General announcements:

- Testing code sprint is 9/21 9/25.
- Documentation sprint is 10/5 10/9.
- JEDI release is October. loda-converters will not be a part of the general release.
- Quarterly review is approaching.

Agenda:

- 1. Announcements
- 2. Greg Thompson discussion on variable naming conventions [document]
- 3. Quarterly review notes
- 4. Round table updates. What have you been working on, are there any issues, and what are your expectations for the next two weeks? Not much time for discussion today, but please write your updates at the end of this document.
- 5. Questions?

Notes on Quarterly Review / JEDI2:

- Please make sure that your work is being reflected accurately in ZenHub.
- I met with Phil Gibbs last week to go over JEDI2. I already responded to his comments, but you can see what an outside observer notes here.
- There is considerable overlap between some tasks. Some work is being assigned under the wrong task. If work spans multiple tasks, you can assign it to multiple Epics in ZenHub. Even if you are not listed on the AOP for a task, you can still use that task's epic(s).
 - Ex 1:

 OBS1.5 UFO test results radiance data
 OBS1.5.EMC05 UFO filter development and enhancement
 JEDI2.2 Improved generic H(x) and QC filters

 Ex 2:

 JEDI1.9 (Running and monitoring near real time systems)
 JEDI2.7 (Near real time H(x) application)
- If you think that a timeline is unrealistic or that agency goals have changed over this year, tell me.

Updates:

Ryan:

 String reads in ioda-engines have been resolved (<u>JCSDA/ioda-engines#138</u>). We can read all of the UTF-8, ASCII, fixed-length and variable-length strings that occur in the ioda obs files.

- Working on improvements to the ioda Python interface (<u>JCSDA/ioda-engines#136</u>) needed for the obs team and the nrt website.
 - Python API for ObsGroup
 - Python examples
 - Multidimensional arrays in Python calls
- Still working on a generic copying mechanism for ioda-engines. Copies data from one backend to another. Two of three PRs merged.
- Generic preprocessing app planning meeting on 9/10. <u>Notes here</u>. Planning on addressing after the ObsSpace refactoring is complete. Two tasks here:
 - o Write the generic application. Will be based on apps already in ufo.
 - o Update the Filter classes to allow filters to modify their ObsSpace.

Wojciech:

- Opened PRs allowing a number of oops interfaces (Geometry, ErrorCovariance, LinearVariableChange, LinearModel) to extract options from Parameters subclasses rather than Configuration objects. That will allow JSON-Schema-based validation of these options as soon as the YAML file is read. Some of these PRs have already been merged in.
- A few similar PRs are being prepared (ModelAuxControl, ModelAuxIncrement, ModelAuxCovariance, State, ObsFilter).
- Opened a PR defining Parameters subclasses for implementations of the Geometry interface in the JEDI interface to the Unified Model.

Praveen:

- Finished adding PRINT statements into all of the the ObsProc/prepobs_prepdata programs
- Cloned updated version of ObsProc_prep and ObsProc_global repositories; installed and tested on Hera
- Created a document for how to run ObsProc codes on Hera
- Helped Emily and Nick for how to run ObsProc codes on Hera

Steve

- Presented ioda converter tutorial at 9/10/20 JEDI weekly discussion meeting
- Work in progress on ObsSpace re-factoring
 - o Integrating Ryan's fix for string reads is work in progress
 - Converted parsing of eckit configuration for ObsSpace to oops::Parameters scheme
 - Identified performance issue and repair is work in progress
 - o Identified several marine obs files which are netcdf3 format
 - ☐ These will be converted to netcdf4 so that the ioda-engines system can read them

Mike Cooke:

• Updating the RTTOV 1D-Var to take into account changes in the RTTOV interface which are currently part of a pull request. A first version of this filter will follow shortly.

Ron McLaren

 Mostly spent time getting IODA engines based BUFR conversion code ready to merge into the ioda-converters develop branch.

August Weinbren

 Currently working on expanding recently added Ship Track Check unit tests to include direct comparisons to the observations rejected under the same parameters by OPS

Xin Zhang

- Merged the Preconditioning version 1 for ObsBias, it is not done yet, further changes are needed on OOPS minimization classes after the release.
- The IO for ObsBias with the coming IODA-Engines are submitted and under review.

Actions:

- Please make issues for work if not already created.
- Please make sure that your work is being reflected accurately in ZenHub.