

JIM WORTHAM
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SCRIPT TRANSCRIPTION

Mr. Wortham:

My name is Jim Wortham. I am a Flyway Biologist, pilot. Wortham is spelled W-O-R-T-H-A-M.

My name is Jim Wortham. I am a Flyway Biologist/Pilot for the Migratory Bird Office within the U. S. Fish and Wildlife Service. I have been doing this for about eight years now. I am part of a group of eleven Flyway Biologist/Pilots and we cover pretty much the continent of North America following and assessing the populations of migratory birds; primarily waterfowl; and assessing habitat conditions across all Canada, the U.S., Mexico and sometimes into Central America.

During the course of our surveys we survey the migratory bird populations and assess habitats. And during the course of the surveys we generally fly low-level, much of the time where we can be low enough to identify and actually enumerate different flocks of birds that we encounter. We also fly at different altitudes just assessing landscapes and habitats at difference scales. We do this both on coastals, inlands, up in the bush country of Canada and Alaska.

The data captured by our surveys are used in a number of research and science oriented applications, all the way from establishment of the annual hunting regulations and season limits for migratory birds; and also different research projects use our data for settling patterns of birds across landscapes or sometimes our data is used for acquisition, assessment or identification of important habitats that may become wildlife refuges in the future.

Data captured as a result of our surveys are used by a number of partners in some of these applications. Different state agencies, non-government organizations like Ducks Unlimited, the Nature Conservancy; people like that. There's also some joint ventures that are made up by a number of partners that use the data as far as how to orient their research applications. Our data is also used by universities in cooperative wildlife research units and used by a number of graduate programs, and also NASA in some respects, for their landscape applications.

A lot of our surveys are mandated by our Migratory Bird Treaty Act of 1918 that the U.S. is a strong cooperator in, and it's important that our data are accurate because we're working in a big natural laboratory and there's enough uncontrollable factors that go into it that the one's that we can control we need to be very precise in measuring.

It's important that the data we capture be accurate because we're working in a vast natural laboratory and there's enough factors that we can't control whatsoever, so the ones we can, it's important that we do get a good handle on those.

It's important that the data we generate be accurate, and approached in a scientific manner because a lot of our surveys are mandated by the International Migratory Bird Treaty Act of 1918, which the U.S. is a very strong cooperator in. These data are used in setting hunting regulations and season limits throughout Canada, the U.S. and Mexico. We operate in a vast natural laboratory and there's a lot of factors that are uncontrollable on our part so it's important that the factors that we can control, we do so as precise as we are able to.

A lot of times the data generated from our surveys are the only measure as to whether our management practices are working or not. We can really severely damage the population and not have an accurate measure...

A lot of times the data from our surveys are the only measure that management practices are working or not. We are able to detect early on whether we could be damaging a population of a particular species of migratory bird; or determine new settling patterns that are the effect of some adverse habitat conditions that are a result of something that man was doing in some part of the country.

A lot of times, the data from our surveys are the only measure whatsoever that our management decisions are working, or not. We can determine if, early on, whether a particular species or a population of a particular species is increasing or decreasing; or that if settling patterns of different birds have changed. A lot of times the Flyway Biologist/Pilots are the eyes and ears of the Fish and Wildlife Service. We're the ones that are able to see this on a broad scale.

Our primary tools on our surveys are our specially modified aircraft. These aircraft are designed to fly low and slow and give us good visibility as far as being able to identify birds on the ground, different habitats, things like that. We also use a number of remote sensing tools; either aerial reconnaissance photography or different infrared imaging, things of that nature. We've also looked at different types of moving maps to track the movements of the birds along their migration.

Because the work that we are doing is so unique and requires such specialized tools sometimes, it is important that the people doing the job be trained in scientific method and how to use these different tools. A lot of times a guy will be balancing a lot of different fields of knowledge while doing one task at a time; flying an airplane, operating some remote imagery equipment, being able to assess habitats and where birds are likely to be at that given time and day.

Because the work we do is so unique and requires such specialized tools, it's important that we have people operating these tools that approach it in a scientific method, and have been trained scientifically. A lot of times one person will be doing one task, but in the course of that task he'll be balancing a lot of different technologies; operating an aircraft, communicating with an air traffic control system, using their biological knowledge to determine where the birds are and where the habitats are that need to be assessed. At the same time they are operating remote sensing equipment.

Because the work that we are doing is so unique and requires such specialized tools, the individual performing that work needs to be versed in a lot of different technologies at once. Very commonly I find myself flying the aircraft low and slow, communicating with air traffic control, operating aerial remote imagery equipment and at that same time assessing habitats and looking for birds and where those birds might be at that given time. This all turns back to whenever you get back into the office or the laboratory and be able to analyze and assess all the information captured in a scientific way so that you don't draw false conclusions from what you've gathered.

If feel very lucky to be part of a team of Flyway Biologist/Pilots and be part of a rich history now spanning fifty years of doing these surveys. We have a very unique job within the Fish and Wildlife Service that covers the continent as a whole. And we look at it at that scale and also smaller scales within. We've done this for fifty years without fatalities due to aircraft crashes and a lot of the guys and women in the job are balancing a lot of different technologies and knowledges. At times it can be a very harrowing job, and it can be a stressful job, but it's one that can be very rewarding in the long run.

Throughout the history of our group, and these surveys there's been some consistencies in that we're still operating in the bush, we're still landing airplanes in the water, we're still in remote camps. But at the same time there's been evolution as far as, primarily in technologies. Aircraft have evolved and air traffic patterns have evolved as far as air space limitations and things like that. Also some of the equipment that we're carrying aboard and some of the limitations thereof. And also the needs of the customers that we're gathering and capturing data for have changed. So we need to be much more sophisticated as far as how we approach that, and how that data is used.

I feel very proud and very lucky to be part of this history. I have continued to learn things from some of the new people joining our group and I continue to get berated and learned things from some of the guys that have retired from our group. There's always something new to be learned about landing on a lake somewhere out in the bush and some little twist or trick you can learn. There's certainly a lot to learn as far as the new technologies go. I enjoy the challenges and I love the aspects of being on a continental scale, seeing it all from the air. A lot of times you feel like you are the only one up there. But you know that there have been a lot of guys before you that have left good footprints to fill.

One rewarding aspect of our work is knowing that you're providing data for a lot of people and a lot of different applications. We go to different scientific conferences and meet some of our colleagues who are on the ground all of the time. But to see how the data is used to further the natural resource and benefit the Fish and Wildlife Service can be very rewarding.