EXPORTS NE Pacific Context Situational Awareness
Date: Sat- Aug 18, 2018 - JD 230
Creators: Dave Siegel, Erik Fields

Weather Forecast Summary:
Tomorrow (Sun 8/19) will be cloudy, rain ~.6", , very windy (28 kts), humid, and cool (15°C).
It now looks like winds >20kt will stick around well into Mon.

Current SWHs ~3.5m from SW   If the WaveWatch3 model is to be trusted SWHs are expected
to increase up to 5m today then decreasing throughout tomorrow to about 3m Monday
(WaveWatch3).

Oceanography Summary:
<u>Ocean Color</u>: no recent images due to clouds.

<u>Upper Ocean Profiles</u>: Please note that all NRT SeaGlider data are largely unprocessed and only
notionally calibrated. SeaGlider 219 CTD observations show SST values of ~14C and MLDs are
23-28 m for the last available dive (101). Over the past ten dives, there is some variability in
mixed layer depth between 20 and 35 m. Strong pycnoclines are seen just beneath the MLD,
between 25 and 40 m and between 100 and 115m. Salinity values slowly increase with depth
over the upper 90 m showing none of the strong gradient seen in temperature. There is a
halocline between 100 and 115m.
The surface chl (mean of top 10m) the last couple days is often in the ballpark of .5-.8mg/m^3.
The last dive upcast (101) showed a strong ChlMax ~1.4mg/m^3 at ~60 m.. Increases are also
seen in surface layer optical backscatter with some large subsurface features consistent with
the Chl Max (but mostly not). 1% light level was at ~ 71m. The glider has been NNW of PAPA.

<u>SST</u>: **No new SST today** OBPG was down and RSS mw sst processing is hung.. (they may get
ancillaries from OBPG). Yesterday - The SST distribution shows a large-scale temperature
gradient that is aligned such that the temperature changes from NW to SE near PAPA (colder
waters to the NW, warmer waters to the SE).   A warm feature seems to be moving northward
towards PAPA. It is like 50km wide and extends ~80km northward. It is maybe .5 warmer than
the water it is pushing into. The surface fields from Mercator seem to agree.

<u>Sea Level</u>: Both absolute dynamic topography and sea level anomaly show that PAPA continues
to sit on the west edge of a weak, coherent mesoscale anti-cyclone (about 100-km in scale). The
absolute geostrophic velocity associated with this feature is still fairly weak, ~4.8km/d to the
NNE but amongst the strongest velocities in the region. There is an indication that this
anticyclone may be merging with weaker features to the S and NE of PAPA. Mercator products
also show an anticyclone, although it is centered on PAPA rather than to the east as in altimetry.

<u>Currents</u>: According to altimetry surface currents at Station P are ~4.8km/d to the NNE; PAPA
sits on the western edge of the anti-cyclone. Mercator products show -surface currents are

~13.9km/d to the NE at PAPA.   At 95m Mercator is showing 5.5km/d to the NE. Mercator product shows an anti-cyclone centered on PAPA.

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Weather forecast details
ECMWF,GFS,NEMS summary (note NEMS is offset 10hrs. This will be fixed. Utc vs local issue. Windy.com is aware.)
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
Sun 8/19	28SSE	15	5->3SSW	100	0.2	aug 19 forecast URL	high
Mon 8/20	25S->19SW	15	3SSW	100	0.6	aug20 forecast URL	high
Tue 8/21	15WSW	14	3->2SW	100	--	aug21 forecast URL	medium
Wed 8/22	8W	14	1.5WSW	70	--	aug 22 forecast URL	high
Thu 8/23	15W	14	1.5SSW	100	--	aug 23 forecast URL	medium

Comparison of weather forecasts at Station P of 7 different model runs - 6 day forecast model comparison

Glider219- Real time depth profiles
  Dive 101 2018-08-18 00:47-05:48 utc-9
  Start 50.27N 145.00W
  End   50.30N 145.00W
- locations/dates/times
- chlor_a
- fraction of surface PAR (from dive98)
- fraction of saturated O2
- Temperature
- Salinity
- Sigma0
- Optical scatter
        Note: all NRT glider data are using manufacturers offsets / cal constants
Last 10 profiles dives 92-101 2018 Aug 15 23:24 utc-9 Aug 18 05:48 utc-9
- 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:
 (no new SST today. OBPG was down for maintenance and RSS processing seems to have hung. I sent mail to support. **Link are to yesterday's images)**
 Microwave SST: [URL_10_deg](#) & [URL_5_deg](#), ||grad(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 2017-08-18](#) EXPORTS NRT Platform positions in [graphic](#) and [tex](#) format.**