

EXPORTS NE Pacific Context Situational Awareness

Date: Monday- July 30, 2018 - JD 211

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Weather Forecast Summary:

Tomorrow (Tues 8/1) will be cloudy, humid, cool (14°C), with light winds (6 kts from the SE). Forecasted winds will increase after Wed reaching a maximum on Saturday (35 kts). Rain is forecasted Friday, and some rain possible after Thurs. SWH are moderate (1-2 m) on Tues through Friday increasing to > 4 m on Saturday.

Oceanography Summary:

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

SST: Merged SST imagery available. The large-scale NW (cold) to SE (warm) gradient still persists; the large-scale gradient shows a change of > 6 degrees over the 10° domain. It appears that SST gradients are weaker in the vicinity of PAPA, appearing stronger ~80 km SE. The Mercator SST shows a stronger front at PAPA with a change of about 1°C over ~50km with the indication of a warm anti-cyclone just to the SE of PAPA. SST from IR image looks suspect -- gradient is opposite from other products.

Sea Level: Both dynamic topography and sea level anomaly show a pair of anti-cyclonic features to the east of PAPA, one to the SSE and the other to the NNW each about 50 km from PAPA. The western side of these eddies combine to produce a northward geostrophic flow at PAPA. SSH gradients are mostly aligned zonally at PAPA consistent with a northward flow of ~5km/d. The current is stronger to the west of PAPA with two anti-cyclones located to the NE and SE of PAPA; the one to the NE is slightly stronger. There is a signature of an anticyclonic eddy to the SE in the Mercator products.

Currents: Surface currents at Station P are ~5 km/d to the N according to altimetry with hints of anticyclonic features NE and SE of Station P. Mercator products show a narrow current (~14 km/d) to the NE sitting over PAPA again driven by an anticyclonic feature ~40 km SSE of Station P.

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
Tue 7/31	5NE	14	1.6W	100	--	july31 forecast URL	very high
Wed 8/01	8W	14	1.4W	100	--	aug1 forecast URL	very high
Thu 8/02	9NW	14	1.3W	100	0.1-0.2	aug2 forecast URL	medium
Fri 8/03	20WNW	14	1.3-2W	100	0.4-0.8	aug3 forecast URL	medium
Sat 8/04	30NW	14	2- 3NW	100	0.0-0.1	aug 4 forecast URL	low

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

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 2017-07-30](#)

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