OSVW-Virtual Constellation

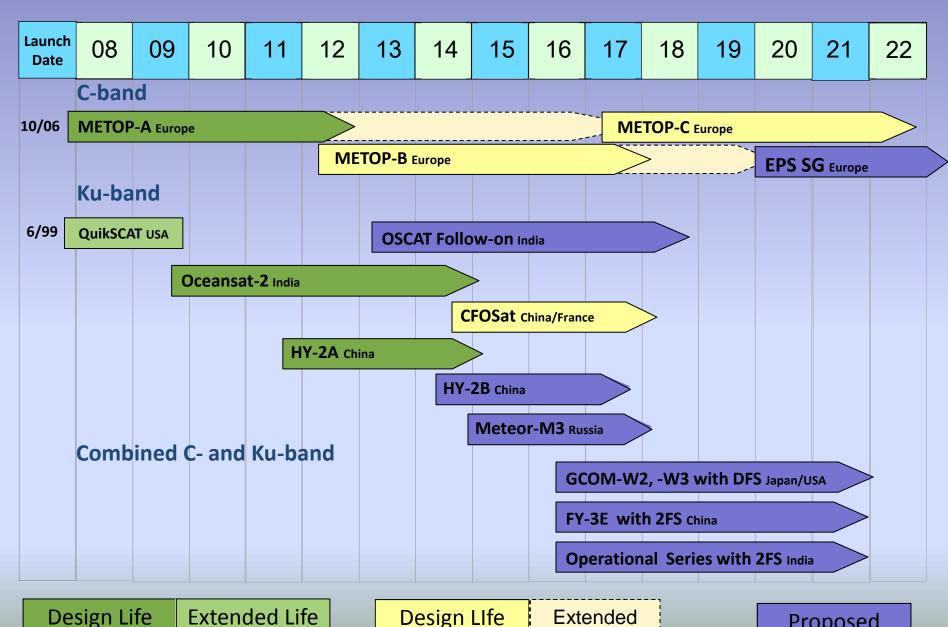
Paul Chang - NOAA

Hans Bonekamp - EUMETSAT

B.S. Gohil - ISRO



GLOBAL SCATTEROMETER MISSIONS



CEOS SIT Technica Operating Vashington DC | 13-14 September 2011 Approved

Proposed

OVW VC - Status and Issues - 1





- Congratulations to China/SOA on the successful launch of HY-2A on August 16, 2011!
- Continuity of Ku-band OVW
 - QuikSCAT 2-month overlap between Oceansat-2 launch & QuikSCAT end-of-scanning; it continues with incidence angle set to match OSCAT
 - OSCAT/Oceansat-2 ISRO is sharing OSCAT data with NOAA, NASA, EUMETSAT, KNMI & ECMWF, who in turn are assisting in cal/val and algorithms; EUMETSAT is helping ISRO provide global access to OSCAT data for operational use, due to begin mid-October 2011.
 - OSCAT Follow-On ISRO planning an OSCAT Follow-On mission for flight as early as mid-2013 which will also include a microwave radiometer with a 6am/6pm equator crossing time
- Continuity of C-band OVW
 - ASCAT/Metop Metop-B launch planned for April 2012 to overlap Metop-A
 - EPS-SG Following Metop-C, EPS-SG will include an ASCAT-like sensor with enhancements
 - ERS-2 de-orbiting activities are completed and the satellite has been completely passivated and switched off.
- Integrating Ku- & C-band OVW products
 - Will be dependent on integrating a data set for each frequency band
 - Will be facilitated with both Ku- & C-band combined on one satellite

OVW VC - Status and Issues - 2





Combined Ku-/C-band Observations

- DFS on GCOM-W2 NOAA: DFS is "unaffordable in the foreseeable future"; NASA to address what the U.S. will do to follow
- 2FS on operational series ISRO plans to implement an operational series building on the OSCAT & OSCAT Follow-On; launch in ~2016
- 2FS on FY-3E CMA plans to implement this once SOA demonstrates HY-2A; launch also ~2016

Timely Data Access

- Remains an issue for Chinese (SOA) & Russian scatterometers
- Once CMA takes over Chinese scatterometry, this issue may be resolved since CMA's NSMC has stated that timely data access will be available

Harmonizing Orbits to Optimize Coverage

 ISRO, EUMETSAT, CMA, NASA, NOAA & operational and research users need to make the case for harmonizing orbits in the 2016 timeframe to optimize coverage among as many as three two-frequency scatterometers

2nd and 3rd Training Courses – *Use of Satellite Wind & Wave Products in Marine Forecasting*



- Operational centers in developing countries do not typically use satellite wind & wave (SWH) products in marine forecasting
 - Lack of knowledge on availability and understanding of satellite data sets
 - A 'portal' for OVW & SWH from multiple satellites is under development at Florida State U and will be demonstrated in Fall 2011
 - Difficulties in accessing, displaying and manipulating satellite data sets
- A 2nd training course will be held in 5-9 December at Oostende, Belgium at the International program on Oceanic Data Exchange (IODE) center sponsored by EUMETSAT with some instructor support from NOAA:
 - The targeted students will be on European forecasters
 - Test the OVW/SWH portal
- A 3rd training course will be held in spring 2012 at CPTEC in Brazil sponsored by CPTEC, NASA and possibly ONR with support from EUMETSAT and NOAA
 - Focus on major South American forecast centers
 - Lay the basis for the adoption of GEMPAK/N-AWIPS as a common forecast software package for South America. CPTEC has helped the Brazilian Navy implement it operationally and is willing to do the same for centers in other South American countries.

Activity Status



- A report endorsed by the CEOS Ocean Surface Vector Wind Virtual Constellation group has been issued by EUMETSAT supporting ISRO's plan to implement a dedicated OSCAT Follow-On mission.
- The ESA/EUMETSAT scatterometer science conference has been held in Darmstadt on 11-13 April 2011.
- International Ocean Vector Wind Science Team meeting has been held in Annapolis, Maryland, USA, 9-11 May 2011.
- ESA and EUMETSAT EPS-SG phase A studies supported by NOAA, include VH and HH polarization options for a C-band scatterometer with an ASCAT like design.
- Constellation meetings:
 - 23 March 2011 Ahmedabad, India
 - 9 November 2011, Darmstadt, Germany TBC