

## EXPORTS NE Pacific Context Situational Awareness

**Date:** Thursday- Aug 2, 2018 - JD 214

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### **Weather Forecast Summary:**

Rain tonight and morning. Tomorrow (Friday 8/3) will be cloudy, humid, cool (14°C), with >20kt winds from the SW turning W. A strong low is to the north. SWH are 2-3m and will increase to 3-4m over the next couple days.

### **Oceanography Summary:**

Ocean Color: Last good Chl image - July 3 - see below.

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 ~14.2C, shallow MLDs (~10m), strong seasonal thermocline from roughly 10 m to 50m, while the salinity values are relatively uniform salinity profile to about 70 m. 1% light level was at ~ 90 m. A strong (approaching 1 mg/m<sup>3</sup>) and thick (~25 m) chlorophyll max is seen between 40 and 60 m.

SST: Merged SST imagery available. Strong SST gradients persist to the east and south of PAPA; these have strengthened over the past few days. The large-scale NW (cold) to SE (warm) gradient are breaking up with a warm filament extending to the west and north of PAPA. PAPA is now located near the center of a low SST anomaly. This is a large feature, at least a couple hundred km's across, perhaps too large to be a single mesoscale eddy. The Mercator SST does show warmer water moving to the north to the west of PAPA, but PAPA is not located in the center of the temperature minimum.

Sea Level: Both dynamic topography and sea level anomaly show PAPA sitting on the western edge of a large, coherent mesoscale anti-cyclone. The geostrophic velocity associated with this feature is still fairly weak, ~5 km/d to the North 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 SE of PAPA. Both features are over 100 km away and unlikely to affect the area immediately around PAPA. There is a signature of an anticyclonic eddy immediate south of PAPA in the Mercator products.

Currents: Surface currents at Station P are ~5 km/d to the North; PAPA sits on the western edge of the anti-cyclone. Altimetric and Mercator products are show rather dissimilar patterns. Mercator products show currents that about two times larger, ~10km/d at PAPA but here to the NE.

### **Weather forecast details**

[ECMWF,GFS,NEMS summary](#)

[sea state summary \(wavewatch3 22km\)](#)

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

Date	Wind(kn)	Tair(°C)	SWH(m)	Clouds(%)	Precip(“)	URL	predictability
Fri 8/03	25WNW	14	2.5W	93	0.4-0.8	<a href="#">aug3 forecast URL</a>	high
Sat 8/04	25NW	14	3-4WNW	100	0.0-0.1	<a href="#">aug 4 forecast URL</a>	medium

Sun 8/05	20N	15	4WNW	100	--	<a href="#">aug 5 forecast URL</a>	medium
Mon 8/06	18NE	15	2.5N	50	--	<a href="#">aug 6 forecast URL</a>	high
Tue 8/07	8N	15	2NW->ENE	50	--	<a href="#">aug 7 forecast URL</a>	high

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

### **Glider219- Real time depth profiles**

Dive 33

[location](#)

[chlor a](#)

[%PAR\(0\)](#)

[fraction of saturated O2](#)

[Temperature](#)

[Salinity](#)

[Sigma0](#)

[Optical Backscatter](#)

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](#)

Note - air pressure seems too high...

### **Satellite Imagery:**

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

Microwave SST: [URL 10 deg](#) & [URL 5 deg](#)

Microwave+IR SST: [URL 10 deg](#) & [URL 5 deg](#)

### **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](#)

**Link to Situational Awareness data stockpiled for today on the google drive [sitAware for 2017-08-02](#)**

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