

# **Analysis of the Preliminary Report on MH370 Incident (and a Request for an Interim Report to be Released)**

*This report is submitted on May 20, 2014 at 04:00 EDT ...*

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*This report was compiled with the input of multiple experts from various fields, and Google. Any discrepancies or redundancy in the way technical data is interpreted is purely due to compilation error. It is arranged in an outline format for ease of reference by points.*

*A glossary to acronyms and terms used is at the end.*

## **The Goal of this Analysis ...**

The purpose of this analysis is to highlight discrepancies of facts or details in the report itself, and to consolidate the outstanding questions many people expected would have been addressed, but were not.

We request that a comprehensive Interim Report be issued as soon as possible detailing all the known facts, to include, but not be limited to, the many areas that we have enumerated in our analysis. We believe that eliminating wrong information and assumptions is as important as confirming correct information and assumptions.

We seek to press for transparency and full disclosure in good faith on all aspects of MH370 to qualified independent analysis, and to prevail upon the various organizations and countries involved in the investigation and search related to MH370 to open up for independent review and oversight.

Finally, we hope to gain access to and help from individuals and organizations whose experience, insights and resources may be of value to the investigation, and/or to the affected families, in order find the truth.

**A PLEA TO READERS OF THIS REPORT ...** If you feel you can help us through your connections in government, access to data, scientific skills, or if you know something as an insider and are willing to blow the whistle on some wrongdoing for the good of society and the international flying public ... please email: [findingphilipwood@gmail.com](mailto:findingphilipwood@gmail.com).

At 00:41:43 MYT on 8 March 2014 (Saturday), MH 370 took off from Runway 32R at Kuala Lumpur International Airport (KLIA) on a scheduled flight to Beijing, China.

## 1. ETA for IGARI

- 1.1. There is some confusion over the last point of contact. Between the report itself and the maps provided in the Annex, three different times are given: 01:06:43, 01:07:49 and 01:07:55 (all MYT). Which is it?

(Preliminary Report Page 3)

At 00:42:07 MYT, MH 370 was cleared to climb to Flight Level (FL) 180<sup>3</sup> and was issued a direct track by LUMPUR APPROACH at Kuala Lumpur Air Traffic Control Centre (KLATCC) to waypoint IGARI. MH 370 was transferred to LUMPUR RADAR at KLATCC at 00:42:52 MYT. The flight was then cleared to climb to FL 250 at 00:46:51 MYT and subsequently to FL 350 at 00:50:06 MYT. MH 370 reported maintaining FL 350 at 01:01:16 MYT and reported maintaining FL 350 again at 01:07:55 MYT.

(Preliminary Report Page 4)

It was later established that the transmissions from the Aircraft Communication and Reporting System (ACARS) through satellite communication system occurred at regular intervals starting before MH 370 departed Kuala Lumpur, Malaysia at time 12:56:08 MYT and with the last communication occurred at 01:07:49 MYT.

(Page 2 of Maps in Annex)



- 1.2. The report does not present the ETA of each waypoint expected from this standard daily flight, nor does it indicate whether the actual estimated times of arrival (ETA) at IGARI and BITOD were according to those expectations, or should have been updated and passed by KL-ATCC to HCM-ATCC.
- 1.3. Was any ETA passed to HCM-ATCC, and were any revisions to the ETA given as the report indicates the aircraft was cleared direct to IGARI?
- 1.4. It is very important to establish this fact as this would indicate whether the HCM-ATCC would be expecting MH370 to contact them at 01:21 MYT.
- 1.5. According to our research, any variation in ETA times beyond three minutes must be reported. Did that happen?
- 1.6. If an erroneous later time (e.g. 1:33:00 MYT) had been given, then HCM-ATCC would not be paying attention to IGARI until that later time. This would also have justified that HCM-ATCC is following Standard Operating Procedure. But, this information is not present in the preliminary report.

## **2. Loss of Radar Contact**

### **2.1. (Preliminary Report Page 3)**

At 01:19:24 MYT LUMPUR RADAR at KLATCC instructed MH370 to contact HO CHI MINH Air Traffic Control Centre (HCMATCC) on radio frequency 120.9 MHz. MH 370 acknowledged with *"good night Malaysian Three Seven Zero"*.

At 01:21:04 MYT, MH370 was observed on the radar screen at KLATCC as it passed over waypoint IGARI. At 01:21:13 MYT the radar label for MH 370 disappeared from the radar screen at LUMPUR RADAR KLATCC.

- 2.2. It is stated that the aircraft passed waypoint IGARI at 01:21:04 MYT, and at 01:21:13 MYT the radar blip (MH370) disappeared. It does not say if the radar

blip (MH370) disappeared abruptly (e.g. transponder was turned off) or started coasting out (e.g. plane was out of radar coverage) and then disappeared.

- 2.3. The report is not clear in specifying specific radar types (Primary, Secondary, ADS-B, CPDLC, and ADS-C), rather only referring mostly to blips. More precise language is required.
- 2.4. The report does not provide the coverage information regarding secondary surveillance radar (SSR) used by the KL-ATCC and HCM-ATCC. However, independent research suggests that the KL-ATCC radar range is about 50 miles past IGARI, well into HCM Airspace.
- 2.5. The report does not indicate whether this was observed in real time by the controller on duty or if it was only noticed during a playback of the radar recording.
- 2.6. If it was observed by the controller on duty in real time at 1:21:13 MYT, then what were his immediate actions? What else was he doing that he did not immediately check with HCM-ATCC if the target appeared on their radar or try to establish contact on his own frequency?
- 2.7. If he did not observe it, then the question is the same. What else was he doing that he was not monitoring the traffic within this area. 19 minutes seems to elapse before any action is taken, in the form of this contact.

1	01:38:19	Ho Chi Minh first enquired about MH370, informed KL-ATCC that verbal contact was not established with MH370 and radar target was last seen at BITOD.
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- 2.8. This response is given, but the report does not indicate what action occurred before or after this response from KL-ATCC.
- 2.9. In Entry #2, HCM-ATCC confirms establishing radar contact at waypoint IGARI, but never reconnected. Then but Entry #3 states that the radar blip disappeared at waypoint BITOD (7° 15' 24N 104° 7' 6E), which is 37nm from waypoint IGARI (6° 56' 12N 103° 35' 6E), approximately 5 minutes based on Boeing 777 cruising speed of 560mph at 35000ft) flying time later. Then in Entry #10, HCM-ATCC is reported to have said radar contact was lost after BITOD.)

2	01:41:21	KL-ATCC informed HCM that after IGARI, MH370 did not return to Lumpur frequency.
3	01:46:46	HCM queried about MH370 again, stating that radar contact was established over IGARI but there was no verbal contact. Ho Chi Minh advised that the observed radar blip disappeared at waypoint BITOD.

10	02:18:53	<p>KL-ATCC queried if flight planned routing of MH370 was supposed to enter Cambodian airspace. HCM confirmed that planned route was only through Vietnamese airspace. HCM had checked and Cambodia advised that it had no information or contact with MH370.</p> <p>HCM confirmed earlier information that radar contact was lost after BITOD and radio contact was never established.</p> <p>KL-ATCC queried if HCM was taking Radio Failure action but the query didn't seem to be understood by the personnel.</p> <p>HCM suggested KL-ATCC to call MAS OPS and was advised that it had already been done.</p>
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- 2.10. As a general comment regarding radar data, detailed information is needed on the nature of the primary radar contacts. From the maps provided, it seems that there are only single location contacts and not continuous monitoring. Will the path plotted on a map show straight lines between individual points (even with a meandering flight track) or the actual path of the aircraft (straight flight, constant radius turn, straight flight). The nature of the actual ground track will indicate the navigation mode engaged at the time, ranging from autopilot off under manual flight, to autopilot flying the plane to just a next point, to a pre-programmed route over defined waypoints.
- 2.11. The report fails to mention anything about the where and when of the supposed "turn-back".
- 2.12. Assuming the turn-back did occur, what was its exact path? How long was it over Malaysian territory in terms of both distance and time?
- 2.13. There is no mention of previously reported information that MH370 changes its elevation in or around the "turn-back" point. At some point it had been reported that MH370 rose to an elevation over 40,000 feet, and also that it dropped down to only 5,000 feet.

### **3. Involvement of Other Nations**

- 3.1. Since the ADS-B data is shared with Singapore, will Singapore provide that information?
- 3.2. Figure 1 Coordinate distance calculator from internet

## Coordinate Distance Calculator

Calculate the distance between two points or one point and a number of points, sorted by closest. [More Help...](#)

From

To

Units ☐ Miles ☐ Kilometers ☒ Nautical Miles

### Distances from N 6 56.120 E 103 35.600:

[\[Show Map\]](#)

Coordinates	Distance	Found By	Date
<a href="#">N 7 15.240 E 104 7.600</a>	37.07 n. miles NE (59°)	-	-

- 3.3. There is a discrepancy of 37nm on position where the last radar contact occurred, which is BITOD not IGARI. The Malaysian Government official did not correct this and yet kept mentioning IGARI as the last radar contact point. Last here does not mean only the Malaysian Radar, and the report also does not provide the coverage capability of the KL-ATCC to prove this point.
- 3.4. It seems there is confusion on the exact location of the IGARI waypoint between what is stated in the Preliminary Report and what is on various other reference sites. Isn't the IGARI waypoint a very specific and unchanging coordinate? From which source does KL-ATCC take its coordinates?

<http://opennav.com/waypoint/SG/IGARI>

### IGARI Waypoint Information

Country SG  
 Latitude 6° 56' 10.00" N  
 Longitude 103° 35' 6.00" E

[skyvector.com](http://skyvector.com) thinks IGARI is at:

N6°56.20' E103°35.10'

AIP Singapore says: IGARI 06°56.10N 103°35.06E

[http://www.caas.gov.sg/caasWeb2010/export/sites/caas/en/Regulations/Aeronautical\\_Information/AIP/enroute/enr3/ENR3.3.pdf](http://www.caas.gov.sg/caasWeb2010/export/sites/caas/en/Regulations/Aeronautical_Information/AIP/enroute/enr3/ENR3.3.pdf)



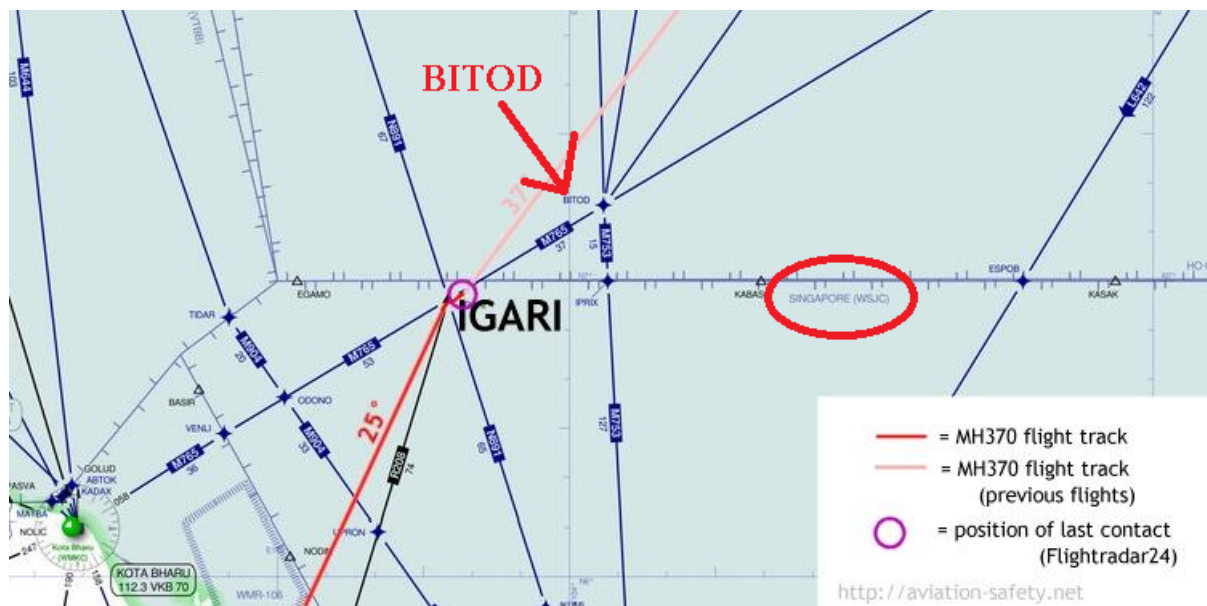
But in the Preliminary Report it is noted as:

<sup>1</sup>Malaysian time (MYT) is Universal Coordinated Time (UTC) + 8 hours.

<sup>2</sup>Waypoint IGARI is located at N6°56.87' E103°34.63' (Latitude/Longitude).

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- 3.5. If Vietnam is correct, did somebody do something to KL-ATCC radar to reduce its range? According to our research, the Kota Baru radar should be able to see up to 200nm, which would be all the way to the Vietnam coastline, or nearly 100nm beyond IGARI.
- 3.6. Did Malaysian DCA corroborate this information with Vietnamese DCA? Was this discrepancy not picked up?
- 3.7. If Vietnam saw the plane until BITOD, we need to see Vietnam radar recording to confirm this. What is the significance of this discrepancy?
- 3.8. IGARI is in fact situated within Singapore Flight Information Region, and Vietnam shares Con Son ADS-B data with Singapore. Where are their radar records?



AviationSafety @AviationSafety · Mar 9

#MH370 last contact by @flightradar24 following procedural course change at IGARI waypoint inside Singapore FIR [pic.twitter.com/3jvyklLBHO](https://twitter.com/3jvyklLBHO)

↩ Reply ↻ Retweet ★ Favorite

Flag media

3.9. Figure 2 IGARI is within Singapore Flight Information Region

3.10. Why is there no mention of any corroboration of the last observed location based on all types of data available to KL-ATCC: ADS-B, ADS-C and CPDLC?

- 3.11. Why is there no mention of any investigation on whether the aircraft was either picked up via ADS-B or logged on to ADS-C to either HCM-ATCC or Singapore ATCC?
- 3.12. Was there any attempt to contact the airplane via ACARS or SATCOM calls, and what were the results of those attempts (if they were made), by KL-ATCC or HCM-ATCC?
- 3.13. According to several resources, Australia's JORN radar network supposedly allows the Australian Defense Force to observe all air and sea activity north of Australia to distances of 3000 km. This topic is not addressed in the Preliminary Report, either to confirm JORN can do that but did not pick up MH370, or to deny that JORN can "see" that far.
- 3.14. According to several sources, Diego Garcia and Pine Gap radar networks could have observed MH370 on its supposed flight path. This topic is not addressed in the Preliminary Report, either to confirm that these two military bases do have these capabilities but did not pick up MH370, or to deny that either can "see" that coverage zone.
- 3.15. Did the military stations at Diego Garcia and Pine Gap have any communication (one way or two way) with KL-ATCC at all from March 8<sup>th</sup> forward? Were either alerted to the flight being missing? If so, what did they do?
- 3.16. What about radar records from Indonesia and Thailand?

#### **4. Errors from Malaysian Airlines Operations**

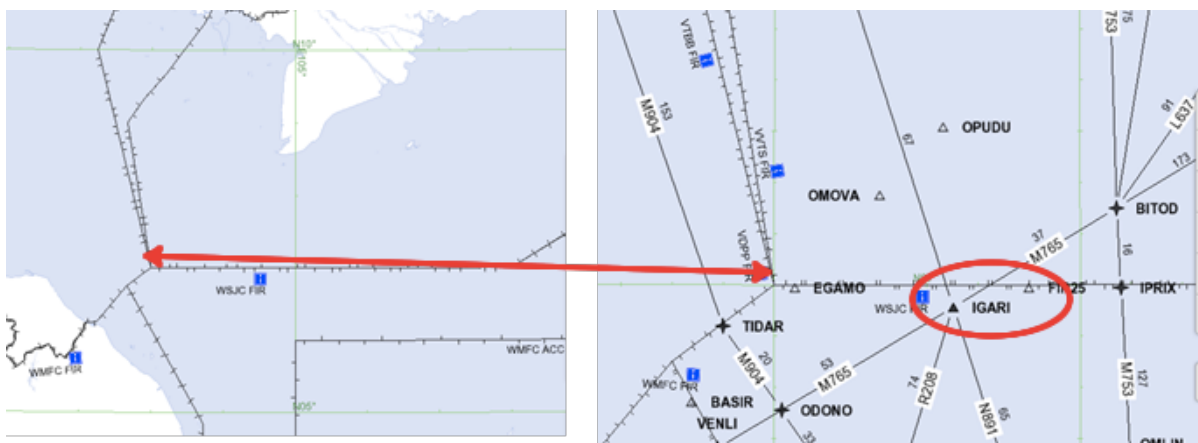
6	02:03:48	KL-ATCC queried HCM on status MH370. HCM confirmed there was no radar contact at this time and no verbal communications was established. KL-ATCC relayed the information received from Malaysia Airlines OPS that aircraft was in Cambodian airspace.
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- 4.1. There is no indication of the time at which MAS OPS informed the KL-ATCC. This entry only records the time this information was passed to HCM-ATCC.
- 4.2. This is piece of information that would have thrown everybody off track. The aircraft should not be in Cambodian airspace based on its normal route. Even if it was a software prediction that the person on duty was quoting, it should have still been based on the expected route, which never included Cambodian airspace.





- 4.3. Figure 3 Normal Route Extracted from:  
<http://blogs.wsj.com/searealtime/2014/03/09/malaysia-widens-search-of-missing-jet-to-strait-of-malacca/>
- 4.4. This misinformation would have lulled everybody onto thinking there was no imminent danger as the plane was still airborne.
- 4.5. The fact that it was in Cambodian Airspace would add weight to the possibility of equipment failure, including radio failure to explain the lack of communication. There would have been no urgency to mount a SAR operation.
- 4.6. By what means did they determine that the airplane was in the Cambodian FIR? According to research, the Phnom Penh FIR extends south to a point less than 50 miles from IGARI as illustrated below. It would be quite interesting if the airline had datalink information that actually did place it in this airspace at one time.



4.7. At this time, the plane had been missing for 44 minutes since the last verbal communication at 1:19:00 MYT, and would have just passed Penang on its later supposedly established path of westward travel.

7	02:07:00	HCM queried for confirmation that MH370 was in Phnom Penh FIR. KL-ATCC requested to check further with the supervisor.
8	02:11:37	HCM queried on status but KL-ATCC has no update.
9	[02:15] [no voice recording]	(extracted from Watch Supervisor's Log Book)  KL-ATCC Watch Supervisor queried Malaysia Airlines OPS who informed that MH370 was able to exchange signals with the flight and flying in Cambodian airspace.

4.8. At 02:07:00 MYT, HCM-ATCC requested confirmation on flight being in Cambodian Airspace. The log entry shows the Watch Supervisor only queried MAS OPS at 02:15 MYT, 8 minutes later.

4.9. What was the supervisor doing in that time?

4.10. MAS OPS continues its path of information by informing that it was able to **"exchange signals"** with the flight, and reiterates that the aircraft was in fact flying in Cambodian Airspace. What evidence was used to determine that? What systems or reading or other information was referenced to support this claim, twice, by MAS OPS?

4.11. Given that Cambodia was not on the original flight plan, did MAS OPS inform KL-ATCC (or any other ATCC) that the aircraft was not along its designated route, which was supposed to go through HCM FIR into Sanya FIR in China?

11	02:34:01	Watch Supervisor KL-ATCC enquired with MAS OPS Centre about communication status with MH370 but the personnel was unsure if the
		<b>message went through successfully or not.</b>
13	02:35:54	MAS OPS Centre informed KL-ATCC MH370 in normal condition based on signal download giving coordinate N14.90000 E109 15 00 at time 1833 UTC.

## 5. Serious Delays in Launching Search and Rescue

- 5.1. 1 hour and 16 minutes after the aircraft lost radar contact, MAS OPS is still continuing to provide erroneous information to KL & HCM-ATCC, going to the extent of even **giving coordinates, making its information very credible**. Where did these coordinates come from? If from a system, who is the manufacturer and what is the system model and version?



- 5.2. Figure 4 Coordinate given by MAS OPS Center, which was based on "signal download"
- 5.3. This would continue to have influenced KL-ATCC action, preventing them from activating the Kuala Lumpur Rescue Coordination Centres (KL RCC) and start the process to mount full scale SAR operations.
- 5.4. KL RCCs would not be activated when there is "reliable" information aircraft is still flying safely, albeit off course.
- 5.5. WSJ Captures this: *Through that first stretch, the carrier's operation center continued to advise controllers that the plane was in "normal condition," remained*

*in contact with ground facilities and was flying somewhere in Cambodian airspace—an area that was never on its flight path from Kuala Lumpur to Beijing.*

16	[03:30] (no voice recording)	(extract from Watch Supervisor's Log Book)  MAS OPS Centre informed KL-ATCC that the flight tracker information was based on flight projection and not reliable for aircraft positioning.
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- 5.6. It was 2 hours 9 mins before MAS OPS began to have doubts about its information!!! 2 hours 9 mins where other useful action could have been instituted.

17	03:30:01	KL-ATCC queried if HCM had checked with next FIR Hainan.
18	03:56:19	KL-ATCC queried Malaysia Airlines OPS for any latest information or contact with MH370.
19	04:25:23	HCM queried KL-ATCC on last position that MH370 was in contact with ATC. KL-ATCC queried if any information had been received from Hong Kong or Beijing.
20	05:09:18	Singapore queried for information on MH370.

## **6. Omitted Information Appears Suspicious**

- 6.1. Many queries are recorded. However, no responses have been entered.
- 6.2. What does this mean? If they are from voice transcripts, why are the responses not being recorded or documented? If from data logs, why are no responses documented?
- 6.3. Does it contain information that may indicate incompetency, complacency, complicity in distorting information or a sheer lack of urgency?
- 6.4. The aircraft was in fact in Singapore FIR if the radar track first disappeared at IGARI. Why is Singapore being contacted only after 4 hours?
- 6.5. Or Was Malaysian Authority already made known from the beginning that the last radar contact was at BITOD and yet kept misleading the media?
- 6.6. So that Malaysian could be leading the investigation since the MH370 was lost in Malaysian Airspace.
- 6.7. If it was indeed lost at BITOD airspace, according to ICAO Annex 13, should Vietnamese be the state to lead the investigation?

## **7. Retracted Data is a Red Flag**

- 7.1. The omission of all events in the chronology can only mean selected information is being released to the public. Will the international investigation team get to see the actual chronology, or will they continue to receive edited versions of the records that can mask the true scenario?

21	05:20:17	Capt [name redacted] requested for information on MH370. He opined that based on known information, "MH370 never left Malaysian airspace".
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- 7.2. This entry is extremely curious. At 5.20, there is a comment that the plane never left Malaysian Airspace. This statement needs extensive investigation as to why this individual stated this?
- 7.3. If we interpret the statement that "MH370 never left Malaysian airspace" to be in general terms, that means that technically, the plane was in Singapore FIR, and into HCM FIR at least briefly, but not substantially. Would that not put the investigation of this missing flight into the hands of Singapore?
- 7.4. Who, or from which agency is this Captain from? Why does he think the plane never left the Malaysian airspace or based on what information did he make this assessment.
- 7.5. Why does the report fail to address this entry at all?
- 7.6. In editing the transcript, did this inadvertently escape scrutiny?
- 7.7. Can the DCA provide a photocopy of all the log books? Are these hard copies and original recordings of RT, DCT Line and Telephone Conversations a part of this report?
- 7.8. Were the NTSB, AAIB and other assisting agencies allowed access to original radar and voice recordings?

## 8. Omissions in the Preliminary Report

- 8.1. The preliminary report only gives a skimpy account of what transpired at the KL-ATCC. As a normal course of operations there would have been more activity than is accounted for, and this was not a normal situation. Where is the activity log?
- 8.2. One glaring omission is there is no mention of a playback of DCA's own civilian radars in Kota Bharu, and Langkawi which have primary radar capability. Based on the map given, the primary tracks would have been detected and would appear on radar screens in the KL-ATCC.
- 8.3. Data from the Butterworth Military ATC Radar is also available, and there is no mention of it as well.
- 8.4. Did the KL-ATCC overlook an unknown track passing through its airspace despite the fact that contact had been lost with an aircraft?

- 8.4.1. Could a query generated by the observation of an unknown track by the DCA's KL-ATCC to the military for verification on an unknown traffic have elicited a better response from the Military?
- 8.4.2. What evidence was assessed to determine that this was a "friendly" aircraft?
- 8.4.3. What evidence was there that this airplane was MH370?
- 8.4.4. Who made the decision NOT to scramble jet-fighters to intercept?
- 8.5. Is it merely a dereliction of duty by Air Force or was it a deliberate attempt to allow the aircraft to fly to another secret location??
  - 8.5.1. Based on the map, the initial track after the turnback would have been heading directly towards Malaysian Air Force Base at Gong Kedak ([http://en.wikipedia.org/wiki/RMAF\\_Gong\\_Kedak](http://en.wikipedia.org/wiki/RMAF_Gong_Kedak))
  - 8.5.2. and later directly towards the Butterworth Base ([http://en.wikipedia.org/wiki/RMAF\\_Butterworth](http://en.wikipedia.org/wiki/RMAF_Butterworth)).
- 8.6. The report fails to indicate that other investigations had been instituted as no information is provided.
- 8.7. There is no mention of the efforts taken to investigate passengers, crew and other related workers.
  - 8.7.1. Amongst the family association, most of us were never contacted regarding our loved ones or ourselves. How is it that all passengers were cleared?
  - 8.7.2. Where is the list of all who were involved in plane maintenance, catering, working in security at the airport, loading cargo, etc.?
  - 8.7.3. Who were the people working in the air traffic control and military radar towers that night?
  - 8.7.4. What about the passengers with the fake passports?
- 8.8. The cargo manifest data is sorely lacking in detail and completion.
  - 8.8.1.1. Where is all of the research that was done on the specifics of the cargo?
  - 8.8.1.2. Where is the documentation supporting what cargo made up the rest of the full weight?
  - 8.8.1.3. There are three aspects that are particularly curious: 2,453kg of lithium batteries (far more than is safe on a passenger flight); 4,566 kg of mangosteen (it is two months too early for this fruit to be



exported from Malaysia); and unidentified cargo of 2,934 kg (since when are international flights allowed to carry unidentified cargo?).

8.9. There is no mention of the action being taken by the police.

8.9.1. Investigation of passengers, crew, workers, contractors, etc. Were family and friends interviewed?

8.9.2. Video coverage of the airplane itself while in hanger for the days preceeding March 8<sup>th</sup>, and that time preceeding this specific flight.

8.9.3. Investigation of cell phone and home phone records, and home computer hard drives for all involved (passengers, crew, ATC workers, workers involving the plane or airport security) in the weeks preceeding this event.

8.9.4. Investigation of cell phone tower activity for all towers under the assumed and potential flight path of MH370.

8.10. There is no mention of the simulators being found at the Captains house.

8.10.1. What happened to the flight simulator hard drive that was being analyzed by the FBI?

8.10.2. What about the early information releases that the flight simulator system contained maps of Diego Garcia and several other landing strips?

8.10.3. Was there some data still accessible, such as external data/software downloads, but only the core hard drive of practice efforts was erased?

8.10.4. A computer or video game player has many layers of firmware, software, templates and user data.

8.11. There is no mention on why they are so sure the INMARSAT Data is highly accurate and reliable, to the extent that they have thrown all resources there.

8.11.1. There are no statements from the independent sources who supposedly looked at the data as to what data they analyzed or how they analyzed it.

8.11.2. The 90+° turn that occurs only at the start of the INMARSAT position plots is troubling. Where are the INMARSAT position plots from earlier in the flight to see some correlation with an earlier INMARSAT plot with other correlating position data that we know to be correct (i.e., during radar contact).

8.12. There is no complete listing of chronological events.

- 8.12.1. When is the first playback of civilian radar from all related towers (Koto Baru, Penang, HCM, Bangkok, Jakarta, Sanya, HK, Singapore, Australia, etc.)?
- 8.12.2. When is the first playback of military primary radar?
- 8.12.3. When were Inmarsat, Boeing, Roll-Royce, all relevant parties (US, UK, China, India, France, New Zealand, Australia and etc.) informed?
- 8.12.4. When did Inmarsat notify the Malaysian Government there were still communication between the Satellite communication?
- 8.13. Why was the first week of South China Sea search COMPLETELY omitted from the report?
  - 8.13.1. When and Where did SAR search begin in the South China Sea and how long?
  - 8.13.2. Why was SAR conducted in the South China Sea for a full week AFTER the Defence Minister was informed of the turn-back of the aircraft?
  - 8.13.3. When did the SAR started it search on the west side of Malaysian Peninsular?
  - 8.13.4. When the Minister of Defence was informed of a possible turn-back, why was that information not shared with the public?
- 8.14. When did Inmarsat tell Malaysian Government it its first, and then second calculations?
  - 8.14.1. Did Inmarsat ever produce the raw data for the Malaysian Government and the independent experts to analyze? Where is that data now?
  - 8.14.2. Has any analysis ever been done on the MH370 flight ping data and actual flight path from the days prior to this incident as a comparison point?
- 8.15. Four emergency locating transmitters (ELTs) from various parts of the plane did not go off.
  - 8.15.1. When was the last maintenance and service of the ELTs?
  - 8.15.2. What possible explanation could there be for all four ELTs not going off?
- 8.16. No debris has been found. NONE. How could this possibly be explained? Has this ever happened with a large plane crash?

- 8.17. There is no mention of the supposed cell tower contact with the co-pilot's cell phone.
- 8.18. The voice tapes that were provided together with this official report have been shown to be edited or perhaps even faked in parts. What is the response to this? Where are the FULL tapes from that entire day?
- 8.19. No mention is made of the "supposed" black box pings that caused SAR to zero in on a specific area for underwater search.
- 8.19.1. Where are the data records on those pings, and who analyzed them to determine they were indeed from the black boxes?
- 8.19.2. What explanation is given for assuming sounds coming from wide distances, and at frequencies different from that of a standard black box, and at intervals that are different from that of a standard black box were from the MN370 black box?
- 8.20. There is no mention of the Chinese report that a US military base in U-Taphao, Thailand, reported a mayday call from MH370. If this lead was dismissed, how was it evaluated and followed up on? What was done to eliminate this lead?
- 8.21. There is no mention of the contents of ACARS messages from the time of take off.
- 8.21.1. Especially, there are questions about the last one at 1:07, which may suggest some technical problems.
- 8.21.2. There had been an early report that investigators had examined data transmitted from the plane's Rolls-Royce engines that showed it descended 40,000 feet in the span of a minute, according to a senior American official. What happened to THAT report? Where is the raw data to support that assessment?
- 8.21.3. Investigators had challenged that assessment as an aircraft would most likely have taken longer to fall such a distance. However, that may be explained if another plane was flying under MH370 and registering on its radar altimeter. Was this possibility looked into further?
- 8.22. A detailed description of the plane's SATCOM system components and respective radar systems has not been provided. Even the SATCOM antenna type and maker are not known and this information may be required to properly analyze the pings.
- 8.23. There is no mention of the report from the Captain of JAL750 of his direct contact with MH370 at 1:30. JAL750 took off from HCM at 1:09, just after MH370 went silent at IGARI. By 1:30, JAL750 would have been northeast of Ho Chi Minh at approximately 11:55N, 108.43E and 32,000ft, which is almost 400 nm from IGARI. Their communication was by line of sight VHF radio, which

has a range of just over 300 nm. If MH370 had turned and headed south west after IGARI, it would have been too far away for JAL750 to reach it on VHF.

## **Glossary:**

ADS-B – Automatic Dependent Surveillance-Broadcast

BITOD – Is the next waypoint on the airways between Malaysia and Vietnam, and is well within HCM Airspace.

ETA estimated time of arrival

HCM-ATCC – Ho Chi Min Air Traffic Control Centre, (Ho Chi Min City, Vietnam)

IGARI – The way point on the air route where transfer of estimates and transfer of radio communications is done with HCM-ATCC

KL-ATCC - Kuala Lumpur Air Traffic Control Centre, based in Subang, Malaysia

MAS-OPS – Malaysia Airlines Flight Operations/Flight Dispatch Office

MYT – Malaysian Time, GMT +8

nm – Nautical Miles

RCC – Rescue Coordination Centre [which is responsible for SAR]

Sanya-FIR – SANYA (CHINA) Flight Information Region

SAR - Search and Rescue

**A PLEA TO READERS OF THIS REPORT ... If you feel you can help us through your connections in government, access to data, scientific skills, or if you know something as an insider and are willing to blow the whistle on some wrongdoing for the good of society and the international flying public ... please email: [findingphilipwood@gmail.com](mailto:findingphilipwood@gmail.com).**