



External Assistance to Recreational Aviation Australia (RA-Aus) – Fatal Accident - Zenith Zodiac CH601XL 19-5046 – 12km NE New Moon ALA, QLD

13 July 2008

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The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and, where applicable, relevant international agreements.

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Abstract

On 13 July 2008, a Zenith Zodiac CH601XL recreational/ light sport aircraft, registration 19-5046, was involved in a fatal accident 12 km NE of New Moon Authorised Landing Area, Qld. Recreational Aviation Australia (RA-Aus) staff commenced an investigation into the occurrence. Two Global Positioning System (GPS) units were recovered from the accident site.

On 17 July 2008, RA-Aus requested technical assistance from the Australian Transport Safety Bureau (ATSB) to recover the data from the GPS units. No analysis of the data by the ATSB was sought by RA-Aus. To protect the information supplied by RA-Aus and the investigative work undertaken to assist RA-Aus, the ATSB initiated an investigation under the *Transport Safety Investigation Act 2003*.

Data was successfully recovered from one GPS unit in February 2009 by ATSB Technical Analysis staff with assistance from the French Bureau d'Enquêtes et d'Analyses (BEA) and was subsequently provided to RA-Aus investigators.

FACTUAL INFORMATION

GPS Units

On 13 July 2008, a Zenith Zodiac CH601XL Recreational/ Light Sport Aircraft, registration 19-5046, was involved in a fatal accident 12 km NE of New Moon Authorised Landing Area, Qld. RA-Aus staff commenced an investigation into the

occurrence. Two Global Positioning System (GPS) units were recovered from the accident site.

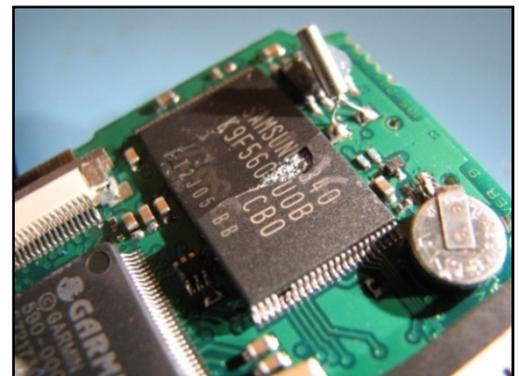
On 17 July 2008, RA-Aus requested technical assistance from the ATSB to recover the data from the GPS units. No analysis of the data by the ATSB was sought by RA-Aus.

The two GPS units recovered were a Garmin V (5) and a Garmin GPSMAP 296.

Garmin V

The Garmin V unit, serial number 3005920413, was received with a damaged screen and case. Upon disassembly, significant damage to the circuitry was found including damage to flash memory devices on the circuit board (Figure 1). It was determined that due to the damage to the board, and the lack of information on retrieval of data from this model GPS unit, recovery of data from this unit would not be attempted.

Figure 1: Flash memory device from Garmin V



Garmin GPSMAP 296

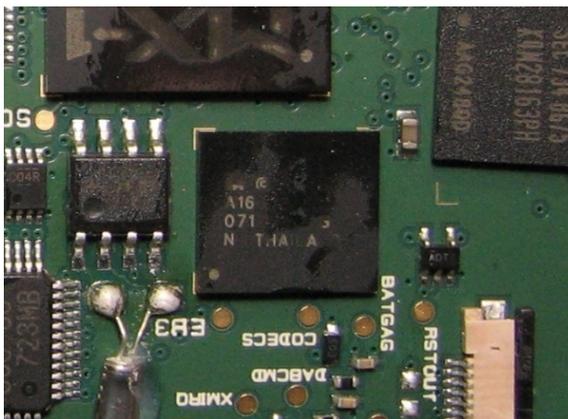
The Garmin GPSMAP 296 unit, S/N 10D001095, was also significantly damaged. The unit was dismantled and circuit boards were found to be broken (Figure 2).

Figure 2: Garmin GPSMAP 296 damaged circuit board



Several electronic devices had become separated from the circuit board. With assistance from the French Bureau d'Enquêtes et d'Analyses (BEA), the French national accident investigation agency, the memory device containing the data was identified.

Figure 3: Close-up of flash memory device containing flight data on Garmin GPSMAP 296



The BEA performed the download of data on behalf of the ATSB. The downloaded data and a report were received via email on 13 February 2009.

FILES PROVIDED TO RA-AUS

On 23 February 2009, the ATSB provided five electronic files to RA-Aus relating to the Garmin GPSMAP 296 unit. These comprised; a Garmin

PCX5 file of the accident flight, a Google Earth KML file of the accident flight, Microsoft Excel files containing all downloaded trackpoints and trackpoints from the accident flight, as well as the BEA download report.

These files were provided to RA-Aus investigators on compact disc (Attachment 1).

REFERENCES

- 1 - Garmin_GPS_decoding_rules_2008.pdf, Bureau d'Enquêtes et d'Analyses, 15 August 2008.

ATTACHMENTS

- 1 - Compact disc (provided to RA-Aus only) containing the files Last_track.trk, Last_track.kml, Last_track.xls, All_trackpoints.xls and BEA download report DocTech 19-5046.pdf. Photos of the disassembly of both GPS units are also included.