

Summary Analysis of GRA Assessments

GRA	Governance and Management
Black Sea GOOS	<ul style="list-style-type: none"> • Governed by an Executive Committee, made up of representatives from each member country, one Chairperson and an Executive Secretary. The Executive Committee executes the decisions made at the Annual Meeting, prepares cooperation plans and proposes activities. The Committee meets annually.
EUROGOOS	<ul style="list-style-type: none"> • Activities are managed by Executive Directors Board (with designated Chair). • Secretary General to implement policies and decisions, handle external representation, and maintain contact with major European programs. • In 2012, agreed to create a new EuroGOOS International Non-Profit Organisation under Belgian Law to transform EuroGOOS from an informal association into a body with legal backing to increase its efficiency and improve representation of members' views.
GOOS Africa	<ul style="list-style-type: none"> • Organized by a Coordinating Committee that oversees the development of GOOS in Africa. Contains 15 members and led by a Chairman. • A proposed Regional Ocean Observing Framework System (ROOFS-Africa) to better coordinate ocean observing and operational oceanography across African nations is currently under development.
GRASP	<ul style="list-style-type: none"> •
IMOS	<ul style="list-style-type: none"> • Managed by office located at University of Tasmania with a Director and 4.5 FTE staff • Advisory Board with Chair • Steering Committee with Reps from 12 Nodes
IOCARIBE GOOS	<ul style="list-style-type: none"> • Chartered as an activity of IOCARIBE, IOC SubCommission of the Wider Caribbean • Governed by a Steering Committee, with Delegates from member states • Coordinated by a Project Coordinator • Suggested Terms of Reference have been drafted but await final approval
IOGOOS	<ul style="list-style-type: none"> • Lead by IOGOOS Chair and Officers (Western, Central, Eastern, and 2 more officers to be elected) • Managed by Secretariat in India
MONGOOS	<ul style="list-style-type: none"> • Established under MOU between MOON and MEDGOOS • Member Assembly with a representative from each Member organization/institute • Executive Board composed of one Member Rep from each country, the Bureau and the Secretariat

	<ul style="list-style-type: none"> • Two Chairpersons coordinating Board meetings; actions and decisions of the Board; manage communication between Members, Board and Assembly; and serve as spokesperson at International meetings • Secretariat facilitates implementation of MONGOOS activities, meetings, etc.
NEAR-GOOS	<ul style="list-style-type: none"> •
OCEATLAN	<ul style="list-style-type: none"> • Steering Committee composed of the heads of the Hydrographic Offices of the three representative countries. They serve as President, First and Second Vice-presidents, and rotate serving as the President every two years. • Executive Committee consisting of three representatives, one from each member country. • Technical Secretariat appointed by the Steering Committee President
PIGOOS	<ul style="list-style-type: none"> • Advisory Committee consisting of a Chair, Coordinator and 8 Members • Secretariat of the Pacific Regional Environment Programme
SEAGOOS	<ul style="list-style-type: none"> • Steering Committee not yet established. Coordination and implementation by IOC WESTPAC (Western Pacific Office) and SEAGOOS Coordinator. • Management meetings held at the Intergovernmental Session of WESTPAC in 2012 and 2010.
US IOOS	<ul style="list-style-type: none"> • Interagency Ocean Observing Committee (IOOC) with 3 Co-Chairs responsible for implementing procedural, technical, and scientific requirements • National Program Office (U.S. IOOS/NOAA) with Director and staff serves as overall coordinator of U.S. IOOS activities • IOOS Advisory Committee with Chair and 12 other members

GRA	Nations Represented
Black Sea GOOS	<ul style="list-style-type: none"> • 6+ Nations - Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine
EUROGOOS	<ul style="list-style-type: none"> • 17 Nations - Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden, United Kingdom
GOOS Africa	<ul style="list-style-type: none"> • 26+ Nations - Angola, Benin, Cameroon, Comoros, Congo, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Kenya, Madagascar, Mauritius, Mauritania, Mozambique, Namibia, Nigeria, Senegal, Seychelles, Sierra Leone, South Africa, United Republic of Tanzania, Togo, and other African countries that express interest. Egypt, Morocco, and Tunisia also contribute to the GOOS-Africa Framework, but are also associated with MedGOOS/MONGOOS GRA.
GRASP	<ul style="list-style-type: none"> •
IMOS	<ul style="list-style-type: none"> • 12+ Nations - Australia, USA, Canada, France, UK, New Zealand, India, Indonesia, Timor-Leste, Japan, China, South Africa, Pacific Island nations
IOCARIBE GOOS	<ul style="list-style-type: none"> • 5 Member Nations - Brazil, USA, France, UK, and Netherlands.

	<ul style="list-style-type: none"> 25+ Potential National Partners – Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Columbia, Costa Rica, Cuba, Dominica, Dominican Republic, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, St Kitts & Nevis, St. Lucia, St. Vincent & Grenadines, Suriname, Trinidad & Tobago, Venezuela
IOGOOS	<ul style="list-style-type: none"> 15 Nations - India, Australia, Bangladesh, France, Indonesia, Iran, Kenya, Madagascar, Mauritius, Mozambique, South Africa, Sri Lanka, Tanzania, Thailand, USA
MONGOOS	<ul style="list-style-type: none"> 12 Nations - Croatia, Cyprus, France, Greece, Israel, Italy, Malta, Montenegro, Morocco, Slovenia, Spain, Turkey
NEAR GOOS	<ul style="list-style-type: none">
OCEATLAN	<ul style="list-style-type: none"> 3 Nations - Argentina, Brazil, Uruguay
PIGOOS	<ul style="list-style-type: none"> 22 Nations - American Samoa, Commonwealth of Northern Marianas and Marshall Islands, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Wallis, Futuna
SEAGOOS	<ul style="list-style-type: none"> 6+ Nations - China, Myanmar, Thailand, Malaysia, Indonesia, Philippines
US IOOS	<ul style="list-style-type: none"> USA

Total # of Nations Involved with GOOS: 102

The following table contains principal goals for each GRA. Common themes across the GRAs are:

- Coordination of observing systems across member nations,
- Contribution to and advancement of GOOS,
- Continued development of research and technological advances, leading to sustained operational oceanography programmes
- Exchange and access of oceanographic data,
- Development of downstream services for end-users,
- Strengthening of capacity building,
- Increasing awareness and visibility of ocean observing

GRA	Principal Goals
Black Sea GOOS	<ul style="list-style-type: none"> To contribute to international planning and implementation of the GOOS and to promote it globally. To identify regional priorities for the use of operational oceanography. To co-operate with the Black Sea Environmental Programme (BSEP), the Permanent Secretariat of the Black Sea Commission (Secretariat for the Bucharest Convention) and other relevant bodies, to harmonize oceanographic activities in the region.

	<ul style="list-style-type: none"> • To develop capacity of the regional countries and promote the level to sustain GOOS activities. • To promote the development of technology and computer systems for operational oceanography. • To facilitate a network for real and/or near time data exchange by the members. • To provide high quality data and time series for a better understanding of and improving of the Black Sea ecosystem. • To find means to ensure the most effective use of existing technologies related to operational oceanography and marine meteorology. • To assess the economic and social benefits from operational oceanography.
EUROGOOS	<ul style="list-style-type: none"> • EuroGOOS shall act as the authoritative and competent expert voice of operational oceanography in all European activities • Take the lead in representing and promoting operational marine services in Europe • Improve the observing system for operational oceanography in Europe, and its contribution to global systems • Encourage links between member state national systems and setting up of downstream services • Contribute to the further development of GOOS, in particular by taking a leading role in advancing Coastal GOOS • Promote EuroGOOS at a high level for members' countries and European organisations • Promote and foster the necessary research and technological developments for operational oceanography, and their implementation in operational systems • Work towards involving all European coastal states, through their operational oceanographic institutions, in EuroGOOS work
GOOS Africa	<ul style="list-style-type: none"> • Effective management of coastal environments, controlling pollution and safeguarding human health • Support for the expanding economic activities in the coastal and offshore zones • Protection of the growing coastal populations, especially in the Great Harbour Cities of Africa • Effective management of living marine resources • Mitigation of natural disasters and extreme events and the impacts of climate change
GRASP	<ul style="list-style-type: none"> •
IMOS	<ul style="list-style-type: none"> • To provide sustained ocean observations that meet the broad needs of the Australian marine and climate research communities,

	<ul style="list-style-type: none"> • To provide the marine and climate research community with free and timely access to quality assured observational data, and • To involve the marine and climate research community in defining future needs and to strengthen the technical and operational capability of the marine and climate community and hence sustain the ocean observing paradigm into the longer term.
IOCARIBE	<ul style="list-style-type: none"> • To serve the marine data and information needs of humanity for the efficient, safe, rational and responsible use and protection of the marine environment, and for climate prediction and coastal management, especially in matters requiring information beyond that which individual national observation systems can efficiently provide, and which enable smaller and less-developed nations to participate and gain benefit; • To establish an international system to provide the required coordination and sharing of data and products that otherwise would not be possible.
IOGOOS	<ul style="list-style-type: none"> • Contribute, collectively, to the progress of ocean observations, ocean science and operational oceanography, focusing on these imperative needs of the Indian Ocean region. • Enhance the Ocean Observing System in the region, • Promote and facilitate efficient and effective management, exchange and utilisation of oceanographic data, • Promote programmes and projects in operational oceanography and ocean services in the region meeting the requirements of end-users, • Strengthen capacity building for enhancing the capabilities in the region, • Encourage research to support the needs of Users, • Develop synergies with other ocean programmes and regional GOOS bodies, • Contribute to international planning and promotion of GOOS.
MONGOOS	<ul style="list-style-type: none"> • (a) Improved Fitness for Purpose. Continuously advance the scientific understanding and technological development upon which the Services are based. • (b) Greater Awareness. Promote the visibility and recognition of the Services with governmental agencies and private companies, encourage their integration at national, regional, European and global levels. • (c) Increased Downstreaming. Enhance the usability of the Services and their usefulness for policy implementation, societal needs and science. • (d) Improved Capacity. Support the planning and implementation of international initiatives involving operational oceanography and promote the participation of non-EU Mediterranean countries in producing the Services.
NEAR GOOS	<ul style="list-style-type: none"> •
OCEATLAN	<ul style="list-style-type: none"> • Monitor and investigate the oceanic processes in the Upper Southwest and Tropical Atlantic.
PIGOOS	<ul style="list-style-type: none"> • Provide and improve seasonal predictions of weather and climate, and their

	<p>impact on Pacific Island Communities,</p> <ul style="list-style-type: none"> • Provide base data for longer term predictions of weather and climate influenced by climate change, • Raise awareness and use of the ocean observing system in the Pacific Ocean, • Coordinate between other ocean and climate projects in the Pacific, • Facilitate support of the ocean observing system and associated deployments from Pacific Island Countries and Territories.
SEAGOOS	<ul style="list-style-type: none"> • To establish and/or enhance the capacity of institutions, countries in the wider Southeast Asian region, including those in the eastern Indian ocean in operational oceanography, marine meteorology and relevant ocean and climate research • To establish the regional network of ocean observations and encourage data & information sharing among them in the wider Southeast Asian Region and its adjacent regions; • To develop joint operational ocean and climate observation and research in the wider Southeast Asian Region and its adjacent regions.
US IOOS	<ul style="list-style-type: none"> • (1) Improve predictions of climate change and weather and their effects on coastal communities and the nation; • (2) Improve the safety and efficiency of maritime operations; • (3) More effectively mitigate the effects of natural hazards; • (4) Improve national and homeland security; • (5) Reduce public health risks; • (6) More effectively protect and restore healthy coastal ecosystems; and • (7) Enable the sustained use of ocean and coastal resources.

GRA	Observation Network Readiness Level
Black Sea GOOS	<ul style="list-style-type: none"> • (Unanswered in assessment)
EUROGOOS	<ul style="list-style-type: none"> • 65%, systems vary by maturity and sample rate
GOOS Africa	<ul style="list-style-type: none"> • (Unanswered in assessment)
GRASP	<ul style="list-style-type: none"> •
IMOS	<ul style="list-style-type: none"> • 100%
IOCARIBE	<ul style="list-style-type: none"> • 0% for the GRA, for member countries national ocean observation programs up to 15% (notably Mexico, Columbia, Venezuela, and Cuba with active, organized operation oceanography programs. And Dominican Rep., Costa Rica, Belize, Panama, and French, British, and Dutch Territories, with identifiable observation programs that lack a national structure/organization.
IOGOOS	<ul style="list-style-type: none"> • Basin scale 70% - Argo, INDOOS and RAMA provide improvement in ocean observing capability, though gaps exist in the Southern Ocean and Boundary currents • Regional scale (EEZ) 30% - large gaps in regional observing systems
MONGOOS	<ul style="list-style-type: none"> • 50%, several state of the art systems, but region is strongly under sampled
NEAR GOOS	<ul style="list-style-type: none"> •
OCEATLAN	<ul style="list-style-type: none"> • 60% for catchment of data from ocean, 50% for communications and 50% for process of data
PIGOOS	<ul style="list-style-type: none"> • 0%, physical components of observing networks are operated by countries external to the Pacific
SEAGOOS	<ul style="list-style-type: none"> • 50%, partly ready to use
US IOOS	<ul style="list-style-type: none"> • 50%, due to significant spatial gaps

GRA	DMAC Readiness Level
Black Sea GOOS	<ul style="list-style-type: none"> • (Unanswered in assessment)
EUROGOOS	<ul style="list-style-type: none"> • 100%
GOOS Africa	<ul style="list-style-type: none"> • (Unanswered in assessment)
GRASP	<ul style="list-style-type: none"> •
IMOS	<ul style="list-style-type: none"> • 100%, all data is discoverable
IOCARIBE GOOS	<ul style="list-style-type: none"> • 0%, though several countries have internal data portals that are available that could be measured at 10% in aggregate
IOGOOS	<ul style="list-style-type: none"> • 100% for data services provided INCOIS
MONGOOS	<ul style="list-style-type: none"> • 100% through MyOcean
NEARGOOS	<ul style="list-style-type: none"> •
OCEATLAN	<ul style="list-style-type: none"> • Not yet measured, 0%
PIGOOS	<ul style="list-style-type: none"> • 0%, though accessible though PacIOOS and AODN
SEAGOOS	<ul style="list-style-type: none"> • Lower than 50%
US IOOS	<ul style="list-style-type: none"> • 75%

More analysis to come on these sections:

GRA	Modeling – Common Themes
Black Sea GOOS	•
EUROGOOS	•
GOOS Africa	•
GRASP	•
IMOS	•
IOCARIBE	•
IOGOOS	•
MONGOOS	•
NEAR GOOS	•
OCEATLAN	•
PIGOOS	•
SEAGOOS	•
US IOOS	•

GRA	Gaps – Common Themes
Black Sea GOOS	•
EUROGOOS	•
GOOS Africa	•
GRASP	•
IMOS	•
IOCARIBE	•
IOGOOS	•
MONGOOS	•
OCEATLAN	•
NEAR GOOS	•
PIGOOS	•
SEAGOOS	•
US IOOS	•