



RECORD OF COMMUNICATION

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Date: June 26, 2018
Person Contacted: Ben Hsu (NTSB Recorders Lab)
NTSB Accident Number: WPR17LA064

Narrative: The following are verbatim extracts of information provided in emails sent by Mr. Hsu on the noted dates:

June 4, 2018

The EI MUX-8A did record data, but it looks like the time/date correlation has been corrupted, so I don't have any real times. The file WPR17LA064_MUX-8A_Prelim.png shows EGT/CHT data from the last recorded session. It's very short, but data is only recorded approximately once per minute. The CSV file attached is the data used to create the plot. The absolute times recorded and plotted are not accurate, but the timing between points should be correct.

June 5, 2018

I went back through and looked at the previous flights. The EGTs and CHTs all move together, as you'd expect, in all of them, and there are none where they diverge like we're seeing here. It's possible that either CHT6 or EGT2 is wired into the wrong input on the MUX-8A, or that there was some kind of failure in the sensors that's causing these two readings to go bad right at the end.

June 25, 2018

Attached is the full tabular data "dump" from the device. The absolute date/times are obviously not correct, but I believe the relative timing to be correct (time between each data point). All the temperatures should be deg F. I've included the last two columns for RPM and MAP, however, they look questionable to me. The RPMs all look too low, even for previous flights. The MAP is formatted so that a value of "200" would mean 20.0 inHg, but most recorded values show under 10 inHg, which does not seem accurate either. I've reached out to Electronics International to see what they think of it.

June 26, 2018

I called up EI to talk to one of their engineers. First, he let me know that the last 4 columns of data are actually: TIT, OilP, OilT, and OAT. It doesn't look like OilP and OilT are good values. OilP values mirror OAT exactly (which seems odd), and OilT is all over the place, even for previous good flights. (So what I

told you before from their documentation was incorrect: RPM and MAP are not actually recorded parameters)

The EI engineer thinks that when we see CHT6 and EGT2 drop off is actually just after the crash. These two values drop to match the OAT value, which is what they expect to see when a temperature sensor is disconnected.

The “Error” lines likely correspond to engine startup, when the battery voltage drops, which can cause the device to have an error. The completely blank lines are similar. An upset in the system (like crashing) may cause voltage to drop and result in a record to begin writing, but not complete.

Unfortunately since data is only recorded about once a minute, it doesn’t give a very good look at the actual take-off.

I included OilP and OilT for information purposes, but as I said before, they look suspect. The time axis is “as recorded.”