

***NATIONAL WEATHER SERVICE INSTRUCTION 10-2203
OCTOBER 3, 2022***

***Operations and Services
Readiness, NWSPD 10-22
CRITICAL WEATHER DAYS***

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>.

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SUMMARY OF REVISIONS: This directive supersedes National Weather Service Instruction (NWSI) 10-2203, Critical Weather Days, dated June 22, 2018.

The following changes were made:

- More objectively defined criteria for Critical Weather Days (CWD) by hazard.
- Introduced new “Enhanced Caution” operating level, for significant sub-critical events.
- Added specific CWD declaration thresholds into the directive as a table.
- More clearly defined expected actions and exceptions process during declarations.
- General editorial changes to ensure clear and concise policy guidance and improve readability.

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Critical Weather Days

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1. Purpose

This Directive establishes a process for halting of operational changes and service enhancements during life-threatening weather or non-weather events. These events are classified as Critical Weather Days (CWD) or Enhanced Caution events and will be initiated by specific NWS personnel to ensure the timely production and delivery of essential NWS products and services during an actual or threatened occurrence of a critical event, weather, or non-weather related, near or within the United States, its inhabited territories, possessions, or their coastlines. These events are unique in their potentially urgent need for meteorological information to protect life and property.

2. NWS IT Operating Level Definitions

- **Critical Weather Day(s).** A CWD is triggered by significant life-threatening weather or events within the United States, on/near the coast of the United States and its inhabited territories or possessions (including Puerto Rico, Virgin Islands, Guam, and American Samoa). The declaration of a CWD will make certain all possible steps are taken to ensure the timely production and distribution of NWS products and services necessary to protect life and property.
- **Enhanced Caution Event.** Some significant weather or events may warrant more targeted caution, allowing most NOAA/NWS enterprise Information Technology (IT) operational changes and service upgrades to proceed, while taking steps to ensure availability of critical operational services and applications that are the most crucial to protecting life and property.
- **Normal Operations.** Operational changes, implementations, and upgrades proceed as approved and scheduled through the standard change management process.
- **Operational Thresholds.** The following guidelines provide a starting point for coordination of operating level changes to Enhanced Caution or CWD. Brief duration limited geographic coverage may be considered.

Event Type	Enhanced Caution Event	Critical Weather Day
Tsunami	U.S. Tsunami Advisory*	U.S. Tsunami Watch/Warning
Volcano	United States Geological Survey (USGS) red alert level or U.S. eruption*	Major eruption near U.S. populated areas
Severe Thunderstorm	Storm Prediction Center (SPC) Enhanced or Moderate Risk*	SPC Moderate or High Risk w/ at least 45% damaging wind or 15% tornado threat
Excessive Rainfall	Weather Prediction Center (WPC) Moderate Risk*	WPC High Risk
Flooding	Expected rapid onset of widespread major flooding and/or dam or levee at imminent risk of failure near populated areas.*	Expected rapid onset of widespread near-record or catastrophic flooding and/or dam or levee at imminent risk of failure near major population centers.*
Tropical Cyclone	U.S. Tropical Storm Watch/Warning	U.S. Hurricane/Typhoon Watch/Warning U.S. Storm Surge Watch/Warning
Extratropical Storm	U.S. Hurricane Force Wind Watch/Warning*	Rapidly developing and high-impact U.S. Hurricane Force Wind Watch/Warning*
Winter Storm	Expected major winter storm/blizzard with significant impact to population centers*	Expected widespread near-record snow, ice, or blizzard event (w/ major metro area(s) impacted) and/or WPC Winter Storm Severity Index (WSSI) Extreme Level*
Wildfire	SPC Critical Wildfire Risk*	SPC Extremely Critical Wildfire Risk
Space Weather	Space Weather Prediction Center (SWPC) Strong Geomagnetic (G3) or Moderate Radiation Storm (S2)*	SWPC Severe Geomagnetic (G4+) or Strong Radiation Storm (S3+)
Impact Based Decision Support	High profile Special Event Assessment Rating (SEAR) 1 Impact-based Decision Support Services (IDSS) event with multiple deployments and/or impactful weather*	National Special Security Event (NSSE) with multiple deployments and/or impactful weather (caution threshold or greater). Major act of terrorism, hazmat, or nuclear emergency near a metro area*

* Declared by the SDM upon request by the appropriate NWS National/Regional Operations Center or National Center. Outlook areas should have at least 500,000 population and/or 75,000 square miles for consideration.

3. Systems, Services, and Activities Affected during CWD

The following NWS activities will be halted or postponed as soon as possible upon and during CWD declaration, unless a waiver/exception is granted:

- Operational implementations;
- Primary operational and backup system, application, or service changes;
- System tests and changes involving the computers, workstations, servers, networking and/or communications systems, components or facilities if they have a potential for adversely affecting operations at the National Centers for Environmental Prediction (NCEP), NCEP Central Operations (NCO), or NWS Regional Headquarters;
- Nationwide Advanced Weather Interactive Processing System (AWIPS) tests and changes to systems or supporting facilities.
- Data center systems/components maintenance activities;
- NOAA mission critical systems maintenance activities;
- Local office or backup office system tests and changes in or near the affected areas.

Exceptions to halted or postponed work may only be granted in certain situations, where the exception serves the greater good. For example, if there is a greater risk to NWS operations by not making the change, an exception could be granted.

- Exceptions for *national* enterprise systems, services, and activities will be approved by the NWS Chief Operating Officer (COO), NCEP/NCO Director, or their designee(s) and vetted per the official change management process.
- Exceptions to *regional* or *locally* hosted and maintained systems, services, and activities will be approved by the Regional Director(s), National Center Directors, or their designee(s). Each Region/Center follows their change management process.

4. Systems, Services, and Activities Affected during Enhanced Caution Events

Managers and teams responsible for local, regional, or national enterprise systems, services, and/or applications will:

- Maintain awareness of the current IT operating level (normal, enhanced caution, or critical) and consider any Enhanced Caution hazards when planning operational changes or support posture.
- Execute a process for appropriate team or division review, as defined by the authorizing official, and managerial approval of upcoming operational implementations and upgrades at the start of each day.
- Take appropriate steps to ensure availability of the most critical operational applications, services, and systems as identified by the IT playbooks on the CWD website at <https://www.nco.ncep.noaa.gov/status/cwd/>.
- NCO will maintain IT playbooks for each type of situation, identifying the most operationally critical national, regional, or local systems, services, and applications.

- The NCO Senior Duty Meteorologists (SDM), Regional Operations Centers, and NWS Operations Center will periodically review these playbooks for new and emerging needs from field offices or regional and national centers.

5. Procedures

- The SDM will coordinate CWD or Enhanced Caution Event requests from:
 - The NWS Assistant Administrator (NWS AA), Deputy Assistant Administrator (DAA), Chief Operating Officer (COO), Regional Directors, NCEP Director, Directors of National Centers, National Weather Service Operations Center (NWSOC), Regional Operations Centers (ROCs), National Center Lead Forecasters, and/or their designee(s) will request the declaration of a CWD or Enhanced Caution Event, following the established criteria and thresholds.
 - The request and supporting information will be provided to the SDM by phone or via NWSSchat.
 - The requestor will provide: a) specific reason for the request; b) period of the request; c) type of request, i.e. CWD or Enhanced Caution Event; and d) geographic area of concern.
 - Regions/Centers will contact the SDM as soon as possible once CWD or IT Operating Level change requests are anticipated
 - The SDM will coordinate proposed CWD declarations with impacted Regions/Centers and notify NWSOC in advance of a pending CWD via phone, NWSSchat, or email.
 - The SDM will make the final CWD or operating level declaration.
 - The SDM will provide CWD notifications and updates as identified below.
- CWD notification and status updates will be provided by the SDM to the email list identified below (Section 6). The SDM will also send an email to ncep.sdm.cwd@noaa.gov, place a notice on NCEP's CWD website (<http://www.nco.ncep.noaa.gov/status/cwd/>), and send an alert administrative message (ADASDM). If the CWD is modified, extended, or canceled prior to the scheduled end, the same group is notified by email and administrative message, and the website is updated.
 - At a minimum, CWD status messages will include start time, end time, duration of event; and, when possible, the reason for the CWD.
 - CWD status messages will be posted whenever the event is updated, extended, or terminated.
- The current NWS IT Operating Level (normal, enhanced caution, or critical) and an outlook for subsequent days will be posted on the NCEP CWD website.

6. Required CWD Notification List

The NCO SDM team will maintain an email distribution list of those that receive the CWD notification including the following people, and others as deemed appropriate:

- NWS AA, DAA, and COO

- NWS Chief Information Officer
- NWS OPPSD Director
- NWS Analyze, Forecast, and Support Office (AFSO) Director, FSD and AMSD Chiefs
- NWS Regional Directors and Deputies
- NCEP Director and Deputy
- NCEP National Centers
- National Water Center Director and Operations Division
- Tsunami Warning Centers
- National Weather Service Operations Center (NWSOC)
- NWS Regional Operations Centers and Systems Divisions
- NWS AWIPS Network Control Facility (NCF) supervisor
- Radar Operations Center (ROC)
- National Data Buoy Center (NDBC)
- NOAA Operations Center (NOC)
- NOAA Homeland Security Program Office (HSPO)