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[Aviation Safety] Japan Uses Taiwan's Technology to Read Damaged GPS Chips

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CNA (2010/12/28) Taiwan has developed a technology to retrieve information from damaged chips in the global positioning systems (GPS) used by helicopters and other vehicles, and the technology has been provided to Japan, the Council for Aviation Safety (CAS) said Tuesday.

Wen-lin KUAN, CAS laboratory director, briefed the media on the use of the technology, noting that Japan's Transportation Safety Board (JTSB) sought the council's help in September to help determine one cause of a helicopter crash.

The council used the technology to read the information in the Japanese helicopter's GPS and discovered that it was caught in a heavy fog and crashed into a mountain, KUAN said.

Chip makers usually are unable to retrieve information from chips that have been burned, soaked or broken in an accident. The CAS lab, however, uses reverse engineering technology to "rebuild" the data on the damaged chips.

KUAN presented a paper on the lab's research and the new device at an international meeting of aviation accident investigators earlier this year, winning an award for best paper.

Most helicopters and super-light aircraft are not equipped with the "black boxes" -- flight data recorders -- that are installed on larger aircraft, but instead have GPS, which records flight times, positions, directions and velocities, which can be used to help determine the causes of an accident. In the past the GPS chips of the crashed mini-aircraft would become useless when they were damaged in the crashing, but now with the technology CAS has developed, the information about the crashing will be able to be unfolded with the broken GPS chips.

Further Information:
CNA 2010/12/28

National Science Council International Cooperation Sci-Tech Newsbrief
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