Ocean Surface Topography Virtual Constellation

Co-Chairs:
Stan Wilson, NOAA ⟶ Eric Lindstrom, NASA
Francois Parisot, EUMETSAT

SIT-25, Frascatti, 23-25 May 2011

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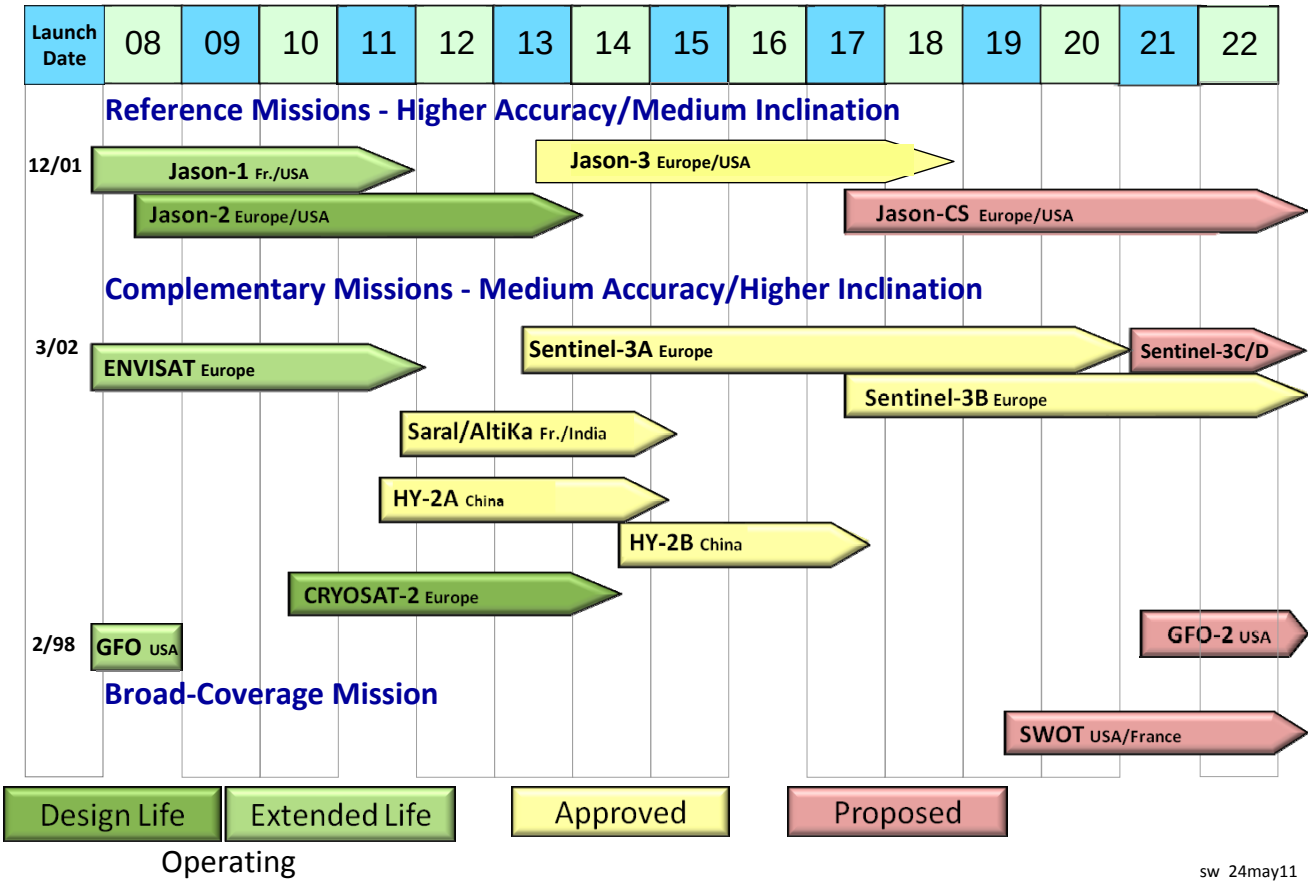

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OST VC – Status & Issues – 1

- **Continuity of Climate Record for Sea Level**
  - **Jaosn-1 & -2** – Operating in interleaved orbits
  - **Jason-3** – Development underway, but NOAA's FY11 funding held at FY10 level of $20M – vice $50M – will slip launch into 2014; FY12 funding could be held at same level causing further delay
  - **Jason-CS** – ESA – with EUMETSAT, NOAA, CNES & NASA – has initiated Phase B study; NOAA funding is limiting U.S. participation
- **Continuity of Complementary Coverage**
  - **Cryosat-2** – Launched 8 Apr 10; awaiting availability of operational products for ice-free ocean
  - **ENVISAT** – Starting 22 Oct 10 orbit became non-repeating
  - **ERS-2** – De-orbiting to begin this summer
  - **SARAL/AltiKa** – Launch planned for Dec 2011; if Jason-1 is still OK at end of SARAL's commissioning phase, it will move to a geodetic orbit
  - **Sentinel-3A & B** – Development proceeding with 1st launch in 2013

OST VC – Status & Issues – 2

- **Data Policy** – With its launch in late July, timely access to data from the Chinese HY-2A remains an issue
  - CNES is providing DORIS to fly on HY-2A – one avenue to address issue
  - SOA has contacted EUMETSAT about data access – another avenue
  - Data down-linking in China will preclude global operational use
- **Harmonized, Easily Accessible Altimeter Products**
  - The AVISO & RADS portals continue to provide easy access to inter-calibrated, integrated data for research use
- **Development of Surface Water Ocean Topography (SWOT)**
  - Joint between NASA and CNES with a contribution from CSA
  - CNES Phase A underway – with strong Government support
  - NASA MCR in March 2012 to initiate its Phase A
  - Formal agreement for implementation is pending
  - Launch readiness date is Dec 2019

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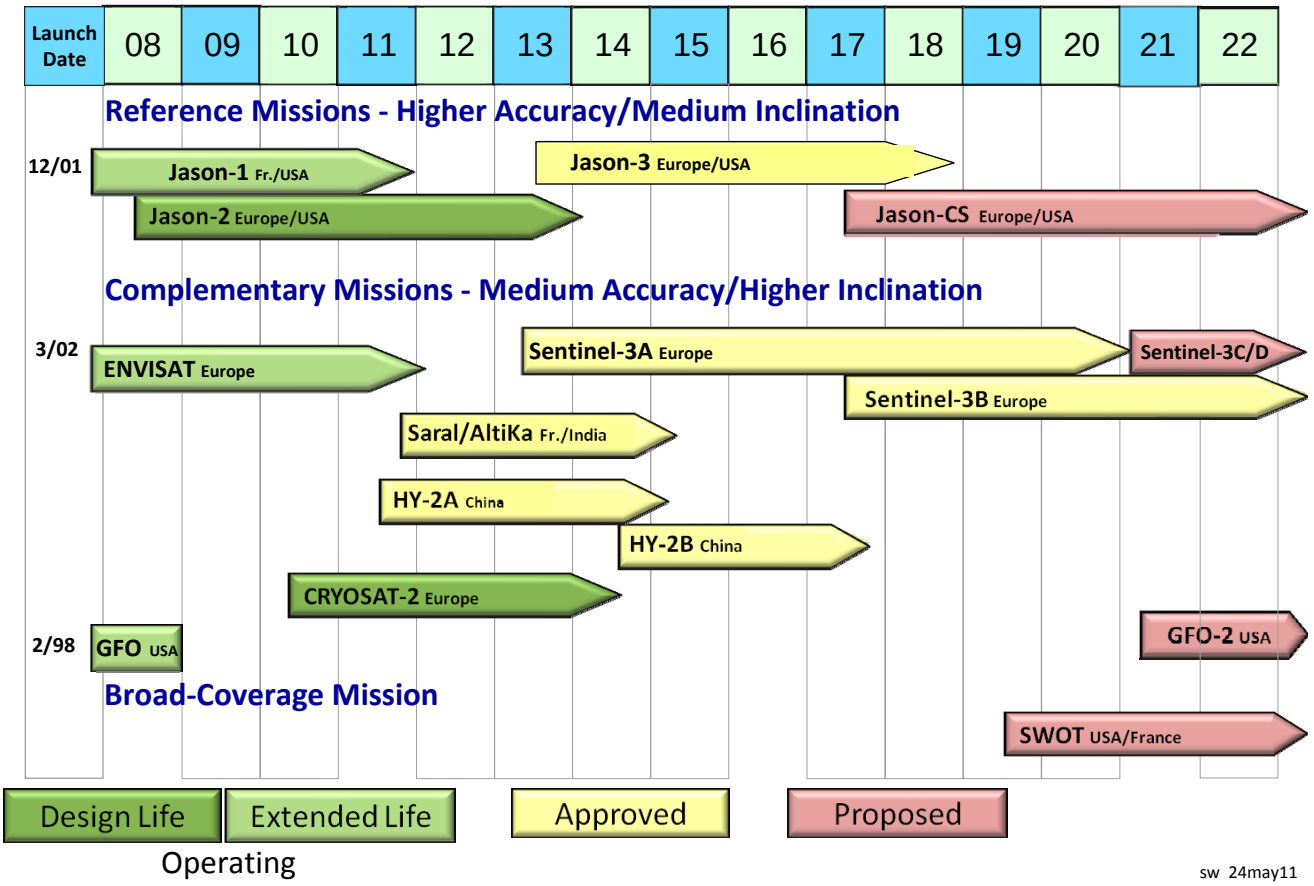

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Ocean Vector Wind Virtual Constellation

Co-Chairs:

Stan Wilson, NOAA ⟶ Paul Chang, NOAA

Hans Bonekamp, EUMETSAT

B.S. Gohil, ISRO

SIT-25, Frascatti, 23-25 May 2011

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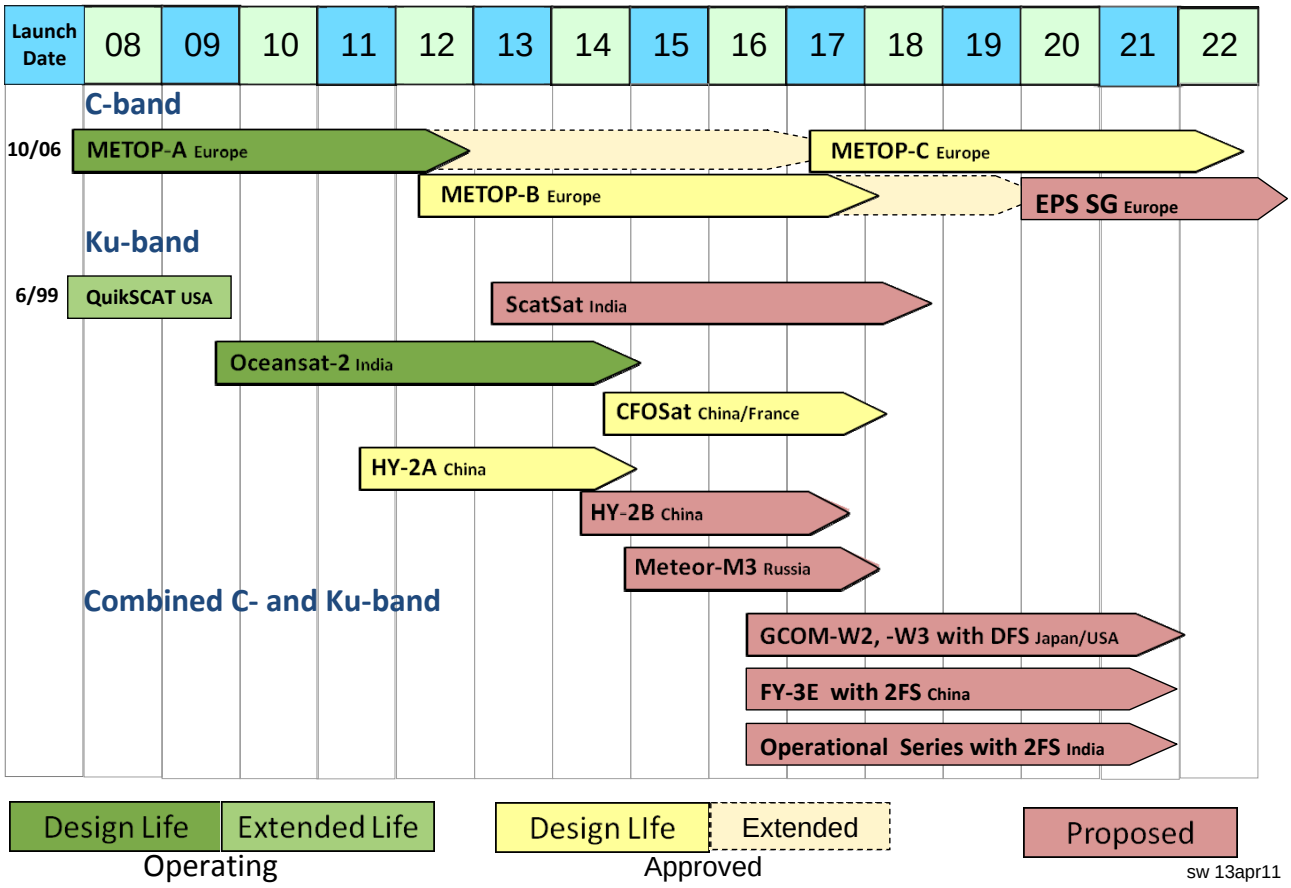


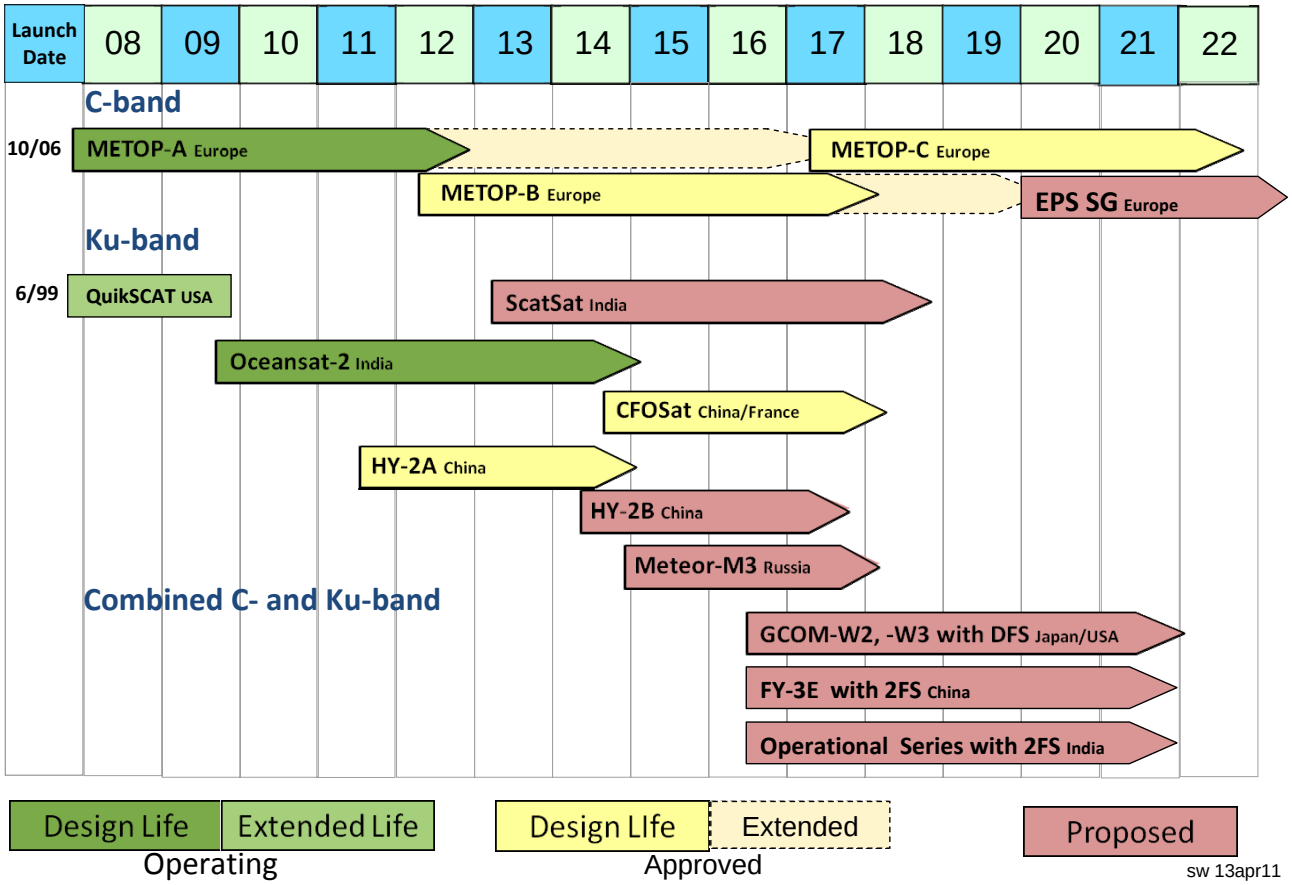
OVW VC – Status & Issues – 1

- **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 this summer
  - **ScatSat** – ISRO planning an OSCAT for flight on ScatSat in 2013
- **Continuity of C-band OVW**
  - **ASCAT/Metop** – Metop-B launch planned for 2012 to overlap Metop-A
  - **EPS-SG** – Following Metop-C, EPS-SG will include an ASCAT-like sensor
- **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 & 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 OSCAT & ScatSat; 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 users need to make the case for harmonizing orbits in the 2016 timeframe to optimize coverage among as many as three two-frequency scatterometers

GLOBAL SCATTEROMETER MISSIONS



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2nd Training Course – *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
  - A 'portal' for OVW & SWH from multiple satellites is under development at Florida State U and will be demonstrated in Aug 2011
  - Both NOAA's NWS & INPE's CPTEC use GEMPAK/N-AWIPS; CPTEC has helped the Brazilian Navy implement it operationally and would consider doing the same for centers in other South American countries
- A 2nd Training Course has been proposed by NOAA, EUMETSAT, ONR and possibly others:
  - To be hosted at CPTEC & focus on major South American forecast centers
  - Employ the OVW/SWH portal
  - Lay the basis for the adoption of GEMPAK/N-AWIPS as a common forecast software package for South America
- Scheduling, most likely early next year, awaits funding