

# Ocean currents may trace origins of MH370 debris

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There are two main Indian Ocean currents which may have caused debris from missing flight MH370 to wash up on the French island of La Reunion, experts said Thursday.

With either one, it should be possible through satellite images to retrace the journey of the debris, and zoom in on the site of the Malaysia Airlines crash last March.

Q. Could [ocean currents](#) have transported debris from MH370 to La Reunion?

A. There are two plausible scenarios. Were the plane to have gone down south of the equator, the debris might have been transported by the South Equatorial Current (SEC), which bifurcates as it approaches the African coast, with one stream going south along the eastern coast of Madagascar. This would take it past La Reunion. Or, if the debris had gone further south, it might have gotten caught up along the eastern side of the Gyre, which goes anti-clockwise, and moved up north and then into the SEC west towards Africa.

- Valborg Byfield, scientist, Marine Physics and Ocean Climate Group, National Oceanography Centre

Q. Does this reveal anything about the crash itself?

A. We can define the likely zone of the crash by using satellite data of

the currents collected from the time of the accident until today. By running simulations based on these satellite images back in time, we'll know where the debris came from. We know that the debris did not travel at any depth but on the surface because we found it on a beach with mollusks attached, so [satellite images](#) of [surface currents](#) will be sufficient to estimate the crash zone.

- Joel Sudre, an oceanographic engineer at France's National Center for Scientific Research

A. Starting from the spot where the object was found, we used computer simulations to retrace its path and determine where the aircraft might have entered the water 17 months ago. The chaotic nature of the ocean means that we can't track the exact location, but we can pin it down to an area a few hundred miles in diameter off the coast of northwestern Australia.

- Erik van Sebille, oceanographer at the Grantham Institute, Imperial College London

Q. What next?

A. More debris will certainly be arriving on La Reunion or nearby islands. That was the case with debris from Fukushima that arrived on the Hawaiian islands several years after (the tsunami hit Japan in March 2011).

- Sudre

A. The holy grail now is determining the location of the aircraft's black box, which is believed to be very close to the site of impact. The best way do to this would be to find more pieces of [debris](#) and then apply the same simulations to track their origin in the ocean. This process of

triangulation is really the best opportunity we have to put the x on the map.

- Van Seville

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