

# Minutes

*(chronological)*

## First annual DRAGONESS meeting

**Bergen, Norway**

**17-19 Sept 2008**

### Wednesday 17 September

- (10:00) Johnny A. Johannessen welcomed the attendants to the 1st annual Dragoness meeting, and presented NERSC strategy and activities
- Lasse Pettersson informed about the international relations (Nansen Group)
- JAJ presented the agenda for the meeting, given as Appendix below
  
- (10:30) JAJ informed about project status:
  - Meeting report from KickOff meeting in Beijing 11-12 Oct 2008, printed in EOS, was distributed
  - Progress meeting was held adjoint with Dragon meeting in Beijing April 2008
  - JAJ informed about Dragon2 - continuation of Dragon1 programme
    - 1st symposium will be held in Spain spring (probably May) 2009.
    - 2nd symposium in China in 2010
    - It is aimed to use opportunity to have Dragoness project meetings jointly with the Dragon2 meetings
  - Werner Alpers (WA) mentioned an ocean remote sensing training school planned in connection with PORSEC 2008 (by Kristina Katsaros) in China in December 2008. Since no training school was held during first year of Dragoness, WA suggested that Dragoness partners could participate on this training school, and report this as Dragoness activity.
- JAJ reviewed objective of Dragoness, and how WP's relate to GMES diamond
  - Mentioned in particular that data formats etc will be according standards defiend by Open Geospatial Consortium (OGC), as adopted also by GMES/Marine Core Service project "MyOcean", where arctic node is lead by NERSC
    - Within Dragoness such matters should be compared to current practice in China
- JAJ mentioned two examples of exchange of people:

- PhD student Yunfei Wang from ORSI stay at NERSC from Feb 2008 to Feb 2009, supported by grants from China and NERSC
- M. Fang from ORSI will have a two year stay (broken up) at NERSC from Nov 2008, working with data assimilation, in particular of altimetry
- JAJ stressed beneficial linkage of Dragoness to GEO and GEOSS
- < coffee break >
- (11:30) JAJ give examples of how to fill out schemes for management and cost reporting:
  - Management report with cost overview
  - Summary of financial report (EPSS form)
  - Form C - Financial Statement
  - Audit certificate
- Templates of documents with examples have been given to all participants.
- Standard Dragoness frontpage has to be used for all reports
  - bottom of page will indicate which type of report
- First reporting year is 1 Sept 2007 - 31 Aug 2008
  - I.e. travel costs for this meeting will be for the next reporting period
  - Deadline for reports for first year is end of September 2008
- JAJ urged that report writing should be completed as fast as possible after meeting, as much as possible should be done during meeting.
- JAJ gave example of how to fill out Management report
  - This report should contain only brief description of activities - more details in activity report
  - Reminder that this is a Specific Support Action, labor cost sare assigned as direct cost with 20% overhead as indirect costs
  - JAJ urged to store all receipts during project lifetime
  - All budget numbers in reports should be the same as in the project contract, not to be changed from reporting template
  - 10% of the budget can be transfered between "labour costs" and "travel costs"
  - Form C was distributed, same as emailed document: "cost\_analysis\_ssa.xls"
    - Only two types of activities are relevant to this project:
      - D Management. Only Partners 1 (NERSC), 3 (ORS) and 7 (ORSI) are allowed to report management activities.
      - E "Other specific activities" - the main type for Dragoness activities (SSA project)
    - No third parties are involved in this project
  - There was some discussion and confusion about difference between indirect vs direct costs, but is was cleared out that:
    - **direct costs include: salary + travel**
    - **indirect costs include: 20% overhead, for both salary and travel**

- an Audit certificate costs ~1000€, which can be reported as direct cost, **but without 20% overhead**
  - Audit certificate must be made by an outside institution
  - A Word Doc. template is distributed from JAJ to Prof Lei Guan
  - Audit costs should be put under "other costs", and add a \* with footnote "cannot copy 20% overhead to Audit certificate"

### **(15:00) Activity status presentations for WP 1-6**

- JAJ emphasised that the WP activity reports should be consistent with the DoW
- **A very brief summary of the presentations is given below. The full presentations will be available from the project website: <http://dragoness.nerisc.no/>**

## **WP 1**

- **WP1: Prof. Zhishen Liu: "review of in-situ observing system"**
  - Overview of Marine Observing Stations
    - More than 100 tide gauge stations along coast, operated under the possession of SOA (State Ocean Administration)
  - Overview of Marine Buoys
    - Several types of buoys that can measure many different parameters
    - 20 active Chinese Argo floats
  - Overview of Marine Survey ships
  - Overview of Voluntary Observing Ships (VOS)
  - JAJ mentioned lack of information about coastal observatories and HF-radars in activity report
  - JAJ reminded that inventory is made not only for its own sake, but also to emphasise how the data is used with ocean models
  - JAJ suggested that activity reports for all work packages are collected in one report - to not lose the relation between the work packages. About 40 pages per work package, including figures and tables, should be sufficient. WP 1 activity report is 50 pages.
  - JAJ mentioned that reporting will be iterative for 1st, 2nd and final report. More flexibility on length of reports can be accepted for this first reporting period.
- **WP 1: Prof. Yongqi Gao: "IAP contribution to WP1" (data used at IAP / Nansen-Zhu)**
  - Near-Goos area: North East Asia. China, Japan, Korea, Russia. Oceanographic data freely distributed.
  - CAS's China Marginal Sea observing network. Data not freely distributed
    - 4 long term observing platforms
    - 3 coastal stations in marginal China Seas
    - 2 cruise sections
  - Anthropogenic tracers, e.g. CFC Data Sets from cruises and stations. Free access to data.

- **WP 1: Prof. Johnny Johannessen: "Marine Core Service for GMES"**

- 3 scales: global, regional and local
- Example: ARGO floats, data available online in near real time, efficient data management system, sustainable
  - Assimilated data: Argo floats, XBT
  - Data for validation: Moorings and Driftes
  - Upcomming: Gliders, not yet operational
  - Well defined system for global to regional - not yet mature for regional to local scale. Even satellite observing systems have limitation close to coast
  - Examples of local/shelf observing systems: "Ferry box" HF-radar, tide gauges, Irish Sea Observatory
  - Example: Norwegian coast poorly observed, Irish sea very well observed; Research Vessel fleet very big and number of field campaigns on shelf is significant.
    - Bertran Chapron remark: are existing observing systems driven by need for answers to geophysical questions, or mainly existent where there are financial/political possibilities?

< 16:15 coffee break >

## WP 2

- **WP 2: Prof He et al. "Chinese Spaceborne Ocean Observing Systems and Onboard Sensors (1988-2025)"**

- For Dragoness yearly reports:
  - 1st year: focus on hardware (satellite systems)
  - 2nd year: focus on data products, and how they are used
- Chinese Spaceborne Observing Systems
  - Seven satellite series:
    - FY-n (Chinese met. agency, wind/clouds)
    - HY-n (Chinese Ocean Agency)
    - ZY-n (resource)
    - HJ-n (Environment)
    - SZ-n (Spacecraft)
    - CRS-n (Chinese remote sensing)
    - DMC/BJ-1 (disaster management, series of small instruments)
  - Acronym names are mainly from Chinese, sometimes english
- Chinese Spaceborne Ocean Observing Systems
- Comparison of Chinese and other international sensors for ocean observation
- In general less microwave sensor missions. But also possible gap in ocean colour missions.

## Thursday 18 September

- **(09:00) WP 2: Prof Werner Alpers, European Earth Observation Missions**
  - ESA
    - Meteorology satellites (e.g. MSG, METOP)
    - Earth Explorers (e.g. GOCE, SMOS) to better understand the Earth System
    - Earth Watch (e.g. Sentinel) application services, long term monitoring systems for environment and security
  - German TerraSAR-X satellite
  - Italian COSMO-SkyMed, 5 satellites, special focus on Mediterranean Sea, limited access to data, partly military
- JAJ reminded that aim of project is not only to review current and future missions, but also to identify weaknesses/strengths of current and planned European and Chinese missions, including how data are used
- Suggestion by Prof Lei Guan: a table should be made, identifying all Chinese and European missions/sensors, and indicating to which degree data is further used for research and development, assimilation and for routine operations.
- Prof He mentioned that several of the Chinese satellites are still in commissioning phase, and it will take some time until quality of data is assessed

## WP 3

- **WP 3: Prof Ge Chen, Review of Level of Data Integration and Information Management**
  - Following institutions are examined:
    - 10 institutions affiliated with SOA
    - 5 institutions affiliated with CAS
    - 3 institutions affiliated with CMA
    - 4 universities under MOE
    - 5 military agencies
  - Data policies (availability and cost) are reviewed for the Chinese, and some international, satellites, and subsequently for in situ data
  - Example of cruise data sharing between the two largest oceanographic institutes in China, both affiliated with CAS. Generally data sharing is easier between institutions which are under the same administration (e.g. CAS, SOA...)
  - For Argo: two websites manage Argo data in China today: "China Argo Data Center" and "China Argo Real-Time Data Center"
  - Two examples of Data Integration:
    - National Marine Data and Information Service
    - Spectral Database for Typical Objects (including water) in China
- **WP 3: J-F. Piolle, Review of level of data integration**
  - Presentation of experiences from Mersea project/system, e.g. standards used

- 5 categories of data users (e.g. privileged, ...).
- JAJ remarked that in GMES Marine Core Service project MyOcean such discrimination of data users has been changed, data is generally freely available to anyone. Exception may be critical situation like accidents where some operational institution might be privileged.
- **JAJ briefly presented MyOcean, building on experiences from MERSEA and GODAE**
  - MERSEA was R&D driven. MyOcean is user driven.
  - 4 user groups:
    - Marine Safety
    - Marine Resources
    - Marine and Coastal Environment
    - Climate and Seasonal Forecasting
  - 12 production units in Europe, of two types
    - 5 Thematic Assembly Centers (TAC). Operate servers to which people can connect to get either satellite or in-situ data. Produce information products.
    - 7 Modeling and Forecasting Centers. Operational agreements with the TAC's to get data for assimilation. Automated push/pull of data.
    - Is also offering links to other relevant data servers
  - Users access via a Service Desk

## **WP 4**

- **WP 4: Dr. Liying Wan, Review of ocean and coastal informatio products and services**
  - Brief introduction of ocean forecast and services in China
    - State Ocean Administration of China (SOA) is responsible for the marine environment forecasting and information products and services
    - China Meteorological Agency (CMA) provides marine weather forecast services.
  - Overview of short-term forecast products
    - Sea Surface temperature (NMEFC and other centers)
    - Ocean wave and swell (NMEFC and other centers)
    - Tide ( other centers)
    - Beach (water quality, temperature, significant wave and tide etc.) (NMEFC)
    - Ship Routing (NMEFC)
  - Medium range forecast
    - Ten-day SST
    - Ten-day Sea Ice (winter)
  - Long-term forecasting - El Nino
  - Marine disaster pre-warning systems

< lunch >

- **WP 4: Prof Z. Chaofang, Oceanic research and numerical modeling by different institutions in China**
  - Informed about evolution and status of Chinese ocean/wave models
  - Sea ice monitoring and forecasting
- **WP 4: Prof Y. Gao, Ocean/climate models at IAP/Nansen-Zhu/NERSC**
  - MICOM
  - Bergen Climate Model, coupled model, Solar radiation is the only driving source
  - Nested Air Quality Level (MM5). Used to predict air quality during Beijing olympics
  - Regional HYCOM (M. Fang can work on this setup during upcoming stay at NERSC)
- **WP 4: Dr. H Etienne,**
  - About GODAE, GMES and MERSEA
  - Next Step: MyOcean
- Comment from JAJ after WP4 presentations: Chinese model systems seem to be more developed to also catch local/coastal systems. However, automatic online distribution of data to users seems to be more developed in Europe, and there are more websites and servers operated. Lei Guan: typically chinese websites distribute images, not so often data.
- MERSEA class 1-4 metrics definition should be made available to Chinese Dragoness partners.

## WP 5

- This WP relies on input and achievements from WP 1-4
- WP 5 capacity building will take benefit of Dragon 2
- **(14:40) WP 5, Prof L. Shao and Dr. Y. Bai, China and Europe Marine Capacity Building Investigations**
  - Overview of Chinese universities and laboratories complying marine research
  - Comprehensive list of European marine research institutes
  - Specific content for three yearly reports of WP5:
    1. Capacity building identifications
    2. Identify and describe major gaps
    3. Future Chinese and European building design, in compliance with GMES/GEOS

## WP 6

- **JAJ: status of WP 6**
  - Symposia
    - No symposium in Dragoness so far. Dragoness symposia should be held in conjunction with Dragon2-symposia. Limited travel money is available within Dragoness to invite experts and users. No explicit Dragoness symposium will therefore be held.
  - Several Dragoness partners participated in training school 2007 in Hangzhou

- Workshops:
  - A workshop on the Status of Marine Monitoring and Forecasting in the China Seas was held at NMEFC on 10 June 2007, with 14 attendants including 6 participants of DRAGONESS, the director of NMEFC, the chief engineer of NSOAS and etc.
  - The other workshop on Chinese spaceborne and in-situ observing systems for ocean and ocean information products was held at OUC on 20 July 2008, with 19 attendants including 9 DRAGONESS participants of WP1, WP2 and WP4 and professors from the College of Marine Environment and College of Information Science and Engineering of OUC and etc..
  
- Future Dragoness meetings:
  - Progress meeting or workshop to be planned in connection with Dragon 2 symposium in Spain 2007
  - **2nd year meeting in Qingdao, within week 7-11 Sept 2009**
  - Final project meeting in Beijing, China
  
- Examples of websites providing information and data:
  - <http://www.arctic-roos.org/>
  - <http://topaz.nerisc.no/>
  - <http://www.mersea.eu.org/>



## Action list

- Complete management report
  - cost table report
  - person-month report
  - send to JAJ as soon as possible, for the Chinese partners eventually via Prof He
  - JAJ will forward to Project Officer
- This should be done in parallell with work on Activity report
- No WP reports should exceed 50 pages, around 40 is preferrable. Full report should ideally be kept below 200 pages.
- Generally: Harmonisation of input to various WP's.
- Summary of financial statements, and Form C's
  - Should be filled out exactly as in the contract, e.g. regarding whether institute is FC or AC. Look at Form A2 in the contract.
  - Signed and stamped should be faxed or mailed in PDF to JAJ by end of September
  - In parallell: DHL / Express mail original forms to JAJ, who will forward to Project Officer
  - Full address is:
    - Jonny A. Johannessen
    - Nansen Environmental and Remote Sensing Center
    - Thormohlens gt 47
    - N-5006 Bergen
    - Norway
- Template of Audit certificate is distributed as Word doc file to Prof Lei Guan. Should be completed by individual partners by end of month.

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## Appendix A: Agenda

- Wednesday:
  - 10:30 JAJ gives update of project status
  - 12:30 lunch
  - 13:15 Activity reporting
  - 14:30 Cost reporting
  - 16:30 Action review and identifications
  - evening:
    - Presentation by NERSC director Prof. Ola M. Johannessen: "High latitude climate change: The cryosphere in transformation"
    - Display of movie "Svalbard Actic Seasons"
    - 18:30 Seafood buffet at NERSC
- Thursday:
  - 9:00-15:00 Activity reports for WP 1-6
  - 12:30 lunch
  - Review of action items
  - Other contract formalities and other business. Date and place of next meeting.
    - 19:00: Dinner at Hotel Augustin, Spanish Tapas
- Friday
  - 9:00-13:00 Work in groups, as needed
  - 13:30 lunch

## Appendix B: Participant list

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20 participants