



*NOAA – National Weather Service
San Francisco Bay Area – Monterey, CA
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Watch, Warning, Advisory, Statement Criteria Quick Reference for

San Francisco Bay Area National Weather Service

Updated November 17, 2014

Non Precipitation Products:

Dense Fog/Smoke Advisory	SFONPWMTR WWUS76 VTEC: FG.Y (Fog) SM.Y (Smoke)	Two sites are < ¼ mile visibility or based on ASOS, spotters, law enforcement dense fog/smoke is affecting at least a portion of a major traffic artery.
Excessive Heat Watch	SFONPWMTR WWUS76 VTEC: EH.A	Conditions favorable to meet/exceed specific heat warning criteria in the next 24 to 72 hours.
Excessive Heat Warning	SFONPWMTR WWUS76 VTEC: EH.W	Conditions currently exist or will exist within 24 hours for meeting/exceeding specific warning criteria.
Heat Advisory	SFONPWMTR WWUS76 VTEC: HT.Y	Conditions currently exist or will exist within 24 hours for meeting/exceeding specific advisory criteria for 1-2 days.
High Wind Watch (Non-thunderstorm)	SFONPWMTR WWUS76 VTEC: WI.A	Potential in the next 12-48 hours of sustained winds of at least 40 MPH for one hour or more, and/or possible widespread damage to trees and local infrastructure due to strong winds. Also issued for gusts, which are elevation based. 900 ft and below: Gusts at least 58 mph. 900-2500 feet: Gusts at least 70 mph. 2500 feet and above: Not issued.



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<p>High Wind Warning (Non-thunderstorm)</p>	<p>SFONPWMTR WWUS76 VTEC: WI.W</p>	<p>Occurrence or imminent expectation in the next 36 hours of sustained winds of at least 40 MPH for one hour or more, and/or expectation of widespread damage to trees and local infrastructure due to strong winds. Also issued for gusts, which are elevation based.</p> <p>900 ft and below: Gusts at least 58 mph.</p> <p>900-2500 feet: Gusts at least 70 mph.</p> <p>2500 feet and above: Not issued.</p>
<p>Wind Advisory (Non-thunderstorm)</p>	<p>SFONPWMTR WWUS76 VTEC: WI.Y</p>	<p>Occurrence or imminent expectation in the next 36 hours of sustained winds of at least 35 MPH for one hour or more, and/or expectation of some damage to trees and local infrastructure due to strong winds. Also issued for gusts, which are elevation based.</p> <p>900 ft and below: Gusts 45-57 mph.</p> <p>900-2500 feet: Gusts 45-69 mph.</p> <p>2500 feet and above: Not issued.</p>
<p>Freeze Watch</p>	<p>SFONPWMTR WWUS76 VTEC: FZ.A</p>	<p>Conditions are favorable for a freeze event to meet or exceed Freeze Warning criteria in the next 12 to 48 hours. See Appendix A.</p>



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Freeze Warning	SFONPWMTR WWUS76 VTEC: FZ.W	Conditions will meet Freeze Warning Criteria in the next 0-24 hours. Criteria for temperatures needed and time of year depends on topography, climatology, and urban/rural characteristics of each zone. For detailed criteria, see Appendix A.
Frost Advisory	SFONPWMTR WWUS76 VTEC: FR.Y	Criteria for temperatures needed and time of year depends on topography, climatology, and urban/rural characteristics of each zone. For detailed criteria, see Appendix A.
Special Weather Statement	SFOSPSMTR WWUS86 VTEC: None	Ongoing or imminent weather conditions , less than warning or advisory criteria that will have impacts on population of the area. Used to share information on impacts and timing and can serve as heads-up.
Short Term Forecasts (NOWCASTS)	SFONOWMTR FPUS76 VTEC: None	Short-term forecast of evolution of ongoing precipitation, convective events, winter weather, marine events, fog, significant winds, blowing dust, and extreme temperatures.
Hazardous Weather Outlook	SFOHWOMTR FLUS46 VTEC: None	General hazardous weather overview for the next 7 days.
Preliminary Local Storm Report	SFOLSRMTR NWUS56 VTEC: None	Severe weather events or damage from tornadoes, waterspouts, large hail, thunderstorm/marine wind gusts, and flash floods.
Record Event Report	SFORERMTR SXUS76 VTEC: None	Record high and low temperatures (daily, monthly, all-time).



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Public Information Statement	SFOPNSMTR NOUS46 VTEC: None	<p>1) A current or expected nonhazardous event of general interest to the public that can usually be covered with a single message.</p> <p>2) Public educational information and activities, such as storm safety rules, awareness activities, storm drills, etc.</p> <p>3) Information regarding service changes, service limitations, interruptions due to reduced or lost power or equipment outages, or special information clarifying interpretation of NWS data.</p>
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Fire Weather Products:

Fire Weather Watch	SFORFWMTR WWUS86 VTEC: FW.A	When there is a reasonable confidence that a Red Flag event will occur. Watches are issued 24-72 hours prior to the onset of an event, but may be issued within the first 12 hours for the occurrence of dry lightning. Generally Watches are not issued more than 72 hours before an event.
Red Flag Warning	SFORFWMTR WWUS86 VTEC: FW.W	Red Flag conditions are imminent or ongoing. Warnings are usually issued within 24 hours of the onset of the event.



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Coastal Products:

Beach Hazards Statement	SFOCFWMTR WHUS46 VTEC: BH.S	Expected life threatening hazardous beach conditions from one or a combination of several hazards: rip currents, sneaker waves, or total beach closure due to sewage or hazardous materials spill.
Coastal Flood Statement	SFOCFWMTR WHUS46 VTEC: CF.S	Informational Statement on the potential for minor coastal inundation due to unusual high tide conditions.
Coastal Flood Watch	SFOCFWMTR WHUS46 VTEC: CF.A	The possibility of coastal flooding 12 to 36 hours after issuance.
Coastal Flood Warning	SFOCFWMTR WHUS46 VTEC: CF.W	Life threatening coastal flooding is occurring, imminent, or highly likely in first 12 hours .
Coastal Flood Advisory	SFOCFWMTR WHUS46 VTEC: CF.Y	Nuisance coastal flooding is occurring, imminent, or highly likely in first 12 hours .
High Surf Warning	SFOCFWMTR WHUS46 VTEC: SU.W	Combined seas of 20 feet or greater at the coast.
High Surf Advisory	SFOCFWMTR WHUS46 VTEC: SU.Y	Combined seas of 15-20 feet at the coast.
Tsunami Watch	SFOTSUWCA WEPA41 VTEC: None	Issued to alert emergency management, officials, and the public of an event that may later impact the watch area.
Tsunami Warning	SFOTSUWCA WEPA41 VTEC: None	Issued when a potential tsunami with significant widespread inundation is imminent or expected (generally a tsunami above 1.0 m [3 ft]).
Tsunami Advisory	SFOTSUWCA WEPA41 VTEC: None	Issued due to the threat of a potential tsunami which may produce strong currents or waves dangerous to those in or near the water (generally a tsunami between 0.3 m to 1.0 m [1 to 3 ft]).



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<p>Tsunami Information Statements</p>	<p>SFOSPSMTR WWUS86 VTEC: None</p>	<p>Issued to inform emergency management officials and the public that an earthquake has occurred, or that a tsunami warning, watch, or advisory has been issued for another section of the ocean. In most cases, information statements are issued to indicate there is no threat of a destructive tsunami. An information statement may, in appropriate situations, caution about the possibility of destructive local tsunamis.</p>
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Marine and Aviation Products:

<p>Airport Weather Warning for San Francisco International Airport</p>	<p>SFOAWWSFO WWUS86 VTEC: None</p>	<p>Issued when surface winds, sustained and/or gusts, are observed or expected to reach 35 knots or greater, when lightning is observed or expected within 5 SM of the airport,</p>
<p>Small Craft Advisory</p>	<p>SFOMWWMTR WHUS76 VTEC: SC.Y (All conditions) SW.Y (High Seas only) SI.Y (Strong winds only) RB.Y (Rough Bar)</p>	<p>Issued for Strong Winds: current and/or forecast sustained winds of 21 to 33 knots, or frequent gusts from 21 to 33 knots inclusive lasting more than two hours.</p> <p>Issued for High Seas: period of combined seas, measured in seconds, is less than or equal to the height in feet, except when seas are 5 feet or less. Additionally, a small craft advisory will be issued whenever combined seas of 15 feet or more are forecast or occurring, regardless of swell period.</p> <p>Issued for Rough Bar: breaking waves and/or combined seas of 10 feet or greater are expected on the San Francisco Bar.</p>



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Gale Warning	SFOMWWMTR WHUS76 VTEC: GL.W	Sustained wind, or frequent gusts 34 to 47 kts, expected within the first 30 hours from issuance time.
Storm Warning	SFOMWWMTR WHUS76 VTEC: SR.W	Sustained wind, or frequent gusts, 48 to 63 kts, expected within the first 30 hours from issuance time.
Hurricane Force Warning	SFOMWWMTR WHUS76 VTEC: HF.W	Sustained wind, or frequent gusts, ≥64 kt, for non-tropical cyclones, expected in the first 30 hours from issuance time.
Special Marine Warning	SFOSMWMTR WHUS56 VTEC: MA.W	Issued to inform mariners of hazardous conditions of a short-term nature not covered in existing forecasts and warnings. These include Waterspouts, Funnel Clouds, and Thunderstorms producing ¾ inch hail and/or winds of 34+ knots (expected to last for two hours or less), or frequent cloud to water lightning strikes.
Marine Weather Statement	SFOMWWSMTR FZUS76 VTEC: MA.S	Issued to provide the public with detailed marine weather information describing non-severe, but potentially hazardous conditions and information for a variety of conditions not covered by warnings or routine forecasts. Also issued to provide follow-up information to a Special Marine Warning (SMW) including cancellation of all or part of the SMW.
Marine Dense Fog Advisory	SFOMWWMTR WHUS76 VTEC: MF.Y	Issued for widespread visibility of ½ mile or less in San Francisco Bay and Monterey Bay.



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Winter Weather Products:

<p>Winter Storm Watch</p>	<p>SFOWSWMTR WWUS46 VTEC: WS.A</p>	<p>Issued when conditions are favorable for a hazardous winter weather event to develop over part or all of the forecast area, but the occurrence is uncertain.</p>
<p>Winter Storm Warning</p>	<p>SFOWSWMTR WWUS46 VTEC: WS.W</p>	<p>Issued when hazardous winter weather is occurring, imminent, or has a high probability of occurrence over part or all of the forecast area.</p> <p>Mountains > 3000 feet: 8+ in/12 hrs or 12+ in/24 hrs. Mountains < 3000 feet: 5+ in/12 hrs or 7+ in/24 hrs.</p> <p>Also, for the first Autumn or Winter snow, or for an unusually late Spring snow: 4+ in/12 hrs or 6+ in/24 hrs.</p>
<p>Winter Weather Advisory</p>	<p>SFOWSWMTR WWUS46 VTEC: WW.Y</p>	<p>Issued when winter weather is significant to the public, but not enough of a threat to life or property to warrant a warning.</p> <p>Mountains > 3000 feet: 4-7 in/12 hrs or 6-11 in/24 hrs Mountains < 3000 feet: 2-4 in/12 hrs or 4-6 in/24 hrs.</p> <p>Also, for the first Autumn or Winter snow, or for an unusually late Spring snow: Mountains < 3000 feet: 1-2 in/12 hrs or 2-4 in/24 hrs.</p> <p>Any accumulation where it is rare.</p>



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Hydrological Products:

Mainstem River Flood Warning	SFOFLWMTR WGUS46 VTEC: FL.W	River Flood Warning issued when streamflow is expected to exceed flood stages of specified gauged locations on area rivers and creeks. See Appendix B.
Areal Flood Warning	SFOFLWMTR WGUS46 VTEC: FA.W	Widespread areal freshwater flooding, or widespread estuarine flooding of smaller rivers, streams, or headwaters. Flooding continues after rain ends.
Mainstem River Flood Watch	SFOFFAMTR WGUS66 VTEC: FL.A	Issued when the QPF and/or CNRFC river models indicate that flooding is possible at a specific forecast point(s) within 48 hours. See Appendix B.
Flood Watch (Non-mainstem)	SFOFFAMTR WGUS66 VTEC: FA.A	Issued when flooding is possible on a non-mainstem river within 48 hours.
Flash Flood Watch	SFOFFAMTR WGUS66 VTEC: FF.A	Issued if flash flooding is possible within the next 48 hours (heavy rain, dam, or levee failure).
Flash Flood Warning	SFOFFWMTR WGUS56 VTEC: FF.W	Issued when flash flooding is imminent. Reserved for those short-term events which require immediate action to protect lives/property such as dangerous small stream flooding or urban flooding and dam or levee failures.
Urban and/or Small Stream Flood Warning	SFOFLWMTR WGUS46 VTEC: FW.W	Issued when significant flooding of streets, underpasses, and/or small streams over an area is imminent or occurring AND this flooding cannot be covered by a flood warning for a forecast point.



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Urban and/or Small Stream Flood Advisory	SFOFLSMTR WGUS86 VTEC: FA.Y	Issued when minor flooding of streets, underpasses, and/or smaller streams over an area is imminent or occurring.
Hydrologic Outlook	SFOESFMTR FGUS76 VTEC: None	Issued when precipitation forecasts could cause flooding 96 hours or less in the future.
Hydrologic Statement	SFORVSMTR FGUS86 VTEC: None	Issued to notify the public of significant hydrologic conditions where flooding is NOT expected.



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Thunderstorm Products:

Watch County Notification	SFOWCNMTR WWUS66 VTEC: TO.A (Tornado) SV.A (Severe Tstm)	Issued through coordination with SPC. The graphic will be assumed from the Watch Outline (WOU). The WOU will contain specific watch type (Severe Tstm or Tornado), and will generally have a default time of 6 to 7 hours from issuance. As the threat changes, MTR will have the ability to clear counties from the watch or extend the watch locally.
Severe Thunderstorm Warning	SFOSVRMTR WUUS56 VTEC: SV.W	Issued when there is radar indication and/or reliable spotter reports of wind gusts equal to or in excess of 50 knots (58 mph) and/or hail size of 1 inch diameter (quarter-sized) or larger.
Tornado Warning	SFOTORMTR WFUS56 VTEC: TO.W	Issued when there is radar indication and/or reliable spotter reports of a tornado.
Severe Weather Statement	SFOSVSMTR WWUS56 VTEC: TO.W (Tornado) SV.W (Severe Tstm)	Issued to update status of SVR/TOR warning. For continuing warnings, should include updated track and intensity information as well as any ground truth. May be used to cancel or clear a warning area, or to issue a final expiration message.
Convective Weather SPS	SFOSPSMTR WWUS86 VTEC: None	For imminent occurrence of one or more of the following in convection: rainfall rates up to 2 inches/hr; excessive lightning, wind gusts 35-45 mph, hail to dime size.



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<p>Convective Weather SPS Significant Weather Advisories</p>	<p>SFOSPSMTR WWUS86 VTEC: None</p>	<p>For imminent occurrence of one or more of the following in convection: Wind gusts 45-57 mph, hail of penny-nickel size. This product is for nearly severe thunderstorms.</p>
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Appendix A – Detailed Frost/Freeze Criteria

Frost Advisory

Zone	New Criteria
006 – San Francisco	A
508 – SF Bay Shoreline	A
505 – Coastal North Bay	B
509 – San Francisco Peninsula Coast	B
530 – Southern Monterey Bay and Big Sur Coast	B
506 – North Bay Interior Valleys	C
507 – North Bay Mountains	C
510 – East Bay Interior Valleys	C
511 – East Bay Hills and Diablo Range	C
512 – Santa Cruz Mountains	C
513 - Santa Clara Valley*	C
519 – Northern Monterey Bay	C
528 – Northern Salinas Valley, Hollister and Carmel Valleys	C
516 – Southern Salinas Valley, Arroyo Seco, Lake San Antonio	C
517 – Santa Lucia Mountains and Los Padres National Forest	C
518 – Mountains of San Benito and Interior Monterey	C

* Zone 513 contains the City of San Jose. Because San Jose is typically warmer than the rest of forecast Zone 513, frost advisories may be issued for Zone 513 that specifically exclude the city of San Jose. For example “A Frost Advisory is in effect for the Santa Clara Valley tonight, excluding the city of San Jose”.

Frost Advisory Criteria Detailed

Frost advisory requires: criteria met at least 2 consecutive hours – at 2 or more locations in the zone.

Each zone varies based on the following criteria based on time of year, which reflects climatology and the rareness of the events in the zones.

- A.** Any time temperature falls to between 32-35 degrees.
- B.** Any time temperature falls to between 29-35 degrees before December 15 or after March 1.
- C.** Any time temperature falls to between 29-35 degrees before November 15 or after April 1.



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Freeze Watch and Warning

Freeze Warning Criteria

Zone	New Criteria
006 – San Francisco	A
508 – SF Bay Shoreline	A
513 - Santa Clara Valley*	A
513 – Santa Clara Valley*	B
505 – Coastal North Bay	B
509 – San Francisco Peninsula Coast	B
530 – Southern Monterey Bay and Big Sur Coast	B
506 – North Bay Interior Valleys	B
510 – East Bay Interior Valleys	B
519 – Northern Monterey Bay	B
528 – Northern Salinas Valley, Hollister and Carmel Valleys	B
516 – Southern Salinas Valley, Arroyo Seco, Lake San Antonio	B
507 – North Bay Mountains	C
511 – East Bay Hills and Diablo Range	C
512 – Santa Cruz Mountains	C
517 – Santa Lucia Mountains and Los Padres National Forest	C
518 – Mountains of San Benito and Interior Monterey	C

* Zone 513 contains the city of San Jose. Criteria A will be used for the city of San Jose only and criteria B will be used for the rest of the zone (the central and southern Santa Clara Valley) because the portions of the Santa Clara Valley to the south of San Jose are typically colder than San Jose.

Freeze Warning Criteria Detailed

Freeze warning criteria vary based on if the zone is urban in nature, or a valley vs. mountain location.

- A.** Anytime the low temperature is forecast to fall below 32 degrees for at least 2 consecutive hours at 2 locations in the zone.
- B.** Anytime the low temperature is forecast to fall at or below 28 degrees for at least 2 consecutive hours at 2 locations in the zone.
- C.** Anytime the low temperature is forecast to fall at or below 28 degrees for at least 2 consecutive hours in a widespread coverage in the zone.



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Appendix B (Mainstem River Forecast Points):

