

Useful Tips

Finding a lost PTT—Part 2

In our last newsletter I described some of the techniques that can be used to find a lost PTT. This time I would like to describe in a little more detail a technique that has been successfully used to find lost PTTs using a simple scanner receiver such as the Radio Shack Pro-75.

First of all, one must know roughly where the PTT is (from averaging whatever locations given by ARGOS) and when it is going to transmit, using the transmission times recorded by ARGOS (remember they are in GMT) and the duty cycle of the PTT.

Program two channels of the scanner to 401.650 MHz and go to the location calculated by ARGOS at the beginning of the ON part of the duty cycle. With luck you should hear the PTT transmit about once every 60 to 70 seconds; each transmission will sound like a short burst of data lasting less than a second. If you do not hear the PTT either you are too far away from the PTT or you are too early to hear it, i.e., the ON part of the duty cycle has not started. So either move to a new location or wait until later. Once you can hear the PTT then you can start to search for it.

Once you hear the PTT, remove the scanner antenna. Do you still hear it? If so, you are already close. From this point walk to points 50 meters North, South, East, and West from the start point, and listen for the PTT at each

location. Do you hear the transmissions? If you hear it at each of the four points extend the legs to 100m and try again. The aim is to determine which quadrant the PTT is in relative to the start point. Once you have determined this then set up a 100m grid of points in that quadrant and repeat the process, mapping on a sheet of graph paper where the PTT can be heard. Although it is laborious, because the PTT transmits so infrequently, a pattern should become apparent.

As you narrow down the search area you will have to reduce the sensitivity of the scanner. There are three tricks to use:

1. remove the antenna,
2. off tune the scanner “say” 20KHz,
3. replace the antenna with a 50ohm BNC terminator (available at Radio Shack or a computer store).

As you get closer reduce the search grid to “say” 25m, listening 10m from each point. When you get very close you can hopefully find the PTT by simply looking for it.

If you have concerns that you may need to look for a PTT in the future it might be a good idea to practice finding one before you deploy it, and at least get to know what the signal sounds like on a receiver.

I hope you don't need to use this technique!
Paul

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they departed in spring for their nesting grounds.

Departure from the wintering grounds occurred between 25 February and 7 April. Eastern birds had the earliest departure dates we recorded as well as the earliest median date of any group. All East Coast birds left before the Midwest or West Coast birds began their northern migration. Ospreys followed the same routes north in spring as they took south in fall.

We conclude that Ospreys utilize either a “sprint” or “marathon” strategy on migration which is determined by the distance they travel to their wintering ground and the suitability of the habitat through which they migrate.



Figure 4. Wintering areas of Ospreys tracked by satellite telemetry. Females (triangles) generally winter south of males (circles). Birds from the West (green), Midwest (blue), and East (red), show some overlap, but western birds are found in Mexico and Central America, while eastern birds use eastern South America and the Caribbean. Midwestern birds overlap with both the western and eastern populations.

Our current efforts focus on the migration patterns of Atlantic Coast Ospreys from Maine to Florida. We are looking at the effect that nesting at different latitudes has on migration. The movement of Ospreys in and out of Florida is beginning to reveal interesting results and will be studied over the next few years.

This project has received the cooperation and support of numerous individuals and organizations including: Mike Scheibel, Kathy Clark, Rob Bierregard, Pam Robinson, Brian Mealy, Mike McMillian, and Mark Westall. The Nature Conservancy-Wings, Canon USA, the Wetlands Institute, TNC-Mashomack Preserve, Doug Dayton and Wallace Dayton have all provided valuable support. ❖

Customer Alert!

It is crucial that when you give us your ARGOS ID numbers to program into your transmitters, you ensure that you are giving us valid IDs. (That is, the numbers are still assigned to your program and in active mode—not in backup mode!) This is important as problems with the IDs can stall production for days and will definitely delay delivery.