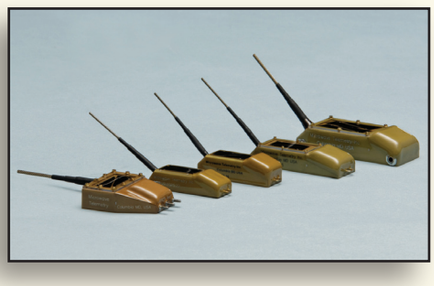
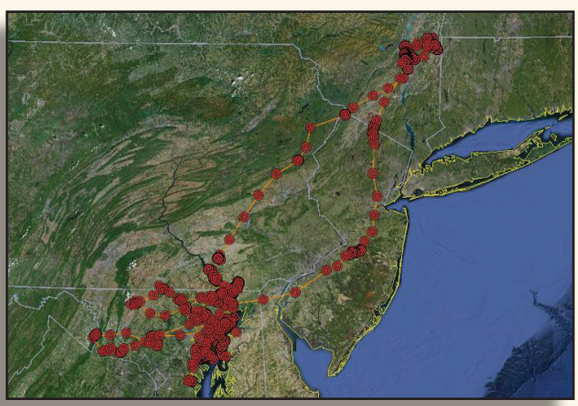
New Products

Solar GSM/GPS Transmitters

At our recent conference we unveiled our line of GSM/GPS transmitters that we have been developing over the last three years. This is in response to our customers' requests, as the GSM system should work particularly well in populated parts of the world where interference to the Argos system limits data reception. The GSM/GPS transmitter is also capable of transmitting more data, and ultimately is more cost effective per unit of data transmitted.



Our five models of GSM/GPS transmitters were designed with the same rugged housings as our Argos/GPS solar PTTs with weights ranging from 25-70g. Retaining the same features as our well-proven GPS PTTs, the GSM models: incorporate the same micro-power GPS receiver, have microprocessor controlled battery charge management allowing collection of GPS data at night, have temperature and activity sensors, and are programmed to take fixes at intervals as frequent as one per minute, depending on battery charge. Most importantly, the GSM/GPS transmitters allow 9800 bytes of data transfer per day. In areas of sparse GSM coverage, where no data download is possible in three days, a simplified text message containing the last locations will still be transmitted. However, the detailed data is archived for later transmission upon return to data coverage areas. Using the technology we have already developed for our fish tracking tags, our GSM/GPS transmitters can archive 258,000 GPS fixes for later download! This translates into a GPS fix every two minutes for an entire year. The GPS data will also incorporate the HDOP and VDOP measurements, as well as other parameters.



Bald Eagle 006 Tracked with 70g GSM/GPS Transmitter for over 412 days. 9676 GPS hourly fixes so far.

Global Coverage

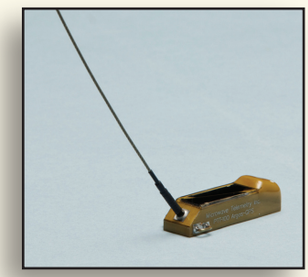
Our GSM/GPS transmitters offer global coverage as we have negotiated a contract with one of the largest international mobile phone operators. Further, our transmitters use an advanced embedded global µSIM to ensure secure operation in the rugged field environment.

PTCRB Certification

Our GSM/GPS transmitters have already undergone and passed testing by an independent test lab to obtain PTCRB and worldwide certification. We believe we are the first biotelemetry company to have achieved this certification for any GSM-based telemetry transmitter. Certification is legally required to use such devices on the worldwide GSM system.

User Friendly Data Access

GSM data transmitted to our server from anywhere in the world where there is GSM coverage, will be parsed and automatically emailed to the customer within 10 minutes. The data will include a "KML" file, an "E" file and an enhanced "G" file that will contain other parameters such as the HDOP and VDOP as well as the other normal GPS data that our customers are accustomed to receiving. We are now developing a "GSM Data Gate" on our website that will allow customers to log in and retrieve all transmitted data from a project.



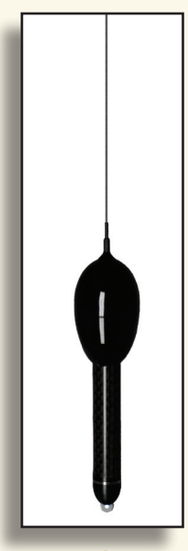
17g Solar Argos/GPS

Another new product introduced at our conference is the 17g solar Argos/GPS PTT. This latest addition to our series of GPS PTTs has the same features as the others but now offers the possibility of tracking bird species down to 500 g. Deployment of prototypes has been extremely successful (see article on page 3).

Prototype 3g Doppler PTT

On the trail to the Holy Grail of a 2g PTT, Paul showed a 3g prototype at our conference. The actual weight of 3.2 g would make it possible for the first time to satellite track a bird weighing less than 100 g. However, Paul pointed out that we already have a full developmental slate, so progress on this may be slow. Even though it will be the same circuitry as our 5g PTT, we have been told that this smaller version will have to go through the CLS certification, a fairly time consuming process. So, don't hurry to order any!

E-Tag



At our 2009 conference, we talked about the Pop-up E-Tag or Equinox Tag™, a smaller archival tag. If used in conjunction with an X-Tag on the same fish and programmed to pop-off at the equinox, it would provide a valuable Argos position to use as an intermediate point for longer duration tracks, as light-based geolocation is not possible at the equinox, when day length is essentially the same at all latitudes. Developmental work on this tag slowed down while we worked on upgrading the X-Tag's light sensing ability by putting the light sensor in the nose of the tag and improving the software. However, prototypes of this long-awaited E-Tag are now being tested.

The E-Tag can be programmed to pop-off at the spring or fall equinox or other dates; it records temperature at 15 min intervals for up to 1 year. Smaller than the X-Tag it will allow even smaller fish to be satellite tagged. The E-Tag will also allow for multiple, sequential pop-off locations on larger species. Further development will integrate into the E-Tag all the features of the other archival pop-up tags.