



**ETSI-IV**

**Saint Petersburg, Russia, 1-5 March 2010**

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# **Report of the Services and Forecast Systems Program Area (SFSPA) Coordinator**

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NOAA/NWS/NCEP

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# SFSPA High Level Requirements

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- **WMO Expected Results (ER):**

- 1- improving prediction, information, and services
- 2- reducing risks of environmental hazards
- 3- supporting climate service
- 6- strengthening capacity building
- 7- enhancing partnerships and cooperation

- **IOC High Level Outcomes (HLO):**

- 1- natural hazards
  - 2- adaptation to climate change
  - 4- management procedures and policies
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# Priority Setting for SFSPA

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- **SFSPA Programmatic Thrusts**

- Ensuring Marine Wx Safety including Emergency Response to maritime distress
- Reducing risks of natural disasters on coastal communities
- Establishing operational ocean forecasting services
  - **(this is an emerging area)**

- **Climate Service is a major driver for priorities**

- Marine Wx and Sea Ice services for Arctic Ocean
  - Warning and forecast for mitigation of coastal hazards
    - **(e.g., storm surge, inundation)**
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# SFSPA Work Plan 2009-2012

1. **Develop a Guide to Operational Ocean Forecasting**
2. **Define (assess) operational ocean observation requirements**
3. **Develop operational performance metrics to monitor operational ocean forecasts**
4. **Implement a survey on user requirements for ocean services**
5. **Improve capacity in terms of technology transfer and access to existing products and services**
6. **Address issues relating to the transition of a GODAE data service into operations**
7. **Facilitate implementation of Quality Management Systems (QMSs) for NOP among Members for the provision of Marine Accident Emergency Support**
8. **Implement the recommendations from the 1st JCOMM SS Symposium: Support developing extreme wave database**
9. **Implement the recommendations from the 1st JCOMM SS Symposium: Support developing SS climatology**

10. Implement the recommendations from the 1st JCOMM SS Symposium: Support related S&T fora
11. Support UNESCO pilot project on coastal hazard forecasting
12. Support JCOMM/CHy Coastal Inundation Forecast Demonstration Project
13. Facilitate the development of Storm Surge Watch Schemes (SSWS) for regions subject to tropical cyclones
14. Support WMO Severe Weather Forecasting Demonstration Project (SWFDP) with respect to wave and storm surge issues
15. Participate in two DBCP Pilot Projects on wave measurement from buoys
16. Expansion of the Wave Forecast Verification Exchange Project in coordination with the ESA GlobWave project
17. Develop and update guidance documents
18. Enhance Capacity Building activities
19. Improve interaction between the GMDSS Issuing Services and AMOCs representatives of MPERSS
20. Keep under review the implementation of the GMDSS and MPERSS in the Arctic and continue to support the Issuing Services and AMOCs

21. In association with ETWS and ETSI, develop guidelines and recommendations to update WMO n°471 and 558, especially for the provision of sea state and sea ice in MSI
22. Continue to develop the catalogue on Met-Ocean Object Classes and Attributes to define standards for ENC and e-Navigation
23. Facilitate implementation of Quality Management Systems (QMSs) among Members for the provision of MMS
24. Update sea ice standards and climatology
25. Develop sea ice climatology based on ice charts and maintenance of the Global Digital Sea Ice Data Bank (GDSIDB)
26. Contribute to the development and implementation numerical forecasting systems
27. Enhance the efficiency and safety of navigation in ice infested waters by harmonizing sea ice products
28. Coordinate the implementation of GMDSS, including Sea Ice bulletins, for the Arctic Ocean
29. Continue to develop and manage technical documentation for ENC and sea ice services and information

Green – Project outcomes achieved by JCOMM-IV

Yellow – Possible to achieve the outcomes by JCOMM-IV

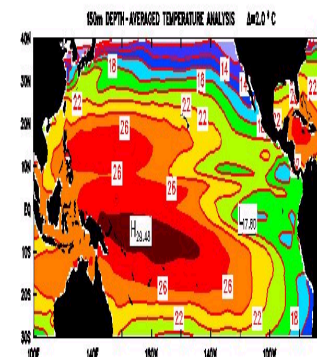
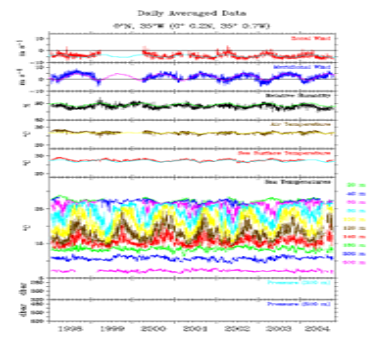
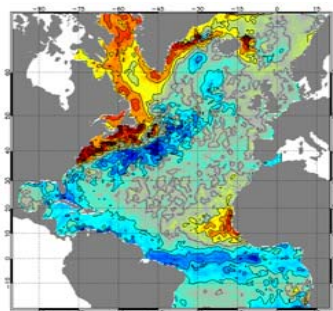
White – Completion time line to be determined

Blue – Lead by other PAs/Organizations



## SFSPA Priority Activity Areas (JCOMM-III Document 8.4)

- i. **Operational Ocean Forecasting Systems (ETOOFS)**
- ii. **Wind Waves and Storm Surges (ETWS)**
- iii. **Marine Safety Services (ETMSS)**
- iv. **Sea Ice Service (ETSI)**





## ET-OOFS Priority Activities (8.4.i)

- Develop a *Guide to Operational Ocean Forecasting* (#1)
- Define operational ocean observation requirements (#2)
- Develop operational performance metrics to monitor operational ocean forecasts (#3)
- Implement a survey on user requirements for ocean services (#4)
- Improve capacity in terms of technology transfer and access to existing products and services (#5)
- Address issues relating to the transition of a GODAE data (#6)
- Facilitate implementation of Quality Management Systems (QMSs) for NOP among Members for the provision of Marine Accident Emergency Support service into operations (#7)



## ETWS priority Activities (8.4.ii)

- **Implement the recommendations from the 1st JCOMM SS Symposium (#8, 9, 10)**
- **Support UNESCO pilot project on coastal hazard forecasting (#11)**
- **Support JCOMM/CHy Coastal Inundation Forecast Demonstration Project (#12)**
- **Facilitate the development of Storm Surge Watch Schemes (SSWS) for regions subject to tropical cyclones (#13)**
- **Support WMO Severe Weather Forecasting Demonstration Project (SWFDP) with respect to wave and storm surge issues (#14)**
- **Participate in two DBCP Pilot Projects on wave measurement from buoys (#15)**
- **Expansion of the Wave Forecast Verification Exchange Project in coordination with the ESA GlobWave project (#16)**
- **Develop and update guidance documents (#17)**
- **Enhance Capacity Building activities (#18)**



## ETMSS priority Activities (8.4.iii)

- Improve interaction between the GMDSS Issuing Services and the AMOCs of MPERSS (#19)
- Keep under review the implementation of the GMDSS and MPERSS in the Arctic and continue to support the issuing Services and AMOCs, to reach the expected target in 2011 for the GMDSS (#20, 28)
- In association with ETWS and ETSI, develop guidelines and recommendations to update WMO #471 and 558, especially for the provision of sea state and sea ice in MSI (#21)
- Continue to develop the catalogue on Met-Ocean object Classes and Attributes to define standards for ENC and e-Navigation, in collaboration with ETSI and guidance from IMO and IHO (#22)
- Facilitate implementation of Quality Management Systems (QMSs) among Members for the provision of MMS (#23)



# Expansion of the GMDSS & MPERSS into the Arctic Ocean



**The goal is for a full operational service in 2011**  
**The action is on the new issuing services**

**Project #28: ETMSS/ETSI**



## ETSI Priority Activities (8.4.iv)

- Update Sea ice standards (#24)
- Continue to develop and manage technical documentation for ENC and sea ice services and information (#29)
- Develop sea ice climatology based on ice charts and maintenance of the Global Digital Sea Ice Data Bank (GDSIDB) (#25)
- Contribute to the development and implementation of numerical forecasting systems (#26)
- Enhance the efficiency and safety of navigation in ice infested waters by harmonizing sea ice products (#27)



# Capacity building

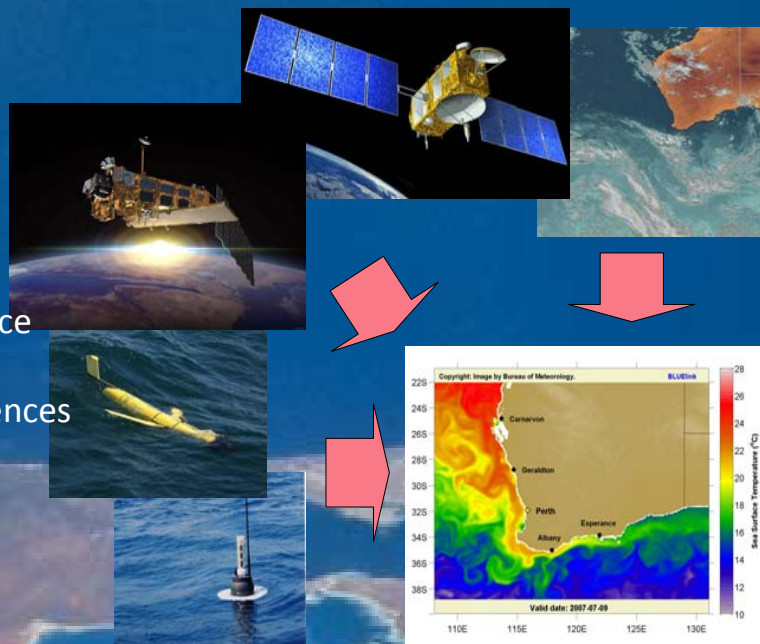
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- International Summer School on ocean forecasting
    - (Jan. 2010, Perth, Australia)
  - Satellite winds and altimeter data for marine forecasting
    - (Dec. 2009, Brussels, Belgium)
  - Marine Wx forecasting training workshop
    - (Apr. 2010, Dakar, Senegal)
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# INTERNATIONAL SUMMER SCHOOL for Observing, Assimilating and Forecasting the Ocean

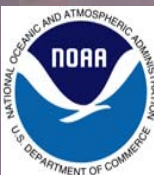
## Invited Lecturers

Jacques Verron, LEGI, France  
Eric Chassignet, FSU, USA  
Pierre-Yves Le Traon, Ifremer, France  
Harley Hurlburt, NRL, USA  
Jiang Zhu, Chinese Academy of Sciences



## Curriculum Topics

Ocean modelling  
Remote sensing and in situ data  
Data assimilation  
Validation  
Systems  
Products



**11-22 January, 2010**  
**Perth, Australia**

[www.bom.gov.au/bluelink/summerschool](http://www.bom.gov.au/bluelink/summerschool)

**To register your interest  
contact:**

Dr Gary Brassington  
CAWCR, Bureau of  
Meteorology  
Melbourne, Australia  
[g.brassington@bom.gov.au](mailto:g.brassington@bom.gov.au)



# The JCOMM Services Website

([www.jcomm-services.org](http://www.jcomm-services.org))

The screenshot shows the homepage of the JCOMM Services website. The header includes the JCOMM logo and navigation links: About JCOMM, Contacts, and Enquiry Form. Below the header is a large banner image showing people working on a ship. The main content area is titled 'JCOMM Services Program Area' and includes a subheading 'subheading in here'. There are several sections: 'Marine Safety Services', 'Waves and Surges', 'Sea Ice', 'Marine Accident Emergency', 'Documents', and 'Events'. Each section contains placeholder text and a 'More >' link. A 'What's New' sidebar on the right lists recent updates with dates and titles like 'General News1', 'Maritime Safety Services1', 'Waves & Surges3', 'Waves & Surges2', and 'Sea Ice3'. The footer mentions 'Supported by: Met Office'.

The screenshot shows the 'Project Reference Documents' page of the JCOMM Services website. The header is similar to the homepage. The main content area is titled 'Project Reference Documents' and includes a search bar. Below the title is a table of documents. The table has columns: Name & Description, Code, Updated, Size, Info, and Email. The table lists several documents, including 'Waves and Surges', 'Sea Ice', 'SPA Workplan', 'Maritime Safety Services', 'Marine Accident Emergency Support', and 'Services Coordination Group'. The footer includes navigation links: Home, Accessibility, Contacts, Enquiry Form, Site Acronyms, and Sitemap. It also mentions 'Facilities provided by the Met Office Crown Copyright © 2007' and 'Site maintained by JCOMM Services'.



Thanks to the MetOffice, UK, for sponsorship of the website



# The SFSPA Website ([www.jcomm.info](http://www.jcomm.info))

**JCOMM**  
Joint Commission for Oceanography and Marine Meteorology

- JCOMM Home
- About JCOMM
- News
- Search
- Access to data and services
- Standards and best practices
- Observations Programme Area
- Services Programme Area
- Data Management
- Member Login

INSITU-BUILT Coldrose

The Joint WMO–IOC Technical Commission for Oceanography and Marine Meteorology

Calendar | People & Teams | Publications | Search...

## Service and Forecast Systems Program Area (SFSPA)

JCOMM promotes a state-of-the-art globally distributed and inter-connected system based on present and next-generation technologies and capabilities. The system is responsive to the evolving needs of all users of marine data and products and a close dialog with the user community is fundamental to the system design. In addition, JCOMM promotes the implementation of an outreach programme to enhance the national capacity of all maritime countries to work effectively for the maritime community and the management of the marine environment.

### Marine Safety Services

Expert Team on Marine Safety Services (ETMSS)

- > GMDSS
- > About Marine Safety

### Waves & Surges

Expert Team on Wind wave and Storm surge (ETWS)

- > Development of the JCOMM guide to storm surge forecasting
- > Wave Forecast Verification Project

### Sea Ice

Expert Team on Sea Ice (ETSI)

- > Ice Services of the World

### Ocean Forecasting

Expert Team on Operational Ocean Forecasting Systems (ETOofs)

more >

- SFSPA priority for intersessional period (2010–2012): Coordinator’s overview (JCOMM Newsletter No.6)
- SFSPA workplan
- SFSPA Pilot Projects



## The SFSPA Website ([www.jcomm.info](http://www.jcomm.info))

- IOC Secretariat to provide technical support and maintenance/hosting of the site for sustainability
- ETs “own” their relevant “Quadrant” of the site:
  - Team Chairs are responsible for the **CONTENT** of their page(s)
  - Team Chairs to work with the Secretariat to keep their pages updated
  - Recommend to “keep it simple” for easy maintenance and sustainability
- Major functions, e.g. Calendar, People, are integrated part of the main JCOMM web pages.



# 2009-2012 Work plan for ETSI (SFSPA)

## SFSPA Projects and Work Plans for the Intersessional Period

	Workplan / expected outcome, deliverables	How (Key Activities/Actions)	Lead (bold) Members	Timelines	Associated meetings	ETs Linked with
20	Keep under review the implementation of the GMDSS and MPERSS in the Arctic and continue to support the Issuing Services and AMOCs	<ul style="list-style-type: none"> <li>Experimental suite of on-demand Arctic marine/sea ice product</li> <li>– Text (PP)</li> <li>– Numerical/Graphical (PP)</li> </ul>	<b>Henri Savina</b> Vasily Smolyanitsky	<ul style="list-style-type: none"> <li>Apr'10 outline agreed</li> <li>...</li> <li>End'11 complete</li> </ul>	ETSI (Mar'10) ETMSS (Apr'10)	<b>ETMSS</b> , ETSI, ETOOFS
21	In association with ETWS and ETSI, develop guidelines and recommendations to update WMO n°471 and 558, especially for the provision of sea state and sea ice in MSI	.	<b>Henri Savina</b> Vasily Smolyanitsky	<ul style="list-style-type: none"> <li>Apr'10 outline agreed</li> <li>...</li> <li>End'11 complete</li> </ul>	ETSI (Mar'10) ETMSS (Apr'10)	<b>ETMSS</b> , ETSI
22	Continue to develop the catalogue on Met-Ocean Object Classes and Attributes to define standards for ENC and e-Navigation	.	<b>Henri Savina</b> Vasily Smolyanitsky	.	ETSI (Mar'10) ETMSS (Apr'10)	<b>ETMSS</b> , ETSI, IMO, IHO
24	Update sea ice standards and climatology	.	<b>Vasily Smolyanitsky</b> ...	.		<b>ETSI</b> , ETMC
25	Develop sea ice climatology based on ice charts and maintenance of the Global Digital Sea Ice Data Bank (GDSIDB)	.	<b>Vasily Smolyanitsky</b> ...	.		ETSI
26	Contribute to the development and implementation numerical forecasting systems	.	<b>Vasily Smolyanitsky</b> ...	.		ETOOFS
27	Enhance the efficiency and safety of navigation in ice infested waters by harmonizing sea ice products	.	<b>Vasily Smolyanitsky</b> ...	.		
28	Coordinate the implementation of GMDSS, including Sea Ice bulletins, for the Arctic Ocean	<ul style="list-style-type: none"> <li>MPERSS/GMDSS workshop (4/10)</li> </ul>	<b>Henri Savina</b> <b>Vasily Smolyanitsky</b>	<ul style="list-style-type: none"> <li>Complete by 2011</li> </ul>		ETMSS ETSI
29	Continue to develop and manage technical documentation for ENC and sea ice services and information	.	<b>Vasily Smolyanitsky</b> ...	.		

Green – Project outcomes achieved by JCOMM-IV

Yellow – Possible to achieve the outcomes by JCOMM-IV

White – Completion time line to be determined

Blue – Lead by other PAs/Organizations



# The Way Forward

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- ETSI-IV (Mar. 2010, St. Petersburg) – the Team to finalize the SFSPA work plan for ETSI high priority (**Green**) projects
  - GMDSS/MPERSS workshop (May 2010, Melbourne, Australia) – work plan for ETMSS projects
  - SCG meeting (May 2010, Melbourne, Australia) – SCG to finalize SFSPA work plan
  - ETWS meeting (May 2010, Toronto, Canada) – work plan for ETWS projects
  - ETOOFS meeting (TBD)
  - Focus on achieving outcomes by JCOMM-IV (May, 2012)
-