Action/Recommendation Proposed:

*Develop capacity and capability for delivering and utilizing harmonized OSVW data products for research and operational oceanography and marine meteorological applications*

Contributors


Coordinated with: CEOS OSVW Virtual Constellation, CGMS IWWG, and IOVWST

CGMS-40 Plenary, 7 November 2012, Lugano, Switzerland
Importance of Wind Speed and Direction

**GCOS Atmosphere ECV** – surface wind speed and direction: \( u(x, y) \), \( v(x, y) \)

**GCOS Ocean ECV** – surface wind stress and direction: \( t_x(x, y) \), \( t_y(x, y) \)

Janousek et al. (2012)

G. De Chiara (2012, pc)

ASCAT, ERS-2, QuikSCAT

Jun-Jul 2009

Forecast Error Contribution, %

Munk (1950)
Current OSVW Data Products

ASCAT / Metop-A: Oct 2006 [C-band]
1B: EUMETSAT
2B: COAPS, KNMI, NOAA, RSS

Oceansat-2 SCAT: Sep 2009 [Ku-band]
1B: ISRO
2B: ISRO, KNMI, NOAA, JPL

HY-2A SCAT: Aug 2011 [Ku-band]
1B: NSOAS
2B: NSOAS

WindSat / Coriolis: Jan 2003 [polarimetric radiometer]
1B: FNMOC
2B: FNMOC, NOAA, RSS

ASCAT / Metop-B: Sep 2012 [C-band]
1B: EUMETSAT
2B: 

ASCAT / Metop-C: 2017 [C-band]
1B: EUMETSAT
2B: 

Oceansat-3 SCAT: 2014 [Ku-band]
1B: ISRO
2B: 

HY-2B SCAT: 2016 [Ku-band]
1B: NSOAS
2B: 

CFOSAT: 2015 [Ku-band]
1B: NSOAS
2B: 

Meteor M-N3: 2015 [Ku-band]
1B: ROSC/ROSH
2B: 

FY-3E: 2017 [C- and Ku-band]
1B: NSMC
2B: 

FY-3

M-N1
JCOMM Coordination With Other Groups

- 1994
- Biennial workshop: 5% on OSVW
- Harmonization of cloud- and water vapor-derived AMV

- 2008
- Satellite OSVW-measuring instruments

- 2010
- Annual workshop: 95% on OSVW

- Provide best-quality harmonized wind speed vector, wind stress vector, curl and divergence fields
- Develop user-stated unified standards in processing, quality-control procedures, resolution, metadata, timeliness, uncertainty
- Exchange in-situ verification data, software, statistical methodologies
- Generate climate-quality datasets
- Generate ocean forecasting services
- Generate ocean currents
- Produce GHRSSST-type deliverables
- Integrate in-situ and satellite data
- Optimize collaborative interactions [no duplication] with IWWG, CEOS OSVW VC, and IOVWST
- Build capacity for OSVW utilization
An Example of Successful Interoperability

Central Pacific RR

Union Pacific RR

Potential Way Forward

JCOMM TT-SAT OSVW Subgroup (JOS)

Joint leadership meeting of JOS, IWWG, CEOS VC, IOVWST

JOS invites all data providers to establish Vision and Terms of Reference

DeNardis (2012)

10 May 1869 Promontory Summit, Utah Territory