

EXPORTS NE Pacific Context Situational Awareness

Date: Thursday- July 26, 2018 - JD 207

Creators: Dave Siegel, Erik Fields,

Weather Summary:

Tomorrow (7/27) will be cloudy, humid and cool (15°C). Winds are ~10kts SSW. Winds look like they stay around that size till Monday, when they are forecasted to decrease and turn from the west and then from the NW. SWHs are ~2.m with swell from the SSW decreasing to 1.3m from the S on Tuesday. According to GFS22 there will be sunshine Saturday, but don't hold your breath:).

Oceanography Summary:

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

SST: Merged SST imagery provides higher resolution than microwave. The large-scale NW (cold) to SE (warm) gradient still dominates the pattern with a change of roughly 6 degrees over the 10° domain. The enhanced gradient at PAPA is now predominantly oriented North to South as seen in the 5° domain plots. A sharp SST gradient (1°C over ~50 km) is located to the south of PAPA around 49° S. Mercator products show a similar large-scale gradient. The Mercator SST shows a warmer SSTs being advected into PAPA from the SW due to an anti-cyclonic flow.

Sea Level: Altimetry shows that SSH gradients are mostly aligned zonally at PAPA consistent with a northward flow. The current is stronger to the west of PAPA with two weak anti-cyclones located to the NE and SE of PAPA. These features remain relatively weak, but establish a region of larger lateral shear to the E of PAPA. There is a signature of an anti-cyclonic eddy to the SE in the Mercator products.

Currents: Surface currents at Station P are ~5km/d to the N according to altimetry with hints of anticyclonic features NE and SE of Station P. Mercator products show a narrow current (~15 km/d) to the NE sitting over PAPA.

Weather forecast details

[ECMWF,GFS,NEMS summary](#)

[sea state summary](#)

Date	Wind(kn)	Tair(°C)	SWH(m)	Clouds(%)	Precip(“)	URL	predictability
Fri 7/27	10SSW	14	2.0SSW	100	--	july27 forecast URL	medium
Sat 7/28	14S	15	1.8SSW	100	--	july28 forecast URL	high
Sun 7/29	12SSW	15	1.5SW	100	--	july29 forecast URL	very high
Mon 7/30	5NW	15	1.4S	66	--	july30 forecast URL	high
Tue 7/31	5S->SW	15	1.3S	50	--	july31 forecast URL	high

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:

[this are from yesterday. I will update them as soon as I can]

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 2017-07-26](#)

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