## STATEMENT OF WORK

## 1.0 Scope

## 1.1 Title

Vessel Charter - 4Vn Stratified Random Fixed Gear Survey

## 1.2 Contract Period

Upon contract award through to May 31, 2019, with option to renew for 3 additional 1 year periods at the sole discretion of Fisheries and Oceans Canada (DFO)

Option periods if exercised will be June 1, 2019 through to May 31, 2020, June 1, 2020 through to May 31, 2021 and June 1, 2021 through to May 31, 2022.

The Project work will take place between September 1 and September 30 each year. Working days and completion will be contingent on operational considerations of the charter based on such factors as weather, vessel maintenance/repair requirements, etc.

## 1.3 Introduction

The successful contractor will plan, administer, and execute a longline sentinel survey consisting of 56 long-line sets at predetermined locations in NAFO subdivision 4Vn. A minimum of 4 vessels are required for this project. The survey is designed to provide information about the status of groundfish populations in 4Vn. It will continue a time-series of annual research surveys adhering to strict mandatory requirements for the fishing vessels, captains, crew, gear and sampling protocols intended to ensure that sampling occurs under consistent conditions each year.

## 1.4 Estimated Value

In the event that all 56 stations cannot be completed within the time frame indicated in the contract, the circumstances that led to this will be reviewed and payment of the contract will be decided by the scientific authority based on the all-inclusive cost per station.

In the event that the project exceeds the contract total, all related costs above the initial amount will be paid by the contractor.

All profits from the sale of fish are the property of the contractor.

## 1.5 Objectives of the Requirement

Conduct a survey consisting of 56 long-line sets at predetermined locations in NAFO subdivision 4Vn. The survey is designed to provide information about the status of groundfish populations in 4Vn. It continues a time-series of annual research surveys; therefore there are strict mandatory requirements for the fishing vessels, captains, crew, gear and sampling protocols (Appendix A) intended to ensure that sampling occurs under consistent conditions each year.

## 1.6 Background, Assumptions and Specific Scope of the Requirement

This survey continues a time-series of annual research surveys, therefore there are strict mandatory requirements for the fishing vessels, captains, crew, gear and sampling protocols (Appendix A) intended to ensure that sampling occurs under consistent conditions each year. The locations of the stations sampled in 2009 are in Appendix B for illustration. The locations of the 56 stations to be sampled in 2018 will be provided prior to the time of sailing. The sampling protocols are in Appendix A.

## 2.0 Requirements

#### 2.1 Tasks, Activities, Deliverables and Milestones

- Successful fishing sets at all 56 stations sampled following set locations and protocols provided by DFO. Station locations may be subject to (minor) change upon pre-approval by the scientific authority.
- Detailed sampling (length, weight, stomach contents, condition factors, otoliths) for the first 50 cod over the rail from each set in format specified by DFO and suitable for entry into DFO databases.
- For each of the 56 fishing stations, catch and biological data will be provided by the observer company in the format specified by DFO and suitable for entry into DFO databases. Data required for each fishing station include set location, water condition, numbers, length frequencies and weights for all species captured at each station and total species weight landed.
- Additional sampling may be required by the onshore technician if requested by DFO given that a sampling protocol and materials for sampling are provided by DFO (e.g. collection of cod fin clips for genetic study).

## For the At-Sea Observer Company Employed by the Contractor:

- At-Sea Observers will be on all trips.
- Field work / sampling will be carried out aboard the four contractor vessels. All data entry and data quality assurance will be carried out at the Observer Company's office;
- Data entered in the DFO Maritimes Region Industry Surveys Database (ISDB) will be checked by Association's scientific personnel to ensure that quality standards have been met;
- All data collected will be the property of the crown without exception;
- Association Project Authority will be determined upon award of the contract
- Observer Company must possess a secure access to DFO networks and the Maritimes Region ISDB database;
- All data processing will be carried out at the Observer Company's office;
- At-Sea services for 4Vn Sentinel Survey may be required anytime commencing on or about September 1<sup>st</sup>, 2018 and completed on or about September 30, 2018; the data entry: quality checks and loading of data expected completion date of January 15<sup>th</sup>, 2019.
- The project will be considered to be complete when all data collected during the survey, properly edited, is resident in the DFO Maritimes ISDB database and all hard copies of paperwork have been returned to Association's project authority;

## 2.2 Specifications and Standards

The Contractor must ensure that participating vessels and the At-Sea Observer company follow the established protocol.

## 2.3 Method and Source of Acceptance

Work will be deemed acceptable upon completion of all 56 long-line sets according to the established protocols and all data recorded while at sea. Successful completion of the survey will be determined by the Scientific/Project Authority.

The project will be considered to be complete when all data collected during the survey, properly edited, is resident in the DFO Maritimes ISDB database and all hard copies of paperwork have been returned to Association's project authority.

# 2.4 Reporting Requirements

The Scientific/Project Authority will communicate in writing with the Contractor if any of the requirements of the contract are not being satisfactorily met.

# 2.5 Project Management Control Procedures

The project manager must contact the DFO project leader by phone or e-mail to report:

- The 4 vessel names and VFNs to ensure that the correct license amendments are issued before the survey beings,
- The date when the survey commences,
- Weekly updates on the stations fished, catch rates,
- Survey end date,
- All data, worksheets and biological materials must be provided to DFO by January 15, 2019.
- All data collected during the survey, properly edited, must be resident in the DFO Maritimes ISDB database by January 15, 2019.

#### 2.6 Change Management Procedures

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

The Science/Project Authority is the representative of Fisheries and Oceans Canada, for whom the work is being carried out. The Project Authority is responsible for all technical aspects (scientific work) of the Work under the Contract. However, the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

## 2.7 Ownership of Intellectual Property

All data will be the property of the crown without exception. Delivery of goods/services does not lead to the creation of intellectual property.

## 3.0 Other Terms and Conditions of the SOW

#### 3.1 DFO Obligations

There is no requirement for access by the contractor to DFO facilities, documentation or networks.

The Project Authority will provide and deliver to the vessel all required does not provide the required fishing gear, biological sampling gear, materials and or electronics required as per this statement of work. This is the responsibility of the Contractor. Data sheets for biological sampling will be provided by the Project Authority.

## 3.2 Contractor's Obligations

#### The Contractor is responsible for:

- Selection of 4 commercial fishing vessels
- Ensuring all safety requirements are met

- All vessels must have, throughout the standby period, all certificates, lifesaving equipment and apparatus as required by The Canada Shipping Act and pursuant regulations for the crew and one fishery observer,
- All vessels must be equipped with private, functional washroom facilities,
- All vessels must be equipped with bunks/berths to accommodate the ship crew and the fishery observer
- Each vessel must have an unobstructed, safe working deck space for observer to process samples.
- All vessels must be supplied with the necessary stores, fuel and gear to conduct a longline survey in 4Vn as specified in this statement of work and sampling protocol (Appendix A),
- The gear supplied must be sufficient to set 5 tubs of standardized longline gear at each set,
- Each tub of gear must have between 450-500 #12 circle hooks,
- The groundline on the longline gear must have floating line spliced into it at intervals to raise hooks off the bottom. The floating line is added very 60 hooks,
- Gangions are to be 18 inches long and made of 150-200 point test braided nylon set 6 feet apart along the ground line,
- Type of bait: Mackerel must be used for all sets,
- All catches by survey vessels must be weighed out by a DFO approved dockside monitor supplied by the contractor,
- Supplying a fishery technician to conduct detailed sampling of cod onshore as detailed in the scientific survey protocols Appendix A,
- <u>All biological sampling equipment is the responsibility of the Contractor including a temperature recorder, computer for data entry, measuring boards, two weigh scales (one to weigh whole fish and one for fine weighing of organs), knives, forceps, and scissors.</u>
- Supply an experienced and capable Project Manager,
  - Engage an at-sea observer company to perform the following tasks:
    - o Sort all the catch into individual species;
    - Provide exact biological measurements of various groundfish species as per survey sampling protocol;
    - o Record all measurements on proper paper forms;
    - Perform data quality checks to ensure quality of data through double key punch, visual and automated edits;
    - o Enter the data into DFO Maritimes Region ISDB.

The contractor will select only personnel with the following abilities:

#### Mandatory requirements for Captain and crew:

- The vessel operators must have valid commercial groundfish licenses for fishing in 4Vn with fixed gear,
- The captain and crew must show evidence of having expertise and knowledge of the groundfish fishery in 4Vn,
- The captain must show evidence of having practical/hands on experience in conducting scientific resource surveys,
- The captain and crew must assist with observer activities while fishing scientific stations,
- The captain and crew must follow the established survey protocol for all survey tows

## Mandatory Quality Control & Data Entry:

The At-Sea Observer Company engaged by the contractor will be responsible for detailed quality control of the scientific data forms completed by at-sea observers, as well as data collected by on-shore technicians. The validation process will follow the general outline:

- Preliminary visual spot check of the scientific data forms for completeness, presence of all required forms, omissions and errors;
- Thorough edit of scientific data forms in preparation for keypunching;
- Double key punch;

- Final edit of the data package; and
- Loading of the final data into the DFO Maritimes Region ISDB database.

## LICENSES AND PERMITS

The Contractor must obtain and maintain all permits, licenses and certificates of approval required for the Work to be performed under any applicable federal, provincial or municipal legislation. The Contractor is responsible for any charges imposed by such legislation or regulations. Upon request, the Contractor must provide a copy of any such permit, license or certificate to Canada.

## 3.4 Location of Work, Work site and Delivery Point

Due to existing workload and deadlines, all personnel assigned to any contract resulting from this RFP must be ready to work in close and frequent contact with the Departmental Representative and other departmental personnel.

All work will occur at the contractor's worksite, at sea, onboard fishing vessels or at the dock where the vessels land.

#### 3.5 Language of Work

Work will be carried out in English.

#### 3.6 Special Requirements

#### Fishing License Restrictions:

Participating vessels shall be issued license conditions aimed at ensuring the achievement of the goals of the sentinel program. These conditions will strictly control how, when and where fishing can be carried out. Major points are:

- Except when specified by the science coordinator, fishing will be at randomly pre-selected stations,
- Effort will be restricted as detailed in fishing gear restrictions,
- All trips must hail before landing and submit to dockside monitoring of landings,
- All other normal regulations apply

#### 3.7 Security Requirements

Contractors will never be at sites where protected and/or classified information or assets are stored. There is no security requirement.

#### 3.8 Insurance Requirements

The Contractor must maintain adequate insurance coverage for the duration of any and all contract work. Compliance with Insurance requirements does not release the Contractor from or reduce its liability under this contract or any related contracts.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfil its obligation and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's discretion and expense, and for its own benefit and protection.

Upon contract award the Contract Authority will be required to supply proof of insurance for all participating vessels.

## 3.9 Travel and Living

There is no provision for travel and/or living expenses under this contract.

## 4.0 **Project Schedule**

## 4.1 Schedule and Estimated Level of Effort (Work Breakdown Structure)

The Contractor must contact the Project Authority by telephone or email to report:

- The vessel names and VFNs to ensure that the correct license amendments are issued before the survey begins,
- The date when the survey commences
- The name of the At-Sea Observer company employed by the Contractor
- Weekly updates on the stations fished, catch rates
- Survey end date,
- All data, worksheets and biological materials must be provided to the Project Authority within two months of the survey end date.

#### 5.0 Required Resources or Types of Roles to be Performed

See Section 3.3 for required resources.

All particulars related to vessel operation, gear deployment and retrieval, as well as safety at sea are the responsibility of the Contractor. Scientific protocol and sampling is the responsibility of the Project Authority.

## 6.0 Applicable Documents and Glossary

#### 6.1 Relevant Terms, Acronyms and Glossaries

Scientific Sampling Protocols (Appendix A) and Example of set locations (Appendix B) are attached.