

<b>POSITION DESCRIPTION</b> <i>(Please Read Instructions on the Back)</i>						1. Agency Position No. S000385											
2. Reason for Submission <input type="checkbox"/> Redescription <input checked="" type="checkbox"/> New <input checked="" type="checkbox"/> Hdqtrs <input type="checkbox"/> Field <input type="checkbox"/> Reestablishment <input type="checkbox"/> Other Explanation <i>(Show any positions replaced)</i>  Approved for Service-wide use.		3. Service		4. Employing Office Location Various		5. Duty Station various		6. OPM Certification No.									
7. Fair Labor Standards Act <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Nonexempt		8. Financial Statements Required <input type="checkbox"/> Executive Personnel Financial Disclosure <input type="checkbox"/> Employment and Financial Interest		9. Subject to IA Action <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10. Position Status <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Excepted <i>(Specify in Remarks)</i> <input type="checkbox"/> SES (Gen.) <input type="checkbox"/> SES (CR)		11. Position Is <input type="checkbox"/> Supervisory <input type="checkbox"/> Managerial <input checked="" type="checkbox"/> Neither		12. Sensitivity <input checked="" type="checkbox"/> 1--Non-Sensitive <input type="checkbox"/> 3--Critical <input type="checkbox"/> 2--Noncritical Sensitive <input type="checkbox"/> 4--Special Sensitive		13. Competitive Level Code		14. Agency Use BUS:8888			
15. Classified/Graded by		Official Title of Position				Pay Plan		Occupational Code		Grade		Initials		Date			
a. Office of Personnel Management																	
b. Department, Agency or Establishment																	
c. Second Level Review		Wildlife Biologist (Pilot)				GS		0486		13		ck		11/20/08			
d. First Level Review																	
e. Recommended by Supervisor or Initiating Office																	
16. Organizational Title of Position <i>(if different from official title)</i>						17. Name of Employee <i>(if vacant, specify)</i>											
18. Department, Agency, or Establishment Department of the Interior						c. Third Subdivision											
a. First Subdivision U.S. Fish & Wildlife Service						d. Fourth Subdivision											
b. Second Subdivision Region						e. Fifth Subdivision											
19. Employee Review-This is an accurate description of the major duties and responsibilities of my position.						Signature of Employee <i>(optional)</i>											
20. <b>Supervisory Certification.</b> <i>I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships, and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that</i>						<i>this information is to be used for statutory purposes relating to appointment and payment of public funds, and that false or misleading statements may constitute violations of such statutes or their implementing regulations.</i>											
a. Typed Name and Title of Immediate Supervisor						b. Typed Name and Title of Higher-Level Supervisor or Manager <i>(optional)</i>											
Signature _____ Date _____						Signature _____ Date _____											
21. <b>Classification/Job Grading Certification.</b> <i>I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.</i>						22. Position Classification Standards Used in Classifying/Grading Position  OPM JFS for Natural Resources Mgmt and Bio Sci Group, GS-0400, dtd 09/05;											
Typed Name and Title of Official Taking Action Cecilia E. King HR Specialist (Class/Comp)						<b>Information for Employees.</b> The standards, and information on their application, are available in the personnel office. The classification of the position may be reviewed and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.											
Signature _____ Date _____ <i>11 original signed 11/20/08</i>																	
23. Position Review		Initials		Date		Initials		Date		Initials		Date		Initials		Date	
a. Employee <i>(optional)</i>																	
b. Supervisor																	
c. Classifier																	
24. Remarks FPL=GS-13; Drug Testing: Yes; Risk Designation: Moderate; Financial Disclosure: No																	
25. Description of Major Duties and Responsibilities <i>(See Attached)</i>																	

**SPD# S000385**  
**WILDLIFE BIOLOGIST (PILOT), GS-0486-13**  
**(Standard PD for use in Regions 7 and 9)**

**INTRODUCTION**

International treaties for the protection of migratory birds, signed between the governments of the United States (U.S.), Canada, Japan, Mexico and the Soviet Union (USSR), are the basis and mandate for the current management of the international migratory bird resource. That mandate was delegated to the U.S. Fish and Wildlife Service (Service) and subsequently, to the Migratory Bird Program.

This is a standard position description for use within the Division of Migratory Bird Management (DMBM), the Branch of Migratory Bird Surveys (MBS) in Region 9, and the Waterfowl Management Branch (Branch) in Region 7. It applies to biologists having primary responsibility for field monitoring of the status of migratory birds on the breeding, migratory routes, and wintering grounds in order to facilitate effective management and protection of this international resource, coupled with the requirement for operating aircraft while conducting specialized aerial surveys.

As a Biologist (Pilot), the primary responsibilities of the position are to design and maintain survey-related databases; design aerial migratory bird surveys; gather, analyze, and interpret specific quantitative and qualitative information relating to various demographic factors of North American migratory bird populations; assess habitat conditions and other environmental factors as they affect specific populations; and report this information to the appropriate managers and agencies for the purpose of making educated and timely management decisions as mandated by international treaties and other agreements between the U.S. Fish and Wildlife Service (Service) and cooperating agencies and organizations.

**MAJOR DUTIES**

**1. Science**

**(25%)**

Serves as a recognized scientific expert in migratory bird management and for particular species of migratory birds; includes planning, designing, and conducting significant surveys, inventories, and other types of monitoring and assessment activities.

Develops program criteria to establish accurate and consistent assessments of waterfowl and other migratory bird communities.

Provides scientific leadership in specialized studies of significant biological problems and issues; designs significant waterfowl improvement projects.

Provides supporting role and contributes to many aspects of Department of the Interior (Department) and Service efforts to manage natural resources adaptively, including adaptive harvest management (AHM) for waterfowl, and strategic habitat conservation (SHC), among other initiatives.

Develops a knowledge of migratory bird habitats within or beyond assigned Flyway areas by periodic overflight and ground reconnaissance activities and keeps notes on pertinent observations.

Compares previously existing conditions utilizing established wetland classification standards or personal knowledge of the pertinent area/situation to assess habitat status and annual seasonal phenology.

Serves on waterfowl Flyway Technical/Study Committees, which require his/her experience, expertise, and species skills as needed.

Provides expert advice regarding environmental contaminants, migratory bird die-offs, habitat alteration/impact

and/or enhancement, and reports on various migratory bird law violations when encountered during field activities in the U.S., Canada, and Mexico.

Assists in developing and implementing migratory bird subsistence programs as appropriate.

Conducts educational programs on migratory birds and their management as needed, with particular emphasis on explaining migratory bird biology and management programs. Periodically, participates in annual waterfowl parts collection workshops in one or more Flyways and checks accuracy of inexperienced participants.

Provides expert advice and support to other parts of the Service, Department, and Federal Government on survey and banding issues; participates in other monitoring and assessment activities as appropriate.

## **2. Reporting**

**(25%)**

Conducts and oversees survey data analysis to ensure that survey data meet the highest scientific standards. Emphasis is on the development of sound population and productivity data on indicator species that provide a basis for assessing the overall conservation status of trust species.

Coordinates distillation and dissemination of resource information to other Service units, Federal and State agencies, local governments, and Native organizations involved in land-use planning and development, which will affect migratory birds, other resident wildlife, and their habitats.

Analyzes survey and banding data, prepares manuscripts and technical reports and scientific papers for distribution within the Fish and Wildlife Service, to other agencies, Non-government Organizations (NGOs), the public; and for other non-peer-reviewed publication outlets as appropriate.

Writes and publishes scientific peer-reviewed papers on specific migratory bird topics; makes presentations at various symposia, conferences, technical committees, and management meetings.

The scientific work and the publication of that work through scientific papers and reports are grade-controlling work for this position.

## **3. Planning & Coordination**

**(25%)**

The incumbent contributes to the formulation and administration of the Service's collaborative bird survey and management policies through participation in the Flyway Council System, which is the North American process of managing many bird populations. Attends Flyway Council and Technical Committee meetings to discuss, plan, and refine annual survey and banding programs, and other monitoring and assessment objectives and strategies.

Contributes to the development of conceptual plans, strategic conservation plans, habitat protection priorities, and decision documents for migratory bird issues. Develops overall strategies and plans, and coordinates with other cooperators those surveys designed to track migratory bird population trends and habitat changes throughout the United States, Canada, and Mexico, ensuring that projects meet regional and Service goals and objectives.

Drafts or contributes to various project proposals, operating procedures manuals, policy statements, environmental assessments, environmental impact statements, sections of management plans, and Service contract documents as assigned.

Prepares annual work plans, budgets, and justifications for projects, and effectively manages each project budget to achieve work plan objectives.

Plans, directs, and coordinates various Service/State/private cooperative projects in conjunction with Branch, Flyway, or continental programs involving the incumbent's particular area of expertise.

Coordinates field activities with local governments and other public and private entities to minimize conflicts with subsistence, commercial, and recreational activities. This often entails conducting public meetings for coordination and information exchange, and presentation and interpretation of project results.

Upon request, coordinates and participates in activities associated with human-related degradation of the environment or natural disasters, to include humanitarian assistance and other support or assessment flights.

Assists in planning, organizing, and conducting national and international migratory bird management workshops, with emphasis on survey design and execution, banding and marking techniques, and data compilation, storage, and retrieval.

Participates in planning, recovery efforts, decision document development and other consultations with Service programs, such as Refuges and Ecological Services, and with other Federal and State agencies. Participates in the development of recovery plans, resource objectives, and policies that can affect the priorities of the Region or the Service.

Provides technical assistance and information to local and regional communities, Boroughs, Native organizations, and other private organizations involved in land-use planning and development, all of which will affect migratory birds and their habitats at various geographic scales.

Participates in Service-State migratory bird projects as appropriate and maintains continuing lines of communication with personnel from Flyway, private, and international organizations. Knowledge, tact, and understanding are essential to the maintenance and success of various cooperative efforts between the Service and other agencies.

Procures supplies, equipment; oversees construction, repairs; and establishes/maintains contacts necessary to accomplish field station and project objectives.

#### **4. Survey & Piloting**

**(25%)**

##### **Survey:**

Serves as Principal Investigator for various migratory bird surveys. Responsibility includes coordinating, directing, conducting, and evaluating annual aerial surveys of nesting, molting, staging, migrating and wintering waterfowl and other migratory birds in the continental United States, Alaska, Canada, and/or Mexico.

Specifically, plans, designs, coordinates, directs, conducts, analyzes, and evaluates one or more of the following periodically-recurring or annual experimental surveys within designated areas in the continental United States, Alaska, Russia, Canada, and/or Mexico: Trumpeter Swan Population Survey, Winter Waterfowl Survey (U.S., Mexico), Expanded Breeding Pairs Surveys, Russia Breeding Eider Surveys, periodic goose and brant surveys, periodic duck surveys, eagle or eagle nest surveys, various telemetry and photography missions of wildlife and their habitats, and a variety of other survey activities as requested from other Federal agencies and other FWS programs.

Plans, conducts and/or assists in banding operations of waterfowl throughout Alaska, Canada, and the continental United States.

Records species data, habitat information, and other relevant information for later transcription and computerized data entry, summary, and analysis.

Counts, estimates, and delineates numbers/species of migratory birds from the air in their natural environment or from remote sensing/photographic methods.

Tracks expenditures related to assigned survey and banding activities. Ensures survey and banding budgets are not exceeded.

Tracks assigned property, recognizing significance and value of equipment to mission of the Migratory Bird Program.

## **Piloting:**

Serves as an airplane pilot, piloting single-engine fixed-wing aircraft from land and water for the primary purpose of conducting special-use flight missions. Conducts aerial bird surveys at minimum airspeeds, often within 100 feet of the terrain while simultaneously navigating precisely, using paper maps and/or specialized electronic navigational equipment, and making and recording bird and mammal observations, usually by species. These flights are often conducted at maximum gross weight over remote areas, where weather reporting stations, radio aids to navigation, and communication facilities are limited. A major proportion of takeoffs and landings are accomplished from "off airport" locations and often flying duties must be accomplished under marginal weather conditions. All survey flights require above-average pilot skills and judgment.

Instructs and/or trains new or inexperienced individuals/groups through formal presentations, workshops, and/or on-the-job training on various survey and banding techniques (waterfowl identification, flock size estimation, waterfowl trapping and banding techniques, aerial survey procedures and data compilation, data analysis and interpretation, and aerial telemetry/photographic techniques) and on safe operating practices in aircraft, outboard, and land-based vehicular travel. Develops training materials and field manuals to increase precision and consistency of data collection.

Operates and directs maintenance on assigned aircraft to fulfill the Federal Aviation Administration (FAA), and Departmental inspection requirements in order to avoid or minimize lost time resulting from mechanical malfunctions or routine maintenance.

Exercises sound judgment during all aspects of flight operations. Completes preflight and in-flight responsibilities in accordance with good, safe operating practices and maintains a good understanding of weather, aircraft and engine systems, and communications and navigation equipment.

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**Additional duties as assigned.** Check blocks that apply.

- Works directly with the Regional and Service Aviation Managers (RAM and SAM) and Department Office of Aircraft Services (OAS) flight safety and fleet management personnel as necessary to develop operating criteria to ensure the safe and efficient conduct of Service survey missions under current over-gross-weight waivers and/or Standard Type Certificates.
- Supervises and monitors the daily activities of permanent and seasonal personnel as directed by the Project Leader, including a GS-12 Wildlife Biologist/Pilot and a GS-9 Wildlife Biologist. Supervises and/or directs individual aerial observers/survey ground crews and banding crew members during field assignments.
- Responsible for the overall safe operation of equipment and safety of personnel associated with assigned surveys or projects, including knowledge of safety requirements, while ensuring appropriate training is accomplished.
- Participates in the pilot mentor training program for pilot/biologist trainees and wildlife biologists. This includes responsibility for tailoring the individual training requirements to the needs of the office; recommending or assigning specific field assignments; implementing and/or scheduling specific aircraft and safety training classes; and overseeing, reporting, and documenting the individual's progress towards full performance level in the position.

## **FACTOR EVALUATION**

### **Factor 1. Knowledge Required by the Position**

Mastery of wildlife biology, wetland ecology, and related disciplines necessary to understand the relationships that exist between wildlife and their natural environments and how to best approach the problems associated with surveying and managing migratory birds and their habitats.

Knowledge of mathematics and statistical techniques to ensure the proper design, analysis, interpretation and presentation of data resulting from population and habitat surveys and banding programs. Ability to assess accuracy or limits of survey and banding data.

Knowledge of the use of computers for data collection and analysis.

Skill in recognizing trends and patterns critical to wildlife resource management.

Ability to observe, interpret, draw conclusions, and propose recommendations regarding the potential impact of new and/or revised Service policies and practices on aerial surveys, banding activities, and other monitoring and assessment activities.

Professional knowledge of the relationship between waterfowl biology and behavior and aerial survey techniques necessary to modify or adapt standard procedures in order to overcome operational and environmental problems encountered during survey missions.

Ability to plan, organize and implement population surveys and other field studies applicable to migratory bird management. Ability to identify a variety of migratory birds and wetland types under varied conditions for observation.

Knowledge and experience in capturing and banding waterfowl.

Comprehensive knowledge of the role, policies, and influence of other government and non-government agencies and special interest groups in the U.S., Canada, and Mexico; provides technical leadership to those cooperating agencies in matters of migratory bird management, and survey and banding techniques.

Skill in serving as an expert agency representative in dealing with other governmental representatives, Native organizations, other private cooperators, and the general public.

Ability to demonstrate proficiency in the planning and coordination of various survey, banding, and administrative projects and assignments.

Ability to develop new approaches for use by other biologists; skill to teach others new as well as established survey methods, banding techniques, and administrative procedures required of the position.

Knowledge necessary to provide technical assistance to other resource agencies and organizations at all levels, in U.S., Canada, Russia, Japan, Mexico, Central and South America, and the Caribbean Basin, in the development of survey and banding techniques and adapting same to conditions and situations in all three countries.

Knowledge of, ability to understand, and skill to interpret and apply to daily activities, data from complex aviation weather reports, aircraft mechanical systems, communication and navigation systems, and crew preparedness requisites in order to ensure the safety of field crews during daily operations.

Ability to communicate effectively orally, at meetings and conferences, to explain and defend scientific data and Service policies and positions on issues that are often controversial and contentious.

Ability to communicate effectively in writing sufficiently to prepare scientific manuscripts, position papers, and draft policy documents.

**Condition of Employment** – Employee must hold and maintain an FAA commercial pilot certificate for single engine aircraft under 250,000 GVW and FAA Class II Airmans Medical Certificate.

Skill in the operation of aircraft while conducting specialized aerial surveys for wildlife under special use conditions in rigorous flying environments. This includes operating aircraft often at or near maximum gross weights; from unfamiliar,

confined or isolated lakes, rivers, and unimproved airstrips; at minimum controllable airspeeds and low altitudes while exercising sound judgment and maintaining situational awareness.

## **Factor 2. Supervisory Controls**

The incumbent is under the supervision of a Branch Chief, Division Chief, Deputy Division Chief, or Project Leader. The supervisor is often at a remote location and will not have personal contact except for annual performance reviews, scheduled meetings and phone calls.

The incumbent operates within the context and constraints of national legislation and regulations, international treaties and mandates, agency policies, and overall agency objectives as they pertain to the migratory bird resource and civil air regulations. Work assignments are made by approval of an annual work plan. The plan is subject to change depending on the need for distribution of the workload nationally. As direct contact is limited during the field season, the incumbent must exhibit a high degree of initiative and resourcefulness during field operations in successfully carrying out assignments. The incumbent must be able to prioritize the various assigned duties and make appropriate decisions regarding their ultimate accomplishment.

The incumbent is responsible for determining the safety of the flying assignment, weather conditions, aircraft conditions, and other factors associated with aircraft operation; and must act accordingly and within Departmental and Service policies.

## **FACTOR 3. Guidelines**

Incumbent is guided by the general objectives of the migratory bird survey program, manuals, national standard operating procedures, and Regional instructions. Although Standard Operating Procedures have been developed for the waterfowl breeding population and production surveys, the majority of survey and banding operations is conducted by the incumbent with few guidelines in the form of established procedures. Inherent problems in surveying, capturing, and banding of migratory birds dictate that the incumbent must not only employ traditional methodologies but develop new and innovative approaches and procedures which yield better and/or more reliable results. The incumbent is frequently required to deviate from traditional methods and operating procedures and develop new techniques to obtain desired levels of accuracy and results.

## **Factor 4. Complexity**

The Migratory Bird Survey Program is responsible for monitoring the status and trends of arctic and sub-arctic nesting geese, ducks, swans, and other migratory birds that summer in Alaska, Canada, and Russia, and portions of the continental U.S., but winter throughout North, Central, and South America, and the Caribbean Basin, and in some cases, Russia and Japan. The incumbent must have the ability to recognize the appropriate use of computer technology for improving the proficiency and accuracy of data collection for aerial and boat surveys.

Cooperative international efforts require travel to Canada and Mexico and occasionally, Russia and Central American countries, for survey work or meetings. These activities require direct contact and interaction with peers and scientists at the national and international level. The work includes varied duties involving multiple disciplines applied to a broad range of activities, e.g., biological, administrative, personnel, and pilot skills often carried out simultaneously and encompassing a wide geographic area (e.g., U.S., Canada, Mexico, and Russia).

Assignments involve the development and conduct of aerial and ground surveys, banding programs, and the preparation of progress and final reports on a timely basis. The assignments typically require extension and adaptation of existing techniques and the development of innovative approaches to solve problems associated with the conduct of surveys involving weather, aircraft and personnel in difficult remote wilderness areas of the continental United States, Alaska, Mexico, Canada, or Russia. Resolution of day-to-day and long-range logistical needs and problems involving aircraft and other equipment, weather, and personnel require in-depth knowledge of North American Flyways, their climates, and appropriate procedures for accomplishing assignments in remote areas.

The incumbent is ultimately responsible for the planning, coordination, direction, conduct, and analysis of as many as six survey and banding assignments in any given year. Responsibilities include operation, security, maintenance, and safety in and around various forms of biological, aerial, vehicular, and marine equipment. Varying conditions (weather, habitat, etc.) and imposed constraints (budget, equipment, personnel, etc.) may necessitate deviation from established guidelines at any time. Assignments require technical judgment, initiative, and resourceful departure from established procedures. Considerable judgment must be demonstrated by the incumbent when departing from established guidelines in order not to compromise biological results or, more importantly, the safety of the aerial or ground crews involved.

#### **Factor 5. Scope and Effect**

Effective waterfowl population management requires quantitative information relating to size, distribution, productivity, mortality and other factors affecting North American waterfowl population demographics. Quality and condition of habitat are measured to assess the effect of environmental factors (including anthropogenic) upon population parameters. Aircraft and aerial surveys are the primary means of obtaining the waterfowl population information required to meet the Service's management responsibilities for trust resources. This survey program was established to monitor waterfowl populations by conducting aerial surveys primarily that cover Alaska, Canada, four United States Flyways and Mexico. Operations in foreign countries require extra attention to customs and traditions where a tactful approach is often required. In doing so, the employee provides accurate quantitative and qualitative information and recommendations on the status of various continental migratory bird populations (size, distribution, productivity, mortality, etc.), including incidental identification and reporting of migratory bird die-offs, environmental contaminant incidents, habitat changes/alterations, and law violations which may affect the migratory bird resource.

The conservation of migratory birds is mandated in various governmental treaties with foreign countries and by Congressional Acts. Many responsibilities under these mandates and acts have been delegated to or are regulated by various Federal, State and Provincial management agencies in the U. S., Canada, and Mexico. Coordination of annual migratory bird programs requires contact with many agencies through forums such as annual meetings, conferences, symposia, and workshops. The results of the work conducted by the incumbent and his/her counterparts directly affect decisions of other Federal, State, and Provincial regulatory agencies. Results from major surveys comprise the baseline data used to establish annual hunting regulations and individual migratory bird species management plans for the United States and Canada and other management decisions at the State and Federal levels of government throughout the four Flyways, Canada, and Mexico. These decisions are most frequently expressed in the form of changes in harvest regulations, habitat management practices, or identification of the need for specific management plans or research activities.

The incumbent works directly with the Service Aviation Manager, Regional Aviation Manager, and Waterfowl Branch Supervisor to develop short and long-term strategies for aircraft replacement, survey design, and biologist/pilot qualifications and standards. These strategies help guide the Project's comprehensive survey and banding program.

#### **Factor 6. Personal Contacts**

Contacts are with other Flyway and Regional biologist/pilots, wildlife biologists, research biologists, statisticians, soil scientists, botanists, Regional and area managers within the Service; with the FAA, OAS, university educators, State biologists, Canadian, Mexican and other foreign national biologists, conservation organizations, other private organizations and the general public. Intra-agency contacts include professional and technical staff of the Service, including senior management. Interagency/international contacts include biologists and managers from other Federal agencies (U.S., Canada, and Mexico), cooperating State/Provincial natural resource agencies, private environmental conservation organizations, universities, special interest groups, media organizations, private industry, landowners, indigenous peoples (Canada/Mexico), native Alaskan villages and other organizations, and the general public.

#### **Factor 7. Purpose of Contacts**

Provides expert advice with regard to aerial survey and banding techniques, data analysis and interpretation; exchanges information and ideas; and coordinates aerial surveys with cooperating offices, agencies, and governments. Contacts are

established to plan and coordinate survey and banding activities; obtain, provide, or exchange data or ideas about survey and banding activities; advise, plan, or discuss survey improvement or new survey designs or techniques, commenting on or developing management plans and related activities; seek/provide guidance to co-workers/cooperators; resolve problems; carry out routine administrative business of the office; provide educational information programs to constituents; supervise maintenance of assigned equipment; educate, negotiate, or persuade in order to work effectively with public and private landowners; and prevent or resolve conflicts with subsistence hunters in survey areas or other landowners as needed.

#### **Factor 8. Physical Demands**

The position requires regular mental and physical exertion and work under considerable stress related to the complexity and highly technical nature of the work, particularly during survey and banding operations. Work programs require extended travel into remote areas or foreign countries and above normal duty hours, well in excess of the standard 40-hour week. Specific physical demands include carrying heavy loads, up to 60 pounds, through marshland habitat while wearing hip boots and/or chest waders; extended periods of active in-flight missions, requiring intense concentration and attention to the aircraft flight systems as well as outside the plane to navigate according to the flight profile while observing and recording biological data. OAS requires the incumbent to obtain an annual FAA Class II Flight Physical and annual flight check.

#### **Factor 9. Work Environment**

Exposure to inclement weather, extremes of heat and cold, high concentrations of biting (and sucking) insects, and encounters with potentially dangerous wildlife may occur during field operations. Banding programs may require knowledge of, and exposure to, the use of cannon/rocket nets and the use of explosive charges. Flights are frequently conducted in remote areas of U.S., Canada, and Mexico where the knowledge, training and use of survival equipment are required. OAS regulations mandate the use of personal protective equipment during some special-use missions. The office setting involves adequate lighting, heating, ventilation and air conditioning. Field duty requires accommodations, ranging from modern motels/hotels to remote site log cabins and occasionally tents which lack "normal" amenities. Lengthy periods of travel in commercial as well as Service aircraft, watercraft, and vehicles are required.