



Ocean Satellite Update

Surface Topography
Surface Vector Winds
Ocean Color

Stan Wilson, NESDIS

PaCOOS Board of Governors Meeting

21 May 2008

Ocean Surface Topography



- *Maintain continuity of the high-accuracy Jason altimetry time series*
 - *Sea level rise*
 - *Decadal variability*
 - *ENSO forecasting*
- *Maintain continuity with 2 or more complementary altimeters*
 - *Mesoscale variability*
- *Extend capability to a wide swath*

ISSUES



- *NOAA & EUMETSAT to secure funding for Jason-3*
 - *NOAA proposing new initiative with \$20M in FY10 budget*
 - *EUMETSAT seeking European funding*
 - *Continuity of record beyond OSTM/Jason-2 will be jeopardized without timely funding for follow-on*
- *Timely access to data from Chinese HY-2 satellites*
- *NASA to secure funding for wide swath (SWOT)*

Ocean Surface Vector Winds



- *Maintain continuity with 2 (3) scatterometers to provide 12-hr (6-hr) revisit time*
 - *Characterize wind forcing of oceans*
 - *Operational marine forecasting*
- *Extend capability to resolve both finer spatial scales and wind-rain ambiguity*
 - *Resolve all significant scales of variability*
 - *Provide basis to improve hurricane forecast capability*

ISSUES



- *NOAA to secure funding for follow-on to QuikSCAT*
 - *NOAA proposing \$3M in FY09 and \$5M in FY10 budgets to prepare for subsequent initiative*
 - *XOVWM is preferred option*
 - *Will need NASA involvement*
- *Reduction in capability is likely following QuikSCAT*
 - *ASCAT/MetOp has poorer coverage & resolution*
 - *Both India and China are flying their first scatterometers later this decade*
 - *Timely access to Chinese data*

Ocean Color



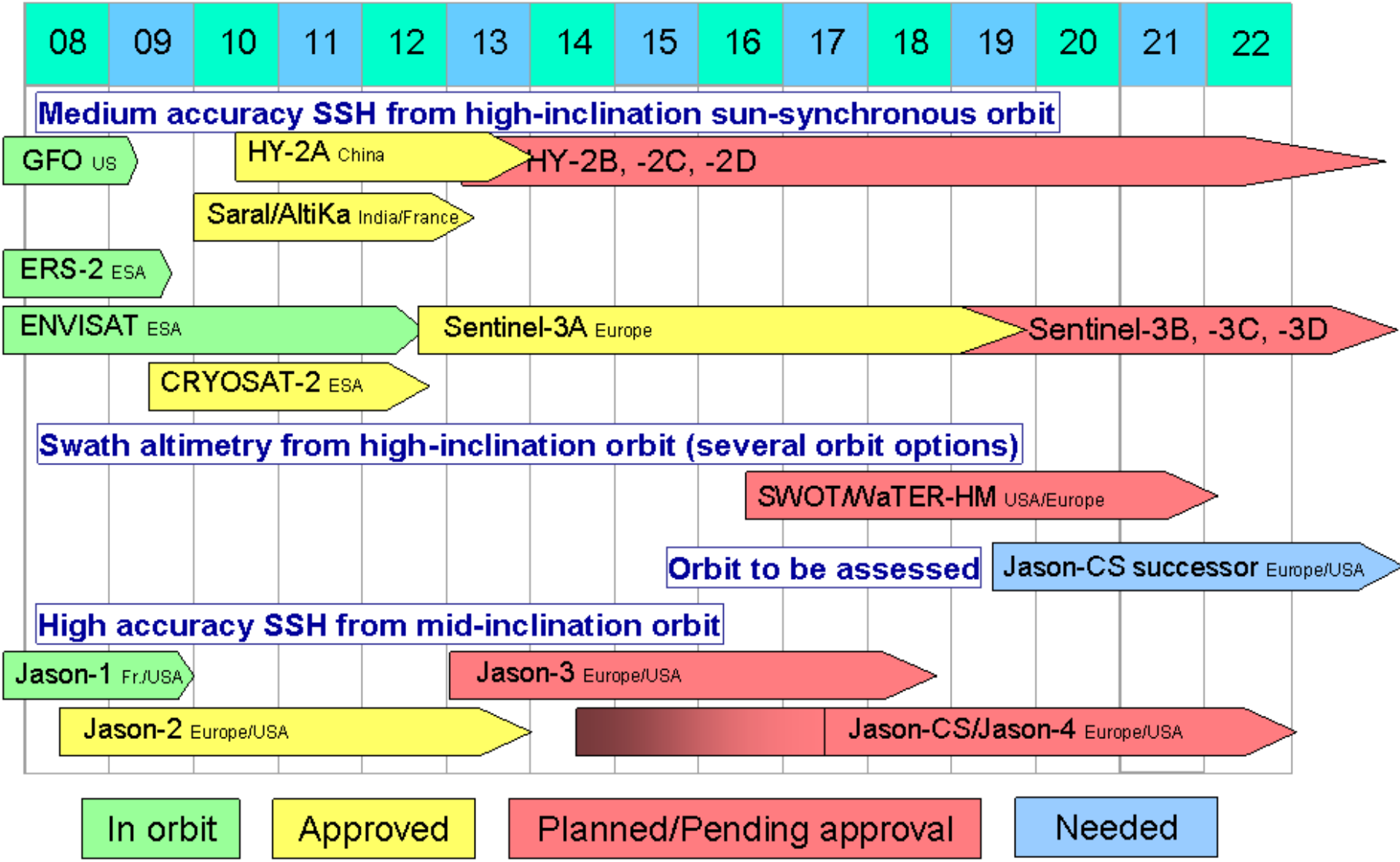
- *Operational needs*
 - *HAB forecasting*
 - *Cruise planning*
- *Merge data from multiple satellites to create climate-quality records for assessing impact of climate change on*
 - *Open-ocean & coastal ecosystems*
 - *Carbon-cycle processes*
 - *Fisheries*

ISSUES

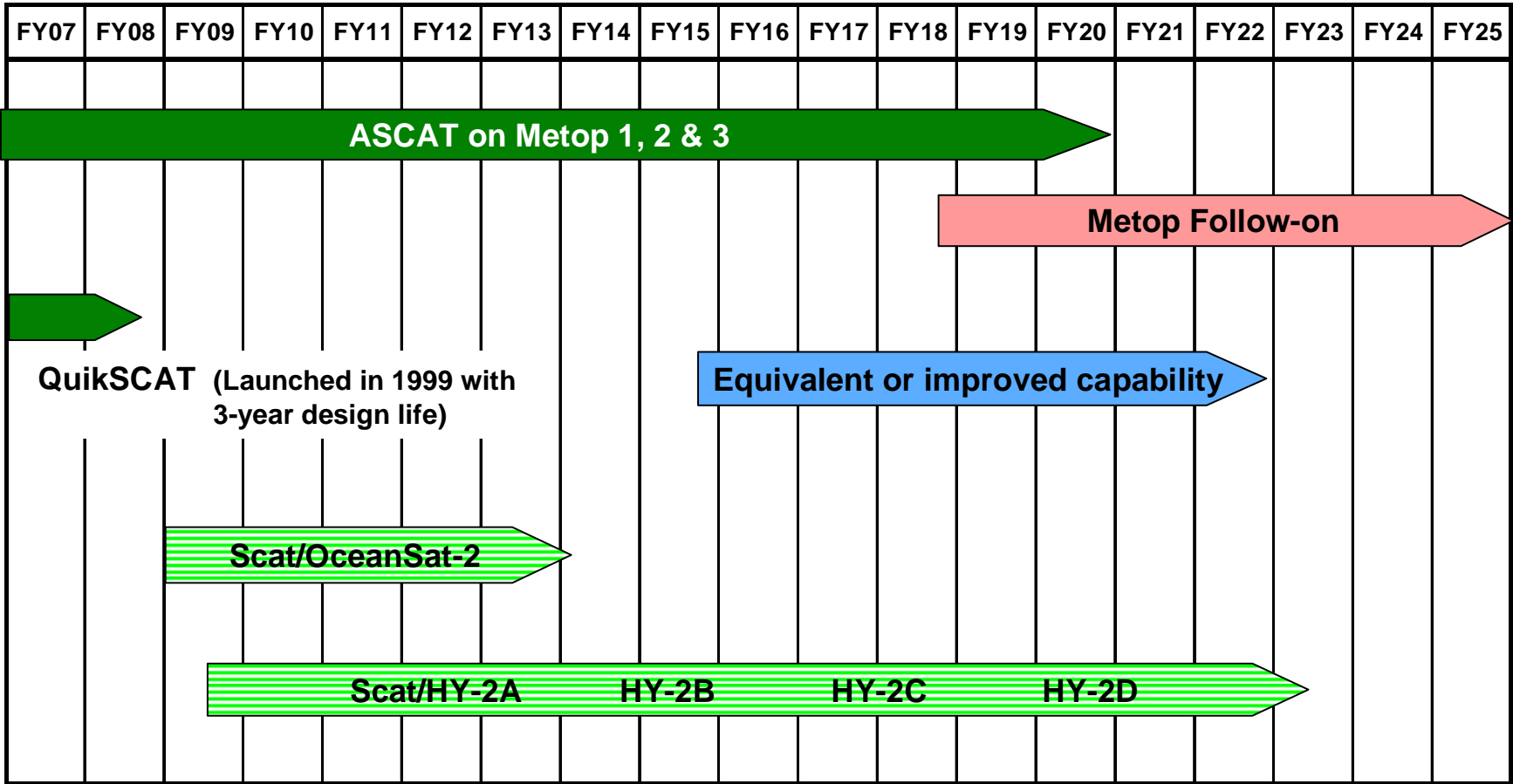


- *Reduction in capability is likely following SeaWiFS & MODIS*
 - *VIIRS on NPP will not provide climate-quality ocean color data*
 - *Explore all possible alternatives, assessing performance of VIIRS/C-1 and foreign sources*
- *Develop ‘one message’ for NOAA*
 - *Use that message to secure needed resources, first apparent opportunity is FY11 budget*
- *NASA to secure advanced mission*

Ocean Surface Topography Constellation Roadmap



OSVW Satellite Missions Present and Proposed



In orbit
 Under Development
 Planned
 Proposed

Ocean Color Missions

