



ICAO REGIONAL ACCIDENT INVESTIGATION WORKSHOP, ASIA & PACIFIC REGIONS 25 – 26 JUNE 2015

THE MALAYSIAN ICAO ANNEX 13 SAFETY INVESTIGATION FOR MH370







THE MALAYSIAN ICAO ANNEX 13 SAFETY INVESTIGATION TEAM FOR MH370

Established on 25 April 2014 as a 19-member independent safety investigation team (and supported by Accredited Representatives (AR) from seven international air accident investigation organisations) under Regulation 126(1) of the Malaysian Civil Aviation Regulations (MCAR) 1996 to conduct the investigation into the disappearance of Flight MH370.





THE MALAYSIAN ICAO ANNEX 13 SAFETY INVESTIGATION TEAM FOR MH370

- Malaysian Govt. realized the need for special team due to the nature of the occurrence which draws worldwide attention
 - Delay in setting up this team, due to sourcing for the right qualified professionals, independent from related parties
 Such as MAS, Air Force and DCA
 - Some sought after professionals had to on part time basis





ORGANISATION OF THE MALAYSIAN ICAO ANNEX 13 SAFETY INVESTIGATION TEAM FOR MH370

Investigator-in-charge

7 Accredited Representatives(AR) from 7 Civil Aviation Accident & Incident Investigation Organisations

Airworthiness Committee (Chairman)

Maintenance & Records

Structures

Powerplants

Systems

Site Survey

Crashworthiness

Operations Committee (Chairman)

Flight Operations

ATS & Airports

Metereorology

Witnesses

Flight Recorders

Cabin Safety

Fire & Rescue

Medical/Human Factors Committee (Chairman)

Pathology

Psychology

Survival Factors





ACCREDITED REPRESENTATIVES (AR) FROM 7 INTERNATIONAL CIVIL AVIATION ORGANISATIONS OF SEVEN COUNTRIES

No.	Country	Organisation
1.	Australia	Australian Transport Safety Bureau (ATSB)
2.	China	Civil Aviation Administration of China (CAAC)
3.	France	Bureau d'Enquêtes et d'Analyses pour la Sécurité de l'Aviation civile (BEA)
4.	Indonesia	National Transportation Safety Committee (NTSC)
5.	Singapore	Air Accident Investigation Bureau (AAIB)
6.	United Kingdom	Air Accidents Investigation Branch (AAIB)
7.	United States of America	National Transportation Safety Board (NTSB)





OBJECTIVE OF INVESTIGATION

The prevention of future accidents or incidents, and not the purpose of this activity to apportion blame or liability (paragraph 3.1 of Annex 13).





PUBLICATION OF FACTUAL INFORMATION

- Contained facts which have been determined up to the current date only and was made available at that time solely to inform the aviation industry and the public of the general circumstances of the accident of MH370
- Factual Information was of an interim nature and must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available. Any new information that may become available may alter this information before the publication of the Final Report.



SECTION 1 - FACTUAL INFORMATION



(ANNEX 13, CHAPTER 1 ITEMS 1.1 – 1.19)

1.1	History of the Flight	1.10	Aerodrome Information
1.2	Injuries to Persons	1.11	Flight Recorders
1.3	Damage to Aircraft	1.12	Wreckage and impact information
1.4	Other Damages	1.13	Medical and Pathological information
1.5	Personnel Information	1.14	Fire
1.6	Aircraft Information	1.15	Survivability
1.6.1	Airframe	1.16	Tests and research
1.6.2	Engine	1.17	Organisational & Management Info
1.6.3	Airworthiness and Maintenance	1.17.1	Department of Civil Aviation (DCA)
1.6.4	Weight and Balance	1.17.2	Malaysia Airlines (MAS)
1.6.5	Fuel	1.18	Additional Information
1.6.6	Emergency Locator Transmitter	1.18.1	Provision of ATS and Areas of Responsibilities
1.6.7	Aircraft System Description	1.18.2	Cargo
1.7	Meteorological information	1.19	New Investigation Techniques
1.8	Aids to Navigation		
1.9	Communications		
1.9.1	High Frequency (HF)		
1.9.2	Very High Frequency (VHF)		
1.9.3	Air Traffic Control /Mode S Transponder Sys		
1.9.4	Aircraft Communications Addressing & Reporting System		
1.9.5	Satellite Communications (SATCOM)		8





PUBLICATION OF INTERIM STATEMENT AND FACTUAL INFORMATION ON 8TH MARCH 2015

- 1. Next-of-Kin's website (mh370.gov.my) at 1200 hours
- 2. Ministry of Transport's website (mh370.mot.gov.my) at 1500 hours
- 3. MCMC website





PUBLICATION OF INTERIM STATEMENT AND FACTUAL INFORMATION ON 8TH MARCH 2015

To cater for anticipated heavy traffic

- Multiple websites
- Multiple servers
- For NOKs, for ease of download, the Factual Information was broken down into several smaller files





 Report on Release of Interim Statement and Factual Information





3-MONTH (8 MARCH - 8 JUNE 2015) SUMMARY OF VISITORS ACCESSING ON TWO WEBSITES & ONE E-MAIL (ENQUIRY) SITE

INTERIM STATEMENT & FACTUAL INFORMATION SAFETY INVESTIGATION FOR MH370

No.		ACCESS	WEBSI	TES	TOTAL	EMAIL (ENQUIRY) SITE
			www.mh370.gov.my	www.mh370. mot.gov.my	TOTAL	MH370SafetyInvestigation.mot.gov.my
			Next-of-kin/Public	Public		Safety Investigation Team for MH370
	1.	VISITOR	68,507	23,806	92,313 (156 COUNTRIES)	59
	2.	DOWNLOAD	11,127 (826/10,301)	8,618	19,745	-

WELL-RECEIVED BY NOK AND GENERAL PUBLIC AT HOME & WORLD-WIDE!



DOWNLOADS OF TOP 5 COUNTRIES & 5 CITIES ON NOK's WEBSITE (mh370.gov.my)



No.	Country	Visitors
1.	United States	26,798
2.	China	7,924
3.	Malaysia	1,832
4.	France	350
5.	United Kingdom	234

No.	City	Visitors
1.	California, United States	23,416
2.	Beijing, China	5,177
3.	Mountain View, United States	2,638
4.	Zhengzhou, China	1,420
5.	Shanghai, China	1,317



TOTAL USERS ACCESSING MOT'S WEBSITE: www.mot.gov.my 8TH MARCH 2015 (1500 HOURS) - 31 MARCH 2015 (1200 HOURS)



NO	COUNTRY	USERS	NO	COUNTRY	USERS
1	Malaysia	6970	38	Ukraine	36
2	United Kingdom	3485	39	Portugal	32
3	United States	2066	40	Saudi Arabia	31
4	China	927	41	Kenya	28
5	Germany	651	42	Jordan	27
6	Australia	640	43	Sri Lanka	25
7	Indonesia	624	44	Greece	20
8	Singapore	619	45	Pakistan	19
9	Russia	422	46	Israel	18
10	Hong Kong	345	47	Qatar	18
11	Canada	323	48	Kazakhstan	16
12	India	321	49	Cambodia	15
13	Switzerland	216	50	Romania	15
14	Netherlands	206	51	Czech Republic	14
15	France	162	52	Mexico	14
16	Japan	155	53	Turkey	14
17	Taiwan	154	54	Belarus	13
18	Thailand	148	55	Ecuador	13
19	Belgium	143	56	Argentina	12
20	Denmark	136	57	Barbados	11
21	(not set)	129	58	Hungary	11
22	United Arab Emirates	108	59	Nigeria	11
23	New Zealand	94	60	Slovenia	11
24	Poland	90	61	Bangladesh	9
25	Spain	87	62	Egypt	9
26	Norway	68	63	Luxembourg	9
27	Austria	67	64	Chile	7
28	Italy	64	65	Colombia	7
29	Ireland	63	66	Lithuania	7
30	Philippines	56	67	Malta	7
31	South Korea	52	68	Serbia	7
32	Vietnam	43	69	Bahrain	6
33	Brunei	42	70	Bulgaria	5
34	South Africa	42	71	Jersey	5
35	Finland	38	72	Latvia	5
36	Sweden	38	73	Maldives	5
37	Brazil	37	74	Nepal	5 ¹⁴



TOTAL USERS ACCESSING MOT'S WEBSITE: www.mot.gov.my 8TH MARCH 2015 (1500 HOURS) - 31 MARCH 2015 (1200 HOURS)



38	Portugal	36	76	Venezuela	5
No	Country	Users	No	Country	Users
77	Caribbean Netherlands	4	115	Panama	2
78	Fiji	4	116	Réunion	2
79	Georgia	4	117	Uruguay	2
80	Ghana	4	118	Uzbekistan	2
81	Kuwait	4	119	Vanuatu	2
82	Moldova	4	120	Kosovo	2
83	Macau	4	121	Andorra	1
84	Malawi	4	122	Antigua & Barbuda	1
85	Zimbabwe	4	123	Angola	1
86	Armenia	3	124	Aruba	1
87	Botswana	3	125	Azerbaijan	1
88	Cyprus	3	126	Bosnia & Herzegovina	1
89	Ethiopia	3	127	Bolivia	1
90	Iceland	3	128	Bahamas	1
91	Jamaica	3	129	Bhutan	1
92	Kyrgyzstan	3	130	Congo (DRC)	1
93	Morocco	3	131	Côte d'Ivoire	1
94	Macedonia (FYROM)	3	132	Gibraltar	1
95	Myanmar (Burma)	3	133	Greenland	1
96	Mauritius	3	134	Equatorial Guinea	1
97	Peru	3	135	Croatia	1
98	Puerto Rico	3	136	Isle of Man	1
99	Slovakia	3	137	British Indian Ocean Territory	1
100	Trinidad & Tobago	3	138	Liberia	1
101	Tanzania	3	139	Monaco	1
102	Samoa	3	140	St. Martin	1
103	Zambia	3	141	Mauritania	1
104	Albania	2	142	Mozambique	1
105	Bermuda	2	143	New Caledonia	1
106	Costa Rica	2	144	Nicaragua	1
107	Curação	2	145	French Polynesia	1
108	Estonia	2	146	Seychelles	1
109	Guernsey	2	147	Sudan	1
110	Honduras	2	148	Suriname	1
111	Iraq	2	149	Swaziland	1
112	Iran	2	150	Tunisia	1
113	Laos	2	151	Uganda	1
114	Lebanon	2		TOTAL	21,027







		SUMMARY	
No.	Enquiry	No. (%) of	Remarks
		Readers	
1.	Suggestions	(15.8%)	Responded. Observations taken
2.	Missing page 93	(5.3%)	Immediately actioned
3.	On stakeholders' action/s that were	(7.9%)	Referred to stakeholders (DCA, MAS, etc.)
	taken since accident		
4.	Seeking clarifications	(15.8%)	Responded with answers
5.	Unrelated - opportunity (employment,	(10.5%)	Did not response, lest it results in more mails.
	investment, and loan) seekers)		
6.	Information from JACC on aircraft	(13.2%)	Referred to MAS for clarification
7.	<u>Others</u>		
	 Access to website 	(5.3%)	Responded
	 Request for hardcopies 	(2.6%)	 To print out on his own
	• Spam	(15.8%)	Deleted
	Weird suggestions	(7.9%)	 Aircraft flew into volcano, clairvoyant, etc.
	Total Mails Received	50	
	Total Mails Received	59	-





WORK AHEAD AND IN PROGRESS

- 1. Conducting analysis to draw conclusions and safety recommendations based on the Factual Information that have been gathered focusing on:
 - a. Airworthiness & Maintenance and Aircraft Systems;
 - b. ATC operations from 1719 to 2232 UTC on 7th March 2014 [0119 to 0632 MYT on 8th March 2014];
 - c. Cargo consignment;
 - d. Crew Profile;
 - e. Diversion from Filed Flight Plan route;
 - f. Organisational and Management Information of DCA and MAS; and
 - g. Satellite Communications (SATCOM).





WORK AHEAD AND IN PROGRESS

- 2. Reviewing Standard Operating Procedures (SOP) and Checklists for investigation in accordance with Doc. 9756 AN965 in preparation for the recovery of the aircraft, once it is located by the search team.
- 3. In addition to the analysis and the conclusion phase of the investigation, steps taken to include further validation of the Factual Information on emergence of new evidence.
- 4. Expects that further Factual Information will be available from the wreckage and flight recorders if the aircraft is found.





CONSTRAINTS & CHALLENGES

- Sensitive Information from the military. Release of this information requires proper protocol and approval
- Radar Information from neighbouring countries is hard to come by due to sensitive nature of such information
- Role of the Investigation team confused with the Search team
- Difficulties encountered to setup interviews with NOK, as well as the airline, including obtaining data
- Fine line between Safety and Criminal Investigation





CONSTRAINTS & CHALLENGES

- Investigation with limited information (to date, wreckage not recovered, including Flight Recorders)
- Language barrier
- Limited in authority (unlike the police) to summon witnesses for interview
- Due to the nature of the occurrence, there is pressure on the Investigation team to consider various issues by the public (such as conspiracy theories)
- Intense scrutiny of published information





THANK YOU!

