Fisheries Domain Task Areas

**Task Area 1: Studies, Analyses and Reports**

The Contractor shall conduct studies, evaluations, reviews, and develop reports which focus on current and future NOAA Fisheries programs in an effort to understand outcomes, define issues, or highlight problems and areas for improvement. The Contractor shall analyze data using statistics, modeling, simulation, and other appropriate quantitative techniques, develop analytical tools, and provide reports of results and recommendations. Program studies, analyses and reports services may include, but are not limited to, the following:

1.1 Provide support for data calibration, conversion, coding and validation; data and image analysis and synthesis; data quality assurance and control; and data stewardship and dissemination capabilities.

1.2 Assist with reviewing, documenting, analyzing and developing management policies, strategic plans, operational procedures, regulations, permits, and performing feasibility studies and peer reviews.

1.3 Provide requirements analyses, tradeoff analyses, and gap analyses for NOAA Programs.

1.4 Develop or use existing charts, aerial photographs, satellite imagery, and maps for studies; provide analysis utilizing photogrammetric, cartographic, image analysis, and other advanced techniques.

1.5 Design, exercise, test and use computer models utilizing simulation, emulation, and numerical and statistical analysis.

1.6 Design, code, test, debug and use computer programs and archival services for scientific and management projects (e.g., libraries, metadata, records management, data collection forms, and databases).

1.7 Prepare specialized scientific illustrations (such as drawings of developmental stages of aquatic species, drawings of scientific equipment, research platforms, and field camps, diagrams of relationships among species or of species to habitats, cross sectional and other specialized views of anatomy, biological systems, and conceptual visualizations).

1.8 Provide pre-publication services such as drafting, editing and, reviewing.

1.9 Provide scientific and technical support (e.g. present research results) for scientific meetings, working groups, advisory groups or panels, public hearings, and conferences.

1.10 Provide geographic information system (GIS) support for resource management including, but not limited to, performing GIS analyses.

1.11 Provide literature searches and reviews; compile and catalog background material; and

prepare analyses, summaries and bibliographies.

**Task Area 2: Applied Research, Engineering, Consulting, and Operations**

The Contractor shall provide scientific and engineering expertise to conduct applied research,

development, engineering, consulting, and operations services for NOAA Fisheries programs. The Contractor shall provide support to program managers and policymakers in developing state-of-the-art scientific models, selecting advanced technologies for development (e.g., unmanned platforms), and determining whether or not further program performance information is needed. The Contractor shall identify and apply appropriate methodologies and research designs needed to test particular technologies or answer a specific research question. Tasks may pertain (but are not limited) to structural, electrical, electronic, or mechanical components, systems or scientific equipment. The Contractor shall analyze data and develop a final report of results and recommendations. Applied research, development, engineering, consulting, and operations services may include, but are not limited to, the following:

2.1 Provide technician and engineering consulting services (e.g., fish passage, hydrology, advanced survey technology, marine instrumentation) to include developing, manufacturing, and reviewing designs, drawings and schematics.

2.2 Conduct environmental safety management (e.g., ISO 14001), laboratory waste handling (hazardous, biomedical, non-hazardous), assessment, and remediation as needed.

2.3 Provide on-site shipyard engineering services and support engineering design development to include, but not limited to, coordinating fleet introduction, final mission trials, and post shakedown vessel corrections.

2.4 Design and test gear for bycatch and depredation mitigation, and survey sampling (e.g., turtle excluder devices, bycatch reduction devices, electronic data collection, and trawl fabrication).

2.5 Provide services in support of operations and maintenance of NOAA Fisheries small boats to include, but not limited to, cleaning, overhauling and repairing engines; hull repair; parts support (inventory for spare parts, providing specifications for parts needs and performing parts replacements/installations); testing on land and in water as needed; conducting small boat operations for field programs.

2.6 Develop, test and implement use of electronic monitoring technologies (e.g., video cameras and sensors) to document catch, bycatch, and discards; includes, but not limited to, installing and maintaining camera equipment, data storage and retrieval, instruction documentation, and processing and analyzing data.

2.7 Provide technical services in support of operations and maintenance activities for aquatic species holding facilities (e.g., tanks, pools, raceways, aquaria and other enclosures) and related water treatment operations for recirculating, flow-through systems or other holding systems.

**Task Area 3: Field Sampling, Data Collection and Surveys**

The Contractor shall conduct field sampling, data collection, and surveys. These services support program managers in evaluating and employing state-of-the-art data collection technologies and determine if further sampling and collection are required. The Contractor shall identify and apply appropriate evaluation methodologies and research designs needed for a particular program or to answer a specific research question. The Contractor shall analyze data and develop final reports of results and recommendations. Additionally, collection may require accessing databases from various sources, constructing databases, and consulting with other experts. Support services may be needed for a broad range of studies including (but not limited to) oceanographic, meteorological, biological, and terrestrial systems, and may require 24x7 real-time monitoring and extended deployments to remote locations. Field sampling, data collecting, and survey services may include, but are not limited to, the following:

3.1 Provide support services for animal husbandry (e.g., aquaria) and respond to stranding

events (e.g., marine mammals and sea turtles), molecular, biological or physiological experiments, measurements, analyses, tests or evaluations.

3.2 Provide marine, freshwater and terrestrial surveying services (e.g., seagoing, aerial, SCUBA) to include, but not limited to, developing, fabricating, deploying, testing, maintaining and retrieving gear and equipment; in situ observation, and capturing, handling, instrumentation of and release of target species.

3.3 Provide remote sensing operational readiness by collecting/retrieving, downloading, and processing satellite, acoustic, and oceanographic data in support of NOAA Fisheries projects.

3.4 Provide support for field and laboratory studies, such as design and complete experiments; collect, preserve, curate and process biological/chemical samples (e.g., genetics, fatty acids/lipids, endocrinology, hematology); conduct data analysis, reduction, and requisite quality assurance and control (e.g., accreditation standards, confidentiality, chain of custody); and documentation (e.g., instructions, process and analysis, results, summaries).

3.5 Conduct data collection (e.g. observation, survey, interview, and focus groups), biological sampling, and complete economic and social science analyses on fishing industries and other stakeholders.

3.6 Provide veterinary services including direct interaction (e.g. capture, sample collection, surgery, and necropsy) with wild animals; draft/review/revise permits and procedural documents (e.g. handling, gear use, and formulary); participate in Animal Welfare Act activities; and publish findings and papers on health and disease aspects of animals.

**Task Area 4: Consulting, Program and Project Management**

The Contractor shall provide consulting, program and project management services to assist in program execution, improvements and measurements. Services shall include redesigning and improving the quality of the performance measurement process, performance data, and the system and method by which the data are collected. Activities shall include collection and analysis of program data, field observation reports, advice concerning improving agency measurement systems, and dissemination of these methods to other government agencies and interested organizations. The consulting, program and project management services may include, but are not limited to, the following:

4.1 Develop or assist in developing natural resource damage assessments, prevention, response/control, mitigation, and monitoring of restoration plans.

4.2 Provide planning and logistics support for meetings, conferences, working groups, and hearings including, but not limited to, coordinating locations, participants, rapporteurs, exhibits, agendas, presentations and briefing materials, accommodations, speakers, travel, multimedia requirements and facilitation services.

4.3 Design, develop, evaluate, measure, and deliver training and workshops for fisheries programs such as project management, NEPA, GIS, and professional development opportunities.

4.4 Develop options and propose recommendations to management on complex and contentious statutory and regulatory issues at the national and international level.

4.5 Provide services to respond to and track external requests for information.

4.6 Provide collection, organization, review of information, and recommendations relating to NOAA Fisheries projects and programs.

4.7 Provide support for strategic planning, policy development, project and program planning, congressional affairs, budget planning, performance measurements, and administrative policies and procedures for NOAA Fisheries programs.

4.8 Provide support for financial assistance services including, but not limited to, interagency agreements, grants, and other federal funding opportunities.

4.9 Provide education and outreach support to include design and graphics services, writing content, and developing materials for written (e.g., posters, brochures, infographics) and multi-media dissemination platforms.

4.10 Coordinate with tribal and non-governmental entities on NOAA Fisheries activities.

4.11 Compile data and perform complex economic, statistical and forecast analyses utilizing a variety of statistical and optimization techniques on primary and secondary data sources.

4.12 Develop economic guidelines and standards, and prepare points of view used in forecasting trends and formulating economic policy; and formulate recommendations, policies, or plans to address economic problems or to interpret markets.

4.13 Assess social and cultural impacts of considered alternatives of federal regulatory fishery management actions on fleets and the affected social and cultural environment.