

1 Work Plan for 2004-2005

On the first NOWPAP WG4 meeting held on December 2003 at Vladivostok, representatives from Korea, Russia, and Japan (with China absent), and approximately 15 experts from related international organizations participated in and discussed the agenda listed below. The work plan for 2004-2005 discussed in the meeting was reported and finalized at the Second CEARAC FPM on February 2004.

- #1. Objective and long-term strategy
- #2. Applications supported by remote sensing
- #3. Definition of user's needs and gaps
- #4. Towards the operational monitoring
- #5. Development of remote sensing information network system
- #6. Public outreach
- #7. Capacity building of NOWPAP Members
- #8. Cooperation with other regions and organizations
- #9. Capability of CEARAC
- #10. Review of the integrated national reports, which will be prepared by CEARAC with the view of standardizing and establishing a system to update national reports.
- #11. Long-term plan
- #12. Proposed work plan for 2004-2005

In NOWPAP WG4, by reviewing the status of research development and government needs in NOWPAP countries and international organizations, feasibility and usefulness of satellite remote sensing which are to solve present and potential marine environment problems in NOWPAP region are evaluated, based on the strategy shown in Figure 1.1. Then, it is agreed to establish a monitoring system that would protect marine environment in NOWPAP region and to promote and coordinate cooperation among NOWPAP countries. Under this agreement, the following items were decided as actions to be taken with priorities. Table 1.1 shows the overview of the work plan for 2004-2005, which was finalized at the Second CEARAC FPM.

- Collection & Review of remote sensing information for eutrophication/oil spill monitoring
 - Preparing National Report
Preparing National Reports, which summarize status in each NOWPAP country
 - Preparing Integrated Report
Preparing a report integrating information on status in each NOWPAP country based on National Reports
- Development of remote sensing information network system
 - Establishment of Portal Site
Developing a Portal Site as an experiment to share related information
 - Establishment of Website on Oil Spill Monitoring
Developing a Website to introduce Oil Spill Monitoring
- Public outreach
 - Introducing NOWPAP WG4 activities to the public and widely disseminate the

usefulness of satellite remote sensing for marine environment monitoring and the importance of efforts towards its practical use.

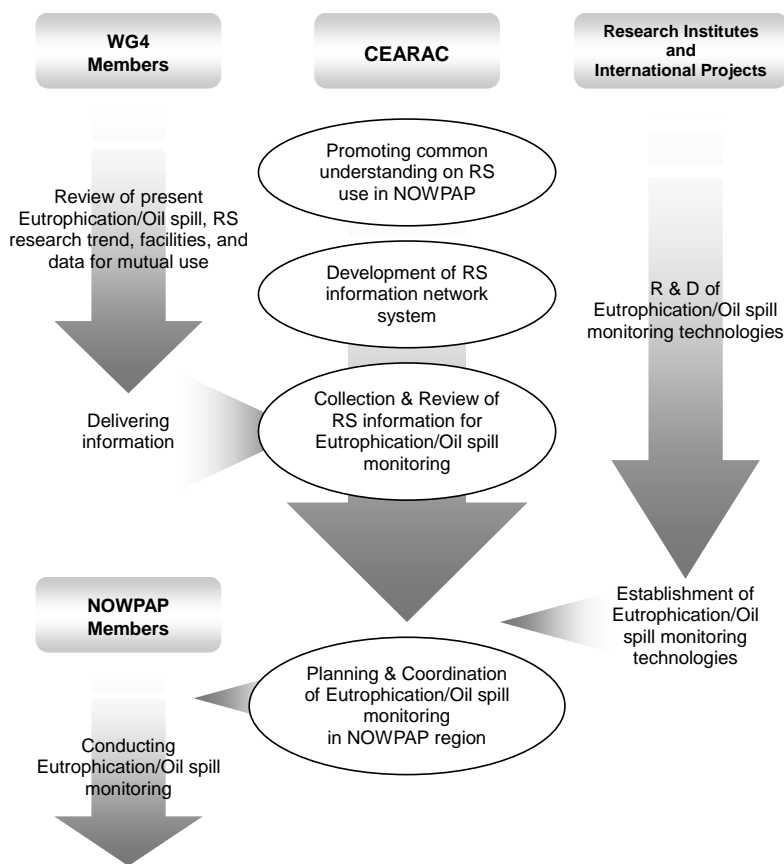


Figure 1.1 Diagram of Long-term Strategy

Table 1.1 Work Plan for 2004-2005

		2004		2005	
		FPM ^{2nd}	WG4 ^{2nd}	FPM ^{3rd}	WG4 ^{3rd}
Collection & Review of remote sensing information for eutrophication/oil spill monitoring	Preparing National Report		○	
	Preparing Integrated Report			○
Development of remote sensing information network system	Establishment of Portal Site		○	
	Establishment of Website on Oil Spill Monitoring	○		
Public Outreach			○ Newsletter No.1		○ Newsletter No.2

2 Intersessional Activity

In the Second NOWPAP WG4 meeting held in October 2004, status of activities described in Section 1 was reported. Outcome to date and future activities are described in the following sections.

2.1 Preparing National Report

It was confirmed in the Second POMRAC FPM (May 2004) that the preparation of National Report was to be conducted with the highest priority for the time being. The content and the level of details to be put into National Report were discussed in the Second NOWPAP WG4 meeting, based on the draft National Reports prepared by each country according to preparation guidelines.

National Reports were then revised based on the comments made in the Second NOWPAP WG4 meeting, and submitted to CEARAC by July 2005 after detail check by FPs and related organizations.

2.2 Preparing Integrated Report

The contents of Integrated Report submitted to the second CEARAC FPM were not sufficiently consistent, as what were written in the National Reports, as National Reports were the basic reference for Integrated Report, and were not well aligned among each country. Given the situation, new sets of draft National Reports were prepared according to guidelines developed in the Second NOWPAP WG4 meeting, and the content of Integrated Report was then discussed based on the re-submitted National Reports.

National Reports were finalized in April 2005. Draft Integrated Report, written based on finalized National Reports, was distributed to NOWPAP WG4 members in July 2005. Revised Integrated Report will be prepared and published by the end of 2005, reflecting the comments made in the Third CEARAC FPM.

2.3 Development of Remote Sensing Information Network System

2.3.1 Establishment of Ocean Remote Sensing Portal Site

Various information and data on marine environment monitoring by remote sensing are scattered in organizations in every NOWPAP country. Consequently, it is difficult to share common information on latest research development, case studies on application, and future trends in NOWPAP region. To improve the situation, a portal site with links to related websites (shown in Fig. 2.2) was developed, as an experiment to share information and data (concept shown in Fig. 2.1).

The portal site started its operation in April 2005 at the following website address and it has been providing links to related websites in the NOWPAP region and major international organizations. The main feature of this site is offering more reliable information than the ordinary search engine can provide.

2.3.2 Establishment of Website on Oil Spill Monitoring

Following the discussions in the first NOWPAP WG4 and memorandum between CEARAC and POI FEB RAS, establishment of website on oil spill monitoring was adopted as one of the activities taken up by NOWPAP WG4, mainly by POI FEB RAS.

With reflection of proposals made by CEARAC and MERRAC, the content and function of the website were presented at the Second NOWPAP WG4 meeting (Figure 2.3). During the

meeting, maintenance and future plans for the website were also discussed. The website has been open to public since March 2005 at the following website address.

2.4 Public Outreach

CEARAC Website was established (Figure 2.4), and the first newsletter was published. Reference materials used at CEARAC FPM and NOWPAP WG4, National Reports, and Integrated Report were parts of contents in the website.

2.5 Other related activities

2.5.1 International workshops on remote sensing of the marine environment in the NOWPAP Region

NPEC has been organizing international workshops on remote sensing of the marine environment in the NOWPAP Region since 1999. The aim of these workshops is to contribute to the development of marine environmental monitoring technologies derived from remote sensing. It's the third workshop was held in Beijing, and experts of relevant countries (Japan, China, Korea and Russia) including NOWPAP WG4 members, attended to make presentations on remote sensing application, examples of marine environmental monitoring, research and development trends, and so on, and to exchange information.

2.5.2 Website upgrade of Marine Environmental Watch Project

The Ministry of the Environment of Japan has contracted with NPEC since 2000 to prepare the Marine Environmental Watch Project as a NOWPAP promotion project. The purpose is to provide useful basic information for marine environmental conservation, utilizing satellite remotes sensing data. NPEC began operation of its receiving ground station in March 2002 and the system has been providing data, which are retrieved from NOAA AVHRR, Feng Yun-1 (FY-1) Multi-channel Visible and Infrared Scan Radiometer (MVISR) and TERRA/Aqua MODIS satellite instruments

The website of the Marine Environmental Watch Project was upgraded in March 2005 for better promotion of utilization of satellite data. Some new functions were added to existing website such as explanation of method for data processing and analysis. The website also provides daily image of Sea Surface Temperature and Chlorophyll a concentration of the NOWPAP Region (Figure 2.5).

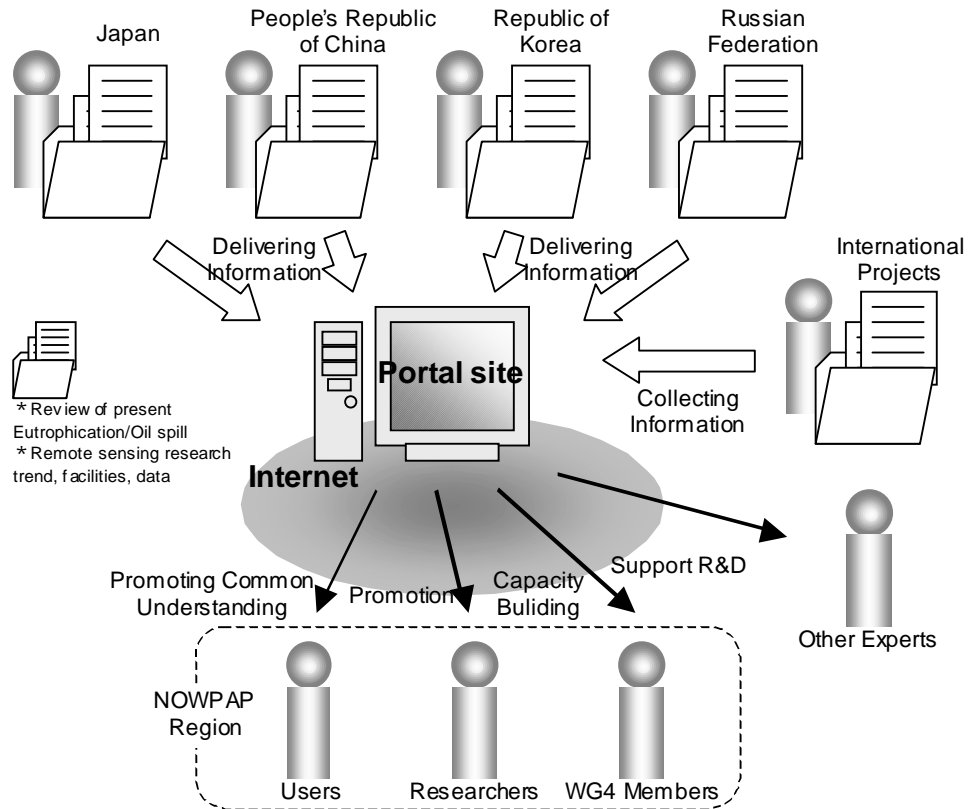
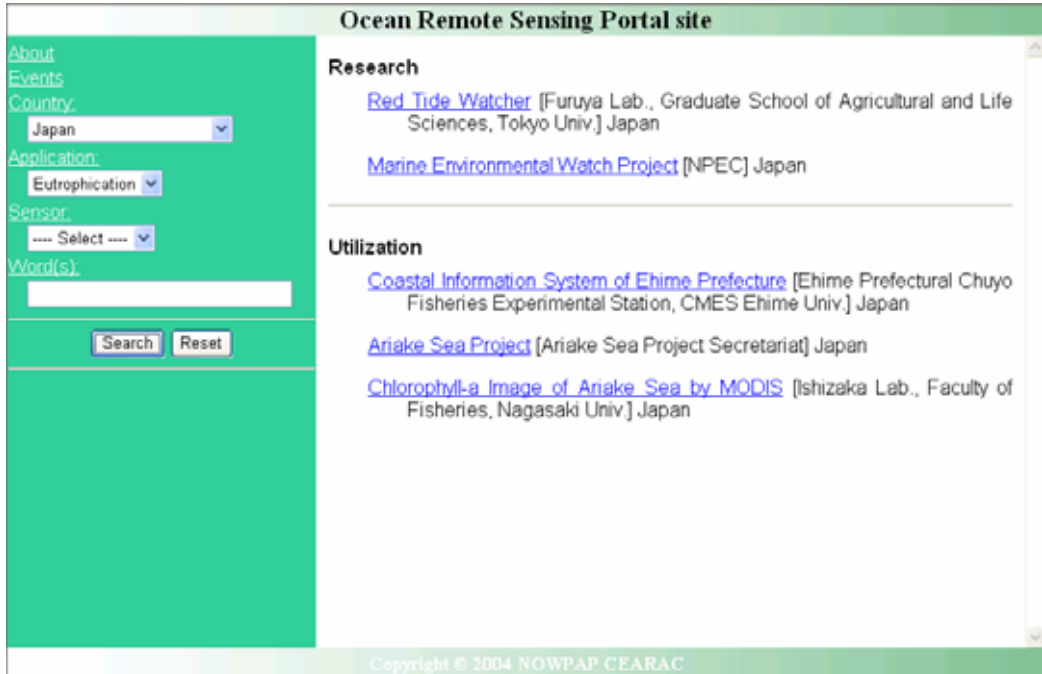


Figure 2.1 Basic Concept of Portal Site



- 3 search categories are prepared: Country, Sensor, and Application. Only one keyword can be chosen in each category.
- Search results are classified into 'case study', 'research and development', 'distribution', 'reference literature', and 'others'.
- Search can also be done by random words.

Figure 2.2 Ocean Remote Sensing Portal site
<http://www.cearac-project.org/wg4/portalsite/>

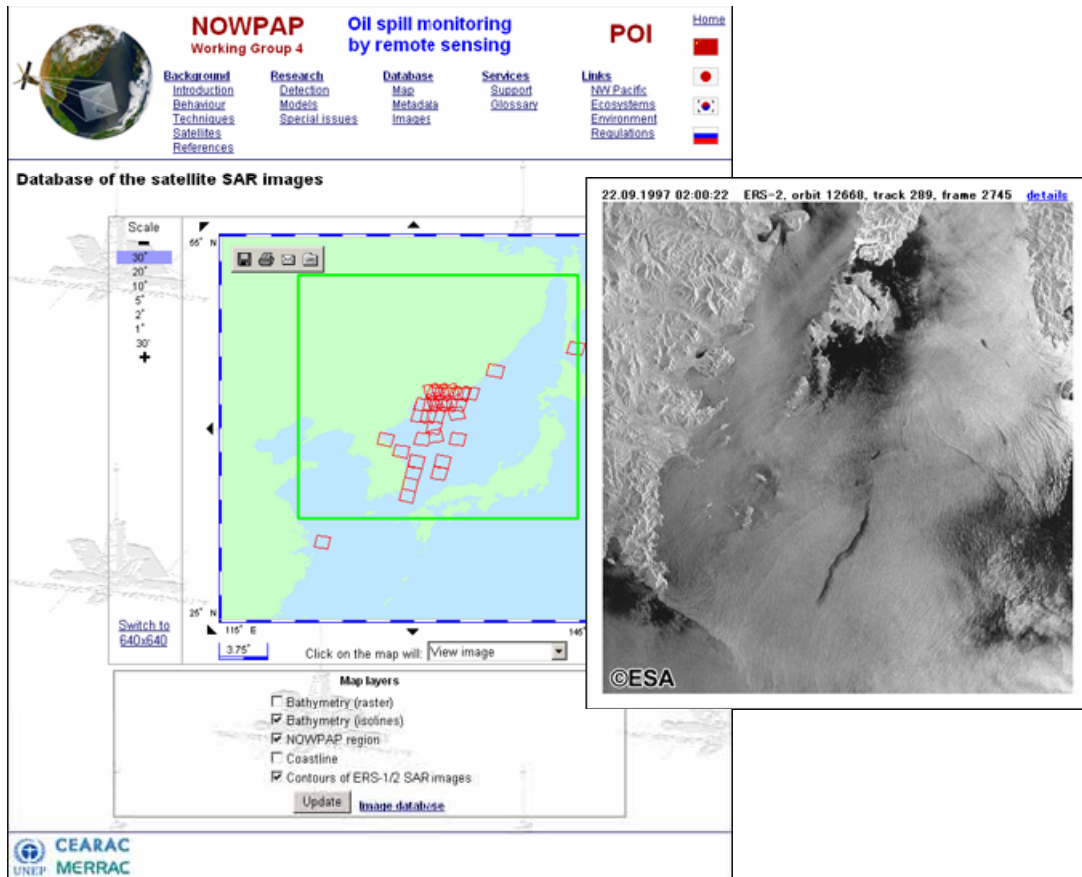


Figure 2.3 Oil Spill Monitoring by Remote Sensing

<http://cearac.poi.dvo.ru/en/main/about/>

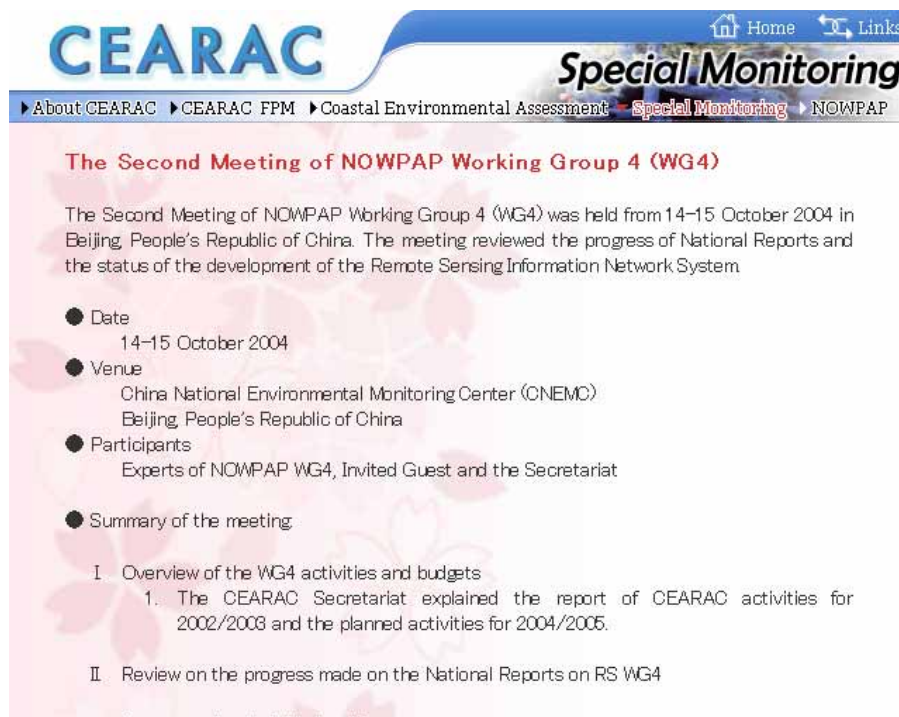


Figure 2.4 CEARAC Website

<http://cearac.nowpap.org/>



Figure 2.5 Marine Calendar of the NOWPAP Region

3 Progress of Activities

The status of each activity at the point of the Third NOWPAP CEARAC FPM is shown in Table 3.1. Work Plan for 2004-2005 will be achieved when Preparing Integrated Report is completed at the end of 2005.

Table 3.1 Progress of Activities

		2004		2005		
		FPM ^{2nd}	WG4 ^{2nd}	FPM ^{3rd}		
Collection & Review of remote sensing information for eutrophication/oil spill monitoring	Preparing National Report	—————●				Completion
	Preparing Integrated Report	—————○				In Progress
Development of remote sensing information network system	Establishment of Portal Site	—————●				Completion
	Establishment of Website on Oil Spill Monitoring	—————●				Completion
Public Outreach		● Newsletter No.1		○ Newsletter No.2		
Other related activity		● The 3 rd international workshop on remote sensing of the marine environment in the NOW/PAP region				