Eagan, Erik

From: Jones, Robert
Sent: Friday, March 09, 2012 8:50 AM
To: Eagan, Erik
Subject: FW: AVL Data
Follow Up Flag: Follow up
Flag Status: Red
Attachments: 1652 2011-07-22 Arrival.JPG; 1652 2011-07-22 Departure.JPG; 1652 2011-08-15 Arrival.JPG; 1652 2011-08-15 Remainder.JPG; 1652 CAD Unit History 2011-08-15.pdf

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From: Jolley, Tim
Sent: Thursday, March 08, 2012 12:59 PM
To: Jones, Robert
Subject: AVL Data

Major,

Sorry it took so long to get you this information. As I mentioned we saw some discrepancies and wanted to verify what was happening. We only found AVL data for two days for the addresses provided. Both instances are outlined below and occurred while he was 10-75. I've also attached screenshots of the data.

7/22/2011 (1857 hours) – Arrives and stops in the area of [redacted]

7/22/2011 (1911 hours) – Departs the area of [redacted]

8/15/2011 (0917 hours) – Arrives in the area. Unsure if the unit stops because the last coordinate reported was heading NW at 33.8 MPH. (see file "1652 2011-08-15 Arrival.JPG")

8/15/2011 (1043 hours) – At the intersection of Dunlawton / US1 in Port Orange. This is the first coordinate received since 0917 hours (see file "1652 2011-08-15 Remainder.JPG")

As you can see, there is an unexplained gap in the AVL data on 8/15/2011. There are a few possible causes for such a gap. For example, we will not receive coordinates if the MDC is turned off, looses satellite signal (e.g. inside a building), or cellular (i.e. Sprint) connectivity. We will also see an interruption of AVL data if the GPS antenna is malfunctioning or is unplugged. In order to help isolate the cause in this case, we looked at the remaining AVL coordinates (see file "1652 2011-08-15 Remainder.JPG") on that date and found the following:

1043 hours – After approximately 86 minutes with no AVL activity, the unit starts transmitting AVL coordinates again at the intersection of Dunlawton / US1.

1054 hours – Last AVL coordinate reported for the day showing the unit heading north at 32.5 MPH on City Center Parkway in Port Orange (i.e. by old POPD location).

1257 hours – Unit runs a tag from his MDC (see file "1652 CAD Unit History 2011-08-15.PDF")

1300 hours – Unit logs out of CAD from his MDC (see file "1652 CAD Unit History 2011-08-15.PDF")

Based upon the above information, I suspect that he is unplugging his GPS antenna. For example, it seems that his MDC was on and he had cellular service during the three minutes when he ran the tag from his MDC and logged out of CAD. Therefore, we can eliminate his MDC being off or no cellular service. If you are inside a building, then it is possible to have a cellular signal, but no satellite signal. However, why would he be running a tag while inside? The GPS antenna could also be malfunctioning, but that is unlikely since it was obviously working earlier. If he is in the habit of unplugging the device, then that may explain why we only saw him in that area on a couple of days. I would suggest that someone start spot checking a few days of his AVL data.

To help identify deliberate attempts to circumvent AVL in the future, I've asked that my staff to begin looking at developing a routine that will log / alert anytime the MDC is on and it does not detect a GPS antenna connected. However, at this time, I don't have a timeframe on when I can get that implemented.

Let me know if you need anything else.

Tim