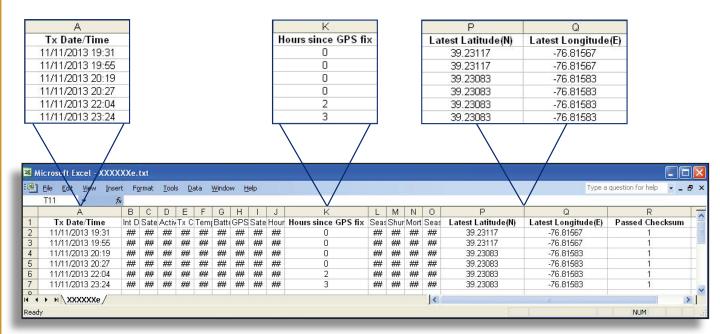
# **Tips from Ted: Useful Information**

Did you know... that the engineering file for our Argos/GPS PTTs contains the latitude and longitude of the last fix acquired? Engineering data are transmitted messages that contain real time sensor data (temperature, activity, battery voltage), as well as information relevant to the operation of the PTT. Many people don't realize that they also include information about the GPS.

From your engineering data file (\*e.txt), the columns labeled "Latest Latitude" and "Latest Longitude" contain the most recent GPS location recorded at the time of transmission. To narrow the time more accurately, subtract the hour value in the "Hours since GPS fix" column from the time of transmission ("Tx Date/Time"); this will give you the time that the GPS fix was taken, to the nearest hour.



This is useful if:

- a) You are testing 2D GPS PTTs; 2D PTTs only transmit engineering messages during the first 8 hours of transmission after the magnet is removed (GPS data messages are transmitted after the first complete duty cycle).
- b) You would like to know the GPS location soon after the beginning of the PTT's transmission period. Every eighth transmission is an engineering message; because of the random-access nature of the Argos System, there is a good chance that an engineering message is received before the newer(-est) GPS data messages.
- c) The Argos System has, for whatever reason, received few valid and uncorrupted GPS data messages. This could be the case when a PIT is on the ground or in areas of low reception such as southeast Europe and China.

## Reminders

#### Refurbishment

We have set aside the months of August through February in our production schedule for refurbishment of avian transmitters. If you have transmitters that need refurbishment for the 2014 field season, please send them back to us without delay! March is the beginning of our busy season, when we must devote all our time and materials to new production. Customers outside the USA should contact us for instructions on returning PTTs. (support@microwavetelemetry.com)

### Pop-Up Tag Customers

Please confirm deployment information and include pre-deployment test data when you send us data for processing.

### Bits & Pieces

If you would like to receive an electronic copy instead of a paper copy of our newsletter, please let us know via email.

Newly published papers? Please let us know so we can include them in our online archive. Production slots are assigned on a first-come, first-served basis. We require a Purchase Order and Production Form to lock in a slot.

Our office will be closed December 23rd through January 1st 2014. Happy Holidays!