

EXPORTS NE Pacific Context Situational Awareness

Date: Sunday- July 29, 2018 - JD 210
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Weather Forecast Summary:

Tomorrow (monday 7/30) will be cloudy, humid, cool (14°C), with light winds (from the SSW early and turning throughout the day to be from the N, NW later in the day). Rain is forecasted thursday and friday. SWH 1.5 from the SW and 1.3ish the rest of the forecast period.

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 roughly 6 degrees over the 10° domain. It appears that the gradients are weaker in the vicinity of PAPA, although it is hard to see if this is dependent on the color scale. No obvious strong fronts or eddies are apparent in the SST. 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 two anti-cyclonic features to the east of 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 (~12 km/d) to the NE sitting over PAPA again driven by an anticyclonic feature ~50 km SSE of Station P.

Weather forecast details

[ECMWF,GFS,NEMS summary Part1](#) and [Part2](#)
[sea state summary \(wavewatch3 22km\) Part1](#) and [Part2](#)
[sea state summary \(ECMWF WAM 13km\) Part1](#) and [Part2](#)

Date	Wind(kn)	Tair(°C)	SWH(m)	Clouds(%)	Precip(“)	URL	predictability
Mon 7/30	9SW->6N	14	1.5SW	100	--	july30 forecast URL	high
Tue 7/31	6N	14	1.3SW	100	--	july31 forecast URL	very high
Wed 8/01	5W	14	1.2WSW	100	--	aug1 forecast URL	very high
Thu 8/02	10W	14	1.3WSW	86	0.2-0.4	aug2 forecast URL	medium
Fri 8/03	13SW->W	14	1.3W	100	0.2-0.4	aug3 forecast URL	medium

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 2017-07-29](#)

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