



Ocean Surface Topography Virtual Constellation

Co-Chairs: Stan Wilson, NOAA
& Francois Parisot, EUMETSAT
SIT-25, Hotel Pacific, Tokyo
13-14 April 2010



OST VC



- **Objective:**
 - Maintain continuity with 1 higher-accuracy, lower-inclination and 2 complementary lower-accuracy, higher-inclination altimeters
- **Progress since SIT-24:**
 - EUMETSAT/NOAA published *The Next 15 Years of Satellite Altimetry: Ocean Surface Topography Constellation User Requirements Document* on 30 September 2009
 - EUMETSAT secured its last funding on 1 February, thus completing full U.S./European support required for Jason-3
 - ESA Cryosat-2 successfully launched 8 April

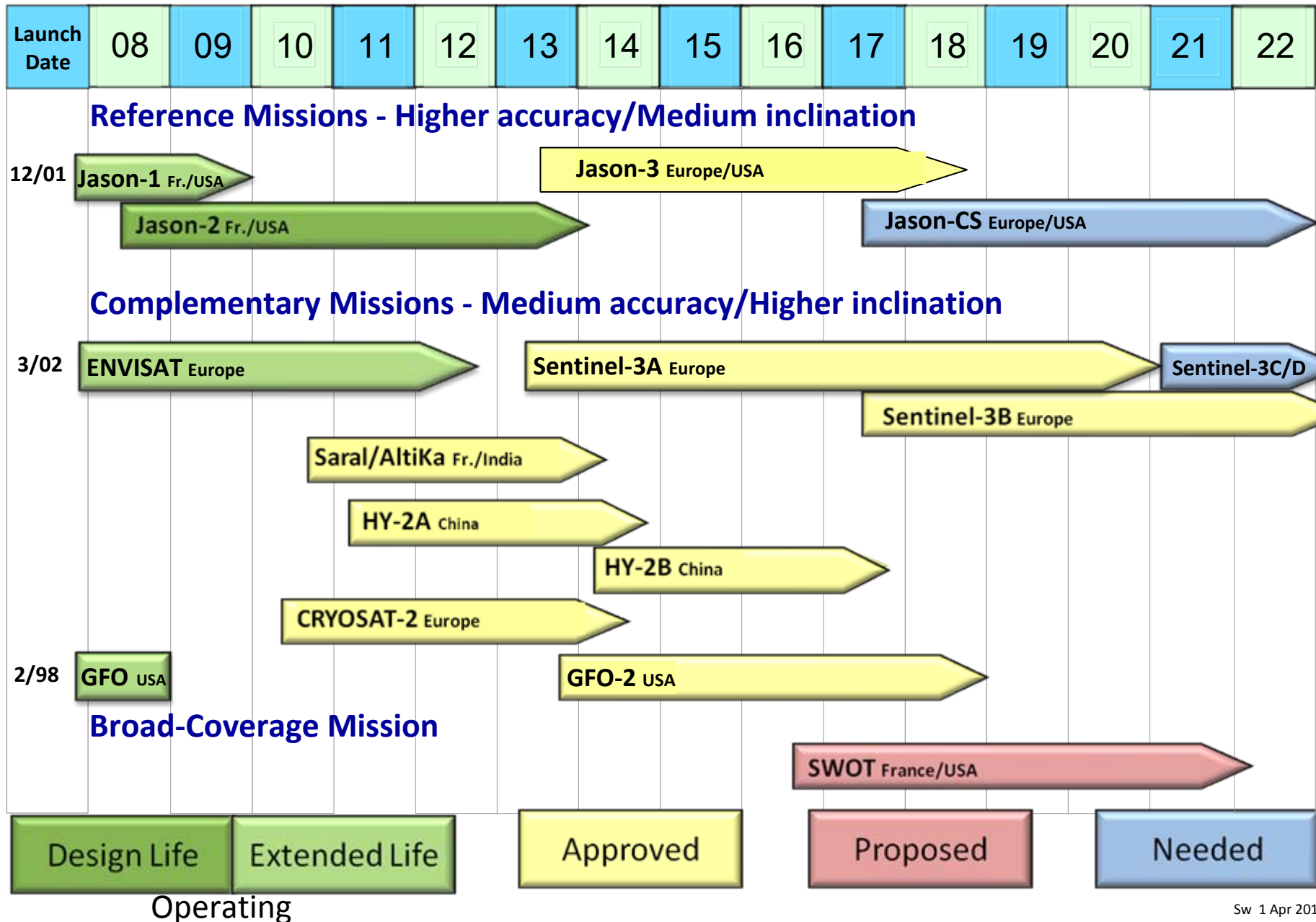


Looking to the Future



- The international OST Science Team and VC meet in Lisbon 18-20 October 2010
 - Conjunctive two-day science meeting, *Towards higher resolution remote sensing of ocean dynamics & terrestrial surface waters*
- ISRO/CNES SARAL & CNSA/SOA HY-2A to launch in 2011
 - CNSA/SOA not yet engaged in CEOS or in discussions related to timely data access
- While AVISO and RADS offer integrated products from multiple altimeters for research and operational use, a similar capability for the operational use (<3 hours) of altimeter-derived significant wave height products is needed

GLOBAL ALTIMETER MISSIONS





Ocean Vector Wind Virtual Constellation

Co-Chairs: Stan Wilson, NOAA;
Hans Bonekamp, EUMETSAT & B.S. Gohil, ISRO
SIT-25, Hotel Pacific, Tokyo
13-14 April 2010



OVW VC



- **Objective:**

- Maintain continuity with at least two, ideally four, complementary scatterometers

- **Progress since SIT-24:**

- ISRO Oceansat-2 successfully launched on 23 September
- NASA QuikSCAT ceased global operation on 23 November
- NOAA/NASA/EUMETSAT are collaborating with ISRO:
 - In Oceansat-2 Commissioning Phase, using the 2-month overlap with QuikSCAT to assist with cal/val
 - For the Operational Phase, examining options for data reception and product generation to enable operational use

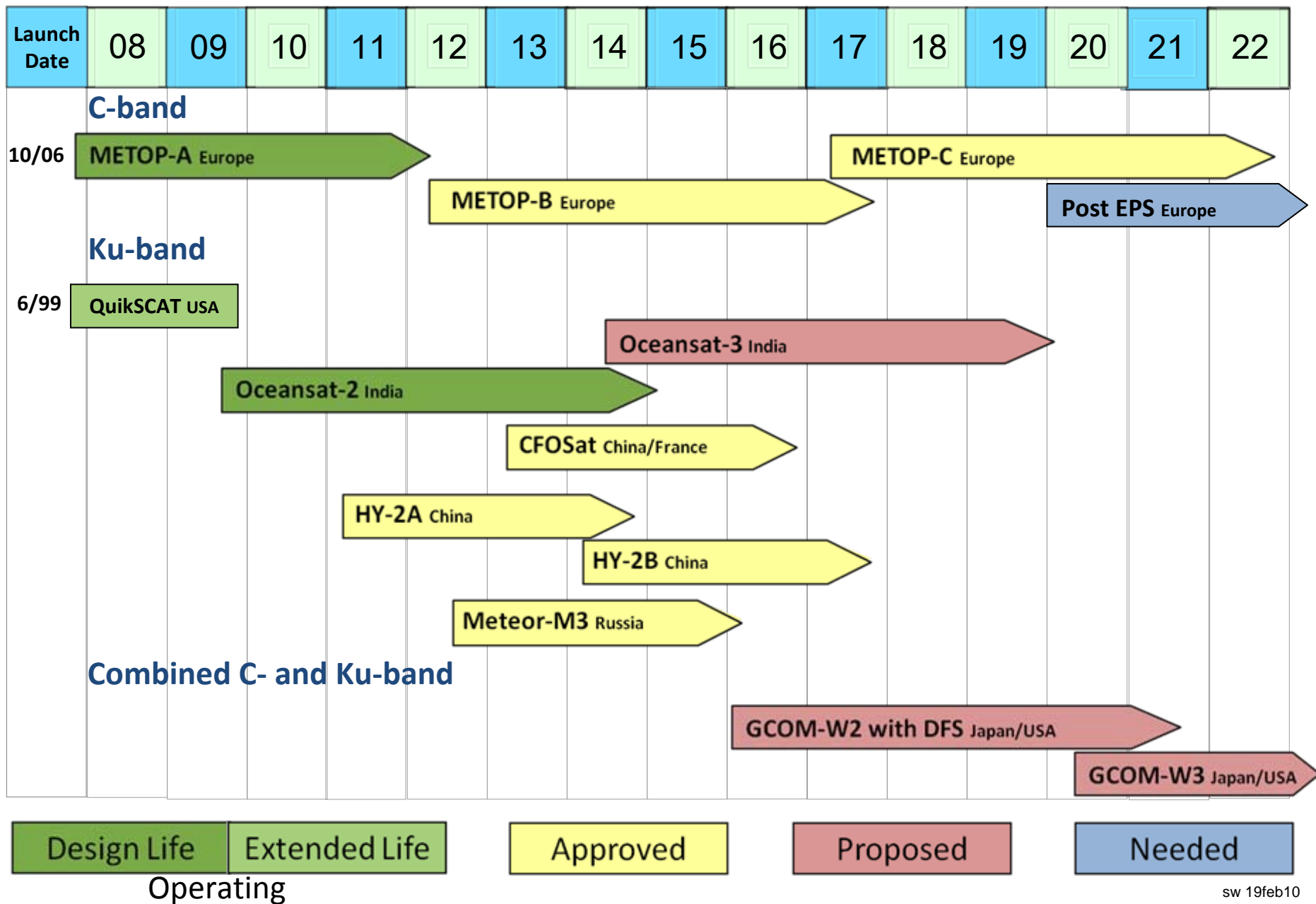


Looking to the Future



- The international OVW Science Team and VC meet in Barcelona 18-20 May 2010
- An inter-calibrated, integrated C-/Ku-band scatterometer OVW field is needed, as well as a capability to offer such products for operational use (<3 hours)
- CNSA/SOA HY-2A planned to launch in 2011
 - CNSA/SOA not yet engaged in CEOS or in discussions relating to timely data access
- Roscosmos/Roshydromet Meteor-M3 planned to launch in 2013
 - We are pleased to have Roscosmos here at SIT-25 to initiate discussions
- NOAA is proposing Dual-Frequency Scatterometer for flight on JAXA GCOM-W2 (to launch ~2015) & GCOM-W3

GLOBAL SCATTEROMETER MISSIONS



Initial Training Course

Use of Satellite Wind & Wave Observations for Marine Forecasting

*Co-organized by NOAA and EUMETSAT
on behalf of the CEOS OVW & OST Constellations and
in conjunction with the WMO Space Program.
Hosted by the IOC Office for the IODE,
with support from the Flanders Government,
Oostende, Belgium, 14-18 December 2009*

Course Objective

Promote the routine use of satellite wind and wave products in operational marine analyses, warnings & forecasts worldwide – as a contribution to the protection of life and property at sea

GMDSS Met Area	High-Seas Operational Forecast Responsibility	Data routinely used in operational forecasts? If so, how are they accessed?			
		Surface Vector Winds		Significant Wave Height	
		QuikSCAT Status 22 Nov 09	ASCAT 12 Dec 09	Jason-1 & -2 12 Dec 09	ENIVSAT 12 Dec 09
V	<i>Marine Meteorological Service, Brazilian Navy</i>	Yes FTP	No	No	No
–	<i>National Institute for Space, Brazil</i>	Yes FTP	No	No	No
VI	<i>Servicio Meteorológico Nacional, Argentina</i>	Some FTP	No	Some FTP	No
VII	<i>South African Weather Service</i>	No	No	No	No
VIII-S	<i>Mauritius Meteorological Service</i>	No	No	No	No
X	<i>Australian Bureau of Meteorology</i>	Yes FTP	Yes FTP	Yes GTS	Yes FTP
XIV-N	<i>Fiji Met Service</i>	Yes FTP	Yes FTP	No	No
XIV-S	<i>Met Service of New Zealand</i>	Yes FTP	Yes FTP	No	No
XV	<i>Servicio Meteorológico de la Armada, Chile</i>	No	No	No	No



Workshop Participants

11 INSTRUCTORS

- 1. Europe – EUMETSAT***
- 2. France – MeteoFrance***
- 3. Netherlands – KNMI***
- 4. New Zealand Met. Service***
- 5. Norway – MetNo***
- 6. U.S.A. – NOAA &
U. of New Hampshire***

15 STUDENTS

- 1. Argentina – SMN, CONAE &
UBA***
- 2. Brazil – SMM & INPE***
- 3. Chile – SMA & UdeC***
- 4. Fiji Met. Service***
- 5. India Space Research Org.***
- 6. So. African Weather Service***
- 7. Spain – National Met. Institute***
- 8. Italian Weather Service***
- 9. Belgium – Royal Met. Institute***

Basic Questions Facing an Operational Forecaster

- *How do I know what observations are available from multiple satellites?*
- *How do I get access to those observations?*
 - *A single-point-of-access each for OVW & SWH*
- *How do I integrate those observations within my own analysis/forecast system?*
- *How do I use those observations in my operational forecasts?*
 - *Common analysis/display system*

Planning for Next Training Course

- *Develop single-points-of-access in time for use in course*
 - *Include ISRO OSCAT data when available for operational use*
- *Hold in South America to maximize local participation*
- *Host course at an institution that can facilitate potential adoption of GEMPAK/N-AWIPS as a common analysis/display system in South America; this system is:*
 - *In use by NOAA/NWS & Unidata – supports U.S. universities*
 - *In use at INPE/CPTEC – has close connections with Unidata*
 - *In use at SMM/Brazil – set up by CPTEC in 2004*
 - *Being considered by SMN/Argentina – present system problematic*
 - *Likely to be adopted by SMA/Chile – does not have a system today*
- *NOAA/EUMETSAT/INPE agree that CPTEC host this course*
 - *Late this year subject to availability of suitable classroom space*