

Ways eyed to make planes easier to find in ocean

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This March 10, 2014 file photo shows a woman taking a photo of a screen displaying the number of hours since a Malaysia Airlines passenger jet had gone missing at a mall in Beijing, China. For nearly five years, government and industry officials have been exploring a variety ways to make it easier to find airliners and their critical "black boxes" when they end up in the ocean, but the effort was too late to help in the case of a Malaysia Airlines jet that disappeared over the weekend. (AP Photo, File) CHINA OUT

For nearly five years, government and industry officials have been

exploring ways to make it easier to find airliners and their critical "black boxes" that end up in the ocean. But their efforts are too late to help in the case of a Malaysia Airlines jet that disappeared over the weekend.

The efforts were spurred primarily by the search for Air France Flight 447, which disappeared over the Atlantic Ocean en route from Rio de Janeiro to Paris on June 1, 2009. It was nearly two years later before the main wreckage of the Airbus A330 and its black boxes—it data and cockpit voice recorders—were found about 13,000 feet below the ocean's surface.

Since then, U.S., European, and industry officials and technical organizations have discussed requiring underwater locator beacons on black boxes last at least 90 days instead of the current 30, making the boxes so that they will float, attaching underwater locator transmitters to the aircraft fuselage and putting floatable emergency locator transmitters on planes, according to a National Transportation Safety Board briefing Tuesday.

But those efforts are still a work in progress.

"I think at the time a lot of people were looking at Air France 447 as unique," William Waldock, who teaches accident investigation at the Embry-Riddle Aeronautical University "We really had not had one like that where it takes so long to find it."

But a Malaysia Airlines Boeing 777 with 239 people on board disappeared over open ocean en route from Kuala Lumpur to Beijing on March 8, and has proved remarkably difficult to find.

Data recorders typically record over a 24-hour period at least hundreds of types of information about how a plane is functioning. Investigators count on that information for clues to the cause of an accident, including

how the engines are working, the pilots' actions, the status of key systems like the autopilot and autothrottle, and the position of wing flaps and rudder.

The cockpit voice recorders contain pilots' conversations and any sounds inside the cockpit in a continuous two-hour loop.

Both are required to be equipped with an underwater locator beacon powered by a tiny radioactive pellet that continually sends out sonic signals for a minimum of 30 days. In recent years there has been discussion about whether the beacon signals should be required to last at least 90 days, according to the NTSB.

Even with a functioning beacon, the signal can only be heard underwater with special equipment and can diminish depending upon the ocean depth, water currents and whether the boxes are buried in silt or sand.

There have been discussions about requiring boxes be made so that they float, and of attaching underwater locator devices to the plane's structure to help find both the wreckage and the boxes, the board said.

Another idea that has been discussed is whether airliners should have emergency locator transmitters—which are different than underwater beacons—that automatically detach and float to the surface if the plane plunges into water. Such transmitters, which employ satellite technology, only work above the water. The U.S. Navy has had such floating transmitters on its planes for about 15 years, Waldock said.

"It boils down to expense as much as anything," Waldock said. "These systems are pricey."

A technical advisory committee to the Federal Aviation Administration began a three-day meeting in Washington on Monday about whether

transmitter standards should be strengthened.

Some newer airliners already stream much of the same information recorded by black boxes back to their home base via satellite. Airlines do this primarily so that they know whether there are any problems with the plane that require maintenance or repairs. If they get the information while the plane is still in-flight, they can have mechanics and parts in place when it lands, saving time and money.

But if planes also streamed back information like altitude, airspeed and heading, it could also provide critical clues to searchers in the event of a crash. However, if all the thousands of airliners that are in the air in the U.S. everyday were all streaming large amounts of data at the same time, there wouldn't be enough bandwidth to transmit the data or enough capability to record it on the ground, Waldock said.

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