**Statement of Work Language for Department of Defense**

**Service Contracts, Grants, Cooperative and Interagency Agreements**

July 2023

**Introduction**

To improve quality, access, and usability of avian survey, monitoring, and research data collected for Department of Defense (DoD), contractors and cooperators collecting such data use the Avian Knowledge Network (AKN) to enter, proof, and deliver their data. Here we provide guidance for selection/developing statement of work language for contracts and agreements to specify such use of the AKN by contractors and/or cooperators. Specifications may vary based on whether the DoD is acquiring data from a contractor via a service contract or from a cooperator via a grant or cooperative agreement. The DoD and AKN are also developing new capacities, including a Program Enterprise System and additional user access specifications that will influence how the DoD specifies AKN use in contracts, grants, and cooperative agreements. These documents will be updated as these new capacities are complete and available for use.

Following are details to be included in the “Statement of Work” section of a service contract, grant, or cooperator agreement. There are multiple options for data access, project set-up, and data entry for users with AKN training or for contractors/cooperators who do not have AKN training but will need to submit their project data in AKN compatible formats.

Terms used in Statement of Work (SOW) language

**AKN Project**—Fundamental unit of organization for observation data within the AKN. Projects contain information about how (Protocols), who (Researchers and Users), where (Sampling Units), when (Sampling Events), and what (Sampling Event Observations) data are collected. For DoD, each installation has its own project.

**Sampling Protocol Definition**—Defines how the data were collected and how they are stored.

**Contractor/Cooperator**—Party within the agreement that is primarily responsible for data collection and data entry**.**

**DoD Designee**—Primary DoD point of contact for contract terms. Can also specify a DoD AKN staff member if AKN staff will be working with the Contractor/Cooperator.

**Field Methods**—Protocol for data collection in the field used by the Contractor/Cooperator.

**User Roles**—The AKN allows for multiple levels of access to enter, manage, and share data. AKN users are assigned a User Role associated with each AKN Project they have permission to access. Current User Roles include:

* **Biologist**—An AKN user assigned as a Biologist in an AKN Project can enter and proof data. Biologists can also review, edit, or correct previously entered data in any dataset housed within the AKN Project.
* **Project Leader**—In addition to all Biologist User Role capacities, AKN users assigned as a Project Leader in an AKN Project can assign Sampling Protocol Definitions to an AKN Project, manage the Sampling Units (areas, points, transects, etc), manage data, get full exports of the AKN Project data from the system, and manage the User Roles (Biologist or Project Leader) of other AKN users on the AKN Project. Project Leaders can also set the desired data sharing levels for data, which determines how the data will appear in the various tools in AKN.

**Sampling Unit**—Field location where research or a survey is conducted and samples (observations) are collected. Sampling units are arranged hierarchically within AKN Projects (e.g. point count points nested within a transect). Sampling Units contain a location name and geometry that describes where it sits on the earth. All point, polygon and other geographic data are described in WGS-84 Latitude-Longitude (EPSG:4326) geographical coordinate system.

**Sampling Event**— Represents the survey itself with a unique combination of location, date and time, person/people, and the protocol employed.

**Statement of Work Language** **Options**

Language included in the statement of work should specify standards for 1) data ownership and access, 2) selecting sampling methods and AKN Sampling Protocol Definition(s), 3) providing details about sampling locations, and 4) formats for uploading data. A user with AKN training may engage with the AKN directly as part of each of these steps; however, options are provided below for each step that allow for a Contractor/Cooperator without AKN training to provide the information in a format that is easily uploaded into the AKN by a DoD Designee. Information provided must be fully described per the AKN Guidance documents referenced in each step below.

**DATA OWNERSHIP: The funding DoD installation or Component must have permanent access to all data collected for the agreement.**

* SOW LANGUAGE: DoD owns and will have permanent access to all data collected from this agreement. The observation data (not summarized data) must be entered into the AKN and approved by the appropriate Project Leader at the appropriate sharing level (see DoD AKN Guidance: AKN Data Access, Entry, and Analysis for sharing level definitions). Data may be shared with the Contractor/Cooperator following DoD AKN Guidance: AKN Data Sharing Guidelines with specifics outlined in an AKN Data Sharing Agreement [DoD Designee PROVIDES ATTACHMENT].

**DATA COLLECTION: Specify whether DoD or the Contractor/Cooperator will choose the sampling methods (CHECK ONE):**

* DoD Designee will specify the sampling methods to be used and corresponding Sampling Protocol Definition.
  + SOW LANGUAGE: Contractor/Cooperator will use [FIELD METHOD WITH CITATION] with associated field forms [DoD Designee PROVIDES ATTACHMENT]. The data collected on field forms will conform to the metadata specified by the methodology and associated Sampling Protocol Definition provided at [DoD Designee provides AKN link].
* Contractor/Cooperator will specify the sampling methods to be used and corresponding Sampling Protocol Definition. (Only use this option if the Contractor/Cooperator knows there is a corresponding Sampling Protocol Definition in the AKN).
  + SOW LANGUAGE: Contractor/Cooperator will provide sampling methods with associated field forms and a link to the associated Sampling Protocol Definition here https://data.pointblue.org/science/biologists/php/protocolsearch.php. Instructions for describing metadata are provided in DoD AKN Guidance: Describing Sampling Protocol Definitions and instructions for providing sampling methods is provided in DoD AKN Guidance: Describing Field Methods and Sampling Design.
* Contractor/Cooperator will specify sampling methods to be used that does not have a corresponding AKN Sampling Protocol Definition.
  + SOW LANGUAGE: Contractor/Cooperator will provide sampling methods with associated field forms. Instructions for providing sampling methods are provided in DoD AKN Guidance: Describing Field Methods and Sampling Design. The Contractor/Cooperator must provide details about the metadata that describe data collected on field forms in the format provided in DoD AKN Standards: Generic Sampling Protocol Definition Template. Instructions for describing metadata are provided in DoD AKN Guidance: Describing Sampling Protocol Definitions. Contractor/Cooperator will provide these details to be approved by DoD Designee 1 month prior to commencing field work.

**SAMPLING LOCATIONS: Specify whether DoD or the Contractor/Cooperator will choose the sampling locations (CHECK ONE)**:

* DoD Designee will specify sampling locations to be visited.
  + SOW LANGUAGE: Contractor/Cooperator will collect data at the specific sampling locations [DoD Designee PROVIDES ATTACHMENT]. DoD Designee may also provide a digital copy of the sampling locations for upload into a Global Positioning System (GPS) device.
* Contractor/Cooperator will specify sampling locations to be visited and will upload these into the AKN.
  + SOW LANGUAGE: DoD Designee will assign Contractor/Cooperator a User Role of Project Leader in the AKN Project [DoD Designee can specify time frame]. Contractor/Cooperator will provide written methods about sampling design used to select sampling locations following DoD AKN Guidance: Describing Field Methods and Sampling Design and will follow the process for uploading Sampling Units outlined in DoD AKN Guidance: Creating Compatible Sampling Units.
* Contractor/Cooperator will specify sampling locations to be visited and will provide details about sampling locations in an AKN compatible format for upload by DoD Designee.
  + SOW LANGUAGE: Contractor/Cooperator will provide written methods about sampling design used to select sampling locations. Instructions are included in DoD AKN Guidance: Describing Field Methods and Sampling Design and DoD AKN Guidance: Creating Compatible Sampling Units. Contractor/Cooperator will provide specifics about the Sampling Units using the format in the DoD AKN Standards: Sampling Unit Bulk Upload Templates. In addition, Contractor/Cooperator must provide a geospatial data file with the sampling unit locations in a KML or shapefile format and use a WGS 84 geographic coordinate system (EPSG:4326). This file must be attributed with the Sampling Unit Short Name, Sampling Unit Long Name, and include coordinates for the sampling unit locations. Contractor/Cooperator will provide these details by [DATE] to be approved by DoD Designee before commencing field work.

**DATA ENTRY/UPLOAD: Specify whether the Contractor/Cooperator will enter data directly into the AKN or whether they will supply data files ready for bulk uploading by DoD Designee (CHECK ONE)**:

* Contractor/Cooperator will enter data directly into the AKN.
  + SOW LANGUAGE: Contractor/Cooperator will enter data directly into the AKN following procedures provided in DoD AKN Guidance: AKN Data Access, Entry, and Analysis. DoD Designee will assign Contractor/Cooperator User Role as Biologist in the AKN Project [DoD Designee can specify time frame] with specifics about Sampling Protocol Definition(s) to be used. Contractor/Cooperator will also provide copies of completed field forms.
* Contractor/Cooperator will provide data files for bulk uploading into the AKN.
  + SOW LANGUAGE: Contractor/Cooperator will provide digital data files of the observational data in Excel or CSV format. The file should conform to the DoD AKN Standards: Sampling Unit Bulk Upload Templates. Instructions for preparing data files are provided in DoD AKN Guidance: Preparing Data to Submit for Bulk Uploading for AKN Compatible Projects. Names of every observer will also be provided in CSV format with first names in Column A and last name in Column B. Contractor/Cooperator will also provide copies of completed field forms. Digital data files and completed field forms will be provided by [DATE] and must be approved by DoD Designee to ensure compatibility with AKN bulk uploading systems.