National Ocean Service Center for Operational Oceanographic Products and Services

TWG User Update

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CO-OPS Observing Network

The CO-OPS observing network is made up of approximately 460 permanent stations as part of the National Water Level Observation Network (NWLON) and through Physical Oceanographic Real-Time Systems (PORTS®).

Approximately 372 stations are water level based with a small subset that are purely meteorological

66 of those station are current meters of all different flavors (buoy mounted, sidelookers, and several bottom mounts)

Data Retrieval

- Data is retrieved from the majority of stations using GOES satellite transmissions with cellular IP modems or phone lines serving as backup.
- Approximately 15 stations currently transmit only via Iridium (10 of these are iATON Buoys).
- Several PORTS still acquire data via LOS radios with data stored on an FTP site.

GPS Rollover

- Despite CO-OPS best efforts approximately 158 stations (~34%) were impacted by the GPS rollover. (Satlinks 2009 and older)
- By the end of the week (4/12/19) approximately 135 (~85%) of those stations were being polled via IP or phone line and were updating in real-time again.
- Currently approximately 69 (~44%) stations have had the Satlink's firmware upgraded and have resumed transmitting via GOES.
- All stations are expected to be reporting again either via polling or GOES by the end of the month (approximately 94% of the impacted stations are currently reporting)


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Impacts from the GPS Rollover Cont.

- USACE Employees from Toledo were stranded at the office due to flooding typically predicted by the local tide gauge.
- Coquille River flooded during the GOES outage and the Northwest River Forecast Center was unable to track the flooding around Portland, OR.
- Ontario Power Generation typically compares their gauge values to the Ashland Avenue station for consumption use and was unable to confirm flow rates with their meters.