

Australia's search for MH370 under scrutiny

MalaysiaKini.com

May 28, 2015

By Swati Pandey & Jane Wardell, Reuters

MH370 Nearly a year after embarking on a multi-million dollar quest to solve one of aviation's greatest unsolved mysteries, authorities and search teams are being criticised over their approach to finding Flight MH370 in the remote southern Indian Ocean.

The Australian-led search, already the most expensive in aviation history, has found no trace of the Malaysia Airlines jet or its 239 passengers and crew, prompting urgings for a rethink into the way the mission is conducted.

Experts involved in past deep water searches say the search to find MH370 could easily miss the plane as Dutch company Fugro NV, the firm at the forefront of the mission, is using inappropriate technology for some terrain and inexperienced personnel for the highly specialised task of hunting man-made objects.

Heightening concerns, Australian authorities said yesterday that another search vessel, the Go Phoenix, which is using the world's best deep sea search equipment and crew provided by US firm Phoenix International Holdings Inc, would pull out within weeks. No reason was given for withdrawing the vessel from the quest.

"Fugro is a big company but they don't have any experience in this kind of search and it's really a very specialised job," said Paul-Henry Nargeolet, a former French naval officer who was hired by France's air accident investigation agency BEA to co-ordinate the search and recovery of Air France Flight AF447 in 2009.

"This is a big job," Nargeolet told Reuters. "I'm not an Australian taxpayer, but if I was, I would be very mad to see money being spent like that."

Fugro, which was contracted by the Australian government to operate three ships pulling sonar across the vast 60,000km search zone, has rejected claims it is using the wrong equipment, saying its gear is rigorously tested.

Still, Nargeolet's concerns are echoed by others in the tightly held deepsea search and rescue industry, who are worried that unless the search ships pass right over any wreckage the sonar scanning either side of the vessels won't pick it up.

Experts also question the lack of data released by the Australian Transport Safety Bureau (ATSB) on the activities of the Fugro ships.

Three of the bidders rejected for the MH370 contract, US firm Williamson & Associates, France's ixBlue SAS and Mauritius-based Deep Ocean Search Ltd, have taken the unusual step of detailing their concerns - months down the track - directly to Australian authorities in correspondence viewed by Reuters.

Several other experts are also critical, including some who requested anonymity, citing the close knit nature of the industry which has just a few companies and militaries capable of conducting deepwater searches.

“I have serious concerns that the MH370 search operation may not be able to convincingly demonstrate that 100 percent seafloor coverage is being achieved,” Mike Williamson, founder and president of Williamson & Associates told Reuters.

Diving into the unknown

Australia took over the search for the missing plane from Malaysia in late March last year, three weeks after MH370 disappeared off the radar during a flight from Kuala Lumpur to Beijing.

The search area was determined by satellite data that revealed the plane turned back sharply over the Malaysian peninsula and flew undetected for another six hours before crashing into the inhospitable southern Indian Ocean.

The uncharted waters, buffeted by the Roaring Forties winds, stretch as deep as 6km, hiding old volcanoes and cliffs in their depths. Australia, Malaysia and China earlier this month agreed to double the search area to 120,000 sq km.

Whether Phoenix International, which has US navy contracts and found AF447, will be part of that extended search area is unclear after the ATSB said that Go Phoenix, owned by Australian firm Go Marine, will cease operating on June 19. Phoenix International, which was contracted separately by the Malaysian government, did not immediately return calls about its position. The Malaysian government also did not reply to requests for comment.

Two of the Fugro ships traverse up and down 2.4km-wide strips of the sea floor, pulling via a cable a ‘towfish’ that contains sonar equipment, in a technique often called ‘mowing the lawn’.

The towfish coasts around 100 metres above the sea floor, sending out sound waves diagonally across a swath, or broad strip, to produce a flattened image of the seabed.

The Fugro ships are using sonar provided by EdgeTech, the same US company whose sonar was used successfully to find Air France AF447 after it crashed in the Atlantic Ocean.

However, experts say while the type of sonar equipment being used by Fugro gives good results in flat surfaces, it is less well-suited to rugged underwater terrain, a world of confusing shadows.

The ATSB has routinely released detailed data from Go Phoenix, but has not done so for the

Fugro ships. Experts have cobbled together an analysis from glimpses of the sonar use and data in videos and images posted to the ATSB website. From that, they've gauged the EdgeTech sonars are operating at swathes beyond their optimum capabilities, resulting in poor quality images and leaving side gaps in coverage.

"It makes no sense to be using fine scale tools to cover a massive area; it is like mowing an entire wheat field with a household lawnmower," said Rob McCallum, a vice-president at Williamson & Associates.

Fugro deputy managing director Paul Kennedy said the sonar is running within its capabilities, noting the system identified five "debris-like" objects in 700 metre deep water at a test range off the West Australian coast.

"The test range gives us full confidence the sonars will see the debris field when we cross it," he said.

Wild weather

Fugro is known for its expertise in high-quality low-resolution mapping of sea floors but has far less experience than some of the rejected bidders in deepwater aircraft searches. It has been involved in 17 search and recovery efforts for aircraft or ships over 15 years, compared with some of the bidders who search for four to five aircraft every year.

Kennedy pointed to the find earlier this month of a previously uncharted shipwreck as evidence Fugro was capable of finding the plane.

Concerning experts further is the fact that the third Fugro vessel, which was being used to scan the gaps between the other two ships with an autonomous underwater vehicle (AUV), was this month taken out of action because of encroaching wild winter weather.

That leaves the daily search without an AUV, a much more nimble piece of equipment that was vital in successful search for AF447.

"We are continuously reviewing the search data as it comes in and we are satisfied that the coverage and detection standards we have specified are being met or exceeded," ATSB chief commissioner Martin Dolan said in an email.

- Reuters