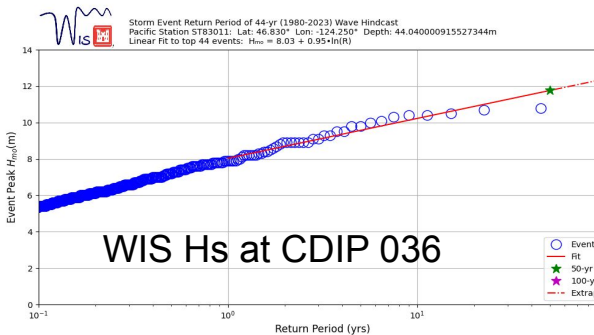
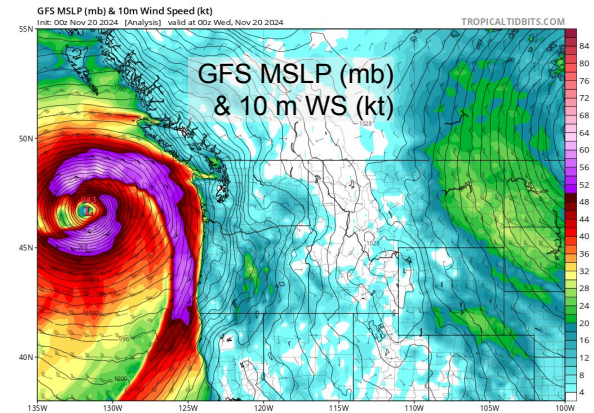
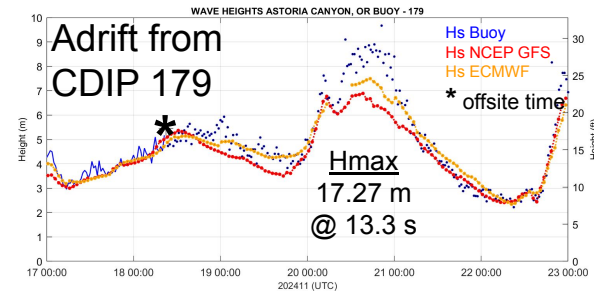
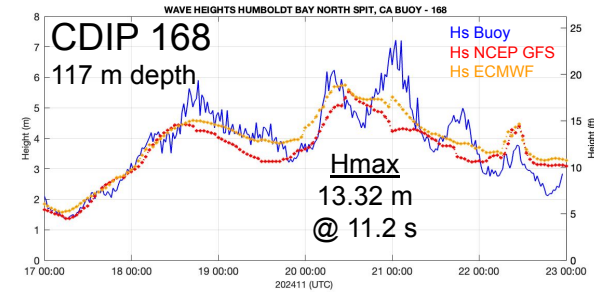
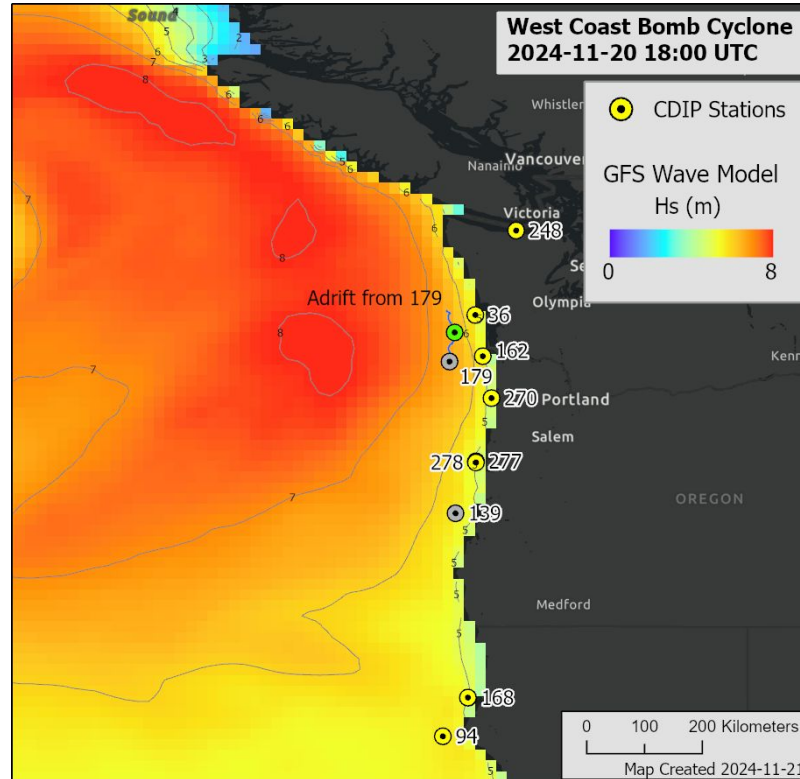
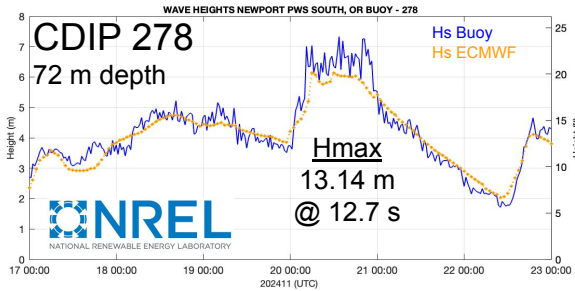
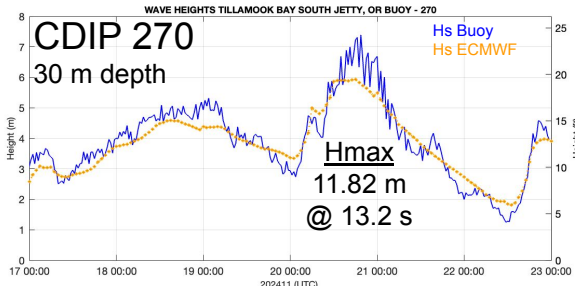
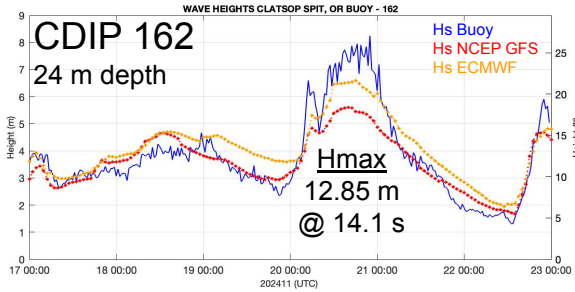
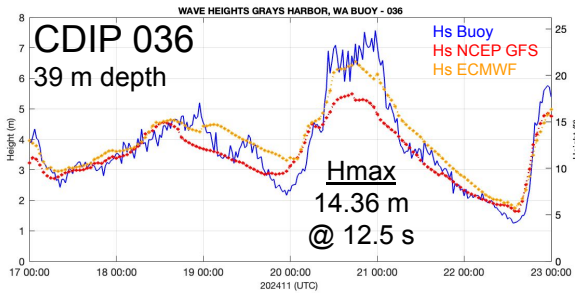


CDIP Wave Observations: West Coast Bomb Cyclone November 19 - 21, 2024



- Early season winter wave activity continued this week along the Pacific Northwest coastline, driven by a combined bomb cyclone and atmospheric river weather pattern. Winds off Vancouver Island were reported to have reached 160 km/h (100 mph).
- Waves measured by CDIP buoy stations were on the order of $H_s = 7-8$ m. These do not rival the most energetic events on record for the region, but were near the expected annual return period wave height based on USACE Wave Information Study (WIS) climatology for the region.
- Wave heights measured by CDIP stations exceeded both the NOAA NCEP GFS model, and the ECMWF global WAM model, by a meter or more at the peak.
- The buoy at CDIP 179 Astoria Canyon, OR went adrift during the event and measured a peak $H_s = 9.67$ m (32') at $T_p = 13.3$ s near the station, with $H_{max} = 17.27$ m (57').
- This was the 2nd largest wave event measured at CDIP 270 Tillamook, OR (established 2023) and the largest so far at CDIP 278 Newport PWS S, OR, established this year by NREL at DOE's PacWave test site.

H_{max} = largest individual wave
 H_s = significant wave height
 T_p = period of peak wave energy

CDIP wave bulletins:

cdip.ucsd.edu/themes/cdip?d2=p12