%	85		
Recreation	0%	0	83%	82		
Research	0%	0	6%	6		
Weather Enthusiast	0%	0	46%	46		
Work-related decisions	0%	0	32%	32		
Other	0%	0	10%	10		
Number of Respondents		Ö	•	99		

Type of Aviation					
Dispatcher	0%	0	4%	1	
Comm Aircraft	0%	0	28%	7	
Private Aircraft	0%	0	68%	17	
Air Traffic Controller	0%	0	0%	0	
Number of Respondents		0		25	

		Alaska	Region	
	20	12	20	13
	Percent	Frequency	Percent	Frequency
Information sources~				
NWS Web	86%	60	92%	91
Non-NWS Web	39%	27	22%	22
Mobile devices	46%	32	38%	38
Social Media	30%	21	6%	6
Email	7%	5	7%	7
Landline Telephone	0%	0	18%	18
Cell Phone	0%	0	24%	24
Local or cable TV	41%	29	32%	32
Commercial Radio	37%	26	25%	25
Satellite radio	1%	1	0%	0
Satellite TV	16%	11	6%	6
Newspaper	24%	17	19%	19
NOAA Weather Radio/All Hazards	30%	21	45%	45
NOAA Weather Wire	4%	3	4%	4
Family of Services (FOS)	1%	1	1%	1
Emerg Mgrs Weather Info Net	0%	0	0%	0
NOAAPort	3%	2	2%	2
World Area Forecast System	0%	0	1%	1
DUATS	0%	0	3%	3
Flight Services	9%	6	13%	13
U.S. Coast Guard Broadcasts	17%	12	15%	15
NAVTEX receiver	3%	2	1%	1
Immarsat-C SafetyNET	1%	1	0%	0
Radiofacsimile	1%	1	1%	1
Other	6%	4	14%	14
Number of Respondents	7	0	9	9

NOAANWS products used most often~					
Forecasts, outlooks, watches, warnings, alerts	0%	0	100%	99	
Weather observations	0%	0	88%	87	
Climate observations	0%	0	49%	49	
Satellite data	0%	0	55%	54	
Radar data	0%	0	59%	58	
Computer weather model output	0%	0	34%	34	
Weather outreach/educational materials	0%	0	7%	7	
Other products	0%	0	14%	14	
Number of Respondents		Ö		99	

	Alaska Ro		Region	
· · · · · · · · · · · · · · · · · · ·	20)12)13
	Percent	Frequency	Percent	Frequency
Products familiar with~				
Tornado Warnings	0%	0	30%	30
Severe Thunderstorm Warnings	0%	0	51%	50
Severe Thunderstorm Watches	0%	0	47%	47
Flash Flood Warnings	0%	0	60%	59
Tsunami Warnings	0%	0	75%	74
Hurricane Warnings	0%	0	37%	37
Winter Storm Warnings	0%	0	94%	93
River Flood Warnings	0%	0	79%	78
Excessive Heat Warnings	0%	0	31%	31
Extreme Cold Warnings	0%	0	77%	76
High Surf Warnings	0%	0	35%	35
Coastal Flood Warnings	0%	0	52%	51
Climate Hazards	0%	0	42%	42
Don't know		0	1%	1
	0%	-		·
Number of Respondents		0	3	9
Likelihood of taking protective action if tornado warning issued				
Very Unlikely	0%	0	8%	8
Somewhat Unlikely	0%	0	7%	7
Somewhat Likely	0%	0	11%	11
· ·		_		67
Very Likely	0%	0	68%	
Don't Know	0%	0	6%	6
Number of Respondents		0	•	9
Reason for not taking action				
Do not believe I would be directly impacted by the tornado	0%	0	20%	3
Need to first see or hear tornado	0%	0	0%	0
Have never seen tornado damage in my area	0%	0	33%	5
Do not take tornado warnings seriously	0%	0	0%	0
Other	0%	0	47%	7
Number of Respondents		0		' 5
Number of Nespondents		<u> </u>		
Proximity of tornado before considering warning accurate				
1 mile or less	0%	0	3%	3
5 miles or less	0%	0	20%	20
10 miles or less	0%	0	34%	34
25 miles or less	0%	0	24%	24
Other	0%	0	18%	18
Number of Respondents		0)9
Number of tornado warnings issued				
Number of tornado warnings issued Too many tornado warnings	0%	0	1%	1
	0% 0%	0	1% 1%	1
Too many tornado warnings				_
Too many tornado warnings Too few tornado warnings	0%	0	1%	1

Impact of tornado not occurring when warning issued Same actions as did previously Less likely to take same action Don't know Number of Respondents Heard the term Weather-Ready Nation Heard Weather-Ready Nation	20 Percent 0% 0%	Alaska 12 Frequency 0		13 Frequency
Same actions as did previously Less likely to take same action Don't know Number of Respondents Heard the term Weather-Ready Nation	0%			
Same actions as did previously Less likely to take same action Don't know Number of Respondents Heard the term Weather-Ready Nation		0		i i cqueriey
Less likely to take same action Don't know Number of Respondents Heard the term Weather-Ready Nation		0		
Don't know Number of Respondents Heard the term Weather-Ready Nation	0%	_	70%	69
Number of Respondents Heard the term Weather-Ready Nation	0,0	0	3%	3
Heard the term Weather-Ready Nation	0%	0	27%	27
		0	9	9
Heard Weather-Ready Nation	00/	0	4.00/	40
I I a contract I Made and I Made a	0%	0	16%	16
Have not heard Weather-Ready Nation	0%	0	84%	83
Number of Respondents		0	9	9
Have a hazardous weather safety plan				
Have a plan	52%	37	77%	76
Do not have a plan	48%	34	22%	22
Don't know	0%	0	1%	1
Number of Respondents	7			9
		,		
Reason plan created~				
Friends and family	42%	15	49%	37
General desire to be prepared	92%	33	99%	75
An extreme weather event	44%	16	55%	42
Be a Force of Nature campaign	0%	0	3%	2
Weather-Ready Nation initiative	0%	0	3%	2
Other	25%	9	22%	17
Number of Respondents	3	6	7	6
Main reason you do not have a plan				
Takes too much time	6%	2	5%	1
Too expensive	0%	0	0%	0
Not sure what to include	50%	17	45%	10
Don't think it's necessary	26%	9	36%	8
Other	18%	6	14%	3
Number of Respondents		4		2
italiber of Respondents				_
Plan includes hazardous weather emergency preparedness kit				
Includes kit	61%	43	61%	60
Does not include kit	39%	28	37%	37
Don't know	0%	0	2%	2
Number of Respondents	7	1	9	9

		Alaska	Region	
	20	012		013
	Percent	Frequency	Percent	Frequency
Reason kit created~				
Friends and family	47%	20	45%	27
General desire to be prepared	91%	39	95%	57
An extreme weather event	42%	18	63%	38
Be a Force of Nature campaign	0%	0	3%	2
Weather-Ready Nation initiative	2%	1	0%	0
Other	21%	9	23%	14
Number of Respondents		43		60
Main reason you do not have a kit				
Takes too much time	7%	2	3%	1
Too expensive	4%	1	11%	4
Not sure what to include	43%	12	35%	13
Don't think it's necessary	25%	7	27%	10
Other	21%	6	24%	9
Number of Respondents		1		1
				-
NWS staff on-site at incident				
NWS staff on-site	0%	0	8%	4
No staff on-site	0%	0	60%	31
DK/NA	0%	0	33%	17
Number of Respondents		0		52
Require specific products and have automated methods				
Require specific products with automation	0%	0	7%	7
Do not require specific products with automation	0%	0	93%	92
Number of Respondents		0	(99
Received WEA message on cell phone				
Received wex message on cell phone Received message	0%	0	6%	6
Did not receive message	0%	0	91%	90
Don't know	0%	0	3%	3
Number of Respondents	370	0		99
WEA managed upon first motification manifest				
WEA message was first notification received First notification	00/	0	020/	E
	0%	0	83%	5
Not first notification	0%	0	17%	1
Don't know	0%	0	0%	0
Number of Respondents		0		6
Understood WEA message				
Fully understood	0%	0	83%	5
Somewhat understood	0%	0	17%	1
Did not understand	0%	0	0%	0
Number of Respondents		0		6

		Alaska	Region	
	20)12)13
	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~				
More text containing details of warning	0%	0	67%	4
Accompanying graphic showing warning area	0%	0	50%	3
Accompanying graphic showing current location	0%	0	17%	1
Color representing urgency of warning	0%	0	17%	1
Color representing type of warning	0%	0	33%	2
Sound representing urgency of warning	0%	0	33%	2
Sound representing type of warning	0%	0	33%	2
Number of Respondents		0		 6
				-
Facebook and Twitter during weather events~				
Do not use Facebook and Twitter for weather events	0%	0	75%	74
Read what others are posting or tweeting	0%	0	21%	21
Comment on what others are posting or tweeting	0%	0	13%	13
Write own posts or tweets	0%	0	11%	11
Number of Respondents		0		9
		-		-
Amount of social media content available				
Too little	0%	0	20%	5
Just about right	0%	0	40%	10
Too much	0%	0	4%	1
Don't know	0%	0	36%	9
Number of Respondents		0	2	25
Promoted awareness campaigns~				
Heat Safety	0%	0	10%	5
Flood Safety	0%	0	21%	11
Lightning Safety	0%	0	12%	6
Severe Weather Safety	0%	0	31%	16
Rip Currents Safety	0%	0	4%	2
Hurricane Safety	0%	0	6%	3
Tsunami Safety	0%	0	31%	16
Winter Weather Safety	0%	0	50%	26
Wildfire Safety	0%	0	40%	21
None of the above	0%	0	38%	20
Number of Respondents		0	5	52
Websites visited for weather safety~				
National Weather Service	0%	0	96%	95
FEMA	0%	0	11%	11
American Red Cross	0%	0	8%	8
Centers for Disease Control and Prevention	0%	0	6%	6
Commercial weather vendor	0%	0	42%	42
Other	0%	0	14%	14
Number of Respondents		Ö	g	9

		Alaska	Region	
	20	012)13
	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade				
True	0%	0	2%	2
False	0%	0	98%	97
Number of Respondents		0	9	9
Not safe to drive when water is too deep to see road surface				
True	0%	0	92%	91
False	0%	0	8%	8
Number of Respondents		0	g	99
Safe to drive through water slowly	00/		001	
True	0%	0	6%	6
False	0%	0	94%	93
Number of Respondents		0	Ş	9
Cafe to drive through water in a large and heavy vehicle				
Safe to drive through water in a large and heavy vehicle True	00/	0	20/	2
False	0% 0%	0	3% 97%	3 96
Number of Respondents		0		96 99
Number of Respondents		U		99
Not safe to drive through swiftly moving water				
True	0%	0	96%	95
False	0%	0	4%	4
Number of Respondents		0		99
Trainibol of Respondents		· ·		
When to seek shelter from lightning				
Distant lightning	0%	0	17%	17
Distant thunder	0%	0	42%	42
Nearby lightning	0%	0	22%	22
Loud thunder	0%	0	18%	18
Starts to rain	0%	0	0%	0
Number of Respondents		0	S	9
Age				
Under 25 years	2%	1	1%	1
25 - 34 years	11%	7	10%	9
35 - 44 years	12%	8	7%	6
45 - 54 years	24%	16	20%	17
55 - 64 years	36%	24	40%	34
65 - 74 years	15%	10	21%	18
75 years and older	0%	0	1%	1
Number of Respondents		66	8	36

		Alaska	Region	
	20	012)13
	Percent	Frequency	Percent	Frequency
Gender				
Male	58%	40	63%	62
Female	42%	29	31%	30
Prefer not to answer	0%	0	6%	6
Number of Respondents				98
Race				
White, Caucasian	91%	61	76%	75
Black, African American	1%	1	1%	1
Hispanic, Latino, or Spanish	0%	0	0%	0
Pacific Islander	0%	0	0%	0
Asian	0%	0	0%	0
American Indian/Native Indian or Alaska Native	3%	2	2%	2
Other	4%	3	7%	7
Prefer not to answer	0%	0	14%	14
Number of Respondents		67	99	
School completed				
12th grade or less (no diploma)	4%	3	2%	2
High school diploma or GED	4%	3	9%	9
Some college, no degree	18%	12	14%	14
Associate or technical degree	9%	6	13%	13
Bachelor's degree	32%	22	26%	26
Graduate degree/Professional degree	32%	22	30%	30
Prefer not to answer	0%	0	5%	5
Number of Respondents		68	(99
Interested in other areas~				
National Fire Weather Program	0%	0	8%	8
National Hurricane Center Program	0%	0	4%	4
National Hydrologic Services Program	0%	0	12%	12
National Climate Services Program	0%	0	15%	15
Do not wish to continue	0%	0	79%	78
Number of Respondents		0	9	9

	Pacific Region			
	20	12	2013	
	Percent	Frequency	Percent	Frequency
Uses of NWS information~				
Agriculture	0%	0	16%	14
Aviation	0%	0	6%	5
Amateur Radio	0%	0	4%	3
Broadcast/Print Media	0%	0	1%	1
Commodities Markets	0%	0	1%	1
Consulting	0%	0	0%	0
Education	0%	0	8%	7
Health Services	0%	0	1%	1
Land Management Decisions	0%	0	9%	8
Marine	0%	0	8%	7
NWS Data Provider	0%	0	6%	5
Personal	0%	0	87%	74
Recreation	0%	0	62%	53
Research	0%	0	11%	9
Weather Enthusiast	0%	0	53%	45
Work-related decisions	0%	0	22%	19
Other	0%	0	13%	11
Number of Respondents)	8	5

Type of Aviation				
Dispatcher	0%	0	0%	0
Comm Aircraft	0%	0	20%	1
Private Aircraft	0%	0	60%	3
Air Traffic Controller	0%	0	20%	1
Number of Respondents		0		5

	Pacific Region			
	20	12	20	13
	Percent	Frequency	Percent	Frequency
Information sources~				
NWS Web	93%	62	94%	80
Non-NWS Web	30%	20	33%	28
Mobile devices	37%	25	40%	34
Social Media	13%	9	7%	6
Email	18%	12	13%	11
Landline Telephone	0%	0	5%	4
Cell Phone	0%	0	11%	9
Local or cable TV	52%	35	51%	43
Commercial Radio	28%	19	16%	14
Satellite radio	0%	0	4%	3
Satellite TV	4%	3	4%	3
Newspaper	24%	16	16%	14
NOAA Weather Radio/All Hazards	25%	17	26%	22
NOAA Weather Wire	6%	4	5%	4
Family of Services (FOS)	3%	2	2%	2
Emerg Mgrs Weather Info Net	4%	3	2%	2
NOAAPort	7%	5	1%	1
World Area Forecast System	3%	2	0%	0
DUATS	3%	2	2%	2
Flight Services	3%	2	0%	0
U.S. Coast Guard Broadcasts	9%	6	4%	3
NAVTEX receiver	1%	1	0%	0
Immarsat-C SafetyNET	0%	0	0%	0
Radiofacsimile	0%	0	0%	0
Other	6%	4	8%	7
Number of Respondents	6	7	8	5

NOAANWS products used most often~				
Forecasts, outlooks, watches, warnings, alerts	0%	0	98%	83
Weather observations	0%	0	71%	60
Climate observations	0%	0	33%	28
Satellite data	0%	0	68%	58
Radar data	0%	0	72%	61
Computer weather model output	0%	0	48%	41
Weather outreach/educational materials	0%	0	14%	12
Other products	0%	0	2%	2
Number of Respondents		Ď	8	5

		Pacific	Region		
	20)12)13	
	Percent	Frequency	Percent	Frequency	
Products familiar with~					
Tornado Warnings	0%	0	25%	21	
Severe Thunderstorm Warnings	0%	0	68%	58	
Severe Thunderstorm Watches	0%	0	69%	59	
Flash Flood Warnings	0%	0	91%	77	
Tsunami Warnings	0%	0	98%	83	
Hurricane Warnings	0%	0	96%	82	
Winter Storm Warnings	0%	0	39%	33	
River Flood Warnings	0%	0	25%	21	
Excessive Heat Warnings	0%	0	31%	26	
Extreme Cold Warnings	0%	0	14%	12	
High Surf Warnings	0%	0	89%	76	
Coastal Flood Warnings	0%	0	65%	55	
Climate Hazards	0%	0	32%	27	
Don't know	0%	0	0%	0	
Number of Respondents		0		35	
Number of Respondents		0		55	
Likelihood of taking protective action if tornado warning issued					
Very Unlikely	0%	0	0%	0	
Somewhat Unlikely	0%	0	1%	1	
Somewhat Likely	0%	0	6%	5	
Very Likely	0%	0	89%	76	
Don't Know	0%	0	4%	3	
Number of Respondents		0] 3 5	
Number of Nespondents		<u> </u>			
Reason for not taking action					
Do not believe I would be directly impacted by the tornado	0%	0	0%	0	
Need to first see or hear tornado	0%	0	0%	0	
Have never seen tornado damage in my area	0%	0	0%	0	
Do not take tornado warnings seriously	0%	0	0%	0	
Other	0%	0	100%	1	
Number of Respondents		0	10070	1	
		-			
Proximity of tornado before considering warning accurate					
1 mile or less	0%	0	1%	1	
5 miles or less	0%	0	39%	33	
10 miles or less	0%	0	32%	27	
25 miles or less	0%	0	21%	18	
Other	0%	0	7%	6	
Number of Respondents		0		35	
Number of tornado warnings issued					
Too many tornado warnings	0%	0	0%	0	
Too many tornado warnings Too few tornado warnings	0%	0 0	1%	1	
Too many tornado warnings Too few tornado warnings Just about right				1 42	
Too many tornado warnings Too few tornado warnings	0%	0	1%	1	

		Pacific	Region	
	20)12)13
	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued				
Same actions as did previously	0%	0	68%	58
Less likely to take same action	0%	0	11%	9
Don't know	0%	0	21%	18
Number of Respondents		Ö		35
Heard the term Weather-Ready Nation	00/		400/	40
Heard Weather-Ready Nation	0%	0	12%	10
Have not heard Weather-Ready Nation	0%	0	88%	75
Number of Respondents		0	t	35
Have a hazardous weather safety plan				
Have a plan	65%	45	80%	68
Do not have a plan	35%	24	20%	17
Don't know	0%	0	0%	0
Number of Respondents		69	85	
	·			
Reason plan created~				
Friends and family	38%	17	51%	35
General desire to be prepared	87%	39	91%	62
An extreme weather event	40%	18	54%	37
Be a Force of Nature campaign	0%	0	1%	1
Weather-Ready Nation initiative	0%	0	3%	2
Other	18%	8	12%	8
Number of Respondents		45		68
Main reason you do not have a plan				
Takes too much time	0%	0	0%	0
Too expensive	0%	0	0%	0
Not sure what to include	42%	10	47%	8
Don't think it's necessary	29%	7	47%	8
Other	29%	7	6%	1
Number of Respondents		24		17
Plan includes hazardous weather emergency preparedness kit			0.5.2.1	
Includes kit	72%	50	65%	55
Does not include kit	28%	19	32%	27
Don't know	0%	0	4%	3
Number of Respondents		69	8	35

		Pacific	Region	
	20	012		013
	Percent	Frequency	Percent	Frequency
Reason kit created~				
Friends and family	32%	16	55%	30
General desire to be prepared	86%	43	98%	54
An extreme weather event	34%	17	62%	34
Be a Force of Nature campaign	0%	0	0%	0
Weather-Ready Nation initiative	8%	4	7%	4
Other	24%	12	15%	8
Number of Respondents		50		55
Main magan was do not have a life				
Main reason you do not have a kit Takes too much time	0%	0	0%	0
		0	0% 7%	0
Too expensive Not sure what to include	16% 26%	3	7% 30%	2
	32%	5	30% 33%	8
Don't think it's necessary		6		9
Other	26%	5	30%	8
Number of Respondents		19	4	27
NWS staff on-site at incident				
NWS staff on-site	0%	0	13%	4
No staff on-site	0%	0	53%	16
DK/NA	0%	0	33%	10
Number of Respondents		0		30
Require specific products and have automated methods				
Require specific products with automation	0%	0	6%	5
Do not require specific products with automation	0%	0	94%	80
Number of Respondents		0		85
Received WEA message on cell phone				
Received message	0%	0	21%	18
Did not receive message	0%	0	76%	65
Don't know	0%	0	2%	2
Number of Respondents		0		85
AND A CONTRACTOR OF THE PROPERTY OF THE PROPER				
WEA message was first notification received	00/		F00/	
First notification Not first notification	0%	0	50%	9
	0%	0	44%	8
Don't know	0%	0	6%	1
Number of Respondents		0		18
Understood WEA message				
Fully understood	0%	0	94%	17
Somewhat understood	0%	0	6%	1
Did not understand	0%	0	0%	0
Number of Respondents		0		18
	•			

		Pacific	Region	
	20	012)13
	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~				
More text containing details of warning	0%	0	44%	8
Accompanying graphic showing warning area	0%	0	61%	11
Accompanying graphic showing current location	0%	0	56%	10
Color representing urgency of warning	0%	0	33%	6
Color representing type of warning	0%	0	17%	3
Sound representing urgency of warning	0%	0	61%	11
Sound representing type of warning	0%	0	28%	5
Number of Respondents		0		8
Training of the periodic				
Facebook and Twitter during weather events~				
Do not use Facebook and Twitter for weather events	0%	0	79%	67
Read what others are posting or tweeting	0%	0	16%	14
Comment on what others are posting or tweeting	0%	0	8%	7
Write own posts or tweets	0%	0	11%	9
Number of Respondents		0		1 35
Amount of social media content available				
Too little	0%	0	22%	4
Just about right	0%	0	56%	10
Too much	0%	0	0%	0
Don't know	0%	0	22%	4
Number of Respondents		0	1	8
Promoted awareness campaigns~				
Heat Safety	0%	0	3%	1
Flood Safety	0%	0	40%	12
Lightning Safety	0%	0	23%	7
Severe Weather Safety	0%	0	33%	10
Rip Currents Safety	0%	0	30%	9
Hurricane Safety	0%	0	60%	18
Tsunami Safety	0%	0	73%	22
Winter Weather Safety	0%	0	7%	2
Wildfire Safety	0%	0	13%	4
None of the above	0%	0	27%	8
Number of Respondents		0	3	0
Websites visited for weather safety~				
National Weather Service	0%	0	98%	83
FEMA	0%	0	18%	15
American Red Cross	0%	0	14%	12
Centers for Disease Control and Prevention	0%	0	5%	4
Commercial weather vendor	0%	0	46%	39
Other	0%	0	21%	18
Number of Respondents		0		35

		Pacific	Region	
	20	012)13
	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade				
True	0%	0	2%	2
False	0%	0	98%	83
Number of Respondents		0	8	35
Not safe to drive when water is too deep to see road surface				
True	0%	0	95%	81
False	0%	0	5%	4
Number of Respondents		0	8	35
Safe to drive through water slowly	007		70/	
True	0%	0	7%	6
False	0%	0	93%	79
Number of Respondents		0	Ł	35
Cafe to drive through water in a large and heavy vehicle				
Safe to drive through water in a large and heavy vehicle True	00/	0	40/	2
False	0% 0%	0	4% 96%	3 82
Number of Respondents		0		°∠ 3 5
Number of Respondents		U	C	55
Not safe to drive through swiftly moving water				
True	0%	0	99%	84
False	0%	0	1%	1
Number of Respondents		0		35
Trainibol of Respondents		· ·		
When to seek shelter from lightning				
Distant lightning	0%	0	27%	23
Distant thunder	0%	0	41%	35
Nearby lightning	0%	0	21%	18
Loud thunder	0%	0	7%	6
Starts to rain	0%	0	4%	3
Number of Respondents		0	æ	5
Age				
Under 25 years	2%	1	0%	0
25 - 34 years	6%	4	5%	4
35 - 44 years	14%	9	8%	6
45 - 54 years	25%	16	20%	15
55 - 64 years	34%	22	36%	27
65 - 74 years	14%	9	26%	19
75 years and older	6%	4	4%	3
Number of Respondents		65	7	74

		Pacific	Region	
	20	12	2013	
	Percent	Frequency	Percent	Frequency
Gender		, ,		•
Male	66%	45	62%	53
Female	34%	23	34%	29
Prefer not to answer	0%	0	4%	3
Number of Respondents	6	8	8	5
Race				
White, Caucasian	62%	43	71%	60
Black, African American	0%	0	0%	0
Hispanic, Latino, or Spanish	3%	2	1%	1
Pacific Islander	12%	8	2%	2
Asian	19%	13	7%	6
American Indian/Native Indian or Alaska Native	1%	1	0%	0
Other	3%	2	1%	1
Prefer not to answer	0%	0	18%	15
Number of Respondents	6	9	8	5
School completed				
12th grade or less (no diploma)	0%	0	1%	1
High school diploma or GED	4%	3	4%	3
Some college, no degree	19%	13	18%	15
Associate or technical degree	4%	3	9%	8
Bachelor's degree	41%	28	27%	23
Graduate degree/Professional degree	32%	22	38%	32
Prefer not to answer	0%	0	4%	3
Number of Respondents	6	9	8	35
Interested in other cases				
Interested in other areas~	00/	0	40/	4
National Fire Weather Program	0%	0	1%	1
National Hurricane Center Program	0%	0	31%	26
National Hydrologic Services Program	0%	0	5%	4
National Climate Services Program	0%	0	11%	9
Do not wish to continue	0%	0	66%	56
Number of Respondents		0	8	35

	Agriculture	Aviation	Amateur Radio	Broadcast/Print Media	Commodities Markets	Consulting	Education	Health Services
	2013	2013	2013	2013	2013	2013	2013	2013
Sample Size	4,630	1,410	1,671	780	295	397	1,935	707
Hazardous Services	87	87	90	87	86	86	89	89
Tornado Warnings	85	86	88	87	84	85	87	87
Severe Thunderstorm Warnings	87	88	90	88	87	87	89	89
Severe Thunderstorm Watch	88	88	90	89	87	87	90	89
Winter Storm Warnings	88	88	90	88	87	87	89	89
Hurricane Warnings	90	90	92	89	88	89	90	89
Flash Flood Warnings	87	86	89	87	84	85	88	88
River Flood Warnings	88	87	90	87	87	86	89	88
High Surf Warnings	90	88	91	88	88	89	89	90
Tsunami Warnings	85	85	87	83	82	83	86	85
Extreme Cold Warnings	90	90	91	90	88	88	91	91
Excessive Heat Warnings	91	91	93	91	91	91	93	92
Coastal Flood Warnings	88	87	90	86	85	86	89	88
Climate Hazards	85	84	88	86	84	83	87	85
Tornado Warnings	86	87	89	87	85	86	88	87
Ease of Understanding	93	93	95	94	92	93	94	93
Timeliness	84	85	88	86	84	84	86	86
Accuracy	76	77	79	79	73	78	79	79
Severe Thunderstorm Warnings	88	88	90	89	87	87	90	90
Ease of Understanding	94	93	95	93	93	92	94	94
Timeliness	88	88	90	89	88	87	89	89
Accuracy	79	80	83	82	79	80	83	83
Severe Thunderstorm Watch	88	88	91	89	88	88	90	90
Ease of Understanding	93	93	95	94	93	92	94	94
Timeliness	89	89	92	90	89	89	91	90
Accuracy	79	80	83	81	78	80	82	82
Flash Flood Warnings	88	87	90	88	85	86	89	88
Ease of Understanding	92	92	94	92	90	91	93	92
Timeliness	88	87	90	87	85	85	88	88
Accuracy	80	79	84	82	77	80	82	83
Tsunami Warnings	86	85	87	83	83	83	86	86
Ease of Understanding	91	90	91	87	87	88	90	90
Timeliness	85	84	86	82	83	84	85	84
Accuracy	76	76	80	77	76	76	76	77
Hurricane Warnings	91	90	92	90	89	90	91	90
Ease of Understanding	93	93	95	92	92	92	93	93
Timeliness	92	92	94	92	90	91	92	91
Accuracy	83	82	86	83	82	83	84	83

	Agriculture	Aviation	Amateur Radio	Broadcast/Print Media	Commodities Markets	Consulting	Education	Health Services
	2013	2013	2013	2013	2013	2013	2013	2013
Sample Size	4,630	1,410	1,671	780	295	397	1,935	707
Winter Storm Warnings	89	88	90	88	88	88	90	90
Ease of Understanding	93	93	94	92	92	92	94	94
Timeliness	91	91	92	90	90	89	92	92
Accuracy	78	77	80	79	77	80	81	81
River Flood Warnings	89	87	90	88	87	87	90	88
Ease of Understanding	92	90	93	89	89	89	92	91
Timeliness	89	88	91	88	88	87	90	89
Accuracy	84	83	86	85	84	84	85	85
Excessive Heat Warnings	92	91	93	91	91	91	93	92
Ease of Understanding	94	93	94	92	93	92	94	94
Timeliness	92	91	93	92	90	91	93	93
Accuracy	88	88	90	88	88	89	91	90
Extreme Cold Warnings	91	91	92	90	89	89	92	91
Ease of Understanding	93	93	94	91	91	90	93	93
Timeliness	92	92	93	91	89	89	92	92
Accuracy	86	86	88	87	84	85	88	87
High Surf Warnings	90	89	91	89	88	89	90	91
Ease of Understanding	92	91	94	91	90	91	91	92
Timeliness	91	90	91	90	88	90	89	91
Accuracy	86	85	87	85	85	87	86	87
Coastal Flood Warnings	89	87	90	86	86	86	89	88
Ease of Understanding	91	90	92	88	88	88	91	90
Timeliness	89	89	90	87	86	87	90	88
Accuracy	83	82	86	82	81	81	84	84
Climate Hazards	85	85	89	86	84	84	87	86
Ease of Understanding	88	88	91	89	87	86	89	88
Timeliness	87	87	90	87	85	85	89	87
Accuracy	80	79	83	82	79	79	83	82
Weather-Sensitive Decision Making	86	86	90	87	86	85	87	88
Rely on NWS in making weather-sensitive decisions	86	86	90	87	86	85	87	88
User Support Services	87	87	90	89	84	87	89	88
Accessibility	85	84	87	88	82	85	87	87
Responsiveness	83	84	87	86	80	84	86	86
Subject-Matter Knowledge	91	91	94	92	87	92	93	92
Professionalism	92	92	94	93	89	91	93	92
Assisting in interpretation of weather-related information	87	87	91	89	83	88	89	88
Saving your organization money	73	75	81	80	70	76	77	75
Resolving a complaint	71	74	79	78	70	73	77	77

	Agriculture	Aviation	Amateur Radio	Broadcast/Print Media	Commodities Markets	Consulting	Education	Health Services
	2013	2013	2013	2013	2013	2013	2013	2013
Sample Size	4,630	1,410	1,671	780	295	397	1,935	707
Dissemination Services - Website	85	84	86	84	84	85	86	87
Ease of locating information	83	82	84	81	82	81	84	86
Ease of understanding info	86	85	87	85	85	85	87	87
Information is up-to-date	87	86	88	86	85	87	89	89
Satellite Imagery display	84	84	87	82	84	84	85	86
Doppler Radar display	84	84	86	83	83	85	85	87
Dissemination Services - Automated	79	76	80	78	75	76	82	86
Ease locating data on servers	83	80	81	81	76	81	83	88
Ease of req add data to server	76	74	77	77	74	71	79	83
Ease of providing input	71	68	73	73	68	67	77	82
Ease of auto method	81	79	83	82	75	78	84	88
Usefulness of WEA Message	80	82	81	82	80	84	85	83
Usefulness of WEA message	80	82	81	82	80	84	85	83
Usefulness of NWS Presence	65	70	74	72	64	71	73	74
Usefulness of NWS presence on Facebook	74	76	80	80	68	77	81	80
Usefulness of NWS presence on Twitter	56	69	75	76	66	71	69	71
Usefulness of NWS presence on YouTube	44	52	56	51	47	57	51	58
Usefulness of NWS Graphical Summary	81	82	86	84	80	82	85	85
Usefulness of NWS graphical weather summaries on socia		82	86	84	80	82	85	85
Effectiveness of Safety Campaigns	75	73	78	78	73	74	78	79
Effectiveness of Turn Around Don't Drown	80	78	83	83	79	80	82	83
Effectiveness of When Thunder Roars, Go Indoors!	69	66	74	74	67	69	73	76
Effectiveness of RIP CURRENTS - Break the Grip of the R		74	74	71	72	73	76	77
Customer Satisfaction Index	81	81	84	81	80	80	83	84
Overall Satisfaction	87	87	89	86	85	86	88	89
Meets expectations	75	75	78	75	74	75	77	78
Compared to ideal	79	78	81	78	74	73 77	81	82
Likelihood Take Action	90	90	92	90	89	90	92	92
Likelihood take action on info	90	90	92	90	89	90	92	92
Likelihood to Use in Future	96	96	97	96	96	96	96	96
Likelihood use NWS in future	96	96	97	96	96	96	96	96
Likelihood to Recommend	90	93	94	92	91	93	94	94
Likelihood to recommend								
Anticipated Use Over Next Year	92	93	94	92	91	93	94	94
•	02	OF	05	00	00	00	05	02
Desktop-laptop computer	93	95 97	95	92	92	92	95	93
Mobile Device	55	67	68	67	58	67	66	66
Social Media	19	21	36	51	20	33	34	33
Direct Interaction w NWS Staff	11	21	30	37	14	25	21	22
NOAA Weather Radio All-Hazards	49	53	74	58	57	52	55	61
File transfer services	21	28	32	33	27	38	29	31
Level of Severity		0.5			07	22	0.5	
Marginal	23	25	26	28	27	29	25	30
Slight	16	18	19	24	20	23	19	23
Critical	92	90	91	90	91	91	92	92
Enhanced	49	48	52	53	51	54	52	52
Elevated	55	54	54	56	55	57	56	58
Moderate	46	48	49	51	47	50	48	50
High	80	79	81	81	81	80	80	82

	Land Management	Marine	NWS Data Provider	Personal	Recreation	Research	Weather Enthusiast	Work-related decisions	Other
	2013	2013	2013	2013	2013	2013	2013	2013	2013
Sample Size	2,217	896	2,627	24,513	16,342	1,572	15,149	6,478	2,302
Hazardous Services	87	87	90	88	88	88	89	88	88
Tornado Warnings	85	85	88	86	86	86	87	86	86
Severe Thunderstorm Warnings	87	88	90	88	88	88	89	88	88
Severe Thunderstorm Watch	87	88	90	89	88	89	89	89	88
Winter Storm Warnings	88	88	90	89	88	88	89	88	89
Hurricane Warnings	90	90	91	91	90	90	91	90	90
Flash Flood Warnings	86	87	89	87	87	87	88	87	87
River Flood Warnings	88	88	90	89	89	88	90	88	88
High Surf Warnings	89	88	91	90	90	89	91	90	91
Tsunami Warnings	86	84	87	86	86	85	87	85	87
Extreme Cold Warnings	90	90	92	91	91	91	92	91	91
Excessive Heat Warnings	91	90	93	92	92	92	93	92	92
Coastal Flood Warnings	88	88	90	89	89	88	89	88	89
Climate Hazards	84	84	87	86	85	85	86	85	86
Tornado Warnings	86	86	89	87	87	87	88	87	87
Ease of Understanding	93	92	96	94	93	94	95	93	93
Timeliness	84	84	87	86	86	85	87	85	86
Accuracy	77	78	79	77	77	77	78	78	78
Severe Thunderstorm Warnings	88	88	90	89	89	89	90	89	89
Ease of Understanding	93	93	96	93	93	94	95	94	93
Timeliness	87	88	90	89	89	88	90	89	89
Accuracy	79	81	82	81	80	81	82	81	81
Severe Thunderstorm Watch	88	89	91	89	89	89	90	89	89
Ease of Understanding	93	93	96	93	93	94	94	93	93
Timeliness	89	89	92	91	90	91	92	90	90
Accuracy	79	81	82	80	80	81	81	81	80
Flash Flood Warnings	87	87	90	88	88	88	89	88	88
Ease of Understanding	92	92	94	92	92	92	93	92	92
Timeliness	87	88	89	89	88	87	89	88	88
Accuracy	79	80	84	81	81	81	82	81	81
Tsunami Warnings	86	85	88	87	87	86	87	86	87
Ease of Understanding	91	89	91	91	91	90	91	90	92
Timeliness	86	85	87	86	86	85	87	86	86
Accuracy	76	75	79	77	76	77	77	76	76
Hurricane Warnings	90	90	92	91	91	90	92	91	90
Ease of Understanding	94	94	94	93	94	93	94	93	93
Timeliness	92	92	93	93	93	92	94	93	92
Accuracy	83	83	85	84	83	83	84	84	83

National Weather Service - Overall 2013 Uses of NWS information~ Score Table

	Land Management	Marine	NWS Data Provider	Personal	Recreation	Research	Weather Enthusiast	Work-related decisions	Other
	2013	2013	2013	2013	2013	2013	2013	2013	2013
Sample Size	2,217	896	2,627	24,513	16,342	1,572	15,149	6,478	2,302
Winter Storm Warnings	88	89	91	89	89	89	90	89	90
Ease of Understanding	93	92	94	93	93	93	94	93	93
Timeliness	90	91	93	92	92	91	92	91	91
Accuracy	78	79	81	79	78	79	79	79	80
River Flood Warnings	88	88	90	89	89	89	90	89	89
Ease of Understanding	91	91	92	92	92	91	92	91	91
Timeliness	88	89	91	90	90	89	91	89	89
Accuracy	83	84	87	85	85	85	86	85	84
Excessive Heat Warnings	91	90	93	92	92	92	93	92	92
Ease of Understanding	93	93	95	94	94	93	94	94	94
Timeliness	92	91	94	93	93	92	94	93	93
Accuracy	88	87	91	90	89	89	90	90	89
Extreme Cold Warnings	91	90	92	92	92	91	92	91	91
Ease of Understanding	93	93	94	94	94	93	94	93	94
Timeliness	91	91	93	93	93	92	93	92	93
Accuracy	86	85	89	87	87	87	88	87	86
High Surf Warnings	89	89	91	91	90	89	91	90	91
Ease of Understanding	91	91	93	92	92	91	92	92	93
Timeliness	90	90	92	91	91	91	92	91	92
Accuracy	85	84	87	87	87	86	87	87	88
Coastal Flood Warnings	88	88	90	89	89	88	89	88	89
Ease of Understanding	91	91	92	91	91	90	91	91	92
Timeliness	88	89	91	90	90	89	91	89	90
Accuracy	83	82	86	84	84	84	85	84	84
Climate Hazards	85	84	88	86	86	86	87	85	86
Ease of Understanding	88	87	90	88	88	88	89	88	88
Timeliness	86	86	90	88	88	88	89	87	88
Accuracy	79	79	84	82	81	81	82	81	82
Weather-Sensitive Decision Making	86	86	89	87	87	87	88	87	88
Rely on NWS in making weather-sensitive decisions	86	86	89	87	87	87	88	87	88
User Support Services	87	87	90	89	88	88	89	89	88
Accessibility	85	86	87	87	86	87	87	87	87
Responsiveness	83	85	86	85	85	84	85	86	86
Subject-Matter Knowledge	91	91	93	92	92	91	93	93	92
Professionalism	92	92	94	93	93	92	93	93	93
Assisting in interpretation of weather-related information	87	88	90	89	88	88	89	89	88
Saving your organization money	76	76	80	77	76	79	78	78	75
Resolving a complaint	71	73	78	74	74	74	76	77	72

National Weather Service - Overall 2013 Uses of NWS information~ Score Table

			1		1		1		1
	Land Management	Marine	NWS Data Provider	Personal	Recreation	Research	Weather Enthusiast	Work-related decisions	Other
	2013	2013	2013	2013	2013	2013	2013	2013	2013
Sample Size	2,217	896	2,627	24,513	16,342	1,572	15,149	6,478	2,302
Dissemination Services - Website	85	86	86	85	85	84	85	85	84
Ease of locating information	83	85	84	83	82	80	83	84	82
Ease of understanding info	86	87	87	85	85	85	86	86	85
Information is up-to-date	87	87	88	87	87	86	88	88	87
Satellite Imagery display	85	87	85	84	84	83	85	84	84
Doppler Radar display	84	86	85	84	84	82	85	84	84
Dissemination Services - Automated	79	80	81	79	79	77	80	80	77
Ease locating data on servers	82	82	83	82	82	79	83	82	79
Ease of req add data to server	76	77	78	76	76	73	77	78	73
Ease of providing input	73	74	76	76 74	72	73 71	75	76	73 72
Ease of auto method	82	83	83	81	80	80	82	82	80
Usefulness of WEA Message	81	84	84	80	80	81	81	82	80
Usefulness of WEA message	81	84	84	80	80	81	81	82	80
Usefulness of NWS Presence	69	70	75	69	68	72	71	72	69
							79		
Usefulness of NWS presence on Facebook	76	78 65	82	77	76	78 70		80	79
Usefulness of NWS presence on Twitter	61	65 50	75 50	65	64	72 55	69	70	62
Usefulness of NWS presence on YouTube	48	53	56	45	44	55	48	50	47
Usefulness of NWS Graphical Summary	82	82	86	83	82	84	84	84	82
Usefulness of NWS graphical weather summaries on social		82	86	83	82	84	84	84	82
Effectiveness of Safety Campaigns	75	76	79	75	75	75	77	76	75
Effectiveness of Turn Around Don`t Drown	80	78	84	80	79	80	82	80	80
Effectiveness of When Thunder Roars, Go Indoors!	69	70	75	70	69	70	72	70	70
Effectiveness of RIP CURRENTS - Break the Grip of the R		79	75	74	75	74	75	75	73
Customer Satisfaction Index	81	82	84	82	82	81	83	83	81
Overall Satisfaction	87	87	89	87	87	86	88	88	87
Meets expectations	75	76	78	76	76	75	77	77	75
Compared to ideal	79	79	82	80	80	78	81	80	79
Likelihood Take Action	90	90	93	91	91	90	92	91	91
Likelihood take action on info	90	90	93	91	91	90	92	91	91
Likelihood to Use in Future	97	96	97	97	97	96	97	97	96
Likelihood use NWS in future	97	96	97	97	97	96	97	97	96
Likelihood to Recommend	93	93	95	92	93	94	94	94	92
Likelihood to recommend	93	93	95	92	93	94	94	94	92
Anticipated Use Over Next Year									
Desktop-laptop computer	94	94	94	93	94	95	94	94	93
Mobile Device	57	65	71	59	61	64	62	67	54
Social Media	20	22	45	23	22	33	28	28	21
Direct Interaction w NWS Staff	17	18	33	9	9	22	12	19	12
NOAA Weather Radio All-Hazards	51	62	67	44	44	51	49	53	45
File transfer services	26	29	32	17	18	34	20	24	20
Level of Severity	20	25	32	17	10	<u> </u>	20	<u> </u>	20
Marginal	23	27	27	22	22	24	23	24	23
Slight	16	19	21	16	15	17	17	17	16
Critical	92	90	92	92	92	92	92	92	92
Enhanced	49	50 50	53	49	48	52 52	50	49	49
Elevated	55	50 56	55	55	54	52 55	55	54	49 55
Moderate	46	47	55	46	45	47	47	47	46
			81			47 79			
High	79	80	1 01	80	80	19	80	80	81

		20	13			20	13	
	Agric	ulture	Avia	ation	Amateu	ır Radio	Broadcast/	Print Media
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	36%	1,682	31%	436	34%	560	35%	273
Eastern Region	20%	909	20%	274	23%	375	21%	161
Southern Region	20%	934	23%	328	29%	474	27%	211
Western Region	23%	1,060	24%	335	15%	245	16%	126
Alaska Region	0%	19	2%	25	0%	6	0%	2
Pacific Region	0%	14	0%	5	0%	3	0%	1
Number of Respondents	4,6	618	1,	403	1,0	663	7	74
Type of Aviation								
Dispatcher	3%	12	4%	54	5%	10	13%	9
Comm Aircraft	20%	72	19%	271	11%	23	18%	13
Private Aircraft	74%	264	73%	1,036	79%	166	64%	46
Air Traffic Controller	2%	7	3%	49	5%	10	6%	4
Number of Respondents	3	55	1,410		209		7	<u>'2</u>
1.21 - 121 1 - 1 (-1.12								
Likelihood of taking protective action if tornado warning issued	20/	400	20/	44	20/	40	00/	4.5
Very Unlikely	3%	123	3%	41	3%	43	2%	15
Somewhat Unlikely	3%	129	3%	42	2%	32	2%	14
Somewhat Likely	13%	616	14%	201	10%	174	13%	102
Very Likely	80%	3,702	79%	1,118	84%	1,409	82%	640
Don't Know	1%	60	1%	8	1%	13	1%	9
Number of Respondents	4,6	30	1,	410	1,671			80
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	17%	44	16%	13	17%	13	21%	6
Need to first see or hear tornado	20%	50	16%	13	15%	11	7%	2
Have never seen tornado damage in my area	28%	70	24%	20	20%	15	28%	8
Do not take tornado warnings seriously	7%	18	7%	6	7%	5	3%	1
Other	28%	70	37%	31	41%	31	41%	12
Number of Respondents		52		33		75		.9
<u> </u>								
Proximity of tornado before considering warning accurate								
1 mile or less	5%	243	5%	77	4%	72	7%	52
5 miles or less	32%	1,465	34%	482	36%	594	32%	247
10 miles or less	37%	1,725	38%	536	38%	632	33%	258
25 miles or less	22%	1,035	19%	268	19%	317	26%	199
Other	3%	162	3%	47	3%	56	3%	24
Number of Respondents	4,6	30	1,	410	1,0	671	7	80

	2013					2013			
	Agric	ulture		ation	Amateu	ur Radio		Print Media	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Number of tornado warnings issued									
Too many tornado warnings	6%	285	7%	100	8%	138	9%	73	
Too few tornado warnings	4%	167	5%	64	5%	82	8%	64	
Just about right	71%	3,272	70%	986	73%	1,216	69%	539	
Don't know	20%	906	18%	260	14%	235	13%	104	
Number of Respondents		630		410		671		80	
Impact of tornado not occurring when warning issued									
Same actions as did previously	82%	3,816	82%	1,163	87%	1,455	84%	654	
Less likely to take same action	9%	428	10%	141	9%	152	11%	88	
Don't know	8%	386	8%	106	4%	64	5%	38	
Number of Respondents		630		410		671		80	
Heard the term Weather-Ready Nation									
Heard Weather-Ready Nation	16%	737	22%	307	35%	581	41%	323	
Have not heard Weather-Ready Nation	84%	3,893	78%	1,103	65%	1,090	59%	457	
Number of Respondents		630		410		671		80	
Have a horandaya weether actaticular									
Have a hazardous weather safety plan	000/	0.740	000/	4.400	000/	4 440	040/	600	
Have a plan	80%	3,712	80%	1,133	86%	1,443	81%	630	
Do not have a plan	18%	812	17%	244	12%	203	17%	130	
Don't know	2%	106	2%	33	1%	25	3%	20	
Number of Respondents	4,0	630	1,410		1,671			80	
Main reason you do not have a plan									
Takes too much time	3%	26	2%	4	2%	5	4%	5	
Too expensive	3%	22	3%	8	4%	8	2%	2	
Not sure what to include	44%	357	41%	101	43%	87	46%	60	
Don't think it's necessary	32%	263	38%	92	29%	59	26%	34	
Other	18%	144	16%	39	22%	44	22%	29	
Number of Respondents	8	12	2	44	2	03	1:	30	
Plan includes hazardous weather emergency preparedness kit									
Includes kit	53%	2,477	59%	831	65%	1,090	56%	433	
Does not include kit	43%	2,008	39%	550	33%	550	41%	319	
Don't know	3%	145	2%	29	2%	31	4%	28	
Number of Respondents	4,6	630	1,4	410	1,0	671	7	80	
Main reason you do not have a kit									
Takes too much time	3%	65	6%	31	6%	31	4%	13	
Too expensive	5%	110	5%	28	8%	42	13%	41	
Not sure what to include	38%	773	31%	171	39%	217	35%	112	
Don't think it's necessary	31%	624	39%	215	26%	144	28%	89	
Other	22%	436	19%	105	21%	116	20%	64	
Number of Respondents		008		50		50		19	

	2013					20	13	
	Agric	ulture		ation	Amate	ır Radio		Print Media
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
NWS staff on-site at incident	=0/	4=0	100/		4.00/	100	4.50/	
NWS staff on-site	7%	170	12%	81	13%	106	15%	63
No staff on-site DK/NA	59% 34%	1,421 812	57% 31%	397 219	57% 30%	467 248	58%	248 118
Number of Respondents		103		97		248 21	28%	29
Number of Respondents	2,-	103	0	91			-	23
Require specific products and have automated methods								
Require specific products with automation	9%	402	15%	207	18%	299	29%	227
Do not require specific products with automation	91%	4,228	85%	1,203	82%	1,372	71%	553
Number of Respondents	4,6	30	1,	410	1,	671	7	80
Received WEA message on cell phone								
Received message	22%	1,023	29%	415	34%	576	38%	297
Did not receive message	74%	3,435	66%	924	62%	1,028	56%	439
Don't know	4%	172	5%	71	4%	67	6%	44
Number of Respondents	4,6	30	1,	410	1,	671	7	80
WEA message was first notification received								
First notification	62%	638	61%	252	53%	303	56%	166
Not first notification	28%	287	33%	136	41%	237	34%	100
Don't know	10%	98	7%	27	6%	36	10%	31
Number of Respondents)23		15		76		97
				1		1 1		
Understood WEA message	000/	0.40	000/	004	000/	504	000/	0.40
Fully understood Somewhat understood	82% 16%	842 167	88% 11%	364 47	88% 12%	504	82% 18%	243
Did not understand	1%	14	1%	47 4	12%	67 5	1%	52 2
Number of Respondents)23		15		76		97
- Transport of Tra	.,.	,20				10		.
Amount of social media content available								
Too little	23%	247	24%	81	25%	158	31%	146
Just about right Too much	43% 1%	472 11	48% 2%	165 6	56% 1%	358	51% 2%	245 9
Don't know	33%	366	26%	89	18%	115	16%	76
Number of Respondents		96		41		36		76
	.,,					1		
Safe to drive through water when no Road Closed sign or police barricade								
True	2%	91	2%	25	2%	28	3%	25
False	98%	4,539	98%	1,385	98%	1,643	97%	755
Number of Respondents	4,0	30	1,4	410	1,	671	/	80
Not safe to drive when water is too deep to see road surface								
True	95%	4,396	95%	1,345	96%	1,607	96%	746
False	5%	234	5%	65	4%	64	4%	34
Number of Respondents	4,6	30	1,	410	1,	671	7	80
Safe to drive through water slowly								
True	4%	207	4%	61	3%	56	5%	38
False	96%	4,423	96%	1,349	97%	1,615	95%	742
Number of Respondents		330		410		671		80
Safe to drive through water in a large and heavy vehicle	20/	457	224	40	22/	0.5	22/	
True	3%	157	3%	40	2%	35	3%	22
False	97%	4,473	97%	1,370	98%	1,636	97%	758 80
Number of Respondents	4,0	30	1,	410	1,	671	/	00

		20		2013				
	Agric	ulture		ation	Amate	ur Radio		Print Media
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Not safe to drive through swiftly moving water								
True	96%	4,461	97%	1,368	97%	1,626	96%	748
False	4%	169	3%	42	3%	45	4%	32
Number of Respondents	4,	630	1,	410	1,	671	7	80
When to seek shelter from lightning								
Distant lightning	18%	816	19%	269	15%	244	19%	150
Distant thunder	53%	2,443	50%	701	64%	1,073	55%	430
Nearby lightning	18%	825	19%	265	11%	191	14%	109
Loud thunder	10%	481	11%	151	8%	137	9%	74
Starts to rain	1%	65	2%	24	2%	26	2%	17
Number of Respondents		630		410		671		80
Age								
Under 25 years	1%	55	3%	38	2%	28	7%	44
25 - 34 years	6%	258	9%	111	8%	120	17%	110
35 - 44 years	10%	402	12%	143	12%	181	15%	96
45 - 54 years	23%	909	22%	267	23%	335	21%	134
	1	1		1				
55 - 64 years	35%	1,423	30%	369	32%	471	27%	173
65 - 74 years	20%	788	19%	238	18%	258	11%	71
75 years and older	5%	186	5%	57	4%	60	2%	14
Number of Respondents	4,	021	1,	223	1,	453	6	42
Gender								
Male	66%	3,007	83%	1,158	87%	1,437	70%	543
Female	29%	1,346	12%	169	9%	154	23%	178
Prefer not to answer	5%	212	5%	69	4%	66	6%	50
Number of Respondents	4,	565	1,	396	1,	657	7	71
Race								
White, Caucasian	83%	3,776	82%	1,142	87%	1,442	84%	646
Black, African American	0%	9	1%	9	0%	8	1%	9
Hispanic, Latino, or Spanish	1%	25	1%	13	1%	14	1%	11
Pacific Islander	0%	6	0%	2	0%	2	0%	0
Asian	0%	18	1%	8	0%	5	1%	6
American Indian/Native Indian or Alaska Native	1%	57	1%	16	1%	17	2%	13
Other	4%	167	3%	42	2%	32	1%	11
Prefer not to answer	11%	507	12%	162	8%	138	10%	74
Number of Respondents		565		394		658		70
School completed								
12th grade or less (no diploma)	1%	66	1%	11	2%	29	3%	26
High school diploma or GED	7%	330	5%	64	2% 8%	132	3% 8%	63
1 * '	1	1	5% 17%	1				
Some college, no degree	19%	891		239	23%	381	18%	142
Associate or technical degree	14%	663	14%	193	18%	291	14%	107
Bachelor's degree	26%	1,210	30%	422	26%	424	32%	244
Graduate degree/Professional degree	26%	1,183	29%	401	19%	321	19%	144
Prefer not to answer	5%	236	5%	74	5%	80	6%	48
Number of Respondents	4,	579	1,	404	1,	658	7	74

		20	13		2013					
	Commodit	ies Markets		ulting	Educ	ation		Services		
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency		
Region										
Central Region	55%	160	30%	120	33%	641	35%	245		
Eastern Region	14%	40	25%	98	22%	421	25%	172		
Southern Region	18%	54	22%	85	24%	458	22%	153		
Western Region	13%	38	23%	91	21%	396	18%	128		
Alaska Region	0%	0	0%	1	0%	3	0%	2		
Pacific Region	0%	1	0%	0	0%	7	0%	1		
Number of Respondents	2	93	3	95	1,9	926	7	01		
Type of Aviation										
Dispatcher	12%	7	10%	7	6%	11	11%	8		
Comm Aircraft	23%	13	26%	18	20%	40	26%	19		
Private Aircraft	63%	36	57%	40	70%	138	59%	43		
Air Traffic Controller	2%	1	7%	5	5%	9	4%	3		
Number of Respondents	5	57	7	70		198		198		73
Likelihood of taking protective action if tornado warning issued	407	4.0	407	4.5	00/	00	00/	2.1		
Very Unlikely	4%	12	4%	15	2%	39	3%	24		
Somewhat Unlikely	2%	6	2%	9	1%	27	1%	8		
Somewhat Likely	17%	50	13%	51	12%	231	10%	71		
Very Likely	76%	223	80%	319	84%	1,620	84%	593		
Don't Know	1%	4	1%	3	1%	18	2%	11		
Number of Respondents		95	3	97	1,935			07		
Reason for not taking action										
Do not believe I would be directly impacted by the tornado	11%	2	13%	3	21%	14	31%	10		
Need to first see or hear tornado	22%	4	13%	3	12%	8	19%	6		
Have never seen tornado damage in my area	22%	4	17%	4	21%	14	22%	7		
Do not take tornado warnings seriously	11%	2	0%	0	5%	3	3%	1		
Other	33%	6	58%	14	41%	27	25%	8		
Number of Respondents		18		24		56		32		
•										
Proximity of tornado before considering warning accurate										
1 mile or less	8%	25	6%	23	4%	83	5%	38		
5 miles or less	32%	94	34%	133	31%	606	29%	206		
10 miles or less	36%	106	34%	134	37%	711	37%	260		
25 miles or less	20%	59	23%	91	24%	461	25%	177		
Other	4%	11	4%	16	4%	74	4%	26		
Number of Respondents	2	95	3	97	1,935		707			

Commodified Market Commod			20	13			20	13	
Percent Frequency Percent		Commodi			sultina	Educ			Services
Number of Respondents									Frequency
Too few formado warnings	Number of tornado warnings issued								
Just about right 72% 211 77% 280 73% 1.411 70% 497 Number of Respondents 285 397 1.935 707 Impact of tornado not occurring when warning issued 88% 259 84% 333 84% 1.628 84% 558 Less likely to take same action 7% 22 9% 35 9% 176 10% 70 Number of Respondents 295 397 1.935 707 Heard the other Weather Ready Nation 24% 71 35% 258 72% 1.395 72% 510 Have not heard Weather Ready Nation 24% 71 35% 228 72% 1.395 72% 510 Have not heard Weather Ready Nation 24% 71 35% 258 72% 1.395 72% 510 Have a Inszardous weather safety plan 21% 63 16% 63 15% 22% 42 2% 16 Don to have a plan 21% 63 16% 63 15% 24 2% 16 Don to have a plan 21% 63 16% 63 15% 22 25% 44% 10 10% 9 Maintenace on your do not have a plan 18% 1.628 18% 23 28% 64% 13% 28 28% 13% 64% 13% 28 28% 13%	Too many tornado warnings	9%	28	7%	28	6%	108	6%	39
Don't know 13% 39 16% 63 16% 303 17% 118	Too few tornado warnings	6%	17	7%	26	6%	113	7%	53
Don't know 19% 39 16% 63 16% 303 17% 118	Just about right	72%	211	71%	280	73%	1,411	70%	497
Page		13%	39	16%	63	16%	303	17%	118
Same actions as did previously 88% 259 84% 333 84% 1,628 84% 598	Number of Respondents	2	295	3	97	1,	935	7	07
Less likely to take same action 7% 22 9% 55 9% 176 10% 70	Impact of tornado not occurring when warning issued								
Don't know 5% 14 7% 29 7% 131 6% 41 4 7% 29 7% 131 6% 41 4 7% 29 7% 131 6% 41 4 52% 42 46 46 46 46 46 46 46	Same actions as did previously	88%	259	84%	333	84%	1,628	84%	596
Don't know 5% 14 7% 29 7% 131 6% 41 41 7% 29 7% 131 6% 41 41 7% 37 707 7	Less likely to take same action	7%	22	9%	35	9%	176	10%	70
Number of Respondents 295 397 1,935 707	· ·	5%		7%		7%	131	6%	41
Heard Weather-Ready Nation 24% 71 35% 139 28% 550 28% 197 Have not heard Weather-Ready Nation 295 397 1,385 72% 510 Number of Respondents 295 397 1,385 707 Have a plan 76% 225 81% 320 83% 1,609 85% 600 Do not have a plan 21% 63 16% 65 15% 2284 13% 839 Don't know 2% 7 3% 12 2% 42 2% 16 Number of Respondents 295 397 1,335 707 Number of Respondents 295 397 1,335 707 Main reason you do not have a plan 28%	Number of Respondents	2	295	3		1,	935	7	07
Heard Weather-Ready Nation 24%	Heard the term Weather-Ready Nation								
Have not heard Weather-Ready Nation 76% 224 65% 258 72% 1,385 72% 510		24%	71	35%	139	28%	550	28%	197
Number of Respondents 295 397 1,935 707 Have a hazardous weather safety plan 76% 225 81% 320 83% 1,609 85% 600 Do not have a plan 21% 63 16% 65 15% 284 13% 89 Don't know 2% 7 3% 12 2% 42 2% 16 Number of Respondents 295 397 1,935 707 Main reason you do not have a plan 76% 4 3% 2 5% 15 2% 2 Takes too much time 6% 4 3% 2 4% 10 10% 9 Don't kink' if s necessary 37% 23 32% 21 23% 65 19% 17 Number of Respondents 8% 5 23% 16 25% 70 17% 15 Number of Respondents 8% 5 23% 65 19% 17 10 Number of Respondents 8% 5 23% 16 3% 51 3% 20 Plan includes kit 46% 137 60% 238 60% 1,153 64% 450 Don't know 3% 9 4% 16 3% 51 3% 20 Main reason you do not have a kit 3% 5 4% 6 5% 33 2% 5 Too expensive 3% 5 4% 6 5% 33 2% 5 Too expensive 3% 5 4% 6 5% 33 2% 5 Too expensive 3% 5 4% 6 5% 33 2% 5 Too expensive 3% 5 4% 6 5% 33 2% 5 Too expensive 3% 5 4% 6 5% 33 2% 5 Too expensive 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Takes too much time 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a kit 7 11% 80 11% 27 Main reason you do not have a k									510
Have a plan	•								
Have a plan Do not have a plan Do not have a plan Don't know 21% 63 16% 65 15% 284 13% 89 22% 7 3% 12 2% 42 2% 16 Number of Respondents Characteristics Cha	Have a hazardous weather safety plan								
Do not have a plan 21% 63 16% 65 15% 284 13% 89 20 7 3% 12 2% 42 2% 16 16 18 19 19 19 19 19 19 19	· ·	76%	225	81%	320	83%	1,609	85%	602
Don't know 2% 7 3% 12 2% 42 2% 16	· ·	1	1						
Number of Respondents 295 397 1,935 707	· ·		1		1				
Takes too much time									
Takes too much time	Main reason you do not have a plan								
Too expensive 6%		6%	4	3%	2	5%	15	2%	2
Not sure what to include	Too expensive	6%	4	3%	1	4%			
Don't think it's necessary 37% 23 32% 21 23% 65 19% 17	·	43%	27	38%		44%	124	52%	
Other 8% 5 23% 15 25% 70 17% 15 Number of Respondents 63 65 284 89 Plan includes hazardous weather emergency preparedness kit Includes kit 238 60% 1,153 64% 450 Does not include kit 51% 149 36% 143 38% 731 34% 237 Don't know 3% 9 4% 16 3% 51 3% 20 Number of Respondents 295 397 1,935 707 Main reason you do not have a kit 71 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115		1				23%			
Number of Respondents 63 65 284 89		8%		23%	1	25%		17%	15
Includes kit 46% 137 60% 238 60% 1,153 64% 450 Does not include kit 51% 149 36% 143 38% 731 34% 237 Don't know 3% 9 4% 16 3% 51 3% 20 Number of Respondents 295 397 1,935 707 Main reason you do not have a kit Takes too much time 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115	Number of Respondents		63		65		284		
Includes kit 46% 137 60% 238 60% 1,153 64% 450 Does not include kit 51% 149 36% 143 38% 731 34% 237 Don't know 3% 9 4% 16 3% 51 3% 20 Number of Respondents 295 397 1,935 707 Main reason you do not have a kit Takes too much time 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115	Plan includes hazardous weather emergency preparedness kit								
Does not include kit 51% 149 36% 143 38% 731 34% 237 Don't know 3% 9 4% 16 3% 51 3% 20 Number of Respondents 295 397 1,935 707 Main reason you do not have a kit 707 707 Takes too much time 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115	Includes kit	46%	137	60%	238	60%	1,153	64%	450
Don't know 3% 9 4% 16 3% 51 3% 20 Number of Respondents 295 397 1,935 707 Main reason you do not have a kit 3% 5 4% 6 5% 33 2% 5 Takes too much time 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115			1				· ·		237
Mumber of Respondents 295 397 1,935 707 Main reason you do not have a kit 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115		•	1		1				20
Takes too much time 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115									
Takes too much time 3% 5 4% 6 5% 33 2% 5 Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115	Main reason you do not have a kit								
Too expensive 5% 8 8% 12 11% 80 11% 27 Not sure what to include 42% 62 36% 51 39% 282 49% 115		3%	5	4%	6	5%	33	2%	5
Not sure what to include 42% 62 36% 51 39% 282 49% 115					1				
	·	1			1				115
1 00/0 00 20/0 100 20/0 11									
		•							43
Number of Respondents 149 143 731 237									

	2013				2013				
	Commodit	ies Markets		ulting	Educ	ation		Services	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
NWS staff on-site at incident									
NWS staff on-site	5%	9	10%	29	7%	138	9%	65	
No staff on-site	64%	117	67%	187	57%	1,102	55%	390	
DK/NA	31%	57	23%	63	36%	695	36%	252	
Number of Respondents	1	83	2	79	1,	935		707	
Require specific products and have automated methods									
Require specific products with automation	13%	37	28%	112	15%	299	15%	103	
Do not require specific products with automation	87%	258	72%	285	85%	1,636	85%	604	
Number of Respondents	2	95	3	97	1,9	935	7	707	
	•							•	
Received WEA message on cell phone	000/	77	000/	4.4.4	000/	500	000/	000	
Received message	26% 66%	77 195	36%	144	30% 64%	590	32% 61%	229 431	
Did not receive message Don't know	8%	23	59% 4%	236 17	5%	1,247 98	7%	431	
Number of Respondents		95		97		935		707	
					,				
WEA message was first notification received									
First notification	53%	41	62%	89	63%	369	63%	145	
Not first notification	39%	30	25%	36	31%	184	31%	71	
Don't know	8%	6	13%	19	6%	37	6%	13	
Number of Respondents		77	1	44	5	90	ž	229	
Understood WEA message									
Fully understood	78%	60	83%	120	88%	518	86%	197	
Somewhat understood	22%	17	16%	23	12%	69	13%	29	
Did not understand	0%	0	1%	1	1%	3	1%	3	
Number of Respondents	-	77	1	44	5	90	2	229	
Amount of social media content available									
Too little	18%	13	29%	45	25%	196	20%	52	
Just about right	53%	38	47%	74	50%	394	55%	140	
Too much	6%	4	3%	4	1%	11	2%	5	
Don't know	24%	17	21%	33	24%	185	22%	57	
Number of Respondents		72	1	56	7	86		254	
Cofe to drive the contemplate as Pool Classification as unlied harrised.									
Safe to drive through water when no Road Closed sign or police barricade True	4%	12	4%	16	2%	39	2%	17	
False	96%	283	96%	381	98%	1,896	98%	690	
Number of Respondents		95		97		935		707	
					·				
Not safe to drive when water is too deep to see road surface									
True	93%	274	95%	376	96%	1,859	94%	666	
False	7%	21	5%	21	4%	76	6%	41	
Number of Respondents	2	95	3	97	1,9	935	Ī	707	
Safe to drive through water slowly									
True	6%	19	7%	28	4%	79	4%	30	
False	94%	276	93%	369	96%	1,856	96%	677	
Number of Respondents		95		97		935		707	
Safe to drive through water in a large and heavy vehicle	-01		101			10	201	10	
True	5%	14	4%	14	2%	40	3%	19	
False Number of Respondents	95%	281 95	96%	383 97	98%	1,895	97%	688 707	
Indiliber of Kespoliderits		33	3	31	1,	935		UI	

		20		2013				
	Commodi	ties Markets		sulting	Edu	cation		Services
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Not safe to drive through swiftly moving water								
True	95%	281	94%	375	97%	1,868	95%	673
False	5%	14	6%	22	3%	67	5%	34
Number of Respondents		295	3	97	1,	935	7	07
When to seek shelter from lightning								
Distant lightning	23%	68	19%	77	18%	344	19%	132
Distant thunder	50%	147	54%	216	58%	1,128	55%	391
Nearby lightning	17%	49	15%	60	13%	251	13%	93
Loud thunder	8%	24	8%	32	9%	172	10%	73
Starts to rain	2%	7	3%	12	2%	40	3%	18
Number of Respondents		295		i97		935		07
A via								
Age Under 25 years	1%	2	3%	11	5%	77	2%	13
25 - 34 years	9%	2	14%	1	12%	198	2% 8%	1
		22		48				48
35 - 44 years	7%	18	16%	52	17%	282	10%	60
45 - 54 years	26%	64	19%	64	25%	409	25%	151
55 - 64 years	35%	86	28%	94	29%	476	32%	193
65 - 74 years	14%	35	14%	48	10%	175	14%	87
75 years and older	7%	18	5%	15	3%	52	9%	52
Number of Respondents		245	3	32	1,	669	6	04
Gender								
Male	82%	235	72%	286	64%	1,221	60%	422
Female	13%	38	21%	83	32%	610	34%	241
Prefer not to answer	5%	15	7%	26	5%	88	6%	39
Number of Respondents		288		95		919		02
Race								
White, Caucasian	83%	241	79%	309	82%	1,576	82%	577
Black, African American	0%	0	1%	2	1%	11	1%	6
Hispanic, Latino, or Spanish	1%	3	3%	11	2%	32	1%	10
Pacific Islander	0%	0	0%	0	0%	4	0%	1
Asian	0%	1	2%	/	0%	9	0%	2
American Indian/Native Indian or Alaska Native	1%	2	0%	1	1%	24	3%	19
Other	3%	9	3%	11	3%	63	4%	31
Prefer not to answer	12%	34	13%	52	10%	196	8%	56
Number of Respondents		290	3	93	1,	915	7	02
School completed								
12th grade or less (no diploma)	3%	8	2%	9	2%	38	2%	14
High school diploma or GED	9%	27	5%	20	4%	84	7%	52
Some college, no degree	19%	57	15%	58	14%	267	16%	115
Associate or technical degree	10%	30	12%	48	11%	204	17%	116
Bachelor's degree	33%	96	31%	122	25%	488	25%	174
Graduate degree/Professional degree	20%	58	28%	112	40%	764	29%	201
Prefer not to answer	6%	18	7%	27	40 %	83	29 % 4%	31
Number of Respondents		294	3	96	1,	928	1	03

		20	13			20	13	
	Land Mai	nagement		rine	NWS Dat	a Provider		sonal
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region				, i		, i		
Central Region	32%	702	22%	198	42%	1,097	33%	8,153
Eastern Region	14%	317	28%	250	21%	543	23%	5,605
Southern Region	22%	486	21%	188	25%	648	21%	5,053
Western Region	31%	682	25%	227	12%	313	22%	5,459
Alaska Region	1%	14	2%	22	0%	8	0%	85
Pacific Region	0%	8	1%	7	0%	5	0%	74
Number of Respondents	2,2	209	8	92	2,	614	24,	,429
Type of Aviation								
Dispatcher	7%	16	6%	12	10%	20	3%	39
Comm Aircraft	19%	41	16%	29	15%	32	18%	214
Private Aircraft	71%	156	74%	137	70%	147	75%	873
Air Traffic Controller	3%	7	4%	7	5%	10	4%	42
Number of Respondents	2	20	1	85	209		1,	168
I the libered of tables a section of the life to section if the section is a section in the sect								
Likelihood of taking protective action if tornado warning issued	20/	00	20/	24	00/	55	00/	545
Very Unlikely	3%	66	3%	31	2%	55	2%	515
Somewhat Unlikely	2%	53	3%	25	2%	41	3%	648
Somewhat Likely	13%	286	15%	131	11%	290	14%	3,398
Very Likely Don't Know	80% 1%	1,780	78%	696	85% 1%	2,220	80% 1%	19,617 335
Number of Respondents		32 2 17	1%	13 96		627		აან , 513
Number of Respondents		217	0	3 0	Ζ,	021	24,	,515
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	17%	20	16%	9	23%	22	20%	232
Need to first see or hear tornado	14%	17	16%	9	8%	8	14%	158
Have never seen tornado damage in my area	29%	35	25%	14	13%	12	29%	341
Do not take tornado warnings seriously	4%	5	2%	1	3%	3	5%	56
Other	35%	42	41%	23	53%	51	32%	376
Number of Respondents	1	19	5	56	9	96	1,	163
	-							
Proximity of tornado before considering warning accurate								
1 mile or less	5%	110	7%	64	4%	109	5%	1,256
5 miles or less	31%	683	31%	275	34%	882	35%	8,540
10 miles or less	37%	810	36%	320	39%	1,026	37%	9,088
25 miles or less	24%	527	22%	201	20%	513	20%	4,882
Other	4%	87	4%	36	4%	97	3%	747
Number of Respondents	2,2	217	8	96	2,627		24,513	

		20	13			20	13	
	Land Ma	nagement		rine	NWS Data	a Provider		sonal
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Number of tornado warnings issued								
Too many tornado warnings	4%	99	6%	55	8%	215	6%	1,465
Too few tornado warnings	5%	100	4%	39	7%	177	3%	714
Just about right	69%	1,522	65%	580	75%	1,971	70%	17,135
Don't know	22%	496	25%	222	10%	264	21%	5,199
Number of Respondents	2,	217	8	96	2,0	627	24,	513
Impact of tornado not occurring when warning issued								
Same actions as did previously	81%	1,806	79%	709	88%	2,321	81%	19,969
Less likely to take same action	10%	213	10%	90	8%	205	10%	2,410
Don't know	9%	198	11%	97	4%	101	9%	2,134
Number of Respondents	2,	217	8	96	2,	627		513
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	18%	402	20%	178	44%	1,144	17%	4,070
Have not heard Weather-Ready Nation	82%	1,815	80%	718	56%	1,483	83%	20,443
Number of Respondents		217		96		627		513
Have a basendava weather affety plan								
Have a hazardous weather safety plan	0.40/	4.050	000/	700	000/	0.000	7.40/	40.007
Have a plan	84%	1,853	82%	736	86%	2,266	74%	18,027
Do not have a plan	14%	310	16%	140	12%	306	23%	5,732
Don't know Number of Respondents	2%	54 217	2% 20 896		2% 55 2,627		3% 24 .	754 513
							,	
Main reason you do not have a plan								
Takes too much time	4%	11	3%	4	6%	17	3%	194
Too expensive	5%	16	2%	3	4%	13	3%	175
Not sure what to include	39%	120	34%	47	39%	119	40%	2,301
Don't think it's necessary	31%	97	37%	52	28%	87	33%	1,894
Other	21%	66	24%	34	23%	70	20%	1,168
Number of Respondents	3	10	1	40	3	06	5,7	732
Plan includes hazardous weather emergency preparedness kit								
Includes kit	59%	1,313	65%	584	61%	1,612	46%	11,291
Does not include kit	38%	832	32%	283	36%	948	51%	12,458
Don't know	3%	72	3%	29	3%	67	3%	764
Number of Respondents		217		96		627		513
Main reason you do not have a kit								
Takes too much time	3%	22	3%	8	4%	36	3%	413
Too expensive	6%	54	7%	20	11%	108	6%	797
Not sure what to include	36%	299	34%	97	37%	348	38%	4,720
Don't think it's necessary	31%	262	34% 35%	99	24%	225	31%	3,819
Other	23%	195	21%	59	24% 24%	231	22%	2,709
Number of Respondents								
number of respondents	832		283		948		12,	458

		20	13	I		20	13	1
	Land Ma	nagement		rine	NWS Data	a Provider		sonal
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
NWS staff on-site at incident	1221		201					
NWS staff on-site	13%	287	9% 57%	77 511	13% 57%	188	7%	528
No staff on-site DK/NA	55% 32%	1,215 715	57% 34%	308	57% 30%	815 435	58% 35%	4,599 2,755
Number of Respondents		217	34 /0			435 438		882
	,				,		•	
Require specific products and have automated methods		- 1-		=				
Require specific products with automation	11%	247	16%	145	19%	508	7%	1,626
Do not require specific products with automation Number of Respondents	89%	1,970 217	84% 8 9	751 26	81%	2,119 627	93%	22,887 ,513
Number of Respondents		-117	0.]	2,0	JZ1	27	5010
Received WEA message on cell phone								
Received message	25%	549	29%	262	39%	1,017	24%	5,930
Did not receive message	71%	1,575	65%	586	57%	1,496	71%	17,465
Don't know Number of Respondents	4%	93 217	5% 8 9	48	4%	114 6 27	5%	1,118 ,513
Number of Respondents	2,	211	0.	90	2,0	021	24,	,313
WEA message was first notification received								
First notification	64%	354	59%	155	54%	547	64%	3,773
Not first notification	26%	145	35%	91	38%	390	28%	1,650
Don't know	9%	50 49	6% 2 0	16	8%	80 017	9%	507 930
Number of Respondents] 5	49	20	02	1,0) /	5,	930
Understood WEA message								
Fully understood	84%	459	87%	228	89%	906	85%	5,039
Somewhat understood	15%	85	13%	33	10%	100	14%	842
Did not understand	1%	5	0%	1	1%	11	1%	49
Number of Respondents] 5	49	20	02	1,0	017	5,	930
Amount of social media content available								
Too little	25%	138	26%	56	29%	382	22%	1,571
Just about right	46%	248	47%	104	59%	786	45%	3,286
Too much	1%	7	0%	1	1%	13	1%	84
Don't know Number of Respondents	28%	152 45	26% 2	58 19	11% 1 3	150 331	32%	2,340 281
Number of Respondents		-10		10	1,0	<u>, , , , , , , , , , , , , , , , , , , </u>	. ,,	201
Safe to drive through water when no Road Closed sign or police barricade								
True	2%	37	3%	26	2%	48	2%	446
False Number of Respondents	98%	2,180 217	97% 8 9	870	98%	2,579	98%	24,067
Number of Respondents		217	0:]	2,0	627	24,	,513
Not safe to drive when water is too deep to see road surface								
True	95%	2,099	95%	847	96%	2,531	96%	23,518
False	5%	118	5%	49	4%	96	4%	995
Number of Respondents] 2,2	217	89	96	2,0	627	24,	,513
Safe to drive through water slowly								
True	5%	112	6%	54	3%	86	4%	1,036
False	95%	2,105	94%	842	97%	2,541	96%	23,477
Number of Respondents	2,2	217	89	96	2,6	627	24,	,513
Safe to drive through water in a large and heavy vehicle								
True	4%	79	5%	43	3%	66	3%	827
False	96%	2,138	95%	853	97%	2,561	97%	23,686
Number of Respondents		217	89			627		,513

		20	13			20	13	
	Land Ma	nagement		rine	NWS Data	a Provider		onal
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Not safe to drive through swiftly moving water								
True	96%	2,138	97%	865	97%	2,541	97%	23,770
False	4%	79	3%	31	3%	86	3%	743
Number of Respondents	2,	217	8	96	2,	627	24,	513
When to seek shelter from lightning								
Distant lightning	17%	385	20%	178	17%	434	19%	4,612
Distant thunder	53%	1,167	50%	449	66%	1,739	53%	13,003
Nearby lightning	18%	390	17%	151	9%	231	16%	4,003
Loud thunder	11%	240	11%	98	7%	188	10%	2,524
Starts to rain	2%	35	2%	20	1%	35	2%	371
Number of Respondents		217		196		627		513
Age	40/	0.4	00/	4.4	00/	4.40	00/	550
Under 25 years	1%	24	2%	14	6%	149	3%	553
25 - 34 years	8%	148	7%	56	14%	317	9%	1,906
35 - 44 years	11%	216	11%	89	17%	385	12%	2,572
45 - 54 years	24%	462	25%	193	23%	534	22%	4,644
55 - 64 years	34%	655	34%	267	25%	570	31%	6,643
65 - 74 years	19%	373	18%	141	12%	285	19%	3,994
75 years and older	4%	72	3%	25	2%	57	5%	1,009
Number of Respondents	1,9	950	7	'85	2,	297	21,	321
Gender								
Male	71%	1,556	81%	724	77%	2,008	64%	15,538
Female	24%	527	13%	117	20%	513	32%	7,688
Prefer not to answer	5%	106	5%	48	3%	83	4%	988
Number of Respondents		189		89		604		214
Race	000/	4.750	0.40/	74.4	200/	0.004	050/	00.504
White, Caucasian	80%	1,752	81%	714	88%	2,291	85%	20,584
Black, African American	0%	/	0%	3	0%	13	0%	95
Hispanic, Latino, or Spanish	1%	13	1%	9	1%	29	1%	281
Pacific Islander	0%	5	0%	1 1	0%	4	0%	26
Asian	0%	7	1%	5	0%	12	1%	131
American Indian/Native Indian or Alaska Native	2%	42	1%	12	1%	29	1%	184
Other	4%	86	4%	39	2%	47	2%	568
Prefer not to answer	12%	269	12%	103	7%	181	10%	2,350
Number of Respondents	2,	181	8	186	2,	606	24,	219
School completed								
12th grade or less (no diploma)	1%	28	2%	14	3%	81	2%	373
High school diploma or GED	6%	131	6%	57	10%	250	7%	1,673
Some college, no degree	19%	411	16%	143	23%	601	19%	4,525
Associate or technical degree	13%	287	17%	153	18%	470	12%	2,985
Bachelor's degree	28%	619	27%	238	26%	675	28%	6,810
Graduate degree/Professional degree	28%	603	28%	246	16%	429	28%	6,882
Prefer not to answer	5%	113	5%	41	4%	102	4%	1,060
Number of Respondents	2,	192	ď	92	2,	808	24,	308

		20	13			20	13	
	Recre	eation		earch	Weather I	Enthusiast		ed decisions
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	33%	5,314	30%	463	33%	5,050	34%	2,174
Eastern Region	23%	3,718	23%	366	22%	3,384	24%	1,541
Southern Region	19%	3,118	24%	372	22%	3,306	22%	1,402
Western Region	25%	4,005	22%	347	22%	3,258	20%	1,291
Alaska Region	1%	82	0%	6	0%	46	0%	32
Pacific Region	0%	53	1%	9	0%	45	0%	19
Number of Respondents	16,	290	1,	563	15,	089	6,4	459
	-							
Type of Aviation								
Dispatcher	3%	27	6%	10	4%	34	7%	32
Comm Aircraft	19%	184	23%	36	19%	169	25%	110
Private Aircraft	75%	745	67%	106	73%	633	64%	284
Air Traffic Controller	3%	33	4%	7	4%	34	4%	17
Number of Respondents	9	89	1:	59	8	70	4	43
						•		•
Likelihood of taking protective action if tornado warning issued								
Very Unlikely	2%	320	3%	43	2%	308	2%	124
Somewhat Unlikely	3%	451	2%	36	2%	336	3%	181
Somewhat Likely	14%	2,281	14%	221	12%	1,844	14%	886
Very Likely	80%	13,091	80%	1,254	82%	12,496	81%	5,224
Don't Know	1%	199	1%	18	1%	165	1%	63
Number of Respondents	16,	342	1,	572	15,	149	6,4	478
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	18%	142	22%	17	20%	132	20%	62
Need to first see or hear tornado	13%	101	14%	11	14%	88	15%	45
Have never seen tornado damage in my area	30%	232	22%	17	25%	164	23%	70
Do not take tornado warnings seriously	5%	40	5%	4	5%	34	5%	14
Other	33%	256	38%	30	35%	226	37%	114
Number of Respondents		71		'9		44		05
Training of the political control of the polit					•			
Proximity of tornado before considering warning accurate								
1 mile or less	4%	732	5%	73	5%	701	5%	301
5 miles or less	35%	5,677	32%	509	35%	5,347	33%	2,160
10 miles or less	38%	6,192	38%	591	38%	5,691	38%	2,491
25 miles or less	20%	3,253	21%	334	19%	2,940	21%	1,339
Other	3%	488	4%	65	3%	470	3%	187
Number of Respondents		342		572		149		478

		20	13			20	13	
	Recre	eation		earch	Weather	Enthusiast		ed decisions
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Number of tornado warnings issued								
Too many tornado warnings	6%	938	6%	102	6%	971	6%	405
Too few tornado warnings	3%	436	6%	95	4%	548	4%	259
Just about right	70%	11,448	71%	1,120	72%	10,963	72%	4,686
Don't know	22%	3,520	16%	255	18%	2,667	17%	1,128
Number of Respondents	16,	342	1,	572	15	,149	6,4	478
Impact of tornado not occurring when warning issued								
Same actions as did previously	81%	13,195	84%	1,313	84%	12,718	82%	5,321
Less likely to take same action	10%	1,635	9%	144	9%	1,311	10%	670
Don't know	9%	1,512	7%	115	7%	1,120	8%	487
Number of Respondents	16,	342	1,	572	15	,149		478
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	16%	2,547	35%	553	22%	3,384	24%	1,550
Have not heard Weather-Ready Nation	84%	13,795	65%	1,019	78%	11,765	76%	4,928
Number of Respondents		342		572		,149		478
Have a hazardous weather safety plan								
7.	75%	12 100	80%	1.050	77%	11 610	020/	F 202
Have a plan		12,198		1,258	21%	11,612	82%	5,302
Do not have a plan	23%	3,701	17%	268		3,123	16%	1,030
Don't know	3%	443	3%	46	3%	414	2%	146
Number of Respondents	10,	342	l ,:	572	19	,149	0,4	478
Main reason you do not have a plan							/	
Takes too much time	4%	144	6%	15	4%	110	5%	50
Too expensive	3%	96	5%	13	3%	92	4%	44
Not sure what to include	39%	1,438	37%	98	40%	1,258	39%	401
Don't think it's necessary	34%	1,249	27%	73	33%	1,032	29%	303
Other	21%	774	26%	69	20%	631	23%	232
Number of Respondents	3,1	701		68	3,	123	1,	030
Plan includes hazardous weather emergency preparedness kit	100/	-	- 00/	211	400/	- 100	- 00/	0.014
Includes kit	48%	7,925	58%	914	49%	7,463	59%	3,814
Does not include kit	49%	7,953	39%	612	48%	7,241	39%	2,529
Don't know	3%	464	3%	46	3%	445	2%	135
Number of Respondents	16,	342	1,	572	15	,149	6,4	478
Main reason you do not have a kit								
Takes too much time	4%	294	5%	29	3%	249	4%	98
Too expensive	5%	433	10%	63	7%	491	8%	200
Not sure what to include	37%	2,935	35%	212	38%	2,746	37%	938
Don't think it's necessary	31%	2,496	26%	157	30%	2,205	28%	698
Don't think it 3 nocessary								
Other	23%	1,795	25%	151	21%	1,550	24%	595

		20	13			20	13	
		eation	Rese	earch	Weather I	Enthusiast		ed decisions
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
NWS staff on-site at incident	70/	40.4	4.00/	00	70/	207	00/	504
NWS staff on-site No staff on-site	7% 58%	404	10% 56%	98 534	7% 59%	367 3,156	9% 61%	581
DK/NA	35%	3,560 2,167	34%	319	34%	1,829	30%	3,950 1,947
Number of Respondents		131		51		352		478
				-	- 7		- 7	
Require specific products and have automated methods								
Require specific products with automation	6%	997	22%	350	8%	1,245	13%	814
Do not require specific products with automation Number of Respondents	94%	15,345 342	78%	1,222 5 72	92%	13,904 1 49	87%	5,664 478
Number of Respondents	10,	,342	1,5	012	13,	,149	0,	470
Received WEA message on cell phone								
Received message	24%	3,992	32%	498	27%	4,092	33%	2,133
Did not receive message	71%	11,610	63%	997	69%	10,379	63%	4,072
Don't know	5%	740	5%	77	4%	678	4%	273
Number of Respondents	16,	342	1,5	572	15,	149	6,	478
WEA message was first notification received								
First notification	63%	2,506	56%	280	61%	2,486	61%	1,292
Not first notification	28%	1,124	37%	182	30%	1,247	31%	669
Don't know	9%	362	7%	36	9%	359	8%	172
Number of Respondents	3,9	992	49	98	4,0	092	2,	133
Understood WEA message								
Fully understood	85%	3,403	87%	433	87%	3,541	85%	1,823
Somewhat understood	14%	559	13%	64	13%	523	14%	293
Did not understand	1%	30	0%	1	1%	28	1%	17
Number of Respondents	3,9	992	49	98	4,0	092	2,	133
Amount of social media content available								
Too little	22%	1,022	28%	177	24%	1,238	22%	501
Just about right	44%	2,069	51%	324	49%	2,527	50%	1,120
Too much	1%	50	1%	9	1%	62	1%	27
Don't know	34%	1,591	19%	123	25%	1,298	27%	595
Number of Respondents	4,7	732	6:	33	5,	125	2,	243
Safe to drive through water when no Road Closed sign or police barricade								
True	2%	260	2%	36	2%	237	2%	113
False	98%	16,082	98%	1,536	98%	14,912	98%	6,365
Number of Respondents	16,	342	1,5	572	15,	149	6,	478
Not safe to drive when water is too deep to see road surface								
True	96%	15,692	96%	1,507	96%	14,573	96%	6,209
False	4%	650	4%	65	4%	576	4%	269
Number of Respondents	16,	342	1,5	572	15,	149	6,	478
Safe to drive through water slowly								
True	4%	680	5%	79	4%	564	4%	239
False	96%	15,662	95%	1,493	96%	14,585	96%	6,239
Number of Respondents		342		572		149		478
Cafe to drive through water in a large and become which								
Safe to drive through water in a large and heavy vehicle True	3%	540	3%	46	3%	441	3%	181
False	97%	15,802	3% 97%	1,526	3% 97%	14,708	3% 97%	6,297
Number of Respondents		342		572		14,700		478
	10,		1,0		10,		, U ,	

		20	13	I		20	13	
	Recr	eation		earch	Weather	Enthusiast		d decisions
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Not safe to drive through swiftly moving water								
True	97%	15,869	97%	1,521	97%	14,714	97%	6,277
False	3%	473	3%	51	3%	435	3%	201
Number of Respondents	16	342	1,	572	15	,149	6,4	178
When to seek shelter from lightning								
Distant lightning	18%	3,016	18%	278	17%	2,645	19%	1,226
Distant thunder	53%	8,643	55%	865	57%	8,699	57%	3,663
Nearby lightning	17%	2,710	15%	239	14%	2,153	14%	890
Loud thunder	11%	1,759	10%	161	9%	1,427	9%	593
Starts to rain	1%	214	2%	29	1%	225	2%	106
Number of Respondents		,342		572		,149		178
- Table 1 - Tabl	1	,0 12	-,			,	<u> </u>	
Age								
Under 25 years	2%	333	8%	111	3%	454	2%	134
25 - 34 years	9%	1,274	18%	242	9%	1,258	11%	646
35 - 44 years	13%	1,798	15%	207	12%	1,657	16%	917
45 - 54 years	23%	3,249	23%	302	23%	3,023	28%	1,586
55 - 64 years	32%	4,544	23%	307	31%	4,107	31%	1,803
65 - 74 years	18%	2,618	11%	146	17%	2,261	10%	574
75 years and older	4%	513	2%	26	4%	546	1%	74
Number of Respondents	14	,329	1,	341	13	,306	5,7	734
Gender								
Male	67%	10,746	72%	1 120	60%	10.412	720/	4,660
Female	30%	1 '		1,120 354	69% 27%	10,413	73%	-
		4,765	23%			4,063	23%	1,488
Prefer not to answer	4%	630	5%	78	3%	516	4%	252
Number of Respondents	16	,141	1,3	552	14	,992	0,2	100
Race								
White, Caucasian	85%	13,720	81%	1,255	86%	12,902	84%	5,385
Black, African American	0%	52	1%	13	0%	55	0%	26
Hispanic, Latino, or Spanish	1%	167	2%	32	1%	189	1%	89
Pacific Islander	0%	19	0%	2	0%	15	0%	11
Asian	0%	61	1%	12	0%	65	0%	26
American Indian/Native Indian or Alaska Native	1%	131	1%	16	1%	121	1%	72
Other	2%	400	3%	52	2%	336	2%	159
Prefer not to answer	10%	1,592	11%	169	9%	1,320	10%	637
Number of Respondents		,142		551		,003		105
Name of Respondence	10	1112	- , ,]		,000	0 ,-	
School completed								
12th grade or less (no diploma)	1%	205	4%	58	2%	290	1%	68
High school diploma or GED	6%	927	6%	87	7%	1,086	6%	406
Some college, no degree	18%	2,914	17%	270	19%	2,929	21%	1,335
Associate or technical degree	12%	2,003	10%	159	13%	1,985	15%	959
Bachelor's degree	29%	4,686	24%	376	28%	4,250	29%	1,840
Graduate degree/Professional degree	30%	4,854	33%	520	26%	3,918	24%	1,564
Prefer not to answer	4%	623	5%	85	4%	591	4%	254
Number of Respondents		,212		555		,049		126
	10		1,0		10	,0 10	0,-	

Region Central Region Eastern Region Southern Region Western Region Alaska Region Pacific Region Number of Respondents Type of Aviation Dispatcher	20 Oth Percent 30% 23% 20% 27% 0% 0% 2,2	688 515 457 607 10
Region Central Region Eastern Region Southern Region Western Region Alaska Region Pacific Region Number of Respondents Type of Aviation	30% 23% 20% 27% 0% 0%	688 515 457 607 10 11
Central Region Eastern Region Southern Region Western Region Alaska Region Pacific Region Number of Respondents Type of Aviation	23% 20% 27% 0% 0%	688 515 457 607 10 11
Eastern Region Southern Region Western Region Alaska Region Pacific Region Number of Respondents Type of Aviation	23% 20% 27% 0% 0%	515 457 607 10 11
Southern Region Western Region Alaska Region Pacific Region Number of Respondents Type of Aviation	20% 27% 0% 0% 2,2	457 607 10 11
Western Region Alaska Region Pacific Region Number of Respondents Type of Aviation	27% 0% 0% 2,2	607 10 11
Alaska Region Pacific Region Number of Respondents Type of Aviation	0% 0% 2,2	10 11
Alaska Region Pacific Region Number of Respondents Type of Aviation	0% 2,2	11
Pacific Region Number of Respondents Type of Aviation	2,2	
Number of Respondents Type of Aviation		88
•	100/	
•	100/	
Dispatcher	4 O O /	
	10%	10
Comm Aircraft	24%	24
Private Aircraft	64%	63
Air Traffic Controller	2%	2
Number of Respondents	9	9
Likelihood of taking protective action if tornado warning issued	00/	
Very Unlikely	2%	57
Somewhat Unlikely	2%	56
Somewhat Likely	13%	296
Very Likely	80%	1,844
Don't Know	2%	49
Number of Respondents	2,3	02
Reason for not taking action		
Do not believe I would be directly impacted by the tornado	16%	18
Need to first see or hear tornado	10%	11
Have never seen tornado damage in my area	28%	32
Do not take tornado warnings seriously	3%	3
Other	43%	49
Number of Respondents	11	
· · · · · · · · · · · · · · · · · · ·		
Proximity of tornado before considering warning accurate		
1 mile or less	5%	104
5 miles or less	31%	712
10 miles or less	33%	768
25 miles or less	23%	535
Other	8%	183
Number of Respondents	2,3	

	2	2013
	О	ther
	Percent	Frequency
Number of tornado warnings issued		
Too many tornado warnings	5%	118
Too few tornado warnings	4%	103
Just about right	67%	1,535
Don't know	24%	546
Number of Respondents	2	,302
Impact of tornado not occurring when warning issued		
Same actions as did previously	81%	1,856
Less likely to take same action	9%	205
Don't know	10%	241
Number of Respondents	2	,302
Heard the term Weather-Ready Nation		
Heard Weather-Ready Nation	17%	383
Have not heard Weather-Ready Nation	83%	1,919
Number of Respondents		,302
Have a hazardous weather safety plan		
, .	76%	1.750
Have a plan		1,759
Do not have a plan	21%	480
Don't know	3%	63
Number of Respondents		,302
Main reason you do not have a plan		
Takes too much time	3%	14
Too expensive	2%	11
Not sure what to include	34%	161
Don't think it's necessary	27%	128
Other	35%	166
Number of Respondents		480
Plan includes hazardous weather emergency preparedness kit		
Includes kit	49%	1,139
Does not include kit	47%	1,075
Don't know	4%	88
Number of Respondents	2	,302
Main reason you do not have a kit		
Takes too much time	3%	28
Too expensive	7%	71
Not sure what to include	31%	338
Don't think it's necessary	27%	293
Other	32%	345
Number of Respondents		,075

No staff on-sile 198% 433 237 23		20	013
NWS staff on-site 10% 76 10% 76 10%			
NVS staff on-site	NWS staff on-site at incident	Percent	Frequency
DKNA 32% 237	NWS staff on-site	10%	76
Require specific products and have automated methods 207 2,075	No staff on-site		
Require specific products with automation 10% 227 2,075 2,07	DK/NA	32%	237
Require specific products with automation 10% 227 2,075 Number of Respondents 2,302 Received WEA message on cell phone 22% 515 Roceived WEA message 22% 515 Did not receive message 22% 515 Did not receive message 22% 515 Did not receive message 2,302 WEA message was first notification received	Number of Respondents		46
Require specific products with automation 10% 227 2,075 Number of Respondents 2,302 Received WEA message on cell phone 22% 515 Roceived WEA message 22% 515 Did not receive message 22% 515 Did not receive message 22% 515 Did not receive message 2,302 WEA message was first notification received	Require specific products and have automated methods		
Do not require specific products with automation 90% 2,075 Number of Respondents 2,302 Received WEA message on cell phone 22% 515 Received message 22% 515 Did not receive message 73% 1,682 Don't know 5 105 WEA message was first notification received First notification 63% 325 Not first notification 63% 325 139 Don't know 10% 51 15 Warmound Respondents 515 15 Understood WEA message 22% 422 2 9 Vumber of Respondents 515 15 15 15 Amount of social media content available 2% 9 9 Too little 19% 117		10%	227
Number of Respondents 2,302			1
Received message 22% 515 515 516	Number of Respondents	2,	302
Received message 22% 515 515 516	Received WEA message on cell phone		
Did not receive message	•	22%	515
Don't know 5% 105	<u> </u>		
Number of Respondents 2,302 WEA message was first notification received First notification 63% 325 Not first notification 27% 139 Don't know 10% 51 Number of Respondents 515 Understood WEA message Fully understood 82% 422 Somewhat understood 16% 84 Did not understand 2% 9 Number of Respondents 515 117 Amount of social media content available 19% 117 Too little 19% 117 Just about right 43% 288 Too much 1% 7 Don't know 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade True 2% 49 False 98% 2,263 Number of Respondents 2,302 Not safe to drive when water is too deep to			1 ' 1
First notification 63% 325 Not first notification 10% 51 Number of Respondents 515 Understood WEA message Fully understood 16% 84 Did not understand 2% 9 Number of Respondents 515 Amount of social media content available 15% 117 Too little 19% 117 Just about right 43% 258 Too much 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly True 5% 118 False	Number of Respondents		
First notification 63% 325 Not first notification 10% 51 Number of Respondents 515 Understood WEA message Fully understood 16% 84 Did not understand 2% 9 Number of Respondents 515 Amount of social media content available 15% 117 Too little 19% 117 Just about right 43% 258 Too much 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly True 5% 118 False	WEA message was first notification received		
Not first notification 27% 139 Don't know 10% 51 Number of Respondents 515 Understood WEA message Fully understood 82% 422 Somewhat understood 16% 84 Did not understand 2% 9 Number of Respondents 15 17 Amount of social media content available 19% 117 Too little 19% 117 Just about right 43% 258 Too much 17% 7 Don't know 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade 2 True 2% 49 False 98% 2,253 Number of Respondents 2,302 Number of Respondents 2,302 Safe to drive through water is low deep to see road surface 5% 118 False 95% 2,184 Number of Respondents 2,302	First notification	63%	325
Don't know	Not first notification		
Fully understood WEA message Fully understood 82% 422 Somewhat understood 16% 84 91 16% 84 9 9 117 100 1110 117			1
Fully understood	Number of Respondents		15
Fully understood	Understood WFA message		
Somewhat understood 16% 2% 84 9 Number of Respondents 515 Amount of social media content available Too little 19% 117 Just about right 43% 258 Too much 1% 7 Don't know 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade 2% 49 True 2% 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface 2,302 True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly True 5% 118 218e 95% 2,184 Number of Respondents Safe to drive through water in a large and heavy vehicle True 4% 97 Safe to drive through water in a large and heavy vehicle True 4% 97 False 96% 2,205		82%	422
Did not understand 2% 9 Number of Respondents 515 Amount of social media content available 1700 little 19% 117 Just about right 43% 258 1700 nit know 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade 2 year 4 year False 2 year 4 year Number of Respondents 2 year Safe to drive when water is too deep to see road surface 121 True 95% 2,181 2	l '		
Number of Respondents			I - I
Too little 19% 117 Just about right 43% 258 Too much 11% 7 Don't know 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly True 5% 118 False 95% 2,184 Number of Respondents 2,302	Number of Respondents		15
Too little 19% 117 Just about right 43% 258 Too much 11% 7 Don't know 37% 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly True 5% 118 False 95% 2,184 Number of Respondents 2,302	Amount of social media content available		
Just about right		19%	117
Too much Don't know 1% 37% 7 225 Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly True 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle True 4% 97 False 4% 97 False 96% 2,205			
Number of Respondents 607 Safe to drive through water when no Road Closed sign or police barricade 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface 2,302 True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 96% 2,205			
Safe to drive through water when no Road Closed sign or police barricade True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface 5% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 4% 97 False 96% 2,205	Don't know	37%	225
True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 96% 2,205	Number of Respondents	6	07
True 2% 49 False 98% 2,253 Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 96% 2,205	Safe to drive through water when no Road Closed sign or police barricade		
Number of Respondents 2,302 Not safe to drive when water is too deep to see road surface		2%	49
Not safe to drive when water is too deep to see road surface True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 96% 2,205	False	98%	2,253
True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 96% 2,205	Number of Respondents	2,	302
True 95% 2,181 False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 96% 2,205	Not safe to drive when water is too deep to see road surface		
False 5% 121 Number of Respondents 2,302 Safe to drive through water slowly True 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle True 4% 97 False 96% 2,205	·	95%	2,181
Safe to drive through water slowly True 5% 118 False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle 4% 97 False 96% 2,205			
True 5% 118 False 95% 2,184 Number of Respondents Safe to drive through water in a large and heavy vehicle True 4% 97 False 96% 2,205	Number of Respondents	2,	302
True 5% 118 False 95% 2,184 Number of Respondents Safe to drive through water in a large and heavy vehicle True 4% 97 False 96% 2,205	Safe to drive through water slowly		
False 95% 2,184 Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle True 4% 97 False 96% 2,205	·	5%	118
Number of Respondents 2,302 Safe to drive through water in a large and heavy vehicle True False 4% 97 2,205			
True 4% 97 False 96% 2,205	Number of Respondents		
True 4% 97 False 96% 2,205	Safe to drive through water in a large and beauty vehicle		
False 96% 2,205		10/	07
,			
(MINIMAL VI. 133-000 MINIMALIA)	Number of Respondents		·

	20	13
		her
	Percent	Frequency
Not safe to drive through swiftly moving water	000/	0.044
True False	96%	2,211 91
Number of Respondents	4%	302
Number of Respondents	2,0	J02
When to seek shelter from lightning		
Distant lightning	18%	423
Distant thunder	50%	1,158
Nearby lightning	18%	404
Loud thunder	12%	275
Starts to rain	2%	42
Number of Respondents	2,3	302
Ago		
Age Under 25 years	1%	21
25 - 34 years	4%	86
35 - 44 years	8%	168
45 - 54 years	21%	423
55 - 64 years	37%	747
65 - 74 years	24%	478
75 years and older	5%	109
Number of Respondents		032
Gender		
Male	62%	1,404
Female	34%	784
Female Prefer not to answer	34% 4%	784 85
Female	34% 4%	784
Female Prefer not to answer Number of Respondents	34% 4%	784 85
Female Prefer not to answer Number of Respondents Race	34% 4%	784 85
Female Prefer not to answer Number of Respondents Race White, Caucasian	34% 4% 2,2 82%	784 85 2 73 1,853
Female Prefer not to answer Number of Respondents Race	34% 4% 2,2	784 85 2 73
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American	34% 4% 2,2 82% 0%	784 85 2 73 1,853 9
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish	34% 4% 2,2 82% 0% 1%	784 85 2 73 1,853 9 21
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander	34% 4% 2,2 82% 0% 1% 0%	784 85 273 1,853 9 21 2
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian	34% 4% 2,2 82% 0% 1% 0% 0%	784 85 2 73 1,853 9 21 2 8
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native	34% 4% 2,2 82% 0% 1% 0% 0% 1%	784 85 273 1,853 9 21 2 8 30
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other	34% 4% 2,2 82% 0% 1% 0% 0% 1% 6% 10%	784 85 273 1,853 9 21 2 8 30 125
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents	34% 4% 2,2 82% 0% 1% 0% 0% 1% 6% 10%	784 85 273 1,853 9 21 2 8 30 125 224
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents School completed	34% 4% 2,2 82% 0% 1% 0% 0% 1% 6% 10%	784 85 273 1,853 9 21 2 8 30 125 224
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents School completed 12th grade or less (no diploma)	34% 4% 2,2 82% 0% 1% 0% 1% 6% 10% 2,2	784 85 273 1,853 9 21 2 8 30 125 224 272
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents School completed 12th grade or less (no diploma) High school diploma or GED	34% 4% 2,2 82% 0% 1% 0% 1% 6% 10% 2,2	784 85 273 1,853 9 21 2 8 30 125 224 272
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents School completed 12th grade or less (no diploma) High school diploma or GED Some college, no degree	34% 4% 2,2 82% 0% 1% 0% 1% 6% 10% 2,2	784 85 273 1,853 9 21 2 8 30 125 224 272
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents School completed 12th grade or less (no diploma) High school diploma or GED Some college, no degree Associate or technical degree	34% 4% 2,2 82% 0% 1% 0% 0% 1% 6% 10% 2,2 2% 7% 20% 12%	784 85 273 1,853 9 21 2 8 30 125 224 272
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents School completed 12th grade or less (no diploma) High school diploma or GED Some college, no degree Associate or technical degree Bachelor's degree	34% 4% 2,2 82% 0% 1% 0% 0% 1% 6% 10% 2,2 2% 7% 20% 12% 26%	784 85 273 1,853 9 21 2 8 30 125 224 272 39 151 450 279 594
Female Prefer not to answer Number of Respondents Race White, Caucasian Black, African American Hispanic, Latino, or Spanish Pacific Islander Asian American Indian/Native Indian or Alaska Native Other Prefer not to answer Number of Respondents School completed 12th grade or less (no diploma) High school diploma or GED Some college, no degree Associate or technical degree	34% 4% 2,2 82% 0% 1% 0% 0% 1% 6% 10% 2,2 2% 7% 20% 12%	784 85 273 1,853 9 21 2 8 30 125 224 272

	Dispa	atcher	Comm	Aircraft
	2012	2013	2012	2013
Sample Size	21	54	-	271
Hazardous Services	85	87		88
Tornado Warnings	86	87		87
Severe Thunderstorm Warnings	88	86		88
Severe Thunderstorm Watch		88		88
Winter Storm Warnings	85	86		88
Hurricane Warnings	78	92		90
Flash Flood Warnings	83	85		87
River Flood Warnings	84	88		88
High Surf Warnings	78	86		88
Tsunami Warnings	63	86		82
Extreme Cold Warnings	89	90		91
Excessive Heat Warnings	91	89		91
Coastal Flood Warnings		90		85
Climate Hazards		84		86
Tornado Warnings	86	88	-	88
Ease of Understanding	91	93		94
Timeliness	86	84		86
Accuracy	82	83		80
Severe Thunderstorm Warnings	88	87	-	89
Ease of Understanding	90	91		94
Timeliness	89	86		88
Accuracy	86	80		81
Severe Thunderstorm Watch		89	-	89
Ease of Understanding		91		93
Timeliness		89		90
Accuracy		84		81
Flash Flood Warnings	83	85	-	87
Ease of Understanding	87	89		92
Timeliness	81	87		86
Accuracy	82	79		81
Tsunami Warnings	63	86	-	83
Ease of Understanding	67	89		87
Timeliness	67	88		81
Accuracy	56	83		74

	Dispa	atcher	Comm	Aircraft
	2012	2013	2012	2013
Sample Size	21	54		271
Hurricane Warnings	79	92		91
Ease of Understanding	81	94		93
Timeliness	79	93		93
Accuracy	75	89		84
Winter Storm Warnings	85	86		88
Ease of Understanding	89	88		92
Timeliness	83	87		90
Accuracy	82	81		78
River Flood Warnings	84	88		89
Ease of Understanding	83	90		91
Timeliness	84	90		89
Accuracy	84	86		85
Excessive Heat Warnings	91	89		91
Ease of Understanding	92	91		93
Timeliness	91	88		91
Accuracy	92	88		89
Extreme Cold Warnings	89	90		91
Ease of Understanding	89	91		93
Timeliness	90	90		92
Accuracy	88	89		86
High Surf Warnings	78	86		88
Ease of Understanding	78	87		89
Timeliness	78	88		89
Accuracy	78	86		87
Coastal Flood Warnings		90		86
Ease of Understanding		91		88
Timeliness		93		87
Accuracy		89		83
Climate Hazards		84		87
Ease of Understanding		86		89
Timeliness		86		88
Accuracy		82		81

	Disp	atcher	Comm	Aircraft
	2012	2013	2012	2013
Sample Size	21	54	-	271
Weather-Sensitive Decision Making		89		85
Rely on NWS in making weather-sensitive decisions		89		85
User Support Services	93	89		86
Accessibility	91	90		84
Responsiveness	91	89		81
Subject-Matter Knowledge	94	92		90
Professionalism	94	94		90
Assisting in interpretation of weather-related information	93	92		86
Saving your organization money		77		75
Resolving a complaint	88	83		70
Dissemination Services - Website		84		84
Ease of locating information	86	81		82
Ease of understanding info	90	84		85
Information is up-to-date	92	88		86
Satellite Imagery display		82		84
Doppler Radar display		82		84
Dissemination Services - Automated	74	79		73
Ease locating data on servers	70	81		78
Ease of req add data to server	70	80		69
Ease of providing input	70	77		57
Ease of auto method	85	82		74
Usefulness of WEA Message		87		85
Usefulness of WEA message		87		85
Usefulness of NWS Presence		79		63
Usefulness of NWS presence on Facebook		92		68
Usefulness of NWS presence on Twitter		60		66
Usefulness of NWS presence on YouTube		71		46
Usefulness of NWS Graphical Summary		85		79
Usefulness of NWS graphical weather summaries on social media		85	-	79
Effectiveness of Safety Campaigns		79		74
Effectiveness of Turn Around Don`t Drown		80		80
Effectiveness of When Thunder Roars, Go Indoors!		77		66
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		76		74

	Dispa	atcher	Comm	Aircraft	
	2012	2013	2012	2013	
Sample Size	21	54		271	
Customer Satisfaction Index	82	79		81	
Overall Satisfaction	87	84		86	
Meets expectations	80	74		75	
Compared to ideal	77	78		78	
Likelihood Take Action	88	91		90	
Likelihood take action on info	88	91	-	90	
Likelihood to Use in Future	97	97		95	
Likelihood use NWS in future	97	97		95	
Likelihood to Recommend	95	92		93	
Likelihood to recommend	95	92		93	
Anticipated Use Over Next Year					
Desktop-laptop computer		96		93	
Mobile Device		74		69	
Social Media		40		21	
Direct Interaction w NWS Staff		43		20	
NOAA Weather Radio All-Hazards		63		51	
File transfer services		42		28	
Level of Severity					
Marginal		40		26	
Slight		35		20	
Critical		91		91	
Enhanced		56		47	
Elevated		59		53	
Moderate		56		47	
High		82		79	

	Private	Aircraft	Air Traffic	Controller
	2012	2013	2012	2013
Sample Size	-	1,036		49
Hazardous Services	1	87	-	86
Tornado Warnings		85		87
Severe Thunderstorm Warnings		87		88
Severe Thunderstorm Watch		87		87
Winter Storm Warnings		88		88
Hurricane Warnings		89		90
Flash Flood Warnings		86		90
River Flood Warnings		87		86
High Surf Warnings		88		89
Tsunami Warnings		86		80
Extreme Cold Warnings		90		88
Excessive Heat Warnings		91		91
Coastal Flood Warnings		87		89
Climate Hazards		84		87
Tornado Warnings		86		88
Ease of Understanding		93		95
Timeliness		85		83
Accuracy		75		81
Severe Thunderstorm Warnings		88		88
Ease of Understanding		93		94
Timeliness		88		87
Accuracy		79		80
Severe Thunderstorm Watch		88		88
Ease of Understanding		93		92
Timeliness		89		88
Accuracy		79		80
Flash Flood Warnings		86		90
Ease of Understanding		91		94
Timeliness		87		88
Accuracy		78		87
Tsunami Warnings		86		81
Ease of Understanding		91		91
Timeliness		85		84
Accuracy		76		69

	Private	Aircraft Air Traffic		Controller
	2012	2013	2012	2013
Sample Size		1,036		49
Hurricane Warnings		90		91
Ease of Understanding		93		94
Timeliness		92		92
Accuracy		82		84
Winter Storm Warnings		89		89
Ease of Understanding		93		91
Timeliness		91		93
Accuracy		77		78
River Flood Warnings		87		86
Ease of Understanding		90		88
Timeliness		88		86
Accuracy		82		83
Excessive Heat Warnings		91		91
Ease of Understanding		93		92
Timeliness		91		92
Accuracy		87		89
Extreme Cold Warnings		91		88
Ease of Understanding		93		88
Timeliness		92		90
Accuracy		86		85
High Surf Warnings	-	89		89
Ease of Understanding		91		94
Timeliness		90		90
Accuracy		84		83
Coastal Flood Warnings	-	88		89
Ease of Understanding		91		95
Timeliness		89		88
Accuracy		81		83
Climate Hazards	-	84		88
Ease of Understanding		87		91
Timeliness		87		89
Accuracy		78		81

	Private	Aircraft	Air Traffic	Controller
	2012	2013	2012	2013
Sample Size		1,036		49
Weather-Sensitive Decision Making		85		87
Rely on NWS in making weather-sensitive decisions		85		87
User Support Services		87		89
Accessibility		84		85
Responsiveness		84		87
Subject-Matter Knowledge		91		92
Professionalism		92		93
Assisting in interpretation of weather-related information		87		87
Saving your organization money		74		82
Resolving a complaint		71		90
Dissemination Services - Website		84		84
Ease of locating information		82		80
Ease of understanding info		85		86
Information is up-to-date		87		85
Satellite Imagery display		84		83
Doppler Radar display		84		83
Dissemination Services - Automated		77		77
Ease locating data on servers		81		71
Ease of req add data to server		75		73
Ease of providing input		70		68
Ease of auto method		80		86
Usefulness of WEA Message		80		83
Usefulness of WEA message		80		83
Usefulness of NWS Presence		70		72
Usefulness of NWS presence on Facebook		77		82
Usefulness of NWS presence on Twitter		71		67
Usefulness of NWS presence on YouTube		52		53
Usefulness of NWS Graphical Summary		83		74
Usefulness of NWS graphical weather summaries on social media		83		74
Effectiveness of Safety Campaigns		72		76
Effectiveness of Turn Around Don't Drown		77		81
Effectiveness of When Thunder Roars, Go Indoors!		66		69
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		74		77

	Private	Aircraft	Air Traffic	Controller
	2012	2013	2012	2013
Sample Size		1,036		49
Customer Satisfaction Index		81		83
Overall Satisfaction		87		89
Meets expectations		74		77
Compared to ideal		78		79
Likelihood Take Action		90	-	90
Likelihood take action on info		90	-	90
Likelihood to Use in Future		96		97
Likelihood use NWS in future		96		97
Likelihood to Recommend		92		93
Likelihood to recommend		92	-	93
Anticipated Use Over Next Year				
Desktop-laptop computer		95		89
Mobile Device		67		66
Social Media		19		34
Direct Interaction w NWS Staff		19		31
NOAA Weather Radio All-Hazards		53		48
File transfer services		28		29
Level of Severity				
Marginal		24		29
Slight		16		19
Critical		90		89
Enhanced		48		50
Elevated		54		48
Moderate		47		48
High		79	-	78

		Dispa	ntcher			Comm	Aircraft	
	20)12)13	20)12	20)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	24%	4	33%	18	0%	0	24%	65
Eastern Region	24%	4	24%	13	0%	0	23%	61
Southern Region	41%	7	24%	13	0%	0	28%	75
Western Region	12%	2	17%	9	0%	0	22%	60
Alaska Region	0%	0	2%	1	0%	0	3%	7
Pacific Region	0%	0	0%	0	0%	0	0%	1
Number of Respondents		17	5	54		Ö	2	69
Uses of NWS information~								
Agriculture	0%	0	22%	12	0%	0	27%	72
Aviation	0%	0	100%	54	0%	0	100%	271
Amateur Radio	0%	0	19%	10	0%	0	8%	23
Broadcast/Print Media	0%	0	17%	9	0%	0	5%	13
Commodities Markets	0%	0	13%	7	0%	0	5%	13
Consulting	0%	0	13%	7	0%	0	7%	18
Education	0%	0	20%	11	0%	0	15%	40
Health Services	0%	0	15%	8	0%	0	7%	19
Land Management Decisions	0%	0	30%	16	0%	0	15%	41
Marine	0%	0	22%	12	0%	0	11%	29
NWS Data Provider	0%	0	37%	20	0%	0	12%	32
Personal	0%	0	72%	39	0%	0	79%	214
Recreation	0%	0	50%	27	0%	0	68%	184
Research	0%	0	19%	10	0%	0	13%	36
Weather Enthusiast	0%	0	63%	34	0%	0	62%	169
Work-related decisions	0%	0	59%	32	0%	0	41%	110
Other	0%	0	19%	10	0%	0	9%	24

Number of Respondents

		Dispa	tcher			Comm	Aircraft	
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	100%	17	93%	50	0%	0	94%	256
Non-NWS Web	53%	9	48%	26	0%	0	41%	110
Mobile devices	29%	5	63%	34	0%	0	59%	160
Social Media	0%	0	20%	11	0%	0	13%	34
Email	18%	3	30%	16	0%	0	17%	47
Landline Telephone	0%	0	20%	11	0%	0	11%	29
Cell Phone	0%	0	31%	17	0%	0	34%	92
Local or cable TV	47%	8	67%	36	0%	0	62%	168
Commercial Radio	29%	5	19%	10	0%	0	27%	72
Satellite radio	12%	2	7%	4	0%	0	9%	24
Satellite TV	29%	5	19%	10	0%	0	17%	47
Newspaper	6%	1	13%	7	0%	0	21%	56
NOAA Weather Radio/All Hazards	35%	6	63%	34	0%	0	54%	145
NOAA Weather Wire	12%	2	13%	7	0%	0	7%	19
Family of Services (FOS)	12%	2	13%	7	0%	0	5%	13
Emerg Mgrs Weather Info Net	0%	0	19%	10	0%	0	10%	28
NOAAPort	18%	3	15%	8	0%	0	5%	13
World Area Forecast System	24%	4	31%	17	0%	0	13%	34
DUATS	18%	3	22%	12	0%	0	20%	55
Flight Services	82%	14	31%	17	0%	0	38%	102
U.S. Coast Guard Broadcasts	12%	2	9%	5	0%	0	6%	17
NAVTEX receiver	0%	0	6%	3	0%	0	1%	3
Immarsat-C SafetyNET	0%	0	6%	3	0%	0	1%	2
Radiofacsimile	0%	0	2%	1	0%	0	1%	3
Other	0%	0	17%	9	0%	0	11%	30
Number of Respondents	1	7	5	4		0	27	71
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	93%	50	0%	0	95%	257
Weather observations	0%	0	78%	42	0%	0	85%	231
Climate observations	0%	0	52%	28	0%	0	42%	113
Satellite data	0%	0	72%	39	0%	0	64%	174
Radar data	0%	0	91%	49	0%	0	91%	246
Computer weather model output	0%	0	67%	36	0%	0	51%	139
Weather outreach/educational materials	0%	0	31%	17	0%	0	13%	34
Other products	0%	0	15%	8	0%	0	10%	28
Number of Respondents)	5	4		0	27	71

		Dispa	tcher	T		Comm Aircraft			
	20	12	20	13	20)12	20	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Products familiar with~									
Tornado Warnings	0%	0	87%	47	0%	0	78%	211	
Severe Thunderstorm Warnings	0%	0	94%	51	0%	0	93%	252	
Severe Thunderstorm Watches	0%	0	96%	52	0%	0	91%	247	
Flash Flood Warnings	0%	0	89%	48	0%	0	83%	224	
Tsunami Warnings	0%	0	46%	25	0%	0	30%	82	
Hurricane Warnings	0%	0	57%	31	0%	0	64%	174	
Winter Storm Warnings	0%	0	89%	48	0%	0	89%	240	
River Flood Warnings	0%	0	63%	34	0%	0	58%	156	
Excessive Heat Warnings	0%	0	85%	46	0%	0	72%	196	
Extreme Cold Warnings	0%	0	70%	38	0%	0	66%	178	
High Surf Warnings	0%	0	43%	23	0%	0	32%	88	
Coastal Flood Warnings	0%	0	50%	27	0%	0	44%	119	
Climate Hazards	0%	0	69%	37	0%	0	54%	145	
Don't know	0%	0	0%	0	0%	0	1%	2	
Number of Respondents		0		54		0		<u>←</u> 71	
Number of Respondents		0	•	7-		U		<i>.</i>	
Likelihood of taking protective action if tornado warning issued									
Very Unlikely	0%	0	0%	0	0%	0	3%	8	
Somewhat Unlikely	0%	0	4%	2	0%	0	2%	5	
Somewhat Likely	0%	0	24%	13	0%	0	12%	33	
Very Likely	0%	0	72%	39	0%	0	82%	223	
Don't Know	0%	0	0%	0	0%	0	1%	2	
Number of Respondents		0		6 4		0		<u> </u>	
Number of Respondents		0		7-		0	L	<i>r</i> 1	
Reason for not taking action									
Do not believe I would be directly impacted by the tornado	0%	0	0%	0	0%	0	38%	5	
Need to first see or hear tornado	0%	0	50%	1 1	0%	0	8%	1	
Have never seen tornado damage in my area	0%	o O	50%	1	0%	0	31%	4	
Do not take tornado warnings seriously	0%	0	0%	0	0%	0	8%	'1	
Other	0%	0	0%	0	0%	0	15%	2	
Number of Respondents	0 76			2		0		3	
Number of Respondents		0		2		O		<u> </u>	
Proximity of tornado before considering warning accurate									
1 mile or less	0%	0	7%	4	0%	0	6%	16	
5 miles or less	0%	0	24%	13	0%	0	36%	97	
10 miles or less	0%	0	33%	18	0%	0	36%	97	
25 miles or less	0%	0	28%	15	0%	0	20%	53	
Other	0%	0	20% 7%	15 4	0%	0	3%	8	
Number of Respondents		0		i 4		0			
Mulliper of Mespoliderins		U		74		U			
Number of tornado warnings issued									
Too many tornado warnings	0%	0	6%	3	0%	0	6%	16	
Too few tornado warnings	0%	0	11%	6	0%	0	4%	11	
Just about right	0%	0	67%	36	0%	0	4% 75%	203	
Don't know	0% 0%		67% 17%	9	0% 0%		75% 15%	41	
		0				0			
Number of Respondents		0	5	54		0	2	71	

		Dispa	tcher			Comm	Aircraft		
	20			13	20	12	20	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Impact of tornado not occurring when warning issued									
Same actions as did previously	0%	0	72%	39	0%	0	87%	236	
Less likely to take same action	0%	0	13%	7	0%	0	6%	15	
Don't know	0%	0	15%	8	0%	0	7%	20	
Number of Respondents)	5	54		0	2	71	
Heard the term Weather-Ready Nation									
Heard Weather-Ready Nation	0%	0	41%	22	0%	0	22%	59	
Have not heard Weather-Ready Nation	0%	0	59%	32	0%	0	78%	212	
Number of Respondents		0	5	4		0	2	71	
Have a hazardous weather safety plan									
Have a plan	67%	14	81%	44	0%	0	83%	224	
Do not have a plan	33%	7	15%	8	0%	Ö	14%	39	
Don't know	0%	0	4%	2	0%	0	3%	8	
Number of Respondents	2			i4		0	270		
Reason plan created~									
Friends and family	36%	5	55%	24	0%	0	57%	127	
General desire to be prepared	86%	12	91%	40	0%	0	92%	205	
An extreme weather event	29%	4	45%	20	0%	0	51%	115	
Be a Force of Nature campaign	0%	0	14%	6	0%	0	1%	3	
Weather-Ready Nation initiative	7%	1	14%	6	0%	0	4%	9	
Other	0%	0	14%	6	0%	0	17%	38	
Number of Respondents	1	4	4	14	Ö		2:	24	
Main reason you do not have a plan									
Takes too much time	0%	0	0%	0	0%	0	5%	2	
Too expensive	0%	0	0%	0	0%	0	5%	2	
Not sure what to include	29%	2	38%	3	0%	0	41%	16	
Don't think it's necessary	71%	5	63%	5	0%	0	31%	12	
Other	0%	0	0%	0	0%	0	18%	7	
Number of Respondents		7		8		0		9	
Plan includes hazardous weather emergency preparedness kit									
Includes kit	52%	11	59%	32	0%	0	61%	166	
Does not include kit	48%	10	37%	20	0%	0	36%	97	
Don't know	0%	0	4%	2	0%	0	3%	8	
Number of Respondents	2	1	5	54		0	2	71	

		Dispa	tcher			Comm	Aircraft	1
	20)12		013	20	012		013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Reason kit created~								
Friends and family	45%	5	63%	20	0%	0	52%	87
General desire to be prepared	91%	10	84%	27	0%	0	89%	147
An extreme weather event	45%	5	59%	19	0%	0	55%	92
Be a Force of Nature campaign	0%	0	13%	4	0%	0	2%	3
Weather-Ready Nation initiative	0%	0	9%	3	0%	0	7%	11
Other	0%	0	13%	4	0%	0	18%	30
Number of Respondents		1		32		0		66
Main reason you do not have a kit	00/	0	5 0/		00/		00/	0
Takes too much time	0%	0	5%	1	0%	0	2%	2
Too expensive	10%	1	10%	2	0%	0	8%	8
Not sure what to include	10%	1 _	35%	/	0%	0	31%	30
Don't think it's necessary	50%	5	35%	7	0%	0	37%	36
Other	30%	3	15%	3	0%	0	22%	21
Number of Respondents	1	10		20		0		97
NWS staff on-site at incident								
NWS staff on-site	0%	0	29%	11	0%	0	15%	22
No staff on-site	0%	0	47%	18	0%	0	56%	83
DK/NA	0%	0	24%	9	0%	0	29%	42
Number of Respondents		0		38		0		47
<u> </u>								
Require specific products and have automated methods								
Require specific products with automation	0%	0	35%	19	0%	0	17%	47
Do not require specific products with automation	0%	0	65%	35	0%	0	83%	224
Number of Respondents		Ö	!	54		0	2	71
Descined WEA massage or call where								
Received WEA message on cell phone	00/	0	440/	22	00/	0	220/	00
Received message	0%	0	41%	22	0%	0	32%	88
Did not receive message	0%	0	56%	30	0%	0	63%	170
Don't know	0%	0	4%	2	0%	0	5%	13
Number of Respondents		0		54		0	2	71
WEA message was first notification received								
First notification	0%	0	77%	17	0%	0	65%	57
Not first notification	0%	0	18%	4	0%	0	26%	23
Don't know	0%	0	5%	1	0%	0	9%	8
Number of Respondents		0		22		0		88
Understood WEA message			0.551				0.5.7	
Fully understood	0%	0	82%	18	0%	0	83%	73
Somewhat understood	0%	0	18%	4	0%	0	16%	14
Did not understand	0%	0	0%	0	0%	0	1%	1
Number of Respondents		0		22		0		88

		Dispa	tcher			Comm Aircraft			
	20	12	20		20	12	20		
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Beneficial enhancements to WEA message~									
More text containing details of warning	0%	0	36%	8	0%	0	47%	41	
Accompanying graphic showing warning area	0%	0	64%	14	0%	0	61%	54	
Accompanying graphic showing current location	0%	0	55%	12	0%	0	60%	53	
Color representing urgency of warning	0%	0	59%	13	0%	0	43%	38	
Color representing type of warning	0%	0	41%	9	0%	0	23%	20	
Sound representing urgency of warning	0%	0	50%	11	0%	0	45%	40	
Sound representing type of warning	0%	0	27%	6	0%	0	27%	24	
Number of Respondents		0	2	22		0	8	8	
Facebook and Twitter during weather events~									
Do not use Facebook and Twitter for weather events	0%	0	56%	30	0%	0	75%	202	
Read what others are posting or tweeting	0%	ő	37%	20	0%	0	20%	54	
Comment on what others are posting or tweeting	0%	0	26%	14	0%	0	15%	40	
Write own posts or tweets	0%	0	24%	13	0%	0	15%	40	
Number of Respondents		0		i 4		0	2		
Number of Respondents		9	J	, -		0		•	
Amount of social media content available									
Too little	0%	0	8%	2	0%	0	22%	15	
Just about right	0%	0	54%	13	0%	0	39%	27	
Too much	0%	0	4%	1	0%	0	3%	2	
Don't know	0%	0	33%	8	0%	0	36%	25	
Number of Respondents		0	2	24		0	6	9	
Promoted awareness campaigns~									
Heat Safety	0%	0	42%	16	0%	0	25%	37	
Flood Safety	0%	0	34%	13	0%	0	24%	35	
Lightning Safety	0%	0	55%	21	0%	0	33%	49	
Severe Weather Safety	0%	0	61%	23	0%	0	45%	66	
Rip Currents Safety	0%	0	24%	9	0%	0	7%	10	
Hurricane Safety	0%	0	29%	11	0%	0	16%	24	
Tsunami Safety	0%	Ö	8%	3	0%	0	10%	14	
Winter Weather Safety	0%	0	53%	20	0%	0	39%	57	
Wildfire Safety	0%	0	47%	18	0%	0	22%	32	
None of the above	0%	0	21%	8	0%	0	40%	59	
Number of Respondents))		88		0		47	
Websites visited for weather safety~									
National Weather Service	0%	0	94%	51	0%	0	96%	259	
FEMA	0%	0	31%	17	0%	0	17%	47	
American Red Cross	0%	0	22%	12	0%	0	9%	24	
Centers for Disease Control and Prevention	0%	0	11%	6	0%	0	5%	14	
Commercial weather vendor	0%	0	57%	31	0%	0	67%	182	
Other	0%	0	13%	7	0%	0	13%	34	
Number of Respondents		0	5	54		0	2	71	

						Comm	Aircraft		
	20	112)13	20)12)13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Safe to drive through water when no Road Closed sign or police barricade									
True	0%	0	6%	3	0%	0	0%	1	
False	0%	0	94%	51	0%	0	100%	270	
Number of Respondents		0	5	54		0	2	71	
Not safe to drive when water is too deep to see road surface									
True	0%	0	94%	51	0%	0	96%	261	
False	0%	0	6%	3	0%	0	4%	10	
Number of Respondents		0		54		0		71	
Safe to drive through water slowly									
True	0%	0	9%	5	0%	0	4%	10	
False	0%	0	91%	49	0%	0	96%	261	
Number of Respondents		0	5	54		0	2	71	
Safe to drive through water in a large and heavy vehicle	00/		40.4		201		201	_	
True	0%	0	4%	2	0%	0	2%	5	
False	0%	0	96%	52	0%	0	98%	266	
Number of Respondents		0	3	54		0		71	
Not safe to drive through swiftly moving water									
True	0%	0	91%	49	0%	0	97%	263	
False	0%	0	9%	5	0%	0	3%	8	
Number of Respondents		0	5	54		0	2	71	
When to seek shelter from lightning									
Distant lightning	0%	0	15%	8	0%	0	16%	44	
Distant thunder	0%	0	54%	29	0%	0	48%	130	
Nearby lightning	0%	0	11%	6	0%	0	22%	59	
Loud thunder	0%	0	15%	8	0%	0	11%	31 7	
Starts to rain Number of Respondents	0%	0 0	6%	3 5 4	0%	0 0	3%	/ 71	
Number of Respondents		U)4		U	Z	<i>1</i> I	
Age									
Under 25 years	0%	0	13%	6	0%	0	3%	7	
25 - 34 years	11%	2	19%	9	0%	0	10%	23	
35 - 44 years	22%	4	19%	9	0%	0	13%	29	
45 - 54 years	39%	7	29%	14	0%	0	23%	54	
55 - 64 years	28%	5	17%	8	0%	0	34%	78	
65 - 74 years	0%	0	4%	2	0%	0	13%	30	
75 years and older	0%	0	0%	0	0%	0	5%	11	
Number of Respondents	1	8	4	18		0	2	32	

		Dispa	tcher			Comm	Aircraft	
	20	12	20	13	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Gender								
Male	95%	20	89%	48	0%	0	82%	220
Female	5%	1	9%	5	0%	0	12%	33
Prefer not to answer	0%	0	2%	1	0%	0	6%	16
Number of Respondents	2	1	5	4		0	20	69
Race								
White, Caucasian	95%	20	81%	44	0%	0	79%	212
Black, African American	0%	0	0%	0	0%	0	1%	2
Hispanic, Latino, or Spanish	0%	0	2%	1	0%	0	2%	5
Pacific Islander	0%	0	0%	0	0%	0	0%	1
Asian	0%	0	0%	0	0%	0	1%	2
American Indian/Native Indian or Alaska Native	0%	0	2%	1	0%	0	0%	1
Other	5%	1	2%	1	0%	0	3%	8
Prefer not to answer	0%	0	13%	7	0%	0	14%	38
Number of Respondents	2	1	5	4		0	20	69
School completed								
12th grade or less (no diploma)	0%	0	2%	1	0%	0	1%	3
High school diploma or GED	5%	1	11%	6	0%	0	5%	13
Some college, no degree	33%	7	13%	7	0%	0	16%	42
Associate or technical degree	19%	4	28%	15	0%	0	17%	46
Bachelor's degree	33%	7	26%	14	0%	0	27%	72
Graduate degree/Professional degree	10%	2	11%	6	0%	0	29%	79
Prefer not to answer	0%	0	9%	5	0%	0	6%	15
Number of Respondents	2	21	5	4	(0	2	70
Interested in other areas~								
National Fire Weather Program	0%	0	20%	11	0%	0	7%	20
National Hurricane Center Program	0%	0	24%	13	0%	0	11%	30
National Hydrologic Services Program	0%	0	11%	6	0%	0	5%	14
National Climate Services Program	0%	0	13%	7	0%	0	10%	26
Do not wish to continue	0%	0	63%	34	0%	0	77%	209
Number of Respondents		0	5	4		0	2	71

		Private	Aircraft			Air Traffic	Controller	
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	0%	0	33%	339	0%	0	29%	14
Eastern Region	0%	0	18%	188	0%	0	24%	12
Southern Region	0%	0	22%	226	0%	0	29%	14
Western Region	0%	0	25%	258	0%	0	16%	8
Alaska Region	0%	0	2%	17	0%	0	0%	0
Pacific Region	0%	0	0%	3	0%	0	2%	1
Number of Respondents		Ó	1,0	31	(0	4	9
Uses of NWS information~								
Agriculture	0%	0	25%	264	0%	0	14%	7
Aviation	0%	0	100%	1,036	0%	0	100%	49

Uses of NWS information~								
Agriculture	0%	0	25%	264	0%	0	14%	7
Aviation	0%	0	100%	1,036	0%	0	100%	49
Amateur Radio	0%	0	16%	166	0%	0	20%	10
Broadcast/Print Media	0%	0	4%	46	0%	0	8%	4
Commodities Markets	0%	0	3%	36	0%	0	2%	1
Consulting	0%	0	4%	40	0%	0	10%	5
Education	0%	0	13%	138	0%	0	18%	9
Health Services	0%	0	4%	43	0%	0	6%	3
Land Management Decisions	0%	0	15%	156	0%	0	14%	7
Marine	0%	0	13%	137	0%	0	14%	7
NWS Data Provider	0%	0	14%	147	0%	0	20%	10
Personal	0%	0	84%	873	0%	0	86%	42
Recreation	0%	0	72%	745	0%	0	67%	33
Research	0%	0	10%	106	0%	0	14%	7
Weather Enthusiast	0%	0	61%	633	0%	0	69%	34
Work-related decisions	0%	0	27%	284	0%	0	35%	17
Other	0%	0	6%	63	0%	0	4%	2
Number of Respondents		Ó	1,0	036		0	4	9

	Private Aircraft				Air Traffic Controller			
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	0%	0	95%	987	0%	0	98%	48
Non-NWS Web	0%	0	37%	381	0%	0	45%	22
Mobile devices	0%	0	59%	614	0%	0	55%	27
Social Media	0%	0	12%	120	0%	0	20%	10
Email	0%	0	11%	115	0%	0	20%	10
Landline Telephone	0%	0	10%	104	0%	0	6%	3
Cell Phone	0%	0	29%	305	0%	0	27%	13
Local or cable TV	0%	0	53%	550	0%	0	63%	31
Commercial Radio	0%	0	24%	250	0%	0	29%	14
Satellite radio	0%	0	8%	78	0%	0	10%	5
Satellite TV	0%	0	17%	172	0%	0	14%	7
Newspaper	0%	0	15%	156	0%	0	24%	12
NOAA Weather Radio/All Hazards	0%	0	57%	586	0%	0	61%	30
NOAA Weather Wire	0%	0	6%	59	0%	0	14%	7
Family of Services (FOS)	0%	0	3%	34	0%	0	12%	6
Emerg Mgrs Weather Info Net	0%	0	6%	62	0%	0	6%	3
NOAAPort	0%	0	4%	40	0%	0	12%	6
World Area Forecast System	0%	0	14%	145	0%	0	12%	6
DUATS	0%	0	40%	411	0%	0	16%	8
Flight Services	0%	0	57%	587	0%	0	41%	20
U.S. Coast Guard Broadcasts	0%	0	8%	81	0%	0	12%	6
NAVTEX receiver	0%	0	2%	16	0%	0	4%	2
Immarsat-C SafetyNET	0%	0	1%	12	0%	0	6%	3
Radiofacsimile	0%	0	1%	6	0%	0	2%	1
Other	0%	0	9%	91	0%	0	20%	10
Number of Respondents		0	1,0	36		0	4	.9
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	1,006	0%	0	92%	45
Weather observations	0%	0	85%	883	0%	0	86%	42
Climate observations	0%	0	35%	367	0%	0	39%	19
Satellite data	0%	0	69%	713	0%	0	80%	39
Radar data	0%	0	92%	950	0%	0	94%	46
Computer weather model output	0%	0	51%	524	0%	0	65%	32
Weather outreach/educational materials	0%	0	11%	112	0%	0	6%	3
Other products	0%	0	6%	58	0%	0	10%	5
Number of Respondents		0	1,0	36		0	4	9

		Private	Aircraft			Air Traffic	Air Traffic Controller	
	20	12	20	13	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with~								
Tornado Warnings	0%	0	79%	814	0%	0	88%	43
Severe Thunderstorm Warnings	0%	0	96%	990	0%	0	98%	48
Severe Thunderstorm Watches	0%	0	94%	971	0%	0	100%	49
Flash Flood Warnings	0%	0	79%	819	0%	0	80%	39
Tsunami Warnings	0%	0	24%	249	0%	0	31%	15
Hurricane Warnings	0%	0	52%	539	0%	0	67%	33
Winter Storm Warnings	0%	0	90%	929	0%	0	90%	44
River Flood Warnings	0%	0	63%	655	0%	0	55%	27
Excessive Heat Warnings	0%	0	72%	745	0%	0	78%	38
Extreme Cold Warnings	0%	0	65%	672	0%	0	67%	33
High Surf Warnings	0%	0	31%	319	0%	0	33%	16
Coastal Flood Warnings	0%	0	35%	363	0%	0	39%	19
Climate Hazards	0%	0	48%	495	0%	0	51%	25
Don't know	0%	0	0%	4	0%	0	0%	0
Number of Respondents		0)36		0		19
			-,-					.0
Likelihood of taking protective action if tornado warning issued								
Very Unlikely	0%	0	3%	33	0%	0	0%	0
Somewhat Unlikely	0%	0	3%	32	0%	0	6%	3
Somewhat Likely	0%	0	14%	146	0%	0	18%	9
Very Likely	0%	0	79%	819	0%	0	76%	37
Don't Know	0%	0	1%	6	0%	0	0%	0
Number of Respondents	1	0	1,0	36		0	4	9
Reason for not taking action	00/		400/		201		00/	
Do not believe I would be directly impacted by the tornado	0%	0	12%	8	0%	0	0%	0
Need to first see or hear tornado	0%	0	15%	10	0%	0	33%	1
Have never seen tornado damage in my area	0%	0	23%	15	0%	0	0%	0
Do not take tornado warnings seriously	0%	0	8%	5	0%	0	0%	0
Other	0%	0	42%	27	0%	0	67%	2
Number of Respondents		0	6	55		0		3
Proximity of tornado before considering warning accurate								
1 mile or less	0%	0	5%	56	0%	0	2%	1
5 miles or less	0%	0	34%	356	0%	0	33%	16
10 miles or less	0%	Ö	39%	399	0%	0	45%	22
25 miles or less	0%	0	19%	192	0%	0	16%	8
Other	0%	Ö	3%	33	0%	0	4%	2
Number of Respondents		0		36		0		l9
Tamas of Noopendonio								
Number of tornado warnings issued								
Too many tornado warnings	0%	0	8%	79	0%	0	4%	2
Too few tornado warnings	0%	0	4%	42	0%	0	10%	5
Just about right	0%	0	69%	710	0%	0	76%	37
Don't know	0%	0	20%	205	0%	0	10%	5
Number of Respondents		0		36		0		19
			•					

		Private .	Aircraft		Air Traffic Controller			
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued								
Same actions as did previously	0%	0	82%	846	0%	0	86%	42
Less likely to take same action	0%	0	11%	113	0%	0	12%	6
Don't know	0%	0	7%	77	0%	0	2%	1
Number of Respondents			1,0	36		0	4	9
Heavy the town Marthau Doody Nation								
Heard the term Weather-Ready Nation Heard Weather-Ready Nation	0%	0	20%	209	0%	0	35%	17
	0%		20% 80%	209 827	0% 0%	0	35% 65%	32
Have not heard Weather-Ready Nation		0				0		
Number of Respondents)	1,0	136		U	4	9
Have a hazardous weather safety plan								
Have a plan	0%	0	80%	825	0%	0	82%	40
Do not have a plan	0%	0	18%	189	0%	0	16%	8
Don't know	0%	0	2%	22	0%	0	2%	1
Number of Respondents			1,0	36		0	4	9
Reason plan created~								
Friends and family	0%	0	51%	423	0%	0	50%	20
General desire to be prepared	0%	0	93%	766	0%	0	88%	35
An extreme weather event	0%	0	50%	411	0%	0	53%	21
Be a Force of Nature campaign	0%	0	1%	10	0%	0	5%	2
Weather-Ready Nation initiative	0%	0	3%	21	0%	0	10%	4
Other	0%	0	14%	115	0%	0	10%	4
Number of Respondents)	82	25		0	4	0
Main reason you do not have a plan								
Takes too much time	0%	0	1%	1	0%	0	13%	1
Too expensive	0%	0	3%	5	0%	0	13%	1
Not sure what to include	0%	0	42%	79	0%	0	38%	3
Don't think it's necessary	0%	0	39%	73	0%	0	25%	2
Other	0%	Ö	16%	31	0%	0	13%	- 1
Number of Respondents				39		0		3
Plan includes hazardous weather emergency preparedness kit	00/		E00/	000	00.4		EE0/	07
Includes kit	0%	0	58%	606	0%	0	55%	27
Does not include kit	0%	0	40%	411	0%	0	45%	22
Don't know	0%	0	2%	19	0%	0	0%	0
Number of Respondents			1,0)36		0	4	9

		Private .	Aircraft		Air Traffic Controller			
	20	12		013	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Reason kit created~								
Friends and family	0%	0	50%	303	0%	0	56%	15
General desire to be prepared	0%	0	94%	567	0%	0	89%	24
An extreme weather event	0%	0	52%	318	0%	0	52%	14
Be a Force of Nature campaign	0%	0	1%	6	0%	0	4%	1
Weather-Ready Nation initiative	0%	0	3%	19	0%	0	11%	3
Other	0%	0	12%	74	0%	0	4%	1
Number of Respondents		0		606		0		27
Main reason you do not have a kit								
Takes too much time	0%	0	6%	25	0%	0	14%	3
Too expensive	0%	0	4%	17	0%	0	5%	1
Not sure what to include	0%	0	31%	128	0%	0	27%	6
Don't think it's necessary	0%	0	40%	166	0%	0	27%	6
Other	0%	0	18%	75	0%	0	27%	6
Number of Respondents		0	4	111		0	2	22
NINO at all and the at the transfer								
NWS staff on-site at incident	00/		20/	4.4	201		4.407	4
NWS staff on-site	0%	0	9%	44	0%	0	14%	4
No staff on-site	0%	0	58%	281	0%	0	54%	15
DK/NA	0%	0	33%	159	0%	0	32%	9
Number of Respondents		0	4	184		0		28
Require specific products and have automated methods								
Require specific products with automation	0%	0	12%	128	0%	0	27%	13
Do not require specific products with automation	0%	0	88%	908	0%	0	73%	36
Number of Respondents				036		0		19
Number of Respondents		0	Ι,	030		0	•	+3
Received WEA message on cell phone								
Received message	0%	0	28%	295	0%	0	20%	10
Did not receive message	0%	0	67%	692	0%	0	65%	32
Don't know	0%	0	5%	49	0%	0	14%	7
Number of Respondents		0		036		0		1 9
WEA message was first notification received								
First notification	0%	0	59%	174	0%	0	40%	4
Not first notification	0%	0	35%	103	0%	0	60%	6
Don't know	0%	0	6%	18	0%	0	0%	0
Number of Respondents		0	2	195		0	1	10
Understood WEA message								
Fully understood	0%	0	89%	263	0%	0	100%	10
Somewhat understood	0%		10%	29	0%	0	0%	
		0				_		0
IDid not understand								
Did not understand Number of Respondents	0%	0 0	1%	3 2 95	0%	0	0%	10 10

Pacebook and Twitter during weather events		Private Aircraft				Air Traffic Controller			
More text containing defails of warning 0%		Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Accompanying graphic showing warning area 056									
Accompanying graphic showing current location 0% 0 60% 178 0% 0 60% 6 6 6 6 6 6 6 6 6	· · · · · · · · · · · · · · · · · · ·								2
Color representing urgency of warning O%			0				0		6
Color representing type of warning O%			0				0		6
Sound representing urgency of warning			0				0		4
Sound representing type of warning O% O 27% 80 O% O 30% 3 Number of Respondents O O 295 O O O O O O O O O			0				0		2
Number of Respondents			0				0		5
Pacebook and Twitter during weather events	Sound representing type of warning	0%	0	27%	80	0%	0	30%	3
Do not use Facebook and Twitter for weather events 0%	Number of Respondents		0	29	95		0	1	0
Do not use Facebook and Twitter for weather events 0%	Facebook and Twitter during weather events~								
Read what others are posting or tweeting 0% 0 18% 185 0% 0 33% 19 Comment on what others are posting or tweeting 0% 0 13% 135 0% 0 24% 19 Write own posts or tweetis 0 0 14% 150 0% 0 22% 11 Number of Respondents 0 1,036 0 49 Amount of social media content available 0 0 25% 56 0% 0 38% 8 Too ititle 0% 0 52% 117 0% 0 38% 8 1 Too much 0% 0 52% 117 0% 0 38% 8 1 0 0 22% 117 0% 0 38% 8 1 0 0 22% 117 0% 0 38% 8 1 0 0 22% 15 0% 0 24% 5 <td< td=""><td></td><td>0%</td><td>0</td><td>78%</td><td>809</td><td>0%</td><td>0</td><td>57%</td><td>28</td></td<>		0%	0	78%	809	0%	0	57%	28
Comment on what others are posting or tweeting 0% 0			_						
Write own posts or tweets	· · · · · · · · · · · · · · · · · · ·		_						
Number of Respondents	· · · · · · · · · · · · · · · · · · ·		•						
Amount of social media content available									
Too little	Number of Respondents		0	1,0	J30		0	4	•9
Just about right	Amount of social media content available								
Too much	Too little	0%	0	25%	56	0%	0	38%	8
Don't know O% O 22% 51 O% O 24% 5	Just about right	0%	0	52%	117	0%	0	38%	8
Number of Respondents	Too much	0%	0	1%	3	0%	0	0%	0
Promoted awareness campaigns	Don't know	0%	0	22%	51	0%	0	24%	5
Heat Safety	Number of Respondents		0	2:	27		0	2	1
Heat Safety	Promotod awareness campaigns								
Flood Safety		0%	0	27%	133	0%	0	32%	Q
Lightning Safety 0% 0 34% 164 0% 0 21% 6 Severe Weather Safety 0% 0 45% 219 0% 0 50% 14 Rip Currents Safety 0% 0 6% 31 0% 0 7% 2 Hurricane Safety 0% 0 14% 66 0% 0 18% 5 Tsunami Safety 0% 0 4% 20 0% 0 7% 2 Winter Weather Safety 0% 0 38% 184 0% 0 39% 11 Widifire Safety 0% 0 30% 143 0% 0 18% 5 None of the above 0% 0 36% 175 0% 0 18% 5 Number of Respondents 0 484 0 0 36% 10 National Weather Safety- National Weather Service 0% 0 98% 1,011 0% 0 96% 47 FEMA 0% 0 17% 175 0% 0 16% 8 American Red Cross 0% 0 7% 75 0									1
Severe Weather Safety 0% 0 45% 219 0% 0 50% 14 Rip Currents Safety 0% 0 6% 31 0% 0 7% 2 2 14 14 15 15 15 15 15 15	· · · · · · · · · · · · · · · · · · ·								6
Rip Currents Safety			Ĭ				_		14
Hurricane Safety			Ĭ						
Tsunami Safety Winter Weather Safety Winter Weather Safety Winter Weather Safety O% 0 38% 184 0% 0 39% 111 Wildfire Safety None of the above O% 0 30% 143 0% 0 18% 5 None of the above O% 0 36% 175 0% 0 36% 10 Number of Respondents O 484 O 20 0% 0 39% 111 Wildfire Safety National Weather Safety National Weather Service National Weather Service O% 0 98% 1,011 0% 0 96% 47 FEMA O% 0 17% 175 0% 0 16% 8 American Red Cross Centers for Disease Control and Prevention O% 0 6% 58 0% 0 6% 3 Commercial weather vendor O% 0 61% 635 0% 0 66% 3 Other			ľ						
Winter Weather Safety 0% 0 38% 184 0% 0 39% 11 Wildfire Safety 0% 0 30% 143 0% 0 18% 5 None of the above 0% 0 36% 175 0% 0 36% 10 Number of Respondents 0 484 0 28 Websites visited for weather safety~ National Weather Service FEMA O% O 98% 1,011 0% O 98% 1,011 0% O 96% 47 FEMA American Red Cross O% O 17% 75 O% O 12% 6 Centers for Disease Control and Prevention O% O 6% 58 O% O 6% 3 Commercial weather vendor O% O 6% 58 O% O 67% 33 Other O 6% 3 Other O 11% 118 O% O 6% O 6% 3	•		ľ				_		
Wildfire Safety 0% 0 30% 143 0% 0 18% 5 None of the above 0% 0 36% 175 0% 0 36% 10 Number of Respondents Websites visited for weather safety~ National Weather Service 0% 0 98% 1,011 0% 0 96% 47 FEMA 0% 0 17% 175 0% 0 16% 8 American Red Cross 0% 0 7% 75 0% 0 12% 6 Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0% 0 11% 118 0% 0 6% 3			_						4.4
None of the above Number of Respondents 0% 0 36% 175 0% 0 36% 10 Websites visited for weather safety∼ 0 484 0 28 Websites visited for weather safety∼ 0% 0 98% 1,011 0% 0 96% 47 National Weather Service 0% 0 17% 175 0% 0 16% 8 FEMA 0% 0 17% 175 0% 0 16% 8 American Red Cross 0% 0 7% 75 0% 0 12% 6 Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0% 0 11% 118 0% 0 6% 3	•		_						
Websites visited for weather safety~ 0 98% 1,011 0% 0 96% 47 National Weather Service 0% 0 98% 1,011 0% 0 96% 47 FEMA 0% 0 17% 175 0% 0 16% 8 American Red Cross 0% 0 7% 75 0% 0 12% 6 Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0% 0 11% 118 0% 0 6% 3	· · · · · · · · · · · · · · · · · · ·		_				_		
Websites visited for weather safety~ 0% 0 98% 1,011 0% 0 96% 47 National Weather Service 0% 0 17% 175 0% 0 16% 8 FEMA 0% 0 17% 175 0% 0 16% 8 American Red Cross 0% 0 7% 75 0% 0 12% 6 Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0% 0 11% 118 0% 0 6% 3									
National Weather Service 0% 0 98% 1,011 0% 0 96% 47 FEMA 0% 0 17% 175 0% 0 16% 8 American Red Cross 0% 0 7% 75 0% 0 12% 6 Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0% 0 11% 118 0% 0 6% 3	Tumber of Respondence								
FEMA 0% 0 17% 175 0% 0 16% 8 American Red Cross 0% 0 7% 75 0% 0 12% 6 Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0% 0 11% 118 0% 0 6% 3									
American Red Cross 0% 0 7% 75 0% 0 12% 6 Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0 11% 118 0% 0 6% 3		0%	0	98%	1,011	0%	0	96%	47
Centers for Disease Control and Prevention 0% 0 6% 58 0% 0 6% 3 Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0 11% 118 0% 0 6% 3	FEMA	0%	0	17%	175	0%	0	16%	8
Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0 11% 118 0% 0 6% 3	American Red Cross	0%	0	7%	75	0%	0	12%	6
Commercial weather vendor 0% 0 61% 635 0% 0 67% 33 Other 0 11% 118 0% 0 6% 3	Centers for Disease Control and Prevention	0%	0	6%	58	0%	0	6%	3
Other 0% 0 11% 118 0% 0 6% 3	Commercial weather vendor	0%	0	61%	635	0%	0	67%	33
	Other	0%	0	11%	118	0%	0	6%	3
	Number of Respondents		0				0		

	Private Aircraft				Air Traffic Controller			
	20	12		13	20)12)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	2%	19	0%	0	4%	2
False	0%	0	98%	1,017	0%	0	96%	47
Number of Respondents		0	1,0	036		0	4	1 9
Not safe to drive when water is too deep to see road surface								
True	0%	0	95%	989	0%	0	90%	44
False	0%	0	5%	47	0%	0	10%	5
Number of Respondents		0		036		0		19
Safe to drive through water slowly	00/	0	40/	4.4	00/	0	40/	2
True False	0% 0%	0 0	4% 96%	44 992	0% 0%	0	4% 96%	2 47
Number of Respondents		0		992 0 36		0		1 47 19
Number of Respondents			1,0					
Safe to drive through water in a large and heavy vehicle								
True	0%	0	3%	32	0%	0	2%	1
False	0%	0	97%	1,004	0%	0	98%	48
Number of Respondents		0	1,0	036		0	4	19
Not safe to drive through swiftly moving water								
True	0%	0	97%	1,010	0%	0	94%	46
False	0%	0	3%	26	0%	0	6%	3
Number of Respondents		0	1,0	036		0	4	19
Million to and all alter to an Pal to be								
When to seek shelter from lightning	00/	0	000/	040	00/	0	4.40/	7
Distant lightning	0%	0	20%	210	0%	0	14%	7
Distant thunder	0% 0%	0	49% 19%	512 197	0% 0%	0	61% 6%	30 3
Nearby lightning Loud thunder	0%	0	19%	104	0% 0%	0	6% 16%	8
Starts to rain	0%	0	10%	13	0%	0	2%	0
Number of Respondents		0)36		0		19
Number of Respondents			1,0					
Age								
Under 25 years	0%	0	3%	23	0%	0	5%	2
25 - 34 years	0%	0	8%	73	0%	0	14%	6
35 - 44 years	0%	0	11%	95	0%	0	24%	10
45 - 54 years	0%	0	21%	192	0%	0	17%	7
55 - 64 years	0%	0	30%	272	0%	0	26%	11
65 - 74 years	0%	0	22%	200	0%	0	14%	6
75 years and older	0%	0	5%	46	0%	0	0%	0
Number of Respondents		0	9	01		0	4	1 2

		Private	Aircraft			Air Traffic	Controller	
	20	12	20	13	20	12	20)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Gender								
Male	0%	0	83%	849	0%	0	84%	41
Female	0%	0	12%	126	0%	0	10%	5
Prefer not to answer	0%	0	5%	49	0%	0	6%	3
Number of Respondents		Ö	1,0	24		0	4	19
Race								
White, Caucasian	0%	0	83%	847	0%	0	80%	39
Black, African American	0%	0	1%	6	0%	0	2%	1
Hispanic, Latino, or Spanish	0%	0	0%	5	0%	0	4%	2
Pacific Islander	0%	0	0%	1	0%	0	0%	0
Asian	0%	0	1%	6	0%	0	0%	0
American Indian/Native Indian or Alaska Native	0%	0	1%	14	0%	0	0%	0
Other	0%	0	3%	32	0%	0	2%	1
Prefer not to answer	0%	0	11%	111	0%	0	12%	6
Number of Respondents		Ö	1,0	22		0	4	19
School completed								
12th grade or less (no diploma)	0%	0	1%	6	0%	0	2%	1
High school diploma or GED	0%	0	4%	44	0%	0	2%	1
Some college, no degree	0%	0	17%	180	0%	0	20%	10
Associate or technical degree	0%	0	12%	124	0%	0	16%	8
Bachelor's degree	0%	0	31%	317	0%	0	39%	19
Graduate degree/Professional degree	0%	0	30%	309	0%	0	14%	7
Prefer not to answer	0%	0	5%	51	0%	0	6%	3
Number of Respondents		0	1,0)31		0	4	19
Interested in other areas~								
National Fire Weather Program	0%	0	8%	78	0%	0	10%	5
National Hurricane Center Program	0%	0	8%	87	0%	0	16%	8
National Hydrologic Services Program	0%	0	8%	79	0%	0	6%	3
National Climate Services Program	0%	0	9%	98	0%	0	16%	8
Do not wish to continue	0%	0	79%	814	0%	0	69%	34
Number of Respondents		0	1,0)36		0	4	19

	Inclu	des kit	Does not	include kit	Don't	know
	2012	2013	2012	2013	2012	2013
Sample Size	11,639	13,129	12,633	13,958	0	886
Hazardous Services	87	89	86	87		85
Tornado Warnings	85	88	85	85		84
Severe Thunderstorm Warnings	86	89	86	87		86
Severe Thunderstorm Watch		90		87		86
Winter Storm Warnings	85	90	85	87		86
Hurricane Warnings	88	92	87	89		88
Flash Flood Warnings	86	89	85	86		85
River Flood Warnings	87	90	87	88		86
High Surf Warnings	89	91	87	89		86
Tsunami Warnings	84	88	84	85		84
Extreme Cold Warnings	89	92	89	91		89
Excessive Heat Warnings	90	93	90	91		90
Coastal Flood Warnings		90		87		86
Climate Hazards		87		84		82
Tornado Warnings	85	88	85	86		84
Ease of Understanding	89	95	88	92		90
Timeliness	85	87	85	85		83
Accuracy	81	80	80	76		75
Severe Thunderstorm Warnings	87	90	86	88		86
Ease of Understanding	90	95	89	93		91
Timeliness	86	90	86	88		87
Accuracy	83	82	82	79		78
Severe Thunderstorm Watch		90		88		87
Ease of Understanding		94		92		91
Timeliness		91		90		89
Accuracy		82		79		78
Flash Flood Warnings	86	89	85	87		85
Ease of Understanding	89	93	88	91		89
Timeliness	86	90	86	88		85
Accuracy	82	83	82	80		79
Tsunami Warnings	85	88	84	85		84
Ease of Understanding	87	92	86	89		86
Timeliness	85	87	85	85		86
Accuracy	79	79	79	74		73
Hurricane Warnings	88	92	88	90		88
Ease of Understanding	90	95	89	92		90
Timeliness	90	94	89	92		90
Accuracy	84	85	83	82		82

CFI Group

	Inclu	des kit	Does not	include kit	Don't	know
	2012	2013	2012	2013	2012	2013
Sample Size	11,639	13,129	12,633	13,958	0	886
Winter Storm Warnings	86	90	85	88		87
Ease of Understanding	89	94	89	92		90
Timeliness	86	92	86	91		89
Accuracy	79	81	78	77		77
River Flood Warnings	87	90	87	88		86
Ease of Understanding	89	93	88	90		88
Timeliness	87	91	87	89		86
Accuracy	86	86	86	84		81
Excessive Heat Warnings	90	93	90	92		90
Ease of Understanding	91	95	91	93		91
Timeliness	90	94	90	93		91
Accuracy	89	90	89	89		87
Extreme Cold Warnings	89	92	89	91		89
Ease of Understanding	91	94	90	93		91
Timeliness	89	93	89	92		91
Accuracy	87	88	87	86		85
High Surf Warnings	89	92	87	89		86
Ease of Understanding	90	93	88	91		87
Timeliness	89	92	88	90		87
Accuracy	87	88	86	85		83
Coastal Flood Warnings		90		87		86
Ease of Understanding		92		89		87
Timeliness		91		89		87
Accuracy		85		83		81
Climate Hazards		88		85		83
Ease of Understanding		90		87		85
Timeliness		89		87		85
Accuracy		83		80		78
Weather-Sensitive Decision Making		87		86		83
Rely on NWS in making weather-sensitive decisions		87		86		83
User Support Services	90	90	88	87		83
Accessibility	89	88	87	85		83
Responsiveness	88	87	86	84		77
Subject-Matter Knowledge	92	93	90	91		86
Professionalism	93	93	92	92		86
Assisting in interpretation of weather-related information	90	90	88	87		83
Saving your organization money		79		72		74
Resolving a complaint	86	77	82	71		62

	Includ	des kit	Does not	nclude kit	Don't	know
	2012	2013	2012	2013	2012	2013
Sample Size	11,639	13,129	12,633	13,958	0	886
Dissemination Services - Website	-	87		83		81
Ease of locating information	83	85	82	81		79
Ease of understanding info	88	87	87	83		82
Information is up-to-date	88	88	87	86		84
Satellite Imagery display		86		82		80
Doppler Radar display		86		82		81
Dissemination Services - Automated	78	82	75	73		81
Ease locating data on servers	78	84	75	78		83
Ease of req add data to server	76	80	72	70		77
Ease of providing input	76	77	73	67		82
Ease of auto method	81	84	77	74		84
Usefulness of WEA Message		83		77		72
Usefulness of WEA message		83		77		72
Usefulness of NWS Presence		72		67		65
Usefulness of NWS presence on Facebook		79		75		72
Usefulness of NWS presence on Twitter		69		62		57
Usefulness of NWS presence on YouTube		48		41		43
Usefulness of NWS Graphical Summary		84		81		80
Usefulness of NWS graphical weather summaries on social		84		81		80
Effectiveness of Safety Campaigns		77		74		75
Effectiveness of Turn Around Don't Drown		81		79		79
Effectiveness of When Thunder Roars, Go Indoors!		72		68		71
Effectiveness of RIP CURRENTS - Break the Grip of the Ri		76		72		71
Customer Satisfaction Index	85	84	83	81		80
Overall Satisfaction	89	89	88	86		85
Meets expectations	80	78	78	74		73
Compared to ideal	82	81	81	79		78
Likelihood Take Action	91	92	89	89		88
Likelihood take action on info	91	92	89	89		88
Likelihood to Use in Future	96	97	95	96		95
Likelihood use NWS in future	96	97	95	96		95
Likelihood to Recommend	94	94	92	91		89
Likelihood to recommend	94	94	92	91		89
Desktop-laptop computed - Anticipated Use		93		93		91
Desktop-laptop computer		93		93		91
Mobile Device - Anticipated Use	-	61		58		55
Mobile Device		61		58		55
Social Media - Anticipated Use	-	26		22		23
Social Media		26		22		23
Direction Interaction - Anticipated Use		15		8		9
Direct Interaction w NWS Staff		15		8		9

	Includ	des kit	Does not	include kit	Don't know	
	2012	2013	2012	2013	2012	2013
Sample Size	11,639	13,129	12,633	13,958	0	886
NOAA Weather Radio - Anticipated Use		52		37		38
NOAA Weather Radio All-Hazards		52		37		38
File transfer services - Anticipated Use		22		14		16
File transfer services		22		14		16
Marginal - Level of Severity		24		22		23
Marginal		24		22		23
Slight - Level of Severity		17		16		18
Slight		17		16		18
Critical - Level of Severity		92		92		91
Critical		92		92		91
Enhanced - Level of Severity		50		49		50
Enhanced		50		49		50
Elevated - Level of Severity		55		54		56
Elevated		55		54		56
Moderate - Level of Severity		47		46		47
Moderate		47		46		47
ligh - Level of Severity		81		80		80
High		81		80		80
Ease of Accessing Fire Weather Info		78		76		81
Ease of accessing fire weather info on NWS website		78		76		81
Ease of Navigating NHC Website		85		79		79
Ease of navigating NHC website		85		79		79
Frequency of Use		63		67		65
How frequently use NHC website		15		23		20
How frequently use NHC Facebook page		67		71		68
How frequently use NHC Twitter accounts		71		74		72
How frequently use Hurrevac		75		78		76
How frequently use Free commercial service		52		53		48
How frequently use Paid commercial service		72		74		75
How frequently use Other government services		53		60		56
NHC Text Products		82		78		84
Fropical Cyclone Public Advisory (TCP)		84		79		85
Tropical Cyclone Forecast/Advisory (TCM)		86		82		85
Tropical Cyclone Forecast Discussion (TCD)		82		78		84
Tropical Cyclone Wind Speed Probabilities (PWS)		83		78		82
Fropical Cyclone Update (TCU)		88		84		90
Tropical Cyclone Valid Event Time Code (TCV)		72		66		79
Tropical Cyclone Aviation Advisory (TCA)		56		48		53

	Inclu	des kit	Does not	include kit	Don't	know
	2012	2013	2012	2013	2012	2013
Sample Size	11,639	13,129	12,633	13,958	0	886
NHC Graphical Products		84		79		84
Tropical Cyclone Track/Forecast Cone		93		91		93
Tropical Cyclone Surface Wind Field/Coastal Watches and		90		85		90
Maximum 1-Minute Wind Speed Probability		74		68		73
Tropical Cyclone Wind Speed Probabilities		85		80		84
Tropical Cyclone Cumulative Wind History		69		64		69
Tropical Cyclone Storm Surge Probabilities 2-25 ft.		83		77		79
Tropical Cyclone Storm Surge Probabilities Exceedence		78		71		77
NHC Potential Products		89		86		92
Forecasts for systems not yet tropical cyclones		85		80		90
Watches/warnings before cyclone forms		77		71		86
6 and 7-day cyclone track and intensity forecasts		86		83		89
Map of areas at risk		91		88		93
Graphic showing potential arrival time of winds of tropical st		93		90		95
Landfall intensity probabilities		92		90		94
Satisfaction with new TCP		84		80		83
Overall satisfaction with content of new TCP		86		81		85
Overall satisfaction with organization and layout of new TCF		84		79		82
Overall satisfaction with length of new TCP		84		79		80
Usefulness of NHC/TAFB Text Products		48		43		51
Atlantic High Seas forecast		47		41		49
East Pacific High Seas forecast		24		22		26
Southeast Pacific High Seas forecast		23		20		22
Offshore Waters forecasts for the Caribbean and Southwes		49		43		46
Offshore Waters for the Gulf of Mexico		50		43		44
NAVTEX Marine forecasts from Miami, San Juan, and New		42		33		43
High Frequency Voice Broadcasts (VOBRA)		34		22		31
Marine Weather Discussion		47		41		67
Atlantic Tropical Weather Discussion		61		57		61
East Pacific Tropical Weather Discussion		27		26		32
Satellite Tropical Disturbance Rainfall		50		42		48
Pan-Am Temperature and Precipitation Table		33		28		36
NHC/TAFB Graphical Products		77		72		81
Unified Surface Analysis (USA)		66		61		71
24, 48, and 72-hour Wind/Wave forecasts		77		72		80
24, 48, and 72-hour Surface forecasts		77		72		79
Tropical Cyclone Danger Area		82		77		82
48-hour High Wind		77		70		81

CFI Group

	Inclu	des kit	Does not	include kit	Don't	know
	2012	2013	2012	2013	2012	2013
Sample Size	11,639	13,129	12,633	13,958	0	886
NHC/TAFB Experimental and Potential Products		73		65		73
EDSS Graphicast		68		57		76
Satellite Derived QPE/QPF page		71		62		76
Wind Speed Probabilities-based Tropical Cyclone Danger G		80		74		81
Gridded Marine Forecasts on the National Digital Forecast I		71		61		76
Spot EDSS Marine Forecasts for the Atlantic and East Pacif		67		56		73
96, 120, and 144-hour marine forecast graphics		71		62		73
Marine Forecast Matrices		66		56		72
5-Day High Seas Forecasts		72		62		71
Graphical/polygonal depiction of High Seas warnings		69		59		74
Offshore Waters Forecasts for the Northeast Pacific		46		38		50
Satisfaction with NHC Tropical Weather Discussions		85		80		84
Satisfaction with Tropical Weather Discussions for Atlantic a		85		80		84
Flood Inundation Mapping	-	86		85		91
Usefulness of flood inundation mapping libraries		86		85		91
Experimental Long-Range River Flood Risk	-	75		72		73
Visual appeal		74		72		74
Ease of understanding		77		72		70
Tells me what I need to know		75		73		74
Water Resources Decision Support Page	-	83		80		79
Visual appeal		84		82		84
Ease of understanding		81		78		78
Tells me what I need to know		83		81		80
Improves my ability to make decisions		84		82		80
River Forecast Center Quantitative Precipitation Foreca	-	85		83		79
Visual appeal		86		84		81
Ease of understanding		84		82		78
Tells me what I need to know		83		81		79
Short-Term Probabilistic Forecasts		81		77		71
Visual appeal		82		79		77
Ease of understanding		80		74		66
Tells me what I need to know		82		78		69
Satisfaction with Advanced Hydrologic Prediction Servi	-	83		82		85
Satisfaction with AHPS		83		82		85
Satisfaction with NWS Hydrologic Services Program	1	75		74		73
Satisfaction with Hydrologic Services Program		80		79		78
Hydrologic Services Program compared to expectations		71		69		69
Hydrologic Services Program compared to ideal		75		73		72

	Includes kit		Does not include kit		Don't know	
	2012	2013	2012	2013	2012	2013
Sample Size	11,639	13,129	12,633	13,958	0	886
New Interactive Display of 8-14 Day Extended Range Ou		85		81		66
Easy to understand		87		86		71
Easy to use		87		85		65
Eye-appealing		85		82		71
Timeliness		85		83		72
Usefulness		84		81		67
Organization of information		85		82		72
Location selection		84		80		69
Ability to select variables		83		78		68
ength of data record		84		79		74
Meets my needs		85		80		63

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Demographics

	Includes kit			
	2012		20	013
	Percent	Frequency	Percent	Frequency
Region				
Central Region	33%	2,524	29%	3,821
Eastern Region	27%	2,095	23%	3,013
Southern Region	20%	1,518	23%	3,016
Western Region	19%	1,444	24%	3,123
Alaska Region	1%	43	0%	60
Pacific Region	1%	50	0%	55
Number of Respondents	7,674 13,088		,088	

Uses of NWS information~				
Agriculture	0%	0	19%	2,477
Aviation	0%	0	6%	831
Amateur Radio	0%	0	8%	1,090
Broadcast/Print Media	0%	0	3%	433
Commodities Markets	0%	0	1%	137
Consulting	0%	0	2%	238
Education	0%	0	9%	1,153
Health Services	0%	0	3%	450
Land Management Decisions	0%	0	10%	1,313
Marine	0%	0	4%	584
NWS Data Provider	0%	0	12%	1,612
Personal	0%	0	86%	11,291
Recreation	0%	0	60%	7,925
Research	0%	0	7%	914
Weather Enthusiast	0%	0	57%	7,463
Work-related decisions	0%	0	29%	3,814
Other	0%	0	9%	1,139
Number of Respondents		0	13,	129

Type of Aviation				
Dispatcher	100%	11	4%	32
Comm Aircraft	0%	0	20%	166
Private Aircraft	0%	0	73%	606
Air Traffic Controller	0%	0	3%	27
Number of Respondents	11		83	31

		Includ	les kit	
	20	12	20	13
	Percent	Frequency	Percent	Frequency
Information sources~				
NWS Web	93%	10,487	93%	12,249
Non-NWS Web	33%	3,725	32%	4,161
Mobile devices	40%	4,564	49%	6,485
Social Media	12%	1,402	16%	2,099
Email	21%	2,364	15%	1,937
Landline Telephone	0%	0	5%	722
Cell Phone	0%	0	22%	2,840
Local or cable TV	53%	5,999	55%	7,173
Commercial Radio	31%	3,458	25%	3,280
Satellite radio	5%	605	4%	550
Satellite TV	18%	2,093	15%	1,998
Newspaper	18%	2,093	17%	2,174
NOAA Weather Radio/All Hazards	50%	5,674	52%	6,788
NOAA Weather Wire	7%	745	5%	633
Family of Services (FOS)	5%	545	2%	227
Emerg Mgrs Weather Info Net	7%	736	7%	876
NOAAPort	5%	592	3%	373
World Area Forecast System	2%	229	1%	137
DUATS	3%	325	2%	306
Flight Services	6%	649	4%	466
U.S. Coast Guard Broadcasts	9%	1,016	2%	314
NAVTEX receiver	1%	108	0%	43
Immarsat-C SafetyNET	0%	45	0%	24
Radiofacsimile	1%	130	0%	27
Other	2%	228	6%	748
Number of Respondents	11,	319	13,	129

NOAANWS products used most often~				
Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	12,692
Weather observations	0%	0	77%	10,066
Climate observations	0%	0	35%	4,642
Satellite data	0%	0	54%	7,064
Radar data	0%	0	83%	10,924
Computer weather model output	0%	0	43%	5,595
Weather outreach/educational materials	0%	0	11%	1,507
Other products	0%	0	5%	628
Number of Respondents		Ó	13,	129

Demographics

		Includ	les kit	
		12		13
Proceedings from Warran 201	Percent	Frequency	Percent	Frequency
Products familiar with~	0%	0	77%	10.000
Tornado Warnings	0%	0		10,099
Severe Thunderstorm Warnings		0	95%	12,427
Severe Thunderstorm Watches	0%	0	93%	12,205
Flash Flood Warnings	0%	0	83%	10,847
Tsunami Warnings	0%	0	24%	3,183
Hurricane Warnings	0%	0	54%	7,026
Winter Storm Warnings	0%	0	90%	11,770
River Flood Warnings	0%	0	64%	8,451
Excessive Heat Warnings	0%	0	78%	10,212
Extreme Cold Warnings	0%	0	69%	9,104
High Surf Warnings	0%	0	29%	3,823
Coastal Flood Warnings	0%	0	37%	4,886
Climate Hazards	0%	0	50%	6,538
Don't know	0%	0	0%	54
Number of Respondents		0	13,	129
Likelih and of taking protective action if towards werning insued				
Likelihood of taking protective action if tornado warning issued	00/	0	20/	201
Very Unlikely	0%	0	2%	291
Somewhat Unlikely	0%	0	2%	285
Somewhat Likely	0%	0	10%	1,341
Very Likely	0%	0	84%	11,072
Don't Know	0%	0	1%	140
Number of Respondents		0	13,	129
Reason for not taking action				
Do not believe I would be directly impacted by the tornado	0%	0	20%	117
Need to first see or hear tornado	0%	0	12%	71
Have never seen tornado damage in my area	0%	0	26%	151
Do not take tornado warnings seriously	0%	0	4%	21
Other	0%	0	38%	216
Number of Respondents		0		76
		-		-
Proximity of tornado before considering warning accurate				
1 mile or less	0%	0	5%	616
5 miles or less	0%	0	34%	4,403
10 miles or less	0%	0	37%	4,828
25 miles or less	0%	0	22%	2,840
Other	0%	0	3%	442
Number of Respondents		0	13,	129
Number of ternade warnings issued				
Number of tornado warnings issued	00/		E 0/	716
Too many tornado warnings	0%	0	5%	716
Too few tornado warnings	0%	0	4%	477
Just about right	0%	0	72%	9,452
Don't know	0%	0	19%	2,484
Number of Respondents		0		129

		Includ	les kit		
	20)12)13	
	Percent	Frequency	Percent	Frequency	
Impact of tornado not occurring when warning issued					
Same actions as did previously	0%	0	85%	11,095	
Less likely to take same action	0%	0	8%	1,040	
Don't know	0%	0	8%	994	
Number of Respondents		0	13	129	
Heard the term Weather-Ready Nation					
Heard Weather-Ready Nation	0%	0	22%	2,923	
Have not heard Weather-Ready Nation	0%	0	78%	10,206	
Number of Respondents		0	13	129	
Have a hazardous weather safety plan					
Have a plan	79%	9,218	93%	12,185	
Do not have a plan	21%	2,421	6%	808	
Don't know	0%	0	1%	136	
Number of Respondents	11	,639	13	129	
Reason plan created~					
Friends and family	40%	3,642	54%	6,530	
General desire to be prepared	86%	7,885	92%	11,204	
An extreme weather event	44%	4,069	55%	6,732	
Be a Force of Nature campaign	1%	124	2%	199	
Weather-Ready Nation initiative	6%	544	5%	585	
Other	12%	1,096	16%	2,004	
Number of Respondents		167		,185	
Main reason you do not have a plan					
Takes too much time	1%	35	5%	39	
Too expensive	0%	12	3%	23	
Not sure what to include	45%	1,094	38%	311	
Don't think it's necessary	36%	862	27%	220	
Other	17%	418	27%	215	
Number of Respondents		421		08	
Reason kit created~					
Friends and family	33%	3,807	51%	6,631	
General desire to be prepared	85%	9,821	92%	12,136	
An extreme weather event	40%	4,651	54%	7,073	
Be a Force of Nature campaign	1%	152	1%	190	
Weather-Ready Nation initiative	7%	765	4%	509	
Other	15%	1,756	14%	1,875	
Number of Respondents		,562		,129	

Plan includes hazardous weather emergency preparedness kit Demographics

		Includ	les kit	
	2	012	2	013
	Percent	Frequency	Percent	Frequency
Main reason you do not have a kit				
Takes too much time	0%	0	0%	0
Too expensive	0%	0	0%	0
Not sure what to include	0%	0	0%	0
Don't think it's necessary	0%	0	0%	0
Other	0%	0	0%	0
Number of Respondents		0		0
NWS staff on-site at incident				
NWS staff on-site	0%	0	10%	557
		0		
No staff on-site	0%	0	58%	3,092
DK/NA Number of Respondents	0%	0	32%	1,728 377
indiliber of Respondents		U	J,	311
Require specific products and have automated methods				
Require specific products with automation	0%	0	10%	1,363
Do not require specific products with automation	0%	0	90%	11,766
Number of Respondents		0	13	,129
		•		
Received WEA message on cell phone				
Received message	0%	0	28%	3,694
Did not receive message	0%	0	68%	8,881
Don't know	0%	0	4%	554
Number of Respondents		0	13,129	
WEA message was first notification received				
First notification	0%	0	61%	2,251
Not first notification	0%	0	31%	1,144
Don't know	0%	0	8%	299
Number of Respondents	370	0		694
Understood WEA message	00/		000/	2.005
Fully understood	0%	0	88%	3,235
Somewhat understood	0%	0	12%	432
Did not understand	0%	0	1%	27 694
Number of Respondents		0	ა,	094
Beneficial enhancements to WEA message~				
More text containing details of warning	0%	0	40%	1,469
Accompanying graphic showing warning area	0%	0	61%	2,252
Accompanying graphic showing current location	0%	0	56%	2,077
Color representing urgency of warning	0%	0	38%	1,399
Color representing type of warning	0%	0	25%	941
Sound representing urgency of warning	0%	0	44%	1,616
Sound representing type of warning	0%	0	29%	1,063
Number of Respondents		0		694

Plan includes hazardous weather emergency preparedness kit Demographics

		Includ	les kit	
	20	012	20)13
	Percent	Frequency	Percent	Frequency
Facebook and Twitter during weather events~				
Do not use Facebook and Twitter for weather events	0%	0	69%	9,066
Read what others are posting or tweeting	0%	0	24%	3,204
Comment on what others are posting or tweeting	0%	0	18%	2,419
Write own posts or tweets	0%	0	20%	2,576
Number of Respondents		0	13	129
Amount of social media content available				
Too little	0%	0	21%	871
Just about right	0%	0	52%	2,094
Too much	0%	o o	1%	42
Don't know	0%	o o	26%	1,056
Number of Respondents		0		063
Promoted awareness campaigns~	22/		2221	4 = 4 =
Heat Safety	0%	0	32%	1,710
Flood Safety	0%	0	32%	1,726
Lightning Safety	0%	0	37%	2,014
Severe Weather Safety	0%	0	50%	2,707
Rip Currents Safety	0%	0	7%	365
Hurricane Safety	0%	0	15%	809
Tsunami Safety	0%	0	4%	230
Winter Weather Safety	0%	0	42%	2,285
Wildfire Safety	0%	0	28%	1,527
None of the above	0%	0	30%	1,619
Number of Respondents		0	5,	377
Websites visited for weather safety~				
National Weather Service	0%	0	97%	12,731
FEMA	0%	0	20%	2,595
American Red Cross	0%	0	11%	1,494
Centers for Disease Control and Prevention	0%	0	7%	954
Commercial weather vendor	0%	0	59%	7,715
Other	0%	0	12%	1,562
Number of Respondents		0	13	129
Safe to drive through water when no Road Closed sign or police barricade				
True	0%	0	2%	230
False	0%	0	98%	12,899
Number of Respondents		0		,129
Not safe to drive when water is too deep to see road surface				
True	0%	0	96%	12,566
False	0%	0	90 % 4%	563
Number of Respondents		·-		
Number of Respondents		0	13	,129

Plan includes hazardous weather emergency preparedness kit Demographics

True False 0% 0 96% 12,611 Number of Respondents 0 0 13,129 Safe to drive through water in a large and heavy vehicle True 0% 0 97% 12,736 Number of Respondents 0 0 13,129 Not safe to drive through swiftly moving water 0 0 13,129 Not safe to drive through swiftly moving water 1 1,705 Palse 0% 0 97% 12,705 Palse 1,705 Palse 1,7			Includ	les kit	
Safe to drive through water slowly 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129		20	012	20	013
Safe to drive through water slowly 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129 12,011 13,129		Percent	Frequency	Percent	Frequency
False 0% 0 96% 12,611 Number of Respondents 0 0 13,129 Safe to drive through water in a large and heavy vehicle True 0% 0 97% 12,736 Number of Respondents 0 0 13,129 Not safe to drive through swiftly moving water True 0% 0 97% 12,705 False 13,129 When to seek shelter from lightning 0% 0 19% 2,437 Distant lightning 0% 0 19% 1,850 Loud thunder 0% 0 97% 1,850 Loud thunder 0% 0 97% 1,237 Starts to rain 0% 0 97% 1,237 Starts to rain 0% 0 97% 1,237 Number of Respondents 0 97% 0 97% 1,237 Starts to rain 0% 0 97% 1,237 Starts to rain 1,29 Age Under 25 years 2 2% 241 2% 206 25 - 34 years 12% 1,226 12% 1,343 45 - 54 years 25% 2,459 23% 2,645 55 - 64 years 25% 2,459 23% 2,645 55 - 64 years 17% 1,226 12% 1,343 45 - 54 years 17% 1,226 12% 1,343 45 - 54 years 17% 1,226 12% 1,343 45 - 54 years 177% 1,226 12% 1,343 45 - 54 years 177% 1,226 12% 1,343 46 - 54 years 177% 1,226 12% 1,343 47 - 54 years 177% 1,226 12% 1,343 48 - 54 years 177% 1,226 12% 1,343 49 - 54 years 177% 1,226 12% 1,343 49 - 54 years 177% 1,226 12% 1,343 49 - 54 years 177% 1,226 12% 1,343 40 - 54 years 177% 1,226 12% 1,343 41 - 54 years 177% 1,226 12% 1,343 42 - 54 years 177% 1,226 12% 1,343 43 - 54 years 177% 1,226 12% 1,343 45 - 54 years 1,226 12% 1,226 45 - 34 years 1,226 45 - 34 years 1,226 45 - 34 years 1,226 45	Safe to drive through water slowly				
Number of Respondents	True	0%	0	4%	518
Safe to drive through water in a large and heavy vehicle	False	0%	0	96%	12,611
True 0% 0 3% 393 False 0% 0 97% 12,736 Number of Respondents 0 13,129 True 0% 0 97% 12,705 False 0% 0 3% 424 Number of Respondents 0 13,129 When to seek shelter from lightning 0% 0 19% 2,437 Distant Ilightning 0% 0 56% 7,392 Nearby lightning 0% 0 14% 1,850 Loud thunder 0% 0 9% 1,237 Starts to rain 0% 0 9% 1,237 Number of Respondents 0 13,129 Age Under 25 years 2% 241 2% 206 25 - 34 years 2% 241 2% 206 25 - 34 years 2% 241 2% 206 25 - 34 years 2% 24 2%	Number of Respondents		0	13	,129
True 0% 0 3% 393 False 0% 0 97% 12,736 Number of Respondents 0 13,129 True 0% 0 97% 12,705 False 0% 0 3% 424 Number of Respondents 0 13,129 When to seek shelter from lightning 0% 0 19% 2,437 Distant Ilightning 0% 0 56% 7,392 Nearby lightning 0% 0 14% 1,850 Loud thunder 0% 0 9% 1,237 Starts to rain 0% 0 9% 1,237 Number of Respondents 0 13,129 Age Under 25 years 2% 241 2% 206 25 - 34 years 2% 241 2% 206 25 - 34 years 2% 241 2% 206 25 - 34 years 2% 24 2%					
False	· · · · · · · · · · · · · · · · · · ·				
Not safe to drive through swiftly moving water	True		0		
Not safe to drive through swiftly moving water		0%	0		
True 0% 0 97% 12,705 False 0% 0 3% 424 Number of Respondents 0 13,129 When to seek shelter from lightning Distant lightning 0% 0 19% 2,437 Distant Hunder 0% 0 56% 7,392 Nearby lightning 0% 0 14% 1,850 Loud thunder 0% 0 9% 1,237 Starts to rain 0% 0 2% 213 Number of Respondents 0 13,129 Age 2 241 2% 206 25 - 34 years 2% 241 2% 206 25 - 34 years 2% 241 2% 26 25 - 34 years 2% 2,445 2% 26 25 - 34 years 12% 1,226 12% 1,343 45 5-5 years 25% 2,459 23% 2,645 55 64 years 33%<	Number of Respondents		0	13	,129
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Distant lightning 0% 0 19% 2,437 Distant thunder 0% 0 56% 7,392 Nearby lightning 0% 0 14% 1,850 Loud thunder 0% 0 9% 1,237 Starts to rain 0% 0 2% 213 Number of Respondents 0 13,129 Age Under 25 years 2% 241 2% 2% 241 2% 206 25 - 34 years 35 - 44 years 49 + 266 49 + 276 4	Number of Respondents		0	13	,129
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Nearby lightning 0% 0 14% 1,850 Loud thunder 0% 0 9% 1,237 Starts to rain 0% 0 2% 213 Number of Respondents Quality of the colspan="3">To the colspan="3">T					
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35 - 44 years 12% 1,226 12% 1,343 45 - 54 years 25% 2,459 23% 2,645 55 - 64 years 33% 3,325 33% 3,802 65 - 74 years 17% 1,732 18% 2,085 75 years and older 4% 358 4% 456 Number of Respondents 10,033 11,417 Gender Male 73% 8,282 66% 8,575 Female 27% 3,025 30% 3,827 Prefer not to answer 0% 0 4% 560					
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Male 73% 8,282 66% 8,575 Female 27% 3,025 30% 3,827 Prefer not to answer 0% 0 4% 560	inditibol of Respondents	10	,000	- 11	, - 1 1
Male 73% 8,282 66% 8,575 Female 27% 3,025 30% 3,827 Prefer not to answer 0% 0 4% 560	Gender				
Female 27% 3,025 30% 3,827 Prefer not to answer 0% 0 4% 560	Male	73%	8,282	66%	8,575
Prefer not to answer 0% 0 4% 560	Female				
			*		
	Number of Respondents		-		

Plan includes hazardous weather emergency preparedness kit Demographics

		Includes kit						
	20)12	20	013				
	Percent	Frequency	Percent	Frequency				
Race								
White, Caucasian	94%	10,466	84%	10,875				
Black, African American	1%	59	0%	54				
Hispanic, Latino, or Spanish	1%	104	1%	156				
Pacific Islander	0%	27	0%	17				
Asian	1%	62	0%	57				
American Indian/Native Indian or Alaska Native	1%	99	1%	150				
Other	3%	321	3%	357				
Prefer not to answer	0%	0	10%	1,296				
Number of Respondents	11,	138	12	,962				
School completed								
12th grade or less (no diploma)	2%	205	1%	166				
High school diploma or GED	7%	754	7%	855				
Some college, no degree	21%	2,406	20%	2,559				
Associate or technical degree	15%	1,669	14%	1,825				
	l			1				

School completed				
12th grade or less (no diploma)	2%	205	1%	166
High school diploma or GED	7%	754	7%	855
Some college, no degree	21%	2,406	20%	2,559
Associate or technical degree	15%	1,669	14%	1,825
Bachelor's degree	28%	3,194	26%	3,412
Graduate degree/Professional degree	28%	3,210	28%	3,594
Prefer not to answer	0%	0	5%	598
Number of Respondents	11,438		13,	009

Interested in other areas~				
National Fire Weather Program	0%	0	8%	1,067
National Hurricane Center Program	0%	0	10%	1,284
National Hydrologic Services Program	0%	0	6%	844
National Climate Services Program	0%	0	10%	1,354
Do not wish to continue	0%	0	77%	10,064
Number of Respondents		0		129

		Does not i	nclude kit			Don't	know	
	20)12	20	013	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	36%	3,071	37%	5,151			30%	264
Eastern Region	31%	2,652	23%	3,172			26%	230
Southern Region	16%	1,381	19%	2,644			16%	136
Western Region	17%	1,446	21%	2,871			27%	240
Alaska Region	0%	28	0%	37			0%	2
Pacific Region	0%	19	0%	27			0%	3
Number of Respondents	8,	597	13,	,902			8	75
Uses of NWS information~								
Agriculture	0%	0	14%	2,008			16%	145
Aviation	0%	0	4%	550			3%	29
Amateur Radio	0%	0	4%	550			3%	31
Broadcast/Print Media	0%	0	2%	319			3%	28
Commodities Markets	0%	0	1%	149			1%	9
Consulting	0%	0	1%	143			2%	16
Education	0%	0	5%	731			6%	51
Health Services	0%	0	2%	237			2%	20
Land Management Decisions	0%	0	6%	832			8%	72
Marine	0%	0	2%	283			3%	29
NWS Data Provider	0%	0	7%	948			8%	67
Personal	0%	0	89%	12,458			86%	764
Recreation	0%	0	57%	7,953			52%	464
Research	0%	0	4%	612			5%	46
Weather Enthusiast	0%	0	52%	7,241			50%	445
Work-related decisions	0%	0	18%	2,529			15%	135
Other	0%	0	8%	1,075			10%	88
Number of Respondents		0	13,	,958			88	86
Type of Avietien								
Type of Aviation Dispatcher	100%	10	4%	20			7%	2
Comm Aircraft	0%	0	4% 18%	97			7% 28%	8
Private Aircraft	0% 0%	0	75%	411			26% 66%	19
Air Traffic Controller	0% 0%	0	75% 4%	22			0%	0
				50				l ∪
Number of Respondents		U	Э	30		-		.9

		Does not i	nclude kit			Don't	know	
	20)12		13	20	12		13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	93%	11,383	93%	12,944			91%	804
Non-NWS Web	33%	4,025	32%	4,425			31%	277
Mobile devices	34%	4,230	47%	6,623			43%	380
Social Media	10%	1,206	13%	1,789			11%	97
Email	12%	1,417	8%	1,110			9%	79
Landline Telephone	0%	0	4%	551			4%	35
Cell Phone	0%	0	17%	2,307			15%	131
Local or cable TV	51%	6,248	54%	7,564			50%	445
Commercial Radio	28%	3,439	23%	3,278			25%	218
Satellite radio	3%	399	3%	349			3%	26
Satellite TV	14%	1,760	12%	1,719			10%	92
Newspaper	20%	2,407	16%	2,298			18%	163
NOAA Weather Radio/All Hazards	33%	4,037	35%	4,908			35%	310
NOAA Weather Wire	4%	522	3%	356			3%	23
Family of Services (FOS)	3%	409	1%	126			2%	20
Emerg Mgrs Weather Info Net	2%	242	2%	308			3%	24
NOAAPort	4%	495	2%	235			2%	16
World Area Forecast System	1%	145	0%	58			1%	7
DUATS	2%	206	1%	169			1%	11
Flight Services	3%	423	2%	250			1%	10
U.S. Coast Guard Broadcasts	4%	487	1%	123			2%	16
NAVTEX receiver	0%	46	0%	8			0%	4
Immarsat-C SafetyNET	0%	23	0%	3			0%	2
Radiofacsimile	1%	86	0%	8			0%	4
Other	2%	192	5%	715			6%	51
Number of Respondents	12,	288	13,	958			88	36
			·					
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	96%	13,462			95%	842
Weather observations	0%	0	71%	9,923			69%	615
Climate observations	0%	0	30%	4,214			31%	274
Satellite data	0%	0	43%	6,014			42%	371
Radar data	0%	0	78%	10,823			70%	624
Computer weather model output	0%	0	32%	4,453			31%	276
Weather outreach/educational materials	0%	0	6%	815			7%	65
Other products	0%	0	4%	589			6%	55
Number of Respondents		0		958		-		36

		Does not i	include kit			Don't	know	
	20	112)13	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with~				, ,				
Tornado Warnings	0%	0	76%	10,593			70%	616
Severe Thunderstorm Warnings	0%	0	93%	13,027			92%	811
Severe Thunderstorm Watches	0%	0	91%	12,742			88%	779
Flash Flood Warnings	0%	0	79%	11,080			74%	658
Tsunami Warnings	0%	0	17%	2,425			18%	163
Hurricane Warnings	0%	0	46%	6,482			45%	397
Winter Storm Warnings	0%	0	90%	12,509			88%	777
River Flood Warnings	0%	0	55%	7,717			52%	464
Excessive Heat Warnings	0%		75%	10,487			73%	646
Extreme Cold Warnings	0%		64%	8,963			62%	548
High Surf Warnings	0%		21%	2,939			22%	191
		0	21% 27%					
Coastal Flood Warnings	0%			3,765			30%	264
Climate Hazards	0%	0	41%	5,716			41%	361
Don't know	0%	0	1%	160			3%	25
Number of Respondents		0	13,	,958		-	8	86
Libelihand of taking greatestive action if towards were in a leaved								
Likelihood of taking protective action if tornado warning issued	00/	0	00/	204			20/	0.4
Very Unlikely	0%	0	2%	321			3%	24
Somewhat Unlikely	0%	0	3%	460			2%	22
Somewhat Likely	0%	0	17%	2,360			19%	164
Very Likely	0%	0	76%	10,606			72%	635
Don't Know	0%	0	2%	211			5%	41
Number of Respondents		0	13,958 -			886		
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	0%	0	21%	162			20%	9
Need to first see or hear tornado	0%	0	14%	113			15%	7
Have never seen tornado damage in my area	0%	0	31%	241			30%	14
Do not take tornado warnings seriously	0%	0	6%	43			4%	2
Other	0%	0	28%	222			30%	14
Number of Respondents		Ó	7	81		_	4	6
	•							
Proximity of tornado before considering warning accurate	22/		004				201	
1 mile or less	0%	0	6%	779			6%	53
5 miles or less	0%	0	36%	5,071			31%	275
10 miles or less	0%	0	37%	5,151			35%	312
25 miles or less	0%	0	18%	2,569			22%	196
Other	0%	0	3%	388			6%	50
Number of Respondents		0	13,	,958			8	86
Number of tornado warnings issued								
Too many tornado warnings	0%	0	7%	968			4%	36
Too few tornado warnings	0%		3%	372			3%	25
Just about right	0%		68%	9,497	 		56%	495
Don't know	0%	0	22%	3,121			37%	330
		-						
Number of Respondents		0	13,	,958			8	86

		Does not	include kit			Don't know			
	20	112		013	20)12		13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Impact of tornado not occurring when warning issued	. 0.00	. requeriey	. 0.00110	requestey	- Ci Come	11041101	. G. GGIII	. requency	
Same actions as did previously	0%	0	79%	10,991			70%	621	
Less likely to take same action	0%	0	12%	1,654			11%	97	
Don't know	0%	0	9%	1,313			19%	168	
Number of Respondents		0		,958		-		86	
Heard the term Weather-Ready Nation									
Heard Weather-Ready Nation	0%	0	13%	1,818			16%	144	
Have not heard Weather-Ready Nation	0%	0	87%	12,140			84%	742	
Number of Respondents		0	13,	,958		-	8	86	
Have a hazardous weather safety plan	4404	5.007	500/	0.057			470/	400	
Have a plan	41%	5,237	58%	8,057			47%	420	
Do not have a plan	59%	7,396	38%	5,371			33%	294	
Don't know	0%	0	4%	530			19%	172	
Number of Respondents	12,	633	13,	,958			8	86	
Reason plan created~									
Friends and family	45%	2,364	50%	4,066			52%	218	
General desire to be prepared	78%	4,048	91%	7,345	 		93%	390	
An extreme weather event	41%	2,128	48%	3,862	 		51%	213	
Be a Force of Nature campaign	1%	40	1%	79			1%	3	
Weather-Ready Nation initiative	3%	178	2%	183			3%	11	
Other	10%	515	10%	815			16%	68	
Number of Respondents		214		057				20	
Number of Respondents	J,2	- 1 - 7	0,0	551			-T-		
Main reason you do not have a plan									
Takes too much time	3%	195	3%	172			4%	11	
Too expensive	1%	54	3%	168			3%	8	
Not sure what to include	33%	2,471	40%	2,134			43%	127	
Don't think it's necessary	48%	3,580	35%	1,870			28%	82	
Other	15%	1,096	19%	1,027			22%	66	
Number of Respondents	7,3	396	5,3	371		- -	2	94	
Reason kit created~									
Friends and family	0%	0	0%	0			0%	0	
General desire to be prepared	0%	0	0%	0			0%	0	
An extreme weather event	0%	0	0%	0			0%	0	
Be a Force of Nature campaign	0%	0	0%	0			0%	0	
Weather-Ready Nation initiative	0%	0	0%	0			0%	0	
Other	0%	0	0%	0			0%	0	
Number of Respondents		0		0		-		0	

		Does not i	include kit			Don't know			
	20	112)13	20	012	20	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Main reason you do not have a kit									
Takes too much time	3%	407	3%	468			0%	0	
Too expensive	6%	775	6%	888			0%	0	
Not sure what to include	34%	4,277	38%	5,257			0%	0	
Don't think it's necessary	36%	4,525	31%	4,355			0%	0	
Other	21%	2,649	21%	2,990			0%	0	
Number of Respondents	12,	633	13,	,958		<u>-</u> -		0	
NWS staff on-site at incident									
NWS staff on-site	0%	0	5%	177			4%	10	
No staff on-site	0%	0	62%	2,331			46%	106	
DK/NA	0%	0	33%	1,231			49%	113	
Number of Respondents		Ó	3,7	739		<u>-</u> -	22	29	
Require specific products and have automated methods									
Require specific products with automation	0%	0	5%	753			7%	59	
Do not require specific products with automation	0%	0	95%	13,205			93%	827	
Number of Respondents		0		958				36	
<u> </u>									
Received WEA message on cell phone									
Received message	0%	0	22%	3,121			20%	177	
Did not receive message	0%	0	73%	10,224			71%	629	
Don't know	0%	0	4%	613			9%	80	
Number of Respondents		0	13,	958			88	36	
·									
WEA message was first notification received									
First notification	0%	0	65%	2,044			67%	118	
Not first notification	0%	0	26%	799			19%	34	
Don't know	0%	0	9%	278			14%	25	
Number of Respondents		Ö	3,	121			17	77	
<u> </u>	-		,						
Understood WEA message									
Fully understood	0%	0	83%	2,578			77%	136	
Somewhat understood	0%	0	17%	515			20%	36	
Did not understand	0%	0	1%	28			3%	5	
Number of Respondents		0	3,	121			17	77	
·			,						
Beneficial enhancements to WEA message~									
More text containing details of warning	0%	0	40%	1,236			51%	91	
Accompanying graphic showing warning area	0%	0	60%	1,877			56%	100	
Accompanying graphic showing current location	0%	0	60%	1,878			57%	101	
Color representing urgency of warning	0%	0	38%	1,180			42%	74	
Color representing type of warning	0%	0	25%	778			25%	44	
Sound representing urgency of warning	0%	0	41%	1,277			45%	79	
Sound representing type of warning	0%		25%	775			25%	44	
Number of Respondents		0		121		 	17		
number of Neapondema		•	٥,	. ~ 1				•	

Percent Per		December 1915				Dow't Image				
Percent Proguency Pro		Does not include kit								
Facebook and Twitter during weather events 0										
Do not use Facebook and Twiter for weather events	Facebook and Twitter during weather events~	Tercent	rrequeries	T CT CCTIL	rrequeries	T CT CCTIL	rrequeries	1 Crociii	Trequency	
Read what others are posting or tweeting		0%	0	71%	9 920			70%	618	
Comment on what others are posting or tweeting 0% 0 15% 2,140 15% 137					· ·					
Wilso was posted tweetes 0										
Number of Respondents			_							
Amount of social media content available										
Too little	Number of Respondents		0	13,	,930			0	00	
Too little	Amount of social media content available									
Just about right		0%	0	22%	874			21%	57	
Too much	Just about right									
Dan't know 0	•		0							
Promoted awareness campaigns			_							
Promoted awareness campaigns- Heat Safety		378	0				<u>.</u>			
Heat Safety										
Heat Safety	Promoted awareness campaigns~									
Flood Safety		0%	0	21%	784			20%	46	
Lighting Safety										
Severe Weather Safety			_							
Rip Currents Safety			_							
Hurricane Safety 0% 0 7% 265 12% 12% 28 Taylor Safety 0% 0 2% 71 4% 10 Winter Weather Safety 0% 0 28% 1,060 25% 57 Wildfire Safety 0% 0 18% 672 22% 119 None of the above 0 48% 1,801 52% 119 Number of Respondents 0 3,739 - 229			_							
Tsunami Safety Winter Weather Safety 0% 0 28% 1,060 25% 57 Wildfire Safety None of the above 0% 0 48% 1,801 52% 119 Number of Respondents 0 3,739 52% 119 Websites visited for weather safety- National Weather Service 0% 0 96% 13,437 95% 843 FEMA American Red Cross 0% 0 6% 860 13% 114 American Red Cross 0% 0 6% 860 55% 40 Centers for Disease Control and Prevention 0% 0 6% 860 55% 40 Commercial weather vendor 0% 0 58% 8,111 55% 502 Other 0 0 10% 1,413 15 57% 502 Other 0 0 10% 1,413 15 57% 502 Other 0 0 98% 13,358 12% 886 Safe to drive through water when no Road Closed sign or police barricade True 0% 0 98% 13,669 37% 856 Number of Respondents 0 13,958 97% 856 Number of Respondents 0 98% 13,669 97% 856 Number of Respondents 0 98% 13,405 97% 856 Number of Respondents 0 98% 13			_							
Winter Weather Safety 0% 0 28% 1,060 25% 57 Wildlife Safety 0% 0 18% 672 21% 47 None of the above 0% 0 48% 1,801 52% 119 Number of Respondents 0 0 48% 1,801 52% 119 Websites visited for weather safety- National Weather Service 0% 0 96% 13,437 95% 843 FEMA 0% 0 10% 1,453 13% 114 American Red Cross 0% 0 6% 860 13% 114 Centers for Disease Control and Prevention 0% 0 3% 447 5% 40 Commercial weather vendor 0% 0 58% 8,111 5% 502 Other 0 13,958 3% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>										
Wildfire Safety 0% 0 18% 672 21% 47			_							
None of the above 0% 0 48% 1,801 52% 119 Number of Respondents 0 3,739 229 Websites visited for weather safety- National Weather Service 0% 0 96% 13,437 95% 843 FEMA 0% 0 10% 1,453 13% 114 American Red Cross 0% 0 6% 860 7% 60 Centers for Disease Control and Prevention 0% 0 3% 447 55% 40 Commercial weather vendor 0% 0 58% 8,111 12% 102 Number of Respondents 0 13,958 3% 30 False 0% 0 98% 13,669 97% 856 Number of Respondents 0 13,958 886 Number of Respondents 0 13,958 3% 856 Not safe to drive when water is too deep to see road surface 3,405 34% 830 False 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56			_		· ·					
Number of Respondents			_							
Websites visited for weather safety- National Weather Service 0% 0 96% 13,437 95% 843 FEMA 0% 0 10% 1,453 13% 114 American Red Cross 0% 0 6% 860 7% 60 Centers for Disease Control and Prevention 0% 0 3% 447 5% 40 Commercial weather vendor 0% 0 58% 8,111 57% 502 Other 0% 0 10% 1,413 12% 102 Number of Respondents 0 13,958 886 Safe to drive through water when no Road Closed sign or police barricade True 0% 0 2% 289 3% 30 Number of Respondents 0 13,958 97% 856 N										
National Weather Service 0% 0 96% 13,437 95% 843 FEMA 0% 0 10% 1,453 13% 114 American Red Cross 0% 0 6% 860 7% 60 Centers for Disease Control and Prevention 0% 0 3% 447 5% 40 Commercial weather vendor 0% 0 58% 8,111 57% 502 Other 0% 0 10% 1,413 12% 102 Number of Respondents 0 13,958 3% 30 False 0% 0 2% 289 3% 30 Number of Respondents 0 13,958 3% 36 Number of Respondents 0 13,958 97% 856 Not safe to drive when water is too deep to see road surface 94% 830	Number of Respondents		0	3,	133				29	
National Weather Service 0% 0 96% 13,437 95% 843 FEMA 0% 0 10% 1,453 13% 114 American Red Cross 0% 0 6% 860 7% 60 Centers for Disease Control and Prevention 0% 0 3% 447 5% 40 Commercial weather vendor 0% 0 58% 8,111 57% 502 Other 0% 0 10% 1,413 12% 102 Number of Respondents 0 13,958 3% 30 False 0% 0 2% 289 3% 30 Number of Respondents 0 13,958 3% 36 Number of Respondents 0 13,958 97% 856 Not safe to drive when water is too deep to see road surface 94% 830	Websites visited for weather safety~									
FEMA American Red Cross O% 0 6% 860 7% 60 Centers for Disease Control and Prevention O% 0 58% 8,111 57% 502 Other 0% 0 10% 1,453 5% 40 Commercial weather vendor Other 0% 0 10% 1,413 57% 502 Other 0% 0 10% 1,413 12% 102 Number of Respondents Safe to drive through water when no Road Closed sign or police barricade True False O% 0 98% 13,669 97% 856 Number of Respondents O% 0 98% 13,669 97% 856 Number of Respondents O% 0 98% 13,405 886		0%	0	96%	13.437			95%	843	
American Red Cross Centers for Disease Control and Prevention Commercial weather vendor Other Observation Observat			_		· ·					
Centers for Disease Control and Prevention			0							
Commercial weather vendor			_							
Other 0% 0 10% 1,413 12% 102 Number of Respondents 0 13,958 886 Safe to drive through water when no Road Closed sign or police barricade 0% 0 2% 289 3% 30 False 0% 0 98% 13,669 97% 856 Number of Respondents 0 13,958 886 Not safe to drive when water is too deep to see road surface 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56			0							
Number of Respondents										
Safe to drive through water when no Road Closed sign or police barricade		0,0	0							
True 0% 0 2% 289 3% 30 False 0% 0 98% 13,669 97% 856 Number of Respondents 0 13,958 886 Not safe to drive when water is too deep to see road surface 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56					,000					
False 0% 0 98% 13,669 97% 856 Number of Respondents 0 13,958 886 Not safe to drive when water is too deep to see road surface True 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56	Safe to drive through water when no Road Closed sign or police barricade									
False 0% 0 98% 13,669 97% 856 Number of Respondents 0 13,958 886 Not safe to drive when water is too deep to see road surface 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56	True	0%	0	2%	289			3%	30	
Number of Respondents 0 13,958 886 Not safe to drive when water is too deep to see road surface 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56	False	0%	0	98%	13,669			97%	856	
True 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56	Number of Respondents		0				-			
True 0% 0 96% 13,405 94% 830 False 0% 0 4% 553 6% 56										
False 0% 0 4% 553 6% 56	Not safe to drive when water is too deep to see road surface									
	True	0%	0	96%	13,405			94%	830	
Number of Respondents 0 13,958 886	False	0%	0	4%	553			6%	56	
	Number of Respondents		0	13,	958			8	86	

	Does not include kit				Don't know			
	2012		2013		2012		20	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water slowly								
True	0%	0	5%	630			7%	65
False	0%	0	95%	13,328			93%	821
Number of Respondents		0	13	,958			8	86
Safe to drive through water in a large and heavy vehicle								
True	0%	0	4%	520			6%	54
False	0%	0	96%	13,438			94%	832
Number of Respondents		0	13	,958			8	86
Not safe to drive through swiftly moving water								
True	0%	0	97%	13,545			95%	840
False	0%	0	3%	413			5%	46
Number of Respondents		0	13	,958			8	86
								_
When to seek shelter from lightning								
Distant lightning	0%	0	19%	2,657			19%	164
Distant thunder	0%	0	50%	6,994			45%	398
Nearby lightning	0%	0	18%	2,518			23%	208
Loud thunder	0%	0	11%	1,582			11%	95
Starts to rain	0%	0	1%	207			2%	21
Number of Respondents		0	13	,958		-	8	86
Age								
Under 25 years	4%	418	3%	378			6%	42
25 - 34 years	10%	1,062	10%	1,246			10%	65
35 - 44 years	12%	1,338	13%	1,524			11%	72
45 - 54 years	23%	2,467	21%	2,598			22%	150
55 - 64 years	29%	3,137	29%	3,542			31%	210
65 - 74 years	18%	1,925	19%	2,266			17%	114
75 years and older	5%	525	5%	616			4%	27
Number of Respondents	10	,872	12	,170			6	80
Gender								
Male	70%	8,645	65%	9,029			58%	503
Female	30%	3,678	31%	4,267			34%	296
Prefer not to answer	0%	0	4%	493			8%	69
Number of Respondents		,323		,789				68

		Does not i	nclude kit			Don't know			
	20)12	20)13	20)12	20)13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Race									
White, Caucasian	95%	11,589	86%	11,905			77%	668	
Black, African American	1%	63	0%	65			0%	3	
Hispanic, Latino, or Spanish	1%	131	1%	160			2%	18	
Pacific Islander	0%	23	0%	11			0%	1	
Asian	1%	82	1%	83			1%	7	
American Indian/Native Indian or Alaska Native	1%	66	1%	75			0%	1	
Other	2%	233	2%	268			4%	31	
Prefer not to answer	0%	0	9%	1,232			16%	138	
Number of Respondents	12.	,187	13,	799		-	867		
School completed									
12th grade or less (no diploma)	2%	307	2%	260			5%	40	
High school diploma or GED	9%	1,075	8%	1,062			8%	70	
Some college, no degree	19%	2,362	18%	2,498			17%	144	
Associate or technical degree	11%	1,347	11%	1,535			9%	82	
Bachelor's degree	30%	3,666	30%	4,101			24%	208	
Graduate degree/Professional degree	29%	3,664	28%	3,857			25%	220	
Prefer not to answer	0%	0	4%	534			12%	105	
Number of Respondents	12	,421	13,	847			8	69	
Interested in other areas~									
National Fire Weather Program	0%	0	5%	758			7%	60	
National Hurricane Center Program	0%	0	6%	900			6%	53	
National Hydrologic Services Program	0%	0	5%	689			4%	38	
National Climate Services Program	0%	0	10%	1,401			9%	82	
Do not wish to continue	0%	0	81%	11,322			81%	722	
Number of Respondents		0	13,	958			8	86	

National Weather Service - Overall 2013 Have a hazardous weather safety plan Score Table

	Have a plan		Do not ha	ave a plan	Don't know		
	2012	2013	2012	2013	2012	2013	
Sample Size	14,455	20,662	9,817	6,473		838	
Hazardous Services	87	89	85	85		84	
Tornado Warnings	86	87	84	83		82	
Severe Thunderstorm Warnings	87	89	85	85		85	
Severe Thunderstorm Watch		89		85		85	
Winter Storm Warnings	86	89	84	85		85	
Hurricane Warnings	89	91	86	87		86	
Flash Flood Warnings	86	88	84	84		83	
River Flood Warnings	88	90	86	86		85	
High Surf Warnings	89	91	87	88		85	
Tsunami Warnings	85	87	83	84		81	
Extreme Cold Warnings	90	92	88	89		88	
Excessive Heat Warnings	90	93	89	90		89	
Coastal Flood Warnings		89		85		83	
Climate Hazards		87		82		81	
Tornado Warnings	86	88	84	84		83	
Ease of Understanding	90	94	87	90		88	
Timeliness	86	87	84	83		82	
Accuracy	81	79	79	73		74	
Severe Thunderstorm Warnings	87	90	85	86		85	
Ease of Understanding	90	95	88	90		90	
Timeliness	87	90	85	86		86	
Accuracy	83	82	81	77		78	
Severe Thunderstorm Watch		90		86		86	
Ease of Understanding		94		90		89	
Timeliness		91		88		88	
Accuracy		82		77		77	
Flash Flood Warnings	87	89	84	85		84	
Ease of Understanding	89	93	87	89		87	
Timeliness	86	89	85	86		84	
Accuracy	83	82	80	78		78	
Tsunami Warnings	85	87	83	84		81	
Ease of Understanding	88	91	86	89		84	
Timeliness	85	87	84	83		81	
Accuracy	80	78	78	73		70	
Hurricane Warnings	89	92	87	88		87	
Ease of Understanding	91	94	89	90		88	
Timeliness	90	94	88	91		89	
Accuracy	84	85	81	81		80	

National Weather Service - Overall 2013 Have a hazardous weather safety plan Score Table

	Have	Have a plan		ave a plan	Don't	Don't know		
	2012	2013	2012	2013	2012	2013		
Sample Size	14,455	20,662	9,817	6,473		838		
Winter Storm Warnings	86	90	84	86		86		
Ease of Understanding	90	94	88	90		89		
Timeliness	87	92	85	89		89		
Accuracy	80	80	78	75		77		
River Flood Warnings	88	90	86	86		85		
Ease of Understanding	89	92	87	88		87		
Timeliness	88	91	86	88		86		
Accuracy	86	86	84	82		81		
Excessive Heat Warnings	90	93	89	90		90		
Ease of Understanding	91	95	90	91		90		
Timeliness	91	94	89	91		91		
Accuracy	89	90	88	87		88		
Extreme Cold Warnings	90	92	88	89		89		
Ease of Understanding	91	94	90	91		90		
Timeliness	90	93	89	90		90		
Accuracy	88	88	86	85		85		
High Surf Warnings	89	91	87	88		86		
Ease of Understanding	90	93	88	89		87		
Timeliness	89	92	87	89		87		
Accuracy	88	88	85	84		82		
Coastal Flood Warnings		90		85		83		
Ease of Understanding		92		87		85		
Timeliness		91		87		85		
Accuracy		85		81		79		
Climate Hazards		87		82		81		
Ease of Understanding		89		84		82		
Timeliness		89		85		84		
Accuracy		83		78		78		
Weather-Sensitive Decision Making		87		84		85		
Rely on NWS in making weather-sensitive decisions		87		84		85		
User Support Services	90	89	87	86		85		
Accessibility	89	87	86	84		83		
Responsiveness	88	86	85	81		82		
Subject-Matter Knowledge	92	93	89	89		87		
Professionalism	93	93	91	90		88		
Assisting in interpretation of weather-related information	90	89	87	85		85		
Saving your organization money		78		70		71		
Resolving a complaint	86	76	80	67		71		

National Weather Service - Overall 2013 Have a hazardous weather safety plan Score Table

	Have a plan		Do not ha	ive a plan	Don't know		
	2012	2013	2012	2013	2012	2013	
Sample Size	14,455	20,662	9,817	6,473		838	
Dissemination Services - Website		86		81		81	
Ease of locating information	84	84	81	78		79	
Ease of understanding info	88	86	86	81		80	
Information is up-to-date	88	88	87	85		84	
Satellite Imagery display		85		80		79	
Doppler Radar display		85		80		80	
Dissemination Services - Automated	79	80	72	72		71	
Ease locating data on servers	79	83	72	76		76	
Ease of req add data to server	76	78	68	66		67	
Ease of providing input	77	75	70	65		66	
Ease of auto method	81	82	73	71		70	
Usefulness of WEA Message		82		74		74	
Usefulness of WEA message		82		74		74	
Usefulness of NWS Presence		70		64		68	
Usefulness of NWS presence on Facebook		78		72		74	
Usefulness of NWS presence on Twitter		67		60		63	
Usefulness of NWS presence on YouTube		46		39		44	
Usefulness of NWS Graphical Summary		84		78		80	
Usefulness of NWS graphical weather summaries on social media		84		78		80	
Effectiveness of Safety Campaigns		77		72		74	
Effectiveness of Turn Around Don't Drown		81		77		78	
Effectiveness of When Thunder Roars, Go Indoors!		71		66		69	
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		75		70		69	
Customer Satisfaction Index	85	83	82	79		79	
Overall Satisfaction	89	88	87	85		84	
Meets expectations	81	77	77	72		72	
Compared to ideal	83	81	80	77		77	
Likelihood Take Action	91	92	88	87		87	
Likelihood take action on info	91	92	88	87		87	
Likelihood to Use in Future	96	97	95	96		95	
Likelihood use NWS in future	96	97	95	96		95	
Likelihood to Recommend	94	93	92	90		88	
Likelihood to recommend	94	93	92	90		88	

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	Have	a plan	Do not ha	Do not have a plan		know
	2012	2013	2012	2013	2012	2013
Sample Size	14,455	20,662	9,817	6,473		838
Anticipated Use Over Next Year		93		92		92
Desktop-laptop computer		93		92		92
Mobile Device		60		57		52
Social Media		25		18		25
Direct Interaction w NWS Staff		13		6		9
NOAA Weather Radio All-Hazards		49		31		38
File transfer services		20		13		17
Level of Severity		24		21		24
Marginal		24		21		24
Slight		17		14		19
Critical		92		91		90
Enhanced		50		47		51
Elevated		55		53		55
Moderate		47		44		46
High		81		79		79

		Have a	a nlan		Do not have a plan				
	20	112		13	20)12	•	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Region	. 0.00.110	. requeriey	. 0.00110	11000000	- G. GG.	Trequency	- Green		
Central Region	38%	3,683	34%	7,009	29%	1,912	30%	1,954	
Eastern Region	26%	2,491	22%	4,610	34%	2,256	25%	1,583	
Southern Region	21%	2,042	23%	4,767	13%	857	14%	908	
Western Region	14%	1,309	20%	4,065	24%	1,581	30%	1,957	
Alaska Region	0%	37	0%	76	1%	34	0%	22	
Pacific Region	0%	45	0%	68	0%	24	0%	17	
Number of Respondents		607		595		664		141	
	-,		- ,		- /		-,		
Uses of NWS information~									
Agriculture	0%	0	18%	3,712	0%	0	13%	812	
Aviation	0%	0	5%	1,133	0%	0	4%	244	
Amateur Radio	0%	0	7%	1,443	0%	0	3%	203	
Broadcast/Print Media	0%	0	3%	630	0%	0	2%	130	
Commodities Markets	0%	0	1%	225	0%	0	1%	63	
Consulting	0%	0	2%	320	0%	0	1%	65	
Education	0%	0	8%	1,609	0%	0	4%	284	
Health Services	0%	0	3%	602	0%	0	1%	89	
Land Management Decisions	0%	0	9%	1,853	0%	0	5%	310	
Marine	0%	0	4%	736	0%	0	2%	140	
NWS Data Provider	0%	0	11%	2,266	0%	0	5%	306	
Personal	0%	0	87%	18,027	0%	0	89%	5,732	
Recreation	0%	0	59%	12,198	0%	0	57%	3,701	
Research	0%	0	6%	1,258	0%	0	4%	268	
Weather Enthusiast	0%	0	56%	11,612	0%	0	48%	3,123	
Work-related decisions	0%	0	26%	5,302	0%	0	16%	1,030	
Other	0%	0	9%	1,759	0%	0	7%	480	
Number of Respondents		0	20,	662		0	6,4	173	
Type of Aviation	1000/		407		4000/	_	201		
Dispatcher	100%	14	4%	44	100%	7	3%	8	
Comm Aircraft	0%	0	20%	224	0%	0	16%	39	
Private Aircraft	0%	0	73%	825	0%	0	77%	189	
Air Traffic Controller	0%	0	4%	40	0%	0	3%	8	
Number of Respondents	1	4	1,1	133		7	24	44	

Percent Per			Have a	a plan			Do not ha	ve a plan	
Information sources		20			13	20	12	20	13
NWS Web		Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Non-NWS Web 33% 4.595 32% 6.551 33% 3.155 32% 2.056 35% 3.296 3.50% 3.295									
Mobile devices	NWS Web	92%	13,012	93%	19,218	93%	8,858	93%	6,011
Social Media	Non-NWS Web	33%	4,595	32%	6,551	33%	3,155	32%	2,058
Email	Mobile devices	39%	5,499	49%	10,065	35%	3,295	47%	3,071
Landline Telephone	Social Media	13%	1,861	16%	3,216	8%	747	10%	658
Cell Phone	Email	20%	2,790	13%	2,643	10%	991	6%	413
Local or cable TV	Landline Telephone	0%	0	5%	1,053	0%	0	3%	220
Computer Computer	Cell Phone	0%	0	20%	4,217	0%	0	15%	949
Computer Radio 31% 4,331 25% 5,114 27% 2,566 23% 1,466 Satellite radio 5% 730 4% 765 3% 274 2% 134 345	Local or cable TV	55%	7,675	56%	11,501	48%	4,572	50%	3,256
Satellite radio 5% 730 4% 765 39% 274 2% 134	Commercial Radio	31%	4,331	25%	5,114	27%		23%	
Satellite TV	Satellite radio	5%				3%			
Newspaper 18% 2,587 16% 3,369 20% 1,913 17% 1,090 NOAA Weather Radio/All Hazards 49% 6,930 48% 9,933 29% 2,781 28% 1,797 NOAA Weather Wire 6% 888 4% 834 4% 379 2% 159 Family of Services (FOS) 5% 644 11% 306 3% 310 11% 59 Emerg Mgrs Weather Info Net 6% 798 5% 1,075 2% 180 2% 112 NOAAPort 5% 692 2% 497 4% 395 2% 106 World Area Forecast System 2% 262 11% 169 11% 112 0% 27 DUATS 3% 367 2% 388 2% 164 11% 84 Flight Services 5% 715 3% 603 4% 357 2% 111 U.S. Coast Guard Broadcasts 7% 1,052 2% 375 5% 451 11% 70 NAVTEX receiver 11% 113 0% 45 0% 41 0% 6 Immarsat-C SafetyNET 0% 54 0% 25 0% 14 0% 1 Radiofacsimile 11% 113 0% 45 0% 45 0% 4 Other 2% 260 6% 1,148 2% 160 5% 311 Number of Respondents 14,072 20,662 9,535 6,473 NOAANWS products used most often- Forecasts, outlooks, watches, warnings, alerts 0% 0 37% 19,959 0% 0 96% 6,232 Weather observations 0% 0 37% 19,959 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 20% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891									
NOAA Weather Radio/All Hazards									
NOAA Weather Wire									
Family of Services (FOS)	NOAA Weather Wire	6%	•			4%			
Emerg Mgrs Weather Info Net	Family of Services (FOS)								
NOAAPOrt									
World Area Forecast System									
DUATS 3% 367 2% 388 2% 164 1% 84 Flight Services 5% 715 3% 603 4% 357 2% 111 U.S. Coast Guard Broadcasts 7% 1,052 2% 375 5% 451 1% 70 NAVTEX receiver 1% 113 0% 45 0% 41 0% 6 Immarsat-C SafetyNET 0% 54 0% 25 0% 14 0% 1 Radiofacsimile 1% 160 0% 30 1% 56 0% 4 Other 2% 260 6% 1,148 2% 160 5% 311 Number of Respondents 14,072 20,662 9,535 6,473 NOAANWS products used most often- 7 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70%									
Flight Services	·								
U.S. Coast Guard Broadcasts 7% 1,052 2% 375 5% 451 1% 70 NAVTEX receiver 11% 113 0% 45 0% 41 0% 6 Immarsat-C SafetyNET 0% 54 0% 25 0% 14 0% 1 Radiofacsimile 1% 160 0% 30 1% 56 0% 4 Other 2% 260 6% 1,148 2% 160 5% 311 Number of Respondents 14,072 20,662 9,535 6,473 NOAANWS products used most often~ 50 0% 0 97% 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
NAVTEX receiver 1% 113 0% 45 0% 41 0% 6									
Immarsat-C SafetyNET			•						
Radiofacsimile 1% 160 0% 30 1% 56 0% 4 Other 2% 260 6% 1,148 2% 160 5% 311 Number of Respondents 14,072 20,662 9,535 6,473 NOAANWS products used most often~ Forecasts, outlooks, watches, warnings, alerts 0% 0 97% 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891 <									1
Other 2% 260 6% 1,148 2% 160 5% 311 Number of Respondents 14,072 20,662 9,535 6,473 NOAANWS products used most often~ Forecasts, outlooks, watches, warnings, alerts 0% 0 97% 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891									4
Number of Respondents 14,072 20,662 9,535 6,473 NOAANWS products used most often~ Forecasts, outlooks, watches, warnings, alerts 0% 0 97% 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891									•
NOAANWS products used most often~ 0% 0 97% 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891									
Forecasts, outlooks, watches, warnings, alerts 0% 0 97% 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891		· · · · · · · · · · · · · · · · · · ·	-	,		- ,-		-,	-
Forecasts, outlooks, watches, warnings, alerts 0% 0 97% 19,959 0% 0 96% 6,232 Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891	NOAANWS products used most often~								
Weather observations 0% 0 75% 15,494 0% 0 70% 4,509 Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891	Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	19,959	0%	0	96%	6,232
Climate observations 0% 0 34% 6,937 0% 0 30% 1,932 Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891						0%			4,509
Satellite data 0% 0 50% 10,381 0% 0 42% 2,712 Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891	Climate observations		0				0		1,932
Radar data 0% 0 82% 17,045 0% 0 73% 4,736 Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891	Satellite data	0%	0	50%	· ·	0%	0	42%	
Computer weather model output 0% 0 39% 8,160 0% 0 29% 1,891							0		4,736
			0				0		•
IVVeather outreach/educational materials 0% 0 10% 2,009 0% 0 326	Weather outreach/educational materials	0%	0	10%	2,009	0%	0	5%	326
Other products 0% 0 5% 945 0% 0 4% 285			0				0		
Number of Respondents 0 20,662 0 6,473			0				Ö		

		Have				Do not be	ve e plen	
	20	Have a		013	20	Do not ha		013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with~	rercent	Trequency	rercent	Trequency	rercent	Trequency	rercent	Trequency
Tornado Warnings	0%	0	80%	16,469	0%	0	65%	4,237
Severe Thunderstorm Warnings	0%	0	95%	19,676	0%	0	90%	5,819
Severe Thurlderstorm Warnings Severe Thurlderstorm Watches				·	0%		90 % 87%	5,642
	0%	0	94%	19,334		0		· ·
Flash Flood Warnings	0%	0	83%	17,069	0%	0	75%	4,873
Tsunami Warnings	0%	0	22%	4,497	0%	0	17%	1,127
Hurricane Warnings	0%	0	52%	10,709	0%	0	44%	2,829
Winter Storm Warnings	0%	0	90%	18,686	0%	0	87%	5,642
River Flood Warnings	0%	0	63%	12,930	0%	0	50%	3,267
Excessive Heat Warnings	0%	0	78%	16,150	0%	0	71%	4,584
Extreme Cold Warnings	0%	0	69%	14,244	0%	0	59%	3,851
High Surf Warnings	0%	0	26%	5,375	0%	0	21%	1,387
Coastal Flood Warnings	0%	0	33%	6,919	0%	0	27%	1,772
Climate Hazards	0%	0	48%	9,951	0%	0	36%	2,343
Don't know	0%	0	0%	81	0%	0	2%	136
Number of Respondents		0	20.	662		0	6.4	473
		-		,		-	-,	-
Likelihood of taking protective action if tornado warning issued								
Very Unlikely	0%	0	2%	437	0%	0	3%	184
Somewhat Unlikely	0%	0	2%	469	0%	0	4%	271
Somewhat Likely	0%	0	12%	2,382	0%	0	20%	1,325
Very Likely	0%	0	83%	17,171	0%	0	70%	4,539
Don't Know	0%	0	1%	203	0%	0	2%	154
		0				0		
Number of Respondents		U	20,	,662		U	0,4	473
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	0%	0	21%	186	0%	0	20%	91
Need to first see or hear tornado	0%	0	14%	124	0%	0	14%	62
					0%			166
Have never seen tornado damage in my area	0%	0	25%	223		0	36%	
Do not take tornado warnings seriously	0%	0	4%	36	0%	0	6%	26
Other	0%	0	37%	337	0%	0	24%	110
Number of Respondents		0	9	06		0	4	55
Proximity of tornado before considering warning accurate								
1 mile or less	0%	0	5%	1,015	0%	0	6%	393
5 miles or less				-				
	0%	0	34%	7,056	0%	0	37%	2,401
10 miles or less	0%	0	37%	7,669	0%	0	36%	2,320
25 miles or less	0%	0	21%	4,260	0%	0	18%	1,168
Other	0%	0	3%	662	0%	0	3%	191
Number of Respondents		0	20,	,662		0	6,4	473
Number of tornado warnings issued								
Too many tornado warnings	0%	0	6%	1,277	0%	0	6%	404
· · · · · · · · · · · · · · · · · · ·						0		
Too few tornado warnings	0%	0	3%	705	0%	0	2%	154
Just about right	0%	0	72%	14,953	0%	0	62%	3,988
Don't know	0%	0	18%	3,727	0%	0	30%	1,927
Number of Respondents		0	20,	,662		0	6,	473

		Have a	a nlan			Do not ha	ive a plan	
	20	12	•)13	20)12		13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued	1 0100110	Troquency	1 Or Corne	Troquency	1 0100111	Troqueriey	1 Groom	Troquency
Same actions as did previously	0%	0	84%	17,453	0%	0	72%	4,665
Less likely to take same action	0%	0	9%	1,769	0%	0	15%	939
Don't know	0%	0	7%	1,440	0%	0	13%	869
Number of Respondents		0		662		0		473
	1	-	- ,			-	-,	-
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	0%	0	20%	4,036	0%	0	11%	739
Have not heard Weather-Ready Nation	0%	0	80%	16,626	0%	0	89%	5,734
Number of Respondents		Ď l	20,	662		Ö	6,4	473
Reason plan created~								
Friends and family	42%	6,006	52%	10,814	0%	0	0%	0
General desire to be prepared	83%	11,933	92%	18,939	0%	0	0%	0
An extreme weather event	43%	6,197	52%	10,807	0%	0	0%	0
Be a Force of Nature campaign	1%	164	1%	281	0%	0	0%	0
Weather-Ready Nation initiative	5%	722	4%	779	0%	0	0%	0
Other	11%	1,611	14%	2,887	0%	0	0%	0
Number of Respondents	14,	381	20,	662		Ö		Ö
Main reason you do not have a plan								
Takes too much time	0%	0	0%	0	2%	230	3%	222
Too expensive	0%	0	0%	0	1%	66	3%	199
Not sure what to include	0%	0	0%	0	36%	3,565	40%	2,572
Don't think it's necessary	0%	0	0%	0	45%	4,442	34%	2,172
Other	0%	0	0%	0	15%	1,514	20%	1,308
Number of Respondents		0		0	9,8	817	6,4	473
Plan includes hazardous weather emergency preparedness kit								
Includes kit	64%	9,218	59%	12,185	25%	2,421	12%	808
Does not include kit	36%	5,237	39%	8,057	75%	7,396	83%	5,371
Don't know	0%	0	2%	420	0%	0	5%	294
Number of Respondents	14,	455	20,	662	9,8	817	6,4	1 73
Reason kit created~								
Friends and family	34%	3 077	520/	6 222	30%	730	32%	257
· ·		3,077 7,787	52%	6,322 11,349	30% 85%		32% 82%	662
General desire to be prepared	85% 42%	·	93% 55%	· ·		2,034		
An extreme weather event	42%	3,843	55%	6,762	34%	808	32%	256
Be a Force of Nature campaign	2%	142	1%	176	0%	10	2%	13
Weather-Ready Nation initiative	8%	696	4%	482	3%	69	3%	25
Other	16%	1,481	14%	1,715	11%	275	16%	133
Number of Respondents	9,1	160	12,	185	2,4	402	8	08

		Have	a plan		Do not have a plan			
	20	012		013	20	012		013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Main reason you do not have a kit		,				•		j
Takes too much time	3%	157	3%	273	3%	250	3%	171
Too expensive	8%	415	7%	549	5%	360	6%	300
Not sure what to include	35%	1,821	37%	2,973	33%	2,456	38%	2,043
Don't think it's necessary	30%	1,545	28%	2,239	40%	2,980	37%	1,996
Other	25%	1,299	25%	2,023	18%	1,350	16%	861
Number of Respondents		237		057		396	5,371	
NWS staff on-site at incident								
NWS staff on-site	0%	0	9%	664	0%	0	5%	71
No staff on-site	0%	0	59%	4,531	0%	0	59%	892
DK/NA	0%	0	32%	2,435	0%	0	36%	539
Number of Respondents		0	7,	630		0	1,	502
Require specific products and have automated methods								
Require specific products with automation	0%	0	9%	1,858	0%	0	4%	272
Do not require specific products with automation	0%	0	91%	18,804	0%	0	96%	6,201
		0				0		·
Number of Respondents		U	20	,662		U	0,	473
Received WEA message on cell phone								
Received message	0%	0	26%	5,463	0%	0	21%	1,370
Did not receive message	0%	0	69%	14,301	0%	0	75%	4,829
Don't know	0%	0	4%	898	0%	0	4%	274
Number of Respondents		0		,662		0		473
		•				•		
WEA message was first notification received			/					
First notification	0%	0	62%	3,371	0%	0	69%	941
Not first notification	0%	0	30%	1,648	0%	0	22%	296
Don't know	0%	0	8%	444	0%	0	10%	133
Number of Respondents		0	5,	463		0	1,	370
Understood WEA message								
Fully understood	0%	0	87%	4,757	0%	0	79%	1,078
Somewhat understood	0%	o o	12%	667	0%	0	20%	275
Did not understand	0%	o o	1%	39	0%	0	1%	17
Number of Respondents		0		463	370	0		370
Beneficial enhancements to WEA message~				, .= ·				
More text containing details of warning	0%	0	39%	2,154	0%	0	41%	565
Accompanying graphic showing warning area	0%	0	61%	3,358	0%	0	56%	774
Accompanying graphic showing current location	0%	0	58%	3,164	0%	0	58%	797
Color representing urgency of warning	0%	0	38%	2,065	0%	0	38%	515
Color representing type of warning	0%	0	26%	1,431	0%	0	20%	277
Sound representing urgency of warning	0%	0	44%	2,378	0%	0	38%	525
Sound representing type of warning	0%	0	29%	1,565	0%	0	21%	281
Number of Respondents		Ö	5,	463		Ö	1,	370

		Цоло	n nlan	_		Do not he	wo a plan	
	20	Have :)13	20)12	ave a plan	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Facebook and Twitter during weather events~	1 Green	11041101109	. G. GG.	. requeriey		. requestey	. 0.00	110941101
Do not use Facebook and Twitter for weather events	0%	0	69%	14,255	0%	0	74%	4,777
Read what others are posting or tweeting	0%	0	25%	5,161	0%	0	22%	1,418
Comment on what others are posting or tweeting	0%	0	18%	3,692	0%	0	14%	878
Write own posts or tweets	0%	0	19%	3,913	0%	0	13%	848
Number of Respondents		0 20,662 0			6,473			
Amount of social media content available	00/	0	220/	4.400	00/	0	240/	250
Too little	0%	0	22%	1,400	0%	0	21%	356
Just about right	0%	0	50%	3,180	0%	0	35%	593
Too much	0%	0	1%	72	0%	0	2%	31
Don't know	0%	0	27%	1,755	0%	0	42%	716
Number of Respondents		0	6,4	407		0	1,0	696
Promoted awareness campaigns~								
Heat Safety	0%	0	29%	2,228	0%	0	18%	271
Flood Safety	0%	0	28%	2,168	0%	0	15%	225
Lightning Safety	0%	0	35%	2,649	0%	0	17%	259
Severe Weather Safety	0%	0	48%	3,654	0%	0	25%	373
Rip Currents Safety	0%	0	6%	427	0%	0	4%	59
Hurricane Safety	0%	0	13%	988	0%	0	6%	94
Tsunami Safety	0%	0	4%	271	0%	0	2%	35
Winter Weather Safety	0%	0	39%	2,987	0%	0	24%	357
Wildfire Safety	0%	0	25%	1,901	0%	0	20%	300
None of the above	0%	0	34%	2,608	0%	0	54%	814
Number of Respondents		0		630		0		502
Websites visited for weather safety~							2-21	
National Weather Service	0%	0	97%	20,025	0%	0	95%	6,179
FEMA	0%	0	16%	3,378	0%	0	11%	683
American Red Cross	0%	0	10%	1,965	0%	0	6%	385
Centers for Disease Control and Prevention	0%	0	6%	1,168	0%	0	4%	237
Commercial weather vendor	0%	0	59%	12,189	0%	0	57%	3,658
Other	0%	0	11%	2,361	0%	0	10%	615
Number of Respondents		0	20,	662		0	6,4	473
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	2%	360	0%	0	2%	161
False	0%	0	98%	20,302	0%	0	98%	6,312
Number of Respondents		0		662		0		473
Not safe to drive when water is too deep to see road surface	00/		000/	40.045	001		000/	0.400
True	0%	0	96%	19,815	0%	0	96%	6,189
False	0%	0	4%	847	0%	0	4%	284
Number of Respondents		0	20,	662		0	6,4	473

		Have a	a plan		Do not have a plan			
	20)12		013	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water slowly								
True	0%	0	4%	825	0%	0	5%	317
False	0%	0	96%	19,837	0%	0	95%	6,156
Number of Respondents		0	20	,662		0	6,4	473
Safe to drive through water in a large and heavy vehicle								
True	0%	0	3%	628	0%	0	4%	284
False	0%	0	97%	20,034	0%	0	96%	6,189
Number of Respondents		0	20	,662		0	6,	473
Not safe to drive through swiftly moving water								
True	0%	0	97%	20,018	0%	0	97%	6,267
False	0%	0	3%	644	0%	0	3%	206
Number of Respondents		0	20	,662		0	6,	473
	_							
When to seek shelter from lightning		_				_		
Distant lightning	0%	0	19%	3,900	0%	0	19%	1,203
Distant thunder	0%	0	55%	11,392	0%	0	46%	3,008
Nearby lightning	0%	0	15%	3,074	0%	0	21%	1,342
Loud thunder	0%	0	10%	1,972	0%	0	13%	819
Starts to rain	0%	0	2%	324	0%	0	2%	101
Number of Respondents		0	20,	,662		0	6,4	473
Ava								
Age Under 25 years	3%	398	2%	431	3%	261	3%	155
25 - 34 years	8%	1,006	2% 8%	1,503	3% 9%	748	3% 11%	605
35 - 44 years	12%	1,521	12%	2,140	12%	1,043	13%	737
45 - 54 years	24%	2,992	23%	4,073	23%	1,934	21%	1,189
55 - 64 years	31%	3,876	32%	5,733	31%	2,586	29%	1,653
65 - 74 years	17%	2,148	19%	3,348	18%	1,509	18%	1,010
75 years and older	4%	498	4%	766	5%	385	5%	277
Number of Respondents		, 439		, 994		466		626
Trainibor of Respondents	12	, 100	17	,004	0,	100	J,	<i></i>
Gender								
Male	72%	10,098	65%	13,275	72%	6,829	68%	4,373
Female	28%	3,989	31%	6,321	28%	2,714	28%	1,771
Prefer not to answer	0%	0	4%	814	0%	0	4%	242
Number of Respondents		,087		,410		543		386
Tamber V. Respondente	17	,	20	, •	,		<u> </u>	

		Have	a plan			Do not ha	ve a plan	
	2	012	20	013	20	012	2	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Race								
White, Caucasian	95%	13,156	85%	17,376	94%	8,899	85%	5,427
Black, African American	1%	77	0%	91	0%	45	0%	28
Hispanic, Latino, or Spanish	1%	127	1%	235	1%	108	1%	87
Pacific Islander	0%	28	0%	25	0%	22	0%	4
Asian	0%	61	0%	85	1%	83	1%	52
American Indian/Native Indian or Alaska Native	1%	118	1%	195	0%	47	0%	29
Other	2%	333	2%	501	2%	221	2%	131
Prefer not to answer	0%	0	9%	1,909	0%	0	10%	628
Number of Respondents	13	,900	20	,417	9,425		6,	386
School completed								
12th grade or less (no diploma)	2%	335	2%	313	2%	177	2%	118
High school diploma or GED	8%	1,161	7%	1,472	7%	668	7%	442
Some college, no degree	22%	3,067	20%	4,025	18%	1,701	16%	1,033
Associate or technical degree	14%	2,053	13%	2,732	10%	963	10%	636
Bachelor's degree	28%	3,914	27%	5,558	31%	2,946	30%	1,946
Graduate degree/Professional degree	26%	3,683	27%	5,486	33%	3,191	31%	1,988
Prefer not to answer	0%	0	4%	900	0%	0	4%	247
Number of Respondents	14	,213	20	,486	9,	646	6,	410
Interested in other areas~								
National Fire Weather Program	0%	0	7%	1,488	0%	0	5%	348
National Hurricane Center Program	0%	0	7% 9%	1,466	0% 0%	0	5% 6%	358
· · · · · · · · · · · · · · · · · · ·	0%	0			0% 0%	0		285
National Hydrologic Services Program National Climate Services Program	0%	0	6% 10%	1,256 2,123	0% 0%	0	4% 10%	640
Do not wish to continue	0%	0	78%	16,089	0% 0%	0	10% 82%	5,317
	0%	0			U%	0		
Number of Respondents		U	20	,662		U	Ь,	473

	Don't know					
	20	12	20	13		
	Percent	Frequency	Percent	Frequency		
Region						
Central Region			33%	273		
Eastern Region			27%	222		
Southern Region			15%	121		
Western Region			26%	212		
Alaska Region			0%	1		
Pacific Region			0%	0		
Number of Respondents	829			29		

Uses of NWS information~				
Agriculture			13%	106
Aviation			4%	33
Amateur Radio			3%	25
Broadcast/Print Media			2%	20
Commodities Markets			1%	7
Consulting			1%	12
Education			5%	42
Health Services			2%	16
Land Management Decisions			6%	54
Marine			2%	20
NWS Data Provider			7%	55
Personal			90%	754
Recreation			53%	443
Research			5%	46
Weather Enthusiast			49%	414
Work-related decisions			17%	146
Other			8%	63
Number of Respondents	•	-	8:	38

Type of Aviation				
Dispatcher			6%	2
Comm Aircraft			24%	8
Private Aircraft			67%	22
Air Traffic Controller			3%	1
Number of Respondents	33		3	

		Don´t	know	
	20	12	20	13
	Percent Frequency		Percent	Frequency
Information sources~				
NWS Web			92%	768
Non-NWS Web			30%	254
Mobile devices			42%	352
Social Media			13%	111
Email			8%	70
Landline Telephone			4%	35
Cell Phone			13%	112
Local or cable TV			51%	425
Commercial Radio			23%	196
Satellite radio			3%	26
Satellite TV			10%	80
Newspaper			21%	176
NOAA Weather Radio/All Hazards			33%	276
NOAA Weather Wire			2%	19
Family of Services (FOS)			1%	8
Emerg Mgrs Weather Info Net			3%	21
NOAAPort			3%	21
World Area Forecast System			1%	6
DUATS			2%	14
Flight Services			1%	12
U.S. Coast Guard Broadcasts			1%	8
NAVTEX receiver			0%	4
Immarsat-C SafetyNET			0%	3
Radiofacsimile			1%	5
Other			7%	55
Number of Respondents	-	-	8:	38

NOAANWS products used most often~			
Forecasts, outlooks, watches, warnings, alerts	 	96%	805
Weather observations	 	72%	601
Climate observations	 	31%	261
Satellite data	 	42%	356
Radar data	 	70%	590
Computer weather model output	 	33%	273
Weather outreach/educational materials	 	6%	52
Other products	 	5%	42
Number of Respondents			38

		Don't	know		
	2	012)13	
	Percent	Frequency	Percent	Frequency	
Products familiar with~					
Tornado Warnings			72%	602	
Severe Thunderstorm Warnings			92%	770	
Severe Thunderstorm Watches			89%	750	
Flash Flood Warnings			77%	643	
Tsunami Warnings			18%	147	
Hurricane Warnings			44%	367	
Winter Storm Warnings			87%	728	
River Flood Warnings			52%	435	
Excessive Heat Warnings			73%	611	
Extreme Cold Warnings			62%	520	
High Surf Warnings			23%	191	
Coastal Flood Warnings			27%	224	
Climate Hazards			38%	321	
Don't know			3%	22	
Number of Respondents			8	38	
Likelihood of taking protective action if tornado warning issued					
Very Unlikely			2%	15	
Somewhat Unlikely			3%	27	
· ·			19%	158	
Somewhat Likely					
Very Likely			72%	603	
Don't Know			4%	35	
Number of Respondents			8	38	
Reason for not taking action					
Do not believe I would be directly impacted by the tornado			26%	11	
Need to first see or hear tornado			12%	5	
Have never seen tornado damage in my area			40%	17	
Do not take tornado warnings seriously			10%	4	
Other			12%	5	
Number of Respondents		-	2	12	
Proximity of tornado before considering warning accurate					
1 mile or less			5%	40	
5 miles or less			35%	292	
10 miles or less			36%	302	
25 miles or less			21%	177	
Other			3%	27	
Number of Respondents				38	
Number of Nespondents				30	
Number of tornado warnings issued					
Too many tornado warnings			5%	39	
Too few tornado warnings			2%	15	
Just about right			60%	503	
Don't know			34%	281	
Number of Respondents				38	
number of Nespondents			0	30	

		Don't	know	
	20	12		113
	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued				
Same actions as did previously			70%	589
Less likely to take same action			10%	83
Don't know			20%	166
Number of Respondents	-	-	8:	38
Heard the term Weather-Ready Nation				
Heard Weather-Ready Nation			13%	110
Have not heard Weather-Ready Nation			87%	728
Number of Respondents	•	-	8	38
Reason plan created~				
Friends and family	<u>-</u> -		0%	0
General desire to be prepared			0%	
An extreme weather event			0%	
Be a Force of Nature campaign			0%	
Weather-Ready Nation initiative			0%	
Other				0
Number of Respondents			0%	0
Number of Respondents				U
Main reason you do not have a plan				
Takes too much time			0%	0
Too expensive			0%	0
Not sure what to include			0%	0
Don't think it's necessary			0%	0
Other			0%	0
Number of Respondents				0
Plan includes hazardous weather emergency preparedness kit				
Includes kit			16%	136
Does not include kit			63%	530
Don't know			21%	172
Number of Respondents		-	8	38
Reason kit created~				
Friends and family			38%	52
General desire to be prepared			92%	125
An extreme weather event			40%	55
Be a Force of Nature campaign			1%	
Weather-Ready Nation initiative			1%	2
Other			20%	27
Number of Respondents				36
indinor of Respondents				

		Don't	know		
	20	012)13	
	Percent	Frequency	Percent	Frequency	
Main reason you do not have a kit					
Takes too much time			5%	24	
Too expensive			7%	39	
Not sure what to include			45%	241	
Don't think it's necessary			23%	120	
Other			20%	106	
Number of Respondents			5	30	
AUAIO 4 CC 14 4 1 1 4					
NWS staff on-site at incident			407		
NWS staff on-site			4%	9	
No staff on-site			50%	106	
DK/NA			46%	98	
Number of Respondents			2	13	
Require specific products and have automated methods					
Require specific products with automation			5%	45	
Do not require specific products with automation			95%	793	
Number of Respondents				38	
Received WEA message on cell phone					
Received message			19%	159	
Did not receive message			72%	604	
Don't know			9%	75	
Number of Respondents			8	38	
WEA manage was first notification received					
WEA message was first notification received First notification			64%	101	
Not first notification			21%	33	
Don't know			16%	25	
Number of Respondents				59	
Trainibor of Roopendonte					
Understood WEA message					
Fully understood			72%	114	
Somewhat understood			26%	41	
Did not understand			3%	4	
Number of Respondents			1	59	
Beneficial enhancements to WEA message~					
More text containing details of warning			48%	77	
Accompanying graphic showing warning area			61%	97	
Accompanying graphic showing current location			60%	95	
Color representing urgency of warning			46%	73	
Color representing trigericy of warning			35%	55	
Sound representing urgency of warning			43%	69	
Sound representing type of warning			23%	36	
Number of Respondents				59	
italibor of itospondents					

		Don't	know		
	20	112)13	
	Percent	Frequency	Percent	Frequency	
Facebook and Twitter during weather events~					
Do not use Facebook and Twitter for weather events			68%	572	
Read what others are posting or tweeting			27%	228	
Comment on what others are posting or tweeting			15%	126	
Write own posts or tweets			16%	137	
Number of Respondents		_		38	
Amount of social media content available					
Too little			17%	46	
Just about right			37%	99	
Too much			2%	4	
Don't know			44%	117	
Number of Respondents		_		66	
			_		
Promoted awareness campaigns~					
Heat Safety			19%	41	
Flood Safety			17%	37	
Lightning Safety			22%	46	
Severe Weather Safety			25%	53	
Rip Currents Safety			7%	15	
Hurricane Safety			9%	20	
Tsunami Safety			2%	5	
Winter Weather Safety			27%	58	
Wildfire Safety			21%	45	
None of the above			55%	117	
Number of Respondents		 -		13	
Trainbor of trooperidente			_	10	
Websites visited for weather safety~					
National Weather Service			96%	807	
FEMA			12%	101	
American Red Cross			8%	64	
Centers for Disease Control and Prevention			4%	36	
Commercial weather vendor			57%	481	
Other			12%	101	
Number of Respondents		-		38	
•					
Safe to drive through water when no Road Closed sign or police barricade					
True			3%	28	
False			97%	810	
Number of Respondents		-	8	38	
Not safe to drive when water is too deep to see road surface					
True			95%	797	
False			5%	41	
Number of Respondents		-	8	38	

		Don't	t know		
	20	012	20	13	
	Percent	Frequency	Percent	Frequency	
Safe to drive through water slowly					
True			8%	71	
False			92%	767	
Number of Respondents			8:	38	
				•	
Safe to drive through water in a large and heavy vehicle			- 0.4		
True			7%	55	
False			93%	783	
Number of Respondents			83	38	
Not refer to dains the entitle manifest manifest					
Not safe to drive through swiftly moving water			000/	005	
True			96%	805	
False			4%	33	
Number of Respondents			838		
When to seek shelter from lightning					
			100/	155	
Distant lightning Distant thunder			18% 46%	384	
				384 160	
Nearby lightning Loud thunder			19%		
Starts to rain			15% 2%	123 16	
				38	
Number of Respondents			0.	30	
Age					
Under 25 years			6%	40	
25 - 34 years			13%	83	
35 - 44 years			10%	62	
45 - 54 years			20%	131	
55 - 64 years			26%	168	
65 - 74 years			17%	107	
75 years and older			9%	56	
Number of Respondents				47	
Gender					
Male			56%	459	
Female			36%	298	
Prefer not to answer			8%	66	
Number of Respondents			82	23	

		Don´t	know	now		
	20)12	20	013		
	Percent	Frequency	Percent	Frequency		
Race						
White, Caucasian			78%	645		
Black, African American			0%	3		
Hispanic, Latino, or Spanish			1%	12		
Pacific Islander			0%	0		
Asian			1%	10		
American Indian/Native Indian or Alaska Native			0%	2		
Other			3%	24		
Prefer not to answer			16%	129		
Number of Respondents			825			
•	<u> </u>					
School completed						
12th grade or less (no diploma)			4%	35		
High school diploma or GED			9%	73		
Some college, no degree			17%	143		
Associate or technical degree			9%	74		
Bachelor's degree			26%	217		
Graduate degree/Professional degree			24%	197		
Prefer not to answer			11%	90		
Number of Respondents			8	29		
Interested in other areas~						
National Fire Weather Program			6%	49		
National Hurricane Center Program			6%	48		
National Hydrologic Services Program			4%	30		
National Climate Services Program			9%	74		
Do not wish to continue			84%	702		
Number of Respondents				838		

	Under 25 years		25 - 34	years	35 - 44 years		
	2012	2013	2012	2013	2012	2013	
Sample Size	659	626	1,754	2,191	2,564	2,939	
Hazardous Services	86	87	85	87	86	88	
Tornado Warnings	85	86	84	86	85	86	
Severe Thunderstorm Warnings	86	88	85	87	86	88	
Severe Thunderstorm Watch		88		87		88	
Winter Storm Warnings	86	87	84	87	84	87	
Hurricane Warnings	88	90	88	90	88	90	
Flash Flood Warnings	86	85	85	86	86	87	
River Flood Warnings	88	87	87	88	87	88	
High Surf Warnings	88	90	87	89	89	90	
Tsunami Warnings	86	86	84	87	86	86	
Extreme Cold Warnings	90	91	90	91	90	91	
Excessive Heat Warnings	91	92	90	92	90	92	
Coastal Flood Warnings		87		87		88	
Climate Hazards		86		85		85	
Tornado Warnings	85	87	85	87	85	87	
Ease of Understanding	90	94	89	94	89	94	
Timeliness	84	86	85	86	85	86	
Accuracy	79	75	79	76	80	76	
Severe Thunderstorm Warnings	86	88	86	88	86	89	
Ease of Understanding	90	94	89	93	89	93	
Timeliness	86	88	86	88	86	89	
Accuracy	81	79	82	80	83	81	
Severe Thunderstorm Watch	-	89		88		89	
Ease of Understanding		93		93		93	
Timeliness		91		90		91	
Accuracy		78		78		80	
Flash Flood Warnings	86	86	85	86	86	88	
Ease of Understanding	89	90	88	90	88	92	
Timeliness	85	86	85	86	86	88	
Accuracy	83	80	82	80	83	82	
Tsunami Warnings	86	87	84	88	86	87	
Ease of Understanding	87	91	87	91	87	91	
Timeliness	86	85	85	87	88	86	
Accuracy	82	79	77	78	81	75	
Hurricane Warnings	88	90	88	91	88	91	
Ease of Understanding	90	91	89	93	89	93	
Timeliness	91	92	90	92	90	93	
Accuracy	84	85	83	84	83	83	

	Under 25 years		25 - 34	years	35 - 44 years	
	2012	2013	2012	2013	2012	2013
Sample Size	659	626	1,754	2,191	2,564	2,939
Winter Storm Warnings	86	88	84	88	85	88
Ease of Understanding	90	91	88	92	89	92
Timeliness	87	90	86	91	86	91
Accuracy	79	77	77	77	78	76
River Flood Warnings	88	87	87	88	87	89
Ease of Understanding	89	90	88	90	88	91
Timeliness	88	88	88	89	87	90
Accuracy	87	84	86	84	85	85
Excessive Heat Warnings	91	92	91	92	90	92
Ease of Understanding	92	93	91	93	91	93
Timeliness	90	92	91	93	90	93
Accuracy	90	90	90	91	89	90
Extreme Cold Warnings	90	92	90	92	90	91
Ease of Understanding	90	92	91	93	91	92
Timeliness	90	92	90	92	90	92
Accuracy	89	90	89	89	88	87
High Surf Warnings	88	90	87	90	89	90
Ease of Understanding	90	91	88	90	89	92
Timeliness	88	89	87	91	89	90
Accuracy	87	89	85	87	87	86
Coastal Flood Warnings		87		87		88
Ease of Understanding		88		90		90
Timeliness		88		89		90
Accuracy		85		83		84
Climate Hazards		86	-	86		86
Ease of Understanding		87		87		87
Timeliness		89		88		88
Accuracy		84		82		81
Weather-Sensitive Decision Making		86		87		86
Rely on NWS in making weather-sensitive decisions		86		87		86
User Support Services	91	89	90	88	91	89
Accessibility	89	86	89	86	90	87
Responsiveness	88	86	88	86	89	85
Subject-Matter Knowledge	93	93	93	92	93	93
Professionalism	93	93	93	93	94	93
Assisting in interpretation of weather-related information	90	88	89	88	91	90
Saving your organization money		85		78		79
Resolving a complaint	88	84	88	78	89	76

	Under 2	25 years	25 - 34	years	35 - 44 years	
	2012	2013	2012	2013	2012	2013
Sample Size	659	626	1,754	2,191	2,564	2,939
Dissemination Services - Website	-	83		81		83
Ease of locating information	84	80	80	79	81	80
Ease of understanding info	89	84	87	83	87	83
Information is up-to-date	90	87	89	86	88	87
Satellite Imagery display		82		79		81
Doppler Radar display		80		77		81
Dissemination Services - Automated	79	81	75	78	78	78
Ease locating data on servers	77	83	75	77	78	80
Ease of req add data to server	75	78	75	77	75	77
Ease of providing input	76	81	74	76	77	74
Ease of auto method	83	84	78	82	81	80
Usefulness of WEA Message		81		78		80
Usefulness of WEA message		81		78		80
Usefulness of NWS Presence		72		71		70
Usefulness of NWS presence on Facebook		81		79		79
Usefulness of NWS presence on Twitter		74		70		70
Usefulness of NWS presence on YouTube		50		48		44
Usefulness of NWS Graphical Summary		84		83		83
Usefulness of NWS graphical weather summaries on social media		84		83		83
Effectiveness of Safety Campaigns		76		72		74
Effectiveness of Turn Around Don't Drown		81		78		79
Effectiveness of When Thunder Roars, Go Indoors!		73		67		68
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		72		69		73
Customer Satisfaction Index	85	81	83	80	84	81
Overall Satisfaction	90	87	88	86	88	86
Meets expectations	81	74	78	74	79	75
Compared to ideal	81	79	80	78	81	79

	Under	25 years	25 - 34	l years	35 - 44 years	
	2012	2013	2012	2013	2012	2013
Sample Size	659	626	1,754	2,191	2,564	2,939
Likelihood Take Action	91	89	90	90	91	90
Likelihood take action on info	91	89	90	90	91	90
Likelihood to Use in Future	98	97	96	97	96	96
Likelihood use NWS in future	98	97	96	97	96	96
Likelihood to Recommend	95	94	94	93	94	93
Likelihood to recommend	95	94	94	93	94	93
Anticipated Use Over Next Year						
Desktop-laptop computer		95		92		92
Mobile Device		72		76		75
Social Media		50		40		36
Direct Interaction w NWS Staff		19		15		13
NOAA Weather Radio All-Hazards		46		43		44
File transfer services		25		20		21
Level of Severity		23		21		22
Marginal		23		21		22
Slight		20		16		15
Critical		92		93		93
Enhanced		53		49		48
Elevated		51		52		53
Moderate		49		47		46
High		78		79		79

	45 - 5	4 years	55 - 64	4 years	65 - 74	4 years	75 years	and older
	2012	2013	2012	2013	2012	2013	2012	2013
Sample Size	4,926	5,393	6,462	7,554	3,657	4,465	883	1,099
Hazardous Services	86	89	87	89	86	88	86	87
Tornado Warnings	85	87	86	87	85	87	85	86
Severe Thunderstorm Warnings	87	89	87	89	86	89	86	87
Severe Thunderstorm Watch		89		89		89		88
Winter Storm Warnings	85	89	86	89	86	89	85	88
Hurricane Warnings	88	91	89	91	88	91	87	91
Flash Flood Warnings	86	88	87	89	86	88	85	87
River Flood Warnings	88	90	88	90	87	89	87	88
High Surf Warnings	88	91	90	91	89	90	85	88
Tsunami Warnings	84	87	86	87	85	86	80	85
Extreme Cold Warnings	89	92	90	92	89	92	88	91
Excessive Heat Warnings	90	93	90	93	90	92	89	90
Coastal Flood Warnings		90		90		89		88
Climate Hazards		86		87		86		87
Tornado Warnings	85	88	86	88	85	87	85	87
Ease of Understanding	89	94	90	94	88	93	88	92
Timeliness	85	87	86	87	86	86	86	87
Accuracy	81	79	82	79	81	78	80	76
Severe Thunderstorm Warnings	87	90	87	90	86	89	86	88
Ease of Understanding	90	94	90	94	90	94	89	93
Timeliness	87	90	87	90	87	90	86	89
Accuracy	83	82	84	82	82	80	81	78
Severe Thunderstorm Watch		90		90	-	89		89
Ease of Understanding		94		94		94		93
Timeliness		91		91		91		90
Accuracy		82		82		80		79
Flash Flood Warnings	86	89	87	89	86	89	85	87
Ease of Understanding	88	93	89	93	89	93	88	91
Timeliness	86	89	87	90	86	90	85	89
Accuracy	83	82	83	82	81	81	81	79
Tsunami Warnings	84	87	86	88	85	86	80	86
Ease of Understanding	86	91	88	91	88	91	83	90
Timeliness	84	88	86	87	85	85	80	87
Accuracy	78	76	80	78	80	76	75	75
Hurricane Warnings	88	91	89	92	89	92	87	91
Ease of Understanding	90	94	91	94	91	94	90	94
Timeliness	89	93	91	94	90	94	88	93
Accuracy	83	84	84	85	84	84	83	83

	45 - 54	l years	55 - 64	4 years	65 - 74	years	75 years	and older
	2012	2013	2012	2013	2012	2013	2012	2013
Sample Size	4,926	5,393	6,462	7,554	3,657	4,465	883	1,099
Winter Storm Warnings	85	90	86	90	86	90	85	89
Ease of Understanding	89	94	90	94	89	94	89	93
Timeliness	87	92	87	92	87	92	86	91
Accuracy	78	79	80	80	80	80	80	79
River Flood Warnings	88	90	88	90	87	89	87	88
Ease of Understanding	89	92	89	93	89	92	88	91
Timeliness	88	91	88	91	87	90	86	90
Accuracy	86	86	87	86	86	85	84	82
Excessive Heat Warnings	90	93	91	93	90	92	89	91
Ease of Understanding	91	94	92	94	91	94	91	93
Timeliness	90	94	91	94	90	94	90	92
Accuracy	89	91	89	90	88	89	88	86
Extreme Cold Warnings	89	92	90	92	89	92	88	91
Ease of Understanding	91	94	91	94	91	94	90	94
Timeliness	89	93	90	93	89	93	89	92
Accuracy	88	88	88	88	87	87	86	85
High Surf Warnings	88	92	90	91	89	90	85	89
Ease of Understanding	89	93	91	93	90	92	86	91
Timeliness	88	92	90	92	89	91	85	90
Accuracy	86	88	89	88	87	86	83	83
Coastal Flood Warnings		90		90		89		88
Ease of Understanding		92		92		92		91
Timeliness		91		91		90		89
Accuracy		85		86		84		82
Climate Hazards		87	-	87		86		87
Ease of Understanding		89		89		89		89
Timeliness		89		89		88		89
Accuracy		82		83		81		82
Weather-Sensitive Decision Making		88		88		87		86
Rely on NWS in making weather-sensitive decisions		88		88		87		86
User Support Services	90	89	89	90	89	89	89	89
Accessibility	89	87	88	88	88	87	90	86
Responsiveness	88	86	87	87	87	85	86	86
Subject-Matter Knowledge	92	92	92	93	91	92	91	91
Professionalism	93	93	93	94	92	94	93	93
Assisting in interpretation of weather-related information	90	90	90	90	88	88	89	88
Saving your organization money		78		77		73		73
Resolving a complaint	86	74	84	76	82	73	76	74

	45 - 54	4 years	55 - 64	4 years	65 - 74	l years	75 years	and older
	2012	2013	2012	2013	2012	2013	2012	2013
Sample Size	4,926	5,393	6,462	7,554	3,657	4,465	883	1,099
Dissemination Services - Website	-	85		86		87		88
Ease of locating information	82	83	83	84	84	86	85	87
Ease of understanding info	87	85	88	86	88	87	89	88
Information is up-to-date	88	88	88	88	88	88	88	88
Satellite Imagery display		84		86		86		87
Doppler Radar display		84		86		87		88
Dissemination Services - Automated	75	79	81	81	76	80	78	82
Ease locating data on servers	74	82	81	85	78	85	81	87
Ease of req add data to server	73	76	78	78	74	76	75	77
Ease of providing input	75	74	78	75	74	71	72	71
Ease of auto method	78	80	83	81	76	81	75	85
Usefulness of WEA Message		82	-	81		81	-	79
Usefulness of WEA message		82		81		81		79
Usefulness of NWS Presence		70		69		63		49
Usefulness of NWS presence on Facebook		78		77		70		57
Usefulness of NWS presence on Twitter		65		61		49		33
Usefulness of NWS presence on YouTube		46		43		39		36
Usefulness of NWS Graphical Summary		82		83		82	-	82
Usefulness of NWS graphical weather summaries on social media		82		83		82		82
Effectiveness of Safety Campaigns		76		77		78		78
Effectiveness of Turn Around Don't Drown		80		81		82		84
Effectiveness of When Thunder Roars, Go Indoors!		71		71		73		73
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		75		76		75		74
Customer Satisfaction Index	84	83	85	84	84	83	84	84
Overall Satisfaction	89	88	89	89	88	88	87	89
Meets expectations	80	77	80	78	79	77	79	77
Compared to ideal	82	80	83	82	82	81	83	83

	45 - 5	4 years	55 - 6	4 years	65 - 74	1 years	75 years and older	
	2012	2013	2012	2013	2012	2013	2012	2013
Sample Size	4,926	5,393	6,462	7,554	3,657	4,465	883	1,099
Likelihood Take Action	91	92	91	92	90	91	89	91
Likelihood take action on info	91	92	91	92	90	91	89	91
Likelihood to Use in Future	96	97	96	97	95	97	95	97
Likelihood use NWS in future	96	97	96	97	95	97	95	97
Likelihood to Recommend	93	93	94	93	93	93	91	91
Likelihood to recommend	93	93	94	93	93	93	91	91
Anticipated Use Over Next Year								
Desktop-laptop computer		93		94		94		94
Mobile Device		65		54		44		30
Social Media		26		18		12		7
Direct Interaction w NWS Staff		12		10		8		6
NOAA Weather Radio All-Hazards		47		45		43		42
File transfer services		19		17		15		15
Level of Severity		23		23		24		29
Marginal		23		23		24		29
Slight		15		16		17		22
Critical		93		92		91		88
Enhanced		48		50		50		51
Elevated		55		56		56		59
Moderate		46		46		46		48
High		80		81		81		81

		Under 2	5 years			25 - 34	years	
	20	12		13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	42%	221	39%	240	42%	598	41%	890
Eastern Region	33%	174	28%	177	28%	400	23%	499
Southern Region	16%	87	20%	124	16%	227	21%	461
Western Region	9%	46	13%	80	12%	172	15%	323
Alaska Region	0%	1	0%	1	0%	7	0%	9
Pacific Region	0%	1	0%	0	0%	4	0%	4
Number of Respondents	5	30	62	22	1,4	108	2,1	86
Uses of NWS information~		_	/		/	_		AA
Agriculture	0%	0	9%	55	0%	0	12%	258
Aviation	0%	0	6%	38	0%	0	5%	111
Amateur Radio	0%	0	4%	28	0%	0	5%	120
Broadcast/Print Media	0%	0	7%	44	0%	0	5%	110
Commodities Markets	0%	0	0%	2	0%	0	1%	22
Consulting	0%	0	2%	11	0%	0	2%	48
Education	0%	0	12%	77	0%	0	9%	198
Health Services	0%	0	2%	13	0%	0	2%	48
Land Management Decisions	0%	0	4%	24	0%	0	7%	148
Marine	0%	0	2%	14	0%	0	3%	56
NWS Data Provider	0%	0	24%	149	0%	0	14%	317
Personal	0%	0	88%	553	0%	0	87%	1,906
Recreation	0%	0	53%	333	0%	0	58%	1,274
Research	0%	0	18%	111	0%	0	11%	242
Weather Enthusiast	0%	0	73%	454	0%	0	57%	1,258
Work-related decisions	0%	0	21%	134	0%	0	29%	646
Other	0%	0	3%	21	0%	0	4%	86
Number of Respondents		0	67	26		0	2,1	91
Type of Aviation								
Dispatcher	0%	0	16%	6	100%	2	8%	9
Comm Aircraft	0%	0	18%	7	0%	0	21%	23
Private Aircraft	0%	0	61%	23	0%	0	66%	73
Air Traffic Controller	0%	0	5%	2	0%	0	5%	6
Number of Respondents		0	3	8		2	11	11

		Under 2	5 years			25 - 34	years	
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	94%	597	97%	609	94%	1,617	95%	2,080
Non-NWS Web	41%	262	38%	239	42%	717	36%	787
Mobile devices	54%	342	67%	418	60%	1,035	71%	1,564
Social Media	38%	241	37%	232	27%	469	31%	677
Email	15%	96	8%	48	19%	319	9%	197
Landline Telephone	0%	0	3%	16	0%	0	2%	51
Cell Phone	0%	0	25%	157	0%	0	25%	548
Local or cable TV	60%	380	58%	362	53%	908	48%	1,060
Commercial Radio	32%	200	22%	140	33%	569	23%	498
Satellite radio	6%	39	3%	20	6%	95	3%	66
Satellite TV	16%	104	12%	72	15%	254	8%	184
Newspaper	23%	145	16%	98	18%	303	9%	203
NOAA Weather Radio/All Hazards	53%	335	46%	287	43%	732	42%	929
NOAA Weather Wire	4%	26	3%	21	4%	72	4%	85
Family of Services (FOS)	3%	18	1%	7	3%	47	1%	22
Emerg Mgrs Weather Info Net	3%	21	5%	29	5%	91	4%	91
NOAAPort	3%	22	2%	12	3%	47	1%	30
World Area Forecast System	4%	27	1%	9	1%	24	1%	13
DUATS	4%	26	2%	14	2%	32	2%	37
Flight Services	6%	39	3%	18	4%	76	2%	47
U.S. Coast Guard Broadcasts	6%	37	1%	7	5%	85	1%	24
NAVTEX receiver	2%	12	0%	1	1%	9	0%	6
Immarsat-C SafetyNET	1%	5	0%	0	0%	2	0%	4
Radiofacsimile	2%	15	0%	0	0%	6	0%	3
Other	1%	7	2%	12	1%	12	4%	92
Number of Respondents		32	62			713	2,1	
•					•		•	
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	607	0%	0	97%	2,132
Weather observations	0%	0	79%	497	0%	0	76%	1,664
Climate observations	0%	0	37%	231	0%	0	34%	742
Satellite data	0%	0	57%	354	0%	0	44%	954
Radar data	0%	0	88%	549	0%	0	83%	1,825
Computer weather model output	0%	0	49%	304	0%	Ö	39%	845
Weather outreach/educational materials	0%	0	15%	95	0%	0	12%	263
Other products	0%	0	2%	15	0%	Ö	4%	78
Number of Respondents		0	62			0		91

Products familiar with- Tornado Warnings 0% 0 85% 533 0% 0 96%	1,830 2,094 2,078 1,950 453
Products familiar with~ Frequency Percent Fercent Percent Fercent Percent Percent <t< th=""><th>1,830 2,094 2,078 1,950 453</th></t<>	1,830 2,094 2,078 1,950 453
Products familiar with~ Tornado Warnings 0% 0 85% 533 0% 0 849	2,094 2,078 1,950 453
Severe Thunderstorm Warnings 0% 0 97% 605 0% 0 96% Severe Thunderstorm Watches 0% 0 96% 599 0% 0 95% Flash Flood Warnings 0% 0 89% 558 0% 0 89% Tsunami Warnings 0% 0 27% 171 0% 0 219 Hurricane Warnings 0% 0 52% 327 0% 0 466 Winter Storm Warnings 0% 0 91% 571 0% 0 919 River Flood Warnings 0% 0 60% 373 0% 0 599 Excessive Heat Warnings 0% 0 81% 508 0% 0 819 Extreme Cold Warnings 0% 0 61% 380 0% 0 819 Extreme Cold Warnings 0% 0 26% 165 0% 0 24% Coastal Flood Warnings	2,094 2,078 1,950 453
Severe Thunderstorm Watches 0% 0 96% 599 0% 0 95% Flash Flood Warnings 0% 0 89% 558 0% 0 89% Tsunami Warnings 0% 0 27% 171 0% 0 21% Hurricane Warnings 0% 0 52% 327 0% 0 46% Winter Storm Warnings 0% 0 91% 571 0% 0 91% River Flood Warnings 0% 0 60% 373 0% 0 59% Excessive Heat Warnings 0% 0 81% 508 0% 0 81% Extreme Cold Warnings 0% 0 61% 380 0% 0 64% High Surf Warnings 0% 0 26% 165 0% 0 24% Coastal Flood Warnings 0% 0 34% 213 0% 0 30% Climate Hazards 0% </td <td>2,078 1,950 453</td>	2,078 1,950 453
Flash Flood Warnings 0% 0 89% 558 0% 0 89% Tsunami Warnings 0% 0 27% 171 0% 0 21% Hurricane Warnings 0% 0 52% 327 0% 0 46% Winter Storm Warnings 0% 0 91% 571 0% 0 91% River Flood Warnings 0% 0 60% 373 0% 0 59% Excessive Heat Warnings 0% 0 81% 508 0% 0 81% Extreme Cold Warnings 0% 0 61% 380 0% 0 64% High Surf Warnings 0% 0 26% 165 0% 0 24% Coastal Flood Warnings 0% 0 34% 213 0% 0 30% Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 0 0% 0 0% 0 1 0%	1,950 453
Tsunami Warnings 0% 0 27% 171 0% 0 219 Hurricane Warnings 0% 0 52% 327 0% 0 469 Winter Storm Warnings 0% 0 91% 571 0% 0 91% River Flood Warnings 0% 0 60% 373 0% 0 59% Excessive Heat Warnings 0% 0 81% 508 0% 0 81% Extreme Cold Warnings 0% 0 61% 380 0% 0 64% High Surf Warnings 0% 0 26% 165 0% 0 24% Coastal Flood Warnings 0% 0 34% 213 0% 0 30% Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 0 0% 0 0% 0 1 0% 0 1% <td>1,950 453</td>	1,950 453
Tsunami Warnings 0% 0 27% 171 0% 0 219 Hurricane Warnings 0% 0 52% 327 0% 0 469 Winter Storm Warnings 0% 0 91% 571 0% 0 91% River Flood Warnings 0% 0 60% 373 0% 0 59% Excessive Heat Warnings 0% 0 81% 508 0% 0 81% Extreme Cold Warnings 0% 0 61% 380 0% 0 64% High Surf Warnings 0% 0 26% 165 0% 0 24% Coastal Flood Warnings 0% 0 34% 213 0% 0 30% Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 0 0% 0 0% 0 1 0% 0 1% <td>453</td>	453
Hurricane Warnings 0% 0 52% 327 0% 0 469 Winter Storm Warnings 0% 0 91% 571 0% 0 91% River Flood Warnings 0% 0 60% 373 0% 0 599 Excessive Heat Warnings 0% 0 81% 508 0% 0 819 Extreme Cold Warnings 0% 0 61% 380 0% 0 649 High Surf Warnings 0% 0 26% 165 0% 0 249 Coastal Flood Warnings 0% 0 34% 213 0% 0 309 Climate Hazards 0% 0 59% 369 0% 0 549 Don't know 0% 0 0% 0 0% 0 0% 0 1 0% 0 1%	
Winter Storm Warnings 0% 0 91% 571 0% 0 919 River Flood Warnings 0% 0 60% 373 0% 0 599 Excessive Heat Warnings 0% 0 81% 508 0% 0 819 Extreme Cold Warnings 0% 0 61% 380 0% 0 649 High Surf Warnings 0% 0 26% 165 0% 0 249 Coastal Flood Warnings 0% 0 34% 213 0% 0 309 Climate Hazards 0% 0 59% 369 0% 0 549 Don't know 0% 0 0% 0 0% 0 0% 0 1 0% 0 1%	998
River Flood Warnings 0% 0 60% 373 0% 0 599 Excessive Heat Warnings 0% 0 81% 508 0% 0 819 Extreme Cold Warnings 0% 0 61% 380 0% 0 649 High Surf Warnings 0% 0 26% 165 0% 0 249 Coastal Flood Warnings 0% 0 34% 213 0% 0 309 Climate Hazards 0% 0 59% 369 0% 0 549 Don't know 0% 0 0% 1 0% 0 1%	
Excessive Heat Warnings 0% 0 81% 508 0% 0 81% Extreme Cold Warnings 0% 0 61% 380 0% 0 64% High Surf Warnings 0% 0 26% 165 0% 0 24% Coastal Flood Warnings 0% 0 34% 213 0% 0 30% Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 1 0% 0 1%	,
Extreme Cold Warnings 0% 0 61% 380 0% 0 64% High Surf Warnings 0% 0 26% 165 0% 0 24% Coastal Flood Warnings 0% 0 34% 213 0% 0 30% Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 1 0% 0 1%	,
High Surf Warnings 0% 0 26% 165 0% 0 249 Coastal Flood Warnings 0% 0 34% 213 0% 0 309 Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 1 0% 0 1%	,
Coastal Flood Warnings 0% 0 34% 213 0% 0 30% Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 1 0% 0 1%	,
Climate Hazards 0% 0 59% 369 0% 0 54% Don't know 0% 0 0% 1 0% 0 1%	
Don't know 0% 0 0% 0 1% 0% 0 1%	
	14
Number of Respondents 0 626 0	
Number of Respondents 0 626 0	2,191
Likelihood of taking protective action if tornado warning issued	
Very Unlikely 0% 0 2% 11 0% 0 2%	45
Somewhat Unlikely 0% 0 4% 24 0% 0 4%	79
Somewhat Likely 0% 0 19% 118 0% 0 199	
Very Likely 0% 0 75% 467 0% 0 749	
Don't Know 0 1% 6 0% 0 1%	22
Number of Respondents 0 626 0	2,191
Number of Respondents	2,191
Reason for not taking action	
Do not believe I would be directly impacted by the tornado 0% 0 14% 5 0% 0 15%	19
Need to first see or hear tornado 0% 0 11% 4 0% 0 119	
Have never seen tornado damage in my area 0% 0 37% 13 0% 0 29%	
Do not take tornado warnings seriously 0% 0 0% 0 7%	9
Other 0 37% 13 0% 0 379	
Number of Respondents 0 35 0	124
Proximity of tornado before considering warning accurate	
1 mile or less 0% 0 4% 25 0% 0 3%	64
5 miles or less 0% 0 28% 176 0% 0 319	690
10 miles or less 0% 0 41% 258 0% 0 429	930
25 miles or less 0% 0 23% 141 0% 0 20%	442
Other 0 4% 26 0% 0 3%	65
Number of Respondents 0 626 0	2,191
Number of tornado warnings issued	
Too many tornado warnings 0% 0 9% 56 0% 0 8%	
Too few tornado warnings 0% 0 7% 44 0% 0 4%	
Just about right 0% 0 69% 431 0% 0 70%	1,532
Don't know 0% 0 15% 95 0% 0 18%	387
Number of Respondents 0 626 0	

		Under 2	5 vears			25 - 34	vears	
	20	112		13	20)12		13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued								
Same actions as did previously	0%	0	76%	477	0%	0	78%	1,717
Less likely to take same action	0%	0	17%	109	0%	0	13%	292
Don't know	0%	0	6%	40	0%	0	8%	182
Number of Respondents		Ö	6:	26		0	2,1	191
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	0%	0	43%	268	0%	0	27%	584
Have not heard Weather-Ready Nation	0%	0	57%	358	0%	0	73%	1,607
Number of Respondents		0	62	26		0	2,1	191
House I was been seed as a fate also								
Have a hazardous weather safety plan	60%	398	69%	431	57%	1.006	69%	1 502
Have a plan	40%	261		155	43%	1,006 748	28%	1,503 605
Do not have a plan Don't know			25% 6%	40	43% 0%		20% 4%	83
	0%	0				0		
Number of Respondents	0	59	0,	26	1,	754	Ζ,	191
Reason plan created~								
Friends and family	62%	246	67%	287	50%	505	62%	925
General desire to be prepared	84%	336	89%	383	84%	846	90%	1,360
An extreme weather event	55%	220	55%	235	44%	446	52%	782
Be a Force of Nature campaign	3%	11	2%	9	1%	8	2%	29
Weather-Ready Nation initiative	12%	47	7%	29	8%	80	5%	71
Other	10%	41	9%	37	10%	99	13%	200
Number of Respondents		98		31		003		503
	•				<u>, </u>		,	
Main reason you do not have a plan								
Takes too much time	7%	17	5%	7	4%	31	7%	41
Too expensive	1%	3	3%	5	1%	7	4%	25
Not sure what to include	41%	108	38%	59	42%	313	42%	254
Don't think it's necessary	39%	102	37%	58	37%	280	28%	170
Other	12%	31	17%	26	16%	117	19%	115
Number of Respondents	2	61	15	55	7	48	60	05
Plan includes hazardous weather emergency preparedness kit	0=27		0001	000	0001	000	4007	000
Includes kit	37%	241	33%	206	39%	692	40%	880
Does not include kit	63%	418	60%	378	61%	1,062	57%	1,246
Don't know	0%	0	7%	42	0%	0	3%	65
Number of Respondents	6	59	6	26	1,7	754	2,1	191

	Under 25 years				25 - 34 years			
	20	112	_	13	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Reason kit created~								
Friends and family	50%	120	67%	138	43%	299	58%	509
General desire to be prepared	80%	194	89%	184	86%	592	91%	798
An extreme weather event	44%	107	57%	118	41%	281	52%	461
Be a Force of Nature campaign	4%	9	3%	6	1%	6	2%	21
Weather-Ready Nation initiative	18%	43	11%	23	11%	73	6%	51
Other	15%	37	8%	17	14%	94	12%	106
Number of Respondents		41		06		91		80
Main reason you do not have a kit								
Takes too much time	5%	20	8%	30	6%	63	5%	68
Too expensive	12%	52	11%	43	12%	125	12%	145
Not sure what to include	32%	133	34%	130	35%	373	37%	464
Don't think it's necessary	34%	143	28%	107	26%	273	25%	311
Other	17%	70	18%	68	21%	228	21%	258
Number of Respondents	4	18	3	78	1,0	062	1,2	246
NWS staff on-site at incident								
NWS staff on-site	0%	0	2%	4	0%	0	7%	55
No staff on-site	0%	0	55%	111	0%	0	62%	512
DK/NA	0%	0	43%	86	0%	0	32%	263
Number of Respondents		0	2	01		0	8	30
Require specific products and have automated methods	00/		100/		201		4.007	2.1.1
Require specific products with automation	0%	0	13%	80	0%	0	10%	214
Do not require specific products with automation	0%	0	87%	546	0%	0	90%	1,977
Number of Respondents		0	6	26		0	2,	191
Received WEA message on cell phone								
Received message	0%	0	36%	227	0%	0	38%	822
Did not receive message	0%	0	60%	377	0%		58%	1,276
Don't know	0%	0	4%	22	0%	0	4%	93
Number of Respondents		0		26 26		0		191
Number of Respondents				20			۷,	131
WEA message was first notification received								
First notification	0%	0	63%	143	0%	0	63%	519
Not first notification	0%	0	32%	72	0%	0	31%	251
Don't know	0%	0	5%	12	0%	0	6%	52
Number of Respondents		0		27		0		22
Understood WEA message								
Fully understood	0%	0	89%	201	0%	0	86%	703
Somewhat understood	0%	0	11%	25	0%	0	14%	115
Did not understand	0%	0	0%	1	0%	0	0%	4
Number of Respondents		0	2	27		0	8	22

		Under 2	25 years			25 - 34	years	
	20)12		013	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								
More text containing details of warning	0%	0	55%	125	0%	0	44%	358
Accompanying graphic showing warning area	0%	0	67%	153	0%	0	63%	514
Accompanying graphic showing current location	0%	0	59%	134	0%	0	63%	514
Color representing urgency of warning	0%	0	52%	118	0%	0	42%	344
Color representing type of warning	0%	0	47%	106	0%	0	28%	234
Sound representing urgency of warning	0%	0	43%	98	0%	0	42%	346
Sound representing type of warning	0%	0	34%	78	0%	0	27%	219
Number of Respondents		0	2	27		0	8	22
Ecophook and Twitter during weather events								
Facebook and Twitter during weather events~ Do not use Facebook and Twitter for weather events	0%	0	31%	192	0%	0	42%	917
Read what others are posting or tweeting	0%	0	58%	364	0% 0%	0	42% 48%	1,050
, , ,	0%	0	36%	225	0% 0%	0	46% 33%	730
Comment on what others are posting or tweeting		_		284				826
Write own posts or tweets	0%	0	45%		0%	0	38%	1
Number of Respondents		0	0	26		0	Z,	191
Amount of social media content available								
Too little	0%	0	28%	121	0%	0	26%	329
Just about right	0%	0	49%	211	0%	0	43%	547
Too much	0%	0	1%	3	0%	0	1%	15
Don't know	0%	0	23%	99	0%	0	30%	383
Number of Respondents		0	4	34		0	1,	274
Promoted awareness campaigns~								
Heat Safety	0%	0	31%	63	0%	0	30%	253
Flood Safety	0%	0	27%	55	0%	0	30%	249
Lightning Safety	0%	0	43%	87	0%	0	34%	284
Severe Weather Safety	0%	0	61%	122	0%	0	54%	452
Rip Currents Safety	0%	0	9%	18	0%	0	4%	37
Hurricane Safety	0%	0	15%	31	0%	0	10%	83
Tsunami Safety	0%	0	3%	6	0%	0	2%	20
Winter Weather Safety	0%	0	42%	85	0%	0	40%	328
Wildfire Safety	0%	0	16%	32	0%	0	22%	181
None of the above	0%	0	27%	55	0%	0	30%	247
Number of Respondents		0		01		0		30
Websites visited for weather safety~								
National Weather Service	0%	0	98%	613	0%	0	96%	2,107
FEMA	0%	0	19%	117	0%	0	20%	428
American Red Cross	0%	0	12%	77	0%	0	12%	266
Centers for Disease Control and Prevention	0%	0	5%	30	0%	0	6%	134
Commercial weather vendor	0%	0	55%	342	0%	0	55%	1,200
Other	0%	0	10%	65	0%	0	11%	235
Number of Respondents		0	6	26		0	2,	191

	Under 25 years			25 - 34 years				
	20	12	20	13	20	12)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	3%	19	0%	0	2%	42
False	0%	0	97%	607	0%	0	98%	2,149
Number of Respondents		0	62	26		0	2,	191
Not safe to drive when water is too deep to see road surface								
True	0%	0	96%	600	0%	0	97%	2,115
False	0%	0	4%	26	0%	0	3%	76
Number of Respondents		0	62	26	(0	2,	191
Safe to drive through water slowly	22.		061		064		5 0.	460
True	0%	0	6%	36	0%	0	5%	103
False	0%	0	94%	590	0%	0	95%	2,088
Number of Respondents		0	62	26		0	2,	191
Oafa (a duite (huarush restauriu a launa and haarus abiala								
Safe to drive through water in a large and heavy vehicle	00/	0	50 /	20	00/	0	40/	77
True	0%	0	5%	30	0%	0	4%	77
False	0%	0	95%	596 26	0%	0	96%	2,114
Number of Respondents		U	02	20		0	۷,	191
Not safe to drive through swiftly moving water								
True	0%	0	97%	605	0%	0	97%	2,127
False	0%	0	3%	21	0%	0	3%	64
Number of Respondents		0		26		0		191
		-		-		-	,	-
When to seek shelter from lightning								
Distant lightning	0%	0	18%	112	0%	0	19%	407
Distant thunder	0%	0	61%	384	0%	0	59%	1,295
Nearby lightning	0%	0	10%	64	0%	0	11%	245
Loud thunder	0%	0	9%	57	0%	0	9%	200
Starts to rain	0%	0	1%	9	0%	0	2%	44
Number of Respondents		0	62	26	(0	2,	191
Gender								
Male	77%	505	74%	462	69%	1,211	66%	1,435
Female	23%	152	25%	158	31%	534	33%	729
Prefer not to answer	0%	0	1%	5	0%	0	1%	24
Number of Respondents	6	57	62	25	1,7	745	2,	188

		Under 2	5 years			25 - 34	years	
	20	12	20	13	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Race								
White, Caucasian	91%	592	87%	542	94%	1,615	89%	1,938
Black, African American	0%	3	1%	6	1%	9	1%	16
Hispanic, Latino, or Spanish	3%	18	2%	15	2%	31	2%	51
Pacific Islander	0%	2	0%	0	0%	5	0%	3
Asian	2%	13	2%	13	1%	21	1%	23
American Indian/Native Indian or Alaska Native	1%	5	1%	8	1%	16	1%	18
Other	2%	14	3%	20	2%	29	1%	32
Prefer not to answer	0%	0	3%	20	0%	0	5%	105
Number of Respondents	6	47	6	24	1,7	726	2,1	186
School completed								
12th grade or less (no diploma)	11%	71	10%	60	1%	20	1%	19
High school diploma or GED	16%	106	18%	113	8%	136	8%	173
Some college, no degree	33%	214	29%	184	17%	303	16%	350
Associate or technical degree	8%	55	9%	54	13%	220	11%	234
Bachelor's degree	27%	175	27%	166	37%	655	39%	860
Graduate degree/Professional degree	5%	35	5%	29	24%	419	24%	526
Prefer not to answer	0%	0	3%	18	0%	0	1%	24
Number of Respondents	6	56	6	24	1,7	753	2,1	186
Interested in other areas~								
National Fire Weather Program	0%	0	5%	34	0%	0	6%	128
National Hurricane Center Program	0%	0	10%	65	0%	0	7%	158
National Hydrologic Services Program	0%	0	5%	33	0%	0	6%	128
National Climate Services Program	0%	0	8%	50	0%	0	8%	177
Do not wish to continue	0%	0	80%	502	0%	0	83%	1,819
Number of Respondents		0	6	26		0	2,1	191

	35 - 44 years				45 - 54 years				
	2012		2013		2012		2013		
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Region									
Central Region	39%	774	36%	1,043	36%	1,281	35%	1,865	
Eastern Region	28%	544	22%	658	29%	1,052	24%	1,271	
Southern Region	19%	366	22%	631	18%	635	21%	1,145	
Western Region	13%	259	20%	590	16%	586	20%	1,068	
Alaska Region	0%	8	0%	6	0%	16	0%	17	
Pacific Region	0%	9	0%	6	0%	16	0%	15	
Number of Respondents	1,960		2,934		3,586		5,381		
Uses of NWS information~									
Agriculture	0%	0	14%	402	0%	0	17%	909	
Aviation	0%	0	5%	143	0%	0	5%	267	
Amateur Radio	0%	0	6%	181	0%	0	6%	335	
Broadcast/Print Media	0%	0	3%	96	0%	0	2%	134	
Commodities Markets	0%	0	1%	18	0%	0	1%	64	
Consulting	0%	0	2%	52	0%	0	1%	64	
Education	0%	0	10%	282	0%	0	8%	409	
Health Services	0%	0	2%	60	0%	0	3%	151	
Land Management Decisions	0%	0	7%	216	0%	0	9%	462	
Marine	0%	0	3%	89	0%	0	4%	193	
NWS Data Provider	0%	0	13%	385	0%	0	10%	534	
Personal	0%	0	88%	2,572	0%	0	86%	4,644	
Recreation	0%	0	61%	1,798	0%	0	60%	3,249	
Research	0%	0	7%	207	0%	0	6%	302	
Weather Enthusiast	0%	0	56%	1,657	0%	0	56%	3,023	
Work-related decisions	0%	0	31%	917	0%	0	29%	1,586	
Other	0%	0	6%	168	0%	0	8%	423	
Number of Respondents	0		2,939		0		5,393		
Type of Aviation									
Dispatcher	100%	4	6%	9	100%	7	5%	14	
Comm Aircraft	0%	0	20%	29	0%	0	20%	54	
Private Aircraft	0%	0	66%	95	0%		72%	192	
Air Traffic Controller	0%		7%	10	0%		3%	7	
Number of Respondents		1		43		1	20		
Number of Neopoliucino				10				y	

	35 - 44 years				45 - 54 years				
	2012		2013		2012		20	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Information sources~									
NWS Web	92%	2,306	93%	2,744	93%	4,477	93%	5,039	
Non-NWS Web	39%	976	36%	1,049	34%	1,660	34%	1,828	
Mobile devices	58%	1,440	68%	2,005	44%	2,095	56%	3,002	
Social Media	21%	518	27%	782	12%	587	16%	875	
Email	22%	541	12%	360	19%	903	13%	694	
Landline Telephone	0%	0	4%	125	0%	0	5%	251	
Cell Phone	0%	0	25%	728	0%	0	23%	1,219	
Local or cable TV	53%	1,315	52%	1,522	54%	2,581	56%	3,011	
Commercial Radio	33%	817	25%	735	33%	1,573	27%	1,443	
Satellite radio	5%	131	4%	103	4%	214	4%	211	
Satellite TV	16%	401	13%	373	16%	746	14%	760	
Newspaper	16%	411	10%	302	18%	846	14%	749	
NOAA Weather Radio/All Hazards	45%	1,125	47%	1,381	43%	2,088	45%	2,445	
NOAA Weather Wire	5%	123	4%	106	5%	240	3%	185	
Family of Services (FOS)	2%	59	1%	38	4%	173	1%	78	
Emerg Mgrs Weather Info Net	5%	118	5%	159	5%	245	5%	272	
NOAAPort	3%	81	2%	47	4%	179	2%	120	
World Area Forecast System	1%	23	1%	16	1%	66	1%	43	
DUATS	2%	51	1%	43	2%	115	2%	95	
Flight Services	4%	95	2%	65	4%	196	2%	127	
U.S. Coast Guard Broadcasts	6%	149	1%	40	6%	298	2%	95	
NAVTEX receiver	1%	18	0%	2	1%	32	0%	11	
Immarsat-C SafetyNET	0%	10	0%	3	0%	13	0%	5	
Radiofacsimile	1%	20	0%	3	1%	42	0%	7	
Other	1%	31	5%	137	2%	74	6%	309	
Number of Respondents	2,4	97	2,939		4,812		5,393		
•								<u>.</u>	
NOAANWS products used most often~									
Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	2,849	0%	0	97%	5,228	
Weather observations	0%	0	75%	2,206	0%	0	74%	4,002	
Climate observations	0%	0	34%	988	0%	0	34%	1,830	
Satellite data	0%	0	46%	1,340	0%	0	51%	2,726	
Radar data	0%	0	83%	2,448	0%	0	84%	4,525	
Computer weather model output	0%	0	37%	1,102	0%	0	38%	2,037	
Weather outreach/educational materials	0%	0	10%	308	0%	0	9%	484	
Other products	0%	0	5%	140	0%	0	5%	279	
Number of Respondents		0 2,939			0	5,393			

	35 - 44 years				45 - 54 years				
	2012		2013		2012		2013		
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Products familiar with~									
Tornado Warnings	0%	0	81%	2,380	0%	0	80%	4,325	
Severe Thunderstorm Warnings	0%	0	95%	2,790	0%	0	96%	5,160	
Severe Thunderstorm Watches	0%	0	93%	2,730	0%	0	94%	5,050	
Flash Flood Warnings	0%	0	85%	2,509	0%	0	86%	4,628	
Tsunami Warnings	0%	0	22%	637	0%	0	23%	1,237	
Hurricane Warnings	0%	0	48%	1,405	0%	0	54%	2,894	
Winter Storm Warnings	0%	0	91%	2,664	0%	0	92%	4,935	
River Flood Warnings	0%	0	62%	1,829	0%	0	64%	3,457	
Excessive Heat Warnings	0%	0	80%	2,338	0%	0	80%	4,301	
Extreme Cold Warnings	0%	0	66%	1,928	0%	0	69%	3,711	
High Surf Warnings	0%	0	26%	770	0%	0	28%	1,506	
Coastal Flood Warnings	0%	0	32%	954	0%	0	34%	1,850	
Climate Hazards	0%	0	50%	1,474	0%	0	48%	2,582	
Don't know	0%	0	1%	27	0%	0	0%	19	
Number of Respondents		0		939		0		393	
Tunibol of Roopendonic							<u> </u>		
Likelihood of taking protective action if tornado warning issued									
Very Unlikely	0%	0	2%	57	0%	0	2%	99	
Somewhat Unlikely	0%	0	3%	81	0%	0	3%	147	
Somewhat Likely	0%	0	16%	466	0%	0	12%	674	
Very Likely	0%	0	79%	2,310	0%	0	82%	4,425	
Don't Know	0%	0	1%	25	0%	0	1%	48	
Number of Respondents		0		939		0		393	
			•						
Reason for not taking action									
Do not believe I would be directly impacted by the tornado	0%	0	19%	26	0%	0	18%	44	
Need to first see or hear tornado	0%	0	16%	22	0%	0	15%	36	
Have never seen tornado damage in my area	0%	0	25%	35	0%	0	27%	66	
Do not take tornado warnings seriously	0%	0	6%	8	0%	0	4%	11	
Other	0%	0	34%	47	0%	0	36%	89	
Number of Respondents		0	1	38		0	2	46	
Proximity of tornado before considering warning accurate	00/	0	00/	400	00/	0	5 0/	004	
1 mile or less	0%	0	3%	100	0%	0	5%	261	
5 miles or less	0%	0	34%	990	0%	0	34%	1,807	
10 miles or less	0%	0	40%	1,188	0%	0	39%	2,094	
25 miles or less	0%	0	20%	579	0%	0	20%	1,063	
Other	0%	0	3%	82	0%	0	3%	168	
Number of Respondents		0	2,9	939		0	5,3	393	
Number of tornado warnings issued									
Too many tornado warnings	0%	0	8%	227	0%	0	7%	353	
Too frany tornado warnings Too few tornado warnings	0%	0	6% 4%	107	0%	0	7 % 3%	174	
<u> </u>	0%	0	4% 72%	2,106	0% 0%	0	3% 73%		
Just about right Don't know	0%		72% 17%	2,106 499	0% 0%		73% 18%	3,919 947	
Number of Respondents		0				0			
number of Respondents		0	2,	939		0	5,	393	

	35 - 44 years					45 - 54 years			
	20)12		013	20)12)13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Impact of tornado not occurring when warning issued									
Same actions as did previously	0%	0	79%	2,312	0%	0	83%	4,462	
Less likely to take same action	0%	0	13%	370	0%	0	10%	524	
Don't know	0%	0	9%	257	0%	0	8%	407	
Number of Respondents		0	2,	939		0	5,3	393	
Heard the term Weather-Ready Nation									
Heard Weather-Ready Nation	0%	0	22%	640	0%	0	19%	998	
Have not heard Weather-Ready Nation	0%	0	78%	2,299	0%	0	81%	4,395	
Number of Respondents	1	0	2,	939		0	5,3	393	
Have a hazardous weather safety plan									
Have a plan	59%	1,521	73%	2,140	61%	2,992	76%	4,073	
Do not have a plan	41%	1,043	25%	737	39%	1,934	22%	1,189	
Don't know	0%	0	2%	62	0%	0	2%	131	
Number of Respondents		564		2,939 4,926				3 93	
	·			_					
Reason plan created~	450/	005	500/	4.007	4.407	4.005	5 40/	0.000	
Friends and family	45%	685	59%	1,267	44%	1,295	54%	2,200	
General desire to be prepared	81%	1,231	90%	1,923	81%	2,420	91%	3,701	
An extreme weather event	43%	644	50%	1,077	43%	1,285	52%	2,127	
Be a Force of Nature campaign	1%	15	1%	23	1%	33	1%	43	
Weather-Ready Nation initiative	5%	72	3%	74	6%	168	4%	146	
Other	10%	155	16%	339	12%	370	15%	629	
Number of Respondents	1,	512	2,	140	2,9	976	4,0	073	
Main reason you do not have a plan									
Takes too much time	5%	47	5%	35	3%	53	4%	43	
Too expensive	1%	7	5%	36	1%	17	3%	39	
Not sure what to include	41%	426	38%	282	38%	734	42%	494	
Don't think it's necessary	36%	372	31%	230	43%	839	30%	356	
Other	18%	191	21%	154	15%	291	22%	257	
Number of Respondents	1,0	043	7	37	1,9	934	1,	189	
Plan includes hazardous weather emergency preparedness kit									
Includes kit	48%	1,226	46%	1,343	50%	2,459	49%	2,645	
Does not include kit	52%	1,338	46% 52%	1,543	50% 50%	2,459 2,467	49% 48%	2,645	
Don't know	0%	1,336	52% 2%	72	50% 0%	2,467	46% 3%	150	
Number of Respondents		_				_			
Number of Respondents	Ζ,	564	Ζ,	939	4,	926	5,	393	

	35 - 44 years					45 - 54	· 54 years			
	20)12	-	013	20	012	•	013		
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency		
Reason kit created~										
Friends and family	37%	448	56%	747	36%	877	52%	1,385		
General desire to be prepared	86%	1,040	91%	1,220	84%	2,070	91%	2,418		
An extreme weather event	41%	495	53%	706	41%	1,017	54%	1,440		
Be a Force of Nature campaign	1%	16	2%	22	1%	32	1%	34		
Weather-Ready Nation initiative	8%	103	4%	48	7%	161	4%	102		
Other	14%	174	16%	218	17%	408	16%	414		
Number of Respondents		215		343		451		645		
Main reason you do not have a kit										
Takes too much time	6%	74	4%	66	3%	79	4%	101		
Too expensive	8%	105	10%	146	7%	171	7%	185		
Not sure what to include	35%	462	38%	578	35%	856	39%	1,001		
Don't think it's necessary	29%	385	29%	440	33%	811	27%	710		
Other	23%	312	19%	294	22%	550	23%	601		
Number of Respondents	1,:	338	1,	524	2,	467	2,	598		
ADMIN A COLUMN A COLU										
NWS staff on-site at incident	00/	0	00/	440	00/		00/	400		
NWS staff on-site	0%	0	9%	112	0%	0	9%	183		
No staff on-site	0%	0	62%	737	0%	0	62%	1,315		
DK/NA	0%	0	29%	345	0%	0	30%	635		
Number of Respondents		0	1,	194		0	2,	133		
Require specific products and have automated methods										
Require specific products with automation	0%	0	11%	319	0%	0	9%	470		
Do not require specific products with automation	0%	0	89%	2,620	0%	0	91%	4,923		
Number of Respondents	0%	0		939	0%	0		393		
Number of Respondents		U	۷,	939		U	5,	393		
Received WEA message on cell phone										
Received message	0%	0	34%	1,006	0%	0	29%	1,567		
Did not receive message	0%	0	62%	1,810	0%	0	66%	3,582		
Don't know	0%	0	4%	123	0%	0	5%	244		
Number of Respondents		0		939		0		393		
			•				•			
WEA message was first notification received										
First notification	0%	0	60%	601	0%	0	63%	986		
Not first notification	0%	0	32%	318	0%	0	29%	449		
Don't know	0%	0	9%	87	0%	0	8%	132		
Number of Respondents		0	1,0	006		0	1,	567		
The Legisland BAIFA consists of										
Understood WEA message	00/		000/	007	00/		070/	4.000		
Fully understood	0%	0	89%	897	0%	0	87%	1,363		
Somewhat understood	0%	0	10%	105	0%	0	12%	191		
Did not understand	0%	0	0%	4	0%	0	1%	13		
Number of Respondents		0	1,	006		0	1,	567		

		35 - 44	vears			45 - 54	vears	
	20	12	•	013	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								
More text containing details of warning	0%	0	41%	409	0%	0	39%	611
Accompanying graphic showing warning area	0%	0	62%	625	0%	0	59%	929
Accompanying graphic showing current location	0%	0	59%	592	0%	0	58%	911
Color representing urgency of warning	0%	0	40%	405	0%	0	36%	565
Color representing type of warning	0%	0	26%	259	0%	0	23%	356
Sound representing urgency of warning	0%	0	40%	399	0%	0	43%	671
Sound representing type of warning	0%	0	25%	247	0%	0	26%	400
Number of Respondents		0	1,	006		0	1,	567
Facebook and Twitter during weather events~								
Do not use Facebook and Twitter for weather events	0%	0	51%	1,498	0%	0	65%	3,521
Read what others are posting or tweeting	0% 0%	0	51% 41%	1,498	0% 0%	0	28%	1,500
Comment on what others are posting or tweeting	0% 0%	0	41% 29%	853	0% 0%	0	20% 20%	1,080
· · · · · · · · · · · · · · · · · · ·	0%	0	30%	892	0%	0	20%	1,125
Write own posts or tweets Number of Respondents)		939		0		393
Number of Respondents			۷,	333		0	5,	535
Amount of social media content available								
Too little	0%	0	24%	341	0%	0	22%	408
Just about right	0%	0	48%	696	0%	0	47%	880
Too much	0%	0	1%	14	0%	0	1%	21
Don't know	0%	0	27%	390	0%	0	30%	563
Number of Respondents		0	1,	441		0	1,8	372
Promoted awareness campaigns~								
Heat Safety	0%	0	27%	325	0%	0	28%	603
Flood Safety	0%	0	26%	312	0%	0	26%	564
Lightning Safety	0%	0	32%	387	0%	0	32%	680
Severe Weather Safety	0%	0	48%	570	0%	0	44%	931
Rip Currents Safety	0%	0	6%	67	0%	0	5%	117
Hurricane Safety	0%	0	12%	139	0%	0	12%	257
Tsunami Safety	0%	0	3%	39	0%	0	3%	67
Winter Weather Safety	0%	0	34%	402	0%	0	36%	774
Wildfire Safety	0%	0	20%	244	0%	0	24%	513
None of the above	0%	0	36%	428	0%	0	36%	777
Number of Respondents		0	1,	194		0	2,	133
Websites visited for weather safety~								
National Weather Service	0%	0	96%	2,813	0%	0	97%	5,206
FEMA	0%	0	17%	510	0%	0	16%	880
American Red Cross	0%	0	10%	293	0%	0	10%	518
Centers for Disease Control and Prevention	0%	0	5%	156	0%	0	6%	307
	0%	0	58%	1,697	0%	0	59%	3,190
ICommercial weather vendor								5, 100
Commercial weather vendor Other	0%	0	12%	349	0%	0	12%	634

	35 - 44 years					45 - 54	years		
	20)12)13	20)12	20	13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Safe to drive through water when no Road Closed sign or police barricade									
True	0%	0	2%	65	0%	0	1%	77	
False	0%	0	98%	2,874	0%	0	99%	5,316	
Number of Respondents		0	2,9	939		0	5,3	393	
Not safe to drive when water is too deep to see road surface									
True	0%	0	96%	2,831	0%	0	96%	5,189	
False	0%	0	4%	108	0%	0	4%	204	
Number of Respondents		0	2,9	939		0	5,3	5,393	
Cafe to delive through water aloudy									
Safe to drive through water slowly	00/	0	40/	100	00/	0	40/	100	
True False	0% 0%	0	4% 96%	126	0% 0%	0	4% 96%	189	
		-		2,813		0		5,204	
Number of Respondents		0	۷,۶	939		0	5,.	393	
Safe to drive through water in a large and heavy vehicle									
True	0%	0	3%	84	0%	0	2%	124	
False	0%	0	97%	2,855	0%	0	98%	5,269	
Number of Respondents		0		939		0		393	
rumber of Respondents			- ,·				0,0		
Not safe to drive through swiftly moving water									
True	0%	0	97%	2,852	0%	0	97%	5,240	
False	0%	0	3%	87	0%	0	3%	153	
Number of Respondents		0	2,9	939		0	5,3	393	
<u> </u>									
When to seek shelter from lightning									
Distant lightning	0%	0	18%	515	0%	0	19%	1,039	
Distant thunder	0%	0	60%	1,754	0%	0	56%	3,046	
Nearby lightning	0%	0	12%	358	0%	0	14%	736	
Loud thunder	0%	0	9%	275	0%	0	9%	492	
Starts to rain	0%	0	1%	37	0%	0	1%	80	
Number of Respondents		0	2,9	939		0	5,3	393	
Gender									
Male	71%	1,789	67%	1,962	68%	3,323	67%	3,584	
Female	29%	748	32%	946	32%	1,547	32%	1,745	
Prefer not to answer	0%	0	1%	26	0%	0	1%	52	
Number of Respondents	2,	537	2,	934	4,8	370	5,3	381	

		35 - 44	years		45 - 54 years			
	20)12	20)13	20)12		013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Race								
White, Caucasian	93%	2,320	87%	2,560	95%	4,562	90%	4,812
Black, African American	1%	20	0%	12	1%	32	1%	28
Hispanic, Latino, or Spanish	2%	47	2%	68	1%	50	1%	69
Pacific Islander	0%	9	0%	7	0%	12	0%	4
Asian	1%	30	1%	20	1%	30	0%	22
American Indian/Native Indian or Alaska Native	1%	13	1%	26	1%	40	1%	52
Other	3%	63	2%	58	2%	91	2%	109
Prefer not to answer	0%	0	6%	182	0%	0	5%	278
Number of Respondents	2,	502	2,9	933	4,	817	5,	374
School completed								
12th grade or less (no diploma)	1%	23	1%	31	1%	58	1%	62
High school diploma or GED	7%	185	7%	191	9%	433	10%	523
Some college, no degree	19%	493	19%	544	20%	996	20%	1,064
Associate or technical degree	13%	336	15%	434	15%	756	15%	821
Bachelor's degree	34%	866	33%	962	30%	1,473	27%	1,465
Graduate degree/Professional degree	26%	653	24%	714	24%	1,197	25%	1,367
Prefer not to answer	0%	0	2%	58	0%	0	1%	75
Number of Respondents	2,	556	2,	934	4,	913	5,	377
Interested in other areas~	001		00/	400	00/		70/	057
National Fire Weather Program	0%	0	6%	186	0%	0	7%	357
National Hurricane Center Program	0%	0	8%	223	0%	0	8%	454
National Hydrologic Services Program	0%	0	6%	163	0%	0	6%	315
National Climate Services Program	0%	0	9%	256	0%	0	10%	533
Do not wish to continue	0%	0	81%	2,388	0%	0	79%	4,245
Number of Respondents		0	2,	939		0	5,	393

		55 - 64	years			65 - 74	years	
	20	12)13	20)12		13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	32%	1,410	32%	2,430	28%	647	28%	1,243
Eastern Region	30%	1,294	22%	1,683	27%	629	22%	974
Southern Region	17%	764	21%	1,546	19%	439	22%	957
Western Region	20%	861	24%	1,810	25%	563	28%	1,239
Alaska Region	1%	24	0%	34	0%	10	0%	18
Pacific Region	1%	22	0%	27	0%	9	0%	19
Number of Respondents	4,3	375	7,	530	2,2	297	4,4	450
Uses of NWS information~								
Agriculture	0%	0	19%	1,423	0%	0	18%	788
Aviation	0%	0	5%	369	0%	0	5%	238
Amateur Radio	0%	0	6%	471	0%	0	6%	258
Broadcast/Print Media	0%	0	2%	173	0%	0	2%	71
Commodities Markets	0%	0	1%	86	0%	0	1%	35
Consulting	0%	0	1%	94	0%	0	1%	48
Education	0%	0	6%	476	0%	0	4%	175
Health Services	0%	0	3%	193	0%	0	2%	87
Land Management Decisions	0%	0	9%	655	0%	0	8%	373
Marine	0%	0	4%	267	0%	0	3%	141
NWS Data Provider	0%	0	8%	570	0%	0	6%	285
Personal	0%	0	88%	6,643	0%	0	89%	3,994
Recreation	0%	0	60%	4,544	0%	0	59%	2,618
Research	0%	0	4%	307	0%	0	3%	146
Weather Enthusiast	0%	0	54%	4,107	0%	0	51%	2,261
Work-related decisions	0%	0	24%	1,803	0%	0	13%	574
Other	0%	0	10%	747	0%	0	11%	478
Number of Respondents		0	7,	554		0	4,4	165
Type of Aviotion								
Type of Aviation Dispatcher	100%	E	2%	8	0%	0	1%	2
Comm Aircraft	0%	5 0	2% 21%	78	0% 0%	0	13%	2 30
Private Aircraft	0% 0%		21% 74%		0% 0%		13% 84%	
Air Traffic Controller	0% 0%	0 0	74% 3%	272 11	0% 0%	0	84% 3%	200 6
		_		1		-		
Number of Respondents		5	5	69		0	2	38

	55 - 64 years				55 - 64 years				65 - 74 years			
	20	12	20	13	20	12	20	13				
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency				
Information sources~												
NWS Web	93%	5,858	93%	7,062	92%	3,272	92%	4,114				
Non-NWS Web	32%	2,027	31%	2,357	28%	998	27%	1,216				
Mobile devices	32%	2,007	42%	3,199	23%	817	31%	1,405				
Social Media	7%	420	9%	703	3%	99	5%	221				
Email	16%	977	12%	875	12%	427	10%	452				
Landline Telephone	0%	0	5%	376	0%	0	6%	247				
Cell Phone	0%	0	17%	1,309	0%	0	14%	616				
Local or cable TV	52%	3,260	55%	4,156	49%	1,729	56%	2,506				
Commercial Radio	29%	1,827	25%	1,917	24%	865	21%	941				
Satellite radio	4%	242	3%	235	3%	112	3%	129				
Satellite TV	16%	1,001	14%	1,062	18%	644	16%	736				
Newspaper	19%	1,178	18%	1,350	21%	757	22%	980				
NOAA Weather Radio/All Hazards	40%	2,545	43%	3,273	36%	1,277	40%	1,805				
NOAA Weather Wire	5%	343	3%	262	6%	211	4%	161				
Family of Services (FOS)	5%	303	1%	112	4%	156	1%	54				
Emerg Mgrs Weather Info Net	4%	270	5%	350	3%	94	3%	147				
NOAAPort	5%	336	2%	181	6%	208	3%	126				
World Area Forecast System	2%	95	1%	44	2%	57	1%	34				
DUATS	2%	149	2%	130	2%	70	2%	87				
Flight Services	5%	284	3%	193	5%	187	3%	150				
U.S. Coast Guard Broadcasts	6%	391	2%	144	7%	246	2%	81				
NAVTEX receiver	1%	39	0%	16	0%	17	0%	6				
Immarsat-C SafetyNET	0%	18	0%	7	0%	8	0%	3				
Radiofacsimile	1%	53	0%	14	1%	32	0%	5				
Other	2%	110	6%	438	3%	101	6%	285				
Number of Respondents	6,2	92	7,5	54	3,5	552	4,4	65				
•								<u>.</u>				
NOAANWS products used most often~												
Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	7,305	0%	0	96%	4,289				
Weather observations	0%	0	73%	5,528	0%	0	74%	3,302				
Climate observations	0%	0	33%	2,511	0%	0	30%	1,321				
Satellite data	0%	0	50%	3,807	0%	0	48%	2,135				
Radar data	0%	0	80%	6,057	0%	0	75%	3,364				
Computer weather model output	0%	0	37%	2,820	0%	0	34%	1,534				
Weather outreach/educational materials	0%	0	8%	604	0%	0	5%	235				
Other products	0%	0	5%	384	0%	0	4%	177				
Number of Respondents)	7,5	554		0	4,4	65				

	55 - 64 years					65 - 74	years	
	20	12		13	20)12		13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with~								
Tornado Warnings	0%	0	76%	5,728	0%	0	68%	3,050
Severe Thunderstorm Warnings	0%	0	94%	7,098	0%	0	92%	4,108
Severe Thunderstorm Watches	0%	0	92%	6,923	0%	0	90%	4,022
Flash Flood Warnings	0%	0	81%	6,081	0%	0	72%	3,226
Tsunami Warnings	0%	0	21%	1,608	0%	0	18%	819
Hurricane Warnings	0%	0	51%	3,823	0%	0	49%	2,197
Winter Storm Warnings	0%	0	90%	6,813	0%	0	87%	3,906
River Flood Warnings	0%	0	61%	4,595	0%	0	56%	2,494
Excessive Heat Warnings	0%	0	76%	5,776	0%	0	71%	3,160
Extreme Cold Warnings	0%	0	69%	5,204	0%	0	66%	2,949
High Surf Warnings	0%	0	26%	1,984	0%	0	22%	965
Coastal Flood Warnings	0%	0	33%	2,480	0%	0	30%	1,347
Climate Hazards	0%	0	45%	3,384	0%	0	38%	1,675
Don't know	0%	0	1%	66	0%	0	1%	43
Number of Respondents		0		554		0		465
Tunibol of Roopenacine			- , ,					.00
Likelihood of taking protective action if tornado warning issued								
Very Unlikely	0%	0	2%	158	0%	0	3%	125
Somewhat Unlikely	0%	0	2%	178	0%	0	3%	121
Somewhat Likely	0%	0	12%	930	0%	0	12%	523
Very Likely	0%	0	82%	6,191	0%	0	81%	3,617
Don't Know	0%	0	1%	97	0%	0	2%	79
Number of Respondents		0		554		0		465
•	•		•				,	
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	0%	0	19%	64	0%	0	24%	60
Need to first see or hear tornado	0%	0	13%	43	0%	0	13%	32
Have never seen tornado damage in my area	0%	0	33%	111	0%	0	31%	77
Do not take tornado warnings seriously	0%	0	4%	13	0%	0	4%	11
Other	0%	0	31%	105	0%	0	27%	66
Number of Respondents		0	3	36		0	2	46
Proximity of tornado before considering warning accurate	004		- 2/	110	22/		004	
1 mile or less	0%	0	5%	412	0%	0	6%	268
5 miles or less	0%	0	35%	2,653	0%	0	38%	1,706
10 miles or less	0%	0	36%	2,724	0%	0	34%	1,520
25 miles or less	0%	0	21%	1,552	0%	0	18%	824
Other	0%	0	3%	213	0%	0	3%	147
Number of Respondents		0	7,	554		0	4,4	465
Noushau of tournada yeared								
Number of tornado warnings issued	00/		50 /	200	00/		40/	400
Too many tornado warnings	0%	0	5%	392	0%	0	4%	189
Too few tornado warnings	0%	0	3%	207	0%	0	2%	81
Just about right	0%	0	72%	5,415	0%	0	68%	3,042
Don't know	0%	0	20%	1,540	0%	0	26%	1,153
Number of Respondents		0	7,	554		0	4,	465

	55 - 64 years					65 - 74	years	
	20	12	20	13	20)12	20)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued								
Same actions as did previously	0%	0	84%	6,330	0%	0	83%	3,713
Less likely to take same action	0%	0	8%	615	0%	0	7%	333
Don't know	0%	0	8%	609	0%	0	9%	419
Number of Respondents		0	7,	554		0	4,4	465
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	0%	0	15%	1,142	0%	0	10%	451
Have not heard Weather-Ready Nation	0%	0	85%	6,412	0%	0	90%	4,014
Number of Respondents		0		554		0		465
Number of Respondents		J	7,)) 		0	~ ;-	+03
Have a hazardous weather safety plan								
Have a plan	60%	3,876	76%	5,733	59%	2,148	75%	3,348
Do not have a plan	40%	2,586	22%	1,653	41%	1,509	23%	1,010
Don't know	0%	0	2%	168	0%	0	2%	107
Number of Respondents	6,4	162	7,	554	3,0	657	4,4	465
Reason plan created~								
Friends and family	39%	1,506	51%	2,906	36%	781	47%	1,585
General desire to be prepared	83%	3,190	92%	5,283	86%	1,845	94%	3,143
An extreme weather event	44%	1,699	54%	3,110	42%	903	53%	1,759
Be a Force of Nature campaign	1%	41	1%	77	1%	27	1%	40
Weather-Ready Nation initiative	5%	178	3%	189	3%	66	3%	117
Other	12%	451	14%	814	11%	229	14%	458
Number of Respondents	3,8			733		143		348
Main reason you do not have a plan								
Takes too much time	1%	36	2%	40	1%	16	2%	17
Too expensive	1%	13	2%	39	0%	6	2% 2%	16
Not sure what to include	37%	961	40%	656	31%	470	39%	391
Don't think it's necessary	45%	1,170	33%	552	51 <i>%</i> 54%	808	38%	383
Other	16%	406	22%	366	14%	209	20%	203
Number of Respondents		5 86		553		509		010
Number of Respondents	2,0	000	1,0)33	1,	309	1,0	010
Plan includes hazardous weather emergency preparedness kit								
Includes kit	51%	3,325	50%	3,802	47%	1,732	47%	2,085
Does not include kit	49%	3,137	47%	3,542	53%	1,925	51%	2,266
Don't know	0%	0	3%	210	0%	0	3%	114
Number of Respondents	6,4	162	7,5	554	3,0	657	4,4	465

	55 - 64 years					65 - 74	74 years			
	20	12	•)13	20	012	-	013		
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency		
Reason kit created~										
Friends and family	30%	989	49%	1,867	28%	480	46%	968		
General desire to be prepared	85%	2,785	93%	3,544	87%	1,508	95%	1,976		
An extreme weather event	41%	1,353	57%	2,164	38%	660	52%	1,091		
Be a Force of Nature campaign	1%	41	1%	40	1%	21	1%	28		
Weather-Ready Nation initiative	6%	206	3%	112	4%	73	4%	79		
Other	16%	512	14%	534	15%	259	15%	309		
Number of Respondents		290		802		727		085		
Main reason you do not have a kit										
Takes too much time	2%	76	3%	97	2%	32	2%	42		
Too expensive	4%	133	5%	176	4%	78	3%	61		
Not sure what to include	36%	1,124	37%	1,307	33%	631	39%	877		
Don't think it's necessary	36%	1,124	32%	1,140	42%	816	35%	787		
Other	22%	680	23%	822	19%	368	22%	499		
Number of Respondents	3,	137	3,	542	1,	925	2,	266		
NWS staff on-site at incident	00/	0	00/	004	00/	0	00/	0.4		
NWS staff on-site	0%	0	9%	221	0%	0	8%	81		
No staff on-site	0%	0	58%	1,489	0%	0	57%	605		
DK/NA	0%	0	34%	864	0%	0	36%	384		
Number of Respondents		0	2,	574		0	1,	070		
Require specific products and have automated methods										
Require specific products with automation	0%	0	7%	497	0%	0	5%	232		
Do not require specific products with automation	0%	0	93%	7,057	0%	0	95%	4,233		
Number of Respondents	0 /6			7,037 554	0 /6	0		4,233 465		
Number of Respondents		0	Ι,	004		U	4,	403		
Received WEA message on cell phone										
Received message	0%	0	22%	1,699	0%	0	17%	748		
Did not receive message	0%	0	73%	5,522	0%	0	79%	3,536		
Don't know	0%	0	4%	333	0%	0	4%	181		
Number of Respondents		0		554		0		465		
			•				•			
WEA message was first notification received										
First notification	0%	0	66%	1,126	0%	0	64%	482		
Not first notification	0%	0	25%	428	0%	0	27%	199		
Don't know	0%	0	9%	145	0%	0	9%	67		
Number of Respondents		0	1,	699		0	7	48		
Understood WEA message	000		0.404	4 (22	221		0001	066		
Fully understood	0%	0	84%	1,433	0%	0	83%	623		
Somewhat understood	0%	0	15%	254	0%	0	16%	118		
Did not understand	0%	0	1%	12	0%	0	1%	7		
Number of Respondents		0	1,	699		0	7	48		

	55 - 64 years					65 - 74	years	
	20	12		13	20	012	•)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								
More text containing details of warning	0%	0	38%	649	0%	0	36%	269
Accompanying graphic showing warning area	0%	0	59%	1,006	0%	0	59%	444
Accompanying graphic showing current location	0%	0	56%	951	0%	0	58%	431
Color representing urgency of warning	0%	0	35%	587	0%	0	35%	260
Color representing type of warning	0%	0	22%	372	0%	0	25%	188
Sound representing urgency of warning	0%	0	44%	752	0%	0	45%	335
Sound representing type of warning	0%	0	28%	479	0%	0	28%	210
Number of Respondents		0	1,6	699		0	7	48
Facebook and Twitter during weather events~								
Do not use Facebook and Twitter for weather events	0%	0	78%	5,868	0%	0	87%	3,866
Read what others are posting or tweeting	0%	0	18%	1,353	0%	0	11%	484
Comment on what others are posting or tweeting	0%	0	13%	985	0%	0	7%	314
Write own posts or tweets	0%	0	12%	907	0%	0	7 % 7%	294
Number of Respondents	0 76			554	0 76	0		4 65
Number of Respondents		0	7,	,		U		400
Amount of social media content available								
Too little	0%	0	18%	298	0%	0	15%	87
Just about right	0%	0	47%	791	0%	0	44%	262
Too much	0%	0	1%	19	0%	0	2%	10
Don't know	0%	0	34%	578	0%	0	40%	240
Number of Respondents		0	1,6	686		0	5	99
Promoted awareness campaigns~								
Heat Safety	0%	0	27%	689	0%	0	24%	255
Flood Safety	0%	0	25%	653	0%	0	24%	254
Lightning Safety	0%	0	31%	805	0%	0	30%	316
Severe Weather Safety	0%	0	41%	1,054	0%	0	39%	415
Rip Currents Safety	0%	0	5%	141	0%	0	5%	53
Hurricane Safety	0%	0	12%	309	0%	0	12%	129
Tsunami Safety	0%	0	4%	98	0%	0	3%	37
Winter Weather Safety	0%	0	38%	970	0%	0	36%	389
Wildfire Safety	0%	0	25%	652	0%	0	30%	325
None of the above	0%	0	40%	1,024	0%	0	41%	434
Number of Respondents		0		74		0		070
								•
Websites visited for weather safety~	22.		070	7.00-	22.	Î	070	1.00.1
National Weather Service	0%	0	97%	7,335	0%	0	97%	4,334
FEMA	0%	0	14%	1,085	0%	0	11%	507
American Red Cross	0%	0	9%	643	0%	0	6%	252
Centers for Disease Control and Prevention	0%	0	5%	398	0%	0	4%	181
Commercial weather vendor	0%	0	59%	4,483	0%	0	60%	2,661
Other	0%	0	11%	867	0%	0	10%	440
Number of Respondents		U	7,	554		U	4,	465

	55 - 64 years					65 - 74	years	
	20)12	-	13	20)12	20	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	2%	126	0%	0	2%	94
False	0%	0	98%	7,428	0%	0	98%	4,371
Number of Respondents		0	7,5	554		0	4,	465
Not safe to drive when water is too deep to see road surface								
True	0%	0	96%	7,232	0%	0	96%	4,275
False	0%	0	4%	322	0%	0	4%	190
Number of Respondents		0	7,5	554		0	4,	465
Safe to drive through water slowly								
True	0%	0	4%	288	0%	0	5%	214
False	0%	0	96%	7,266	0%	0	95%	4,251
Number of Respondents		0	7,5	554		0	4,	465
	İ							_
Safe to drive through water in a large and heavy vehicle								
True	0%	0	3%	241	0%	0	4%	180
False	0%	0	97%	7,313	0%	0	96%	4,285
Number of Respondents		0	7,5	554		0	4,	465
Notice to the left of according to the control of t								
Not safe to drive through swiftly moving water	00/	0	070/	7.004	00/	0	000/	4.007
True	0%	0	97%	7,321	0%	0	96%	4,307
False	0%	0	3%	233	0%	0	4%	158
Number of Respondents		0	7,5	554		0	4,	465
When to seek shelter from lightning								
Distant lightning	0%	0	19%	1,453	0%	0	18%	818
Distant thunder	0%	0	52%	3,915	0%	0	46%	2,071
Nearby lightning	0%	0	18%	1,323	0%	0	21%	933
Loud thunder	0%	0	10%	756	0%	0	13%	584
Starts to rain	0%	0	1%	107	0%	0	1%	59
Number of Respondents		0		554		0		465
number of Respondents		0	1,0	707		0	٠,٠	100
Gender								
Male	70%	4,430	67%	5,022	76%	2,734	73%	3,243
Female	30%	1,939	33%	2,466	24%	871	27%	1,192
Prefer not to answer	0%	0	1%	49	0%	0	0%	18
Number of Respondents		369		537		605		453
number of neopoliucitio	0,		7,0	,,,	5,0		₹,	.00

		55 - 64	years			65 - 74	years	
	20	012		013	20	012	2(013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Race								
White, Caucasian	95%	6,006	89%	6,672	96%	3,447	89%	3,980
Black, African American	0%	31	0%	23	0%	8	0%	14
Hispanic, Latino, or Spanish	1%	43	1%	71	0%	12	1%	25
Pacific Islander	0%	5	0%	4	0%	7	0%	5
Asian	0%	26	0%	31	0%	8	0%	10
American Indian/Native Indian or Alaska Native	1%	46	1%	64	1%	21	1%	26
Other	3%	172	3%	194	2%	71	3%	122
Prefer not to answer	0%	0	6%	470	0%	0	6%	268
Number of Respondents	6,	329	7,	529	3,	574	4,	450
School completed								
12th grade or less (no diploma)	1%	52	1%	66	1%	35	1%	36
High school diploma or GED	7%	459	7%	516	6%	236	6%	258
Some college, no degree	20%	1,286	21%	1,560	20%	719	20%	872
Associate or technical degree	13%	868	14%	1,085	11%	389	10%	458
Bachelor's degree	28%	1,806	27%	2,065	25%	896	26%	1,144
Graduate degree/Professional degree	31%	1,964	28%	2,114	38%	1,371	37%	1,630
Prefer not to answer	0%	0	2%	131	0%	0	1%	57
Number of Respondents	6,	435	7,	537	3,	646	4,	455
Interested in other areas~								
National Fire Weather Program	0%	0	8%	571	0%	0	8%	349
National Hurricane Center Program	0%	0	8%	637	0%	0	9%	392
National Hydrologic Services Program	0%	0	6%	486	0%	0	6%	271
National Climate Services Program	0%	0	12%	886	0%	0	12%	532
Do not wish to continue	0%	0	77%	5,797	0%	0	76%	3,373
Number of Respondents		0		554		0		465

	75 years and older			
	2012		20	13
	Percent	Frequency	Percent	Frequency
Region				
Central Region	31%	169	28%	306
Eastern Region	30%	164	24%	267
Southern Region	20%	109	21%	228
Western Region	19%	106	26%	287
Alaska Region	0%	0	0%	1
Pacific Region	1%	4	0%	3
Number of Respondents	552		1,092	

Uses of NWS information~				
Agriculture	0%	0	17%	186
Aviation	0%	0	5%	57
Amateur Radio	0%	0	5%	60
Broadcast/Print Media	0%	0	1%	14
Commodities Markets	0%	0	2%	18
Consulting	0%	0	1%	15
Education	0%	0	5%	52
Health Services	0%	0	5%	52
Land Management Decisions	0%	0	7%	72
Marine	0%	0	2%	25
NWS Data Provider	0%	0	5%	57
Personal	0%	0	92%	1,009
Recreation	0%	0	47%	513
Research	0%	0	2%	26
Weather Enthusiast	0%	0	50%	546
Work-related decisions	0%	0	7%	74
Other	0%	0	10%	109
Number of Respondents		0	1,0	99

Type of Aviation					
Dispatcher	0%	0	0%	0	
Comm Aircraft	0%	0	19%	11	
Private Aircraft	0%	0	81%	46	
Air Traffic Controller	0%	0	0%	0	
Number of Respondents	0		5	57	

	75 years and older			
	20	12	20	13
	Percent	Frequency	Percent	Frequency
Information sources~				
NWS Web	91%	777	87%	961
Non-NWS Web	22%	187	20%	225
Mobile devices	14%	120	17%	186
Social Media	1%	12	2%	27
Email	10%	86	10%	115
Landline Telephone	0%	0	6%	67
Cell Phone	0%	0	8%	86
Local or cable TV	51%	441	54%	596
Commercial Radio	19%	164	20%	216
Satellite radio	2%	19	3%	31
Satellite TV	18%	152	16%	179
Newspaper	23%	199	30%	334
NOAA Weather Radio/All Hazards	33%	285	34%	370
NOAA Weather Wire	9%	81	5%	57
Family of Services (FOS)	5%	46	1%	16
Emerg Mgrs Weather Info Net	3%	25	2%	21
NOAAPort	6%	52	3%	36
World Area Forecast System	2%	19	1%	7
DUATS	2%	20	1%	10
Flight Services	5%	42	2%	22
U.S. Coast Guard Broadcasts	7%	57	1%	12
NAVTEX receiver	1%	9	0%	2
Immarsat-C SafetyNET	0%	1	0%	1
Radiofacsimile	2%	13	0%	0
Other	2%	17	7%	77
Number of Respondents	8	57	1,0	99

NOAANWS products used most often~				
Forecasts, outlooks, watches, warnings, alerts	0%	0	95%	1,049
Weather observations	0%	0	70%	769
Climate observations	0%	0	28%	311
Satellite data	0%	0	41%	446
Radar data	0%	0	68%	747
Computer weather model output	0%	0	37%	402
Weather outreach/educational materials	0%	0	6%	65
Other products	0%	0	4%	43
Number of Respondents	0 1,		1,0	99

	75 years and older			
)12		13
Products for West Ma	Percent	Frequency	Percent	Frequency
Products familiar with~	00/	0	CC0/	700
Tornado Warnings	0%	0	66%	728
Severe Thunderstorm Warnings	0%	0	90%	993
Severe Thunderstorm Watches	0%	0	88%	969
Flash Flood Warnings	0%	0	67%	737
Tsunami Warnings	0%	0	13%	140
Hurricane Warnings	0%	0	45%	499
Winter Storm Warnings	0%	0	86%	942
River Flood Warnings	0%	0	47%	513
Excessive Heat Warnings	0%	0	67%	738
Extreme Cold Warnings	0%	0	64%	708
High Surf Warnings	0%	0	16%	177
Coastal Flood Warnings	0%	0	24%	267
Climate Hazards	0%	0	32%	352
Don't know	0%	0	2%	17
Number of Respondents		0	1,0	99
Likelihood of taking protective action if tornado warning issued				
Very Unlikely	0%	0	4%	39
Somewhat Unlikely	0%	0	2%	26
Somewhat Likely	0%	0	13%	146
Very Likely	0%	0	79%	865
Don't Know	0%	0	2%	23
Number of Respondents		0	1,0	099
Descen for not taking action				
Reason for not taking action Do not believe I would be directly impacted by the tornado	0%	0	32%	21
		0		
Need to first see or hear tornado	0%	0	20%	13
Have never seen tornado damage in my area	0%	0	31%	20
Do not take tornado warnings seriously	0%	0	2%	1
Other	0%	0	15%	10
Number of Respondents		0		55
Proximity of tornado before considering warning accurate				
1 mile or less	0%	0	9%	103
5 miles or less	0%	0	40%	444
10 miles or less	0%	0	30%	334
25 miles or less	0%	0	16%	178
Other	0%	0	4%	40
Number of Respondents		0) 199
Trainibor of Respondents			1,0	
Number of tornado warnings issued				
Too many tornado warnings	0%	0	4%	41
Too few tornado warnings	0%	0	1%	10
Just about right	0%	0	64%	705
Don't know	0%	0	31%	343
Number of Respondents		0		099
-				

	75 years and older			
	20	12	20	13
	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued				
Same actions as did previously	0%	0	82%	899
Less likely to take same action	0%	0	7%	73
Don't know	0%	0	12%	127
Number of Respondents		0	1,0	99
Heard the term Weather-Ready Nation				
Heard Weather-Ready Nation	0%	0	7%	82
Have not heard Weather-Ready Nation	0%	0	93%	1,017
Number of Respondents		0	1,0)99
Have a hazardous weather safety plan				
Have a plan	56%	498	70%	766
Do not have a plan	44%	385	25%	277
Don't know	0%	0	5%	56
Number of Respondents		33		99
			-, -	
Reason plan created~				
Friends and family	37%	183	48%	370
General desire to be prepared	88%	435	94%	721
An extreme weather event	39%	194	48%	366
Be a Force of Nature campaign	0%	2	2%	14
Weather-Ready Nation initiative	3%	15	5%	35
Other	9%	46	14%	111
Number of Respondents	49	95	70	66
Material Control of the Control of t				
Main reason you do not have a plan	40/	2	40/	0
Takes too much time	1%	3	1%	3
Too expensive	1%	4	3%	9
Not sure what to include	24%	91	34%	95
Don't think it's necessary	63%	242	48%	132
Other	12%	45	14%	38
Number of Respondents	38	35	2	77
Plan includes hazardous weather emergency preparedness kit				
Includes kit	41%	358	41%	456
Does not include kit	59%	525	56%	616
Don't know	0%	0	2%	27
Number of Respondents		33		99

		75 years a		and older	
	20	012		013	
	Percent	Frequency	Percent	Frequency	
Reason kit created~					
Friends and family	26%	91	49%	225	
General desire to be prepared	88%	313	95%	434	
An extreme weather event	36%	126	50%	229	
Be a Force of Nature campaign	0%	1	2%	9	
Weather-Ready Nation initiative	6%	20	4%	19	
Other	11%	38	17%	79	
Number of Respondents	3	354	4	156	
Main reason you do not have a kit					
Takes too much time	2%	11	1%	6	
Too expensive	3%	18	3%	16	
Not sure what to include	26%	135	33%	201	
Don't think it's necessary	51%	270	46%	281	
Other	17%	91	18%	112	
Number of Respondents		525		516	
ADMO of the second second second					
NWS staff on-site at incident	00/	0	C 0/	40	
NWS staff on-site	0%	0	6%	13	
No staff on-site	0%	0	50%	105	
DK/NA	0%	0	44%	94	
Number of Respondents		0		212	
Require specific products and have automated methods					
Require specific products with automation	0%	0	6%	69	
Do not require specific products with automation	0%	0	94%	1,030	
Number of Respondents		0	1,	099	
Received WEA message on cell phone					
Received message	0%	0	9%	95	
Did not receive message	0%	0	86%	941	
Don't know	0%	0	6%	63	
Number of Respondents		0	1,	099	
WEA message was first notification received					
First notification	0%	0	57%	54	
Not first notification	0%	0	32%	30	
Don't know	0%	0	12%	11	
Number of Respondents	070	0		95	
Understood WEA massage					
Understood WEA message Fully understood	0%	0	76%	72	
Somewhat understood		0	76% 19%		
Did not understand	0%	0	19% 5%	18	
	0%	0		5	
Number of Respondents		0		95	

		75 years and old		
	20	012)13
	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~				
More text containing details of warning	0%	0	29%	28
Accompanying graphic showing warning area	0%	0	63%	60
Accompanying graphic showing current location	0%	0	65%	62
Color representing urgency of warning	0%	0	34%	32
Color representing type of warning	0%	0	27%	26
Sound representing urgency of warning	0%	0	45%	43
Sound representing type of warning	0%	0	31%	29
Number of Respondents	0,0	0)5
·	•			
Facebook and Twitter during weather events~				
Do not use Facebook and Twitter for weather events	0%	0	92%	1,012
Read what others are posting or tweeting	0%	0	6%	69
Comment on what others are posting or tweeting	0%	0	4%	45
Write own posts or tweets	0%	0	3%	32
Number of Respondents		0	1,	099
Amount of social media content available	201		4.007	
Too little	0%	0	13%	11
Just about right	0%	0	54%	47
Too much	0%	0	5%	4
Don't know	0%	0	29%	25
Number of Respondents		0	8	37
Promoted awareness campaigns~				
Heat Safety	0%	0	21%	44
Flood Safety	0%	0	23%	48
Lightning Safety	0%	0	31%	65
Severe Weather Safety	0%	0	39%	82
Rip Currents Safety	0%	0	4%	9
Hurricane Safety	0%	0	12%	26
Tsunami Safety	0%	0	3%	7
Winter Weather Safety	0%	0	38%	80
Wildfire Safety	0%	0	27%	58
None of the above	0%	0	42%	90
Number of Respondents	U%	0		1 2
Number of Respondents		U		12
Websites visited for weather safety~				
National Weather Service	0%	0	97%	1,065
FEMA	0%	0	9%	95
American Red Cross	0%	0	4%	45
Centers for Disease Control and Prevention	0%	0	3%	37
Commercial weather vendor	0%	0	56%	616
Other	0%	0	9%	94
Number of Respondents	0,0	0		099

	75 years and older				
	20)12	20)13	
	Percent	Frequency	Percent	Frequency	
Safe to drive through water when no Road Closed sign or police barricade					
True	0%	0	3%	31	
False	0%	0	97%	1,068	
Number of Respondents		0	1,0	099	
Not safe to drive when water is too deep to see road surface					
True	0%	0	95%	1,041	
False	0%	0	5%	58	
Number of Respondents		0	1,0	099	
Safe to drive through water slowly					
True	0%	0	6%	62	
False	0%	0	94%	1,037	
Number of Respondents		0	1,0	099	
	•			1	
Safe to drive through water in a large and heavy vehicle					
True	0%	0	7%	74	
False	0%	0	93%	1,025	
Number of Respondents		0	1,099		
Not safe to drive through swiftly moving water					
True	0%	0	97%	1,069	
False	0%	0	3%	30	
Number of Respondents		0		099	
			-,		
When to seek shelter from lightning					
Distant lightning	0%	0	19%	210	
Distant thunder	0%	0	38%	415	
Nearby lightning	0%	0	26%	286	
Loud thunder	0%	0	16%	171	
Starts to rain	0%	0	2%	17	
Number of Respondents		Ö	1,0	099	
•					
Gender					
Male	79%	689	78%	850	
Female	21%	181	22%	236	
Prefer not to answer	0%	0	1%	10	
Number of Respondents	8	70	1,0	096	

		75 years	and older	
	20	13 years)13
	Percent	Frequency	Percent	Frequency
Race		,		, ,
White, Caucasian	96%	838	91%	997
Black, African American	0%	1	0%	1
Hispanic, Latino, or Spanish	0%	4	0%	4
Pacific Islander	0%	3	0%	1
Asian	0%	1	0%	4
American Indian/Native Indian or Alaska Native	1%	6	1%	6
Other	2%	16	3%	32
Prefer not to answer	0%	0	5%	52
Number of Respondents	8	69	1,097	
	•			
School completed				
12th grade or less (no diploma)	2%	17	1%	12
High school diploma or GED	8%	71	6%	71
Some college, no degree	19%	170	20%	218
Associate or technical degree	7%	59	7%	78
Bachelor's degree	27%	234	26%	281
Graduate degree/Professional degree	37%	328	38%	421
Prefer not to answer	0%	0	1%	16
Number of Respondents	8	79	1,0	097
Interested in other areas~				
National Fire Weather Program	0%	0	6%	65
National Hurricane Center Program	0%	0	8%	84
National Hydrologic Services Program	0%	0	4%	45
National Climate Services Program	0%	0	11%	122
Do not wish to continue	0%		79%	863
Number of Respondents		0)99
Number of Respondents		U	1,0	JJJ

National Weather Service - Overall 2013 Gender Score Table

	Male		Fen	nale	Prefer not to answer		
	2012	2013	2012	2013	2012	2013	
Sample Size	16,927	18,107	6,703	8,390		1,122	
Hazardous Services	86	88	88	90		83	
Tornado Warnings	85	86	87	88		81	
Severe Thunderstorm Warnings	86	88	88	90		83	
Severe Thunderstorm Watch		88		90		84	
Winter Storm Warnings	84	88	87	90		84	
Hurricane Warnings	87	90	90	92		85	
Flash Flood Warnings	85	87	88	89		83	
River Flood Warnings	87	89	89	90		83	
High Surf Warnings	87	90	91	92		87	
Tsunami Warnings	84	86	87	88		82	
Extreme Cold Warnings	89	91	90	93		88	
Excessive Heat Warnings	89	92	91	94		88	
Coastal Flood Warnings		88		90		84	
Climate Hazards		85		87		81	
Tornado Warnings	85	87	87	88		82	
Ease of Understanding	89	93	90	94		89	
Timeliness	85	86	86	87		80	
Accuracy	80	77	83	80		71	
Severe Thunderstorm Warnings	86	89	88	90		84	
Ease of Understanding	89	93	91	94		89	
Timeliness	86	89	87	91		84	
Accuracy	82	80	85	83		75	
Severe Thunderstorm Watch		89		90		84	
Ease of Understanding		93		94		89	
Timeliness		90		92		86	
Accuracy		80		82		75	
Flash Flood Warnings	85	88	88	90		83	
Ease of Understanding	88	92	90	93		88	
Timeliness	85	88	88	90		83	
Accuracy	81	81	86	84		76	
Tsunami Warnings	84	86	87	89		82	
Ease of Understanding	87	90	89	92		86	
Timeliness	85	86	87	88		79	
Accuracy	78	76	83	80		73	
Hurricane Warnings	88	91	90	92		86	
Ease of Understanding	90	93	91	94		88	
Timeliness	89	93	91	94		88	
Accuracy	82	83	86	85		79	
Winter Storm Warnings	85	89	87	91		85	
Ease of Understanding	88	93	90	94		89	
Timeliness	86	91	88	93		87	
Accuracy	78	78	82	81		74	

National Weather Service - Overall 2013 Gender Score Table

	N	lale	Fer	nale	Prefer not	to answer
	2012	2013	2012	2013	2012	2013
Sample Size	16,927	18,107	6,703	8,390		1,122
River Flood Warnings	87	89	89	91		84
Ease of Understanding	88	91	90	93		87
Timeliness	87	90	89	91		85
Accuracy	85	85	88	87		79
Excessive Heat Warnings	89	92	91	94		88
Ease of Understanding	91	93	92	95		90
Timeliness	90	93	91	94		89
Accuracy	88	89	90	91		84
Extreme Cold Warnings	89	91	90	93		88
Ease of Understanding	90	93	92	95		91
Timeliness	89	92	91	94		89
Accuracy	87	87	89	89		82
High Surf Warnings	87	90	91	92		87
Ease of Understanding	89	92	91	93		89
Timeliness	88	91	91	93		89
Accuracy	86	86	89	89		82
Coastal Flood Warnings		89		90	-	85
Ease of Understanding		91		92		87
Timeliness		90		91		86
Accuracy		83		86		79
Climate Hazards		86		88	-	82
Ease of Understanding		88		89		84
Timeliness		88		90		83
Accuracy		81		84		78
Weather-Sensitive Decision Making		86		89		82
Rely on NWS in making weather-sensitive decisions		86		89		82
User Support Services	89	88	91	90		81
Accessibility	88	87	90	89		78
Responsiveness	87	85	89	87		75
Subject-Matter Knowledge	92	92	93	93		86
Professionalism	93	93	93	94		86
Assisting in interpretation of weather-related information	89	89	90	90		82
Saving your organization money		77		76		70
Resolving a complaint	84	75	87	74		65
Dissemination Services - Website		84		86	-	78
Ease of locating information	82	82	83	85		75
Ease of understanding info	87	85	88	86		79
Information is up-to-date	87	87	89	89		80
Satellite Imagery display		84		86		78
Doppler Radar display		84		86		77

National Weather Service - Overall 2013 Gender Score Table

	M	ale	Fer	male	Prefer not to answer				
	2012	2013	2012	2013	2012	2013			
Sample Size	16,927	18,107	6,703	8,390		1,122			
Dissemination Services - Automated	77	79	83	81		68			
Ease locating data on servers	76	82	83	84		70			
Ease of req add data to server	74	76	81	78		60			
Ease of providing input	75	74	81	77		59			
Ease of auto method	79	81	84	83		69			
Usefulness of WEA Message		80		82		68			
Usefulness of WEA message		80		82		68			
Usefulness of NWS Presence		68		71		63			
Usefulness of NWS presence on Facebook		75		81		69			
Usefulness of NWS presence on Twitter		67		62		62			
Usefulness of NWS presence on YouTube		46		43		45			
Usefulness of NWS Graphical Summary		82		84		76			
Usefulness of NWS graphical weather summaries on social media		82		84		76			
Effectiveness of Safety Campaigns		75		79		68			
Effectiveness of Turn Around Don`t Drown		80		83		73			
Effectiveness of When Thunder Roars, Go Indoors!		69		75		61			
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		73		76		66			
Customer Satisfaction Index	83	82	85	84		74			
Overall Satisfaction	88	87	90	89		79			
Meets expectations	79	75	81	78		68			
Compared to ideal	81	79	84	83		71			
Likelihood Take Action	90	90	92	93		84			
Likelihood take action on info	90	90	92	93		84			
Likelihood to Use in Future	95	96	96	97		92			
Likelihood use NWS in future	95	96	96	97		92			
Likelihood to Recommend	93	92	94	94		84			
Likelihood to recommend	93	92	94	94		84			
Anticipated Use Over Next Year									
Desktop-laptop computer		93		93		91			
Mobile Device		59		59		54			
Social Media		22		29		17			
Direct Interaction w NWS Staff		12		8		10			
NOAA Weather Radio All-Hazards		46		41		41			
File transfer services		19		17		16			
Level of Severity									
Marginal		24		21		19			
Slight		18		14		14			
Critical		91		94		91			
Enhanced		49		49		46			
Elevated		54		57		51			
Moderate		47		46		44			
High		80		81		79			

		Ma	ale			Fem	nale	
	20	12	20)13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	35%	3,854	33%	6,030	33%	1,622	33%	2,741
Eastern Region	29%	3,145	23%	4,149	30%	1,466	23%	1,944
Southern Region	18%	1,998	22%	3,948	17%	832	19%	1,569
Western Region	17%	1,852	21%	3,799	19%	961	25%	2,052
Alaska Region	0%	40	0%	62	1%	29	0%	30
Pacific Region	0%	45	0%	53	0%	23	0%	29
Number of Respondents	10,	934	18,	,041	4,9	933	8,3	865
Uses of NWS information~								
Agriculture	0%	0	17%	3,007	0%	0	16%	1,346
Aviation	0%	0	6%	1,158	0%	0	2%	169
Amateur Radio	0%	0	8%	1,437	0%	0	2%	154
Broadcast/Print Media	0%	0	3%	543	0%	0	2%	178
Commodities Markets	0%	0	1%	235	0%	0	0%	38
Consulting	0%	0	2%	286	0%	0	1%	83
Education	0%	0	7%	1,221	0%	0	7%	610
Health Services	0%	0	2%	422	0%	0	3%	241
Land Management Decisions	0%	0	9%	1,556	0%	0	6%	527
Marine	0%	0	4%	724	0%	0	1%	117
NWS Data Provider	0%	0	11%	2,008	0%	0	6%	513
Personal	0%	0	86%	15,538	0%	0	92%	7,688
Recreation	0%	0	59%	10,746	0%	0	57%	4,765
Research	0%	0	6%	1,120	0%	0	4%	354
Weather Enthusiast	0%	0	58%	10,413	0%	0	48%	4,063
Work-related decisions	0%	0	26%	4,660	0%	0	18%	1,488
Other	0%	0	8%	1,404	0%	0	9%	784
Number of Respondents		0	18,	,107		0	8,3	390
Type of Aviation								
Type of Aviation Dispatcher	100%	20	4%	48	100%	1	3%	5
Comm Aircraft	0%	0	4% 19%	48 220	0%	0	3% 20%	33
Private Aircraft	0% 0%	0		220 849	0% 0%	0		33 126
Air Traffic Controller	0% 0%	0	73% 4%	849 41	0% 0%	0	75% 3%	5
Number of Respondents		! 0		158	U%	1		5 6 9
number of kespondents		:U	1,	100		I	10	09

		Ma	ile			Fem	nale	
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	93%	15,340	95%	17,128	91%	5,960	89%	7,507
Non-NWS Web	34%	5,535	33%	5,966	31%	2,025	29%	2,394
Mobile devices	39%	6,390	49%	8,915	34%	2,208	47%	3,954
Social Media	11%	1,731	13%	2,380	13%	831	17%	1,464
Email	16%	2,704	11%	2,047	15%	1,003	11%	958
Landline Telephone	0%	0	4%	803	0%	0	5%	441
Cell Phone	0%	0	19%	3,408	0%	0	20%	1,651
Local or cable TV	53%	8,697	55%	10,047	50%	3,270	53%	4,411
Commercial Radio	29%	4,817	24%	4,320	30%	1,931	25%	2,095
Satellite radio	5%	748	4%	658	3%	227	3%	227
Satellite TV	17%	2,823	14%	2,616	15%	955	13%	1,050
Newspaper	18%	2,991	16%	2,879	21%	1,394	18%	1,548
NOAA Weather Radio/All Hazards	44%	7,235	47%	8,447	34%	2,230	36%	2,999
NOAA Weather Wire	6%	932	4%	700	5%	307	3%	271
Family of Services (FOS)	5%	780	1%	266	2%	153	1%	85
Emerg Mgrs Weather Info Net	5%	765	5%	904	3%	195	3%	257
NOAAPort	5%	796	2%	446	4%	267	2%	146
World Area Forecast System	2%	302	1%	165	1%	66	0%	17
DUATS	3%	465	2%	402	1%	60	1%	52
Flight Services	5%	898	3%	599	2%	149	1%	79
U.S. Coast Guard Broadcasts	8%	1,254	2%	373	3%	209	1%	49
NAVTEX receiver	1%	133	0%	45	0%	19	0%	2
Immarsat-C SafetyNET	0%	53	0%	22	0%	13	0%	0
Radiofacsimile	1%	187	0%	34	0%	26	0%	1
Other	2%	286	5%	898	2%	121	6%	519
Number of Respondents	16,	459	18,	107	6,5	527	8,3	390
<u> </u>								<u>.</u>
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	96%	17,438	0%	0	97%	8,157
Weather observations	0%	0	74%	13,476	0%	0	72%	6,058
Climate observations	0%	0	34%	6,146	0%	0	29%	2,463
Satellite data	0%	0	52%	9,341	0%	0	40%	3,395
Radar data	0%	0	84%	15,138	0%	0	73%	6,102
Computer weather model output	0%	0	40%	7,261	0%	0	30%	2,533
Weather outreach/educational materials	0%	0	8%	1,528	0%	0	9%	740
Other products	0%	0	5%	856	0%	0	4%	339
Number of Respondents		0	18,	107			8,3	390

		Ma	ale			Female				
	20)12	20)13	20	012	20	013		
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency		
Products familiar with~										
Tornado Warnings	0%	0	77%	14,026	0%	0	74%	6,213		
Severe Thunderstorm Warnings	0%	0	94%	17,040	0%	0	94%	7,874		
Severe Thunderstorm Watches	0%	0	92%	16,670	0%	0	92%	7,715		
Flash Flood Warnings	0%	0	80%	14,563	0%	0	82%	6,870		
Tsunami Warnings	0%	0	21%	3,768	0%	0	20%	1,696		
Hurricane Warnings	0%	0	50%	9,138	0%	0	48%	4,054		
Winter Storm Warnings	0%	0	90%	16,214	0%	0	90%	7,559		
River Flood Warnings	0%	0	60%	10,936	0%	0	58%	4,849		
Excessive Heat Warnings	0%	0	76%	13,679	0%	0	78%	6,561		
Extreme Cold Warnings	0%	0	66%	11,944	0%	0	68%	5,747		
High Surf Warnings	0%	0	25%	4,477	0%	0	25%	2,106		
Coastal Flood Warnings	0%	0	31%	5,656	0%	0	33%	2,766		
Climate Hazards	0%	0	46%	8,316	0%	0	43%	3,643		
Don't know	0%	0	1%	146	0%	0	1%	63		
Number of Respondents		0		107		0		390		
Likelihood of taking protective action if tornado warning issued										
Very Unlikely	0%	0	3%	465	0%	0	1%	122		
Somewhat Unlikely	0%	0	3%	550	0%	0	2%	175		
Somewhat Likely	0%	0	15%	2,661	0%	0	11%	950		
Very Likely	0%	0	78%	14,184	0%	0	84%	7,038		
Don't Know	0%	0	1%	247	0%	0	1%	105		
Number of Respondents		0	18,	,107		0	8,	390		
Reason for not taking action										
Do not believe I would be directly impacted by the tornado	0%	0	22%	228	0%	0	16%	49		
Need to first see or hear tornado	0%	0	16%	160	0%	Ö	7%	22		
Have never seen tornado damage in my area	0%	0	27%	279	0%	0	36%	106		
Do not take tornado warnings seriously	0%	0	5%	49	0%	0	3%	8		
Other	0%	0	29%	299	0%	0	38%	112		
Number of Respondents		0		299 015		0		97		
Number of Respondents			.,,	010				.01		
Proximity of tornado before considering warning accurate										
1 mile or less	0%	0	5%	962	0%	0	5%	379		
5 miles or less	0%	0	37%	6,679	0%	0	31%	2,580		
10 miles or less	0%	0	37%	6,668	0%	0	37%	3,123		
25 miles or less	0%	0	18%	3,290	0%	0	24%	2,001		
Other	0%	0	3%	508	0%	0	4%	307		
Number of Respondents		0	18,	107		0	8,	390		
Number of tornado warnings issued										
Too many tornado warnings	0%	0	7%	1,287	0%	0	4%	309		
Too few tornado warnings	0%	0	3%	516	0%	0	4%	308		
Just about right	0%	0	71%	12,818	0%	0	68%	5,743		
Don't know	0%	0	19%	3,486	0%	0	24%	2,030		
Number of Respondents		0	18,	,107		0	8,	390		

		Ma	ale			Fen	nale	
	20)12)13	20)12)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued								
Same actions as did previously	0%	0	82%	14,805	0%	0	82%	6,849
Less likely to take same action	0%	0	10%	1,811	0%	0	9%	758
Don't know	0%	0	8%	1,491	0%	0	9%	783
Number of Respondents		0	18,	107		0	8,3	390
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	0%	0	20%	3,566	0%	0	13%	1,083
Have not heard Weather-Ready Nation	0%	0	80%	14,541	0%	0	87%	7,307
Number of Respondents		0	18,	107		0		390
Have a hazardous weather safety plan								
Have a plan	60%	10,098	73%	13,275	60%	3,989	75%	6,321
Do not have a plan	40%	6,829	24%	4,373	40%	2,714	21%	1,771
Don't know	0%	0	3%	459	0%	0	4%	298
Number of Respondents		927		107		703		390
		,02.		,101				
Reason plan created~								
Friends and family	42%	4,232	53%	7,102	42%	1,645	51%	3,215
General desire to be prepared	83%	8,358	92%	12,162	83%	3,272	92%	5,801
An extreme weather event	42%	4,235	52%	6,901	46%	1,840	54%	3,389
Be a Force of Nature campaign	1%	116	2%	206	1%	45	1%	67
Weather-Ready Nation initiative	5%	540	4%	568	4%	173	3%	185
Other	11%	1,061	13%	1,728	13%	503	16%	1,018
Number of Respondents	10,	051	13,	275	3,9	962	6,3	321
Main reason you do not have a plan								
Takes too much time	2%	157	3%	144	3%	68	4%	67
Too expensive	1%	48	3%	126	1%	15	3%	57
Not sure what to include	34%	2,335	38%	1,640	42%	1,137	46%	809
Don't think it's necessary	49%	3,376	38%	1,659	35%	945	23%	402
Other	13%	913	18%	804	20%	549	25%	436
Number of Respondents		829	4,3	373	2,	714	1,7	771
Plan includes hazardous weather emergency preparedness kit	400/	0.000	470/	0.575	450/	0.005	4007	0.007
Includes kit	49%	8,282	47%	8,575	45%	3,025	46%	3,827
Does not include kit	51%	8,645	50%	9,029	55%	3,678	51%	4,267
Don't know	0%	0	3%	503	0%	0	4%	296
Number of Respondents	16,	,927	18,	107	6,	703	8,	390

2012 2013 2014 2015			Ma	ماد	1		Fem	nale.	
Percent Frequency Percent		20			113	2(113
Reason kit restand-									
Fiends and family 33%, 2,753 53%, 4,423 32%, 957 49%, 1,880 General desire to be prepared 88%, 7,035 93%, 1,760 45%, 1,355 56%, 2,132 Ba arrow eventher eventh 89%, 3,185 53%, 4,676 45%, 1,355 56%, 2,132 Ba arrow company 11% 106 2%, 138 2%, 45 11% 46 11% 46 11% 106 2%, 138 2%, 45 11% 46 11% 106 2%, 138 2%, 45 11% 46 11% 106 2%, 138 2%, 45 11% 46 11% 106 2%, 138 2%, 45 11% 46 11% 106 2%, 138 2%, 45 11% 46 11% 106 2%, 138 2%, 45 11% 46 11% 106 2%, 138 2%, 45 11% 46 11% 106	Reason kit created~								
Semeral desire to be prepared 85% 7,035 93% 7,860 84% 2,512 92% 3,511 An authorn worder ovent 39% 3,185 55% 4,766 45% 1,355 56% 2,132 80 a Force of Nature campaign 11% 106 2% 138 2% 45 11% 46 46 46 46 46 46 46 4		33%	2.753	52%	4.423	32%	957	49%	1.880
An extreme weather event	·		· ·		•				·
Boa Force of Nature campaign	1		· ·		· ·				
Weather-Ready Nation initiative 17% 558 4% 380 6% 194 3% 114 114 1157 13% 1,098 18% 536 18% 680 18%			· ·				· ·		·
Characteristics	1 9								
Number of Respondents	·								
Main reason you do not have a kit Takes too much time 3% 267 3% 303 4% 129 3% 135 Too exponeive 5% 471 6% 504 8% 285 8% 349									
Takes to much time				<u> </u>		<u> </u>			<u></u>
Too expensive	Main reason you do not have a kit								
Not sure what to include Don't think, it's necessary	Takes too much time	3%	267	3%	303	4%	129	3%	135
Don't think it's necessary	Too expensive	5%	471	6%	504	8%	285	8%	349
19% 1,606 19% 1,605 27% 979 27% 1,161	Not sure what to include	33%	2,882	37%	3,317	35%	1,300	40%	1,703
19% 1,606 19% 1,605 27% 979 27% 1,161	Don't think it's necessary	40%	3,419	36%	3,220	27%	985	22%	919
Number of Respondents	Other	19%	1,606	19%	1,685	27%	979	27%	1,161
NWS staff on-site	Number of Respondents		·				· ·		
NWS staff on-site									
No staff on-site									
DK/NA 0% 0 30% 1,957 0% 0 40% 933 Number of Respondents 0			_				0		
Number of Respondents 0 6,526 0 2,340			0		· ·		0		· ·
Require specific products and have automated methods Require specific products with automation 0% 0 9% 1,666 0% 0 95% 415 Do not require specific products with automation 0% 0 91% 16,441 0% 0 95% 7,975 Number of Respondents 0 18,107 0 8,390 Received WEA message on cell phone Received message 0% 0 26% 4,771 0% 0 23% 1,925 Did not receive message 0% 0 69% 12,573 0% 0 72% 6,060 Don't know 0% 0 4% 763 0% 0 5% 405 Number of Respondents 0 18,107 0 8,390 WEA message was first notification received First notification 0% 0 30% 1,417 0% 0 25% 481 Don't know 0% 0 30% 1,417 0% 0 9% 171 Number of Respondents 0 8% 401 0% 0 9% 171 Number of Respondents 0 8% 401 0% 0 9% 171 Number of Respondents 0 88% 1,648 Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 14% 668 0% 0 13% 257		0%	0			0%	0		
Require specific products with automation	Number of Respondents		0	6,	526		0	2,	340
Require specific products with automation	Dequire enecific products and have outemated methods								
Do not require specific products with automation 0% 0 91% 16,441 0% 0 95% 7,975 Number of Respondents 0 18,107 0 8,390		00/	0	00/	4.000	00/	0	F 0/	44.5
Number of Respondents 0					•				
Received WEA message on cell phone					·				
Received message	Number of Respondents		U	10	,107		U	Ο,	390
Received message	Received WEA message on cell phone								
Did not receive message		0%	0	26%	4.771	0%	0	23%	1.925
Don't know Don	· · · · · · · · · · · · · · · · · · ·				· ·				
Number of Respondents 0 18,107 0 8,390 WEA message was first notification received First notification 0% 0 62% 2,953 0% 0 66% 1,273 Not first notification 0% 0 30% 1,417 0% 0 25% 481 Don't know 0% 0 8% 401 0% 0 9% 171 Number of Respondents 0 4,771 0 1,925 Understood WEA message Fully understood 0% 0 85% 4,069 0% 0 86% 1,648 Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20			-				_		
WEA message was first notification received 0% 0 62% 2,953 0% 0 66% 1,273 Not first notification 0% 0 30% 1,417 0% 0 25% 481 Don't know 0% 0 8% 401 0% 0 9% 171 Number of Respondents 0 4,771 0 1,925 Understood WEA message Fully understood 0% 0 85% 4,069 0% 0 86% 1,648 Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20									
First notification 0% 0 62% 2,953 0% 0 66% 1,273 Not first notification 0% 0 30% 1,417 0% 0 25% 481 Don't know 0% 0 8% 401 0% 0 9% 171 Number of Respondents Understood WEA message Fully understood 0% 0 85% 4,069 0% 0 86% 1,648 Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20	•	•						,	
Not first notification 0% 0 30% 1,417 0% 0 25% 481 Don't know 0% 0 8% 401 0% 0 9% 171 Number of Respondents 0 4,771 0 1,925 Understood WEA message Fully understood 0% 0 85% 4,069 0% 0 86% 1,648 Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20	WEA message was first notification received								
Don't know 0% 0 8% 401 0% 0 9% 171 Number of Respondents 0 4,771 0 1,925 Understood WEA message Wear of Respondents 0% 0 85% 4,069 0% 0 86% 1,648 Fully understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20	First notification	0%	0	62%	2,953	0%	0	66%	1,273
Number of Respondents 0 4,771 0 1,925 Understood WEA message B5% 4,069 0% 0 86% 1,648 Fully understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20	Not first notification	0%	0	30%	1,417	0%	0	25%	481
Understood WEA message 0% 0 85% 4,069 0% 0 86% 1,648 Fully understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20	Don't know	0%	0	8%	401	0%	0	9%	171
Fully understood 0% 0 85% 4,069 0% 0 86% 1,648 Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20	Number of Respondents		0	4,	771		0	1,	925
Fully understood 0% 0 85% 4,069 0% 0 86% 1,648 Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20									
Somewhat understood 0% 0 14% 668 0% 0 13% 257 Did not understand 0% 0 1% 34 0% 0 1% 20		00/		0501	4.000	001		000/	4.040
Did not understand 0% 0 1% 34 0% 0 1% 20	1 ,				· ·		_		
			_				_		
Number of Respondents 0 4,771 0 1,925		0%	0						
	Number of Respondents		U	4,	//1		U	1,	925

		Ma	ıle			Fen	nale	
	20)12)13	20	012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								
More text containing details of warning	0%	0	42%	2,019	0%	0	35%	668
Accompanying graphic showing warning area	0%	0	62%	2,958	0%	0	58%	1,109
Accompanying graphic showing current location	0%	0	59%	2,793	0%	0	57%	1,102
Color representing urgency of warning	0%	0	38%	1,821	0%	0	38%	728
Color representing type of warning	0%	0	27%	1,282	0%	0	22%	417
Sound representing urgency of warning	0%	0	41%	1,949	0%	0	47%	910
Sound representing type of warning	0%	0	28%	1,319	0%	0	25%	477
Number of Respondents		0	4,	771		0	1,	925
				1				
Facebook and Twitter during weather events~				40.555	25.		2621	- /
Do not use Facebook and Twitter for weather events	0%	0	73%	13,280	0%	0	62%	5,164
Read what others are posting or tweeting	0%	0	21%	3,814	0%	0	33%	2,731
Comment on what others are posting or tweeting	0%	0	14%	2,617	0%	0	23%	1,926
Write own posts or tweets	0%	0	16%	2,882	0%	0	22%	1,851
Number of Respondents		0	18,	,107		0	8,9	390
Amount of social media content available								
Too little	0%	0	23%	1,104	0%	0	20%	632
Just about right	0%	0	49%	2,366	0%	0	43%	1,382
Too much	0%	0	1%	64	0%	0	1%	34
Don't know	0%	0	27%	1,293	0%	0	37%	1,178
Number of Respondents		0		1,293 827		0		226
Trainiber of Respondents			7,1	<u> </u>		U	0,,	
Promoted awareness campaigns~								
Heat Safety	0%	0	26%	1,726	0%	0	30%	692
Flood Safety	0%	0	26%	1,686	0%	0	27%	622
Lightning Safety	0%	0	33%	2,127	0%	0	30%	703
Severe Weather Safety	0%	0	44%	2,866	0%	0	45%	1,054
Rip Currents Safety	0%	0	6%	363	0%	0	5%	112
Hurricane Safety	0%	0	12%	773	0%	0	12%	277
Tsunami Safety	0%	0	3%	206	0%	0	4%	84
Winter Weather Safety	0%	0	36%	2,332	0%	0	40%	934
Wildfire Safety	0%	0	24%	1,546	0%	0	25%	591
None of the above	0%	0	38%	2,464	0%	0	36%	851
Number of Respondents		0	6,	526		0	2,	340
Websites visited for weather safety~			:	A= ===				
National Weather Service	0%	0	97%	17,568	0%	0	96%	8,053
FEMA	0%	0	15%	2,687	0%	0	15%	1,289
American Red Cross	0%	0	8%	1,424	0%	0	10%	852
Centers for Disease Control and Prevention	0%	0	4%	781	0%	0	7%	569
Commercial weather vendor	0%	0	58%	10,507	0%	0	60%	5,013
Other	0%	0	10%	1,740	0%	0	13%	1,132
Number of Respondents		0	18,	,107		0	8,	390

		Ma	ale			Fen	nale	Female				
	20	12	20	013	20)12		013				
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency				
Safe to drive through water when no Road Closed sign or police barricade												
True	0%	0	2%	344	0%	0	2%	164				
False	0%	0	98%	17,763	0%	0	98%	8,226				
Number of Respondents		0	18	,107		0	8,	390				
Not safe to drive when water is too deep to see road surface												
True	0%	0	95%	17,275	0%	0	97%	8,132				
False	0%	0	5%	832	0%	0	3%	258				
Number of Respondents		0		,107		0		390				
Safe to drive through water slowly												
True	0%	0	4%	802	0%	0	4%	326				
False	0%	0	96%	17,305	0%	0	96%	8,064				
Number of Respondents		0	18	,107		0	8,	390				
Safe to drive through water in a large and heavy vehicle												
True	0%	0	3%	629	0%	0	3%	264				
False	0%	0	97%	17,478	0%	0	97%	8,126				
Number of Respondents		0	18	,107		Ó	8,	390				
Not safe to drive through swiftly moving water												
True	0%	0	97%	17,506	0%	0	97%	8,160				
False	0%	0	3%	601	0%	0	3%	230				
Number of Respondents		0	18	,107		0	8,	390				
When to seek shelter from lightning												
Distant lightning	0%	0	18%	3,348	0%	0	20%	1,642				
Distant thunder	0%	0	53%	9,608	0%	0	53%	4,432				
Nearby lightning	0%	0	17%	3,046	0%	0	15%	1,274				
Loud thunder	0%	0	10%	1,816	0%	0	11%	924				
Starts to rain	0%	0	2%	289	0%	0	1%	118				
Number of Respondents		0	18	,107		0	8,	390				
Age Under 25 years	20/	505	20/	462	20/	152	20/	150				
25 - 34 years	3% 8%	505 1,211	3% 9%		3% 9%	534	2% 10%	158 729				
35 - 44 years	8% 12%	1,789	9% 12%	1,435 1,962	9% 13%	748	10%	946				
45 - 54 years	23%	3,323	22%	3,584	26%	1,547	23%	1,745				
55 - 64 years	30%	4,430	30%	5,022	32%	1,939	33%	2,466				
65 - 74 years	19%	2,734	20%	3,243	15%	871	16%	1,192				
75 years and older	5%	689	5%	850	3%	181	3%	236				
Number of Respondents		681		,558		972		472				

		Ma	ıle			Fen	nale	
	20	012	20)13	20	012	20	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Race								
White, Caucasian	95%	15,670	88%	15,883	94%	6,132	88%	7,322
Black, African American	0%	66	0%	72	1%	54	1%	49
Hispanic, Latino, or Spanish	1%	168	1%	219	1%	67	1%	109
Pacific Islander	0%	33	0%	22	0%	14	0%	7
Asian	1%	95	1%	94	1%	49	1%	48
American Indian/Native Indian or Alaska Native	1%	108	1%	144	1%	56	1%	78
Other	2%	373	2%	407	2%	161	2%	200
Prefer not to answer	0%	0	7%	1,194	0%	0	7%	552
Number of Respondents	16	,513	18	,035	6,	533	8,	365
School completed								
12th grade or less (no diploma)	2%	400	2%	348	2%	106	1%	106
High school diploma or GED	8%	1,378	8%	1,430	6%	432	6%	533
Some college, no degree	21%	3,474	20%	3,627	18%	1,230	18%	1,496
Associate or technical degree	13%	2,226	13%	2,398	11%	749	12%	979
Bachelor's degree	29%	4,795	28%	5,109	29%	1,966	29%	2,388
Graduate degree/Professional degree	27%	4,547	26%	4,691	33%	2,191	32%	2,680
Prefer not to answer	0%	0	3%	455	0%	0	2%	185
Number of Respondents	16	,820	18	,058	6,	674	8,	367
Interested in other areas~								
National Fire Weather Program	0%	0	6%	1,120	0%	0	8%	684
National Hurricane Center Program	0%	0	9%	1,551	0%	0	7%	611
National Hydrologic Services Program	0%	0	6%	1,084	0%	0	5%	425
National Climate Services Program	0%	0	10%	1,841	0%	0	11%	884
Do not wish to continue	0%	0	79%	14,273	0%	0	79%	6,587
Number of Respondents		Ó		,107		0	8,	,390

National Weather Service - Overall 2013 Gender Demographics

		Prefer not	to answer	
	20)12	20	013
	Percent	Frequency	Percent	Frequency
Region				
Central Region	0%	0	32%	351
Eastern Region	0%	0	22%	246
Southern Region	0%	0	19%	212
Western Region	0%	0	26%	292
Alaska Region	0%	0	1%	6
Pacific Region	0%	0	0%	3
Number of Respondents		0	1,	110

Uses of NWS information~				
Agriculture	0%	0	19%	212
Aviation	0%	0	6%	69
Amateur Radio	0%	0	6%	66
Broadcast/Print Media	0%	0	4%	50
Commodities Markets	0%	0	1%	15
Consulting	0%	0	2%	26
Education	0%	0	8%	88
Health Services	0%	0	3%	39
Land Management Decisions	0%	0	9%	106
Marine	0%	0	4%	48
NWS Data Provider	0%	0	7%	83
Personal	0%	0	88%	988
Recreation	0%	0	56%	630
Research	0%	0	7%	78
Weather Enthusiast	0%	0	46%	516
Work-related decisions	0%	0	22%	252
Other	0%	0	8%	85
Number of Respondents	0		1,122	

Type of Aviation					
Dispatcher	0%	0	1%	1	
Comm Aircraft	0%	0	23%	16	
Private Aircraft	0%	0	71%	49	
Air Traffic Controller	0%	0	4%	3	
Number of Respondents		0		69	

	Prefer not to answer			
	2012		20	13
	Percent	Frequency	Percent	Frequency
Information sources~				
NWS Web	0%	0	92%	1,036
Non-NWS Web	0%	0	33%	375
Mobile devices	0%	0	42%	472
Social Media	0%	0	10%	110
Email	0%	0	9%	100
Landline Telephone	0%	0	4%	48
Cell Phone	0%	0	15%	168
Local or cable TV	0%	0	47%	531
Commercial Radio	0%	0	24%	266
Satellite radio	0%	0	3%	31
Satellite TV	0%	0	10%	109
Newspaper	0%	0	15%	166
NOAA Weather Radio/All Hazards	0%	0	38%	422
NOAA Weather Wire	0%	0	3%	32
Family of Services (FOS)	0%	0	2%	18
Emerg Mgrs Weather Info Net	0%	0	3%	33
NOAAPort	0%	0	2%	27
World Area Forecast System	0%	0	1%	16
DUATS	0%	0	2%	26
Flight Services	0%	0	3%	39
U.S. Coast Guard Broadcasts	0%	0	3%	29
NAVTEX receiver	0%	0	1%	8
Immarsat-C SafetyNET	0%	0	1%	7
Radiofacsimile	0%	0	0%	4
Other	0%	0	6%	71
Number of Respondents		0	1,	122

NOAANWS products used most often~				
Forecasts, outlooks, watches, warnings, alerts	0%	0	95%	1,065
Weather observations	0%	0	73%	820
Climate observations	0%	0	36%	401
Satellite data	0%	0	49%	553
Radar data	0%	0	76%	856
Computer weather model output	0%	0	36%	401
Weather outreach/educational materials	0%	0	9%	96
Other products	0%	0	6%	63
Number of Respondents	Ö		1,122	

	Prefer not to answer			
	2012		_	13
	Percent	Frequency	Percent	Frequency
Products familiar with~	00/	0	700/	040
Tornado Warnings	0%	0	73%	818
Severe Thunderstorm Warnings	0%	0	92%	1,027
Severe Thunderstorm Watches	0%	0	91%	1,021
Flash Flood Warnings	0%	0	78%	872
Tsunami Warnings	0%	0	21%	241
Hurricane Warnings	0%	0	48%	542
Winter Storm Warnings	0%	0	87%	971
River Flood Warnings	0%	0	57%	634
Excessive Heat Warnings	0%	0	75%	842
Extreme Cold Warnings	0%	0	63%	706
High Surf Warnings	0%	0	26%	289
Coastal Flood Warnings	0%	0	34%	382
Climate Hazards	0%	0	44%	494
Don't know	0%	0	2%	23
Number of Respondents		0	1,1	122
Likelihood of taking protective action if tornado warning issued				
Very Unlikely	0%	0	3%	37
Somewhat Unlikely	0%	0	3%	29
Somewhat Likely	0%	0	17%	189
Very Likely	0%	0	75%	839
Don't Know	0%	0	2%	28
Number of Respondents		0	1,122	
Reason for not taking action				
-	0%	0	9%	6
Do not believe I would be directly impacted by the tornado		0		
Need to first see or hear tornado	0%	0	11%	7
Have never seen tornado damage in my area	0%	0	26%	17
Do not take tornado warnings seriously	0%	0	11%	7
Other	0%	0	44%	29
Number of Respondents		0	6	66
Proximity of tornado before considering warning accurate				
1 mile or less	0%	0	7%	82
5 miles or less	0%	0	33%	366
10 miles or less	0%	0	34%	378
25 miles or less	0%	0	22%	246
Other	0%	0	4%	50
Number of Respondents		0		122
Trainible of Respondents			1,1	
Number of tornado warnings issued				
Too many tornado warnings	0%	0	8%	95
Too few tornado warnings	0%	0	4%	45
Just about right	0%	0	58%	654
Don't know	0%	0	29%	328
Number of Respondents		0		122

	Prefer not to answer			
	2012		2013	
	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued				
Same actions as did previously	0%	0	71%	795
Less likely to take same action	0%	0	15%	170
Don't know	0%	0	14%	157
Number of Respondents		0	1,122	
for				
Heard the term Weather-Ready Nation	00/		4.007	400
Heard Weather-Ready Nation	0%	0	16%	180
Have not heard Weather-Ready Nation	0%	0	84%	942
Number of Respondents	0		1,1	22
Have a hazardous weather safety plan				
Have a plan	0%	0	73%	814
Do not have a plan	0%	0	22%	242
Don't know	0%	0	6%	66
Number of Respondents		0	1,122	
Reason plan created~				
Friends and family	0%	0	47%	383
General desire to be prepared	0%	0	92%	745
An extreme weather event	0%	0	50%	405
Be a Force of Nature campaign	0%	0	1%	5
Weather-Ready Nation initiative	0%	0	2%	20
Other	0%	0	15%	120
Number of Respondents		0	814	
Main reason you do not have a plan				
Takes too much time	0%	0	4%	9
Too expensive	0%	0	5%	13
Not sure what to include	0%	0	34%	83
Don't think it's necessary	0%	0	35%	84
Other	0%	0	22%	53
Number of Respondents)	_	4 2
Plan includes hazardous weather emergency preparedness kit				
Includes kit	0%	0	50%	560
Does not include kit	0%	0	44%	493
Don't know	0%	0	6%	69
Number of Respondents		0	1,1	22

		Prefer not to		to answer	
	2	012	20	013	
	Percent	Frequency	Percent	Frequency	
Reason kit created~					
Friends and family	0%	0	46%	260	
General desire to be prepared	0%	0	90%	505	
An extreme weather event	0%	0	53%	295	
Be a Force of Nature campaign	0%	0	1%	3	
Weather-Ready Nation initiative	0%	0	2%	11	
Other	0%	0	15%	82	
Number of Respondents		0	5	560	
Main reason you do not have a kit					
Takes too much time	0%	0	5%	23	
Too expensive	0%	0	5%	26	
Not sure what to include	0%	0	37%	180	
Don't think it's necessary	0%	0	31%	151	
Other	0%	0	23%	113	
Number of Respondents	5 70	0		193	
NWS staff on-site at incident NWS staff on-site	00/	0	C 0/	22	
	0%	0	6% 5.40/	23	
No staff on-site DK/NA	0%	0	54%	202	
	0%	0	40%	147 3 72	
Number of Respondents		0	<u>_</u>	012	
Require specific products and have automated methods					
Require specific products with automation	0%	0	6%	72	
Do not require specific products with automation	0%	0	94%	1,050	
Number of Respondents		0	1,	122	
Received WEA message on cell phone					
Received message	0%	0	20%	223	
Did not receive message	0%	0	75%	838	
Don't know	0%	0	5%	61	
Number of Respondents		0	1,	122	
WEA message was first notification received					
First notification	0%	0	61%	135	
Not first notification	0%	0	28%	62	
Don't know	0%	0	12%	26	
Number of Respondents	0 /6	0		223	
Understood WEA message	00/		750/	467	
Fully understood	0%	0	75%	167	
Somewhat understood	0%	0	23%	51	
Did not understand	0%	0	2%	5	
Number of Respondents		0	2	223	

	Prefer not		to answer	
	20	110101 1101		13
	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~				
More text containing details of warning	0%	0	39%	86
Accompanying graphic showing warning area	0%	0	54%	120
Accompanying graphic showing current location	0%	0	54%	121
Color representing urgency of warning	0%	0	34%	75
Color representing type of warning	0%	0	22%	48
Sound representing urgency of warning	0%	0	39%	87
Sound representing type of warning	0%	0	30%	66
Number of Respondents) 0		23
Number of Respondents		<u> </u>		
Facebook and Twitter during weather events~				
Do not use Facebook and Twitter for weather events	0%	0	79%	881
Read what others are posting or tweeting	0%	0	17%	196
Comment on what others are posting or tweeting	0%	0	11%	121
Write own posts or tweets	0%	0	12%	133
Number of Respondents		0		122
Training of the period in			-,,	
Amount of social media content available				
Too little	0%	0	23%	55
Just about right	0%	0	38%	92
Too much	0%	0	3%	7
Don't know	0%	0	36%	87
Number of Respondents		0		41
Promoted awareness campaigns~				
Heat Safety	0%	0	27%	99
Flood Safety	0%	0	26%	96
Lightning Safety	0%	0	26%	96
Severe Weather Safety	0%	0	34%	126
Rip Currents Safety	0%	0	5%	20
Hurricane Safety	0%	0	11%	40
Tsunami Safety	0%	0	5%	18
Winter Weather Safety	0%	0	29%	108
Wildfire Safety	0%	0	23%	85
None of the above	0%	0	46%	172
Number of Respondents		0	3.	72
Websites visited for weather safety~				
National Weather Service	0%	0	94%	1,054
FEMA	0%	0	12%	137
American Red Cross	0%	0	10%	108
Centers for Disease Control and Prevention	0%	0	7%	74
Commercial weather vendor	0%	0	55%	612
Other	0%	0	15%	167
Number of Respondents		0	1,1	122

		Prefer not	to answer		
	20	12	20	13	
	Percent	Frequency	Percent	Frequency	
Safe to drive through water when no Road Closed sign or police barricade					
True	0%	0	3%	33	
False	0%	0	97%	1,089	
Number of Respondents		0	1,1	22	
			•		
Not safe to drive when water is too deep to see road surface					
True	0%	0	95%	1,062	
False	0%	0	5%	60	
Number of Respondents		0	1,1	22	
Safe to drive through water slowly					
True	0%	0	6%	69	
False	0%	0	94%	1,053	
Number of Respondents		0	1,1	22	
Safe to drive through water in a large and heavy vehicle					
True	0%	0	5%	55	
False	0%	0	95%	1,067	
Number of Respondents		0	1,1	22	
Not safe to drive through swiftly moving water					
True	0%	0	97%	1,085	
False	0%	0	3%	37	
Number of Respondents		0	1,1	22	
When to seek shelter from lightning	201		4=0/	4.00	
Distant lightning	0%	0	17%	196	
Distant thunder	0%	0	51%	575	
Nearby lightning	0%	0	17%	193	
Loud thunder	0%	0	12%	136	
Starts to rain	0%	0	2%	22	
Number of Respondents		0	1,1	22	
Ava					
Age Under 25 years	0%	0	3%	F	
	0% 0%			5	
25 - 34 years 35 - 44 years	0% 0%	0	13% 14%	24 26	
		0			
45 - 54 years	0%	0	28%	52 40	
55 - 64 years	0%	0 0	27% 10%	49 18	
65 - 74 years	0% 0%				
75 years and older Number of Respondents	0%	0	5%	10	
Number of Respondents		0	18	34	

National Weather Service - Overall 2013 Gender Demographics

		Prefer not	to answer	
	20)12	20)13
	Percent	Frequency	Percent	Frequency
Race				
White, Caucasian	0%	0	16%	175
Black, African American	0%	0	0%	1
Hispanic, Latino, or Spanish	0%	0	0%	5
Pacific Islander	0%	0	0%	0
Asian	0%	0	0%	4
American Indian/Native Indian or Alaska Native	0%	0	0%	3
Other	0%	0	4%	45
Prefer not to answer	0%	0	79%	883
Number of Respondents		0	1,	116
	•			
School completed				
12th grade or less (no diploma)	0%	0	1%	11
High school diploma or GED	0%	0	1%	14
Some college, no degree	0%	0	5%	58
Associate or technical degree	0%	0	5%	53
Bachelor's degree	0%	0	16%	173
Graduate degree/Professional degree	0%	0	20%	223
Prefer not to answer	0%	0	52%	583
Number of Respondents		0	1,	115
Interested in other areas~	02/		00/	05
National Fire Weather Program	0%	0	6% 5%	65
National Hurricane Center Program	0%	0	5%	60
National Hydrologic Services Program	0%	0	4%	47
National Climate Services Program	0%	0	7%	84
Do not wish to continue	0%	0	84%	945
Number of Respondents		0	1,	122

	12th grade or less (no diploma)		High school diploma or GED		Some college, no degree	
	2012	2013	2012	2013	2012	2013
Sample Size	512	466	1,829	1,987	4,768	5,201
Hazardous Services	87	88	88	90	87	89
Tornado Warnings	85	86	86	88	86	87
Severe Thunderstorm Warnings	86	88	87	90	87	89
Severe Thunderstorm Watch		89		90		90
Winter Storm Warnings	86	89	86	90	86	90
Hurricane Warnings	89	89	88	92	88	92
Flash Flood Warnings	87	86	88	90	86	89
River Flood Warnings	88	87	89	90	88	90
High Surf Warnings	87	88	88	91	89	91
Tsunami Warnings	86	85	85	88	85	88
Extreme Cold Warnings	90	89	90	92	90	92
Excessive Heat Warnings	92	93	91	94	90	93
Coastal Flood Warnings		86		90		90
Climate Hazards		86		88		87
Tornado Warnings	86	87	86	89	86	88
Ease of Understanding	91	94	90	95	90	94
Timeliness	84	86	86	88	85	87
Accuracy	81	76	82	80	81	78
Severe Thunderstorm Warnings	86	89	88	91	87	90
Ease of Understanding	91	95	91	95	90	95
Timeliness	85	89	87	91	86	90
Accuracy	83	80	84	83	83	82
Severe Thunderstorm Watch		90	-	91		90
Ease of Understanding		94		95		95
Timeliness		92		92		92
Accuracy		79		83		82
Flash Flood Warnings	87	87	88	90	87	90
Ease of Understanding	90	91	90	94	89	93
Timeliness	87	87	87	91	86	90
Accuracy	83	79	85	85	83	83
Tsunami Warnings	86	85	85	88	85	88
Ease of Understanding	88	89	87	92	87	91
Timeliness	87	83	84	88	86	89
Accuracy	83	84	81	80	80	79
Hurricane Warnings	89	90	88	92	88	92
Ease of Understanding	91	92	91	95	90	94
Timeliness	89	91	90	94	89	94
Accuracy	86	82	84	86	84	85

	12th grade or I	12th grade or less (no diploma)		High school diploma or GED		Some college, no degree	
	2012	2013	2012	2013	2012	2013	
Sample Size	512	466	1,829	1,987	4,768	5,201	
Winter Storm Warnings	87	89	86	91	86	90	
Ease of Understanding	91	93	90	95	90	94	
Timeliness	87	91	87	93	87	92	
Accuracy	81	79	81	82	80	80	
River Flood Warnings	88	88	89	90	88	90	
Ease of Understanding	90	90	90	93	89	93	
Timeliness	87	90	89	91	88	91	
Accuracy	86	83	87	86	86	86	
Excessive Heat Warnings	92	93	91	94	91	93	
Ease of Understanding	93	94	92	95	92	95	
Timeliness	92	93	91	95	90	94	
Accuracy	91	91	90	92	89	90	
Extreme Cold Warnings	91	89	90	93	90	92	
Ease of Understanding	92	92	92	94	91	94	
Timeliness	90	90	90	94	90	93	
Accuracy	89	85	89	89	88	88	
High Surf Warnings	87	88	88	92	89	91	
Ease of Understanding	88	89	90	93	89	93	
Timeliness	88	89	88	92	89	92	
Accuracy	87	86	87	88	88	88	
Coastal Flood Warnings		86		90		90	
Ease of Understanding		87		92		93	
Timeliness		88		91		91	
Accuracy		83		86		86	
Climate Hazards		87		88		88	
Ease of Understanding		89		91		90	
Timeliness		89		90		89	
Accuracy		82		84		83	
Weather-Sensitive Decision Making		85		87		87	
Rely on NWS in making weather-sensitive decisions		85		87		87	
User Support Services	91	87	90	88	91	90	
Accessibility	90	85	90	87	90	88	
Responsiveness	90	84	89	85	89	87	
Subject-Matter Knowledge	93	90	91	90	93	93	
Professionalism	94	92	92	91	94	94	
Assisting in interpretation of weather-related information	91	86	89	89	91	90	
Saving your organization money		79		75		79	
Resolving a complaint	87	76	86	75	88	78	

	12th grade or less (no diploma)		High school diploma or GED		Some college, no degree	
	2012	2013	2012	2013	2012	2013
Sample Size	512	466	1,829	1,987	4,768	5,201
Dissemination Services - Website		84		87		86
Ease of locating information	85	84	86	87	84	85
Ease of understanding info	89	86	89	88	88	87
Information is up-to-date	88	86	88	88	88	88
Satellite Imagery display		83		87		86
Doppler Radar display		82		87		86
Dissemination Services - Automated	84	88	84	86	79	81
Ease locating data on servers	84	90	84	89	80	84
Ease of req add data to server	83	86	84	83	76	78
Ease of providing input	84	87	83	83	77	77
Ease of auto method	85	88	86	87	81	81
Usefulness of WEA Message		79		83	-	83
Usefulness of WEA message		79		83	-	83
Usefulness of NWS Presence		69		73		72
Usefulness of NWS presence on Facebook		78		84		81
Usefulness of NWS presence on Twitter		65		60		66
Usefulness of NWS presence on YouTube		51		50		47
Usefulness of NWS Graphical Summary		85		86		85
Usefulness of NWS graphical weather summaries on social media		85		86	-	85
Effectiveness of Safety Campaigns		81		81		78
Effectiveness of Turn Around Don't Drown		86		86		82
Effectiveness of When Thunder Roars, Go Indoors!		79		78		73
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		77		78		76
Customer Satisfaction Index	86	83	86	86	85	84
Overall Satisfaction	90	89	90	90	89	89
Meets expectations	82	77	82	80	81	78
Compared to ideal	84	82	84	85	83	82

	12th grade or le	12th grade or less (no diploma)		High school diploma or GED		Some college, no degree	
	2012	2013	2012	2013	2012	2013	
Sample Size	512	466	1,829	1,987	4,768	5,201	
Likelihood Take Action	92	91	91	92	91	92	
ikelihood take action on info	92	91	91	92	91	92	
Likelihood to Use in Future	96	96	95	97	96	97	
Likelihood use NWS in future	96	96	95	97	96	97	
Likelihood to Recommend	93	91	93	93	94	93	
Likelihood to recommend	93	91	93	93	94	93	
Anticipated Use Over Next Year		89		91		93	
Desktop-laptop computer		89		91		93	
Mobile Device		55		56		58	
Social Media		36		32		27	
Direct Interaction w NWS Staff		16		14		13	
NOAA Weather Radio All-Hazards		53		55		48	
File transfer services		21		22		20	
Level of Severity		31		31		25	
Marginal		31		31		25	
Slight		25		23		18	
Critical		88		90		91	
Enhanced		55		53		50	
Elevated		57		58		55	
Moderate		51		51		48	
High		80		82		81	

	Associate or technical degree		Bacheloi	's degree
	2012	2013	2012	2013
Sample Size	3,016	3,442	6,860	7,721
Hazardous Services	87	89	86	88
Tornado Warnings	85	87	85	86
Severe Thunderstorm Warnings	86	89	86	88
Severe Thunderstorm Watch		89		88
Winter Storm Warnings	85	89	84	88
Hurricane Warnings	88	92	88	90
Flash Flood Warnings	86	88	85	87
River Flood Warnings	88	90	87	88
High Surf Warnings	89	91	89	90
Tsunami Warnings	84	86	85	86
Extreme Cold Warnings	89	92	89	91
Excessive Heat Warnings	90	93	89	92
Coastal Flood Warnings		90		88
Climate Hazards		87		85
Tornado Warnings	85	88	85	87
Ease of Understanding	89	94	88	93
Timeliness	85	87	85	86
Accuracy	81	79	80	77
Severe Thunderstorm Warnings	86	90	86	88
Ease of Understanding	90	94	89	93
Timeliness	86	89	86	89
Accuracy	83	82	82	80
Severe Thunderstorm Watch		90		89
Ease of Understanding		94		93
Timeliness		91		90
Accuracy		81		80
Flash Flood Warnings	86	89	85	87
Ease of Understanding	89	93	88	91
Timeliness	86	89	86	88
Accuracy	83	82	82	81
Tsunami Warnings	84	87	85	86
Ease of Understanding	87	91	88	91
Timeliness	84	86	86	86
Accuracy	80	77	78	76
Hurricane Warnings	88	92	88	91
Ease of Understanding	90	94	90	93
Timeliness	90	94	90	93
Accuracy	84	86	83	83

	Associate or t	Associate or technical degree		s degree	
	2012	2013	2012	2013	
Sample Size	3,016	3,442	6,860	7,721	
Winter Storm Warnings	86	90	85	88	
Ease of Understanding	89	94	88	92	
Timeliness	86	92	86	91	
Accuracy	79	80	78	77	
River Flood Warnings	88	90	87	88	
Ease of Understanding	89	93	88	91	
Timeliness	88	91	87	89	
Accuracy	86	86	85	84	
Excessive Heat Warnings	90	93	90	92	
Ease of Understanding	91	94	90	93	
Timeliness	90	93	90	93	
Accuracy	89	90	88	89	
Extreme Cold Warnings	89	92	89	91	
Ease of Understanding	91	94	90	93	
Timeliness	89	93	89	92	
Accuracy	87	88	87	87	
High Surf Warnings	89	91	89	90	
Ease of Understanding	90	93	90	91	
Timeliness	89	92	89	91	
Accuracy	87	88	87	87	
Coastal Flood Warnings		91		89	
Ease of Understanding		93		91	
Timeliness		92		90	
Accuracy		87		84	
Climate Hazards		88		85	
Ease of Understanding		90		87	
Timeliness		90		87	
Accuracy		83		81	
Weather-Sensitive Decision Making		86		87	
Rely on NWS in making weather-sensitive decisions		86		87	
User Support Services	89	89	90	89	
Accessibility	88	88	88	87	
Responsiveness	87	86	87	86	
Subject-Matter Knowledge	91	92	92	93	
Professionalism	93	93	93	93	
Assisting in interpretation of weather-related information	89	89	90	89	
Saving your organization money		77		77	
Resolving a complaint	82	76	85	74	

	Associate or te	chnical degree	Bachelor	´s degree
	2012	2013	2012	2013
Sample Size	3,016	3,442	6,860	7,721
Dissemination Services - Website		86		84
Ease of locating information	84	85	81	81
Ease of understanding info	89	86	86	84
Information is up-to-date	88	87	88	87
Satellite Imagery display		86		82
Doppler Radar display		86		83
Dissemination Services - Automated	77	80	76	76
Ease locating data on servers	76	83	74	79
Ease of req add data to server	75	78	72	73
Ease of providing input	77	74	74	70
Ease of auto method	80	83	77	78
Usefulness of WEA Message		83		79
Usefulness of WEA message		83		79
Usefulness of NWS Presence		73		68
Usefulness of NWS presence on Facebook		81		75
Usefulness of NWS presence on Twitter		67		68
Usefulness of NWS presence on YouTube		49		43
Usefulness of NWS Graphical Summary		84		81
Usefulness of NWS graphical weather summaries on social media		84		81
Effectiveness of Safety Campaigns		78		74
Effectiveness of Turn Around Don't Drown		82		79
Effectiveness of When Thunder Roars, Go Indoors!		74		68
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		76		73
Customer Satisfaction Index	85	83	83	81
Overall Satisfaction	89	88	88	87
Meets expectations	81	77	79	75
Compared to ideal	83	81	81	79

	Associate or to	Associate or technical degree		Associate or technical degree Bachelor's of		r's degree
2 1 2:	2012	2013	2012	2013		
Sample Size	3,016	3,442	6,860	7,721		
Likelihood Take Action	91	91	90	90		
Likelihood take action on info	91	91	90	90		
Likelihood to Use in Future	95	96	96	97		
Likelihood use NWS in future	95	96	96	97		
Likelihood to Recommend	93	93	93	92		
_ikelihood to recommend	93	93	93	92		
Anticipated Use Over Next Year		93		93		
Desktop-laptop computer		93		93		
Mobile Device		60		61		
Social Media		28		23		
Direct Interaction w NWS Staff		13		11		
NOAA Weather Radio All-Hazards		53		41		
File transfer services		21		17		
∟evel of Severity		26		21		
Marginal Marginal		26		21		
Slight		17		15		
Critical		92		93		
Enhanced		49		48		
Elevated		55		54		
Moderate		48		45		
High		80		80		

	_	ee/Professional gree	Prefer not	to answer
	2012	2013	2012	2013
Sample Size	6,874	7,671		1,237
Hazardous Services	86	87		84
Tornado Warnings	85	86		83
Severe Thunderstorm Warnings	86	88		85
Severe Thunderstorm Watch		88		85
Winter Storm Warnings	85	88		85
Hurricane Warnings	88	90		86
Flash Flood Warnings	85	87		83
River Flood Warnings	87	89		85
High Surf Warnings	88	90		86
Tsunami Warnings	84	86		82
Extreme Cold Warnings	89	91		89
Excessive Heat Warnings	89	92		89
Coastal Flood Warnings		88		84
Climate Hazards		85		83
Tornado Warnings	85	86		84
Ease of Understanding	88	92		91
Timeliness	85	85		82
Accuracy	80	77		74
Severe Thunderstorm Warnings	86	88		85
Ease of Understanding	89	93		91
Timeliness	86	89		85
Accuracy	82	80		76
Severe Thunderstorm Watch		89		86
Ease of Understanding		92		90
Timeliness		90		87
Accuracy		80		75
Flash Flood Warnings	85	87		84
Ease of Understanding	87	91		89
Timeliness	85	88		84
Accuracy	81	80		77
Tsunami Warnings	84	87		83
Ease of Understanding	87	91		87
Timeliness	85	86		80
Accuracy	78	76		72
Hurricane Warnings	88	91		87
Ease of Understanding	90	93		90
Timeliness	90	93		88
Accuracy	83	83		80

	1	ee/Professional gree	Prefer not	to answer
	2012	2013	2012	2013
Sample Size	6,874	7,671		1,237
Winter Storm Warnings	85	89		86
Ease of Understanding	88	92		90
Timeliness	86	91		88
Accuracy	78	78		75
River Flood Warnings	87	89		86
Ease of Understanding	88	91		89
Timeliness	87	90		86
Accuracy	85	85		81
Excessive Heat Warnings	89	92		89
Ease of Understanding	90	93		92
Timeliness	90	93		90
Accuracy	88	89		86
Extreme Cold Warnings	89	91		89
Ease of Understanding	90	93		91
Timeliness	89	93		90
Accuracy	87	87		84
High Surf Warnings	88	90		87
Ease of Understanding	89	92		89
Timeliness	88	91		89
Accuracy	85	87		82
Coastal Flood Warnings		88		85
Ease of Understanding		90		87
Timeliness		89		86
Accuracy		83		79
Climate Hazards		85		83
Ease of Understanding		87		86
Timeliness		88		85
Accuracy		81		78
Weather-Sensitive Decision Making		88		81
Rely on NWS in making weather-sensitive decisions		88		81
User Support Services	88	89		82
Accessibility	87	86		81
Responsiveness	85	85		78
Subject-Matter Knowledge	90	92		86
Professionalism	92	93		86
Assisting in interpretation of weather-related information	88	88		82
Saving your organization money		75		73
Resolving a complaint	82	72		71

	1	ee/Professional gree	Prefer not	to answer
	2012	2013	2012	2013
Sample Size	6,874	7,671		1,237
Dissemination Services - Website		84		80
Ease of locating information	81	81		78
Ease of understanding info	86	84		81
Information is up-to-date	87	88		81
Satellite Imagery display		83		80
Doppler Radar display		83		80
Dissemination Services - Automated	73	75		74
Ease locating data on servers	73	78		76
Ease of req add data to server	69	72		69
Ease of providing input	69	67		68
Ease of auto method	76	78		74
Usefulness of WEA Message		78		76
Usefulness of WEA message		78	-	76
Usefulness of NWS Presence		64		66
Usefulness of NWS presence on Facebook		70		73
Usefulness of NWS presence on Twitter		63		63
Usefulness of NWS presence on YouTube		40		47
Usefulness of NWS Graphical Summary		80		82
Usefulness of NWS graphical weather summaries on social media		80	1	82
Effectiveness of Safety Campaigns		73		70
Effectiveness of Turn Around Don't Drown		78		75
Effectiveness of When Thunder Roars, Go Indoors!		66		66
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!		72		68
Customer Satisfaction Index	83	81		76
Overall Satisfaction	88	87		82
Meets expectations	78	75		71
Compared to ideal	81	79	-	73

	- I	gree/Professional egree	Prefer no	t to answer
	2012	2013	2012	2013
Sample Size	6,874	7,671		1,237
Likelihood Take Action	90	91	-	86
Likelihood take action on info	90	91		86
Likelihood to Use in Future	96	97	-	93
Likelihood use NWS in future	96	97		93
Likelihood to Recommend	93	92	-	86
Likelihood to recommend	93	92		86
Anticipated Use Over Next Year		94	-	91
Desktop-laptop computer		94		91
Mobile Device		59		55
Social Media		18		23
Direct Interaction w NWS Staff		8		12
NOAA Weather Radio All-Hazards		38		46
File transfer services		15		19
Level of Severity		19		25
Marginal		19		25
Slight		14		18
Critical		93		89
Enhanced		49		48
Elevated		55		53
Moderate		45		46
High		80		79

	1	2th grade or le	ss (no diploma	a)		High school di	ploma or GED	
		12		13	20	12	-	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	36%	122	35%	161	42%	510	39%	769
Eastern Region	36%	123	27%	123	30%	365	24%	478
Southern Region	19%	66	23%	107	18%	224	21%	420
Western Region	8%	26	14%	64	10%	116	15%	303
Alaska Region	1%	3	0%	2	0%	3	0%	9
Pacific Region	0%	0	0%	1	0%	3	0%	3
Number of Respondents	34	40	4:	58	1,2	221	1,9	982
Uses of NWS information~								
Agriculture	0%	0	14%	66	0%	0	17%	330
Aviation	0%	0	2%	11	0%	0	3%	64
Amateur Radio	0%	0	6%	29	0%	0	7%	132
Broadcast/Print Media	0%	0	6%	26	0%	0	3%	63
Commodities Markets	0%	0	2%	8	0%	0	1%	27
Consulting	0%	0	2%	9	0%	0	1%	20
Education	0%	0	8%	38	0%	0	4%	84
Health Services	0%	0	3%	14	0%	0	3%	52
Land Management Decisions	0%	0	6%	28	0%	0	7%	131
Marine	0%	0	3%	14	0%	0	3%	57
NWS Data Provider	0%	0	17%	81	0%	0	13%	250
Personal	0%	0	80%	373	0%	0	84%	1,673
Recreation	0%	0	44%	205	0%	0	47%	927
Research	0%	0	12%	58	0%	0	4%	87
Weather Enthusiast	0%	0	62%	290	0%	0	55%	1,086
Work-related decisions	0%	0	15%	68	0%	0	20%	406
Other	0%	0	8%	39	0%	0	8%	151
Number of Respondents		0	4	66		0	1,9	987
Type of Aviation								
Dispatcher	0%	0	9%	1	100%	1	9%	6
Comm Aircraft	0%	0	27%	3	0%	0	20%	13
Private Aircraft	0%	0	55%	6	0%	0	69%	44
Air Traffic Controller	0%	0	9%	1	0%	0	2%	1
Number of Respondents				1	• • • • • • • • • • • • • • • • • • • •	1		64

	1	2th grade or le	ss (no diploma	1)		High school di	ploma or GED	
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	86%	427	87%	407	88%	1,569	88%	1,757
Non-NWS Web	25%	123	22%	102	23%	408	22%	432
Mobile devices	39%	191	45%	210	31%	546	41%	821
Social Media	23%	115	21%	98	13%	239	15%	307
Email	16%	79	11%	51	16%	282	10%	208
Landline Telephone	0%	0	6%	27	0%	0	6%	118
Cell Phone	0%	0	23%	108	0%	0	22%	434
Local or cable TV	58%	288	57%	264	56%	993	60%	1,197
Commercial Radio	27%	135	21%	96	24%	434	21%	423
Satellite radio	8%	40	5%	25	4%	79	2%	48
Satellite TV	21%	102	17%	81	22%	385	20%	395
Newspaper	17%	84	14%	67	14%	246	13%	258
NOAA Weather Radio/All Hazards	54%	268	49%	227	49%	879	50%	984
NOAA Weather Wire	7%	34	4%	19	6%	104	4%	84
Family of Services (FOS)	4%	18	1%	6	4%	77	1%	20
Emerg Mgrs Weather Info Net	4%	20	5%	24	4%	77	4%	87
NOAAPort	3%	14	3%	14	4%	69	3%	50
World Area Forecast System	6%	31	1%	3	3%	49	1%	11
DUATS	2%	11	1%	3	2%	34	1%	14
Flight Services	5%	24	1%	5	4%	64	1%	28
U.S. Coast Guard Broadcasts	11%	52	1%	6	7%	130	1%	28
NAVTEX receiver	2%	8	0%	2	1%	15	0%	2
Immarsat-C SafetyNET	0%	2	0%	1	1%	10	0%	0
Radiofacsimile	2%	10	0%	0	1%	22	0%	3
Other	2%	12	3%	12	2%	34	3%	68
Number of Respondents	49	95	46	66	1,7	784	1,9	87
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	93%	434	0%	0	95%	1,891
Weather observations	0%	0	69%	320	0%	0	70%	1,383
Climate observations	0%	0	27%	127	0%	0	26%	525
Satellite data	0%	0	45%	208	0%	0	45%	900
Radar data	0%	0	78%	365	0%	0	81%	1,600
Computer weather model output	0%	0	46%	214	0%	0	36%	711
Weather outreach/educational materials	0%	0	15%	69	0%	0	9%	169
Other products	0%	0	3%	16	0%	0	3%	54
Number of Respondents)	46	66		0	1,9	87

	12th grade or less (no diploma)			High school diploma or GED				
		12		13	20)12	20	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Products familiar with~								
Tornado Warnings	0%	0	82%	384	0%	0	82%	1,626
Severe Thunderstorm Warnings	0%	0	95%	441	0%	0	96%	1,901
Severe Thunderstorm Watches	0%	0	94%	436	0%	0	94%	1,875
Flash Flood Warnings	0%	0	80%	372	0%	0	82%	1,631
Tsunami Warnings	0%	0	23%	106	0%	0	16%	308
Hurricane Warnings	0%	0	48%	224	0%	0	41%	816
Winter Storm Warnings	0%	0	87%	406	0%	0	91%	1,810
River Flood Warnings	0%	0	59%	275	0%	0	59%	1,166
Excessive Heat Warnings	0%	0	80%	372	0%	0	77%	1,531
Extreme Cold Warnings	0%	0	63%	295	0%	0	68%	1,355
High Surf Warnings	0%	0	27%	124	0%	0	18%	360
Coastal Flood Warnings	0%	0	33%	154	0%	0	24%	480
Climate Hazards	0%	0	49%	228	0%	0	43%	863
Don't know	0%	0	1%	3	0%	0	0%	7
Number of Respondents		0		6 6		0		987
Number of Respondents		0		00		O	٠,	301
Likelihood of taking protective action if tornado warning issued								
Very Unlikely	0%	0	4%	20	0%	0	3%	63
Somewhat Unlikely	0%	0	1%	6	0%	0	3%	52
Somewhat Likely	0%	0	14%	64	0%	0	12%	245
Very Likely	0%	0	79%	369	0%	0	80%	1,595
Don't Know	0%	0	2%	7	0%	0	2%	32
Number of Respondents		0		66		0		9 87
Number of Respondents		0]		0	٠,	301
Reason for not taking action								
Do not believe I would be directly impacted by the tornado	0%	0	31%	8	0%	0	21%	24
Need to first see or hear tornado	0%	0	23%	6	0%	0	26%	30
Have never seen tornado damage in my area	0%	0	23%	6	0%	0	29%	33
Do not take tornado warnings seriously	0%	0	4%	1	0%	0	3%	4
Other	0%	0	19%	5	0%	0	21%	24
Number of Respondents	0 70	0		.6		0		15
Number of Respondents		<u> </u>		.0				10
Proximity of tornado before considering warning accurate								
1 mile or less	0%	0	8%	37	0%	0	7%	135
5 miles or less	0%	0	28%	129	0%	0	36%	708
10 miles or less	0%	0	35%	162	0%	0	32%	634
25 miles or less	0%	0	22%	104	0%	0	23%	454
Other	0%	0	7%	34	0%	0	3%	56
Number of Respondents		0		6 6		0		987
			_					
Number of tornado warnings issued								
Too many tornado warnings	0%	0	8%	39	0%	0	5%	103
Too few tornado warnings	0%	0	9%	44	0%	0	5%	98
Just about right	0%	0	64%	296	0%	0	72%	1,424
Don't know	0%	0	19%	87	0%	0	18%	362
Number of Respondents		0		66		0		987
			7			-	1,	

	1	2th grade or le	ss (no diploma	a)		High school di	ploma or GED	
	20	12	20	13	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued								
Same actions as did previously	0%	0	82%	381	0%	0	86%	1,700
Less likely to take same action	0%	0	12%	54	0%	0	8%	168
Don't know	0%	0	7%	31	0%	0	6%	119
Number of Respondents		0	4	66		0	1,9	987
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	0%	0	38%	177	0%	0	23%	454
Have not heard Weather-Ready Nation	0%	0	62%	289	0%	0	77%	1,533
Number of Respondents)	4	66		0	1,9	987
Have a hazardous weather safety plan								
Have a plan	65%	335	67%	313	63%	1,161	74%	1,472
Do not have a plan	35%	177	25%	118	37%	668	22%	442
Don't know	0%	0	8%	35	0%	0	4%	73
Number of Respondents		12		66	1,829			987
					·			
Reason plan created~								
Friends and family	51%	170	64%	201	51%	586	65%	958
General desire to be prepared	77%	257	88%	277	80%	924	90%	1,331
An extreme weather event	52%	173	59%	184	52%	595	58%	856
Be a Force of Nature campaign	4%	14	4%	13	2%	26	3%	41
Weather-Ready Nation initiative	12%	40	11%	33	8%	88	7%	109
Other	11%	37	12%	39	7%	82	8%	124
Number of Respondents	33	34	3	13	1,	152	1,4	172
Main reason you do not have a plan								
Takes too much time	4%	7	3%	3	2%	13	2%	8
Too expensive	3%	6	8%	10	2%	13	5%	21
Not sure what to include	33%	59	42%	50	37%	247	41%	182
Don't think it's necessary	41%	73	31%	36	45%	299	36%	159
Other	18%	32	16%	19	14%	96	16%	72
Number of Respondents	17	77	1	18	6	68	4	42
Plan includes hazardous weather emergency preparedness kit								
Includes kit	40%	205	36%	166	41%	754	43%	855
Does not include kit	60%	307	56%	260	59%	1,075	53%	1,062
Don't know	0%	0	9%	40	0%	0	4%	70
Number of Respondents		1 2		66 40		329		9 87
Number of Respondents	<u> </u>	12	4	00	1,0	UL3	1,3	701

	•	12th grade or le	ss (no diplom	a)		High school di	ploma or GED)
		012	<u> </u>) 13	20	012	•	013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Reason kit created~								
Friends and family	40%	82	64%	106	40%	300	64%	551
General desire to be prepared	73%	150	86%	142	84%	632	91%	781
An extreme weather event	50%	102	61%	101	48%	360	60%	517
Be a Force of Nature campaign	8%	17	4%	6	3%	23	4%	38
Weather-Ready Nation initiative	17%	35	10%	17	10%	75	9%	73
Other	13%	27	14%	23	10%	72	8%	72
Number of Respondents	2	05	1	66	7	48	8	55
Main reason you do not have a kit								
Takes too much time	4%	13	4%	10	1%	16	2%	19
Too expensive	11%	35	12%	30	11%	113	11%	113
Not sure what to include	32%	98	41%	107	39%	417	42%	448
Don't think it's necessary	28%	86	41% 27%	71	39% 35%	373	42% 30%	318
Other		75		42			30% 15%	164
	24%		16%		15%	156		1
Number of Respondents	3	07		60	1,	075	1,	062
NWS staff on-site at incident								
NWS staff on-site	0%	0	6%	7	0%	0	5%	27
No staff on-site	0%	0	58%	68	0%	0	58%	325
DK/NA	0%	0	36%	42	0%	0	37%	209
Number of Respondents		Ö	1	17		0	5	61
Require specific products and have automated methods								
Require specific products with automation	0%	0	16%	73	0%	0	12%	240
Do not require specific products with automation	0%	0	84%	393	0%	0	88%	1,747
Number of Respondents		0		66		0		987
Received WEA message on cell phone					/		2 121	
Received message	0%	0	23%	107	0%	0	24%	486
Did not receive message	0%	0	71%	333	0%	0	72%	1,429
Don't know	0%	0	6%	26	0%	0	4%	72
Number of Respondents		0	4	.66		0	1,	987
WEA message was first notification received								
First notification	0%	0	70%	75	0%	0	62%	303
Not first notification	0%	0	24%	26	0%	0	32%	156
Don't know	0%	0	6%	6	0%	0	6%	27
Number of Respondents		0		07		0		86
Understood WEA massage								
Understood WEA message	00/		070/	00	00/	^	000/	400
Fully understood	0%	0	87%	93	0%	0	88%	426
Somewhat understood	0%	0	11%	12	0%	0	11%	53
Did not understand	0%	0	2%	2	0%	0	1%	7
Number of Respondents		0	1	07		0	4	86

	1	2th grade or le	ss (no diploma	a)	High school diploma or GED			
		12	<u>. </u>	13	20)12	•)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								
More text containing details of warning	0%	0	60%	64	0%	0	44%	213
Accompanying graphic showing warning area	0%	0	70%	75	0%	0	61%	296
Accompanying graphic showing current location	0%	0	61%	65	0%	0	61%	298
Color representing urgency of warning	0%	0	47%	50	0%	0	39%	190
Color representing type of warning	0%	0	43%	46	0%	0	34%	167
Sound representing urgency of warning	0%	0	54%	58	0%	0	48%	235
Sound representing type of warning	0%	0	47%	50	0%	0	40%	196
Number of Respondents		0	10	07		0	4	86
Facebook and Truitten drains weather arente								
Facebook and Twitter during weather events~ Do not use Facebook and Twitter for weather events	00/	0	57%	200	0%		65%	4.000
	0%	0		266		0		1,293
Read what others are posting or tweeting	0%	0	32%	151	0%	0	26%	520
Comment on what others are posting or tweeting	0%	0	21%	97	0%	0	21%	415
Write own posts or tweets	0%	0	26%	120	0%	0	21%	417
Number of Respondents		0	40	66		0	1,9	987
Amount of social media content available								
Too little	0%	0	29%	57	0%	0	21%	146
Just about right	0%	0	52%	103	0%	0	58%	402
Too much	0%	0	2%	3	0%	0	2%	11
Don't know	0%	0	19%	37	0%	0	19%	135
Number of Respondents		0		00	0		6	94
Down to do not not not not not not not not not no								
Promoted awareness campaigns~	00/	0	200/	24	00/	0	200/	407
Heat Safety	0%	0	29%	34	0%	0	30%	167
Flood Safety	0%	0	33%	39	0%	0	28%	155
Lightning Safety	0%	0	46%	54	0%	0	34%	192
Severe Weather Safety	0% 0%	0	51%	60 5	0% 0%	0	46% 6%	260
Rip Currents Safety	0%	0	4% 16%	_	0% 0%	0	10%	35 57
Hurricane Safety	0%	0	3%	19 3	0% 0%	0	3%	19
Tsunami Safety		ľ		_		, and the second		
Winter Weather Safety Wildfire Safety	0% 0%	0	42% 21%	49 25	0% 0%	0	37% 23%	210 128
None of the above	0%	0	36%	42	0%	, and the second	41%	229
Number of Respondents		0		42 17		0 0		229 61
Number of Respondents		0	<u>'</u>	17		U	3	01
Websites visited for weather safety~								
National Weather Service	0%	0	96%	449	0%	0	97%	1,927
FEMA	0%	0	15%	69	0%	0	11%	214
American Red Cross	0%	0	11%	49	0%	0	9%	171
Centers for Disease Control and Prevention	0%	0	5%	25	0%	0	3%	57
Commercial weather vendor	0%	0	57%	267	0%	0	62%	1,233
Other	0%	0	11%	52	0%	0	9%	178
Number of Respondents		0	40	66		0	1,9	987

		2th grade or le	ss (no aipioini	a <i>j</i>	High school diploma or GED			
	20)12	20)13	20)12)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	5%	22	0%	0	3%	65
False	0%	0	95%	444	0%	0	97%	1,922
Number of Respondents		0	4	66		0	1,9	987
Not safe to drive when water is too deep to see road surface	00/		2007	400	201		000/	4.040
True	0%	0	92%	430	0%	0	96%	1,910
False	0%	0	8%	36	0%	0	4%	77
Number of Respondents		0	4	66		0	1,	987
Safe to drive through water slowly								
True	0%	0	6%	29	0%	0	5%	107
False	0%	0	94%	437	0%	0	95%	1,880
Number of Respondents		0		66		0		987
		-				-	,	
Safe to drive through water in a large and heavy vehicle								
True	0%	0	5%	23	0%	0	4%	85
False	0%	0	95%	443	0%	0	96%	1,902
Number of Respondents		0	4	66		0	1,9	987
Not safe to drive through swiftly moving water								
True	0%	0	92%	431	0%	0	96%	1,912
False	0%	0	8%	35	0%	0	4%	75
Number of Respondents		0	4	66		0	1,9	987
								1
When to seek shelter from lightning	00/		4=0/		201		4.00/	0
Distant lightning	0%	0	17%	78	0%	0	19%	375
Distant thunder	0%	0	55%	256	0%	0	57%	1,138
Nearby lightning	0%	0	13%	61	0%	0	14%	277
Loud thunder	0%	0	12%	54	0%	0	8%	155
Starts to rain	0%	0	4%	17	0%	0	2%	42
Number of Respondents		0	4	66		U	1,	987
Age								
Under 25 years	26%	71	21%	60	7%	106	6%	113
25 - 34 years	7%	20	7%	19	8%	136	9%	173
35 - 44 years	8%	23	11%	31	11%	185	10%	191
45 - 54 years	21%	58	22%	62	27%	433	28%	523
55 - 64 years	19%	52	23%	66	28%	459	28%	516
65 - 74 years	13%	35	13%	36	15%	236	14%	258
75 years and older	6%	17	4%	12	4%	71	4%	71
Number of Respondents		76		86		626		845

		12th grade or le	ss (no diplom	a)		High school di	ploma or GED		
		012)13	20)12		13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Gender									
Male	79%	400	75%	348	76%	1,378	72%	1,430	
Female	21%	106	23%	106	24%	432	27%	533	
Prefer not to answer	0%	0	2%	11	0%	0	1%	14	
Number of Respondents	5	06	4	65	1,8	810	1,9	977	
Race									
White, Caucasian	93%	473	88%	411	96%	1,734	93%	1,840	
Black, African American	1%	6	1%	6	1%	12	0%	6	
Hispanic, Latino, or Spanish	1%	7	2%	9	1%	18	1%	23	
Pacific Islander	0%	1	0%	1	0%	7	0%	1	
Asian	1%	6	1%	4	0%	1	0%	4	
American Indian/Native Indian or Alaska Native	0%	2	1%	5	1%	13	1%	22	
Other	2%	11	3%	15	1%	22	2%	33	
Prefer not to answer	0%	0	3%	14	0%	0	3%	52	
Number of Respondents	5	06	4	65	1,	807	1,9	981	
Interested in other cases								I	
Interested in other areas~	00/	2	00/	00	00/	0	00/	440	
National Fire Weather Program	0%	0	6%	28	0%	0	6% ==:/	119	
National Hurricane Center Program	0%	0	11%	52	0%	0	7%	145	
National Hydrologic Services Program	0%	0	5%	25	0%	0	5%	97	
National Climate Services Program	0%	0	10%	45	0%	0	9%	170	
Do not wish to continue	0%	0	79%	369	0%	0	82%	1,634	
Number of Respondents		0	4	66	0		1,9	1,987	

Percent Frequency Percent Perce			Some college	e, no degree			Associate or te	chnical degree	 }
Region		20)13				
Region		Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Eastern Region	Region								
Southern Region	Central Region	36%	1,136	35%	1,799	40%	810	37%	1,277
Western Region 17% 547 23% 1,185 16% 323 21% 736 1884 14 0% 6 0% 13 0% 15 0% 3 0% 8 Number of Respondents 3,154 5,188 5,188 2,018 3,431	Eastern Region	26%	824	20%	1,013	26%	523	19%	668
Alaska Region 0% 12 0% 14 0% 6 0% 13 13 15 0% 15 0% 3 0% 8 15 Number of Respondents 3,154 5,188 2,018 3,431	Southern Region	20%	622	22%	1,162	17%	353	21%	729
Pacific Region 0% 13 0% 15 0% 3 0% 8	Western Region	17%	547	23%	1,185	16%	323	21%	736
Number of Respondents	Alaska Region	0%	12	0%	14	0%	6	0%	13
Uses of NWS Information-	Pacific Region	0%	13	0%	15	0%	3	0%	8
Agriculture 0% 0 17% 891 0% 0 19% 663 Aviation 0% 0 5% 239 0% 0 19% 663 Aviation 0% 0 5% 239 0% 0 8% 291 Broadcast/Print Media 0% 0 3% 142 0% 0 3% 107 Commodities Markets 0% 0 1% 57 0% 0 1% 30 Consulting 0% 0 1% 58 0% 0 1% 48 Education 0% 0 5% 267 0% 0 1% 48 Education 0% 0 5% 267 0% 0 6% 204 Health Services 0% 0 5% 267 0% 0 6% 204 Land Management Decisions 0% 0 8% 411 0% 0 8% 287 Marine 0% 0 8% 411 <t< th=""><th>Number of Respondents</th><th>3,</th><th>154</th><th>5,⁻</th><th>188</th><th>2,0</th><th>018</th><th>3,4</th><th>31</th></t<>	Number of Respondents	3,	154	5, ⁻	188	2,0	018	3,4	31
Agriculture 0% 0 17% 891 0% 0 19% 663 Aviation 0% 0 5% 239 0% 0 19% 663 Aviation 0% 0 5% 239 0% 0 8% 291 Broadcast/Print Media 0% 0 3% 142 0% 0 3% 107 Commodities Markets 0% 0 1% 57 0% 0 1% 30 Consulting 0% 0 1% 58 0% 0 1% 48 Education 0% 0 5% 267 0% 0 1% 48 Education 0% 0 5% 267 0% 0 6% 204 Health Services 0% 0 5% 267 0% 0 6% 204 Land Management Decisions 0% 0 8% 411 0% 0 8% 287 Marine 0% 0 8% 411 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
AViation O% O 5% 239 0% O 6% 193 Amateur Radio 0% 0 7% 381 0% 0 8% 291 Broadcast/Print Media 0% 0 3% 142 0% 0 3% 107 Commodities Markets 0% 0 11% 57 0% 0 11% 30 Consulting 0% 0 11% 58 0% 0 1% 30 Consulting 0% 0 11% 58 0% 0 1% 30 Consulting 0% 0 15% 267 0% 0 1% 30 Chulcing 0% 0 25% 267 0% 0 6% 20 Health Services 0% 0 22% 115 0% 0 3% 116 Land Management Decisions 0% 0 8% 411 0%									
Amateur Radio 0% 0 7% 381 0% 0 8% 291 Broadcast/Print Media 0% 0 3% 142 0% 0 3% 107 Commodities Markets 0% 0 1% 57 0% 0 1% 30 Consulting 0% 0 1% 58 0% 0 1% 48 Education 0% 0 5% 267 0% 0 6% 204 Health Services 0% 0 2% 115 0% 0 3% 116 Land Management Decisions 0% 0 8% 411 0% 0 3% 115 Marine 0% 0 8% 411 0% 0 8% 287 Marine 0% 0 12% 601 0% 0 4,525 0% 0 4% 153 NWS Data Provider 0% 0 87% 4,525 0% 0 87% 2,985 Recreation <td< td=""><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			_						
Broadcast/Print Media 0% 0 3% 142 0% 0 3% 107 Commodities Markets 0% 0 1% 57 0% 0 11% 30 30 30 30 30 30 30 3									
Commodities Markets 0% 0 1% 57 0% 0 1% 30 Consulting 0% 0 1% 58 0% 0 1% 48 Education 0% 0 5% 267 0% 0 1% 48 Health Services 0% 0 2% 115 0% 0 3% 116 Land Management Decisions 0% 0 8% 411 0% 0 8% 287 Marine 0% 0 3% 413 0% 0 8% 287 Marine 0% 0 3% 413 0% 0 8% 287 NWS Data Provider 0% 0 3% 413 0% 0 44% 450 Personal 0% 0 87% 4,525 0% 0 87% 2,985 Research 0% 0 56% 2,914 0% 0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Consulting 0% 0 1% 58 0% 0 1% 48 Education 0% 0 5% 267 0% 0 6% 204 Health Services 0% 0 2% 115 0% 0 3% 116 Land Management Decisions 0% 0 8% 411 0% 0 8% 287 Marine 0% 0 3% 413 0% 0 4% 153 NWS Data Provider 0% 0 12% 601 0% 0 14% 470 Personal 0% 0 12% 601 0% 0 14% 470 Personal 0% 0 87% 4,525 0% 0 87% 2,914 0% 0 58% 2,003 Research 0% 0 56% 2,914 0% 0 58% 2,003 Research 0% 0									
Education 0% 0 5% 267 0% 0 6% 204 Health Services 0% 0 2% 115 0% 0 3% 116 Land Management Decisions 0% 0 8% 411 0% 0 8% 287 Marine 0% 0 3% 143 0% 0 4% 153 NWS Data Provider 0% 0 12% 601 0% 0 14% 470 Personal 0% 0 87% 4,525 0% 0 14% 470 Personal 0% 0 87% 4,525 0% 0 87% 2,985 Recreation 0% 0 56% 2,914 0% 0 58% 2,003 Research 0% 0 56% 2,914 0% 0 5% 159 Weather Enthusiast 0% 0 26% 1,335 0% </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Health Services									
Land Management Decisions 0% 0 8% 411 0% 0 8% 287 Marine 0% 0 3% 143 0% 0 4% 153 NWS Data Provider 0% 0 12% 601 0% 0 14% 470 Personal 0% 0 87% 4,525 0% 0 87% 2,985 Recreation 0% 0 56% 2,914 0% 0 58% 2,003 Research 0% 0 56% 2,914 0% 0 5% 159 Weather Enthusiast 0% 0 56% 2,929 0% 0 58% 1,985 Work-related decisions 0% 0 26% 1,335 0% 0 28% 959 Other 0% 0 9% 450 0% 0 8% 279 Number of Respondents 0 0 3,342 0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Marine 0% 0 3% 143 0% 0 4% 153 NWS Data Provider 0% 0 12% 601 0% 0 14% 470 Personal 0% 0 87% 4,525 0% 0 87% 2,985 Recreation 0% 0 56% 2,914 0% 0 58% 2,003 Research 0% 0 56% 2,914 0% 0 58% 2,003 Research 0% 0 56% 2,929 0% 0 58% 1,59 Weather Enthusiast 0% 0 56% 2,929 0% 0 58% 1,985 Work-related decisions 0% 0 26% 1,335 0% 0 28% 959 Other 0 9% 450 0% 0 8% 279 Number of Respondents 0 5,201 0 3,442			_						
NWS Data Provider 0% 0 12% 601 0% 0 14% 470 Personal 0% 0 87% 4,525 0% 0 87% 2,985 Recreation 0% 0 56% 2,914 0% 0 58% 2,003 Research 0% 0 5% 270 0% 0 5% 159 Weather Enthusiast 0% 0 56% 2,929 0% 0 58% 1,985 Work-related decisions 0% 0 26% 1,335 0% 0 28% 959 Other 0% 0 9% 450 0% 0 8% 279 Number of Respondents 0 5,201 0 3,442 Type of Aviation Dispatcher 0 100% 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0			0						
Personal 0% 0			~						
Recreation 0% 0 56% 2,914 0% 0 58% 2,003 Research 0% 0 5% 270 0% 0 5% 159 Weather Enthusiast 0% 0 56% 2,929 0% 0 58% 1,985 Work-related decisions 0% 0 26% 1,335 0% 0 28% 959 Other 0 9% 450 0% 0 8% 279 Number of Respondents 0 5,201 0 3,442 Type of Aviation 0 5,201 0 3,442 Dispatcher 0 10% 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0%									
Research 0% 0 5% 270 0% 0 5% 159 Weather Enthusiast 0% 0 56% 2,929 0% 0 58% 1,985 Work-related decisions 0% 0 26% 1,335 0% 0 28% 959 Other 0% 0 9% 450 0% 0 8% 279 Number of Respondents 0 5,201 0 3,442 Type of Aviation 0 5,201 0 3,442 Type of Aviation 0 100% 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8					· ·				
Weather Enthusiast 0% 0 56% 2,929 0% 0 58% 1,985 Work-related decisions 0% 0 26% 1,335 0% 0 28% 959 Other 0% 0 9% 450 0% 0 8% 279 Number of Respondents Type of Aviation Dispatcher 0 5,201 0 3,442 Dispatcher 100% 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8			_				-		
Work-related decisions 0% 0 26% 1,335 0% 0 28% 959 Other 0% 0 9% 450 0% 0 8% 279 Number of Respondents 0 5,201 0 3,442 Type of Aviation 0 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8			_				_		
Other 0% 0 9% 450 0% 0 8% 279 Number of Respondents 0 5,201 0 3,442 Type of Aviation 0 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8			_				-		
Number of Respondents 0 5,201 0 3,442 Type of Aviation Dispatcher 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8			_						
Type of Aviation 100% 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8			I .		1				
Dispatcher 100% 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8	Number of Respondents		0	5,2	201		0	3,4	142
Dispatcher 100% 7 3% 7 100% 4 8% 15 Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8	Type of Aviation								
Comm Aircraft 0% 0 18% 42 0% 0 24% 46 Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8		100%	7	3%	7	100%	4	8%	15
Private Aircraft 0% 0 75% 180 0% 0 64% 124 Air Traffic Controller 0% 0 4% 10 0% 0 4% 8	· ·								
Air Traffic Controller 0% 0 4% 10 0% 0 4% 8									
			_				_		
	Number of Respondents								I .

	Some college, no degree				Associate or technical degree			
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	91%	4,221	92%	4,777	93%	2,716	92%	3,163
Non-NWS Web	29%	1,355	28%	1,476	29%	849	27%	927
Mobile devices	36%	1,662	46%	2,389	38%	1,099	48%	1,666
Social Media	13%	608	17%	886	13%	375	16%	540
Email	18%	813	13%	657	19%	569	13%	460
Landline Telephone	0%	0	5%	249	0%	0	5%	184
Cell Phone	0%	0	20%	1,051	0%	0	23%	787
Local or cable TV	54%	2,506	56%	2,909	56%	1,631	58%	1,992
Commercial Radio	28%	1,287	23%	1,200	29%	857	25%	862
Satellite radio	4%	194	3%	147	5%	134	4%	123
Satellite TV	20%	925	17%	881	20%	589	17%	573
Newspaper	15%	704	14%	736	15%	443	14%	471
NOAA Weather Radio/All Hazards	45%	2,102	45%	2,339	48%	1,406	49%	1,691
NOAA Weather Wire	6%	264	4%	188	6%	182	5%	165
Family of Services (FOS)	4%	189	1%	73	5%	140	2%	54
Emerg Mgrs Weather Info Net	4%	196	5%	272	6%	174	7%	225
NOAAPort	5%	225	2%	129	5%	147	2%	60
World Area Forecast System	2%	82	0%	26	2%	59	1%	29
DUATS	2%	83	1%	72	2%	72	2%	66
Flight Services	5%	214	2%	112	5%	161	3%	108
U.S. Coast Guard Broadcasts	7%	306	1%	69	8%	245	2%	72
NAVTEX receiver	1%	24	0%	10	1%	22	0%	7
Immarsat-C SafetyNET	0%	5	0%	7	0%	12	0%	4
Radiofacsimile	1%	55	0%	9	1%	42	0%	6
Other	2%	71	5%	260	2%	60	5%	174
Number of Respondents	4,6	340	5,2	201	2,9	30	3,4	42
NOAANWS products used most often~								
Forecasts, outlooks, watches, warnings, alerts	0%	0	96%	5,009	0%	0	96%	3,319
Weather observations	0%	0	73%	3,805	0%	0	74%	2,554
Climate observations	0%	0	30%	1,561	0%	0	30%	1,046
Satellite data	0%	0	49%	2,526	0%	0	51%	1,739
Radar data	0%	0	81%	4,225	0%	0	84%	2,899
Computer weather model output	0%	Ö	38%	1,979	0%	0	38%	1,307
Weather outreach/educational materials	0%	0	8%	422	0%	0	8%	281
Other products	0%	0	3%	165	0%	0	4%	141
Number of Respondents)	5,2			0	3,4	
Trainbor of Reopolisons			J,£				5,7	-

	Some college, no degree					Associate or technical degree			
	20)12)13		12		. 13	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	
Products familiar with~		, in a special section of the sectio						- I squisting	
Tornado Warnings	0%	0	77%	4,028	0%	0	79%	2,722	
Severe Thunderstorm Warnings	0%	0	95%	4,941	0%	0	95%	3,283	
Severe Thunderstorm Watches	0%	0	93%	4,833	0%	0	94%	3,252	
Flash Flood Warnings	0%	0	81%	4,216	0%	0	83%	2,842	
Tsunami Warnings	0%	0	21%	1,101	0%	0	20%	683	
Hurricane Warnings	0%	0	48%	2,482	0%	0	46%	1,586	
Winter Storm Warnings	0%	0	90%	4,681	0%	0	90%	3,109	
River Flood Warnings	0%	0	61%	3,180	0%	0	64%	2,210	
Excessive Heat Warnings	0%	0	79%	4,100	0%	0	80%	2,738	
Extreme Cold Warnings	0%	0	79% 69%	3,605	0%	0	71%		
				-				2,455	
High Surf Warnings	0%	0	24%	1,245	0%	0	24%	810	
Coastal Flood Warnings	0%	0	30%	1,577	0%	0	29%	1,015	
Climate Hazards	0%	0	46%	2,378	0%	0	48%	1,657	
Don't know	0%	0	1%	27	0%	0	0%	17	
Number of Respondents		0	5,2	201		0	3,4	142	
Likelihood of taking protective action if tornado warning issued									
Very Unlikely	0%	0	2%	119	0%	0	3%	92	
	0%								
Somewhat Unlikely		0	3%	135	0%	0	3%	91	
Somewhat Likely	0%	0	13%	700	0%	0	13%	443	
Very Likely	0%	0	80%	4,182	0%	0	81%	2,776	
Don't Know	0%	0	1%	65	0%	0	1%	40	
Number of Respondents		0	5,7	201		0	3,4	142	
Reason for not taking action									
Do not believe I would be directly impacted by the tornado	0%	0	23%	58	0%	0	16%	30	
Need to first see or hear tornado	0%	0	10%	26	0%	0	16%	30	
Have never seen tornado damage in my area	0%	0	30%	77	0%	0	26%	47	
Do not take tornado warnings seriously	0%	0	4%	9	0%	0	5%	9	
Other	0%	0	33%	84	0%	0	37%	67	
Number of Respondents		0		54 J		0		l	
			_						
Proximity of tornado before considering warning accurate									
1 mile or less	0%	0	5%	267	0%	0	6%	191	
5 miles or less	0%	0	36%	1,850	0%	0	34%	1,163	
10 miles or less	0%	0	35%	1,833	0%	0	36%	1,256	
25 miles or less	0%	0	21%	1,093	0%	0	22%	748	
Other	0%	0	3%	158	0%	0	2%	84	
Number of Respondents		0	5,2	201		0	3,4	142	
Number of tornado warnings issued									
Too many tornado warnings	0%	0	6%	300	0%	0	6%	220	
Too few tornado warnings	0%	0	3%	178	0%	0	4%	137	
Just about right	0%	0	71%	3,703	0%	0	71%	2,428	
Don't know	0%	0	20%	1,020	0%	0	19%	657	
Number of Respondents		0	5,2	201		0	3,4	142	

	Some college, no degree					Associate or te	chnical degree	е
	20	12		13)12)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued								
Same actions as did previously	0%	0	84%	4,375	0%	0	83%	2,863
Less likely to take same action	0%	0	8%	434	0%	0	9%	308
Don't know	0%	0	8%	392	0%	0	8%	271
Number of Respondents		0	5,2	201		0	3,4	442
Heard the term Weather-Ready Nation	22/		4.20/	000	22/		2224	007
Heard Weather-Ready Nation	0%	0	19%	989	0%	0	20%	697
Have not heard Weather-Ready Nation	0%	0	81%	4,212	0%	0	80%	2,745
Number of Respondents		0	5,2	201		0	3,4	442
Have a hazardous weather safety plan								
Have a plan	64%	3,067	77%	4,025	68%	2,053	79%	2,732
Do not have a plan	36%	1,701	20%	1,033	32%	963	18%	636
Don't know	0%	0	3%	143	0%	0	2%	74
Number of Respondents		768		201		016		442
	-,-		-,-		-,-		-,	
Reason plan created~								
Friends and family	43%	1,319	55%	2,233	44%	907	56%	1,535
General desire to be prepared	83%	2,524	92%	3,717	83%	1,700	91%	2,475
An extreme weather event	43%	1,317	53%	2,139	43%	878	54%	1,487
Be a Force of Nature campaign	1%	35	2%	73	1%	17	2%	53
Weather-Ready Nation initiative	5%	149	4%	176	7%	135	5%	128
Other	10%	319	13%	528	11%	225	15%	397
Number of Respondents	3,0	54	4,0	025	2,0	043	2,	732
Main assessment de met bene e uleu								
Main reason you do not have a plan	20/	27	20/	22	20/	22	20/	10
Takes too much time	2% 1%	37 19	2% 4%	22 42	2% 1%	23 9	3% 5%	19 31
Too expensive Not sure what to include		647					5% 43%	273
	38%		40%	414	39%	375		
Don't think it's necessary	44%	741	32%	334	41%	399	29%	186
Other	15%	257	21%	221	16%	157	20%	127
Number of Respondents	1,	701	1,0)33	9	63	6	36
Plan includes hazardous weather emergency preparedness kit								
Includes kit	50%	2,406	49%	2,559	55%	1,669	53%	1,825
Does not include kit	50%	2,362	48%	2,498	45%	1,347	45%	1,535
Don't know	0%	0	3%	144	0%	0	2%	82
Number of Respondents		768		201		016		442
	- 7-		- ,-		-,-		-,	

		Some college	e. no dearee			Associate or te	chnical degre	e
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	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Reason kit created~								
Friends and family	33%	783	53%	1,361	35%	576	53%	972
General desire to be prepared	84%	2,023	94%	2,405	86%	1,421	93%	1,700
An extreme weather event	41%	974	55%	1,404	41%	677	56%	1,028
Be a Force of Nature campaign	1%	31	1%	37	1%	17	2%	36
Weather-Ready Nation initiative	8%	184	5%	119	7%	111	5%	85
Other	15%	357	14%	348	16%	261	13%	239
Number of Respondents		395		559	1,	657		825
Main reason you do not have a kit								
Takes too much time	2%	52	2%	59	2%	32	2%	28
Too expensive	9%	217	9%	222	9%	124	9%	141
Not sure what to include	37%	866	39%	983	37%	498	42%	645
Don't think it's necessary	33%	768	30%	737	31%	415	27%	408
Other	19%	459	20%	497	21%	278	20%	313
Number of Respondents	2,	362	2,	498	1,	347	1,	535
NIMO staff on site at insident								
NWS staff on-site at incident NWS staff on-site	00/	0	00/	120	00/	0	00/	110
	0%	0	8%	138	0%	0	9%	110
No staff on-site	0%	0	59%	1,049	0%	0	61%	783
DK/NA	0%	0	34%	599	0%	0	31%	395
Number of Respondents		0	1,	786		0	1,	288
Require specific products and have automated methods								
Require specific products with automation	0%	0	9%	460	0%	0	10%	337
Do not require specific products with automation	0%	0	91%	4,741	0%	0	90%	3,105
Number of Respondents	0.70	0		201		0		442
•	•		•				,	
Received WEA message on cell phone								
Received message	0%	0	26%	1,336	0%	0	26%	892
Did not receive message	0%	0	70%	3,630	0%	0	70%	2,410
Don't know	0%	0	5%	235	0%	0	4%	140
Number of Respondents		0	5,	201		0	3,	442
NATE A second control of the first section and the second								
WEA message was first notification received	00/		000/	0.40	00/		F70/	540
First notification	0%	0	63%	842	0%	0	57%	510
Not first notification	0%	0	30%	399	0%	0	33%	298
Don't know	0%	0	7%	95	0%	0	9%	84
Number of Respondents		0	1,	336		0	8	92
Understood WEA message								
Fully understood	0%	0	87%	1,161	0%	0	86%	763
Somewhat understood	0%	0	13%	168	0%	0	14%	124
Did not understand	0%	0	1%	7	0%	0	1%	5
Number of Respondents		0		336		0		92
ramor of respondents		•	1 5			•	U	V-

	Some college, no degree				Some college, no degree				Associate or te	chnical degree	
	20)12)13)12)13			
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency			
Beneficial enhancements to WEA message~											
More text containing details of warning	0%	0	41%	544	0%	0	40%	358			
Accompanying graphic showing warning area	0%	0	61%	818	0%	0	59%	529			
Accompanying graphic showing current location	0%	0	59%	790	0%	0	57%	504			
Color representing urgency of warning	0%	0	37%	496	0%	0	40%	361			
Color representing type of warning	0%	0	28%	371	0%	0	28%	253			
Sound representing urgency of warning	0%	0	43%	573	0%	0	45%	397			
Sound representing type of warning	0%	0	29%	388	0%	0	32%	281			
Number of Respondents		0	1,	336		0	8	92			
Esselved and Esselved Lader consideration to											
Facebook and Twitter during weather events~	007		070/	0.500	061		000/	0.050			
Do not use Facebook and Twitter for weather events	0%	0	67%	3,503	0%	0	68%	2,356			
Read what others are posting or tweeting	0%	0	26%	1,354	0%	0	25%	844			
Comment on what others are posting or tweeting	0%	0	19%	1,008	0%	0	19%	653			
Write own posts or tweets	0%	0	20%	1,036	0%	0	19%	670			
Number of Respondents		0	5,2	201		0	3,4	442			
Amount of social media content available											
Too little	0%	0	24%	413	0%	0	22%	243			
Just about right	0%	0	51%	870	0%	0	52%	565			
Too much	0%	0	1%	18	0%	0	1%	9			
Don't know	0%	0	23%	397	0%	0	25%	269			
Number of Respondents		0		698		0		086			
Promoted awareness campaigns~											
Heat Safety	0%	0	31%	552	0%	0	31%	393			
Flood Safety	0%	0	28%	493	0%	0	28%	357			
Lightning Safety	0%	0	35%	620	0%	0	36%	464			
Severe Weather Safety	0%	0	47%	842	0%	0	50%	638			
Rip Currents Safety	0%	0	5%	91	0%	0	5%	66			
Hurricane Safety	0%	0	11%	204	0%	0	11%	141			
Tsunami Safety	0%	0	2%	43	0%	0	3%	39			
Winter Weather Safety	0%	0	38%	686	0%	0	41%	533			
Wildfire Safety	0%	0	24%	436	0%	0	26%	330			
None of the above	0%	0	38%	676	0%	0	33%	423			
Number of Respondents		0	1,7	786		0	1,2	288			
Websites visited for weather safety~											
National Weather Service	0%	0	97%	5.020	0%		97%	2 222			
FEMA	0%	0	97% 14%	5,020 751	0% 0%	0	97% 17%	3,323 576			
American Red Cross											
	0%		9%	459	0%		9% 5%	317			
Centers for Disease Control and Prevention	0%	0	4%	229	0%	0	5%	184			
Commercial weather vendor	0%	0	59%	3,066	0%	0	60%	2,056			
Other Number of Respondents	0%	0	11%	574 201	0%	0	10%	357			
rumber of Respondents		0	5,4	201		0	3,4	442			

CFI Group

	Some college, no degree					Associate or te	chnical degre	
	20	12		013)12		13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	2%	99	0%	0	2%	61
False	0%	0	98%	5,102	0%	0	98%	3,381
Number of Respondents		0	5,	201		0	3,	142
Not safe to drive when water is too deep to see road surface								
True	0%	0	96%	4,980	0%	0	96%	3,296
False	0%	0	4%	221	0%	0	4%	146
Number of Respondents		0		201		0		142
Cafe to drive the acceleuration about								
Safe to drive through water slowly True	00/	0	40/	220	00/	0	40/	454
False	0% 0%	0 0	4% 96%	229 4,972	0% 0%	0	4% 96%	151 3,291
Number of Respondents		0		4,972 201		0		142
Number of Respondents		0	<u></u>	201		0	J,	++2
Safe to drive through water in a large and heavy vehicle								
True	0%	0	3%	165	0%	0	3%	118
False	0%	0	97%	5,036	0%	0	97%	3,324
Number of Respondents		0	5,	201		0	3,	142
Not safe to drive through swiftly moving water								
True	0%	0	96%	5,015	0%	0	97%	3,344
False	0%	0	4%	186	0%	0	3%	98
Number of Respondents		0	5,	201		0	3,	142
When to seek shelter from lightning								
Distant lightning	0%	0	19%	969	0%	0	19%	659
Distant thunder	0%	0	55%	2,847	0%	0	55%	1,904
Nearby lightning	0%	0	16%	829	0%	0	15%	513
Loud thunder	0%	0	9%	476	0%	0	9%	315
Starts to rain	0%	0	2%	80	0%	0	1%	51
Number of Respondents		0		201		0		142
Age Under 25 years	5%	214	4%	184	2%	55	2%	54
25 - 34 years	7%	303	4 /⁄s 7%	350	2 % 8%	220	2 <i>%</i> 7%	234
35 - 44 years	12%	493	11%	544	13%	336	14%	434
45 - 54 years	24%	996	22%	1,064	28%	756	26%	821
55 - 64 years	31%	1,286	33%	1,560	32%	868	34%	1,085
65 - 74 years	17%	719	18%	872	14%	389	14%	458
75 years and older	4%	170	5%	218	2%	59	2%	78
Number of Respondents		181		792		683		164

		Some college	e, no degree			Associate or te	chnical degree	.
	20	12		13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Gender								
Male	74%	3,474	70%	3,627	75%	2,226	70%	2,398
Female	26%	1,230	29%	1,496	25%	749	29%	979
Prefer not to answer	0%	0	1%	58	0%	0	2%	53
Number of Respondents	4,7	704	5,1	81	2,9	75	3,4	130
Race								
White, Caucasian	95%	4,433	90%	4,652	94%	2,768	88%	3,013
Black, African American	1%	28	1%	28	1%	23	0%	5
Hispanic, Latino, or Spanish	1%	51	1%	61	1%	33	1%	47
Pacific Islander	0%	10	0%	5	0%	3	0%	6
Asian	0%	15	0%	15	0%	11	0%	7
American Indian/Native Indian or Alaska Native	1%	43	1%	56	1%	24	1%	39
Other	2%	95	2%	125	2%	70	3%	98
Prefer not to answer	0%	0	5%	235	0%	0	6%	217
Number of Respondents	4,0	75	5,1	77	2,9	932	3,4	132
Interested in other areas~								
National Fire Weather Program	0%	0	7%	362	0%	0	8%	276
National Hurricane Center Program	0%	0	8%	414	0%	0	7%	250
National Hydrologic Services Program	0%	0	6%	290	0%	0	6%	195
National Climate Services Program	0%	0	10%	498	0%	0	10%	350
Do not wish to continue	0%	0	80%	4,153	0%	0	79%	2,722
Number of Respondents		0	5,2	201		0	3,4	142

		Bachelor	´s degree		Gra	duate degree/P	rofessional de	gree
	20)12)13		12	20	
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region								
Central Region	34%	1,617	33%	2,555	29%	1,307	29%	2,202
Eastern Region	28%	1,312	22%	1,722	33%	1,503	27%	2,057
Southern Region	18%	868	21%	1,627	16%	719	19%	1,466
Western Region	19%	897	23%	1,745	21%	932	24%	1,853
Alaska Region	0%	22	0%	26	0%	22	0%	30
Pacific Region	1%	28	0%	23	0%	22	0%	32
Number of Respondents	4,7	744	7,0	698	4,	505	7,6	40
Uses of NWS information~								
Agriculture	0%	0	16%	1,210	0%	0	15%	1,183
Aviation	0%	0	5%	422	0%	0	5%	401
Amateur Radio	0%	0	5%	424	0%	0	4%	321
Broadcast/Print Media	0%	0	3%	244	0%	0	2%	144
Commodities Markets	0%	0	1%	96	0%	0	1%	58
Consulting	0%	0	2%	122	0%	0	1%	112
Education	0%	0	6%	488	0%	0	10%	764
Health Services	0%	0	2%	174	0%	0	3%	201
Land Management Decisions	0%	0	8%	619	0%	0	8%	603
Marine	0%	0	3%	238	0%	0	3%	246
NWS Data Provider	0%	0	9%	675	0%	0	6%	429
Personal	0%	0	88%	6,810	0%	0	90%	6,882
Recreation	0%	0	61%	4,686	0%	0	63%	4,854
Research	0%	0	5%	376	0%	0	7%	520
Weather Enthusiast	0%	0	55%	4,250	0%	0	51%	3,918
Work-related decisions	0%	0	24%	1,840	0%	0	20%	1,564
Other	0%	0	8%	594	0%	0	9%	660
Number of Respondents		0	7,	721		0	7,6	571
Type of Aviation								
Dispatcher	100%	7	3%	14	100%	2	1%	6
Comm Aircraft	0%	0	17%	72	0%	0	20%	79
Private Aircraft	0%	0	75%	317	0%	0	77%	309
Air Traffic Controller	0%	0	5%	19	0%	0	2%	7
Number of Respondents		7		22		2	4(

	Bachelor´s degree				Gra	duate degree/P	rofessional de	gree
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Information sources~								
NWS Web	94%	6,315	94%	7,284	94%	6,256	95%	7,277
Non-NWS Web	37%	2,499	35%	2,709	36%	2,385	36%	2,754
Mobile devices	40%	2,650	52%	3,999	38%	2,505	49%	3,763
Social Media	11%	733	15%	1,150	8%	502	11%	832
Email	16%	1,047	11%	830	14%	942	10%	794
Landline Telephone	0%	0	4%	330	0%	0	4%	335
Cell Phone	0%	0	19%	1,444	0%	0	16%	1,216
Local or cable TV	52%	3,464	54%	4,204	47%	3,165	50%	3,845
Commercial Radio	31%	2,067	26%	1,980	30%	2,014	25%	1,881
Satellite radio	4%	279	3%	250	4%	265	4%	273
Satellite TV	14%	963	12%	964	13%	844	10%	747
Newspaper	20%	1,354	17%	1,304	24%	1,594	21%	1,590
NOAA Weather Radio/All Hazards	38%	2,572	42%	3,257	35%	2,323	38%	2,894
NOAA Weather Wire	5%	328	3%	267	5%	343	3%	235
Family of Services (FOS)	4%	242	1%	98	4%	277	1%	96
Emerg Mgrs Weather Info Net	4%	257	4%	288	3%	233	3%	268
NOAAPort	4%	276	2%	144	5%	342	2%	187
World Area Forecast System	1%	69	1%	52	1%	77	1%	68
DUATS	2%	159	2%	151	3%	169	2%	152
Flight Services	4%	287	3%	208	5%	307	3%	228
U.S. Coast Guard Broadcasts	6%	376	2%	118	6%	367	2%	141
NAVTEX receiver	0%	33	0%	15	1%	49	0%	16
Immarsat-C SafetyNET	0%	15	0%	4	0%	22	0%	9
Radiofacsimile	1%	45	0%	10	1%	39	0%	8
Other	1%	97	5%	424	2%	139	6%	498
Number of Respondents	6,6	86	7,7	721	6,6	667	7,6	71
NO A ANDRIO Lata and a firm								
NOAANWS products used most often~	00/	0	070/	7 406	0%	0	070/	7.440
Forecasts, outlooks, watches, warnings, alerts	0%	0	97%	7,496		0	97%	7,442
Weather observations	0%	0	74%	5,721	0%	0	75%	5,774
Climate observations	0%	0	35%	2,664	0%	0	36%	2,729
Satellite data	0%	0	49%	3,762	0%	0	47%	3,624
Radar data	0%	0	81%	6,243	0%	0	77%	5,882
Computer weather model output	0%	0	36%	2,781	0%	0	36%	2,779
Weather outreach/educational materials	0%	0	8%	636	0%	0	9%	684
Other products	0%	0	5%	407	0%	0	5%	415
Number of Respondents		0	7,7	21		0	7,6	11

	Bachelor's degree				Bachelor's degree		Gra	duate degree/P	rofessional de	egree	
	20	12)13		012	20	013			
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency			
Products familiar with~											
Tornado Warnings	0%	0	76%	5,868	0%	0	73%	5,586			
Severe Thunderstorm Warnings	0%	0	93%	7,197	0%	0	93%	7,133			
Severe Thunderstorm Watches	0%	0	91%	7,043	0%	0	91%	6,944			
Flash Flood Warnings	0%	0	81%	6,278	0%	0	79%	6,091			
Tsunami Warnings	0%	0	21%	1,599	0%	0	22%	1,658			
Hurricane Warnings	0%	0	51%	3,901	0%	0	55%	4,186			
Winter Storm Warnings	0%	0	90%	6,930	0%	0	89%	6,830			
River Flood Warnings	0%	0	59%	4,554	0%	0	57%	4,398			
Excessive Heat Warnings	0%	0	76%	5,859	0%	0	74%	5,651			
Extreme Cold Warnings	0%	0	65%	4,992	0%	0	65%	4,962			
High Surf Warnings	0%	0	25%	1,967	0%	0	27%	2,089			
Coastal Flood Warnings	0%	0	32%	2,499	0%	0	35%	2,713			
Climate Hazards	0%	0	46%	3,582	0%	0	43%	3,278			
Don't know	0%	0	1%	75	0%	0	1%	76			
Number of Respondents		0		721	0 70	0		671			
Number of Respondents		0	<i>r</i> ,	121		0		071			
Likelihood of taking protective action if tornado warning issued											
Very Unlikely	0%	0	2%	146	0%	0	2%	152			
Somewhat Unlikely	0%	0	3%	212	0%	0	3%	221			
Somewhat Likely	0%	0	14%	1,087	0%	0	14%	1,065			
Very Likely	0%	0	80%	6,172	0%	Ö	80%	6,138			
Don't Know	0%	0	1%	104	0%	0	1%	95			
Number of Respondents		0		721	076	0		671 93			
rumber of Respondents		<u> </u>	,	121		<u> </u>		07 1			
Reason for not taking action											
Do not believe I would be directly impacted by the tornado	0%	0	22%	77	0%	0	19%	72			
Need to first see or hear tornado	0%	0	11%	41	0%	0	13%	49			
Have never seen tornado damage in my area	0%	0	31%	110	0%	0	31%	115			
Do not take tornado warnings seriously	0%	0	5%	18	0%	0	5%	20			
Other	0%	0	31%	112	0%	0	31%	117			
Number of Respondents		0		58		0		373			
		-				-					
Proximity of tornado before considering warning accurate											
1 mile or less	0%	0	5%	355	0%	0	5%	349			
5 miles or less	0%	0	35%	2,680	0%	0	36%	2,742			
10 miles or less	0%	0	39%	3,023	0%	0	38%	2,892			
25 miles or less	0%	0	19%	1,432	0%	0	19%	1,442			
Other	0%	0	3%	231	0%	0	3%	246			
Number of Respondents		0	7,7	721		Ö	7,	671			
Number of tornado warnings issued											
Too many tornado warnings	0%	0	6%	498	0%	0	6%	450			
Too few tornado warnings	0%	0	2%	187	0%	0	2%	157			
Just about right	0%	0	71%	5,464	0%	0	68%	5,241			
Dea '4 los ess											
Don't know Number of Respondents	0%	0	20%	1,572	0%	0	24%	1,823			

	Bachelor´s degree				Gra	duate degree/P	rofessional de	gree
	20	12	20	13	20)12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued								
Same actions as did previously	0%	0	80%	6,214	0%	0	79%	6,085
Less likely to take same action	0%	0	10%	799	0%	0	11%	820
Don't know	0%	0	9%	708	0%	0	10%	766
Number of Respondents		0	7,7	721		0	7,0	571
Heard the term Weather-Ready Nation								
Heard Weather-Ready Nation	0%	0	16%	1,269	0%	0	13%	1,012
Have not heard Weather-Ready Nation	0%	0	84%	6,452	0%	0	87%	6,659
Number of Respondents		0		721		0		671
ramber of Respondents			• ,•	21			-, \	77 1
Have a hazardous weather safety plan								
Have a plan	57%	3,914	72%	5,558	54%	3,683	72%	5,486
Do not have a plan	43%	2,946	25%	1,946	46%	3,191	26%	1,988
Don't know	0%	0	3%	217	0%	0	3%	197
Number of Respondents	6,8	360	7,7	721	6,8	874	7,6	671
Reason plan created~								
Friends and family	39%	1,529	50%	2,794	38%	1,395	46%	2,546
General desire to be prepared	84%	3,258	92%	5,103	84%	3,070	92%	5,059
An extreme weather event	42%	1,647	51%	2,843	41%	1,497	51%	2,771
Be a Force of Nature campaign	1%	31	1%	45	1%	36	1%	43
Weather-Ready Nation initiative	4%	166	3%	154	4%	132	2%	129
Other	12%	476	15%	810	12%	445	15%	850
Number of Respondents	3,8			558		666		186
Main vaccon vari da nat barra a nlan								
Main reason you do not have a plan Takes too much time	3%	75	4%	78	2%	60	4%	75
Too expensive	0%	75 9	4% 3%	78 51	2% 0%	69 9	4% 2%	30
Not sure what to include		•				_	39%	774
	37%	1,081	40%	770	34%	1,099		
Don't think it's necessary	45%	1,333	35%	677	48%	1,521	34%	684
Other Number of Respondents	15%	448	19%	370	15%	493	21%	425
Number of Respondents	2,8)46	1,8	946	3,	191	1,8	988
Plan includes hazardous weather emergency preparedness kit								
Includes kit	47%	3,194	44%	3,412	47%	3,210	47%	3,594
Does not include kit	53%	3,666	53%	4,101	53%	3,664	50%	3,857
Don't know	0%	0	3%	208	0%	0	3%	220
Number of Respondents	6,8	860	7,7	721	6,8	874	7,0	571

		Bachelor	s degree	Ī	Gra	duate degree/P	rofessional de	gree
	20)12)13		012)13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Reason kit created~								
Friends and family	32%	1,005	48%	1,636	31%	997	45%	1,634
General desire to be prepared	86%	2,734	92%	3,143	85%	2,697	92%	3,320
An extreme weather event	39%	1,246	53%	1,792	38%	1,226	52%	1,876
Be a Force of Nature campaign	1%	27	1%	33	1%	34	1%	29
Weather-Ready Nation initiative	6%	189	3%	94	5%	160	3%	96
Other	16%	510	15%	523	16%	494	16%	582
Number of Respondents	3,	173	3,4	412	3,	185	3,	594
Main years you do not have a bit								
Main reason you do not have a kit Takes too much time	40/	129	40/	172	40/	153	40/	161
	4%		4%		4%		4%	
Too expensive	5%	167	5%	209	3%	107	3%	123
Not sure what to include	32%	1,168	37%	1,501	32%	1,167	35%	1,333
Don't think it's necessary	37%	1,359	33%	1,342	39%	1,447	33%	1,282
Other	23%	843	21%	877	22%	790	25%	958
Number of Respondents	3,	666	4,	101	3,	664	3,	857
NWS staff on-site at incident								
NWS staff on-site	0%	0	9%	225	0%	0	8%	209
No staff on-site	0%	0	60%	1,570	0%	0	59%	1,493
DK/NA	0%	0	31%	805	0%	0	33%	836
Number of Respondents		0		600		0	2,	538
				1				
Require specific products and have automated methods								
Require specific products with automation	0%	0	6%	499	0%	0	6%	442
Do not require specific products with automation	0%	0	94%	7,222	0%	0	94%	7,229
Number of Respondents		0	7,	721		0	7,	671
Received WEA message on cell phone								
Received message	0%	0	26%	2,011	0%	0	24%	1,836
Did not receive message	0%	0	69%	5,359	0%	0	72%	5,487
Don't know	0%	0	5%	351	0%	0	5%	348
				721		0		671
Number of Respondents		0	7,	1 2 1				
		U	Ι,	121				
WEA message was first notification received								
WEA message was first notification received First notification	0%	0	64%	1,283	0%	0	66%	1,215
WEA message was first notification received First notification Not first notification	0% 0%	0	64% 27%	1,283 535	0% 0%	0	25%	462
WEA message was first notification received First notification Not first notification Don't know	0%	0	64% 27% 10%	1,283 535 193	0%	_	25% 9%	462 159
WEA message was first notification received First notification Not first notification	0% 0% 0%	0	64% 27% 10%	1,283 535	0% 0% 0%	0	25% 9%	462
WEA message was first notification received First notification Not first notification Don't know Number of Respondents	0% 0% 0%	0 0 0	64% 27% 10%	1,283 535 193	0% 0% 0%	0 0	25% 9%	462 159
WEA message was first notification received First notification Not first notification Don't know Number of Respondents Understood WEA message	0% 0% 0%	0 0 0	64% 27% 10% 2, (1,283 535 193 011	0% 0% 0%	0 0 0	25% 9% 1, ;	462 159 836
WEA message was first notification received First notification Not first notification Don't know Number of Respondents Understood WEA message Fully understood	0% 0% 0% 0%	0 0 0 0	64% 27% 10% 2, (1,283 535 193 011	0% 0% 0%	0 0 0	25% 9% 1, i	462 159 836 1,548
WEA message was first notification received First notification Not first notification Don't know Number of Respondents Understood WEA message Fully understood Somewhat understood	0% 0% 0% 0%	0 0 0 0	64% 27% 10% 2, 1 84% 15%	1,283 535 193 011 1,694 300	0% 0% 0% 0%	0 0 0	25% 9% 1, ; 84% 15%	462 159 836 1,548 271
WEA message was first notification received First notification Not first notification Don't know Number of Respondents Understood WEA message Fully understood	0% 0% 0% 0% 0%	0 0 0 0	64% 27% 10% 2, 1 84% 15% 1%	1,283 535 193 011	0% 0% 0% 0%	0 0 0	25% 9% 1, ; 84% 15% 1%	462 159 836 1,548

	Bachelor's degree			Gra	duate degree/P	rofessional de	gree	
	20	12		13)12		13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Beneficial enhancements to WEA message~								
More text containing details of warning	0%	0	39%	776	0%	0	38%	697
Accompanying graphic showing warning area	0%	0	59%	1,192	0%	0	61%	1,125
Accompanying graphic showing current location	0%	0	59%	1,180	0%	0	56%	1,030
Color representing urgency of warning	0%	0	36%	726	0%	0	38%	698
Color representing type of warning	0%	0	22%	452	0%	0	21%	383
Sound representing urgency of warning	0%	0	41%	824	0%	0	41%	749
Sound representing type of warning	0%	0	23%	471	0%	0	21%	392
Number of Respondents		0	2,0	011		0	1,8	336
	i					•		
Facebook and Twitter during weather events~	22.		2021	- 0.5	25:			
Do not use Facebook and Twitter for weather events	0%	0	69%	5,301	0%	0	75%	5,769
Read what others are posting or tweeting	0%	0	26%	2,018	0%	0	21%	1,621
Comment on what others are posting or tweeting	0%	0	17%	1,322	0%	0	13%	1,024
Write own posts or tweets	0%	0	18%	1,412	0%	0	14%	1,039
Number of Respondents		0	7,7	721		0	7,0	671
Amount of social media content available								
Too little	0%	0	20%	489	0%	0	19%	364
Just about right	0%	0	43%	1,033	0%	0	39%	739
Too much	0%	0	1%	28	0%	0	2%	31
Don't know	0%	0	36%	870	0%	0	40%	768
Number of Respondents		0		420		0		902
Number of Respondents			۷,-	120			1,	702
Promoted awareness campaigns~								
Heat Safety	0%	0	25%	662	0%	0	24%	610
Flood Safety	0%	0	26%	674	0%	0	24%	605
Lightning Safety	0%	0	29%	764	0%	0	29%	738
Severe Weather Safety	0%	0	43%	1,119	0%	0	40%	1,007
Rip Currents Safety	0%	0	5%	134	0%	0	6%	146
Hurricane Safety	0%	0	11%	294	0%	0	13%	334
Tsunami Safety	0%	0	3%	87	0%	0	4%	99
Winter Weather Safety	0%	0	35%	921	0%	0	34%	865
Wildfire Safety	0%	0	24%	627	0%	0	23%	585
None of the above	0%	0	37%	970	0%	0	39%	986
Number of Respondents		0	2,6	600		0	2,	538
Websites visited for weather safety~								
National Weather Service	0%	0	97%	7,456	0%	0	97%	7,448
FEMA	0%	0	16%	1,232	0%	0	15%	1,128
American Red Cross	0%	0	9%	687	0%	0	8%	588
Centers for Disease Control and Prevention	0%	0	5%	393	0%	0	6%	464
Commercial weather vendor	0%	0	58%	4,488	0%	0	57%	4,394
Other	0%	0	11%	852	0%	0	11%	876
Number of Respondents		0	7,7	721		0	7,0	671

		Bachelor	s degree		Gra	duate degree/P	rofessional de	gree
	20	12		13)12		013
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Safe to drive through water when no Road Closed sign or police barricade								
True	0%	0	2%	124	0%	0	2%	130
False	0%	0	98%	7,597	0%	0	98%	7,541
Number of Respondents		0	7,7	721		0	7,	671
Not safe to drive when water is too deep to see road surface								
True	0%	0	96%	7,433	0%	0	96%	7,363
False	0%	0	4%	288	0%	0	4%	308
Number of Respondents		0	7,7	721		0	7,	671
Safe to drive through water slowly								
True	0%	0	4%	293	0%	0	4%	292
False	0%	0	96%	7,428	0%	0	96%	7,379
Number of Respondents		0		7,420 721		0		671
Tumber of Respondents			1,1	21			- 1,	071
Safe to drive through water in a large and heavy vehicle								
True	0%	0	3%	252	0%	0	3%	241
False	0%	0	97%	7,469	0%	0	97%	7,430
Number of Respondents		0		721		0		671
<u> </u>			·				·	
Not safe to drive through swiftly moving water								
True	0%	0	97%	7,500	0%	0	97%	7,469
False	0%	0	3%	221	0%	0	3%	202
Number of Respondents		0	7,7	721		0	7,	671
When to seek shelter from lightning								
Distant lightning	0%	0	19%	1,433	0%	0	19%	1,465
Distant thunder	0%	0	53%	4,088	0%	0	49%	3,796
Nearby lightning	0%	0	17%	1,274	0%	0	18%	1,366
Loud thunder	0%	0	11%	818	0%	0	12%	943
Starts to rain	0%	0	1%	108	0%	0	1%	101
Number of Respondents		0	7,7	721		0	7,	671
Ago								
Age Under 25 years	3%	175	2%	166	1%	35	0%	29
25 - 34 years	11%	655	2% 12%	860	7%	419	0% 8%	526
35 - 44 years	14%	866	14%	962	7% 11%	653	6% 10%	714
45 - 54 years	24%	1,473	21%	1,465	20%	1,197	20%	1,367
55 - 64 years	30%	1,473	30%	2,065	33%	1,964	31%	2,114
65 - 74 years	15%	896	16%	1,144	23%	1,371	24%	1,630
75 years and older	4%	234	4%	281	23 <i>%</i> 5%	328	24 <i>%</i> 6%	421
Number of Respondents		1 05		943		967		801
Number of Respondents	0,	100	0,3)TJ	3,	301	0,	001

		Bachelor	s degree		Grae	duate degree/P	rofessional de	gree
	20	12	20	13	20	12	20	13
	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Gender								
Male	71%	4,795	67%	5,109	67%	4,547	62%	4,691
Female	29%	1,966	31%	2,388	33%	2,191	35%	2,680
Prefer not to answer	0%	0	2%	173	0%	0	3%	223
Number of Respondents	6,7	761	7,6	570	6,7	738	7,5	594
Race								
White, Caucasian	95%	6,300	87%	6,693	94%	6,266	85%	6,488
Black, African American	0%	29	0%	37	0%	23	0%	37
Hispanic, Latino, or Spanish	1%	70	1%	89	1%	54	1%	95
Pacific Islander	0%	17	0%	5	0%	12	0%	10
Asian	1%	55	1%	48	1%	56	1%	63
American Indian/Native Indian or Alaska Native	1%	41	1%	54	1%	42	1%	45
Other	2%	150	2%	176	3%	198	2%	170
Prefer not to answer	0%	0	8%	583	0%	0	9%	684
Number of Respondents	6,0	62	7,6	85	6,6	551	7,	92
Interested in other areas~								
National Fire Weather Program	0%	0	7%	533	0%	0	6%	487
National Hurricane Center Program	0%	0	8%	624	0%	0	9%	679
National Hydrologic Services Program	0%	0	6%	460	0%	0	6%	450
National Climate Services Program	0%	0	10%	781	0%	0	12%	889
Do not wish to continue	0%	0	78%	6,042	0%	0	77%	5,914
Number of Respondents		0	7,7	721		0	7,6	71

	Prefer not to answer					
	20)12	20)13		
	Percent	Frequency	Percent	Frequency		
Region						
Central Region			32%	392		
Eastern Region			24%	292		
Southern Region			20%	244		
Western Region			24%	288		
Alaska Region			0%	5		
Pacific Region			0%	3		
Number of Respondents	1,224			224		

Uses of NWS information~				
Agriculture			19%	236
Aviation			6%	74
Amateur Radio			6%	80
Broadcast/Print Media			4%	48
Commodities Markets			1%	18
Consulting			2%	27
Education			7%	83
Health Services			3%	31
Land Management Decisions			9%	113
Marine			3%	41
NWS Data Provider			8%	102
Personal			86%	1,060
Recreation			50%	623
Research			7%	85
Weather Enthusiast			48%	591
Work-related decisions			21%	254
Other			9%	108
Number of Respondents			1,2	237

Type of Aviation			
Dispatcher	 	7%	5
Comm Aircraft	 	20%	15
Private Aircraft	 	69%	51
Air Traffic Controller	 	4%	3
Number of Respondents			4

		Prefer not	to answer	
	20	12	20	13
	Percent	Frequency	Percent	Frequency
Information sources~				
NWS Web			89%	1,105
Non-NWS Web			31%	389
Mobile devices			44%	543
Social Media			12%	152
Email			9%	111
Landline Telephone			5%	57
Cell Phone			16%	197
Local or cable TV			51%	635
Commercial Radio			22%	277
Satellite radio			4%	54
Satellite TV			12%	144
Newspaper			14%	171
NOAA Weather Radio/All Hazards			42%	517
NOAA Weather Wire			4%	49
Family of Services (FOS)			2%	22
Emerg Mgrs Weather Info Net			3%	36
NOAAPort			3%	36
World Area Forecast System			1%	13
DUATS			2%	26
Flight Services			3%	35
U.S. Coast Guard Broadcasts			2%	19
NAVTEX receiver			0%	3
Immarsat-C SafetyNET			0%	4
Radiofacsimile			0%	3
Other			5%	66
Number of Respondents	-	-	1,2	237

NOAANWS products used most often~				
Forecasts, outlooks, watches, warnings, alerts			95%	1,169
Weather observations			71%	875
Climate observations			31%	388
Satellite data			46%	575
Radar data			78%	967
Computer weather model output			37%	458
Weather outreach/educational materials			9%	110
Other products			5%	64
Number of Respondents	<u></u>		1,237	

		Prefer not	to answer	
)12		13
	Percent	Frequency	Percent	Frequency
Products familiar with~			750/	200
Tornado Warnings			75%	923
Severe Thunderstorm Warnings			93%	1,147
Severe Thunderstorm Watches			92%	1,133
Flash Flood Warnings			78%	969
Tsunami Warnings			22%	278
Hurricane Warnings			48%	594
Winter Storm Warnings			87%	1,074
River Flood Warnings			57%	710
Excessive Heat Warnings			74%	918
Extreme Cold Warnings			64%	795
High Surf Warnings			25%	310
Coastal Flood Warnings			33%	403
Climate Hazards			42%	522
Don't know			2%	28
Number of Respondents			1,2	237
	_			
Likelihood of taking protective action if tornado warning issued				
Very Unlikely			3%	37
Somewhat Unlikely			3%	40
Somewhat Likely			17%	214
Very Likely			73%	904
Don't Know			3%	42
Number of Respondents			1,2	237
Reason for not taking action				
Do not believe I would be directly impacted by the tornado			19%	15
Need to first see or hear tornado			10%	8
Have never seen tornado damage in my area			21%	16
Do not take tornado warnings seriously			5%	4
Other			44%	34
Number of Respondents				7
rumber of respondents			,	,
Proximity of tornado before considering warning accurate				
1 mile or less			8%	97
5 miles or less			31%	389
10 miles or less			33%	405
25 miles or less			23%	283
Other			5%	63
Number of Respondents				237
Number of tornado warnings issued				
Too many tornado warnings			7%	90
Too few tornado warnings			6%	70
Just about right			59%	730
Don't know			28%	347
Number of Respondents			1,2	237

		Prefer not	to answer	
	20	012		013
	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued				
Same actions as did previously			74%	910
Less likely to take same action			14%	176
Don't know			12%	151
Number of Respondents			1,	237
Heard the term Weather-Ready Nation				
Heard Weather-Ready Nation			20%	246
Have not heard Weather-Ready Nation			80%	991
Number of Respondents		<u></u>	1,	237
Have a hazardous weather safety plan				
Have a plan			73%	900
Do not have a plan			20%	247
Don't know			7%	90
Number of Respondents				237
Reason plan created~				
Friends and family			51%	463
General desire to be prepared			91%	815
An extreme weather event			49%	445
Be a Force of Nature campaign			1%	12
Weather-Ready Nation initiative			5%	44
Other			13%	119
Number of Respondents				000
Main reason you do not have a plan				
Takes too much time			5%	13
Too expensive			4%	10
Not sure what to include			34%	84
Don't think it's necessary			32%	80
Other			24%	60
Number of Respondents				247
Diamingly dead because weather an arrange and a second				
Plan includes hazardous weather emergency preparedness kit			400/	500
Includes kit Does not include kit			48%	598
			43%	534
Don't know			8%	105
Number of Respondents			1,	237

	<u> </u>	Prefer not	to answer	
	20	112)13
	Percent	Frequency	Percent	Frequency
Reason kit created~				
Friends and family			52%	310
General desire to be prepared			90%	538
An extreme weather event			51%	304
Be a Force of Nature campaign			2%	11
Weather-Ready Nation initiative			3%	20
Other			12%	74
Number of Respondents		_		98
Main reason you do not have a kit				
Takes too much time			2%	13
Too expensive			8%	42
Not sure what to include			37%	198
Don't think it's necessary			30%	158
Other			23%	123
Number of Respondents				34
NWS staff on-site at incident				
NWS staff on-site			5%	19
No staff on-site			53%	202
DK/NA			42%	162
Number of Respondents		-	3	83
Require specific products and have automated methods			201	405
Require specific products with automation			8%	105
Do not require specific products with automation			92%	1,132
Number of Respondents		-	1,7	237
Received WEA message on cell phone				
Received message on cell phone			22%	270
Did not receive message			73%	902
Don't know			5%	65
Number of Respondents		_		237
			,	-
WEA message was first notification received				
First notification			56%	150
Not first notification			33%	88
Don't know			12%	32
Number of Respondents		. -	2	70
Understood WEA message			000/	040
Fully understood			80%	216
Somewhat understood			18%	49
Did not understand			2%	5
Number of Respondents		-	2	70

		Prefer not	to answer	to answer	
	20	012		013	
	Percent	Frequency	Percent	Frequency	
Beneficial enhancements to WEA message~	refeent	Trequency	rerecit	rrequeries	
More text containing details of warning			45%	122	
Accompanying graphic showing warning area			60%	163	
Accompanying graphic showing current location			57%	155	
Color representing urgency of warning			41%	112	
Color representing trype of warning			30%	80	
Sound representing type of warning Sound representing urgency of warning			43%	117	
Sound representing type of warning			45 % 35%	95	
Number of Respondents				70	
Number of Nespondents				10	
Facebook and Twitter during weather events~					
Do not use Facebook and Twitter for weather events			75%	922	
Read what others are posting or tweeting			21%	256	
Comment on what others are posting or tweeting			13%	156	
Write own posts or tweets			14%	177	
Number of Respondents				237	
·	•		•		
Amount of social media content available					
Too little			26%	81	
Just about right			43%	137	
Too much			2%	5	
Don't know			29%	92	
Number of Respondents			3	15	
Draw stad surgranges sampsisms					
Promoted awareness campaigns~			28%	100	
Heat Safety			26% 24%	108	
Flood Safety				92	
Lightning Safety Severe Weather Safety			28%	108	
1			35%	134	
Rip Currents Safety			5%	20	
Hurricane Safety			11%	44	
Tsunami Safety			5%	19	
Winter Weather Safety			31%	117	
Wildfire Safety			26%	99	
None of the above			46%	177	
Number of Respondents			3	83	
Websites visited for weather safety~					
National Weather Service			93%	1,151	
FEMA			14%	169	
American Red Cross			10%	119	
Centers for Disease Control and Prevention	1		6%	75	
Commercial weather vendor			56%	688	
Other			14%	169	
Number of Respondents				237	
irumber of veshondents			1,,	LUI	

		Prefer not	to answer	to answer	
	20	012)13	
	Percent	Frequency	Percent	Frequency	
Safe to drive through water when no Road Closed sign or police barricade					
True			3%	39	
False			97%	1,198	
Number of Respondents			1,2	237	
Not safe to drive when water is too deep to see road surface					
True			94%	1,157	
False			6%	80	
Number of Respondents			1,2	237	
Safe to drive through water slowly			001	67	
True			8%	97	
False			92%	1,140	
Number of Respondents			1,7	237	
Cafe to drive the events we tour in a larger and become which					
Safe to drive through water in a large and heavy vehicle			C 0/	70	
True			6%	70	
False			94%	1,167	
Number of Respondents		-	l ,,	237	
Not safe to drive through swiftly moving water					
True			95%	1,179	
False			5%	58	
Number of Respondents		_		237	
Trainibol of Respondents			• ,,,		
When to seek shelter from lightning					
Distant lightning			18%	224	
Distant thunder			51%	636	
Nearby lightning			18%	220	
Loud thunder			10%	128	
Starts to rain			2%	29	
Number of Respondents		_	1,	237	
•					
Age					
Under 25 years			5%	18	
25 - 34 years			6%	24	
35 - 44 years			15%	58	
45 - 54 years			20%	75	
55 - 64 years			35%	131	
65 - 74 years			15%	57	
75 years and older			4%	16	
Number of Respondents			3	79	

	Prefer not to answer			
	20)12	20	13
	Percent	Frequency	Percent	Frequency
Gender				
Male			37%	455
Female			15%	185
Prefer not to answer			48%	583
Number of Respondents			1,2	223
Race				
White, Caucasian			24%	300
Black, African American			0%	3
Hispanic, Latino, or Spanish			1%	9
Pacific Islander			0%	1
Asian			0%	6
American Indian/Native Indian or Alaska Native			0%	4
Other			3%	37
Prefer not to answer			71%	871
Number of Respondents		-	1,2	231
Interested in other areas~				
National Fire Weather Program			6%	69
National Hurricane Center Program			5%	65
National Hydrologic Services Program			4%	45
National Climate Services Program			7%	87
Do not wish to continue			86%	1,058
		•		•

Do not wish to continue Number of Respondents

	National Weather Service	FEMA	American Red Cross
	2013	2013	2013
Sample Size	27,011	4,162	2,414
Hazardous Services	88	89	89
Tornado Warnings	87	87	87
Severe Thunderstorm Warnings	88	89	89
Severe Thunderstorm Watch	89	90	90
Winter Storm Warnings	89	90	89
Hurricane Warnings	91	91	91
Flash Flood Warnings	88	89	89
River Flood Warnings	89	90	89
High Surf Warnings	90	91	91
Tsunami Warnings	86	87	86
Extreme Cold Warnings	91	92	92
Excessive Heat Warnings	92	93	92
Coastal Flood Warnings	89	89	89
Climate Hazards	86	87	87
Tornado Warnings	87	88	88
Ease of Understanding	94	94	94
Timeliness	86	87	86
Accuracy	78	80	80
Severe Thunderstorm Warnings	89	90	90
Ease of Understanding	94	94	94
Timeliness	89	90	89
Accuracy	81	83	83
Severe Thunderstorm Watch	89	90	90
Ease of Understanding	93	94	94
Timeliness	91	91	91
Accuracy	81	83	83
Flash Flood Warnings	88	89	89
Ease of Understanding	92	93	93
Timeliness	89	89	89
Accuracy	81	84	84
Tsunami Warnings	87	88	87
Ease of Understanding	91	91	90
Timeliness	87	87	86
Accuracy	77	79	79

	National Weather	National Weather	
	Service	FEMA	American Red Cross
	2013	2013	2013
Sample Size	27,011	4,162	2,414
Hurricane Warnings	91	92	92
Ease of Understanding	93	94	94
Timeliness	93	93	93
Accuracy	84	85	86
Winter Storm Warnings	89	90	90
Ease of Understanding	93	94	93
Timeliness	92	92	92
Accuracy	79	82	82
River Flood Warnings	89	90	90
Ease of Understanding	92	92	92
Timeliness	90	90	90
Accuracy	85	86	86
Excessive Heat Warnings	92	93	92
Ease of Understanding	94	94	94
Timeliness	93	93	93
Accuracy	90	91	90
Extreme Cold Warnings	92	92	92
Ease of Understanding	94	94	93
Timeliness	93	93	93
Accuracy	87	89	89
High Surf Warnings	91	91	91
Ease of Understanding	92	92	92
Timeliness	92	92	91
Accuracy	87	89	88
Coastal Flood Warnings	89	90	89
Ease of Understanding	91	92	91
Timeliness	90	91	90
Accuracy	84	86	85
Climate Hazards	86	88	87
Ease of Understanding	88	89	89
Timeliness	88	89	89
Accuracy	82	84	84

	National Weather Service	FEMA	American Red Cross
	2013	2013	2013
Sample Size	27,011	4,162	2,414
Weather-Sensitive Decision Making	87	89	89
Rely on NWS in making weather-sensitive decisions	87	89	89
User Support Services	89	90	90
Accessibility	87	88	88
Responsiveness	86	87	88
Subject-Matter Knowledge	92	94	94
Professionalism	93	94	94
Assisting in interpretation of weather-related information	89	91	91
Saving your organization money	77	81	82
Resolving a complaint	75	81	82
Dissemination Services - Website	85	86	86
Ease of locating information	83	84	83
Ease of understanding info	85	86	85
Information is up-to-date	87	89	88
Satellite Imagery display	84	86	85
Doppler Radar display	84	86	85
Dissemination Services - Automated	79	82	83
Ease locating data on servers	82	83	85
Ease of req add data to server	77	80	83
Ease of providing input	74	78	81
Ease of auto method	81	84	85
Usefulness of WEA Message	80	84	84
Usefulness of WEA message	80	84	84
Usefulness of NWS Presence	69	75	74
Usefulness of NWS presence on Facebook	77	82	81
Usefulness of NWS presence on Twitter	66	76	75
Usefulness of NWS presence on YouTube	46	56	57
Usefulness of NWS Graphical Summary	83	86	85
Usefulness of NWS graphical weather summaries on social media	83	86	85

	National Weather Service	FEMA	American Red Cross
	2013	2013	2013
Sample Size	27,011	4,162	2,414
Effectiveness of Safety Campaigns	76	79	79
Effectiveness of Turn Around Don't Drown	80	83	84
Effectiveness of When Thunder Roars, Go Indoors!	70	75	76
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!	74	77	76
Customer Satisfaction Index	82	84	84
Overall Satisfaction	88	90	89
Meets expectations	76	78	78
Compared to ideal	80	82	82
Likelihood Take Action	91	93	93
Likelihood take action on info	91	93	93
Likelihood to Use in Future	97	97	97
Likelihood use NWS in future	97	97	97
Likelihood to Recommend	93	95	94
Likelihood to recommend	93	95	94
Anticipated Use Over Next Year	93	93	93
Desktop-laptop computer	93	93	93
Mobile Device	59	68	66
Social Media	24	34	36
Direct Interaction w NWS Staff	11	20	20
NOAA Weather Radio All-Hazards	45	54	54
File transfer services	18	26	26
Level of Severity	23	24	26
Marginal	23	24	26
Slight	16	18	19
Critical	92	93	92
Enhanced	49	52	53
Elevated	55	56	57
Moderate	46	48	48
High	80	81	81

	Centers for Disease Control and Prevention	Commercial weather vendor	Other
	2013	2013	2013
Sample Size	1,441	16,328	3,077
Hazardous Services	89	88	87
Tornado Warnings	87	86	86
Severe Thunderstorm Warnings	89	88	87
Severe Thunderstorm Watch	90	88	87
Winter Storm Warnings	90	88	88
Hurricane Warnings	90	90	90
Flash Flood Warnings	88	87	87
River Flood Warnings	90	88	88
High Surf Warnings	90	90	89
Tsunami Warnings	87	86	85
Extreme Cold Warnings	92	91	91
Excessive Heat Warnings	92	92	92
Coastal Flood Warnings	89	88	87
Climate Hazards	88	85	85
Tornado Warnings	88	87	86
Ease of Understanding	93	93	93
Timeliness	86	85	85
Accuracy	81	77	77
Severe Thunderstorm Warnings	90	89	88
Ease of Understanding	94	93	93
Timeliness	89	89	88
Accuracy	83	80	80
Severe Thunderstorm Watch	90	89	88
Ease of Understanding	94	93	92
Timeliness	91	90	89
Accuracy	83	80	79
Flash Flood Warnings	89	88	87
Ease of Understanding	92	92	92
Timeliness	89	88	87
Accuracy	83	81	80
Tsunami Warnings	88	87	85
Ease of Understanding	91	91	90
Timeliness	87	86	83
Accuracy	80	76	75

	Centers for Disease Control and Prevention	Commercial weather vendor	Other
	2013	2013	2013
Sample Size	1,441	16,328	3,077
Hurricane Warnings	91	91	90
Ease of Understanding	94	93	93
Timeliness	92	93	92
Accuracy	85	83	83
Winter Storm Warnings	90	89	89
Ease of Understanding	93	93	92
Timeliness	92	91	91
Accuracy	82	78	78
River Flood Warnings	90	89	88
Ease of Understanding	92	91	91
Timeliness	90	90	89
Accuracy	86	85	83
Excessive Heat Warnings	92	92	92
Ease of Understanding	94	94	93
Timeliness	93	93	93
Accuracy	90	89	89
Extreme Cold Warnings	92	91	91
Ease of Understanding	94	93	93
Timeliness	92	92	92
Accuracy	88	87	86
High Surf Warnings	91	90	89
Ease of Understanding	92	92	91
Timeliness	91	91	91
Accuracy	88	87	85
Coastal Flood Warnings	90	89	88
Ease of Understanding	92	91	90
Timeliness	90	90	89
Accuracy	86	84	83
Climate Hazards	88	86	85
Ease of Understanding	90	88	88
Timeliness	89	88	88
Accuracy	84	81	81

	Centers for Disease Control and Prevention	Commercial weather vendor	Other
	2013	2013	2013
Sample Size	1,441	16,328	3,077
Weather-Sensitive Decision Making	89	86	85
Rely on NWS in making weather-sensitive decisions	89	86	85
User Support Services	90	88	87
Accessibility	87	86	86
Responsiveness	87	85	84
Subject-Matter Knowledge	94	92	91
Professionalism	93	93	92
Assisting in interpretation of weather-related information	90	88	87
Saving your organization money	80	76	73
Resolving a complaint	77	74	64
Dissemination Services - Website	87	84	83
Ease of locating information	84	82	80
Ease of understanding info	87	84	83
Information is up-to-date	89	86	85
Satellite Imagery display	87	83	82
Doppler Radar display	87	83	81
Dissemination Services - Automated	83	78	74
Ease locating data on servers	85	81	78
Ease of req add data to server	81	76	68
Ease of providing input	79	73	63
Ease of auto method	86	80	77
Usefulness of WEA Message	82	80	78
Usefulness of WEA message	82	80	78
Usefulness of NWS Presence	75	70	70
Usefulness of NWS presence on Facebook	78	78	77
Usefulness of NWS presence on Twitter	76	67	66
Usefulness of NWS presence on YouTube	61	45	44
Usefulness of NWS Graphical Summary	86	83	82
Usefulness of NWS graphical weather summaries on social media	86	83	82

	Centers for Disease Control and Prevention	Commercial weather vendor	Other
	2013	2013	2013
Sample Size	1,441	16,328	3,077
Effectiveness of Safety Campaigns	79	76	73
Effectiveness of Turn Around Don't Drown	82	81	78
Effectiveness of When Thunder Roars, Go Indoors!	74	70	67
Effectiveness of RIP CURRENTS - Break the Grip of the Rip!	78	74	72
Customer Satisfaction Index	84	81	79
Overall Satisfaction	89	87	85
Meets expectations	78	75	73
Compared to ideal	82	79	77
Likelihood Take Action	93	90	89
Likelihood take action on info	93	90	89
Likelihood to Use in Future	97	96	95
Likelihood use NWS in future	97	96	95
Likelihood to Recommend	95	92	90
Likelihood to recommend	95	92	90
Anticipated Use Over Next Year	93	93	92
Desktop-laptop computer	93	93	92
Mobile Device	64	62	58
Social Media	29	26	25
Direct Interaction w NWS Staff	18	11	11
NOAA Weather Radio All-Hazards	52	46	44
File transfer services	28	19	19
Level of Severity	24	23	21
Marginal	24	23	21
Slight	18	16	15
Critical	93	92	92
Enhanced	51	50	49
Elevated	56	55	54
Moderate	48	46	46
High	81	80	80

	2013					
	National Wea	ather Service		MA	American	Red Cross
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region	1 0100111	Trequency	. 6.66110	1 requestey	. 0.00111	Troqueriey
Central Region	33%	8,913	28%	1,152	30%	731
Eastern Region	23%	6,221	28%	1,169	25%	613
Southern Region	21%	5,595	23%	939	22%	532
Western Region	22%	6,001	21%	858	21%	511
Alaska Region	0%	95	0%	11	0%	8
Pacific Region	0%	83	0%	15	0%	12
Number of Respondents	26,	908	4,1	144	2,4	107
Type of Aviation						
Dispatcher	4%	51	7%	17	10%	12
Comm Aircraft	4% 19%	259	7% 19%	47	21%	24
Private Aircraft	19% 74%	259 1,011	71%	47 175	21% 64%	24 75
Air Traffic Controller	74% 3%	47	71% 3%	8	5%	75 6
Number of Respondents		368				1 7
Number of Respondents	1,0		Σ.	-1 /	•	
Likelihood of taking protective action if tornado warning issued						
Very Unlikely	2%	582	2%	82	2%	53
Somewhat Unlikely	3%	714	2%	86	2%	46
Somewhat Likely	14%	3,688	11%	460	11%	260
Very Likely	80%	21,662	84%	3,490	84%	2,031
Don't Know	1%	365	1%	44	1%	24
Number of Respondents	27,	011	4,1	162	2,4	114
Reason for not taking action						
Do not believe I would be directly impacted by the tornado	21%	272	26%	44	26%	26
Need to first see or hear tornado	14%	176	10%	17	11%	11
Have never seen tornado damage in my area	30%	383	26%	43	24%	24
Do not take tornado warnings seriously	4%	53	5%	8	4%	4
Other	32%	412	33%	56	34%	34
Number of Respondents	1,2	296	10	68	9	9
Proximity of tornado before considering warning accurate						
1 mile or less	5%	1,367	5%	204	6%	133
5 miles or less	35%	9,427	34%	1,398	31%	751
10 miles or less	37%	9,989	36%	1,516	37%	892
25 miles or less	20%	5,416	22%	908	23%	560
Other	3%	812	3%	136	3%	78
Number of Respondents		011		162		114
Number of tornado warnings issued						
Too many tornado warnings	6%	1,613	6%	232	6%	136
Too few tornado warnings	3%	836	5%	191	5%	128
Just about right	70%	18,908	72%	3,015	71%	1,724
Don't know	21%	5,654	17%	724	18%	426
Number of Respondents	27,	011	4,1	162	2,4	114

			2(013		
	National We	ather Service		MA	American	Red Cross
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued		, ,				, ,
Same actions as did previously	82%	22,028	86%	3,561	84%	2,022
Less likely to take same action	10%	2,629	8%	333	9%	220
Don't know	9%	2,354	6%	268	7%	172
Number of Respondents	27	,011	4,	162	2,	414
Heard the term Weather-Ready Nation						
Heard Weather-Ready Nation	18%	4,784	31%	1,280	29%	693
Have not heard Weather-Ready Nation	82%	22,227	69%	2,882	71%	1,721
Number of Respondents	27	,011	4,	162	2,	414
Have a hazardous weather safety plan						
Have a plan	74%	20,025	81%	3,378	81%	1,965
Do not have a plan	23%	6,179	16%	683	16%	385
Don't know	3%	807	2%	101	3%	64
Number of Respondents	27	,011	4,162		2,414	
Main reason you do not have a plan						
Takes too much time	3%	212	5%	34	6%	25
Too expensive	3%	186	4%	26	4%	15
Not sure what to include	40%	2,485	43%	293	42%	162
Don't think it's necessary	33%	2,068	24%	163	24%	91
Other	20%	1,228	24%	167	24%	92
Number of Respondents	6,	179	6	83	3	85
Plan includes hazardous weather emergency preparedness kit						
Includes kit	47%	12,731	62%	2,595	62%	1,494
Does not include kit	50%	13,437	35%	1,453	36%	860
Don't know	3%	843	3%	114	2%	60
Number of Respondents	27	,011	4,	162	2,	414
Main reason you do not have a kit	20/	450	F0/	75	40/	200
Takes too much time	3%	458	5%	75 420	4%	36
Too expensive Not sure what to include	6% 38%	856 5,094	9% 37%	136 541	11% 42%	96 358
	31%	4,176	23%	327	42% 21%	184
Don't think it's necessary Other	21%	2,853	23% 26%	374	21%	186
Number of Respondents		,437		453		660
NWS staff on-site at incident						
NWS staff on-site	8%	722	14%	263	12%	125
No staff on-site	59%	5,350	55%	1,054	54%	578
DK/NA	33%	2,959	31%	599	35%	371
Number of Respondents		031		916		074
Require specific products and have automated methods						
Require specific products with automation	8%	2,097	13%	543	13%	302
Do not require specific products with automation	92%	24,914	87%	3,619	87%	2,112
Number of Respondents		,011		162		414
		,	- 1,			

	2013					
	National Weather Service FEMA			American Red Cross		
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Received WEA message on cell phone						
Received message	25%	6,754	32%	1,332	30%	730
Did not receive message	71%	19,049	63%	2,631	65%	1,572
Don't know	4%	1,208	5%	199	5%	112
Number of Respondents	27	,011	4,	162	2,	414
WEA message was first notification received						
First notification	63%	4,262	61%	807	62%	452
Not first notification	28%	1,911	31%	418	32%	235
Don't know	9%	581	8%	107	6%	43
Number of Respondents	6,	754	1,3	332	7	30
Understood WEA message						
Fully understood	85%	5,768	86%	1,148	84%	616
Somewhat understood	14%	932	13%	178	15%	109
Did not understand	1%	54	0%	6	1%	5
Number of Respondents	6,	754	1,3	332	7	30
Amount of social media content available						
Too little	22%	1,745	23%	390	23%	243
Just about right	47%	3,777	53%	908	51%	532
Too much	1%	99	2%	29	2%	18
Don't know	31%	2,473	23%	395	23%	243
Number of Respondents	8,	094	1,	722	1,	036
Safe to drive through water when no Road Closed sign or police barricade						
True	2%	498	2%	68	2%	48
False	98%	26,513	98%	4,094	98%	2,366
Number of Respondents	27	,011	4,	162	2,	414
Not safe to drive when water is too deep to see road surface						
True	96%	25,912	96%	4,004	96%	2,321
False	4%	1,099	4%	158	4%	93
Number of Respondents	27	,011	4,	162	2,	414
Safe to drive through water slowly						
True	4%	1,132	3%	132	4%	102
False	96%	25,879	97%	4,030	96%	2,312
Number of Respondents	27	,011	4,	162	2,	414
Safe to drive through water in a large and heavy vehicle				16.5		
True	3%	889	3%	106	3%	76
False Number of Respondents	97% 27	26,122 7 ,011	97% 4,	4,056 162	97% 2 ,	2,338 414
			.,			
Not safe to drive through swiftly moving water	070/	00.400	070/	4.000	070/	0.000
True	97%	26,186	97%	4,032	97%	2,332
False	3%	825	3%	130	3%	82
Number of Respondents	27	,011	4,	162	2,	414

	2013					
	National Weather Service		FE	FEMA		Red Cross
	Percent	Frequency	Percent	Frequency	Percent	Frequency
When to seek shelter from lightning						
Distant lightning	19%	5,080	18%	752	18%	442
Distant thunder	53%	14,343	58%	2,419	57%	1,388
Nearby lightning	16%	4,374	13%	526	13%	321
Loud thunder	10%	2,797	9%	393	9%	225
Starts to rain	2%	417	2%	72	2%	38
Number of Respondents	27,	,011	4,	162	2,414	
Age						
Under 25 years	3%	613	3%	117	4%	77
25 - 34 years	9%	2,107	12%	428	13%	266
35 - 44 years	12%	2,813	14%	510	14%	293
45 - 54 years	22%	2,613 5,206	24%	880	14% 25%	293 518
55 - 64 years	31%	5,206 7,335	24% 30%	1,085	25% 31%	643
65 - 74 years	18%	4,334	30% 14%	507	31% 12%	252
75 years and older	5%	4,334 1,065	3%	95	2%	45
Number of Respondents		, 473		622		094
Number of Respondents		, 1 73	3,0	JZZ	۷,	037
Gender						
Male	66%	17,568	65%	2,687	60%	1,424
Female	30%	8,053	31%	1,289	36%	852
Prefer not to answer	4%	1,054	3%	137	5%	108
Number of Respondents		,675		113		384
•	•		,		·	
Race						
White, Caucasian	85%	22,733	86%	3,538	85%	2,024
Black, African American	0%	115	1%	28	1%	20
Hispanic, Latino, or Spanish	1%	328	2%	62	1%	35
Pacific Islander	0%	28	0%	7	0%	6
Asian	1%	138	1%	35	0%	10
American Indian/Native Indian or Alaska Native	1%	213	1%	28	1%	19
Other	2%	606	2%	93	2%	50
Prefer not to answer	9%	2,518	8%	319	9%	215
Number of Respondents	26,	,679	4,	110	2,	379
School completed						
12th grade or less (no diploma)	2%	449	2%	69	2%	49
High school diploma or GED	7%	1,927	2 <i>%</i> 5%	214	2 <i>%</i> 7%	171
Some college, no degree	19%	5,020	18%	751	19%	459
Associate or technical degree	12%	3,323	14%	576	13%	317
Bachelor's degree	28%	7,456	30%	1,232	29%	687
Graduate degree/Professional degree	28%	7,456 7,448	27%	1,128	29% 25%	588
Prefer not to answer	4%	7,446 1,151	4%	1,126	25% 5%	119
Number of Respondents		774		139		390
number of itespondents	26,	114	4,	100	۷,	330

	2013					
	Centers for Disease Control Commercial weather vendor		Other			
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Region		, requestey		,		
Central Region	28%	407	33%	5,390	29%	900
Eastern Region	25%	359	24%	3,905	21%	653
Southern Region	22%	312	22%	3,588	25%	757
Western Region	24%	343	20%	3,306	24%	724
Alaska Region	0%	6	0%	42	0%	14
Pacific Region	0%	4	0%	39	1%	18
Number of Respondents		131		270		066
<u> </u>				•	·	
Type of Aviation						
Dispatcher	7%	6	4%	31	4%	7
Comm Aircraft	17%	14	21%	182	21%	34
Private Aircraft	72%	58	72%	635	73%	118
Air Traffic Controller	4%	3	4%	33	2%	3
Number of Respondents	8	31	8	81	1	62
						1
Likelihood of taking protective action if tornado warning issued	22/		201	224	201	
Very Unlikely	2%	31	2%	321	3%	91
Somewhat Unlikely	2%	28	3%	421	3%	89
Somewhat Likely	10%	151	14%	2,264	14%	425
Very Likely	84%	1,217	80%	13,127	79%	2,427
Don't Know	1%	14	1%	195	1%	45
Number of Respondents	1,4	141	16,	328	3,	077
Reason for not taking action						
Do not believe I would be directly impacted by the tornado	24%	14	19%	143	13%	24
Need to first see or hear tornado	10%	6	14%	106	7%	12
Have never seen tornado damage in my area	20%	12	31%	227	21%	38
Do not take tornado warnings seriously	7%	4	5%	35	8%	14
Other	39%	23	31%	231	51%	92
Number of Respondents		i9		42		80
				•		
Proximity of tornado before considering warning accurate						
1 mile or less	5%	75	5%	802	6%	176
5 miles or less	32%	464	36%	5,866	33%	1,024
10 miles or less	34%	496	37%	6,063	33%	1,028
25 miles or less	25%	356	19%	3,158	21%	637
Other	3%	50	3%	439	7%	212
Number of Respondents	1,4	141	16,	328	3,	077
Number of tornado warnings issued	F0/	67	001	4.050	701	000
Too many tornado warnings	5%	67	6%	1,052	7%	203
Too few tornado warnings	5%	74	3%	523	4%	114
Just about right	72%	1,037	70%	11,452	67%	2,069
Don't know	18%	263	20%	3,301	22%	691
Number of Respondents	1,4	141	16,	328	3,	077

			20	013		
	Centers for Disease Control Commercial weather vendor		Other			
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Impact of tornado not occurring when warning issued	. 0.00	- I equelley	. 0.00110	1 requestey		- I equelley
Same actions as did previously	84%	1,205	82%	13,323	81%	2,492
Less likely to take same action	10%	138	10%	1,677	10%	313
Don't know	7%	98	8%	1,328	9%	272
Number of Respondents		441		,328		077
Heard the term Weather-Ready Nation						
Heard Weather-Ready Nation	25%	356	17%	2,710	17%	509
Have not heard Weather-Ready Nation	75%	1,085	83%	13,618	83%	2,568
Number of Respondents	1,	441	16	,328	3,	077
Have a hazardous weather safety plan						
Have a plan	81%	1,168	75%	12,189	77%	2,361
Do not have a plan	16%	237	22%	3,658	20%	615
Don't know	2%	36	3%	481	3%	101
Number of Respondents	1,	441	16,328		3,077	
Main reason you do not have a plan						
Takes too much time	5%	13	3%	120	3%	18
Too expensive	6%	14	3%	116	5%	29
Not sure what to include	43%	101	42%	1,552	34%	212
Don't think it's necessary	23%	54	32%	1,164	26%	160
Other	23%	55	19%	706	32%	196
Number of Respondents	2	237	3,	658	6	515
Plan includes hazardous weather emergency preparedness kit						
Includes kit	66%	954	47%	7,715	51%	1,562
Does not include kit	31%	447	50%	8,111	46%	1,413
Don't know	3%	40	3%	502	3%	102
Number of Respondents	1,	441	16	,328	3,	077
Main reason you do not have a kit						
Takes too much time	4%	16	4%	284	2%	35
Too expensive	12%	54	7%	533	6%	82
Not sure what to include	36%	163	39%	3,156	31%	439
Don't think it's necessary	24%	106	30%	2,463	26%	369
Other	24%	108	21%	1,675	35%	488
Number of Respondents	4	147	8,111		1,413	
NWS staff on-site at incident						
NWS staff on-site	12%	87	8%	415	9%	94
No staff on-site	56%	406	59%	3,144	54%	569
DK/NA	32%	229	33%	1,761	37%	388
Number of Respondents	7	722	5,	320	1,	051
Require specific products and have automated methods						
Require specific products with automation	13%	193	8%	1,278	8%	245
Do not require specific products with automation	87%	1,248	92%	15,050	92%	2,832
Number of Respondents	1,	441	16	,328	3,	077

	2013					
	Centers for Disease Control Commercial wea			-		
	Percent	Frequency	Percent	Frequency	Percent	Frequency
Received WEA message on cell phone				j		
Received message	28%	410	26%	4,164	25%	756
Did not receive message	66%	954	70%	11,392	70%	2,154
Don't know	5%	77	5%	772	5%	167
Number of Respondents	1.	441	16	,328	3,	077
WEA message was first notification received						
First notification	62%	254	62%	2,562	56%	424
Not first notification	31%	129	30%	1,239	34%	260
Don't know	7%	27	9%	363	10%	72
Number of Respondents	4	110	4,	164	7	⁷ 56
Understood WEA message						
Fully understood	85%	350	85%	3,553	83%	624
Somewhat understood	14%	58	14%	577	16%	124
Did not understand	0%	2	1%	34	1%	8
Number of Respondents		110		164		7 56
Amount of social media content available						
Too little	20%	108	23%	1,213	25%	247
Just about right	51%	267	46%	2,437	42%	424
Too much	2%	12	1%	67	1%	12
Don't know	27%	141	29%	1,549	32%	323
Number of Respondents		528		266		006
Safe to drive through water when no Boad Classed sign or notice harrisade						
Safe to drive through water when no Road Closed sign or police barricade True	3%	38	2%	297	2%	59
False	97%	1,403	98%	16,031	98%	3,018
Number of Respondents		441		i,328		077
Number of Respondents		 44	10	,320	J,	011
Not safe to drive when water is too deep to see road surface	050/	4.070	000/	45.746	050/	2.044
True	95%	1,376	96%	15,716	95%	2,911
False Number of Respondents	5% 1 ,	65 ,441	4% 16	612 6 ,328	5% 3 ,	166 077
Safe to drive through water slowly	F0/	70	40/	700	F0/	4.40
True	5%	72	4%	702	5%	143
False	95%	1,369	96%	15,626	95%	2,934
Number of Respondents	1.	441	16	,328	ა,	077
Safe to drive through water in a large and heavy vehicle					4.5.	
True	4%	57	3%	534	4%	123
False Number of Respondents	96%	1,384 , 441	97% 16	15,794 5, 328	96% 3 .	2,954 077
	,		10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Not safe to drive through swiftly moving water	069/	1 202	070/	15.050	069/	2.060
True	96%	1,382	97%	15,859	96%	2,960 117
False	4%	59	3%	469	4%	
Number of Respondents	1,	,441	16	,328	3,	077

	2013					
	Centers for Disease Control Commercial weather vendor		Other			
	Percent	Frequency	Percent	Frequency	Percent	Frequency
When to seek shelter from lightning						
Distant lightning	18%	261	19%	3,102	18%	564
Distant thunder	55%	798	54%	8,819	54%	1,649
Nearby lightning	14%	196	15%	2,511	15%	463
Loud thunder	11%	161	10%	1,642	11%	348
Starts to rain	2%	25	2%	254	2%	53
Number of Respondents	1,4	141	16,	328	3,0	77
Age						
Under 25 years	2%	30	2%	342	2%	65
25 - 34 years	11%	134	8%	1,200	9%	235
35 - 44 years	13%	156	12%	1,697	13%	349
45 - 54 years	25%	307	22%	3,190	24%	634
55 - 64 years	32%	398	32%	4,483	32%	867
65 - 74 years	15%	181	19%	2,661	16%	440
75 years and older	3%	37	4%	616	4%	94
Number of Respondents	1,2	243	14,	189	2,0	684
Gender						
Male	55%	781	65%	10,507	57%	1,740
Female	40%	569	31%	5,013	37%	1,132
Prefer not to answer	5%	74	4%	612	5%	167
Number of Respondents	1,4	124	16,	132	3,0	039
Race	040/	4.450	000/	40.000	000/	0.440
White, Caucasian	81%	1,153	86%	13,830	80%	2,440
Black, African American	1%	11	0%	74	0%	12
Hispanic, Latino, or Spanish	2%	27	1%	179	1%	30
Pacific Islander	0%	2	0%	17	0%	4
Asian	1%	18	1%	86	0%	9
American Indian/Native Indian or Alaska Native	1%	14	1%	125	1%	34
Other	3%	45	2%	348	4%	135
Prefer not to answer	11%	153	9%	1,479	12%	376
Number of Respondents	1,4	123	16,	138	3,0	040
School completed						
12th grade or less (no diploma)	2%	25	2%	267	2%	52
High school diploma or GED	4%	57	8%	1,233	6%	178
Some college, no degree	16%	229	19%	3,066	19%	574
Associate or technical degree	13%	184	13%	2,056	12%	357
Bachelor's degree	28%	393	28%	4,488	28%	852
Graduate degree/Professional degree	33%	464	27%	4,394	29%	876
Prefer not to answer	5%	75	4%	688	6%	169
Number of Respondents		127		192)58
number of Keapondenta	1,4	T L (10,	152	3,0	J-J-J

NWS Overall Customer Satisfaction Survey 2013

Weather Note: Section headers will not be included in online survey. Items in **BOLD AND CAPS** are programmer instructions. Response options will be randomized, except when sequential. All rated questions include will include a "Don't Know" and/or "NA" option. When a "RANDOMIZE" instruction is provided, any "Other", "Don't Know", or "None" style of responses will be forced to the bottom of the response set.

Introduction

The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) is committed to serving the needs of all of its users. The NWS is undertaking research on how satisfied users are and would appreciate your feedback. The purpose of this research, conducted in partnership with the federal government as part of the American Customer Satisfaction Index, is to help the NWS improve its services for you and others like you.

Your answers are voluntary, but your opinions are very important for this research. To assure anonymity, the survey is being administered by CFI Group, a third party research and consulting firm, via a secure server. The time required to complete this survey will depend on how certain questions are answered, but will likely take about 20 minutes. The survey has been approved by the Office of Management and Budget and is authorized under Control No. 1090-0007 which expires March 31, 2015.

Please click on the "Next" button below to begin the survey.

Information About You

Ideally, all NWS offices offer high quality basic services. However, we need to know which of our products or services are providing a best practice, and where improvement is needed. Our initial questions are intended to help us better understand your responses by allowing us to classify responses by geographic area and by type of user.

- 1. How do you use information provided by the NWS? (Select all that apply)
 - 1-1 Agriculture
 - 1-2 Aviation
 - 1-3 Amateur Radio
 - 1-4 Broadcast/Print Media
 - 1-5 Commodities Markets
 - 1-6 Consulting/Added Value Customer Forecast Services
 - 1-7 Education (e.g., formal education or training of children and adults)
 - 1-8 Health Services

1

1-9 Land Management Decisions (e.g., fire weather)



- 1-10 Marine (e.g., commercial transport, commercial fishing, harbor management, search and rescue)
- 1-11 NWS Data Provider (e.g., storm spotter, co-op observer)
- 1-12 Personal
- 1-13 Recreation (e.g., boating, flying, fishing and hunting, beachgoer, etc.)
- 1-14 Research (applied and basic)
- 1-15 Weather Enthusiast
- 1-16 Work-related decisions (e.g., emergency response, community service program)
- 1-17 Other (please specify) (**CAPTURE**)
- 2. Please enter your zip code (CAPTURE)
- 3. (**ONLY IF Q1=2**) For what type of Aviation do you use NWS information?
 - a. Dispatcher
 - b. Commercial Aircraft
 - c. Private Aircraft
 - d. Air Traffic Controller
- 4. How do you get weather, water, and climate information? (Select all that apply)

Web Services

- a. NWS Web
- b. Non-NWS Web
- c. Mobile devices (e.g., Cell Phone, PDA/Tablet PC, Smart Phone)
- d. Social Media (e.g., Facebook, Twitter)
- e. Email

Phone (no Internet service)

- f. Landline Telephone
- g. Cell Phone

Media:

- h. Local or cable TV
- i. Commercial Radio
- j. Satellite radio
- k. Satellite TV
- 1. Newspaper

NOAA Dissemination Services:

- m. NOAA Weather Radio/All Hazards
- n. NOAA Weather Wire
- o. Family of Services (FOS)
- p. Emergency Managers Weather Information Network (EMWIN)
- q. NOAAPort



Aviation Weather Services: (ONLY DISPLAY IF Q1=2)

- r. World Area Forecast System (WAFS)
- s. Direct User Access Terminal Service (DUATS)
- t. Flight Services

Marine Broadcasts: (ONLY DISPLAY IF Q1=10)

- u. U.S. Coast Guard Broadcasts (HF/MF/VHF/NBDP)
- v. NAVTEX receiver
- w. Immarsat-C SafetyNET
- x. Radiofacsimile
- y. Other (please specify) (**CAPTURE**)
- 5. What types of NOAA/NWS products do you use most often? (Select all that apply) (RANDOMIZE)
 - a. Forecasts, outlooks, watches, warnings, alerts
 - b. Weather observations (e.g., temperature/snowfall/rain amount/winds, etc.)
 - c. Climate obervations (i.e., past weather)
 - d. Satellite data (e.g., clouds)
 - e. Radar data (e.g., thunderstorms)
 - f. Computer weather model output
 - g. Weather outreach/educational materials
 - h. Other (please specify) (CAPTURE)
- 6. Now, please rate the degree to which you anticipate using each of the following sources or devices in the <u>next year</u> to obtain NWS information. Use a scale from 1 to 10, where 1 means you will use it "Very Infrequently" and 10 means you will use it "Very Frequently." (**RANDOMIZE**)
 - a. Desktop/laptop computer
 - b. Mobile Device (e.g., PDA/Tablet PC, Cell Phone/Smart Phone)
 - c. Social Media (e.g., Facebook, Twitter)
 - d. Direct Interaction with NWS Staff (e.g., in-person, telephone, NWSChat)
 - e. NOAA Weather Radio All-Hazards
 - f. File transfer services (e.g., map services, RSS feeds, FTP)



Hazardous Services

The NWS issues hazardous, weather-related watches, warnings, and advisories for the protection of life and property. Referring specifically to information provided by the NWS, on a 10-point scale, where 1 means "Poor" and 10 means "Excellent", please rate each of the products below on the following.

(RANDOMIZE)

,	Ease of Understanding	Timeliness	Accuracy
	(I know what action to take based on the hazard warned)	(I have enough time to take action)	(The hazard occurs as predicted)
7. Tornado Warnings			
8. Severe Thunderstorm Warnings			
9. Severe Thunderstorm Watches			
10. Flash Flood Warnings			
11. Tsunami Warnings			
12. Hurricane Warnings			
13. Winter Storm			
Warnings			
14. River Flood Warnings			
15. Excessive Heat Warnings			
16. Extreme Cold			
Warnings			
17. High Surf Warnings			
18. Coastal Flood			
Warnings			
19. Climate Hazards Programmer note: hyperlinks (e.g., U.S. Hazards Outlook; U.S. Drought Outlook; Global			
Tropics)			

08/02/13

- 20. The NWS uses a variety of words to indicate the threat of severe weather and other hazards. Using a 1 to 10 scale, where 1 means "Not at all Severe" and 10 is "Extremely Severe," what level of severity is best conveyed by each of the following words? (RANDOMIZE)
 - a. Marginal
 - b. Slight
 - c. Critical
 - d. Enhanced
 - e. Elevated
 - f. Moderate
 - g. High
- 21. How likely would you be to stop what you are doing and take some form of protective action if you learn that the National Weather Service issued a tornado warning that included your location?
 - a. Very Unlikely
 - b. Somewhat Unlikely
 - c. Somewhat Likely (SKIP TO Q23)
 - d. Very likely (SKIP TO Q23)
 - e. Don't Know (SKIP TO Q23)
- 22. You have indicated that you are either Somewhat Unlikely or Very Unlikely to stop what you are doing and take some form of protective action after receiving a tornado warning. From the list below, please select the statement that best represents the reason you would not take action. (RANDOMIZE)
 - a. I do not believe I would be directly impacted by the tornado
 - b. I need to first see or hear the tornado
 - c. I have never seen tornado damage in my area
 - d. I do not take tornado warnings seriously
 - e. Other (please specify) (**CAPTURE**)
- 23. How close to your location would a tornado need to occur for you to consider the warning accurate? (*To help you determine a selection below, please think about a landmark for which you know the distance from your location*).
 - a. 1 mile or less
 - b. 5 miles or less
 - c. 10 miles or less
 - d. 25 miles or less
 - e. Other (please specify) (CAPTURE)



- 24. What is your perception about the number of tornado warnings issued for your location?
 - a. I believe too many tornado warnings are issued
 - b. I believe too few tornado warnings are issued
 - c. I believe just about the right amount of tornado warnings are issued
 - d. I don't know
- 25. If a tornado warning is issued for your location and a tornado does not occur, how will this impact your actions the next time a warning is issued?
 - a. I will take the same actions I did with the previous warnings
 - b. I will be less likely to take the same actions
 - c. I don't know

Weather Ready Nation and Decision Support Services



Weather-Ready Nation is a new initiative by the National Weather Service. It is designed to build community resilience in the face of increasing vulnerability to extreme weather events such as hurricanes, tornadoes, flooding, and droughts. The aim of Weather-Ready Nation is to

ensure you are prepared for extreme weather and can rapidly respond and recover from weather-related disasters.

- 26. Have you heard of the term "Weather-Ready Nation" prior to this survey?
 - a. Yes
 - b. No
- 27. Do you have a safety plan for coping with hazardous weather?
 - a. Yes
 - b. No
 - (IF Q27=a) Please select the top three reasons that influenced you to create a plan.
 - a. Friends and family
 - b. General desire to be prepared
 - c. An extreme weather event
 - d. Be a Force of Nature campaign



- e. Weather-Ready Nation initiative
- f. Other (please specify) (**CAPTURE**)



- (IF Q27=b) What would you say is the main reason you do not have a plan?
 - a. Takes too much time
 - b. Too expensive
 - c. Not sure what to include
 - d. Don't think it's necessary
 - e. Other (please specify) (CAPTURE)
- 28. Does your safety plan include a hazardous weather emergency preparedness kit?
 - a. Yes
 - b. No
 - (IF Q28=a) Please select the <u>top three</u> reasons that influenced you to create a kit.
 - a. Friends and family
 - b. General desire to be prepared
 - c. An extreme weather event
 - d. "Be a Force of Nature" campaign



- e. "Weather-Ready Nation" initiative
- f. Other (please specify) (**CAPTURE**)
- (IF Q28=b) What would you say is the main reason you do not have a kit?
 - a. Takes too much time
 - b. Too expensive
 - c. Not sure what to include
 - d. Don't think it's necessary
 - e. Other (please specify) (CAPTURE)
- 29. **(IF Q28=a)** A basic hazardous weather emergency preparedness kit would include such items as a flashlight, battery powered radio, food and water, toiletries, and batteries. **In addition to these basic items**, please list any **unique items** in your kit that you believe other people could benefit from having in their emergency kits. This question is being asked in support of national and regional emergency managers who work closely with the NWS during weather-related emergencies. **(CAPTURE)**
- (IF Q1= 7, 8, 9, 10 or 16 ANSWER Q30-Q38) NWS is working to empower emergency managers, first responders, government officials, businesses, and the public to make faster, smarter decisions to save lives and protect livelihoods.



30. Using a 1 to 10 scale, where 1 means Very Low Reliance and 10 means Very High Reliance, to what extent do you rely on the NWS in making weather-sensitive decisions?

As a part of the effort to provide critical decision support, the NWS staff occasionally serves onsite with our partners during hazardous weather events.

- 31. Has NWS staff ever served on-site at an incident providing decision support to your organization?
 - a. Yes, please list the incident type. (CAPTURE)
 - b. No

Please rate your interaction with the NWS for decision support on each of the following using a 1 to 10 scale, where 1 means Poor and 10 means Excellent:

- 32. Accessibility. **If the score is less than 7,** please explain. (**CAPTURE**)
- 33. Responsiveness. If the score is less than 7, please explain. (CAPTURE)
- 34. Subject-Matter Knowledge. **If the score is less than 7,** please explain. **(CAPTURE)**
- 35. Professionalism. **If the score is less than 7,** please explain. (**CAPTURE**)
- Assisting in the interpretation of weather-related information to help you make a decision. **If the score is less than 7**, please explain. (**CAPTURE**)
- 37. Saving your organization money. **If the score is less than 7**, please explain. **(CAPTURE)**
- 38. Resolving a complaint. If the score is less than 7, please explain. (CAPTURE)

Dissemination Services

The NWS strives to use the latest technologies and services available to provide climate, water, and weather information in gridded, graphical, image, and text form to its users.

Referring specifically to NWS information on the Web, using a 1 to 10 scale, where 1 means Poor and 10 means Excellent, please rate the NWS **Weather.Gov** website on the following:

- 39. Ease of accessing/finding information
- 40. Ease of understanding information
- 41. Information is up-to-date
- 42. Satellite Imagery display
- 43. Doppler Radar display
- 44. Do you identify yourself as one who generally requires specific products for commercial or research purposes and has automated methods (e.g., NOMADS, FTPPRD, NOAAport, RSS feeds, Family of Services, EMWIN) for ingesting data?



- a. Yes
- b. No (**SKIP TO Q46**)
- 45. Again, using a 1 to 10 scale, where 1 means Poor and 10 means Excellent, please rate your satisfaction with the following:
 - a. The ease of locating data on NWS dissemination servers
 - b. The ease of requesting that additional data be added to NWS dissemination streams or servers
 - c. The ease of providing input into the decision making process for the development of new NWS products.
 - d. NOAA automated methods of dissemination (e.g., NOMADS, FTPPRD, NOAAPort, RSS Feeds, Family of Services, EMWIN)
- 46. Please provide any suggestions on how the NWS can further improve its automated dissemination methods. (**CAPTURE**)

Wireless Emergency Alerts (WEA) is a 24 hour, 7 days a week national emergency alert system. WEA has been designed to send concise, text-like messages to notify users with WEA-capable mobile devices about life-threatening hazards.

- 47. Have you ever received a WEA message on your cell phone for a weather-related event?
 - a. Yes
 - b. No (**SKIP TO Q52**)
 - c. Don't Know (SKIP TO Q52)
- 48. Was the WEA message the <u>first</u> notification you received about the weather-related event?
 - a. Yes
 - b. No
 - c. Don't Know

- 49. Did you understand the WEA message?
 - a. Yes, fully
 - b. Yes, somewhat
 - c. No (**If NO, ASK:** "Please briefly state what you found confusing about the WEA message") (**CAPTURE**)
- 50. Using a 1 to 10 scale, where 1 is Not at all Useful and 10 is Very Useful, how useful was the WEA message in alerting you to a nearby, life-threatening hazard?
- 51. Considering how WEA could be improved in the future, from the list below, please select what you believe would be the **most beneficial** enhancements. (Select all that apply).
 - a. More text containing the details of the warning
 - b. An accompanying graphic that shows the warning area
 - c. An accompanying graphic that shows your location with respect to the warning area
 - d. A different background color depending on the urgency of the warning (e.g., yellow background for urgent and red for most urgent)
 - e. A different background color depending on the type of warning (e.g., red for tornado and blue for flash flood)
 - f. Distinct sound depending on the urgency of the warning (e.g., loud attention getting tones for the most urgent warnings and milder tones for less urgent warnings)
 - g. Distinct sound depending on the type of the warning (e.g., tornado has one sound and a flash flood warning has a different sound)
- 52. When a weather event is affecting your community, how do you use Facebook and Twitter? (Select all that apply)
 - a. I don't use Facebook or Twitter during weather events (SKIP TO Q56)
 - b. I read what others are posting/tweeting
 - c. I share or comment on what others are posting/tweeting
 - d. I write my own posts or tweets
- 53. (ASK if Q52=b,c,and/or d) Using a 1 to 10 scale, where 1 means Not at all Useful and 10 means Very Useful, please rate the usefulness of the NWS presence on the following social media platforms.
 - a. Facebook
 - b. Twitter
 - c. YouTube



- 54. (ASK if Q52=b,c,and/or d) Thinking about a hazardous weather day, please select the choice that best describes the amount of social media content available from the NWS.
 - a. Too little
 - b. Just about the right amount
 - c. Too much
 - d. Don't know
- 55. (ASK if Q52=b,c,and/or d) Using a 1 to 10 scale, where 1 means Not at All Useful and 10 means Very Useful, please rate the usefulness of NWS graphical weather briefing summaries on social media.



Outreach and Weather Education

The NWS has adopted a number of slogans for our safety campaigns. Using a 1 to 10 scale, where 1 means Not at all Effective and 10 means Very Effective, in your personal experience, please rate the effectiveness of the following NWS campaigns.

56. "Turn Around Don't Drown®"

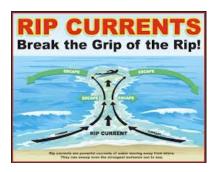




57. "When Thunder Roars, Go Indoors!"



58. "RIP CURRENTS - Break the Grip of the Rip!"



- 59. Of the following weather safety awareness campaigns, which have you promoted in your community? (Select all that apply) (**IF Q1= 7, 8, 9, 10, or 16**)
 - a. Heat Safety
 - b. Flood Safety
 - c. Lightning Safety
 - d. Severe Weather Safety (e.g., tornadoes, damaging winds)
 - e. Rip Currents Safety
 - f. Hurricane Safety
 - g. Tsunami Safety
 - h. Winter Weather Safety
 - i. Wildfire Safety
 - i. None of the above

- 60. When looking for weather safety information, please select websites you would go to: (Select all that apply) (**RANDOMIZE**)
 - a. National Weather Service (e.g., weather.gov)
 - b. FEMA (e.g., fema.gov; ready.gov)
 - c. American Red Cross (i.e., redcross.org)
 - d. Centers for Disease Control and Prevention (i.e., cdc.gov)
 - e. Commercial weather vendor (e.g., Accu-Weather, Weather Channel, Weather Underground)
 - f. Other (please specify) (CAPTURE)

We would like to check your understanding of two of our primary safety campaigns in the next two questions (Questions 61 and 62).

- 61. If you encounter water covering a roadway when driving...(Please select True or False for each of the following statements: (**RANDOMIZE**)
 - It is safe to drive through the water as long as there is no "Road Closed" sign or police barricade.
 - a. True
 - b. False
 - It is not safe to drive through an area where the water is too deep to see the road surface below.
 - a. True
 - b. False
 - It is safe to drive through water as long as you proceed slowly.
 - a.True
 - b. False
 - It is safe to drive through the water if you are in a large and heavy vehicle such as a truck or SUV.
 - a.True
 - b. False
 - It is not safe to drive through swiftly moving water.
 - a.True
 - b. False
- 62. To protect yourself from lightning, when should you get inside a safe shelter? (Please select the best answer below): (**RANDOMIZE**)
 - a. When I first see distant lightning.
 - b. When I first hear distant thunder.
 - c. When I first see nearby lightning.
 - d. When I first hear a loud crack of thunder.
 - e. When it first starts to rain.



Customer Satisfaction Index

Now, please think about your overall satisfaction with the NWS.

- 63. First, please consider all of your experiences with the NWS. Using a 10-point scale on which 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied are you with the NWS?
- 64. Using a 10-point scale on which 1 now means Falls Short of your Expectations and 10 means Exceeds your Expectations, to what extent has the NWS fallen short of, or exceeded your expectations?
- 65. Now, imagine what an ideal organization providing weather information would be like. How well do you think the NWS compares with that ideal organization you just imagined? Please use a 10-point scale on which 1 means Not Very Close to the Ideal, and 10 means Very Close to the Ideal.

Desired Outcomes

- 66. Using a 10-point scale on which 1 means Not at all Likely and 10 means Very Likely, how likely would you be to take action based on the information you receive from the NWS?
- 67. Using a 10-point scale, on which 1 means Not at all Likely and 10 means Very Likely, how likely are you to use the NWS as a source of weather information in the future?
- 68. Using a 10-point scale on which 1 means Not at all Likely and 10 means Very Likely, how likely are you to recommend the NWS to a colleague or friend?
- 69. How can the NWS improve its products and services, today or in the future, to better meet your needs? (CAPTURE)

Demographics (not required)

- 70. What is your age? (**CAPTURE**)
 - Prefer not to answer
- 71. What is your gender?
 - a. Male
 - b. Female
 - c. Prefer not to answer



- 72. What is your race or origin?
 - a. White, Caucasian
 - b. Black, African American
 - c. Hispanic, Latino, or Spanish
 - d. Pacific Islander
 - e. Asian
 - f. American Indian/Native Indian or Alaska Native
 - g. Other (please specify) (**CAPTURE**)
 - h. Prefer not to answer
- 73. What is the highest degree or level of school you have completed?
 - a. 12th grade or less (no diploma)
 - b. High school diploma or GED
 - c. Some college, no degree
 - d. Associate or technical degree
 - e. Bachelor's degree
 - f. Graduate degree/Professional degree
 - g. Prefer not to answer

Optional Sections

- 74. This is the end of part one of the survey. To allow the NWS to expand and improve services we would greatly appreciate additional feedback from you on the topics identified below. If you wish to continue, please select the area(s) you are more interested in:
 - a. National Fire Weather Program
 - b. National Hurricane Center Program
 - c. National Hydrologic Services Program
 - d. National Climate Services Program
 - e. I do not wish to continue



(ASK if Q74=a) National Fire Weather Program

The National Weather Service (NWS) National Fire Weather Program is strongly committed to serving the needs of its customers. To help in determining how to continually improve services, the NWS is undertaking research on how satisfied users are with the fire weather products and services provided, and would appreciate your feedback. The purpose of this research, conducted in partnership with the federal government as part of the American Customer Satisfaction Index, is to help the NWS improve its fire weather products and services for you.

Please click on the "Next" button below to begin.

Dissemination

- 1. What source do you use for wildland fire weather information? (Please select all that apply):
 - a. National Weather Service
 - b. National Interagency Fire Center (NIFC)
 - c. Federal Land Management Agency (e.g., BLM, USFS)
 - d. State Land Management Agency
 - e. Local Land Management Authority
 - f. Commercial/private provider
 - g. I don't know
 - h. Other (please fill in the blank)
- 2. Which of the following methods do you use to receive or further disseminate your fire weather products? (Please select all that apply):
 - a. Internet Subscriber Service (e.g., iNWS)
 - b. Web Site (e.g., NWS webpages, Facebook, Twitter)
 - c. Voice over Internet Protocol
 - d. Satellite
 - e. IP Addressing (Signals to specific PC)
 - f. Cable television
 - g. Broadcast television
 - h. Satellite television
 - i. Home/Work Phone
 - i. Dedicated Phone line
 - k. Cell Phone or Smart Phone
 - 1. Pager
 - m. AM/FM radio
 - n. Dedicated Short Range Radio Communications (HAM radio)
 - o. Satellite (e.g. XM, Sirius)
 - p. NOAA Weather Radio

*If the participant DID NOT select "a" in Question 1 AND "b" in Question 2, skip to question 4.



- 3a. (**IF Q1=a AND Q2=b ASK**) On a scale of 1 to 10 (1 being not easy, 10 being very easy), what is your experience in accessing the fire weather information you desire on National Weather Service web pages?
- 3b. (**IF Q1=a AND Q2=b ASK**) Please comment on what products you would like to see added to the National Weather Service fire weather web pages.
- 4a. Which of the following formats do you currently access fire weather forecast information? (Please select all that apply):
 - a. Text
 - b. Graphical (displayed on web)
 - c. Tabular
 - d. Raw graphical (e.g., shapefile, kml/kmz)
 - e. Audio (e.g., radio, NOAA Weather Radio)
 - f. Video (e.g., television)
 - g. Raw text (e.g., GRIB2)
- 4b. Please comment if there is a format that you would like to receive fire weather forecast information that is not available today. (**Capture**)

Fire Weather Hazard Warning Program

- 5a) Do you know the meaning of a National Weather Service Red Flag Warning?
 - a. Yes
 - b. No (skip to question Q6a)
 - c. Unsure
- 5b) (**IF Q5a=a or c ASK**) Which statement most closely describes your understanding of a Red Flag Warning (RFW)?

A Red Flag Warning means:

- a. Wildfires are occurring in the warning area.
- b. Wildfires are possible in the warning area within the next 24 hours.
- c. Fire weather conditions that will contribute to extreme fire behavior are impending or occurring.
- d. Fire weather conditions that will contribute to extreme fire behavior are expected to occur in the next 24 hours.



- 6a) Do you know the meaning of a National Weather Service Fire Weather Watch?
 - a. Yes
 - b. No (skip to Q7)
 - c. Not Sure
- 6b) (**IF Q6a=a or c ASK**) Which statement most closely describes your understanding of a Fire Weather Watch (FWW)?
 - a. A Fire Weather Watch means that a Red Flag Warning will be issued in the next 24 to 72 hours
 - b. A Fire Weather Watch means that red flag conditions are possible in the next 24 to 72 hours.
 - c. A Fire Weather Watch means that red flag conditions are imminent or occurring.
 - d. A Fire Weather Watch means that wildfires are expected to occur in the watch area in the next 24 to 72 hours.
- 7) In the past 12 months, how often have you consulted or sought out the NWS Fire Weather hazard products (i.e., RFWs, FWWs) to get information on heightened fire activity or potential?
 - a. Never (skip question Q8)
 - b. Less than 5 times
 - c. 6 to 10 times
 - d. 10 or more times
- 8) (**IF Q7=b,c, or d**)Which of the following statements best explains how you use NWS fire weather hazard products (i.e., RFWs, FWWs)?
 - a. To take actions to protect my property.
 - b. To take land management or community protection actions.
 - c. To raise my awareness and keep informed on the fire weather situation, but will wait for another source of information to take action (e.g. visual confirmation, evacuation order).
 - d. Other (Capture)



08/02/13

(ASK if Q74=b) National Hurricane Center Program

The National Weather Service (NWS) National Hurricane Center (NHC) program is strongly committed to serving the needs of its customers. To help in determining how to continually improve services, the NWS is undertaking research on how satisfied users are with the NHC products and services provided, and would appreciate your feedback. The purpose of this research, conducted in partnership with the federal government as part of the American Customer Satisfaction Index, is to help the NWS improve its tropical cyclone products and services for you.

Please click on the "Next" button below to begin the survey.

- 1. On a scale from 1 to 10, how would you describe your experience navigating the NHC website (www.nhc.noaa.gov), with 1 being very difficult to navigate and 10 being very easy to navigate?
- Please indicate how frequently you use the following platforms to receive or look for information on tropical cyclones (Programmer Note: 4 options, Don't Know/Not Applicable)

Platform	Very Frequently	Frequently	Occasionally	Never
NHC Website				
NHC Facebook page				
NHC Twitter accounts				
Hurrevac				
Free commercial service				
Paid commercial service				
Other government websites or services				



If you get or look for NHC forecast information in some other place, please describe:

3. On a scale from 1 to 10, please indicate the usefulness (i.e., most often used, most important to your operations) of the following NHC tropical cyclone **text** products when you need information on an active tropical cyclone, where 1 is not at all useful and 10 is very useful. Descriptions and examples of the products can be found here: http://www.nhc.noaa.gov/aboutnhcprod.shtml (**Programmer Note: Scale 1-10, DK/NA**)

NHC Text Product	Rating
Tropical Cyclone Public Advisory (TCP)	
Tropical Cyclone Forecast/Advisory (TCM)	
Tropical Cyclone Forecast Discussion (TCD)	
Tropical Cyclone Wind Speed Probabilities (PWS)	
Tropical Cyclone Update (TCU)	
Tropical Cyclone Valid Event Time Code (TCV)	
Tropical Cyclone Aviation Advisory (TCA)	

4. On a scale from 1 to 10, please indicate the usefulness (i.e., most often used, most important to your operations) of the following NHC tropical cyclone graphical products when you need information on an active tropical cyclone, where 1 is not at all useful and 10 is very useful. Descriptions and examples of the products can be found here: http://www.nhc.noaa.gov/aboutnhcgraphics.shtml? (Programmer Note: Scale 1-10, DK/NA)

NHC Graphical Product	Rating
Tropical Cyclone Track/Forecast Cone	
Tropical Cyclone Surface Wind Field/ Coastal Watches and Warnings	
Maximum 1-Minute Wind Speed Probability	
Tropical Cyclone Wind Speed Probabilities	
Tropical Cyclone Cumulative Wind History	
Tropical Cyclone Storm Surge Probabilities (version in which a user selects a height from 2-25 ft.)	
Tropical Cyclone Storm Surge Probabilities (version in which a user selects an exceedance probability)	



5. NHC is considering the development of additional tropical cyclone-related forecast products over the next several years. On a scale from 1 to 10, please indicate how useful (i.e., most often used, most important to your operations) you think the following potential products would be to you, where 1 is not at all useful and 10 is very useful. (**Programmer Note:** Scale 1-10, DK/NA)

NHC Potential Products	Rating
Forecasts for systems that have not yet become tropical cyclones, but have a high chance of becoming one	
Coastal watches and warnings before a tropical cyclone forms	
6- and 7-day tropical cyclone track and intensity forecasts	
Graphic showing a map of areas at risk for strong winds	
Graphic showing the potential arrival time of winds of tropical storm force	
Landfall intensity probabilities (the chance that a tropical cyclone is a certain intensity at landfall)	

- 6. Several years ago, NHC updated the organization and layout of the Tropical Cyclone Public Advisory (TCP) to include more information on changes in watches and warnings and specific hazard information. Examples of the TCP can be found here: http://www.nhc.noaa.gov/help/tcp.shtml?
 - a. On a scale from 1 to 10, how would you rate your overall satisfaction with the *content* of the new version of the TCP, with 1 being very dissatisfied and 10 being very satisfied?
 - b. On a scale from 1 to 10, how would you rate your overall satisfaction with the *organization and layout* of the new version of the TCP, with 1 being very dissatisfied and 10 being very satisfied?
 - c. On a scale from 1 to 10, how would you rate your overall satisfaction with the *length* of the new version of the TCP, with 1 being very dissatisfied and 10 being very satisfied?

7. On a scale from 1 to 10, please indicate how useful (i.e., most often used, most important to your operations) the following NHC/Tropical Analysis and Forecast Branch (TAFB) marine and non-tropical cyclone **text** products are to you when you need information on marine and other non-tropical cyclone tropical forecasts, where 1 is not at all useful and 10 is very useful. Descriptions of TAFB marine products can be found here: http://www.nhc.noaa.gov/abouttafbprod.shtml#MIM (**Programmer Note: Scale 1-10, DK/NA**)

NHC/TAFB Text Product	Rating
Atlantic High Seas forecast	
(MIAHSFAT2/FZNT02 KNHC)	
East Pacific High Seas forecast	
(MIAHSFEP2/FZPN03 KNHC)	
Southeast Pacific High Seas forecast	
(MIAHSFEP3/FZPN04 KNHC)	
Offshore Waters forecasts for the Caribbean and	
southwest North Atlantic	
(MIAOFFNT3/FZNT23 KNHC)	
Offshore Waters for the Gulf of Mexico	
(MIAOFFNT4/FZNT24 KNHC)	
NAVTEX Marine forecasts from MiamiSan Juan and	
New Orleans	
(MIAOFFN04OFFN05 and OFFN06	
FZNT25FZNT26 and FZNT27 KNHC)	
High Frequency (HF) Voice Broadcasts (VOBRA)	
(MIAOFFN20 and MIAOFFN21	
FZNT31 KNHC and FZNT32 KNHC)	
Marine Weather Discussion	
(MIAMIMATS/AGXX40 KNHC)	
Atlantic Tropical Weather Discussion	
(MIATWDAT/AXNT20 KNHC)	
East Pacific Tropical Weather Discussion	
(MIATWDEP/AXPZ20 KNHC)	
Satellite Tropical Disturbance Rainfall	
(MIASTDECASTDCCA and STDWCA	
TCCA21TCCA22 and TCCA23 KNHC)	
Pan-Am Temperature and Precipitation Table	
(MIATPTPAN/SXCA01 KNHC)	

8. On a scale from 1 to 10, please indicate how useful (i.e., most often used, most important to your operations) the following NHC/TAFB marine **graphical** products are to you when you need information on marine forecasts, where 1 is not at all useful and 10 is very useful. Descriptions of TAFB graphical products can be found here: http://www.nhc.noaa.gov/abouttafbprod.shtml#MIM (**Programmer Note: Scale 1-10, DK/NA**)

NHC Graphical Product	Rating
Unified Surface Analysis (USA)	
2448 and 72-hour Wind/Wave forecasts	
2448 and 72-hour Surface forecasts	
Tropical Cyclone Danger Area (May 15 - Nov 30)	
48-hour High Wind (Dec 1 – May 14)	

9. NHC/TAFB is providing experimental and/or considering the development of additional marine and enhanced decision support services (EDSS) forecast products over the next several years. Please rank the usefulness (i.e., most often used, most important to your operations) of the following experimental or potential products, where 1 is not at all useful and 10 is very useful. (**Programmer Note: Scale 1-10, DK/NA**)

NHC/TAFB Experimental and Potential Products	Rating
EDSS Graphicast (Experimental)	
Satellite Derived QPE/QPF page (Experimental)	
Wind Speed Probabilities-based Tropical Cyclone Danger Graphic (Experimental)	
Gridded Marine Forecasts on the National Digital Forecast Database (NDFD) – (Experimental) http://preview.weather.gov/graphical/	
Spot EDSS Marine Forecasts for the Atlantic and East Pacific	
96120 and 144-hour marine forecast graphics (Wind/wave and surface forecast)	
Marine Forecast Matrices	
5-Day High Seas Forecasts	
Graphical/polygonal depiction of High Seas warnings	
Offshore Waters Forecasts for the Northeast Pacific	

- 10. Are you familiar with the experimental graphical gridded marine forecasts available for the Tropical Atlantic and Tropical Pacific on the NWS website http://preview.weather.gov/graphical/?
 - a. Yes
 - b. No
 - (IF Q10=a ASK) Do you have suggestions for additional marine forecast parameters or enhancements to the current display?
- 11. Do you use the Marine Weather Discussion (MIAMIMATS (MIM)/AGXX40 KMIA) product issued by NHC/TAFB? An example of the Marine Weather Discussion can be found here: http://www.nhc.noaa.gov/text/MIAMIMATS.shtml
 - c. Yes
 - d. No
 - (**IF Q11=a ASK**) What included information do you find to be helpful? What included information do you find to be of little use? How can the product be modified to be more responsive to your operations?
- 12. On a scale from 1 to 10, how would you describe your level of satisfaction with NHC's Tropical Weather Discussions for the Atlantic and Pacific Oceans, with 1 being very dissatisfied and 10 being very satisfied? Note: this is a separate product from the Tropical Weather Outlooks. Examples of the Tropical Weather Discussions can be found here: http://www.nhc.noaa.gov/text/MIATWDAT.shtml and http://www.nhc.noaa.gov/text/MIATWDEP.shtml.
- 13. Do you have suggestions for additional content or enhancements to the current Tropical Weather Discussions for the Atlantic and Pacific Oceans? (**CAPTURE**)



(ASK if Q74=c) National Hydrologic Services Program

Introduction

The National Weather Service (NWS) Hydrologic Services Program is committed to serving the needs of all of its stakeholders. The NWS is undertaking research on how satisfied users are with the hydrologic products and services provided, and would appreciate your feedback. The purpose of this research, conducted in partnership with the federal government as part of the American Customer Satisfaction Index, is to help the NWS improve its hydrologic products and services for you and others like you.

Please click on the "Next" button below to begin.

Flood Information

A **flash flood** is a rapid and extreme flow of high water into a normally dry area, or a rapid water level rise in a stream or creek above a predetermined flood level, generally beginning within six hours of the causative event (e.g., intense rainfall, dam failure, ice jam). A **flood** is any high flow, overflow, or inundation by water which causes or threatens damage.

- 1) What do you do when flood or flash flood warnings are issued for your area? (Select all that apply)
 - a. Evacuate
 - b. Move personal property to prevent flood damage
 - c. Choose not to travel
 - d. Choose to travel but use an alternative route
 - e. Move to higher ground
 - f. Seek additional information before taking any action
 - g. Wait until flooding occurs before taking any action
 - h. Take no action; Previous experiences lead me to believe that my location will not be in danger
 - i. Take no action; I do not trust the accuracy of flood or flash flood warnings
- 2) What is the ideal amount of time you need to respond to **flash floods**? (**Programmer Note:** capture number of hours to one decimal place)
- 3) What is the ideal amount of time you need to respond to **floods**? (**Programmer Note:** capture number of days to one decimal place)
- 4) Assume a flash flood warning is issued for your area, but the flash flood does not affect your immediate location. How close to your immediate location must the flash flood occur for you to consider the warning accurate? (capture number of miles to one decimal place)
- 5) Assume 10 flash flood warnings were issued for your area over the last year. How many flash floods need to have affected your area over the last year for you to consider the flash flood warnings accurate enough for you to take action?



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- b. 1
- c. 2
- d. 3
- e. 4
- f. 5
- g. 6
- h. 7
- i. 8
- j. 9
- k. 10
- 1. I will not take any action regardless of the number of flash flood warnings issued for my area.
- 6) Assume 10 flash flood warnings were issued for your area over the last year. How many flash floods can miss (not impact) your area before you no longer consider flash flood warnings accurate enough for you to take action?
 - a. 0 or none
 - b. 1
 - c. 2
 - d. 3
 - e. 4
 - f. 5
 - g. 6
 - h. 7
 - i. 8
 - j. 9
 - k. 10
 - 1. I will not take any action regardless of the number of flash flood warnings issued for my area.

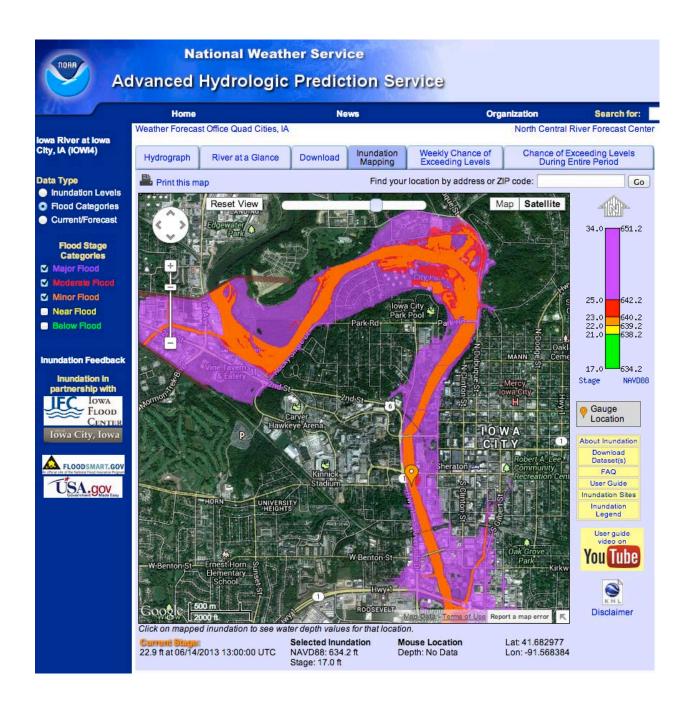


- 7) Based on actual flash flood occurrences in your vicinity, what is your opinion about the number of flash flood warnings issued for those events?
 - a. Too many flash flood warnings issued
 - b. Too few flash flood warnings issued
 - c. Just about the right number of flash flood warnings issued
 - d. The number of warnings issued is not a concern to me
 - e. Not aware of any flash flood warnings being issued in my vicinity

Flood Inundation Mapping

8) The NWS provides flood inundation mapping libraries for several incremental stages ranging from minor through major flood stages at limited locations across the United States. The development of these flood inundation mapping libraries for incremental stages is a resource intensive process, and the NWS is evaluating a more cost effective approach of producing flood inundation mapping libraries just for major, moderate, and minor flood stages as shown on the map for the Iowa River at Iowa City, IA. On a 10-point scale where 1 means Not at all Useful and 10 means Very Useful, how useful are flood inundation mapping libraries just for major, moderate, and minor flood stages.

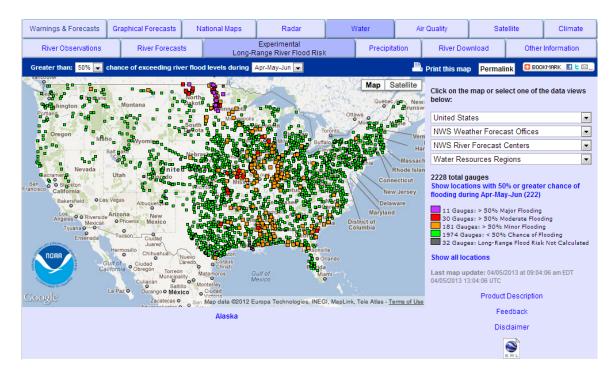






Experimental Long-Range River Flood Risk

In response to stakeholder need for a nationally consistent assessment of long-range flood risk, the NWS implemented a new "Experimental National Long-Range River Flood Risk" webpage. Flood risk information is based on NWS Ensemble Streamflow Prediction (ESP) forecasts, which are generated for thousands of river and stream locations across the nation. The Experimental Long-Range River Flood Risk map shown above depicts locations where there is a greater than 50% chance (5%, 10%, 25%, 75%, 90%, and 95% are the other user selectable options) of exceeding minor, moderate, and major flooding for the selected time period April through June in this case, with other user selectable timeframes available.



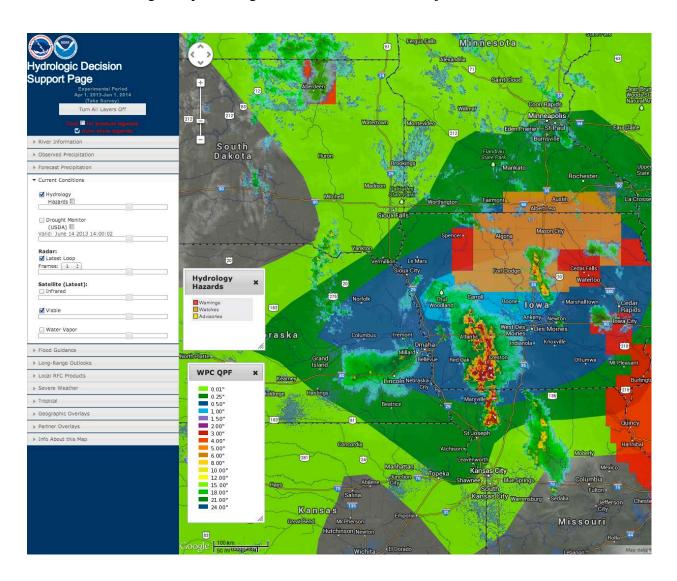
Using a 10-point scale where 1 means Poor and 10 means Excellent, please rate the map on the following:

- 9) Visual appeal
- 10) Ease of understanding
- 11) Tells me what I need to know about long-range river flood risk



Water Resources Decision Support Page

The NWS created a mapping interface that allows users to overlay and compare data from the NWS and other agencies on a Google map. The mapping interface allows users to integrate the following data layers: river information, observed precipitation, forecast precipitation, current conditions, flood guidance, long-range outlooks, local River Forecast Center (RFC) products, severe weather, tropical, geographic overlays, and partner overlays. The data layers can be turned on and off via a series of checkboxes and radio buttons embedded in a collapsible accordion style menu to the left of the mapping interface. The mapping interface above shows hydrologic hazards, 24-hour quantitative precipitation forecast (QPF), radar, and visible satellite overlaid on a Google map showing states, cities, roads, and major rivers.



Using a 10-point scale where 1 means Poor and 10 means Excellent, please rate the mapping interface capability on the following:

- 12) Visual appeal
- 13) Ease of understanding
- 14) Tells me what I need to know
- 15) Improves my ability to make decisions
- 16) Which of the following types of observations, analyses, and forecasts would you like to be able to overlay on the map? (Please select all that apply).
 - a. Current river level in relation to flood status (e.g., no flooding, near flood stage, minor flooding, moderate flooding, major flooding)
 - b. Forecasted river level in relation to flood status (e.g., no flooding, near flood stage, minor flooding, moderate flooding, major flooding)
 - c. Observed precipitation (e.g., hourly, daily, normal, % of normal)
 - d. Forecast precipitation
 - e. Hazards (e.g., watches, warnings, and advisories)
 - f. Radar
 - g. Satellite
 - h. Flash flood guidance
 - i. Climate outlooks
 - j. Flood outlooks
 - k. Severe weather outlooks
 - 1. Storm reports
 - m. National Hurricane Center products
 - n. Geographic overlays (e.g., states, counties, cities, roads, rivers, river basins, population density, etc.)
 - o. Federal agency overlays (e.g., NWS Weather Forecast Office Hydrologic Service Areas, NWS River Forecast Center areas of responsibility, FEMA Regions, hurricane evacuation routes, US Army Corps of Engineers division and district boundaries, etc.)
 - p. Snow depth
 - q. Snow water equivalent
 - r. River ice
 - s. Soil moisture
 - t. Evapotranspiration
 - u. Water quality (e.g., sedimentation, salinity, temperature, turbidity)
 - v. Runoff
 - w. Groundwater
 - x. Drought conditions



Product Simplification

(**Programmer Note: Text description**) The NWS uses a three-tiered, "Ready, Set, Go" concept to convey the severity and timing of a forecast hazard and the level of forecaster confidence. This concept is reflected in the following three hydrologic products:

- 1. The hydrologic outlook or hazardous water outlook ("Ready") used to indicate that a hazardous flooding event **may develop**.
- 2. The flood watch ("Set") used when the expectation of a flood event <u>has increased, but</u> <u>its occurrence, location, and/or timing is still uncertain</u>.
- 3. Flash flood warnings, flood warnings, and various advisories ("Go") used when an event **is occurring, imminent, or has a very high probability of occurrence**.

(**Programmer Note: Text description**) The NWS proposes the following two-tiered concept:

- 1. The hydrologic alert used to indicate that the <u>urgency, severity, or certainty of a hazardous flooding event is low</u>. A hazardous flooding event may develop or elevated river/stream flows or ponding in a geographic area are occurring.
- 2. Flood warnings used to indicate that the <u>urgency, severity, or certainty of a hazardous flood or flash flood event is high</u>. A hazardous flood or flash flood event is occurring, imminent, or has a very high probability of occurrence. These are short-term events requiring immediate action to protect life and property, such as dangerous flash flooding, small stream, urban, or river flooding and dam or levee failures.

Note that Outlook, Watch, and Advisory do not appear in the proposed product names and headlines. The NWS does retain the term Warning because of its direct connection to the protection of life and property.



17) (**Programmer Note: Add check boxes to each cell. If current is selected, propsed should be greyed out and vice versa**) In the table shown below, which of the product names and headlines do you prefer?

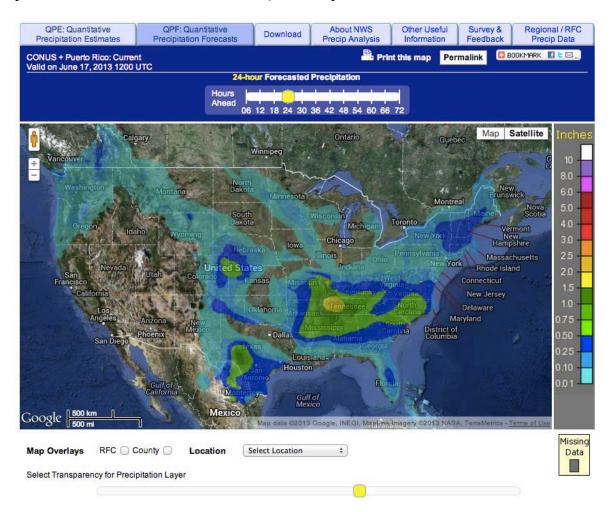
- 1. Current
- 2. Proposed
- 3. Neither

Current Product Name and	Proposed Product Name and
Headline	Headline
HAZARDOUS WEATHER	HYDROLOGIC ALERT - THE NWS
OR HYDROLOGIC	FORECASTS THE POTENTIAL
OUTLOOK – FLOODING IS	FOR FLOODING
POSSIBLE IN THE NEAR-	
TERM	
FLASH FLOOD WATCH -	HYDROLOGIC ALERT - THE NWS
THE NWS HAS ISSUED A	FORECASTS THE INCREASED
FLASH FLOOD WATCH	POTENTIAL FOR FLASH
	FLOODING
FLOOD WATCH - THE NWS	HYDROLOGIC ALERT - THE NWS
HAS ISSUED A FLOOD	FORECASTS THE INCREASED
WATCH	POTENTIAL FOR FLOODING
URBAN AND SMALL	HYDROLOGIC ALERT - THE NWS
STREAM FLOOD	ADVISES CAUTION FOR
ADVISORY - THE NWS	FLOODING ACROSS LOW LYING
HAS ISSUED AN URBAN	AND POOR DRAINAGE AREAS
AND SMALL STREAM	
FLOOD ADVISORY	
ARROYO AND SMALL	HYDROLOGIC ALERT - THE NWS
STREAM FLOOD	ADVISES CAUTION FOR
ADVISORY - THE NWS	FLOODING ACROSS ARROYOS
HAS ISSUED AN ARROYO	AND SMALL STREAMS
AND SMALL STREAM	
FLOOD ADVISORY	
SMALL STREAM FLOOD	HYDROLOGIC ALERT - THE NWS
ADVISORY - THE NWS	ADVISES CAUTION FOR
HAS ISSUED A SMALL	FLOODING ALONG SMALL
STREAM FLOOD	STREAMSCREEKSAND
ADVISORY	RIVERS
FLOOD ADVISORY FOR	HYDROLOGIC ALERT - THE NWS
FORECAST POINTS - THE	ADVISES CAUTION FOR
NWS HAS ISSUED A	ELEVATED FLOWS ALONG THE
FLOOD ADVISORY FOR	MISSISSIPPI RIVER AT ST. LOUIS
THE MISSISSIPPI RIVER	
AT ST. LOUIS	

FLASH FLOOD WARNING	FLOOD WARNING – THE NWS
– THE NWS HAS ISSUED A	HAS ISSUED A WARNING FOR
FLASH FLOOD WARNING	FLASH FLOODING
FLOOD WARNING – THE	FLOOD WARNING – THE NWS
NWS HAS ISSUED A	HAS ISSUED A WARNING FOR
FLOOD WARNING	FLOODING

River Forecast Center Quantitative Precipitation Forecasts (RFC QPF)

Users must currently go to 13 individual River Forecast Center (RFC) webpages to view the amount of forecast precipitation being used to produce river forecasts. To provide a nationally consistent mosaic of quantitative precipitation forecasts used to produce river forecasts, the NWS plans to implement a "QPF: Quantitative Precipitation Forecasts" Tab as shown below. Clicking on that tab will allow users to view the 6-hour quantitative precipitation forecasts (QPFs) used to produce river forecasts and download QPF in shapefile and netCDF format.



Using a 10-point scale where 1 means Poor and 10 means Excellent, please rate the map on the following:

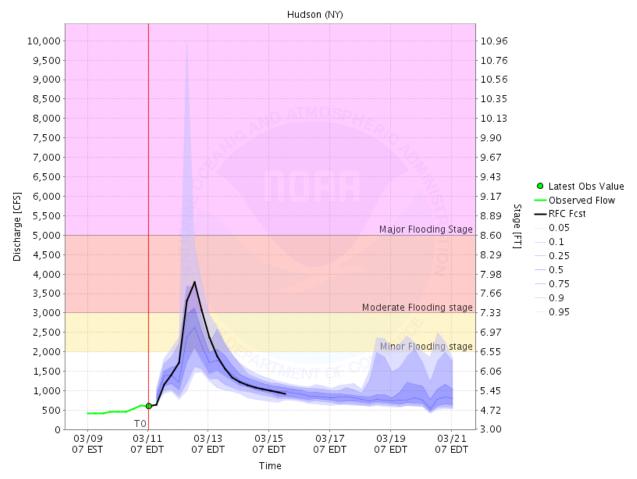
- 18) Visual appeal
- 19) Ease of understanding
- 20) Tells me what I need to know about the quantitative precipitation forecasts used to produce river forecasts

Short-Term Probabilistic Forecasts

To increase the value of its flood prediction services, the NWS is planning to provide probabilistic river forecasts that extend up to 10 days in the future. The short-term forecast will include a cone of uncertainty, which represents the "likelihood" that the river will fall within certain ranges.

In the graphic shown below, the darkest blue region highlights the river levels that have the greatest likelihood of occurring at those points in time, while the lightest blue region shows river levels that have the smallest chance of occurring at those given points in time. As can be seen, the cone generally becomes larger farther out in time as more uncertainty exists as to what the actual forecasted river level will be. Along with the likelihood the river will actually reach a certain level at a given point in the future, there is also a measurement of confidence. For example, the confidence in one of the levels actually occurring within the dark blue region on March 11 is higher than the confidence in a point falling within the dark blue region on March 12. The black line represents the official river forecast from a River Forecast Center.





Using a 10-point scale where 1 means Poor and 10 means Excellent, please rate the graphic on the following:

- 21) Visual appeal
- 22) Ease of understanding
- 23) Tells me what I need to know about river forecasts

Advanced Hydrologic Prediction Service (AHPS)

- 24) Are you aware of the Advanced Hydrologic Prediction Service (AHPS), which is the NWS's ongoing effort to modernize NWS hydrologic services and provide new information and products to improve flood warnings and water resource forecasts?
 - a. Yes
 - b. No
- 25) (**IF Q24=a ASK**) Using a 10-point scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied are you with the NWS's Advanced Hydrologic Prediction Service?

Customer Satisfaction Index

Now, please think about your overall satisfaction with the NWS Hydrologic Services Program, that portion of the NWS that focuses on water resources, including river forecasts and flood warnings.

- 26) First, please consider all of your experiences with the NWS Hydrologic Services Program. Using a 10-point scale where 1 means Very Dissatisfied and 10 means Very Satisfied, how satisfied are you with the NWS Hydrologic Services Program?
- 27) To what extent has the NWS Hydrologic Services Program fallen short of or exceeded your expectations? Using a 10-point scale where 1 now means Falls Short of your Expectations and 10 means Exceeds your Expectations, to what extent has the NWS Hydrologic Services Program fallen short of or exceeded your expectations?
- 28) Forget the NWS Hydrologic Services Program for a moment. Now, imagine an ideal hydrologic services program. How well do you think the NWS Hydrologic Services Program compares with that ideal hydrologic services program you just imagined? Please use a 10-point scale where 1 means Not Very Close to the Ideal and 10 means Very Close to the Ideal.



(ASK if Q74=d) National Climate Services Program

The National Weather Service (NWS) National Climate Services Program is strongly committed to serving the needs of its customers. To help in determining how to continually improve services, the NWS is undertaking research on how satisfied users are with the climate products and services provided, and would appreciate your feedback. The purpose of this research, conducted in partnership with the federal government as part of the American Customer Satisfaction Index, is to help the NWS improve its climate products and services for you.

Please click on the "Next" button below to begin.

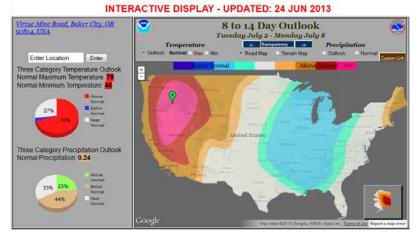
- 2.1 Would an excessive Heat Watch-Warning outlook for Days 3-7 or Days 8-14 (week 2) into the future be useful to you in your decision making? Please check all that apply
 - a. Days 3-7 into the future
 - b. Days 8-14 (week 2) into the future
 - c. Not useful in my decision making
- 2.2 Do you use NWS climate products and services for information beyond a week into the future?
 - a. Yes
 - b. No
 - (IF Q2.2=a) Please describe which one(s)? (CAPTURE)
- 2.3 Do you use NWS data tools (NOWData, etc.) to look for information on past weather or climatology?
 - a. Yes
 - b. No
 - (IF Q2.3=a) Please describe which one(s)? (CAPTURE)
- 2.4 Would a Local 3 Month Precipitation Outlook that provides expected chances for total 3 month precipitation to occur in Below, Near, and Above Normal ranges for your specific location be useful to you?
 - a. Yes
 - b. No
- 2.5 Are you aware of the new Interactive Display of 8-14 Day Extended Range Outlooks? (http://www.cpc.ncep.noaa.gov/products/predictions/814day/interactive/index.php)
 - a. Yes (SKIP to 2.6-2.8)
 - b. No (**SKIP to 2.9**)



2.6 On a scale from 1 to 10, where 1 is Poor and 10 is Excellent, how would you rate the new

Interactive Display of 8-14 Day Extended Range Outlooks? (http://www.cpc.ncep.noaa.gov/products/predictions/814day/interactive/index.php)

- Easy to understand
- Easy to use
- Eye-appealing
- Timeliness
- Usefulness
- Organization of information
- Location selection
- Ability to select variables
- Length of data record
- Meets my needs



- 2.7 How can NWS improve information of the new Interactive Display of 8-14 Day Extended Range Outlooks? (CAPTURE)
- 2.8 Would you like to see other NWS climate products (e.g., Monthly or Three Month Temperature and Precipitation Outlooks) delivered using similar interactive displays?
 - a. Yes
 - b. No
- 2.9 Have you contacted your local NWS office and requested information on climate/extended weather?
 - a. Yes
 - b. No
 - (IF Q2.9=a) Please provide some feedback on your experience (for example, how often, what was the response, how satisfied were you with the response you received, etc.)? (CAPTURE)
- 2.10 Have you contacted NWS Climate Prediction Center and requested information on climate/extended weather?
 - a. Yes
 - b. No
 - (IF Q2.10=a) Please provide some feedback on your experience (for example, how often, what was the response, how satisfied were you with the response you received, etc.)? (CAPTURE)

- 2.11 For what time frames are you utilizing NWS products and services for health forecasting or health modeling? (Please indicate all that apply)
 - a. Weather (Days 1-7)
 - b. Monthly (Days 8-31)
 - c. Seasonal
 - d. Annual
 - e. Inter-annual (every 2 years)
 - f. N/A I don't do health forecasting and health modeling
- 2.12 Please describe what climate change information do you use or need to support your decisions? (CAPTURE)

