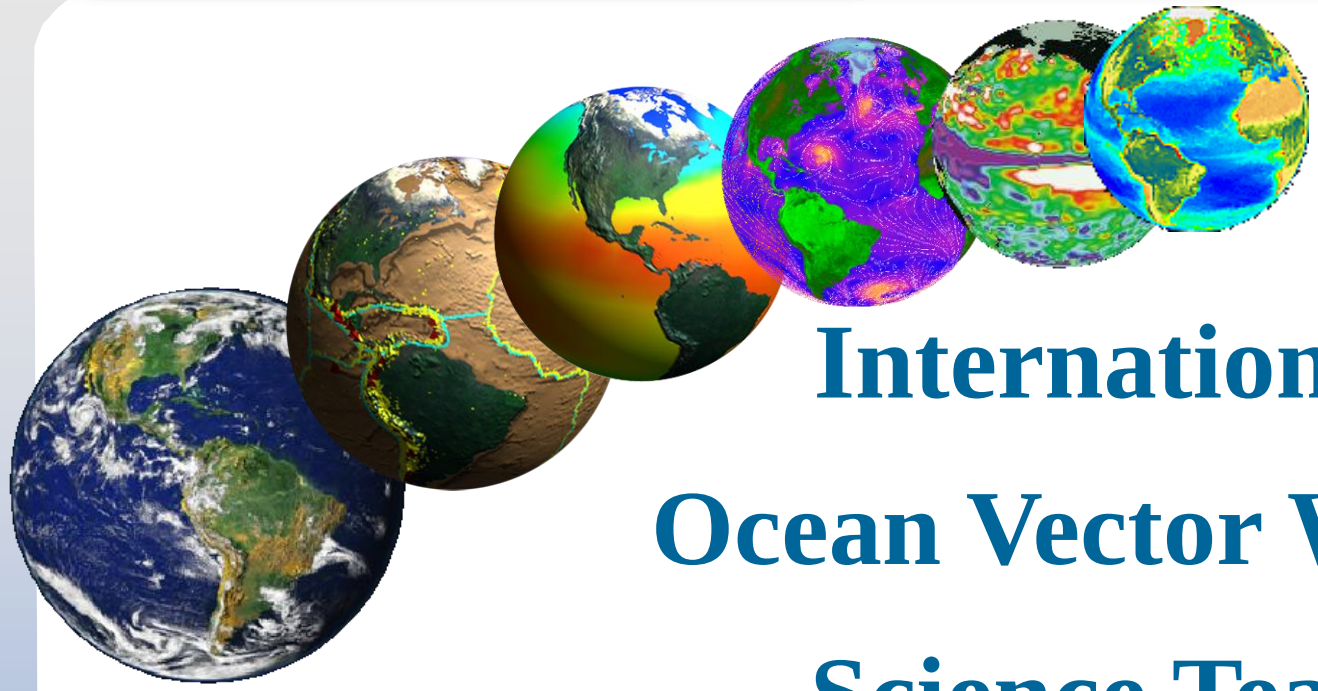

International Ocean Vector Winds Science Team

June 2014

Dr. Eric Lindstrom
NASA Headquarters
Washington, D.C.

Evolution since last IOVWST

Program Planning Activities - NASA HQ

- Proposed termination of QuikSCAT (in process)
- Upcoming launch of RapidScat
- ROSES 2013 (US OVWST recompetition)
- Decadal Survey (planning for DS2017)

Program Science Activities

- Seeking more synergy with other measured variables

Eric Lindstrom
NASA HQ 5/2014

End of QuikScat

- It has been proposed to terminate the QuikScat mission by end September 2014.
- Now working through the NASA budget process to extend the mission to June 2015 to ensure overlap with RapidScat.
- By design, funding for RapidScat data processing was bundled with QuikScat, so also working on re-organizing support for RapidScat data and science.

Eric Lindstrom
NASA HQ 5/2014

QuikScat End of Mission

- Decommissioning timeline:
  - Existing EOM Plan approved – June 1, 2014
  - KDP-F decision memo released July 1, 2014
  - Decommissioning and orbit lowering plans complete by July 15, 2014
  - Science operations end August 1, 2014
  - Orbit lowering maneuvers and decommissioning ops: August 1 – Sept. 1, 2014
  - Spacecraft power off: Sept. 15, 2014
  - Contract close-out, spacecraft data archiving and Ball's final report complete: November 30, 2014
  - Science data preservation/archiving and final report by JPL complete: Sept. 30, 2015

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RapidScat

ISS-RapidScat launch planned for August 2014 (ISS re-supply mission)

Full report later in meeting from Ernesto Rodriguez

Rapidly-developed, low-cost mission, using Seawinds heritage.

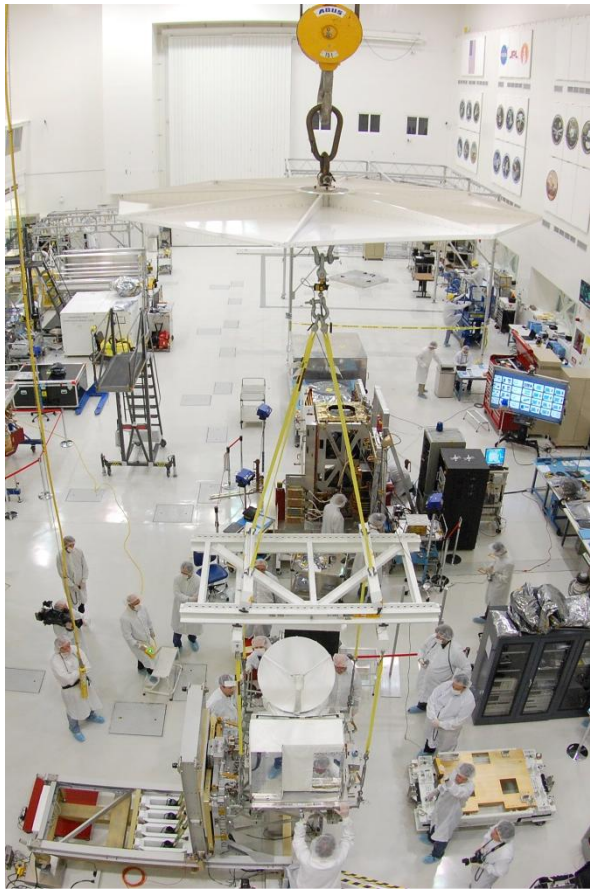
May serve as intercalibration mission for Ku-Band scatterometers.

Likely to illuminate the diurnal cycle of winds in the tropics.

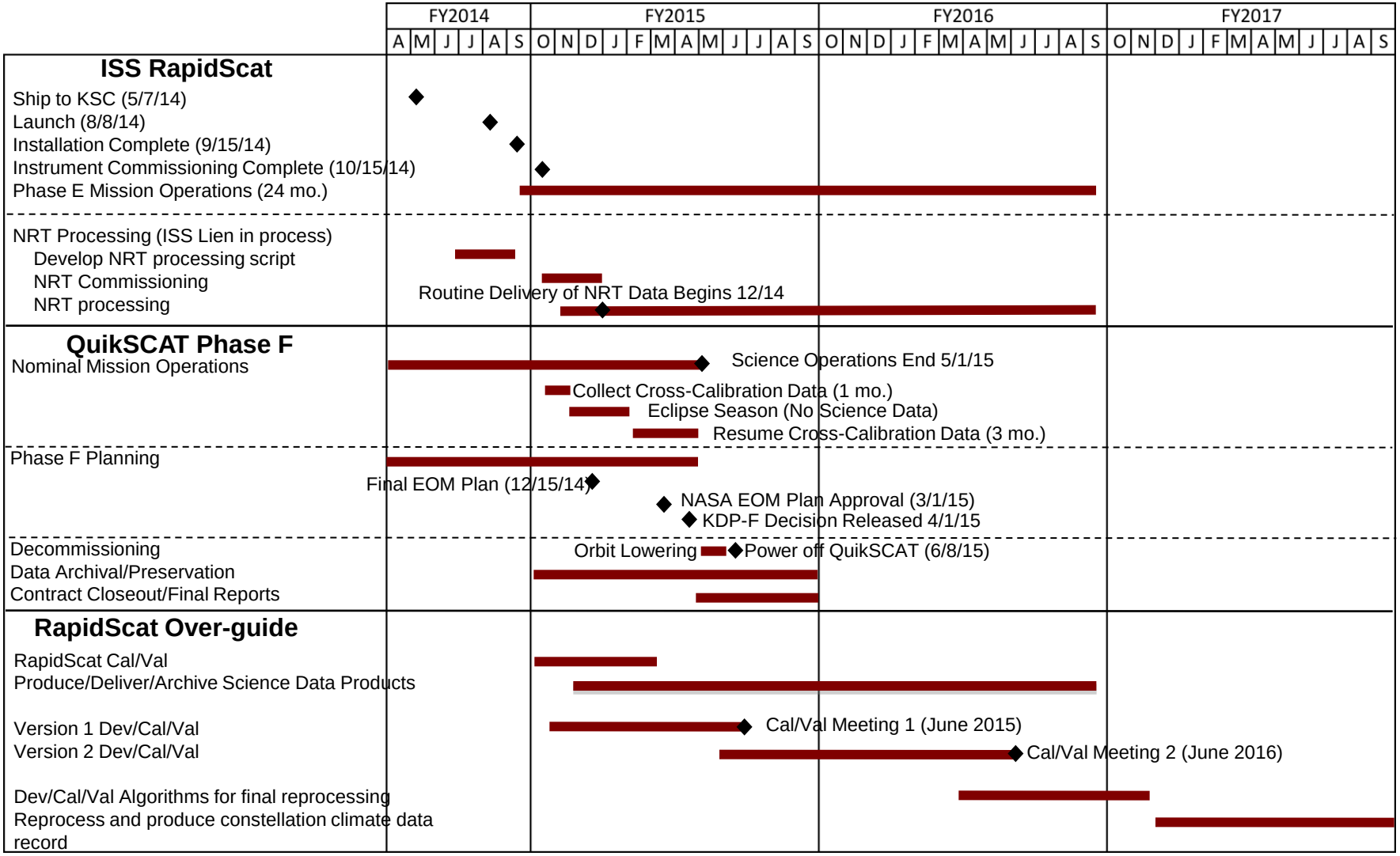
Eric Lindstrom
NASA HQ 5/2014

RapidScat Status

- RapidScat is in its final testing stages and is on schedule for launch in August, 2014
- Unlike most NASA Earth missions, RapidScat is a technology demonstrator and has accepted a significant amount of risk due to the reuse of old hardware.
- During assembly, the instrument suffered several hardware anomalies, but the JPL team was able to correct them.
- The instrument has successfully passed performance and functional tests and the engineering team feels that it will perform on deployment.
- Many parts of the system are single string and the system will operate in the new ISS environment, which is not as stable as QuikSCAT



Integrated QuikSCAT and RapidScat Schedule



Evolution of US OVWST

- **OVWST Re-compete in ROSES 13**
- **Proposals due 11/15/13 (delayed due to govt shutdown)**
- **Received 53 proposals. Selection of 20 proposals (38%) under review at NASA HQ (to be completed 12 June).**
- **Expect a similar size team with some newer topical foci and new participants. Expect more:**
  - **Science from the OVW climatology (ten years+)**
  - **Development/work on products from variety of sources (e.g. L-Band)**
  - **Science from RapidSCAT**
  - **Synergy with other science teams (SST, Salinity, OSTST)**

Successful proposals will be implemented as grants through NASA Shared Services Center. Funding level similar to past announcements

Eric Lindstrom
NASA HQ 5/2014

Decadal Survey 2017

- Community discussion and preparation has already begun.
- Recall that the last DS called for community input via mission white papers
  - Should there be a strategy for IOVWST?
  - What activities in the coming year?
- In 2007 mission concept recommendations revolved around increased interdisciplinary synergies. What are the fresh ideas for OVW?

Eric Lindstrom
NASA HQ 5/2014

Building more science synergy

- Over time can we develop more synergy with SST, SSS, and OSTST teams within NASA Physical Oceanography (and others)?
  - SST Science Team meeting (~Dec 2014, Annapolis, Maryland)
  - L-Band winds (Aquarius/SMOS/SMAP)
  - A NRT Ocean Product? (CEOS Ocean Variables Enabling Research and Applications for GEO - COVERAGE)
- Science team meetings can be considered “Self-Organized Learning Environments”
  - What we get out is more than the sum of the individual funded projects.

Questions?

Eric Lindstrom
NASA HQ 5/2014

BACKUP

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NASA HQ 5/2014

OVWST Organization

- Ernesto Rodriguez, QuikSCAT **Project Scientist**, JPL
- Mark Bourassa, OVWST **Team Leader**, FSU

- Eric Lindstrom, OVW **Program Scientist**, NASA HQ

Project Scientist

- The QuikSCAT Project Scientist is responsible for:
  1) Maintaining the set of science requirements for the QuikSCAT mission.
  2) Monitoring the scientific aspects of QuikSCAT that impact the overall mission cost, schedule, and performance.
  3) Serving as the primary representative of the 22 member science team within the JPL Quikscat Project.
  4) Working with the science community to define quantitative science requirements for future ocean vector winds measurements in light of QuikSCAT results.
  5) Acting as the single point of contact for the scientific representation and decisions required by the QuikSCAT Project and NASA.
  6) Tasking OVWST members and subgroups to address key technical issues as necessary.

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Team Leader

- In close association with the JPL QuikSCAT Project Scientist, the Team Leader will have the following responsibilities in addition to his research activities:
  1) As necessary, author and coordinate the OVWST's corporate input with regard to Science Requirements related to NASA's ocean vector winds products;
  2) Coordinate with appropriate foreign and interagency partners (technical or scientific) to facilitate data access for OVWST science team members and scientific collaboration with like groups;
  3) Organize, plan, and chair Science Team meetings and author reports of the meetings;
  4) Organize, plan, and chair Ocean Vector Winds Special Sections at appropriate professional society meetings;
  5) Organize, plan, and solicit publication of OVWST results inspecial journal issues or sections of journals; and
  6) Assist NASA Headquarters Program Scientist to coordinate OVWST and Research and Analysis (R&A) program activities where synergistic and/or promising developments are possible.

OVWST Member Responsibilities

1) Deliver scientific breakthroughs and well-cited publications.

2) Report these results/publications to the QuikSCAT project and OVWST.

3) Attend and actively support science team meetings on a regular basis (generally one OVWST meeting and one specialized workshop per year).

4) Respond, as necessary, to requests from the Project Scientist and Team Leader for scientific and technical input.

NASA Physical Oceanography Program

1) **Support missions on orbit:** Jason, Jason-2 (altimetry), QuikSCAT (winds), Aquarius (sea surface salinity), GRACE (ocean gravity)

2) **Support missions in development:** Surface Water and Ocean Topography (SWOT), Jason-3 (altimetry), RapidSCAT (winds), Venture Class (ocean proposals)

3) **Support "virtual missions":** Next Generation SST (GHRSST), Atlantic Meridional Overturning Circulation (AMOC)

4) **Support Climate Focus Area/Ocean Observing:** US CLIVAR, USGCRP, GOOS, GCOS, OOPC, GODAE OceanView,, NOAA COSC, IOOC, CEOS, ….

Eric Lindstrom
NASA HQ 5/2014