

Summary Report
of
Earth Observation W.G.
APRSAF-12

October 12th, 2005
Kita-Kyushu, Japan

Chairpersons:

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Conclusion of EOWG Session (Summary)

Conclusion

- EOWG enthusiastically agrees on the proposed pilot project plan for “Sentinel-Asia”.
- EOWG welcomes and appreciates APRSAF member contributions to the “Sentinel-Asia” regional network.

Recommendation

- EOWG recommends the APRSAF12 Plenary to approve the pilot project plan for the “Sentinel Asia” pilot project for quick implementation.

Actions

- EOWG members continue to discuss disaster management projects, such as “Sentinel-Asia”, and consider next priority areas to be addressed by future EOWG.(by APRSAF13)
- EOWG members to provide comments on the pilot project plan. (by the end of Dec 2005)

APRSAF-12 EO WG

Date and time

October 12 9:00 – 15:30

Venue

Conference Hall at Kita-Kyushu International Convention Center

Participants

Approx.50 participants from 14 countries and 7 international organizations

Purposes of the session

- Exchange information on activities and plans of APRSAF members, and discuss possible collaboration in the Earth observation area.
- APRSAF-12 EOWG will focus on the proposed rapid-response pilot project. It is expected to finalize the pilot project plan and recommend to the Plenary for approval to initiate implementation.
- The session further addresses collaboration beyond the pilot project, which should be discussed in the special session.

Presentations

15 presentations in Earth Observation-WG

Findings of the EOWG session

- Very active regional and national activities using RS and GIS technologies for sustainable development exist and are growing in APRSAF region.
- Very wide range of applications are being made.
- Strong space technology capabilities ranging from satellite development, ground receiving stations, products and service development exist in this region.
- Data exchange and sharing among APRSAF members exist and are growing.
- More data exchange and sharing are needed for research and operational services.
- Major infrastructure building-up for RS and GIS application is ongoing in Vietnam.
- New IT technologies for visualization, data sharing and portal support applications of RS and GIS for decision making.
- DEM and topographic data are very important for disaster management and hazard mapping.
- Level of technical capabilities of APRSAF member are different and this needs to be taken into consideration.
- Mini Projects supported by JAXA provide important opportunity for capacity building for disaster management.
- Value-added products provide new applications and more private sector is being involved.
- Similar regional data sharing projects are planned in Africa and South America under UN initiative. Sentinel-Asia could provide opportunities and an example for collaborating for other regional data sharing programs.
- Strong regional activities can contribute to the GEOSS implementation.

EOWG Recommendations

- EOWG recommends the APRSAF12 Plenary to approve the project plan for the “Sentinel Asia” pilot project for quick implementation.
- Promotion and development of RS and GIS into integrated resource management, environmental monitoring and disaster management should be made.
- Provision and sharing of DEM data should be promoted.
- Involvement of private sector for value-added products and services should be encouraged and strengthened.
- Capacity building activities including JAXA’s Mini Projects, should be strengthened.
- Data exchange and sharing among APRSAF members should be promoted and encouraged.
- Future EOWG should address regional GEOSS implementation.
- It is recommended that future EOWG address wide applications, while special session focus on disaster management.
- Development of visualization and data sharing tools should be promoted.
- Formulation of national policy and regulation related to space technology use and creation of national data network is recommended.

Outline of Presentations(1/5)

- CSIRO, Australia, presented “Sentinel Asia” pilot project plan. It will interconnect available services and infrastructure in APRSAF region. Map web server technology and digital map are used. Timeliness of data delivery is the most critical need. Satellite data products rather than raw image data are needed. It aims to develop automated, near real-time data distribution system and regional network focusing on hot-spots and floods. Rapid implementation using AVHRR, MODIS and ALOS will be possible. Live-operation demonstration is proposed for March 2006.
- JAXA presented Earth Observation Summit and GEOSS, JAXA vision which includes development of disaster/crisis management system and global environment monitoring system, proposed “Sentinel-Asia” pilot project and JAXA’s contribution to the “Sentinel-Asia” regional network.
- AIT, Thailand, reported capacity building activities being supported by JAXA. Geoinformatics Center serves as research center and base for capacity building. It provides seminar, workshop, advanced training. Mini Projects based training are introduced. Nine mini project in 6 countries are ongoing. It aims at developing products and services providing capacity of mapping agencies working with user agencies.

Outline of Presentations(2/5)

- International Center for Integrated Mountain Development (ICIMOD), Nepal, presented Earth observation for sustainable mountain development planning, mountain disaster management and mountain environmental monitoring. GIS and new visualization tools with data sharing features provide make it a useful research and learning resources.
- Environment Research Institute, Lao PDR, presented applications of forest cover and land use. Updating topographic map started. Geological landform maps has been prepared using Landsat, SPOT and aerial photos. Promotion and development of the use of RS and GIS in to the integrated resources management, environmental monitoring, disaster evaluation was recommended.
- Remote Sensing Center (RSC), Vietnam, presented applications of satellite imagery for flood study, using ASTER, GIS technology and hydrologic model VRSAP. Infrastructure of ground station, national data center and data utilization system is being constructed in Vietnam. Future cooperation was suggested for RS and GIS application awareness, technology transfer on data interpretation, participation of ground receiving station in region ground station network and response in case of disaster.

Outline of Presentations(3/5)

- Mekong River Commission, presented RS and GIS related activities, including forest cover mapping, flood mapping, and ongoing flood forecasting and flood hazard mapping, and future wetlands mapping. DEM is being used. MRC-IS website/portal is being used for data exchange and sharing.
- Federal Space Agency, Russia, presented its Earth observation satellite programs and services. It can provide satellite data, delivery of ground station, operational space imaging and space data transfer, archived data transfer, joint thematic projects, exchange of technology, manufacturing of RS spacecraft. Value-added products and very high resolution satellite data provides new applications. It expressed interest in participating in the APRSAF pilot project.
- Forest Department, Myanmar, presented applications of GIS and RS. Three major government agencies are using GIS and RS for forest management, watershed management, desertification combat, biodiversity management, environmental monitoring and evaluation, city planning and land administration, settlement and land records department. Private sector is being involved. International cooperation with UNDP/FAO, JICA, ESCAP, JAXA supports RS and GIS capacity building.

Outline of Presentations(4/5)

- LAPAN, Indonesia, presented use of RS data to support disaster management in Indonesia. LAPAN is producing products on weather/climate anomalies, droughts, floods, land/forest fire, etc. Development of the national Tsunami warning and mitigation system in Indonesia was reported.
- CRISP, Singapore, receives, processes and disseminates SPOT, MODIS, Landsat data. CRISP is monitoring forest fires using MODIS and SPOT. Daily report of hotspots are reported to NEA. CRISP hotspot ftp server is implemented on web-based mapping and cots software. Non-commercial implementation approach is useful for all.
- Geological Survey & Mines Bureau, Sri Lanka, presented that aerial photographs, satellite images and airborne geophysical data are being used by governments. Cost, higher temporal resolution, no proper coordination, security restrictions are obstacles for efficient data use. To expedite data distribution , to reduce costs, reduce redundancy and standardize data are needed. After Tsunami, awareness on aerospace data usage increased. Easy access for remote sensing data through local coordinating bodies is being proposed.

Outline of Presentations(5/5)

- AIT's response to the Earthquake and Tsunami was reported. Working Paper on the response to the Tsunami and Conceptual Paper on Emergency Communications during Natural Disasters were developed. The Scientific Forum on Tsunami was also held. 3D mapping and simulation were presented. Geospatial data for analysis and sharing. A Web Map Server was established.
- UNESCO presented Geological Applications of Remote Sensing (GARS) and IGOS Geohazard Theme activities. Existing gaps in the existing observation system were identified and necessary gap filling are being implemented. Integration needs for data management, integration and modeling and capacity building were discussed.
- GISTDA, Thailand, provides RS and GIS services. It is developing THEOS satellite. Applications for agriculture, aqua-culture, flood risk mapping, landslides and mudflows, forest monitoring, drought monitoring. GISTDA provides technology transfer and training. It is actively promoting international cooperation. GISTDA provided quick response for providing EO images for Tsunami.