Endurance Array Current Data and QA/QC Activities

- **Current Activities/Priorities**
  - Asset Management (increased responsibility).
  - Data Ingestion (new responsibility).
  - Data QA/QC (new responsibility).
  - Coordination and collaboration between MIOs under direction of PMO (new responsibility).
- **QA/QC Plans**
  - Gaps and metrics of quality.
  - Annotations.
  - Biofouling mitigation.
- **Parsers/Processors**
  - uFrame and OMS++ (mixed).

Endurance Array Current Data and QA/QC Activities

- ## Current Activities/Priorities: Asset Management

    - Already largely responsible for this process (pre-2.0).

        - New tasks include testing and review, improving reliability by double-checking calibration values against vendor-provided information.

    - Complete and up-to-date through most the recent glider deployment on 2018-10-17.

    - Future work in collaboration with MIOs and under direction of PMO to coordinate process, improve work flows, testing, timeliness, and ensure accuracy of data (e.g. calibration coefficients).

Endurance Array Current Data and QA/QC Activities

- **Current Activities/Priorities: Data Ingestion**
  - Using pre-existing CI M2M interface and Data Team scripts to initiate data ingestion.
    - Straight-forward process, well developed code available for use with little modification (user names, file paths).
  - Initiated ingest of telemetered Endurance 10 data.
    - Error on server side ingest handling has completely blocked all telemetered ingest (2018-10-11).
    - Issue being actively worked by PMO and CI. Monitoring progress and will initiate final ingests for E10 once issue is cleared.
  - Working on instrument and mooring system data downloads in preparation for ingestion of recovered Endurance 9 data.
    - Expect to upload data to CI and initiate ingest of recovered data by 2018-11-15.

Endurance Array Current Data and QA/QC Activities

- **Current Activities/Priorities: Data Ingestion**
  - Building off of current Data Team scripts to develop new processes to automate monitoring of the ingestion process.
    - Current implementation requires manual queries via REST client.
    - New python module automates and summarizes queries for entire set of ingest IDs per mooring.
  - Working to generate metrics of current ingest status and clearly identify where issues may lie.
  - Exploring existing Data Team code and notebooks uploaded to GitHub.

Endurance Array Current Data and QA/QC Activities

- **Current Activities/Priorities: Data QA/QC**
  - Utilizing internal systems (OMS and OMS++) to review mooring systems and instrument status (daily).
    - Pre-2.0 activity, will extend to include adding annotations and flagging as appropriate.
    - Need a better system to communicate directly to users as we encounter not just issues, but interesting events, features, etc.
  - Test and implement existing scripts (ooi_stats) to check for interruptions in data delivery and any issues with quality based on Global Range test.
  - Coordinate with PMO to address any outstanding (and new) Help Desk tickets.
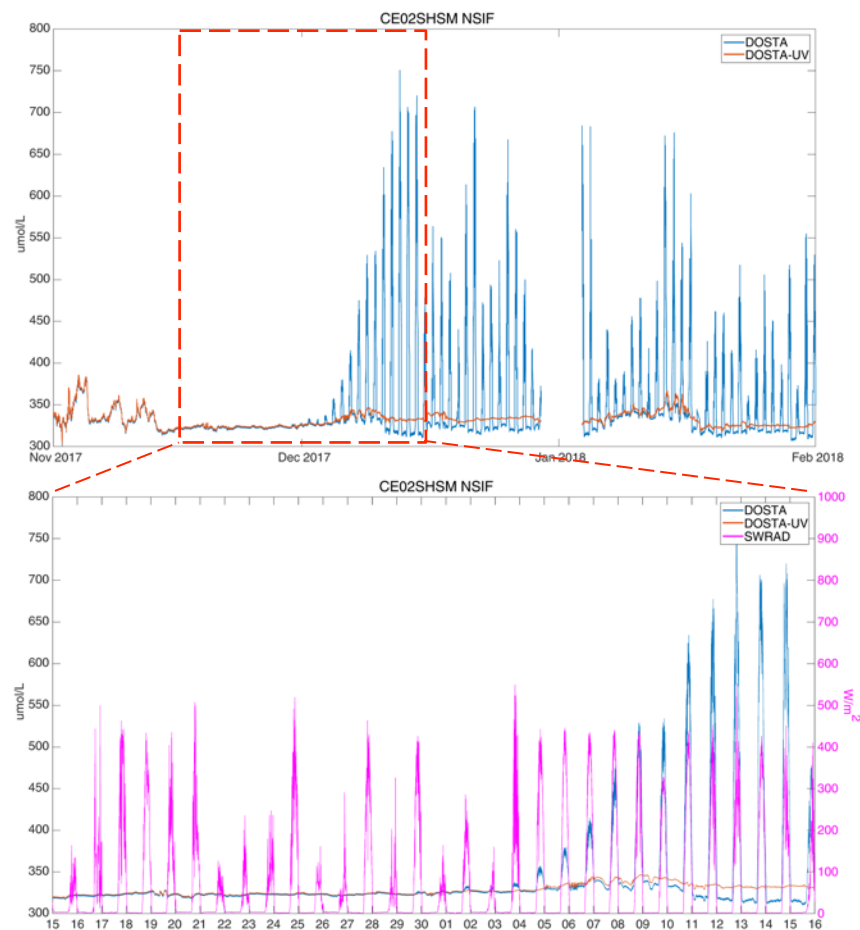
Endurance Array Current Data and QA/QC Activities

- ## QA/QC Plans

  - Working in coordination with MIOs and PMO to develop common, coherent QA/QC definitions and processes (existing and new).

  - Reviewing annotations to better communicate events and issues to community.

  - Developing new scripts to create metrics of telemetered data availability by cross-comparing % daily coverage (%DC) for 1.0 data. Add automated QA/QC measures to extend metrics beyond data availability to quality and system performance.

Instrument	uFrame (%DC)	OMS++ (%DC)
METBK	*72.5*	*79.3*
FLORT	63.0	76.2
CTDBP (NSIF)	68.1	67.7
CTDBP (MFN)	27.6	37.6

Endurance Array Current Data and QA/QC Activities

- **QA/QC Plans:** Biofouling Control
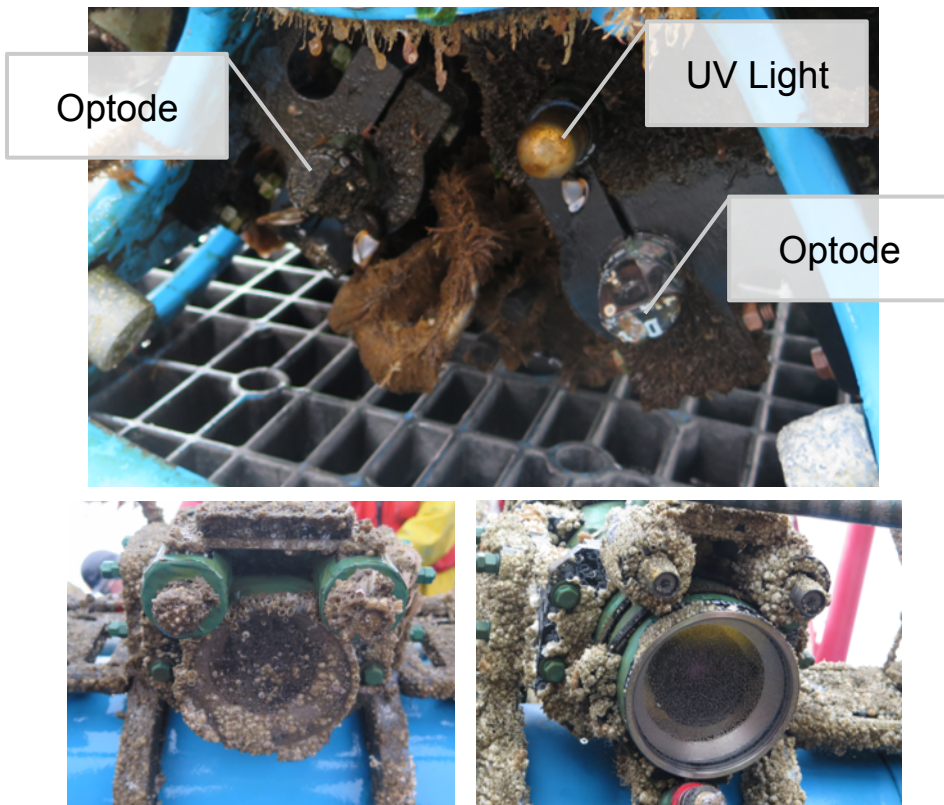
Endurance Array Current Data and QA/QC Activities

- **Parsers/Processors**
  - uFrame (PMO/CI responsibility).
    - Update will be required for existing PCO2A parser to address upcoming firmware changes (Spring 2019).
  - OMS and OMS++ (internal system EA/CGSN, telemetered only).
    - Used to monitor mooring systems and instrument health and status.
    - Used to cross-compare data availability and quality.
    - No new parsers required.
    - New processors required for ADCP, VEL3D and select inductive modem hosted instruments.
    - Updates to metadata and processing steps required.
    - Code freely available online:
      - https://bitbucket.org/ooicgsn/cgsn-parsers/src/master/
      - https://bitbucket.org/ooicgsn/cgsn-processing/src/master/