

## EXPORTS NE Pacific Context Situational Awareness

**Date:** Thursday- Aug 9, 2018 - JD 221

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### **Weather Forecast Summary:**

Tomorrow (Fri 8/10) will be cloudy, humid, cool (13°C), The winds are forecast to be ~10kts from the NW turning from the W Sat and SW Sun and picking up to 20kts from the SSW Mon. Today's SWHs ~1.6m from NW. SWH will stay in that 1.5-2m range and increase Mon to a peak of 4m and decreasing throughout tuesday back 2m.

### **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 ~13.8C, MLDs are pretty stable between 25 and 30 m. There is an indication of a shallower stratification on some dives (diurnal?). There is another pycnostad between 60 and 100m below the strong seasonal thermocline (roughly 25 m to 60m). Salinity values show a relatively uniform salinity profile to about 80 m. 1% light level was at ~ 70m. A strong (~ 1 mg/m<sup>3</sup>) and thick (~25 m) chlorophyll max is seen centered at ~60 m.

SST: From the passive microwave SST, SST contours around PAPA are largely aligned from the SW to the NE, such that large-scale gradients go from NW to SE. Although at PAPA itself, SST gradients are quite weak. A transect at 50N shows a linear decrease across the 5deg box. Mercator sst shows a slight warmer (14.5°C) anti-cyclone sitting over PAPA.

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, ~4.8 km/d to the NE but amongst the strongest velocities in the region. A cyclonic feature is located to the NE 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 ~4.8km/d to the NE; PAPA sits on the western edge of the anti-cyclone. Mercator products show surface currents 3.4km/d to the SE at PAPA. At 95m Mercator is showing 7.3km/d to the NE.

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### **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
Fri 8/10	10NW	13	1.6SW	100	--	<a href="#">aug10 forecast URL</a>	high
Sat 8/11	9W	14	1.5SW	100	--	<a href="#">aug11 forecast URL</a>	high
Sun 8/12	12SW	14	2SE	100	--	<a href="#">aug 12 forecast URL</a>	very high
Mon 8/13	20SSW	14	2->4WSW	100	--	<a href="#">aug 13 forecast URL</a>	high
Tue 8/14	13NNW	15	4->2WSW	100	0.4-0.8	<a href="#">aug 14 forecast URL</a>	low

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

### Glider219- Real time depth profiles

Dive 63 2018-08-09 14:27-19:47 utc

Start 50.16N 145.20W

End 50.19N 145.20W

- [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

Last 2 days of profiles -

- [Locations](#)
- [chlor a](#)
- [fraction of surface PAR](#)
- [fraction of saturated O2](#)
- [temperature](#)
- [Salinity](#)
- [Sigma0](#)
- [Blue scatter](#)
- [Red scatter](#)

### 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](#)

**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 2017-08-09](#)  
**EXPORTS NRT Platform positions in [graphic](#) and [tex](#) format.**