Five breakout groups had previously met to consider the following:

- The role of industry in implementation of IOOS
- Develop detailed statements on sharing of data and products provided by the private sector for the system, as well as system generated and value added products/data to be provided by the private sector to user groups.
- Develop plans for demonstration projects
- Recommend levels of advocacy by private sector
- Develop plans for future communications (e.g., web site, meetings, other) which should reach, inform, and involve a broader segment of industry

The findings of each group were presented to the workshop and used to prepare a summary of the findings.

1.0 Key Points From Breakout Groups

1.1 Role of industry in the implementation of IOOS

(Participation leads to advocacy)

- Seek advocacy through professional societies
- Industry participation in the RAs and NFRA (mentioned by 4 groups)
  - Provide compensation for participation (mentioned by 2 groups)
  - Industry to elect 1 person to participate at the NFRA level
- Private sector involvement in the design, administration, deployment, and operation and maintenance of the system (mentioned by 4 groups)
- Establish a committee for sensor/hardware standards (mentioned by 2 groups)
- Provide equipment and services
- Provide data
- Produce and sell value-added products
- Provide platforms
- Private sector should receive funds for participation just as other sectors; this should include involvement in pilot projects (mentioned by 2 groups)
- One or two industry people should be on the NFRA "steering committee"
1.2 Develop detailed statements on sharing of data and products provided by the private sector for the system, as well as system generated and value-added products/data to be provided by the private sector to user groups

(Attention needed to boundaries and definitions)

- Understand functions and roles of all participants
- Define functions of centers assembling data of distinct types for specific regions
- Central data management
  - Common formats and standards
  - QA/QC in real time
  - Real-time data
- Responsibilities of data providers
  - Document the data
  - Provide adequate metadata
  - Specify the restrictions on use/publication of raw data (commercial versus non-commercial) (mentioned by 2 groups)
- Archives
- Basic products of IOOS are those related to health and safety (mentioned by 2 groups)
- Except for seismic data, the sharing of data by the oil industry is now less of a problem than formerly
- Difficult to define boundaries between public and private products because this is a moving target (mentioned by 2 groups)
- No limits on data development – let the market decide what value-added products should be sold
- Distribution of data and products via the Web
- Industry should specify interests in
  - Data products
  - Hardware
  - Data management
- Need a data distribution system similar to the Global Telecommunications System

1.3 Develop plans for demonstration projects

(Private sector involvement in the research ⇒ operational process)

- Surface currents
- GOM currents, met, modeling
  - Concern expressed that this competes with the private sector
- Demonstrate value to users
- Money from NOPP (mentioned by 2 groups)
- Follow IOOS data product suite
- Defined by regions and done through RAs
- Premature to discuss
- Led by private sector
- Show how improved/increased IOOS data helps whole U.S. – e.g., tornados in Iowa get energy from Gulf of Mexico
- Private sector involved in research projects (encouraged) – like SBIR process
- Use BAA for research and pilot projects through NOPP
- Pre-operational and operational projects – use RFI/RFP/FAR process – private sector involvement required, as in SBIR
- Identify what private sector has already done
1.4 Recommend levels of advocacy by private sector (explained as advocating for funds)

(Need liaison and information so advocacy can be successful)

- Advocacy for authorization legislation (mentioned by 2 groups)
- Advocacy for IOOS should be directed to
  - NORLC
  - Industry contribution (state what it is)
  - Executive agencies
- Local level advocacy required to enter into pilot projects – i.e. support from all three sectors
- GOOS steering committee advocacy letter for S.1400 to private sector so they can modify it and also send it
- All RAs should do a meeting like this one
- Full time industry liaison on Ocean.US staff (three mentions)
  - Full time senior person to communicate with industry, especially small business)
- Succinct/compelling story for congress/agencies
  - Educate people to tell this story
  - Use consultants to assist in developing the story
  - Use private sector government relations people

1.5 Develop plans for future communications (web site, meetings, other) which should reach, inform, and involve a broader segment of industry

(Better communications)

- Communications/outreach
  - Industry trade journals
  - Press releases
  - Ads
  - Website (mentioned by 2 groups)
- Results of this workshop should be widely disseminated.
- Refer others to information> (pyramid scheme)
- Prepare and publish a summary of the IOOS for industry (Andrew Clark volunteered to draft). This should cover:
  - Modes of industry participation
  - Data properties
  - Benefits
- Ocean.US newsletter should include a section of interest to industry summarizing new action/plans. (mentioned by 2 groups)
- Ocean.US should include outreach to private sector. At present private sector is required to seek information regarding the IOOS.
- Provide an easy to find calendar of RA meetings and other activities. (Ocean.US web site should be improved)
- Work with Weather Channel to promote IOOS.
- AMS ’05 conference in San Diego will have a section on Living in the Coastal Zone.

2.0 Plan of Action

Following the compilation of the findings of the breakout group, a plan of action was developed with respect to each of the topics
2.1 Role of industry in the implementation of IOOS

It was noted that industrial participation in IOOS will lead to advocacy. To allow this there must be participation in the governance at the level of the National Federation of Regional Associations, as well as in the Regional Associations. It was also noted that industry involvement must be enabled in system design, deployment, and maintenance.

2.2 Develop detailed statements on sharing of data and products provided by the private sector for the system, as well as system generated and value added products/data to be provided by the private sector to user groups

The workshop clearly identified that there are problems defining the terms and boundaries for products and that these will change with the passage of time. It also was noted that the terminology (commercial, non-commercial, user, customer, etc.) needs to be defined and carefully used to ensure clarity and to minimize misunderstanding.

2.3 Develop plans for demonstration projects

The private sector must be involved in the transfer of research projects into the operational mode. The private sector is ideally positioned to ensure that projects are not undertaken to develop techniques that are already proven. NOPP Broad Agency Announcements (BAAs) will act as a mechanism for funding projects where the interest lies with more than one agency. However advocacy is required to ensure that sufficient funding is made available.

It was noted that pilot projects have been funded in the past, however, mechanisms for advocacy for NOPP funding are unclear due to the large number (14) of agencies represented.

There is a clear need to provide incentives for involvement of the private sector. It was suggested that, if the NOPP funding route is used, the possibility for private sector involvement as the principal, and not just as co-principal, investigators of projects is needed.

2.4 Recommend levels of advocacy by private sector (explained as advocating for funds)

Clearly, industry can be an effective advocate for IOOS at both the federal level and for the regional associations. The ability of industry to communicate and liaise effectively with all the Regional Associations is recognized as a major burden. This could be resolved by having an industry liaison officer in Ocean.US, however it would be a major task for one person to cover all aspects of industry involvement.

To allow effective lobbying by industry guidance on methods is required. The workshop organizers agreed to provide participants with a Fact Sheet on the Authorization Bill (for Texas) and also a copy of S.1400.

For the private sector to participate in advocacy there needs to be a clear and strong assurance of participation in IOOS from Ocean.US, the National Association of Regional Associations, and the Regional Associations themselves.

2.5 Develop plans for future communications (web site, meetings, other) which should reach, inform, and involve a broader segment of industry

It is recognized that there is a clear need for improvement in the distribution of information. A passive web site approach is not sufficient; information needs to be “pushed” out to the private sector. Methods such as weekly email summaries with links to more detailed documents on the web are considered highly effective.
A number of sites that could link into the Ocean.US website were identified (e.g., those of the Commercial Weather Service Association, National Council of Industrial Meteorologists, and the American Meteorological Society). It was agreed that participants would identify additional relevant organizations and links and forward that information to the Ocean.US Office.

A need for an brief printed summary of the IOOS was identified. Also identified was the need for a clear statement regarding private sector involvement in the IOOS. It is expected that these will be issued by the Ocean.US Office.

It was noted that many participants were unaware of the Ocean.US newsletter and it was agreed that all participants will be added to its distribution.

3.0 Summary

Final summaries were provided by the leaders of the nascent Southeastern U.S. and Gulf of Mexico Regional Associations.

Chris Mooers commented that the Pilot Projects provide an enormous range of possibilities and opportunities. They must be action oriented and focused on establishing system designs.

Worth Nowlin commented that after 14 years of involvement in GOOS is has become clear to him that there is a very important role for the private sector. Industry may well provide a major part of the implementation and integration. Advocacy from all sectors, and in particular the private sector, will be needed for the IOOS to be successful.