



UNITED STATES MARINE CORPS

MARINE CORPS AIR STATION YUMA
BOX 99100
YUMA, ARIZONA 85369-9100

IN REPLY REFER TO:
StaO 3145.1L
3WX

27 FEB 2013

STATION ORDER 3145.1L

From: Commanding Officer
To: Distribution List

Subj: WARNINGS AND CONDITIONS OF READINESS CONCERNING HAZARDOUS OR
DESTRUCTIVE WEATHER

Ref: (a) JP 3-28
(b) MCO 3040.4E
(c) MCO 3440.7A
(d) MCO 3504.2
(e) MCO 3730.1A
(f) MARADMIN 589/05
(g) MARADMIN 423/06
(h) OPNAVINST 3140.24F
(i) NAVOCEANCOMINST 3140.1H
(j) COMNAVBASESSANDIEGOINST 3140.1N
(k) USAYPGR 115-10
(l) NAVAIR 00-80T-103
(m) NAVSEA OP 5 VOL 1
(n) NAVAIR 00-80T-109

Encl: (1) Conditions of Readiness
(2) Weather Warning, RMC Mass Communicator Call-Out List
(3) Thunderstorm Advisory, RMC Mass Communicator Call-Out List
(4) Thunderstorm Condition I / II, RMC Mass Communicator Call-Out List
(5) MCI-West Standardized Weather Warnings

1. Situation. In accordance with the references, this Order provides guidance, information, and procedures for use in the event of destructive weather events. These events include, but are not limited to thunderstorms, wind warnings / advisories, flooding, tropical cyclones, tornadoes, and winter storms. Some of these phenomena may require the activation of the Marine Corps Air Station (MCAS) Yuma Command Operations Center (COC).

2. Cancellation. StaO 3145.1K.

3. Mission. To implement and execute responsibilities during destructive weather events in a timely and effective manner, and be prepared to provide military support to civil authorities, as directed or requested, in accordance with applicable, Federal and Department of Defense, directives and policies.

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4. Execution.a. Commander's Intent and Concept of Operations

(1) Commander's Intent. To ensure those personnel involved in the management of operations during destructive weather events are provided adequate information pertaining to policy, procedures, responsibilities, and instructions.

(2) Concept of Operations. This Order shall be used in conjunction with the references and other current regulations and directives to ensure compliance with established policies and procedures from higher headquarters.

b. Tasks(1) Weather Branch Officer in Charge / Staff Non-Commissioned Officer in Charge.

(a) Keep the Commanding Officer advised of potentially destructive weather and make timely recommendations for setting conditions of readiness.

(b) Ensure timely dissemination, via the MCI-West, Regional METOC Center (RMC), Mass Communicator of local advisories or warnings, using Enclosures (2) through (4), to notify all station activities and tenant units of potentially destructive weather. The Mass Communicator call alert will include minimum weather conditions expected, maximum sustained surface wind speed and/or gusts, tornadic activity, if expected, and size of hail, if any.

(2) Aviation Ordnance. In accordance with references (l) and (m), upon notification that Thunderstorm Condition 1 (T1) has been set aboard MCAS Yuma, all ordnance handling shall cease; ordnance should be made as safe as practical and personnel should seek cover. Aircraft already loaded not requiring arming procedures may taxi and launch at the discretion of unit commanding officers and pilots in command. Aircraft already loaded with ordnance requiring arming, and aircraft landing during the above conditions that require dearming, shall remain in the arm / dearm area until the lightning threat has passed, except as noted in subparagraph (a) below.

(a) Tenant and visiting commands that use commercially purchased pre-strike warning systems approved in accordance with reference (m) and positioned within arming / de-arming areas aboard MCAS Yuma, may continue arm / de-arm evolutions during T1 provided the following conditions are met:

1. The Pre-Strike Warning System indicates safe conditions.
2. Arming / Dearming operations are limited in scope.
3. Based on analysis of the current thunderstorm conditions, aircraft fuel remaining, and the ordnance load out, each command will determine the best course of action to limit exposure and overall risk associated for the arm / dearm crews, aircrew and aircraft.

4. Upon notification from MCI-West Regional METOC Center that T1 has been set aboard MCAS Yuma, the following communication plan shall be strictly adhered to:

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a. ODO notifies Maintenance Control of T1 condition and determines status of any launching or recovering aircraft.

b. Risk analysis conducted and decision made by the Commanding Officer to arm or dearm aircraft.

c. Approval or disapproval by the CO to proceed with arm / dearm is passed to Maintenance Control via the ODO.

d. Maintenance control passes approval or disapproval to proceed with arm / dearm evolution to Ordnance Division.

e. Squadron Ordnance Division may conduct arm / dearm evolution based on approval from Commanding Officer.

(b) Anytime the Pre-Strike Warning System indicates an unsafe condition the arm / dearm crew shall immediately cease operations, seek cover, and notify the chain of command.

(3) Aviation Refueling Activities. Suspend operations in accordance with this Station Order and ref (n) upon notification that electrical storms are within 5NM of MCAS Yuma.

(4) F-35 Squadron Activities. Suspend operations in accordance with this Station Order upon notification that electrical activity is within 35NM. It is mandatory that the F-35 aircraft be hangared prior to lighting within 25NM. Although no formal MCI-West, Regional METOC Center, 35NM Warning or Advisory exists it will be the sole responsibility of MCAS Yuma METOC Branch personal to notify, at a minimum, the F-35 Squadron(s) ODO, or SDO, of this event per the notification roster.

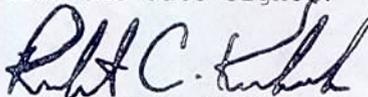
(5) MCAS Yuma Commanding Officer. After being fully advised of the current, or impending, weather situation will set the "Conditions of Readiness." Conditions of Readiness are set whenever the specific range of wind speed and time indicated in Enclosure (1) are met. For instance, set Hurricane Condition III would indicate destructive winds of the force indicated, or specified in the warning, are possible within 48 hours. Conditions of Readiness do not apply to surface wind warnings or advisories.

5. Administration and Logistics. Recommendations for changes to this Order will be submitted to the Commanding Officer, Marine Corps Air Station Yuma for review and consideration.

6. Command and Signal

a. Command. This Order is applicable to all tenants and directorates aboard MCAS Yuma.

b. Signal. This Order is effective the date signed.


ROBERT C. KUCKUK

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Conditions of Readiness

LARGE AREA STORM	TROPICAL STORM AND HURRICANE CONDITIONS
CONDITION V	Destructive winds are possible within 96 hours.
CONDITION IV	Trend indicates a possible threat of destructive winds of the force indicated and/or specified within 72 hrs. Review hazardous and destructive weather implementation plans, as established by local regulations.
CONDITION III	Destructive winds of the force indicated and/or specified are possible within 48 hrs. Take preliminary precautions.
CONDITION II	Destructive winds of the force indicated and/or specified are anticipated within 24 hrs. Take precautions that will permit an establishment of appropriate states of readiness on short notice.
CONDITION I	Destructive winds of the force indicated and/or specified are occurring or anticipated within 12 hrs. Take precautions as prescribed.

SMALL AREA STORM	THUNDERSTORM OR TORNADO CONDITIONS
CONDITION II	Destructive winds accompanying the phenomena indicated are expected in the general area. Associated lightning/thunder, torrential rain, hail, severe downbursts, and sudden windshifts are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice.
CONDITION I	Destructive winds accompanying the phenomena indicated are imminent or are occurring. Associated lightning/thunder, torrential rain, hail, severe downbursts, and sudden windshifts are possible. Take immediate safety precautions and shelter.

Examples:

Set Tropical Cyclone Condition III. Destructive winds of 50 knots are possible within 48 hours.

Set Hurricane Condition I. Destructive winds of 80 knots are anticipated within 12 hours.

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Weather Warning, RMC Mass Communicator Call-Out List

BILLET	PHONE NUMBER
MCAS YUMA	
Airfield Operations Chief	(928) 269-3230
Airfield Operations Officer	(928) 269-3327
Aviation Info Sys Dept	(928) 269-5214
Base Medical, Chief of the Day	(928) 502-2160
EOD Operations Chief	(928) 269-2788
Flight Clearance Chief	(928) 269-2326
Fuels Branch	(928) 289-2234
MAG-13 Command Deck	(928) 269-2124
MALS-13 Sqdn GySgt	(928) 269-2203
MAWTS-1 Operations (S-3)	(928) 269-2913
MAWTS-1 Ordnance Chief	(928) 269-3583
MAWTS-1 Ordnance Officer	(928) 269-5684
MCAS Yuma Command Duty Officer	(928) 269-2252
METOC Forecaster	(928) 269-2266
METOC SNCOIC	(928) 269-3571
VMFA-121, SDO	(928) 269-8666
VMFA-121, MX Control	(928) 269-8046
VMFA-121, DoSS	(928) 269-8722
VMFA-121, ODO	(928) 269-8010
MWSS-371 Duty NCO	(928) 269-2506
PMO Emergency Dispatch	(928) 269-2361
Range Management (ROCC)	(928) 269-7080
RATCF / ATC NCOIC	(928) 269-9231
VMFT-401 Maintenance	(928) 296-2922
Search & Rescue (SAR) Ready Room	(928) 269-2300
Station Operations Officer	(928) 941-7527
Weapons Supply Clerk	(928) 269-2003
Yuma Radar Manager	(928) 269-9311
Yuma Site Manager	(928) 750-4304
OUTSIDE ENTITIES	
MCAS Miramar RMC	(858) 577-1533
YPG Met Team Forecaster	(928) 328-6649
YPG, Aerostat Flt Director	(928) 343-0921

Enclosure (2)

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Thunderstorm Advisory, RMC Mass Communicator Call-Out List

BILLET	PHONE NUMBER
MCAS YUMA	
Airfield Operations Chief	(928) 269-3230
Airfield Operations Officer	(928) 269-3327
ATC Tower NCOIC	(928) 269-9310
Aviation Info Sys Dept	(928) 269-5214
Base Medical, Chief of the Day	(928) 502-2160
EOD Operations Chief	(928) 269-2788
Flight Clearance Chief	(928) 269-2326
Fuels Branch	(928) 289-2234
MAG-13 Command Deck	(928) 269-2124
MALS-13 Sqdn GySgt	(928) 269-2203
MAWTS-1 Operations (S-3)	(928) 269-2913
MAWTS-1 Ordnance Chief	(928) 269-3583
MAWTS-1 Ordnance Officer	(928) 269-5684
MCAS Yuma Command Duty Officer	(928) 269-2252
METOC Forecaster	(928) 269-2266
METOC SNCOIC	(928) 269-3571
VMFA-121, SDO	(928) 269-8666
VMFA-121, MX Control	(928) 269-8046
VMFA-121, DoSS	(928) 269-8722
VMFA-121, ODO	(928) 269-8010
MWSS-371 DNCO	(928) 269-2506
PMO Emergency Dispatch	(928) 269-2361
Radar Manager	(928) 269-9311
Range Management (ROCC)	(928) 269-7080
RATCF / ATC NCOIC	(928) 269-9231
VMFT-401 Maintenance	(928) 296-2922
Search & Rescue (SAR) Ready Room	(928) 269-2300
Station Operations Officer	(928) 941-7527
VAL Line Supervisor	(928) 269-2445
VMFT-401 Officer of the Day	(928) 269-2922
Weapons Supply Clerk	(928) 269-2003
Yuma Site Mgr	(928) 750-4304

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Thunderstorm Advisory, RMC Mass Communicator Call-Out List

OUTSIDE ENTITIES	
Aerostat Flt Director	(928) 343-0921
MCAS Miramar RMC	(858) 577-1533
YPG Met Team Forecaster	(928) 328-6649

Enclosure (3)

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Thunderstorm Condition I/II, RMC Mass Communicator Call-Out List

BILLET	PHONE NUMBER
MCAS YUMA	
Airfield Operations Chief	(928) 269-3230
Airfield Operations Officer	(928) 269-3327
Assistant Safety OIC	(928) 941-2956
Aviation Info Sys Dept	(928) 269-5214
Base Medical, Chief of the Day	(928) 502-2160
Enlisted Pool Manager	(928) 269-2969
EOD Operations Chief	(928) 269-2788
Explosive Safety Officer	(928) 941-1664
Flight Clearance Chief	(928) 269-2326
Fuels Branch	(928) 289-2234
MAG-13 Command Deck	(928) 269-2124
MALS-13 Sqdn GySgt	(928) 269-2203
MAWTS-1 Operations (S-3)	(928) 269-2913
MAWTS-1 Ordnance Chief	(928) 269-3583
MAWTS-1 Ordnance Officer	(928) 269-5684
MCAS Yuma Command Duty Officer	(928) 269-2252
METOC Duty Forecaster	(928) 269-2266
METOC SNCOIC	(928) 269-3571
VMFA-121, SDO	(928) 269-8666
VMFA-121, MX Control	(928) 269-8046
VMFA-121, DoSS	(928) 269-8722
VMFA-121, ODO	(928) 269-8010
MWSS-371 Duty NCO	(928) 269-2506
PMO Emergency Dispatch	(928) 269-2361
Radar Manager	(928) 269-9311
Range Management (ROCC)	(928) 269-7080
RATCF / ATC NCOIC	(928) 269-9231
Search and Rescue (SAR) Ready Room	(928) 269-2300
VMFT-401 Maintenance	(928) 296-2922
Station Operations Officer	(928) 941-7525
Tower Supervisor	(928) 269-9310
VAL Supervisor	(928) 269-2445

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Thunderstorm Condition I/II, RMC Mass Communicator Call-Out List

VMFT-401 Officer of the Day	(928) 269-2922
Weapons Supply Clerk	(928) 269-2003
Yuma Site Mgr	(928) 750-4304
OUTSIDE ENTITIES	
Aerostat Flt Director	(928) 343-0921
MCAS Miramar RMC	(858) 577-1533
YPG MET Team Forecaster	(928) 328-6649
Mission Assurance Director	(928) 269-2351

Enclosure (4)

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MCI-West Standardized Weather Warnings

MCIW Warning	Criteria
Crosswind Advisory	Crosswind component ≥ 15 knots are forecasted or occurring.
Local Wind Warning	Sustained winds of 15 to 33 knots or gusts ≥ 25 knots are forecasted.
Gale Warning	Sustained winds of 34 to 47 knots are forecasted for harbors, inland waters, ocean areas, airfields and installations.
Storm Warning	Sustained wind ≥ 48 knots are forecasted for harbors, inland waters, ocean areas, airfields and installations.
Tropical Depression	Warning for land, harbor, inland water and ocean areas for sustained wind of 33 knots or less. No specified time frame is implied.
Tropical Storm	Warning for land, harbor, inland water and ocean areas for sustained wind of 34 to 63 knots. No specified time frame is implied.
Hurricane	Warning for land, harbor, inland water and ocean areas for sustained wind of ≥ 64 knots. No specified time frame is implied.
Thunderstorm Advisory	Conditions are favorable for thunderstorm development within 50NM of the airfield or installation within the next 12 hours.
Thunderstorm Condition II	Destructive winds and accompanying thunderstorms are expected to pass within 25 NM, or within 6 hours of the air station. Associated lightning/thunder, torrential rain, hail, severe downbursts, and sudden wind shifts are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice.
Thunderstorm Condition I	Destructive wind and accompanying thunderstorms are within 10 NM or expected within 1 hour of the air station. Associated lightning/thunder, torrential rain, hail, severe downbursts, and sudden wind shifts are possible. Take immediate safety precautions and shelter.
Severe Thunderstorm Advisory	Conditions are favorable for severe thunderstorm development within 50 NM of the airfield or installation within the next 12 hours.

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Severe Thunderstorm Condition II	Severe thunderstorms are defined as having wind speeds >50 knots, hail with diameter $\geq \frac{3}{4}$ " and or tornadoes. Destructive winds accompanying the severe thunderstorms are within 25 NM, or expected within 6 hours. Associated lightning/thunder, torrential rain, hail, severe downbursts, sudden wind shifts and tornadic activity are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice. Additionally, this warning will be set if any portion of the installation is within a National Weather Service Watch Box (WW) and the weather is progressing as forecasted.
Severe Thunderstorm Condition I	Severe thunderstorms are defined as having gusts of wind greater than 50 knots, hail with diameter greater than $\frac{3}{4}$ " and or tornadoes. Destructive winds accompanying the severe thunderstorms are within 10 NM, or expected within 1 hour. Associated lightning/thunder, torrential rain, hail, severe downbursts, sudden wind shifts and tornadic activity are possible. Take immediate safety precautions and shelter. Additionally, this warning will be set if any portion of the installation is within a National Weather Service Watch Box (WW) and the weather is progressing as forecasted.
Lightning Warning	Lightning is imminent or occurring within 5 NM of the installation.
Tornado Watch	Tornados are within 25 NM or expected within 6 hours. Additionally, this warning will be set if any portion of the installation is within a National Weather Service Watch Box (WW) and the weather is progressing as forecasted.
Tornado Warning	Tornados are within 10 NM or expected within 1 hour. Additionally, this warning will be set if any portion of the installation is within a National Weather Service Watch Box (WW) and the weather is progressing as forecasted.

Winter Storm Advisory	A low pressure system produces a combination of winter weather (snow, freezing rain, sleet, etc.) that present a hazard, but does not meet warning criteria.
Winter Storm Watch	Potential for heavy snow or significant ice accumulations 24 to 36 hours in advance.
Winter Storm Warning	Forecasted accumulation of $\geq 12''$ in 12 hrs or $\geq 18''$ in 24 hours.
Blizzard Warning	Sustained wind or frequent gusts to 30 kts with falling, and/or blowing snow, visibility $< 1/4$ SM for 3 hours or more.
Frost/Freeze Warning	Any time temperatures are forecasted to be $< 32F$.
Hard Freeze Warning	Temperatures are forecast to be $< 32F$ for more than 24 hours or the temperature is forecast to be $< 20F$.
Gale/Storm/Tropical Storm/Hurricane	
Condition IV	Destructive winds are possible within 72 hours.
Condition III	Destructive winds are possible within 48 hours.
Condition II	Destructive winds are anticipated within 24 hours.
Condition I	Destructive winds are imminent or anticipated within 12 hours.
Snow/Ice Storm	
Condition V	Threat of storm has passed, return to normal operations.
Condition IV	Heavy Snow/Ice Storm is anticipated within 48 hours.
Condition III	Heavy Snow/Ice Storm is anticipated within 24 hours.
Condition II	Heavy Snow/Ice Storm is anticipated within 12 hours.
Condition I	Heavy Snow/Ice Storm is imminent.
Heavy Rain/Flash Flood	
Flash Flood Advisory	Issued by the National Weather Service, Relayed through the RMC to the standardized distribution lists.
Flash Flood Warning	The National Weather Service issues these warnings when flash flooding is imminent or occurring.

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APPENDIX A

LIST OF COMMON ACROMYNS AND DESCRIPTIVE WEATHER CONDITIONS

1. The following is a list of common acronyms and definitions associated with Station Order 3145.1L and commonly used within the Meteorological and Oceanographic Community.

Nautical Mile (NM). A nautical mile is 6,076 feet.

Statute Mile (SM). The statute mile is 5,280 feet.

Knot (KT). A knot is equal to 1.15 miles per hour.

Local Area. A 25 NM radius of MCAS Yuma.

Station. As used in the text, the station covers a radius of 10 NM of MCAS Yuma.

Destructive Winds. Winds of significant force can also be generated by other meteorological conditions. Windstorms may be associated with frontal passages, squall lines, monsoons, and strong gradient of high pressure. Other windstorms, often bearing unique regional names such as the Santa Ana, Bora, and Mistral, are the result of orographic funneling and/or the strong downslope flow off mountain ranges. The onset of strong winds from some of these events can be very sudden and treacherous and their duration is often a matter of several days, interspersed with brief and deceptive lulls.

Local Advisories/Warnings. These advisories, or warnings, are issued to alert local commands of impending meteorological phenomena that may have severe or adverse effects on operations, personnel or property and are usually issued via the appropriate RMC Mass Communicator Call-Out List.

Thunderstorms (TS). Thunderstorms are a small scale storm, or group of storms, invariably produced by a cumulonimbus cloud and are always accompanied by lightning and thunder. They may develop within sight of the station and not have a threatening appearance until shortly before arrival, or they may be embedded in and hidden by other clouds. Hail is often associated with thunderstorms and may inflict major damage. Hailstones vary from the size of a pea to that of a grapefruit. Thunderstorms may be accompanied by extremely strong winds with gusts of 40KT to occasionally 100KT or more. These strong winds are usually of short duration and their direction may be radically different from the prevailing winds before the storm. Severe downbursts (microbursts/macrobusts), sudden wind shifts,

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extreme turbulence and wind shear are often associated with thunderstorm activity. Torrential rainfall and visibilities near zero may also occur. Lightning strikes are common. Strike locations are virtually unpredictable. Yet, they can cause serious or fatal injuries to personnel, detonation of munitions, fuel, and other combustibles, severe damage to electrical/electronic systems and power failures.

Tornadoes. A tornado is a violent rotating column of air usually in the form of a "pendant" or funnel from a cumulonimbus (thunderstorm) cloud, with the funnel touching the ground. A tornado is one of the most destructive types of storms known and is accompanied by a loud roaring noise. The winds, which spiral upwards around the axis of the tornado, have not been measured directly, but are estimated to be 100KT to more than 240KT. The updraft within the tornado may attain speeds of 75KT to 175KT. The speed of movement of a tornado over the earth is often comparatively slow 20 to 35 knots. The lifetime of the average tornado is even briefer, approximately 20 minutes. However, it is not uncommon for several tornadoes to develop, either in families or in succession, from the same parent thunderstorm or a line of thunderstorms. Implicitly, warning of tornadic activity means that thunderstorms, usually severe, will also exist.

Waterspout. A waterspout is usually less violent than a tornado and in the form of a pendant that touches water.

Funnel Cloud. When a pendant does not touch the ground, or water, it is commonly referred to simply as a funnel cloud.

Major Cyclonic Storms. Storms of this type generally affect a wide area and have a life history of days, rather than hours. Examples include hurricanes/typhoons, tropical and subtropical storms, and extratropical low pressure systems.

Local Wind Warning. Winds Warnings are issued when sustained surface wind speed of 15KT to 33KT and/or frequent gust of 25KT or more are occurring or are forecasted to occur in the local area during the time specified.

Gale Warning. Gale Warnings are issued when sustained surface wind speed of 34KT to 47KT are forecasted to occur within the next six hours.

Storm Warning. Storm Warnings are issued when sustained surface wind speed of 48KT to 63KT are forecasted to occur within the next 6 hours.

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Hurricane Warning. Hurricane warnings are issued when sustained surface wind speed of 64KT or greater are forecasted to occur within the next 12 to 72 hours.

Thunderstorm/Tornado Advisory. This advisory is issued when conditions are favorable for thunderstorm development within 50NM of MCAS Yuma or within 12 hours.

Thunderstorm/Tornado Condition II. This warning is issued when destructive wind and accompanying thunderstorm/tornado is expected to pass within 25NM or expected within six hours of MCAS Yuma to be on station.

Thunderstorm/Tornado Condition I. This warning is issued when destructive wind and accompanying thunderstorm/tornado activity is expected to pass within 10NM of MCAS Yuma or expected within one hour of MCAS Yuma to be on station.

Severe Advisory/Warning/Condition I or II. This "severe" advisory, warning or condition is defined as having gusts of wind in excess of 50KT or greater, hail with a diameter greater than $\frac{3}{4}$ " and/or tornadoes. Any conditions listed within this Station Order preceded by the word "Severe" will assume severe criteria as described in this Station Order.