

Factual Report – Attachment 15

A portion of the BMH User's Guide for the Springfield WFO, NWRWAVES-generated text messages and document used to decode these text messages.

METEOROLOGY

DCA18MM028

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Broadcast Message Handler (BMH) Operators Guide

3.3 Broadcast Categories

BMH uses different broadcast suites, depending on the weather situation:

- *General* – Normal programming
- *High* – Used during severe weather watches, flood warnings and advisories, and most winter weather advisories and warnings
- *Exclusive* – Used during severe weather warnings, flash flood warnings and blizzard warnings

In the High suites, non-essential products are removed. This includes lake stages, climate summaries, and educational/promotional messages. The convective Exclusive suite removes the forecast and distant hourly weather conditions as well. Both categories will air a time announcement once a cycle.

Certain products “trigger” another category to play. These are listed in the accompanying tables. To manually force another category to play, select the station from the *Broadcast Cycle* window, then click on **Change Suite**.

In the tables, “xxx” represents the transmitter (SGF, JLN, etc.). Separate messages are created for each transmitter.

Products may be received for LSX or EAX and will store under that office’s AWIPS header. They will only play on the appropriate transmitters, and store in BMH using the original AWIPS header.

If you need to manually recorded products for any WFO, use the product headers STLnnnSGF, (“nnn”=product type), which are available in Emergency Override.

The CRS PIL tables that follow provide the following information:

Message Type

AWIPS – CCC of AWIPS NNNCCCXXX PIL

CRS – CCC of CRS NNNCCCXXX PIL

Suites - **G** = General; **H** = High; **E** = Exclusive

T – Trigger; when present the letter corresponds to the Broadcast Suite the CRS PIL will trigger

I – Interrupt; an ‘X’ denotes that the message will interrupt the broadcast cycle for immediate broadcast

S – SAME; an ‘X’ denotes that the message will be transmitted with the appropriate SAME burst, while an ‘*’ denotes that it *may* be transmitted with the SAME burst, but by default will not.

A – Alert; an ‘X’ denotes that this message will be transmitted with the 1050 Hz Warning Alert Tone, while an ‘*’ denotes that it *may* be transmitted with the 1050 Hz tone, but by default will not.

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3.3.1 General Category

CRS PIL	PRODUCT	TYPE	SUITES	T	I	S	1050
Public/Forecast Messages							
STLHWRXXX	Hourly Weather Roundup	Observation	G				
STLCLIXXX	Climate Summary	Observation	G				
STLHWOALL	Hazardous Weather Outlook	Outlook	G/H				
STLNOWXXX	Short Term Forecast	Forecast	ALL				
STLPNSXXX	Public Information Statement	Outlook	G/H				
STLRWSALL	Regional Weather Summary	Forecast	G				
STLSPSXXX	Special Weather Statement	Advisory	ALL				
STLSAFXXX	Short Term Forecast	Forecast	G/H				
STLEXTXXX	Recreation Forecast	Forecast	G/H				
STLAQIALL	Air Quality Statement	Advisory	G				
Hydrologic Messages							
STLESFXXX	Hydrologic Outlook	Outlook	G				
STLFLSXXX	Areal/River Flood Statement	Advisory	ALL				
STLFLYXXX	River Flood Advisory	Advisory	ALL				
STLFAYXXX	Areal Flood Advisory	Advisory	ALL				
STLRVSXXX	Hydrologic Statement	Observation	G				
NPW Messages							
STLZFYXXX	Freezing Fog Advisory	Advisory	G/H				
STLFZAXXX	Freeze Watch	Watch	G/H		X		
STLHZAXXX	Hard Freeze Watch	Watch	G/H		X		
STLHTYXXX	Heat Advisory	Advisory	G/H				
STLHWAXXX	High Wind Watch	Watch	G/H		X	*	*
STLNPWXXX	Non-Precipitation Warning	Warning	G/H		X		
STLWIYXXX	Wind Advisory	Advisory	G/H				
STLFRYXXX	Frost Advisory	Advisory	G/H				
STLEHAXXX	Excessive Heat Watch	Watch	G/H		X		
STLECAXXX	Extreme Cold Watch	Watch	G/H		X		
STLASYXXX	Air Stagnation Advisory	Advisory	G/H				
STLFGYXXX	Dense Fog Advisory	Advisory	G/H				
STLSMYXXX	Dense Smoke Advisory	Advisory	G/H				
WSW Messages							
STLBZASTL	Blizzard Watch	Watch	G/H		X		
STLWSASTL	Winter Storm Watch	Watch	G/H		X		
STLWWYSTL	Winter Weather Advisory	Advisory	G/H				
STLZRYSTL	Freezing Rain Advisory	Advisory	G/H				
STLWCASTL	Wind Chill Watch	Watch	G/H		X		
STLWCYSTL	Wind Chill Advisory	Advisory	G/H				
Non-Weather Emergency Messages							
STLADRKS	KS Administrative Message	Advisory	ALL			X	
STLADRMO	MO Administrative Message	Advisory	ALL			X	
STLADROK	OK Administrative Message	Advisory	ALL			X	
STLRWTSGF	Routine Weekly Test	Warning	G		X	X	X
Miscellaneous Messages							
STATIONID	Station ID – Static Message	Station ID	ALL				
STLTIME	Time – Static Message	Time	ALL				

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3.3.2 High Category

Bold print indicates this product triggers use of this suite.

CRS PIL	PRODUCT	TYPE	SUITES	T	I	S	1050
Public/Forecast Messages							
STLHWOALL	Hazardous Weather Outlook	Outlook	G/H				
STLNOWXXX	Short Term Forecast	Forecast	ALL				
STLPNSXXX	Public Information Statement	Outlook	G/H				
STLSPSXXX	Special Weather Statement	Advisory	ALL				
STLSAFXXX	Short Term Forecast	Forecast	G/H				
STLEXTXXX	Extended Forecast	Forecast	G/H				
Hydrologic Messages							
STLFFAXXX	Flash Flood Watch	Watch	H/E	H	X	*	*
STLFFSXXX	Flash Flood Statement	Advisory	H/E	H		*	*
STLFLAXXX	River Flood Watch	Watch	H/E	H	X	*	*
STLFAAXXX	Areal Flood Watch	Watch	H/E	H	X	*	*
STLFLSXXX	Areal/River Flood Statement	Advisory	ALL				
STLFLYXXX	River Flood Advisory	Advisory	ALL				
STLFAYXXX	Areal Flood Advisory	Advisory	ALL				
STLFLWXXX	River Flood Warning	Warning	H/E	H	X	*	*
STLFAWXXX	Areal Flood Warning	Warning	H/E	H	X	*	*
NPW Messages							
STLECAXXX	Extreme Cold Watch	Watch	G/H		X		
STLECWXXX	Extreme Cold Warning	Warning	H	H	X		
STLEHAXXX	Excessive Heat Watch	Watch	G/H		X		
STLEHWXXX	Excessive Heat Warning	Warning	H	H	X		
STLFRYXXX	Frost Advisory	Advisory	G/H				
STLFZAXXX	Freeze Watch	Watch	G/H		X		
STLHZAXXX	Hard Freeze Watch	Watch	G/H		X		
STLFWXXX	Freeze Warning	Warning	H	H	X		
STLHTYXXX	Heat Advisory	Advisory	G/H				
STLHWAXXX	High Wind Watch	Watch	G/H		X	*	*
STLHWXXX	High Wind Warning	Warning	H	H	X	*	*
STLHZWXXX	Hard Freeze Warning	Warning	H	H	X		
STLNPWXXX	Non-Precipitation Warning	Warning	G/H		X		
STLWIYXXX	Wind Advisory	Advisory	G/H				
STLZFYXXX	Freezing Fog Advisory	Advisory	G/H				
STLFGYXXX	Dense Fog Advisory	Advisory	G/H				
STLSMYXXX	Dense Smoke Advisory	Advisory	G/H				
Convective Messages							
STLSVAXXX	Severe Thunderstorm Watch	Watch	H/E	H	X	X	X
STLSVSXXX	Severe Weather Statement	Advisory	H/E	H		*	*
STLTOAXXX	Tornado Watch	Watch	H/E	H	X	X	X
WSW Messages							
STLBZAXXX	Blizzard Watch	Watch	G/H		X		
STLBZXXX	Blizzard Warning	Warning	H	H	X	*	*
STLWSWXXX	Ice Storm Warning	Warning	H	H	X	*	*
STLWCAXXX	Wind Chill Watch	Watch	G/H		X		
STLWSWXXX	Wind Chill Warning	Warning	H	H	X	*	*
STLWCYXXX	Wind Chill Advisory	Advisory	G/H				
STLWSAXXX	Winter Storm Watch	Watch	G/H		X		
STLWSWXXX	Winter Storm Warning	Warning	H	H	X	*	*

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STLWWYXXX	Winter Weather Advisory	Advisory	G/H				
STLZRYXXX	Freezing Rain Advisory	Advisory	G/H				
Convective Messages							
STLSVAXXX	Severe Thunderstorm Watch	Watch	H/E	H	X	X	X
STLSVSXXX	Severe Weather Statement	Advisory	H/E	H		*	*
STLTOAXXX	Tornado Watch	Watch	H/E	H	X	X	X
Non-Weather Emergency Messages							
STLADRKS	KS Administrative Message	Advisory	ALL			X	
STLADRMO	MO Administrative Message	Advisory	ALL			X	
STLADROK	OK Administrative Message	Advisory	ALL			X	
STLADRSTL	STL Administrative Message	Advisory	ALL			X	
STLCAEKS	KS Child Abduction Emergency	Advisory	H/E	H		X	
STLCAEMO	MO Child Abduction Emergency	Advisory	H/E	H		X	
STLCAEOK	OK Child Abduction Emergency	Advisory	H/E	H		X	
STLCAESTL	STL Child Abduction Emergency	Advisory	H/E	H		X	
STLLAEKS	KS Local Area Emergency	Advisory	H/E	H		X	
STLLAEMO	MO Local Area Emergency	Advisory	H/E	H		X	
STLLAEOK	OK Local Area Emergency	Advisory	H/E	H		X	
STLLAESTL	STL Local Area Emergency	Advisory	H/E	H		X	
STLTOEKS	KS 911 Telephone Outage Emergency	Advisory	H/E	H		X	
STLTOEMO	MO 911 Telephone Outage Emergency	Advisory	H/E	H		X	
STLTOEOK	OK 911 Telephone Outage Emergency	Advisory	H/E	H		X	
STLTOESTL	STL 911 Telephone Outage Emerg	Advisory	H/E	H		X	
Miscellaneous Messages							
STLSIDXXX	Station ID	Station ID	ALL				

¹ Products may be received for LSX, and EAX and will store under that office's AWIPS header. They will only play on the appropriate transmitters, and store in CRS using the original AWIPS header.

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3.3.3 Exclusive Category

Bold print indicates this product triggers use of the Exclusive category.

CRS PIL	PRODUCT	TYPE	SUITES	T	I	S	1050
Public/Forecast Messages							
STLNOWXXX	Short Term Forecast	Forecast	ALL				
STLSPSXXX	Special Weather Statement	Advisory	ALL				
Hydrologic Messages							
STLFFAXXX	Flash Flood Watch	Watch	H/E	H	X	*	*
STLFFSXXX	Flash Flood Statement	Advisory	H/E	H		*	*
STLFFWXXX	Flash Flood Warning	Warning	E	E	X	X	X
STLFLAXXX	River Flood Watch	Watch	H/E	H	X	*	*
STLFLAXXX	Areal Flood Watch	Watch	H/E	H	X	*	*
STLFLSXXX	Areal/River Flood Statement	Advisory	ALL				
STLFLYXXX	River Flood Advisory	Advisory	ALL				
STLFLYXXX	Areal Flood Advisory	Advisory	ALL				
STLFLWXXX	River Flood Warning	Warning	H/E	H	X	*	*
STLFLWXXX	Areal Flood Warning	Warning	H/E	H	X	*	*
Convective Messages							
STLSVAXXX	Severe Thunderstorm Watch	Watch	H/E	H	X	X	X
STLSVRXXX	Severe Thunderstorm Warning	Warning	E	E	X	X	X
STLSVSXXX	Severe Weather Statement	Advisory	H/E	H		*	*
STLTOAXXX	Tornado Watch	Watch	H/E	H	X	X	X
STLTORXXX	Tornado Warning	Warning	E	E	X	X	X
Non-Weather Emergency Messages							
STLADRKS	KS Administrative Message	Advisory	ALL			X	
STLADRMO	MO Administrative Message	Advisory	ALL			X	
STLADROK	OK Administrative Message	Advisory	ALL			X	
STLADRSTL	STL Administrative Message	Advisory	ALL			X	
STLCAEKS	KS Child Abduction Emergency	Advisory	H/E	H		X	
STLCAEMO	MO Child Abduction Emergency	Advisory	H/E	H		X	
STLCAEOK	OK Child Abduction Emergency	Advisory	H/E	H		X	
STLCAESTL	STL Child Abduction Emergency	Advisory	H/E	H		X	
Non-Weather Emergency Messages							
STLCDWKS	KS Civil Danger Warning	Warning	E	E	X	X	X
STLCDWMO	MO Civil Danger Warning	Warning	E	E	X	X	X
STLCDWOK	OK Civil Danger Warning	Warning	E	E	X	X	X
STLCDWSTL	STL Civil Danger Warning	Warning	E	E	X	X	X
STLCEMKS	KS Civil Emergency Message	Warning	E	E	X	X	X
STLCEMMO	MO Civil Emergency Message	Warning	E	E	X	X	X
STLCEMOK	OK Civil Emergency Message	Warning	E	E	X	X	X
STLCEMSTL	STL Civil Emergency Message	Warning	E	E	X	X	X
STLEQWKS	KS Earthquake Warning	Warning	E	E	X	X	X
STLEQWMO	MO Earthquake Warning	Warning	E	E	X	X	X
STLEQWOK	OK Earthquake Warning	Warning	E	E	X	X	X
STLEQWSTL	STL Earthquake Warning	Warning	E	E	X	X	X
STLEVIKS	KS Evacuation Immediate	Warning	E	E	X	X	X
STLEVIMO	MO Evacuation Immediate	Warning	E	E	X	X	X
STLEVIOK	OK Evacuation Immediate	Warning	E	E	X	X	X
STLEVISTL	STL Evacuation Immediate	Warning	E	E	X	X	X
STLFRWKS	KS Fire Warning	Warning	E	E	X	X	X
STLFRWMO	MO Fire Warning	Warning	E	E	X	X	X

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STLFRWOK	OK Fire Warning	Warning	E	E	X	X	X
STLFRWSTL	STL Fire Warning	Warning	E	E	X	X	X
STLHMWKS	KS Hazardous Materials Warning	Warning	E	E	X	X	X
STLHMWMO	MO Hazardous Materials Warning	Warning	E	E	X	X	X
STLHMWOK	OK Hazardous Materials Warning	Warning	E	E	X	X	X
STLHMWSTL	STL Hazardous Materials Warning	Warning	E	E	X	X	X
STLLAEKS	KS Local Area Emergency	Advisory	H/E	H		X	
STLLAEMO	MO Local Area Emergency	Advisory	H/E	H		X	
STLLAEOK	OK Local Area Emergency	Advisory	H/E	H		X	
STLLAESTL	STL Local Area Emergency	Advisory	H/E	H		X	
STLLEWKS	KS Law Enforcement Warning	Warning	E	E	X	X	X
STLLEWMO	MO Law Enforcement Warning	Warning	E	E	X	X	X
STLLEWOK	OK Law Enforcement Warning	Warning	E	E	X	X	X
STLLEWSTL	STL Law Enforcement Warning	Warning	E	E	X	X	X
Non-Weather Emergency Messages							
STLRHWKS	KS Radiological Hazard Warning	Warning	E	E	X	X	X
STLRHWMO	MO Radiological Hazard Warning	Warning	E	E	X	X	X
STLRHWOK	OK Radiological Hazard Warning	Warning	E	E	X	X	X
STLRHWSTL	STL Radiological Hazard Warning	Warning	E	E	X	X	X
STLSPWKS	KS Shelter In Place Warning	Warning	E	E	X	X	X
STLSPWMO	MO Shelter In Place Warning	Warning	E	E	X	X	X
STLSPWOK	OK Shelter In Place Warning	Warning	E	E	X	X	X
STLSPWSTL	STL Shelter In Place Warning	Warning	E	E	X	X	X
STLTOEKS	KS 911 Telephone Outage Emergency	Advisory	H/E	H		X	
STLTOEMO	MO 911 Telephone Outage Emergency	Advisory	H/E	H		X	
STLTOEOK	OK 911 Telephone Outage Emergency	Advisory	H/E	H		X	
STLTOWSTL	STL 911 Telephone Outage Emergency	Advisory	H/E	H		X	
Miscellaneous Messages							
STLSIDXXX	Station ID	Station ID	ALL				

¹ Products may be received for LSX, and EAX and will store under that office's AWIPS header. They will only play on the appropriate transmitters.

3.3.4 Attack Warning (Exclusive) Category

This suite must be manually assigned.

Product ID	Product Name	Frequency
STATIONID	Station ID	Once a cycle
STLCDWSGF	DHS Civil Danger Warning	Once a cycle
STLCEMSGF	DHS Civil Emergency Message	Once a cycle
STLADRSGF	DHS Administrative Message	Once a cycle
STLPNSSGF	Public Information Statement	Once a cycle

NWRWAVES-generated text messages

_aT_ENGSTLSVRSGF18071922451807192245 241CD IAMOC097-MOC145-
MOC057-MOC077-MOC109-MOC167-MOC039-MOC009c1807192330

THE NATIONAL WEATHER SERVICE IN SPRINGFIELD HAS ISSUED A SEVERE THUNDERSTORM WARNING FOR, , NORTHEASTERN NEWTON COUNTY, EASTERN CEDAR COUNTY, SOUTHWESTERN POLK COUNTY, NORTHWESTERN BARRY COUNTY, LAWRENCE COUNTY, WESTERN GREENE COUNTY, EASTERN JASPER COUNTY, DADE COUNTY, UNTIL 6:30 PM CDT. AT 5:45 PM CDT, SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM NEAR STOCKTON TO NEAR JASPER, MOVING SOUTHEAST AT 55 MILES PER HOUR. Expected hazards include 60 MILES PER HOUR WIND GUSTS. This is a radar indicated threat. The following impacts are expected, EXPECT DAMAGE TO ROOFS, SIDING, AND TREES. SEVERE THUNDERSTORMS WILL BE NEAR, CARTHAGE AROUND 5:50 PM CDT. FAIR PLAY AROUND 5:55 PM CDT. SARCOXIE AROUND 6:05 PM CDT. WALNUT GROVE AROUND 6:10 PM CDT. ASH GROVE AND PIERCE CITY AROUND 6:15 PM CDT. WILLARD AROUND 6:20 PM CDT. OTHER LOCATIONS IMPACTED BY THESE SEVERE THUNDERSTORMS INCLUDE STOCKTON LAKE, STOCKTON STATE PARK, BROOKLINE, CARYTOWN, FIDELITY, DADEVILLE, STOTTS CITY, PIONEER, HALLTOWN AND FREISTATT. THIS INCLUDES THE FOLLOWING HIGHWAYS, INTERSTATE 44 BETWEEN MILE MARKERS 19 AND 68. INTERSTATE 49 BETWEEN MILE MARKERS 36 AND 56. FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. TORRENTIAL RAINFALL IS OCCURRING WITH THESE STORMS, AND MAY LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED ROADWAYS. REPEATING, A SEVERE THUNDERSTORM WARNING HAS BEEN ISSUED UNTIL 06:30 PM CDT FOR THE FOLLOWING COUNTIES, IN MISSOURI, BARRY, CEDAR, DADE, GREENE, JASPER, LAWRENCE, NEWTON AND POLK.

_b

_aT_ENGSTLSVRS GF18071923071807192307
MOC109-MOC209-MOC225-MOC009c1807192345

242CD IAMOC043-MOC077-

THE NATIONAL WEATHER SERVICE IN SPRINGFIELD HAS ISSUED A SEVERE THUNDERSTORM WARNING FOR, , SOUTHWESTERN WEBSTER COUNTY, CHRISTIAN COUNTY, NORTHERN STONE COUNTY, NORTHERN BARRY COUNTY, SOUTHEASTERN LAWRENCE COUNTY, EASTERN GREENE COUNTY, UNTIL 6:45 PM CDT. AT 6:06 PM CDT, SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM MORRISVILLE TO NEAR ASH GROVE TO 6 MILES SOUTHEAST OF MILLER, MOVING SOUTHEAST AT 65 MILES PER HOUR. Expected hazards include 60 MILES PER HOUR WIND GUSTS. This is a radar indicated threat. The following impacts are expected, EXPECT DAMAGE TO ROOFS, SIDING, AND TREES. LOCATIONS IMPACTED INCLUDE, SPRINGFIELD, NIXA, OZARK, REPUBLIC, AURORA, BATTLEFIELD, ROGERSVILLE, STRAFFORD, MARIONVILLE, CLEVER, SPARTA, CRANE, PURDY, BILLINGS, HIGHLANDVILLE, FREMONT HILLS, FORDLAND, BROOKLINE, HURLEY, SPOKANE, THIS INCLUDES INTERSTATE 44 BETWEEN MILE MARKERS 69 AND 96. FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. TORRENTIAL RAINFALL IS OCCURRING WITH THESE STORMS, AND MAY LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED ROADWAYS. REPEATING, A SEVERE THUNDERSTORM WARNING HAS BEEN ISSUED UNTIL 06:45 PM CDT FOR THE FOLLOWING COUNTIES, IN MISSOURI, BARRY, CHRISTIAN, GREENE, LAWRENCE, STONE AND WEBSTER.

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_aT_ENGSTLSVSSGF18071923151807192315
MOC109-MOC209-MOC225-MOC009c1807192345

142R242CD INMOC043-MOC077-

A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 6:45 PM CDT FOR SOUTHWESTERN WEBSTER, CHRISTIAN, NORTHERN STONE, NORTHERN BARRY, SOUTHEASTERN LAWRENCE AND EASTERN GREENE COUNTIES. AT 6:15 PM CDT, SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM 7 MILES SOUTH OF PLEASANT HOPE TO 6 MILES WEST OF SPRINGFIELD TO NEAR BILLINGS, MOVING SOUTHEAST AT 65 MILES PER HOUR. Expected hazards include 70 MILES PER HOUR WIND GUSTS. This is a radar indicated threat. The following impacts are expected, EXPECT CONSIDERABLE TREE DAMAGE. DAMAGE IS LIKELY TO MOBILE HOMES, ROOFS, AND OUTBUILDINGS. LOCATIONS IMPACTED INCLUDE, SPRINGFIELD, NIXA, OZARK, REPUBLIC, AURORA, BATTLEFIELD, ROGERSVILLE, STRAFFORD, MARIONVILLE, CLEVER, SPARTA, CRANE, PURDY, BILLINGS, HIGHLANDVILLE, FREMONT HILLS, FORDLAND, BROOKLINE, HURLEY, SPOKANE, THIS INCLUDES INTERSTATE 44 BETWEEN MILE MARKERS 69 AND 96. FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. TORRENTIAL RAINFALL IS OCCURRING WITH THESE STORMS, AND MAY LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED ROADWAYS. REPEATING, A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 06:45 PM CDT FOR THE FOLLOWING COUNTIES, IN MISSOURI, BARRY, CHRISTIAN, GREENE, LAWRENCE, STONE AND WEBSTER.

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_aT_ENGSTLSVRSGF18071923321807192332
MOC009c1807200030

143CD IAMOC209-MOC213-

THE NATIONAL WEATHER SERVICE IN SPRINGFIELD HAS ISSUED A SEVERE THUNDERSTORM WARNING FOR, , TANEY COUNTY, STONE COUNTY, BARRY COUNTY, UNTIL 7:30 PM CDT. AT 6:31 PM CDT, SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM NEAR SPARTA TO NEAR WHEATON, MOVING SOUTHEAST AT 50 MILES PER HOUR. Expected hazards include 60 MILES PER HOUR WIND GUSTS. This is a radar indicated threat. The following impacts are expected, EXPECT DAMAGE TO ROOFS, SIDING, AND TREES. LOCATIONS IMPACTED INCLUDE, BRANSON, LAKE TANEYCOMO, TABLE ROCK LAKE, BULL SHOALS LAKE, ROARING RIVER STATE PARK, TABLE ROCK STATE PARK, HOLLISTER, CASSVILLE, SILVER DOLLAR CITY, KIMBERLING CITY, FORSYTH, MERRIAM WOODS, SHELL KNOB, KISSEE MILLS, PURDY, REEDS SPRING, SELIGMAN, ROCKAWAY BEACH, EXETER, WHEATON, FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. TORRENTIAL RAINFALL IS OCCURRING WITH THESE STORMS, AND MAY LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED ROADWAYS. REPEATING, A SEVERE THUNDERSTORM WARNING HAS BEEN ISSUED UNTIL 07:30 PM CDT FOR THE FOLLOWING COUNTIES, IN MISSOURI, BARRY, STONE AND TANEY.

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_aT_ENGSTLSVRSGF18071923451807192345

144CD IAMOC043-MOC067-

MOC077-MOC109-MOC209-MOC225-MOC229-MOC009c1807200045

THE NATIONAL WEATHER SERVICE IN SPRINGFIELD HAS ISSUED A SEVERE THUNDERSTORM WARNING FOR, , SOUTHERN WEBSTER COUNTY, WESTERN DOUGLAS COUNTY, SOUTHWESTERN WRIGHT COUNTY, CHRISTIAN COUNTY, NORTHERN STONE COUNTY, NORTHEASTERN BARRY COUNTY, SOUTHEASTERN LAWRENCE COUNTY, SOUTHEASTERN GREENE COUNTY, UNTIL 7:45 PM CDT. AT 6:45 PM CDT, SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM NEAR FORDLAND TO NEAR SPARTA TO 7 MILES NORTHEAST OF REEDS SPRING, MOVING SOUTHEAST AT 50 MILES PER HOUR. Expected hazards include 70 MILES PER HOUR WIND GUSTS. This is a radar indicated threat. The following impacts are expected, EXPECT CONSIDERABLE TREE DAMAGE. DAMAGE IS LIKELY TO MOBILE HOMES, ROOFS, AND OUTBUILDINGS. LOCATIONS IMPACTED INCLUDE, SOUTHEASTERN SPRINGFIELD, NIXA, OZARK, AURORA, ROGERSVILLE, AVA, MARIONVILLE, CLEVER, SEYMOUR, SPARTA, CRANE, MANSFIELD, PURDY, HIGHLANDVILLE, FREMONT HILLS, FORDLAND, DIGGINS, HURLEY, SPOKANE, OLDFIELD, THIS INCLUDES INTERSTATE 44 BETWEEN MILE MARKERS 94 AND 96. FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. TORRENTIAL RAINFALL IS OCCURRING WITH THESE STORMS, AND MAY LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED ROADWAYS. REPEATING, A SEVERE THUNDERSTORM WARNING HAS BEEN ISSUED UNTIL 07:45 PM CDT FOR THE FOLLOWING COUNTIES, IN MISSOURI, BARRY, CHRISTIAN, DOUGLAS, GREENE, LAWRENCE, STONE, WEBSTER AND WRIGHT.

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_aT_ENGSTLSVSSGF18071923591807192359
MOC209-MOC225-MOC229-MOC009c1807200045

444CD INMOC043-MOC067-

A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 7:45 PM CDT FOR SOUTHERN WEBSTER, WESTERN DOUGLAS, SOUTHWESTERN WRIGHT, CHRISTIAN, NORTHERN STONE AND NORTHEASTERN BARRY COUNTIES. AT 6:58 PM CDT, SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM NEAR ROGERSVILLE TO 8 MILES SOUTHEAST OF HIGHLANDVILLE TO 10 MILES EAST OF PURDY, MOVING SOUTH AT 40 MILES PER HOUR. Expected hazards include 60 MILES PER HOUR WIND GUSTS. This is a radar indicated threat. The following impacts are expected, EXPECT DAMAGE TO ROOFS, SIDING, AND TREES. LOCATIONS IMPACTED INCLUDE, NIXA, OZARK, AVA, SEYMOUR, SPARTA, CRANE, MANSFIELD, HIGHLANDVILLE, FORDLAND, DIGGINS, HURLEY, SPOKANE, OLDFIELD, BRUSHYKNOB, ELKHEAD, CHESTNUTRIDGE, PONCE DE LEON, ROME, SQUIRES, CHADWICK, FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. TORRENTIAL RAINFALL IS OCCURRING WITH THESE STORMS, AND MAY LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED ROADWAYS. REPEATING, A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 07:45 PM CDT FOR THE FOLLOWING COUNTIES, IN MISSOURI, BARRY, CHRISTIAN, DOUGLAS, STONE, WEBSTER AND WRIGHT.

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_aT_ENGSTLSVSSGF18072000021807200002
MOC009c1807200030

343R143CD INMOC209-MOC213-

A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 7:30 PM CDT FOR TANNEY, STONE AND BARRY COUNTIES. AT 7:02 PM CDT, SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM NEAR TANNEYVILLE TO WASHBURN, MOVING SOUTH AT 30 MILES PER HOUR. Expected hazards include 70 MILES PER HOUR WIND GUSTS. This is a radar indicated threat. The following impacts are expected, EXPECT CONSIDERABLE TREE DAMAGE. DAMAGE IS LIKELY TO MOBILE HOMES, ROOFS, AND OUTBUILDINGS. LOCATIONS IMPACTED INCLUDE, BRANSON, LAKE TANEYCOMO, TABLE ROCK LAKE, BULL SHOALS LAKE, ROARING RIVER STATE PARK, TABLE ROCK STATE PARK, HOLLISTER, CASSVILLE, SILVER DOLLAR CITY, KIMBERLING CITY, FORSYTH, MERRIAM WOODS, SHELL KNOB, KISSEE MILLS, REEDS SPRING, SELIGMAN, ROCKAWAY BEACH, EXETER, BULL CREEK, INDIAN POINT, FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. TORRENTIAL RAINFALL IS OCCURRING WITH THESE STORMS, AND MAY LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED ROADWAYS. REPEATING, A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 07:30 PM CDT FOR THE FOLLOWING COUNTIES, IN MISSOURI, BARRY, STONE AND TANNEY.

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20. AFOS WEATHER MESSAGE FORMAT SPECIFICATIONS

This appendix describes the format specifications for an AFOS weather message. The information is provided (as an appendix to the CRS Site Operator's Manual) so that you can correct (or "fix") an erred AFOS weather message, which may be received by CRS and then communicated to you in the form of an error message notification. This error message notification will be queued to the **Alert Monitor** window and will indicate the file name of the erred weather message, which can then be retrieved and corrected via the "Weather Message Correction" submenu (see paragraph 3.6.2.3.6).

20.1. Message Layer

AFOS messages for CRS are created by an AFOS applications program called an AFOS product formatter. Applications programs run automatically on either a time-scheduled or event-driven basis, and can also be invoked manually by a user. The following paragraphs serve to define the structure of the messages received by CRS from AFOS. The structure of messages which AFOS can send to CRS is identical to that received by the CRS from AWIPS, except that AFOS messages sent to CRS may be surrounded by AFOS information not relevant to CRS. Specifically, an "AFOS header" may precede and an end code may follow the CRS portion of the message. The "AFOS header" typically consists of a 9-character "AFOS identifier" plus a line feed. Other characters may precede or follow the "AFOS header". This AFOS information shall be completely ignored by CRS.

The CRS portions (ignoring the non-relevant AFOS information) of messages generated by AFOS for the CRS are ASCII strings which conform to the following four-part structure:

- (1) Begin message indicator
- (2) Message attributes
- (3) Message content
- (4) End message indicator

These sections are shown in Figure 1.

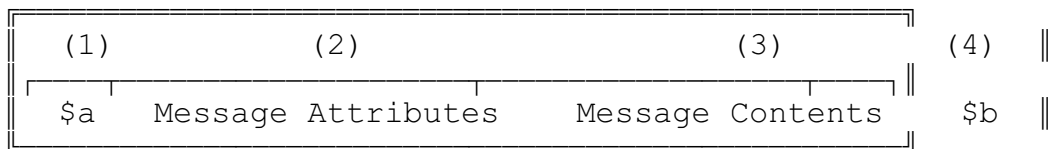


Figure 1. Broadcast Message Structure

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T_ENG - English Text

T_SPA - Spanish Text

- C. NODE ORIGINATION SITE - This three character field is the CCC field in the AFOS product identifier (CCNNNXXX).
- D. PRODUCT CATEGORY - This three-character field is the NNN field in the AFOS product identifier (CCNNNXXX).
- E. SPECIFIC PRODUCT DESIGNATOR - This three-character field is the XXX field in the AFOS product identifier (CCNNNXXX).
- F. CREATION DATE/TIME - The Date/Time that the product was created in AFOS. The format of the Creation Date/Time field is coded in decimal ASCII, and is:

YYmmDDHHMM

where: YY - last two digits of the year

mm - month of the year (01-12)

DD - day of the month

HH - hour of the day (UTC)

MM - minute of the hour (UTC)

- G. EFFECTIVE DATE/TIME - The Date/Time after which the message may be output by CRS. The format of the Effective Date/Time field is coded in decimal ASCII, and is identical to that of the Creation Date/Time:

YYmmDDHHMM

- H. PERIODICITY - The periodicity of message transmission for messages to be scheduled based on time. This eight-character numeric field is coded in decimal ASCII, and represents the days/hours/minutes/seconds (DDHHMMSS) of the period. This field will contain "spaces" (ASCII 32) for non-time-inserted messages.
- I. MESSAGE REFERENCE DESCRIPTOR (MRD) - This is an optional field with variable length ranging from 0 to 95 ASCII characters. The format of the MRD field is coded in ASCII and is defined as:

mmmRmmm ... mmmFmmm ... mmm

where: mmm - CRS identifier (3 ASCII numeric characters) of the current message, ranging from 000 to 999 (i.e. 1000 CRS identifiers total)

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- Rnnnn ... nnnn - "R" (ASCII 82) indicates "Replace", followed by a CRS identifier (3 ASCII numeric characters). Up to 19 additional CRS identifiers can be optionally added to this "Replace" group (total of 20 CRS identifiers).
- Fnnnn ... nnnn - "F" (ASCII 70) indicates "Follow", followed by a CRS identifier (3 ASCII numeric characters). Up to 9 additional CRS identifiers can be optionally added to this "Follow" group (total of 10 CRS identifiers).
- J. ACTIVE/INACTIVE - This field is used by AFOS to direct messages into CRS inactive storage, and without subsequent transmission by the CRS. An "A" (ASCII 65) indicates active storage, an "I" (ASCII 73) indicates inactive storage, a "C" (ASCII 67) indicates active storage and designated for Voice Conversion (VC), and an "X" (ASCII 73) indicates inactive storage as well as inclusion in list (or notification) of AFOS/AWIPS messages designated for Synthetic Speech Override (SSO).
- K. DELETE/SAVE - This field is used by AFOS to command CRS to save a message for an indefinite time in CRS inactive storage upon occurrence of its Expiration Date/Time, or to automatically delete it upon occurrence of its Expiration Date/Time. A "D" (ASCII 68) indicates automatic deletion; an "S" (ASCII 83) indicates indefinite storage.
- L. MESSAGE CONFIRMATION ON/OFF - This single character field is used to command CRS to display a confirmation that the message was transmitted as appropriate by the CRS. A "C" (ASCII 67) indicates enabling of message confirmation; a "space" (ASCII 32) indicates disabling of message confirmation.
- M. INTERRUPT FLAG - This single character field is used to command the CRS to interrupt any appropriate message currently being broadcast on the applicable transmitters with the message. An "I" (ASCII 73) indicates that the message may interrupt the current one on each applicable transmitter; a "space" (ASCII 32) indicates no interruption.
- N. ALERT TONE - This single character field is used to command the CRS to broadcast the alert tone prior to broadcasting the message for the first time, or to command the CRS to disable the broadcast of any alert

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tone and NWRSAME tone for the message. An "A" (ASCII 65) indicates that the alert tone should precede the first broadcast of the message, and the NWRSAME activation state must be defined as on page 3-35 and 3-36 of the CRS System Requirements Specification (SRS). A " " (ASCII 32) indicates that no alert tone is broadcast for the message, and the NWRSAME activation state must be defined as on page 3-35 and 3-36 of the SRS. An "N" (ASCII 78) indicates that no alert tone and no NWRSAME tone are broadcast for the message. The "N" designation shall override the respective NWRSAME activation state defined on page 3-35 of the SRS if a conflict exists.

- O. LISTENING AREA CODES - The notion of a message's LISTENING AREA code is defined as a collection of Universal Generic Codes (UGCs). These codes serve to specify geographical areas to be served by the message's transmission. This variable length field consists of an ASCII string containing an integer number (including zero) of Universal Generic Codes, separated by a "dash" (ASCII 45).
- P. END OF LISTENING AREA CODES DELIMITER - The character "c" (ASCII 99) immediately follows the LISTENING AREA CODES field.
- Q. EXPIRATION DATE/TIME - The Date/Time after which the message is ignored for transmission and may be deleted by CRS. The format of the Expiration Date/Time field is coded in decimal ASCII, and is identical to that of the Creation Date/Time:

YYmmDDHHMM

A "9999999999" in the field indicates that the message has no definite Expiration Date/Time.

20.1.3. Message Content

The AFOS product formatters create broadcast messages for the CRS in ASCII representation. The Message Content field of a broadcast message contains broadcast ready text; i.e., information which can be converted to voice by CRS with no operator intervention. In the case of an MRD specifying replacement, the Message Content field may be null (i.e., with the End Message Indicator immediately following the Expiration Date/Time).

The Message Content field may optionally contain a call-to-action, which consists of a "report separator", denoted by "|" (ASCII 30), MM field, and ASCII text to be associated with the message. The MM field, coded in ASCII decimal,

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indicates the timeout in minutes of the call-to-action. Neither the report separator nor timeout is to be converted to voice. There can be at most one call-to-action in the Message Content field. When it exists, it is always the last part of the Message Content field.

20.1.4. End Message Indicator

- R. END MESSAGE INDICATOR - Each message ends with an ASCII sequence of characters: "\$b", where the character "\$" denotes the ASCII "escape" character. The two-character group consists of an "escape" (ASCII 27) and lower case "b" (ASCII 98).