

EXPORTS NE Pacific Context Situational Awareness

Date: Tuesday- Aug 7, 2018 - JD 219

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Weather Forecast Summary:

Tomorrow (Wed 8/8) will be cloudy, humid, cool (13°C), some forecast have light rain. The winds maybe 10kts from W turning the NW. They stay in the 10-14 kt range from the NW for Friday and turn from the west saturday (GFS and ECMWF). Today's SWHs ~1.5m from E, the SWH forecasts for them to swap around to be from the W tomorrow. SWH will stay in that 1.5-2m range for this forecast period.

Oceanography Summary:

Ocean Color: Last good Chl image - July 3 - see below. Some patchy images from Viirs, Terra, and Aqua from Sunday show no notable features around PAPA. Blooms are not happening near PAPA.

Upper Ocean Profiles: Please note that all NRT SeaGlider data are largely unprocessed and only notionally calibrated. SeaGlider 219 CTD observations show SST values of ~13.7C, shallow MLD ~20m, strong seasonal thermocline from roughly 10 m to 60m, while the salinity values show a relatively uniform salinity profile to about 80 m. 1% light level was at ~ 80m. A strong (~ 1 mg/m³) and thick (~25 m) chlorophyll max is seen centered at ~60 m.

SST: From the passive microwave SST, local gradient at PAPA looks to be oriented WNW to ESE on today's image. A transect at 50N shows a linear decrease across the 5deg box. Mercator sst confirms the deviation from the usual NW-SE gradient.

Sea Level: Both absolute dynamic topography and sea level anomaly show PAPA sitting on the western edge of a coherent mesoscale anti-cyclone. The geostrophic velocity associated with this feature is still fairly weak, ~5.6 km/d to the NE but amongst the strongest velocities in the region. A cyclonic feature is located to the ENE of PAPA and another cyclonic feature is located to the SSE of PAPA. There is a signature of an anticyclonic eddy immediate south of PAPA in the Mercator products.

Currents: According to altimetry surface currents at Station P are ~5.6km/d to the NE; PAPA sits on the western edge of the anti-cyclone. Mercator products show surface currents 4.8km/d to the NNE at PAPA. At 95m Mercator is showing 7.8km/d to the NE.

Weather forecast details

[ECMWF,GFS,NEMS summary](#)

[sea state summary \(wavewatch3 CDIP for UW wave rider mooring\)](#)

[sea state summary \(ECMWF WAM 13km\)](#)

Date	Wind(kn) "from the"	Tair(°C)	SWH(m) "from the"	Clouds(%)	Precip(")	URL	predictability
Wed 8/08	LV -> 8W	14	1.5W	100	--	aug 8 forecast URL	high
Thu 8/09	10NW	13	1.8W	100	.02-.04	aug 9 forecast URL	high

Fri 8/10	10W	13	2.0SSW	93	--	aug10 forecast URL high
Sat 8/11	10W	14	2.0SSW	73	--	aug11 forecast URL high
Sun 8/12	10SW	14	2SE	60	--	aug 12 forecast URL high

Comparison of weather forecasts at Station P of 7 different model runs - [6 day forecast model comparison](#)

Glider219- Real time depth profiles

Dive 55 2018-08-07 17:01-22:31 utc

Start 50.08N 145.09W

End 50.06N 145.12W

- [locations/dates/times](#)
- [chlor a](#)
- [fraction of surface PAR](#)
- [fraction of saturated O2](#)
- [Temperature](#)
- [Salinity](#)
- [Sigma0](#)
- [Optical scatter](#)

Note: all NRT glider data are using manufacturers offsets / cal constants

PMEL mooring

Last week of hourly air temp, wind, current, sss,sst - [PMEL stack time series plot](#)

Satellite Imagery:

Last good Chl image: July 3 - JD 184 - Aqua - [URL](#) corresponding [sst](#)

Sunday's Chl image: Aug 5 JD 217- Aqua- [URL](#), corresponding [sst](#) and [Rrs555](#)

“ “ NPP-S [URL](#) corresponding [Rrs551](#)

Microwave SST: [URL 10 deg](#) & [URL 5 deg](#), $||\text{grad}(\text{sst})||$ [5 deg URL](#)

Microwave+Thermal SST: [URL 5deg](#)

Merged Satellite Altimetry:

Absolute Sea Level & Geostrophic Velocity - [10 degree box](#) & [5 degree box](#)

Sea level anom & anom currents - [10 degree box](#) & [5 degree box](#)

Mercator Ocean Products:

Surface currents, SST & SSH: [10 degree](#) & [5 degree](#)

95 m currents & salinity: [10 degree](#) & [5 degree](#)

Today's Situational Awareness data **on the google drive** [sitAware for 2017-08-07 EXPORTS NRT Platform positions in \[graphic\]\(#\) and \[tex\]\(#\) format.](#)