

Aviators IG Interesting News #2 – Unsolved Mystery

#AviatorsIGFunFact: B777 was the world's longest twin-engine aircraft

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The world's longest twin-engine aircraft had just gone missing in the world. It was currently known as the greatest mystery of all time as it has not left a single trace of evidence to prove what has gone wrong into the flight. Aviation experts and air crash investigators could not believe that close to 4 years, relevant search authorities and organisations could not find any substantial amount of debris related to the accident.

Up to date, there was no breakthrough after years of searching, only several small pieces (Flaperon and Stabiliser) of the airplane were found and was confirmed by the airline and French Aviation Investigation Bureau of Enquiry and Analysis (BEA). The aircraft involved was a Boeing 777-200ER, operated by Malaysia Airlines with the flight number of 370 also known as Malaysia Airlines Flight 370 (MH370).

The flight carried a total of 239 passengers and crew members, which was originated from Kuala Lumpur International Airport, Sepang, Malaysia to the destination of Beijing Capital International Airport, Chaoyang-Shunyi District, China. The total flight time should take less than 6 hours with the scheduled departure time at 0035 (Malaysia Time) and arrive at Beijing exactly at 0630 (China Standard Time).

As scheduled, MH370 took off at 0040 with a fuel of 49,100 kg which gave an endurance up to 7 hours 31 minutes. After taking off, air traffic controller from Kuala Lumpur departure (Lumpur departure) gave them clearance to a flight level of 18,000 feet (FL180). The Air traffic controller also direct the flight to a planned navigation waypoint of IGARI. Waypoint IGARI was located at Flight Information Region (FIR) of Ho Chi Minh, just after the border of Singapore FIR.

After 6 minutes into the flight, MH370 was transferred from Lumpur Departure to Kuala Lumpur Radar (Lumpur Radar). Due to travelling at midnight, the airspace was not congested thus Lumpur Radar was again cleared the aircraft to flight level of 25,000 feet (FL250) and subsequently to FL350 at 0058. At 0101 and 0107, the aircraft followed standard operational procedure by reporting maintaining at 35,000 feet.

12 minutes later at 0119, MH370 was instructed to contact Ho Chi Minh Air Traffic Control Centre (HCM ATCC) from Lumpur Radar on the radio frequency of 120.9 MHz. The flight crew replied and acknowledged to change frequency due to crossing of Flight Information Region. HCM ATCC should receive communication from MH370 any time soon about the position and flight level when the aircraft was in the flight region.

The instruction to communicate with HCM ATCC was the last recorded radio transmission from MH370. The disappearance of MH370 from primary radar was at 0120 while the secondary radar at 0121. Thereafter, HCM ATCC queried Lumpur Radar, Hong Kong ATCC and Phnom Penh ATCC on the whereabouts of MH370, but to no avail. MH370 was

scheduled to land at 0630 but no contact was made to any air traffic control centre. The Kuala Lumpur Rescue Coordination Centre (KL RCC) was then activated at 0632.

The KL RCC were strengthened with the help of Five Power Defence Arrangements; Singapore, Malaysia, New Zealand, Australia and United Kingdom at the initial search around Southeast Asia territories. The initial search around Southeast Asia was deemed as a disappointment although the various last known position of the aircraft on the radar was presumed at Andaman Sea.

3 Days after the initial search, a total of 26 more countries including China, Taiwan, Philippines, India and Indonesia participated by deploying 60 ships and 50 aircraft in search of MH370. The search was then extended towards Southern Indian Ocean and was divided into 2 teams: surface searching and underwater searching.

The underwater searching was being deployed to locate the aircraft black boxes beacon while the surface searching was operating for sighting aircraft wreckage and debris. Unfortunately, there was no beacon detected within the 1st month of the incident. The surface search in Southeast Asia and the Indian Ocean lasted 52 days, covering a total of 4,500,000 km² ocean surface.

After months of searching, various countries could not find any trace of Malaysia Airlines Flight 370. However, more than a year after the incident, several aircraft debris was found on an french island called Reunion. The debris was transported to BEA for further investigation. Not long enough, the investigators determined and confirmed the debris as part of the evidence of MH370.

In 2017, due to financial reasons, the joint effort search between various countries was then called off indefinitely. Nevertheless in 2018, search was partially resume with the help of an US firm known as Ocean. A handful of underwater unmanned vehicles and sonar detection ship was currently being deployed.

Compensation for passengers' next-of-kin was made by Malaysia Airlines. In the wake of the mystery, several disappearances and crash theories were surfaced around the world and lead to various speculations. None of the theories was determined true and the incident was categorised as presumed crash with an unknown cause.



(Left) Aircraft that was involved with the incident; MH370 (9M-MRO).

(Right) MH370 (9M-MRO) flight deck.

URL for photograph:

https://commons.wikimedia.org/wiki/File:9M-MRO_Boeing_777_Malaysia_Airlines_October_2013.jpg

https://commons.wikimedia.org/wiki/File:Boeing_777-2H6-ER,_Malaysia_Airlines_AN0561319.jpg

For more information and full report:

<http://mh370.mot.gov.my/download/FactualInformation.pdf>

Sources and references:

Malaysia Ministry of Transport (2015). Factual Information and Safety Investigation on Malaysia Airlines MH370, Boeing B777-200ER, 9M-MRO, 08 March 2014 (Rep.). (n.d.). Retrieved January 21, 2018, from Malaysia Ministry of Transport website

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