



Joint WMO-IOC Technical Commission
for Oceanography and Marine Meteorology

TITLE

**Name
affiliation**



WMO



IOC/UNESCO

ETMSS

Henri Savina Chair



#19 Developing the MPERSS capabilities including the Arctic Ocean

Henri Savina

- Expected Outcomes:
 - New MPERSS capability for the Arctic Ocean
 - Recognition of MPERSS services outside the WMO (e.g., IMO)
 - Updated user requirements for MPERSS
- Key Activities:
 - Coordinate with Issuing and Ice services to implement the MPERSS for the Arctic Ocean
 - Interact/outreach to key International bodies (e.g., IMO/MEPC)
- Timeline, Major milestones:
 - Initial MPERSS capability established – July 2011
- ETs, Other Contributing Organizations
 - ETMSS, ETSI, ETOOFS

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B.Lee31

Boram Lee, 24/09/2008

#21 Update WMO 471 and 558 for sea state in MSI

Henri Savina, Val Swail

- Expected Outcomes:
 - Guidelines and recommendations for updating WMO 471 and 558 on Sea State in MSI
 - Promote the provision of improved sea state products among the issuing services
- Key Activities
 - Review the documents
 - Update key parameters/guidance
 - Coordinate with the user survey (Proj. #4)
- Timeline, Major milestones:
 - ETWS to provide input: May 10
 - ETMSS to incorporate inputs into the survey: Dec. 2010
- ETs, Other Contributing Organizations
 - ETMSS, ETWS, ETOOFS

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B.Lee32

Boram Lee, 24/09/2008

#23 Facilitate implementation of QMS among members of the provision of MMS

Henri Savina

- Expected Outcomes:
 - Issuing Services are trained for QMS
 - Guidance documents for QMS implementations
- Key Activities:
 - QMS trainings
 - Preparations for guidance documents on implementations
- Timeline, Major milestones
 - MSS training workshop – May 2010
 - Draft documents on QMS implementation – Sept. 2010 (ETMSS-3)
- ETs, Other Contributing Organizations
 - ETMSS, ETSI, ETOOFS, MAN

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B.Lee33

Boram Lee, 24/09/2008

#35 Enrichment of the GMDSS website

Henri Savina

- Expected Outcomes:
 - Inclusion of significant part of the MSI prepared for NAVTEX dissemination
 - Link to graphical products (e.g., IPY website)
- Key Activities:
 - Make necessary arrangements for the availability of the NAVTEX products on the GTS (50-70%)
 - Collection of metadata related to the NAVTEX products
- Timeline, Major milestones:
 - 10% May 2010
 - 30% Oct. 2010 (By ETMSS-3)
 - 50-70% by JCOMM-IV
- ETs, Other Contributing Organizations
 - ETMSS

Slide 6

B.Lee34

Boram Lee, 24/09/2008

#4 Updating user requirements for marine wx and ocean forecasting services

Henri Savina, Gary Brassington

- Expected Outcomes:
 - User survey and analysis on new and existing services
- Key Activities:
 - Update the survey to include marine weather and ocean forecasting service needs
 - Conduct the survey on user requirements
 - Analyze survey data
- Timeline, Major milestones:
 - Draft survey questions – Oct. 2010
 - Finalized survey questions – Jan. 2011
 - Begin analysis of response – Jan. 2012
- ETs, Other Contributing Organizations
 - ETMSS, ETOOFS, IHO

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B.Lee35

Boram Lee, 24/09/2008

ETSI Work Plan

Vasily Smolyanitsky
AARI



(#20) Supporting Issuing Services and AMOCs for GMDSS in the Arctic Ocean

Vasily Smolyanitsky, Henri Savina

- **Expected Outcomes:**
 - Experimental suite of Met-Ocean products for the Arctic (text)
 - Experimental suite of Met-Ocean products for the Arctic (graphic)
- **Key Activities:**
 - Development of integrated sea ice-marine weather text products
 - Development of integrated sea ice-marine weather graphic products
- **Timeline/milestones:**
 - January 2011: Text suite available
- **ETs, Other Organizations and participants:**
 - ETSI, ETMSS, ETOOFS

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B.Lee36

Boram Lee, 24/09/2008

(#22) Catalogue on Met-Ocean Object Class for ENC and e-Navigation

Henri Savina

- **Expected Outcomes:**

- Met-Ocean object class for wind, wave height, surface current based on templates from the Ice Objects Catalogue

- **Key Activities:**

- Coordinate with IHO to validate requirement
- Finalize the draft object catalogue

- **Timeline/milestones:**

- Oct 2010: Meeting between WMO/IHO/WMO
- Jan 2012: Finalize the met-ocean object class

- **ETs, Other Organizations and participants:**

- ETMSS, ETWS, ETSI, IHO, IMO

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B.Lee37

Boram Lee, 24/09/2008

(#24) Update Sea Ice Standards

Vasily Smolyanitsky

- **Expected Outcomes:**

- WMO Sea Ice Nomenclature - Vol 1 – Terminology and Vol 2 Illustrated Glossary – Supplement 6 – Baltic Sea Ice Terms
- SIGRID-3, Prototype for New Formats for Sea Ice Data Assimilation

- **Key Activities:**

- Update and Publish WMO Sea Ice Nomenclature

- **Timeline/milestones:**

- Sept 2010: Publish SIGRID-3 update
- Mar 2011: Publish Sea Ice Nomenclature
- June 2012: New Format Prototype

- **ETs, Other Organizations and participants:**

- ETSI, ETOOFS, SCG

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B.Lee38

Boram Lee, 24/09/2008

(#25) Global Sea Ice Digital Data Bank (GDSIDB)

Vasily Smolyanitsky,

- **Expected Outcomes:**
 - GSIDB updated with historical Sea Ice charts and logs
 - Updated normals for sea ice based on GDSIDB
- **Key Activities:**
 - Historical data submitted and quality controlled
 - Advertisement of new data
- **Timeline/milestones:**
 - Updated once a year
 - June 2012: Normals updated
- **ETs, Other Organizations and participants:**
 - ETSI, NSIDC

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B.Lee39

Boram Lee, 24/09/2008

(#28) Coordinate the implementation of GMDSS in the Arctic Ocean

Vasily Smolyanitsky, Henri Savina

- **Expected Outcomes:**
 - GMDSS services implemented in the Arctic METAREAs in 2011
- **Key Activities:**
 - Revise WMO Manuals and Guides for Marine Meteorological Services for Sea Ice
 - Procedures for coordinated delivery of services in the Arctic METAREAs
 - Support issuing services for implementation of the GMDSS
- **Timeline/milestones:**
 - June 2010: Revise Manuals and Guides
 - Oct 2010: Procedures established
 - July, 2011: GMDSS services implemented in the Arctic Ocean
- **ETs, Other Organizations and participants:**
 - ETSI, ETMSS

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B.Lee40

Boram Lee, 24/09/2008

(#32) Sea Ice Analysis Training

Vasily Smolyanitsky

- **Expected Outcomes:**
 - COMET training modules, Workshop and Manuals
- **Key Activities:**
 - 1st two COMET sea ice modules developed
 - 3rd Ice Analysts Workshop
 - English version of Manual for Ice Experts – Ice Observers reviewed
- **Timeline/milestones:**
 - Sept 2010: COMET Module 1
 - Dec 2011: COMET Module 2
 - Ice Analyst Workshop June 2011
- **ETs, Other Organizations and participants:**
 - ETSI, IICWG

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B.Lee41

Boram Lee, 24/09/2008

(#33) Ice Information in ENCs

Vasily Smolyanitsky

- **Expected Outcomes:**

- Standard for Exchange File; Ice Objects Catalogue 5.0, Presentation Schemes, Data Structure, File Naming Conventions, Demonstration Suite for JCOMM-IV

- **Key Activities:**

- Harmonize the standards documents that have been developed in parallel by CIS and AARI/Transas
- Develop data and software package as a demonstration

- **Timeline/milestones:**

- June 2011: harmonize standards
- June 2012: demonstration package

- **ETs, Other Organizations and participants:**

- ETSI, experts from Transas

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B.Lee42

Boram Lee, 24/09/2008

Expert Team On Wind Waves And Storm Surges (ETWS)

Val Swail, Chair
Environment Canada



(#16) Wave Forecast Verification Project

Jean Bidlot

- **Expected Outcomes:**
 - Expansion of the Wave Forecast Verification Exchange Project in coordination with the ESA GlobWave project
- **Key Activities:**
 - Review & update wave measurement requirements as necessary
 - Expand number of global and regional participants
 - Expand verification scope to spatial, spectral, satellite
- **Timeline/milestones:**
 - ETWS (May'10)
 - GlobWave meeting (May'10)
 - Spatial intercomparison with GlobWave (May'12)
- **ETs, Other Organizations and participants:**
 - ETWS, ECMWF, ESA

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B.Lee43

Boram Lee, 24/09/2008

(#15) Wave measurement evaluation and test

Val Swail, Bob Jensen, Boram Lee

- **Expected Outcomes:**

- guidance on best practices for wave measurement to WIGOS/WIS

- **Key Activities:**

- Lead DBCP Pilot Project on wave measurement evaluation and test (PP-WET)
- Review & update wave measurement requirements as necessary
- Participate in, and provide guidance to intercomparison exercise & analysis

- **Timeline/milestones:**

- Jan'10 intercomparison website launch
- Report to DBCP-XXVI (Sep'10)
- Nov'10 PP 1st phase PP complete, plan for 2nd phase

- **ETs, Other Organizations and participants:**

- ETWS, OPA/DBCP, Scripps, OGP

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B.Lee44

Boram Lee, 24/09/2008

(#11) UNESCO pilot project on coastal hazard forecasting

Val Swail, Boram Lee, Kevin Horsburgh, Shishir Dube

- **Expected Outcomes:**

- Guide UNESCO pilot project on coastal hazard forecasting
- Establish action plans for the next phase of the project

- **Key Activities:**

- SS Experts / ET members participation in NIO workshop
- Review project progress in view of JCOMM work plan implementation

- **Timeline/milestones:**

- May 10: ETWS meeting
- Feb. 11: NIO workshop
- Aug. 11: Action plan developed

- **ETs, Other Organizations and participants:**

- ETWS, IOC/ICAM, IIT (India) , IMD (India)



WMO



IOC/UNESCO

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B.Lee45

Boram Lee, 24/09/2008

(#17) Develop and update guidance documents

Val Swail, Thomas Bruns

- **Expected Outcomes:**

- Revised Guide to Wave Analysis and Forecasting (WMO 702)
- Dynamic parts of wave and storm surge guides online

- **Key Activities:**

- Update wave guide by ET input + consultant work
- Update dynamic part of guides as necessary (ET input)

- **Timeline/milestones:**

- May'10 outline/contents of Wave guide agreed
- May'12 Wave guide publication
- Technical Reports on extreme value analysis (June'10)

- **ETs, Other Organizations and participants:**

- ETWS

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B.Lee46

Boram Lee, 24/09/2008

(#8) Support Climate Services: Extreme Waves Data Base

Val Swail, Scott Woodruff, Charles Sun

- **Expected Outcomes:**
 - Establishment of an extreme wave database
- **Key Activities:**
 - Develop the plan for extreme wave documentation (with ETMC)
 - Request input from countries, through OPA groups & Secretariat
 - Develop plan to extend the DB to include satellite altimeter wave data
- **Timeline/milestones:**
 - May'10 EWDB plan agreed for database hosted at NOAA/ NODC
 - October'10 ETMC/NODC template agreed
 - Request input from countries (ongoing)
- **ETs, Other Organizations and participants:**
 - ETWS, ETMC, NOAA/NODC, DMPA groups

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B.Lee47

Boram Lee, 24/09/2008

(#9) Support Climate Services: Storm Surge climatology

Val Swail, Scott Woodruff, Kevin Horsburgh

- **Expected Outcomes:**
 - Establishment of a storm surge database with ETMC
- **Key Activities:**
 - Develop the plan for a storm surge data base with ETMC
 - Support to ETMC to develop the SS database
 - Identify host institution(s) for data base
- **Timeline/milestones:**
 - ETMC (Feb'10) agree on the objectives
 - ETWS(2010) to propose plan, decide on timeline
 - SSC2010 (Sep'10) discussion session on SS climatology
 - Plan agreed for storm surge data base at MARCDAT-III (Feb'2011)
- **ETs, Other Organizations and participants:**
 - ETWS, ETMC, POL?

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B.Lee48

Boram Lee, 24/09/2008

(#10) Implement recommendations from JCOMM SSS

Val Swail, Kevin Horsburgh, Thomas Bruns, Boram Lee, Don Resio

- **Expected Outcomes:**

- Implement the recommendations from the 1st JCOMM SS Symposium: Support related S&T fora

- **Key Activities:**

- Support SSC2010 (JCOMM experts participation to organization & presentations)
- Plan the 2nd SS Symposium
- Support ESA Storm Surge Project(s)
- Organize Wave Workshop and Coastal Hazards Symposium

- **Timeline/milestones:**

- Sep'10 SSC2010
- ESA Storm Surge project kick off (Oct'10)
- May'12 approval on 2nd SS Symposium (after 2012) plan
- 12th Waves Workshop and 3rd Coastal Hazards Symposium (Nov'11)

- **ETs, Other Organizations and participants:**

- ETWS, ESA, IOC, LOICZ , Environment Canada, USACE

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B.Lee49

Boram Lee, 24/09/2008



Expert Team on
Operational Ocean
Forecast Systems

ET Operational Ocean Forecasting Systems

Gary Brassington
Bureau of Meteorology
Chair of ET-OOFS

May 2010

(#1) The GUIDE - OOFS

Alistair Sellar and ET-OOFS

- **Expected Outcomes:**
 - Live document (secure)
 - Guide, first draft
- **Key Activities:**
 - Establish process (e.g., content writers, reviewers, submissions)
 - Contents – description of content (Adrian first draft)
 - Submissions from member centres
- **Timeline/milestones:**
 - October 2010 – agree process
 - June 2012 - First draft document
- **ETs, Other Organizations and participants:**
 - ET-OOFS, national agencies

(#2) Observational requirements

Sudheer Joseph, Eric Dombrowsky

- **Expected Outcomes:**
 - Update SoG document
 - Contribute OOFS requirements to RRR
- **Key Activities:**
 - Establish survey document based on SoG and RRR
 - Collate submissions from member centres
- **Timeline/milestones:**
 - October 2010 – SoG revision
 - Late 2011 – SoG final revision
- **ETs, Other Organizations and participants:**
 - ET-OOFS, national agencies

(#3) Performance monitoring

Frank Bub, Gary Brassington

- **Expected Outcomes:**
 - Internet accessible operational performance metrics
- **Key Activities:**
 - Definition of operational metrics
 - USGODAE proposed as host
 - Publish through jcomm.info
- **Timeline/milestones:**
 - October 2010 – specification of metrics
 - Late 2011 – implementation of live metrics
- **ETs, Other Organizations and participants:**
 - ET-OOFS, national agencies

(#4) Services user requirements

Fraser Davidson, Pierre Daniel

- **Expected Outcomes:**
 - Documented user requirements
- **Key Activities:**
 - Collation of national user service requirements (e.g., SAR, MAES, Naval, NWP, coastal)
 - Collation of MAES, MSS and WS requirements
 - Coordination of inter-agency products for consensus
- **Timeline/milestones:**
 - October 2010 – SAR/MAES specification
 - Mid 2011 – Implement online? Confirm resource (Fraser)
 - Early 2012 – Survey complete / analysis begin
- **ETs, Other Organizations and participants:**
 - ET-OOFS, ET-WS, ET-MSS

(#6) Ocean data management

Frederique Blanc

- **Expected Outcomes:**

- Consolidation of OPeNDAP, NetCDF with WMO

- **Key Activities:**

- Deconstruct the "GODAE data service" into functional elements from a software engineering viewpoint
- Evaluate each functional element for the following
 - Criticality, availability of standard equivalents
 - Fitness for purpose, maturity and readiness for standardization

- **Timeline/milestones:**

- October 2010 – SAR/MAES specification
- Late 2011 – Revision and extension

- **ETs, Other Organizations and participants:**

- ET-OOFS, JCOMM-DMPA

Capacity building

- International Summer School on ocean forecasting
 - (Jan. 2010, Perth, Australia)
- Satellite winds and altimeter data for marine forecasting
 - (Dec. 2009, Brussels, Belgium)
 - Brazil workshop (2010/2011)
- Marine Wx forecasting training workshop
 - (TBD, Dakar, Senegal)
- Sea Ice analysis training
 - COMET modules
- Facilitating NMHS obtaining decoders for satellite obs.