Minutes

Final DRAGONESS Meeting

Guilin, China
17-18 May 2010

Note: all presentations are available from project website:
http://dragoness.nersc.no

Report template, participant list and action items
are given as appendices

17 May 2010

10:00- Introduction by Prof. Johnny A. Johannessen

- Discussion about final report:
    - Each WP leader will collect and submit a 3rd year WP report. The 3rd year WP reports shall focus on the last year achievements , but can refer to previous reports to avoid repeating. Prof. Johannessen will make a executive overall report from the WP reports. This final executive report shall be about 25-30 pages. It will also be submitted to a review journal. An option is Journal of Operational Oceanography; Prof. Johannessen will contact the main editor. Prof. Johannessen will also check with GEOSS if there will be any relevant upcoming dedicated printing issues. Highlights could additionally be reported in EOS.
    - Individual WP executive summaries will be important, to provide a clear picture on which to base WP5: capacity building. WP5 will be an important outcome of the project: what can be learned from the assessment of marine monitoring system (ref. GMES diamond) in Europe and China.
    - We must make good ideas related to capacity building visible in the final report. Based on this, the aim is to get future funding from bi-lateral programs to work further

on the identified gaps. This should be kept in mind when formulating the final report. DRAGONESS terminate in August 2010, but the consortium will continue to keep contact through the Dragoness project in Dragon 2 until 2012.

- Some figures in previous reports are in Chinese. In final report figures, or at least figure captions, should be in English, to be understandable for non-Chinese readers.

- A common template will be used the 3rd yearly WP reports, see Appendix. This will make it easier to read across the WPs and also ease the integration into the final overall report.

- Status of 2nd year annual reporting (J. Johannessen)
  - Remaining issues from 2nd year reporting were recently sent by mail. These issues should be clarified as soon as possible, before work starts on final reporting
  - Subcontract/audit certificate: For year 2 the amount in box 6 is related to cost for audit year 2.
  - If audit cost is not refunded for year 1, it can be included in 2nd year under Box 2 subcontracting. Similarly 2nd year audit cost can be included in the 3rd year cost reporting.
  - No costs can be refunded after 31 August 2010. Audit cost is the exception. Conversion rate in addendum to the audit certificate should be sent to Prof. Johannessen by express. A consistent conversion rate must be used throughout the reporting, according to European Central Bank (ECB) (see website below). Exchange rate for 1 Sept 2009 was 1Euro = 9.777 CNY: http://sdw.ecb.europa.eu/curConverter.do?sourceAmount=1.0&sourceCurrency=CNY&targetCurrency=EUR&inputDate=01-09-2009&submitConvert.x=0&submitConvert.y=0

- Prof. Johannessen gave overview of the present status of the work packages
- Action on Prof Johannessen by end of June: send out request for updated status on writing of activity reports

14:00 Work package reporting

- **WP1 Review of in situ observing system (Prof. Zhishen Liu)**
    - Overview of European and Chinese in situ observing systems, including marine observing stations, buoys, Argo network, gliders and marine survey ships.
        - Comments from Prof. Johannessen:
            - Only a few examples are shown of European observing stations, overview is not complete.
            - European in situ monitoring is weak for biogeochemistry,
            - Gliders are useful, but are an order of magnitude more expensive than an Argo float.
    - Presentation of European Marine Core Service and The European Marine Observation and Data Network (EMODNET).
    - Prof. Liu presented suggestions for development of a Chinese observing system.
- **WP2 Review of spaceborne systems (Prof Ming-Xia He)**
    - Overview of Chinese 7 spaceborne series and their 55 satellites, with corresponding data products. Comparison with other international satellites.
    - Some Chinese satellite sensors are not working properly. Still, compared to international satellite systems, there is a greater gap on the algorithms and data services than the hardware systems.
    - Prof. Pan Delu commented that
        - Data distribution is underdeveloped in China, and should be pushed
        - Currently China has 7 different satellite series, but in future this will be reduced to two types:

Meteorological series and Resources and ocean series

- **WP3: Level of data integration (Prof. Ge Chen)**
  - Marine data policy:
    - Comparison of Chinese and European policies for data sharing on national, agency, institute and project level. Also comparison with policies of several intergovernmental organizations, such as the Intergovernmental Oceanographic Commission (IOC) and International Council for Exploitation of the Sea (ICES).
    - It is noted that practice is often very different from the policies.
  - Data integration and sharing;
    - In China there are several nice looking web sites, but functionality to retrieve data is less functional than in Europe.
    - Case based comparison of NMDIS and NSOAS in China with MERSEA and SeaDataNet in Europe.
    - In China no unified data format has been defined.
    - Gaps between China and Europe are identified and discussed.
  - Assimilation/utilization of data in models:
    - China has achieved good results in many ocean data assimilation experiments, but improvement must be made on operational assimilation.
    - Chinese satellite data are not used in assimilation in China; the quality is not trusted.
  - Prof. Johannessen: in Europe it is more difficult to get free and good data from coastal waters than offshore and regional to global data.
- **WP3: Level of data integration in Europe (J-F Piollé)**

- Overview and comparison between Europe and China with respect to level of data integration, policy, services, user access, and standards (i.e. data format and transfer protocols)

- **WP4: Report on the service structure for Chinese monitoring for coastal environment and security (Prof. Xuejia Song)**

  - Overview and examples are given of Chinese in situ and satellite observation frameworks for monitoring of various parameters such as wave field and sea level, red/green tides, oil spills, air pollution, sea ice, and how the information is communicated.

  - Most services are provided on web pages of the various centers. Yearly bulletins are important references to policy makers and ocean administrators.

  - Examples are given of various forecasts provided by NMEFC. Recent incidents such as green tide before Olympic Games and large ice concentration in Bohai Sea triggered quick setup of monitoring and forecast systems which were efficient and popular.

  - Chinese ocean and coastal information products and services are assessed, and compared to European counterparts.

  - Prof. Johannessen commented that for final reports conclusions should be consistent between WP4 and WP3

- **WP5: Report on Chinese and European Capacity building (Prof . Liqin Shao)**

  - Chinese high level long-term roadmaps for marine capacity building are presented, covering technology, talented workforce buildup, contact with user groups and international/regional cooperation. Suggestions are given for future Chinese capacity building, also in view of GEOSS/GMES framework.

  - Chinese service iOcean/China Digital Ocean service is presented, similar to European MyOcean.

- European-Chinese cooperation on personal, institutional, ministry and national levels. It is suggested that Europe should create a “European Marine Agency”, similar to ESA.
- China has recently implemented a Chinese National medium and long term Program for the Development of Oceanographic Science and Technology (2006-2020). This is established to give boost to oceanographic technology, offshore development and marine environment protection.

Appendix A: Template for 3rd year reporting

Table of content

WP 1-4, Length up to 50 pages (with figures and tables)
Final delivery is 31st August 2010

(i) Introduction

Explain the content of the WP report. Refer to previous annual reports. Provide definitions (e.g. observing sytems (WP1) and satellite systems(WP2), information management (WP3) and products and services (WP4)).

(ii) Review of in-situ/satellite/information man/services

a) China, b) Europe
Summarize this with a table in situ observation capability versus products (WP1), satellite capability wrt products (WP2), information management with view to the products in WP1 and WP2 (WP3) and services with view to the products in WP1 and WP2 (WP4)

(iii) Assessment

a) China, b) Europe
This should evaluate the strength and weaknesses in in-situ (WP1), satellite capability (WP2), information management (WP3) and services (WP4).
Make final table that compare Europe and China (ref. Ge Chen slides from presentation using objective labels A to D). This is particularly applicable to WP3 and WP4.

(iv) Summary and recommendation

This should conclude by considering how capacity building can be used to advance the conditions (improving the weaknesses and fill the knowledge gaps).

WP5, Length 30-40 pages
Final delivery 31 August 2010

(i) Introduction

Definition of capacity building, and refer to GEO/GEOSS and consider in the context of societal benefit.

(ii) **Priorities for Capacity building**

- examples might include training and education at PhD and post doc. levels, exchange of scientists,
- but also special Chinese user agreement with MyOcean.
- define framework for how to federate and integrate distributed data providers, etc… service groups into a common centralized system with important distributed contributors and users.
- technology development

(iii) Conclusion

To implement selected priority capacity building new means include:

- new bi-lateral Europe-China projects
- blablabla

Overall Dragoness Project Report, 25-30 pages
(executive summary following a scientific paper style)
Final delivery late September

(i) **Introduction**

Explain GMES diamond in context of GEO/GEOSS societal benefit.

(ii) Strength and weaknesses of diamond

- observation (in situ, satellite) system
- data integration and information management
- products and services

The performance of the diamond is not better than the weakest link in the chain (for corners of the diamond)

(iii) **Summary and outlook**

Match to the summary of WP5.

This will also form the basis for the Dragon2 Mid Term Report. It will be trimmed to publication in scientific journals such as

- Journal of Operational Oceanography (action JJ)
- BAMS
- Chinese special journals (action Ming-Xia He)
- EOS (short extract)
- …….

Appendix B: Participant list

Name	Organisation
Johnny A. Johannessen	NERSC
Knut-Frode Dagestad	NERSC
Werner Alpers	ORS
Jean-Francois Piolle	IFREMER
Liqing Shao	NRSCC / MOST
Ming-Xia HE	ORSI / OUC
Zhishen Liu	ORSI / OUC
Ge Chen	ORSI / OUC
Chaofang Zhao	ORSI / OUC
Lei Guan	ORSI / OUC
Xiaoquan Song	ORSI / OUC
Bingyi Liu	ORSI / OUC
Qian Yang	ORSI / OUC
Delu Pan	SIO / SOA
Yan Bai	SIO / SOA
Xianqiang He	SIO / SOA
Liying Wan	NMEFC / SOA
Yun Li	NMEFC / SOA
Keping Du	BNU

Appendix C: Action items

Prof. Johannessen:

- By end of June: send out request by email for updated status on writing of activity reports
- Check publication possibilities in Journal of operational oceanography and BAMS, and also check with GEOSS for special publications.
- Write (coordinate) Dragon2 mid term report paper
- Write executive summary in September

Prof. He:

- Check publication possibilities in Chinese journals

All:

- Finalize year 2 reporting
- Send input to management report (see previous reports on project website)
- Complete 3rd year reports by 31 August, according to template