## Status of NDFD Elements as of November 30, 2022

Element	CONUS	Puerto Rico	Hawaii	Guam	Alaska	Oceanic	Micronesia
12-hour Probability of Precipitation	Operational since 12/1/04	Operational since 6/21/05	Operational since 6/21/05	Operational since 9/20/05	Operational since 8/26/16	Not available	Experimental since 3/29/22
Apparent Temperature	Operational since 3/15/06	Operational since 3/15/06	Operational since 3/15/06	Operational since 3/15/06	Operational since 8/26/16	Not available	Not available
Ceiling Height	Experimental 5/23/22	Experimental 5/23/22	Not available	Not available	Not available	Not available	Not available
Climate Outlooks Days 8-14, 30-, and 90-Days Temperature Above/ Below Normal, Precipitation Above/ Below Normal	<b>Operational</b> since 9/18/08	Not available	Not available	Not available	Operational since 9/18/08	Not available	Not available
Convective Hazards  - Outlook  - Probability of:     Tornadoes, Hail,     Damaging     Thunderstorm     Winds, Extreme     Tornadoes,     Extreme Hail,     Extreme     Thunderstorm     Winds  - Total Probability     of: Severe     Thunderstorms,     Extreme Severe     Thunderstorms	Operational since 4/30/09	Not available	Not available	Not available	Not available	Not available	Not available
Dewpoint	Operational since 3/15/05	Operational since 6/21/05	<b>Operational</b> since 6/21/05	<b>Operational</b> since 9/20/05	Operational since 8/26/16	Not available	Experimental since 3/29/22

Element	CONUS	Puerto Rico	Hawaii	Guam	Alaska	Oceanic	Micronesia
Fire Weather Outlooks  - Fire Weather Critical and Extremely Critical Areas  - Fire Weather Critical Areas for Dry Thunderstorms	<b>Operational</b> since 7/14/11	Not available	Not available	Not available	Not available	Not available	Not available
Forecast of Reference Crop Evapotranspiration (FRET) - Daily - Weekly - Daily departure	Operational since 4/13/16	Not available	Not available	Not available	Not available	Not available	Not available
Hazards	Operational since 9/15/09	<b>Operational</b> since 9/15/09	<b>Operational</b> since 9/15/09	<b>Operational</b> since 9/15/09	Operational since 8/26/16* * subset of hazards	<b>Operational</b> since 2/6/18	Experimental since 3/29/22
Ice Accumulation	Operational since 11/5/13* * subset of CONUS	Not available	Not available	Not available	Not available	Not available	Not available
Low-Level Wind Shear Direction, Speed, and Height	Experimental 5/23/22	Experimental 5/23/22	Not available	Not available	Not available	Not available	Not available
Maximum and Minimum Relative Humidity	Operational since 11/27/12	Operational since 11/27/12	Operational since 11/27/12	Operational since 11/27/12	Operational since 8/26/16	Not available	Not available
Maximum and Minimum Temperature	Operational since 12/1/04	Operational since 6/21/05	Operational since 6/21/05	Operational since 9/20/05	Operational since 8/26/16	Not available	Experimental since 3/29/22
Precipitation Probability Index (PPI)	Experimental since 9/29/15	Not available	Not available	Not available	Not available	Not available	Not available

Element	CONUS	Puerto Rico	Hawaii	Guam	Alaska	Oceanic	Micronesia
Quantitative Precipitation Forecast (QPF)	Operational since 7/8/08	Operational since 7/8/08	Operational since 7/8/08	Operational since 7/8/08	Operational since 8/26/16	Not available	Experimental since 3/29/22
Relative Humidity	Operational since 3/15/06	<b>Operational</b> since 3/15/06	Operational since 3/15/06	<b>Operational</b> since 3/15/06	<b>Operational</b> since 8/26/16	Not available	Not available
Significant Wave Height	Operational since 5/31/07	<b>Operational</b> since 5/31/07	<b>Operational</b> since 5/31/07	<b>Operational</b> since 5/31/07	<b>Operational</b> since 8/26/16	Operational since 2/6/18	Experimental since 3/29/22
Sky Cover	Operational since 7/8/08	Operational since 7/8/08	Operational since 7/8/08	Operational since 7/8/08	Operational since 8/26/16	Not available	Experimental since 3/29/22
Snow Amount	Operational since 7/8/08	Not available	Operational since 7/8/08	Not available	Operational since 8/26/16	Not available	Not available
Snow Amount Probabilities 24-hour 10% exceedance 24-hour 90% exceedance 48-hour 10% exceedance 48-hour 90% exceedance 72-hour 10% exceedance 72-hour 90% exceedance	Experimental since 2/26/19	Not available	Not available	Not available	Not available	Not available	Not available
Snow Level	Operational since 12/15/20	Not available	Not available	Not available	Not available	Not available	Not available
Snow to Liquid Ratio	Experimental since 2/15/22	Not available	Experimental since 11/30/22	Not available	Experimental since 11/30/22	Not available	Not available

Element	CONUS	Puerto Rico	Hawaii	Guam	Alaska	Oceanic	Micronesia	
Temperature	Operational since 3/15/05	Operational since 6/21/05	<b>Operational</b> since 6/21/05	<b>Operational</b> since 9/20/05	<b>Operational</b> since 8/26/16	Not available	Experimental since 3/29/22	
Tropical Cyclone Surface Wind Speeds Probabilities >34kts (incremental) >34kts (cumulative) >50kts (incremental) >50kts (cumulative) >64kts (incremental) >64kts (cumulative)	Operational since 5/31/07	Not available	Operational since 5/13/10 (graphics only)	Operational since 5/13/10 (graphics only)	Not available	Not available	Not available	
	Northern Hemisphere domain Operational since 5/31/07							
	North Pacific Ocean domain Operational since 5/13/10							
Visibility	Experimental 5/23/22	Experimental 5/23/22	Not available	Not available	Not available	Not available	Not available	
Weather	Operational since 3/15/05	Operational since 6/21/05	Operational since 6/21/05	Operational since 9/20/05	Operational since 8/26/16	Not available	Experimental since 3/29/22	
Wet Bulb Globe Temperature	Operational since 06/01/22	Operational since 06/01/22	Operational since 06/01/22	Operational since 06/01/22	Not available	Not available	Not available	
Wind Direction and Speed	Operational since 12/14/05	Operational since 12/14/05	Operational since 12/14/05	Operational since 12/14/05	Operational since 8/26/16	Operational since 2/6/18	Experimental since 3/29/22	
Wind Gust	Operational since 9/20/07	Operational since 9/20/07	Operational since 9/20/07	Operational since 9/20/07	Operational since 8/26/16	Operational since 2/6/18	Experimental since 3/29/22	
Winter Weather Outlook	Operational since 4/3/18	Not available	Not available	Not available	Not available	Not available	Not available	