All IFALDA Members and Friends January, 2017

From the Editor

This is the fifth edition of "FLIGHT DISPATCHER'S WORLD" (FDW). FDW is meant to inform our membership and other friends of IFALDA of our current efforts in the global flight dispatcher and flight operations officer community. Articles are intended to be the basis for professional conversations and to solicit input from our membership.

First, an item of concern. IFALDA Vice President-East Jan Hohne of Sweden has been diagnosed with a serious medical condition and has undergone surgery and continues to receive treatment and therapy. Jan has indicated that he will not seek reelection to his position of VP-East at the AGM as he needs time to manage his medical condition. We will keep you informed of Jan's condition. In the meantime I know he would appreciate hearing from his IFALDA friends and colleagues. He can be reached by email at: jhohne@ifalda.org

In addition to updating our readers with ongoing IFALDA projects and issues, we will use the majority of this edition of FDW to provide a primer, if you will, of ICAO and certain international aviation agreements that pertain to commercial aviation and our responsibilities as dispatchers. We will also summarize what we know about the tracking of MH370 using ATC transcripts.

Updates:

ICAO Dispatcher Training Manual

At the Board meeting in Atlanta January 21, IFALDA President Ken Kronborg formally named Jörn Sellhorn-Timm (GALDA) to head the ICAO Flight Dispatcher Training Manual Working Group. The nomination was unanimously approved by the voting members of the Board. Jörn has determined that there will be a Core Group of four individuals plus himself representing the various regions of IFALDA. Jörn will represent Europe, Professor Luo Feng E (Lucy) (China) has been named to represent Asia Pacific, Ray Ellis (PAFCA-DAL) will represent U.S. dispatchers, Aaron Cleber (CALDA) will represent Canada and the 4th member from South America will be named at the AGM in Buenos Aires.

ICAO NATII/2 Project

We are almost finished with the NATII/2 working group. We have completed all 7 chapters and will spend the next 2 sessions reviewing and editing our work. The deliverable will be ICAO Circular 347 Normal Flight Tracking. The manual is intended for the use of operators.

LaMia Airline Flight 2933

After several communications with authorities in Colombia and at ICAO, IFALDA will develop a list of operational control issues that must be addressed in the investigation. It will be delivered to both the appropriate authorities as well as the ICAO Technical Commission. It is becoming apparent to IFALDA that the authorities involved may not desire outside assistance since the findings may implicate highly placed individuals both within the government authorities involved as well as senior officials of the operator.

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ICAO- What You Should Know

ICAO Factoids:

- ICAO is a Standards organization (not a regulatory organization)
- The Convention has 19 Annexes that are listed by title in the Convention on International Civil Aviation. Of particular interest to flight dispatchers is Annex 1 (Personnel Licensing) and Annex 6 Part 1 (Operation of Aircraft – International Commercial Air Transport Aeroplanes) Parts 2 and 3 of Annex 6 deal with general aviation and helicopters.
- ICAO refers to its current edition of the Convention as the Statute, and designates it as ICAO Document 7300/9.
- The ICAO Annexes contain both Standards and Recommended Practices (SARPS). Standards are always in normal type-font while *Recommended Practices are always in italic font*.
- Both ICAO and IATA have their own airport and airline code systems. ICAO uses 4-letter airport codes vs. IATA's 3-letter codes.
    - Some ICAO codes are built upon the IATA codes such as in the domestic U.S. where LAX is the IATA code for Los Angeles International Airport and by simply appending the letter "K", KLAX becomes the ICAO code. All domestic U.S. airports use this system. Canada uses a similar system…most Canadian airport IATA 3-letter codes begin with the letter "Y" and by appending the letter "C", the ICAO code is formed, i.e. YYZ and CYYZ for Toronto's Pearson International Airport.
    - Other ICAO codes have no similarity whatsoever with their IATA counterpart. ICAO tends to use the first two letters of its 4 letter codes to indicate the region then the country. For instance Paris Charles de Gaulle airport uses CDG as its IATA code but the ICAO code is LFPG. The letter "L" meaning southern Europe and the letter "F" meaning France.
- ICAO also assigns 3-letter airline codes (versus the more-familiar 2-letter IATA codes—for example, UAL vs. UA for United Airlines). The three-letter codes appear on ATC flight plans.
- ICAO also provides telephony designators to aircraft operators worldwide, a one- or two-word designator used on the radio, usually, but not always, similar to the aircraft operator name. For example, the identifier for Japan Airlines International is JAL and the designator is Japan Air, but Aer Lingus is EIN and Shamrock. Thus, a Japan Airlines flight numbered 111 would be written as "JAL111" and pronounced "Japan Air One-One-One" on the radio, while a similarly numbered Aer Lingus would be written as "EIN111" and pronounced "Shamrock One-One-One ".
    - In the US, FAA practices require the digits of the flight number to be spoken in group format ("Japan Air One-Eleven" in the above example) while individual digits are used for the aircraft tail number used for unscheduled civil flights.
- ICAO maintains the standards for aircraft registration ("tail numbers"), including the alphanumeric codes that identify the country of registration. For example, airplanes registered in the United States have tail numbers starting with N and airplanes registered in Chile – CC.

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- ICAO is also responsible for issuing alphanumeric aircraft type codes containing two to four characters. These codes provide the identification that is typically used in flight plans. The Boeing 747 would use B741, B742, B743, etc., depending on the particular variant.

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Freedoms of the Air are economic and diplomatic protocols agreed to by States for the commercial flow of revenue traffic by air. They are not to be confused with State civil aviation regulations and ICAO Standards and Recommended Practices (SARPS).

There are nine basic "freedoms of the air". Only the first 5 have been officially recognized as such by international treaty. These freedoms or "rights" are only valid when the States involved sign the appropriate bi-lateral or multilateral agreements.

The Nine Freedoms:	**The right or privilege in respect of scheduled international air services……..,**	**Example**
First Freedom	granted by one State to another State or States to fly across its territory without landing	Toronto – Mexico City by a Canadian company, overflying the USA
Second Freedom	granted by one State to another State or States to land in its territory for non-traffic purposes	Toronto – Mexico City by a Canadian company, stopping for fuel in the USA
Third Freedom	granted by one State to another State or States to put down, in the territory of the first State, traffic coming from the home State of the carrier	Toronto - Chicago by a Canadian company
Fourth Freedom	granted by one State to another State or States to take on, in the territory of the first State, traffic destined for the home State of the carrier	Toronto - Chicago by a US company
Fifth Freedom	granted by one State to another State or States to put down and to take on, in the territory of the first State, traffic coming from or destined to a third State	Doha - Bangkok - Kuala Lumpur by a Qatari company
ICAO characterizes all "freedoms" beyond the Fifth as "so-called" because only the first five "freedoms" have been officially recognized as such by international treaty.		
	The right or privilege in respect of scheduled international air services,	
Sixth Freedom	of transporting, via the home State of the carrier, traffic moving between two other States (also known as a Sixth Freedom Right). The so-called Sixth Freedom of the Air, unlike the first five freedoms, is not incorporated as such into any widely recognized air service agreements such as the "Five Freedoms Agreement"	Dubai - Cairo - Paris by an Egyptian company
Seventh Freedom	granted by one State to another State, of transporting traffic between the territory of the granting State and any	Kuala Lumpur - Jakarta by an Italian company

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	third State with no requirement to include on such operation any point in the territory of the recipient State, i.e the service need not connect to or be an extension of any service to/from the home State of the carrier.	
Eighth Freedom	of transporting **cabotage** traffic between two points in the territory of the granting State on a service which originates or terminates in the home country of the foreign carrier or (in connection with the so-called Seventh Freedom of the Air) outside the territory of the granting State (also known as an Eighth Freedom Right or "consecutive **cabotage**").	Chicago - New York City - Toronto by a Canadian company
Ninth Freedom	of transporting **cabotage** traffic of the granting State on a service performed entirely within the territory of the granting State (also known as a Ninth Freedom Right or "stand alone" **cabotage**).	Beijing - Shanghai, by an Italian company

Cabotage is the transport of goods or passengers between two places in the same country by a transport operator from another country. It originally applied to shipping along coastal routes, port to port, but now applies to aviation, railways, and road transport as well.

Cabotage rights are the right of a company from one country to trade in another country. In aviation, it is the right to operate within the domestic borders of another country. Most countries do not permit aviation cabotage, and there are strict sanctions against it, for reasons of economic protectionism, national security, or public safety. One notable exception is the European Union, whose Member States all grant cabotage rights to each other.

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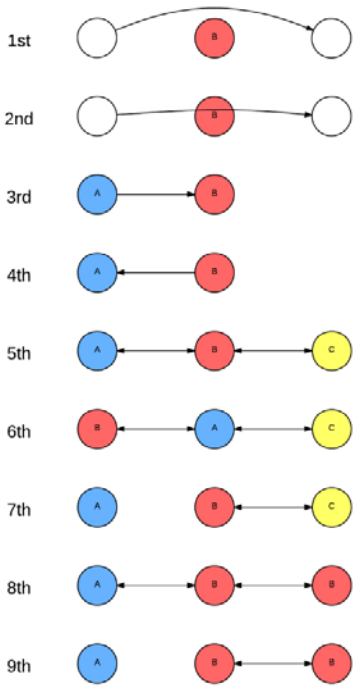

Freedoms of the Air Illustrated

Airplanes and Air Rights

Unlimited air rights existed when people began owning real estate. It was not something that anyone really concerned themselves with before the 20th century. The first legal limits placed on air rights came about because of the airplane. Eventually, owners only had rights to airspace that they could reasonably use. It would be impractical for the development of air travel for individual landowners to own all the air above them, because airplanes would be constantly trespassing.

Bilateral Agreements

A bilateral air transport agreement (also sometimes called a bilateral air service agreement or ATA or BASA) is an agreement which two nations sign to allow international commercial air transport services between their territories. Like the Freedoms of the Air, bilateral agreements are economic agreements and are not regulatory.

The bilateral system has its basis under the Chicago Convention (ICAO) and associated multilateral treaties. The Chicago Convention, which as we remember, was signed in December 1944 and has governed international air services since then. We previously read that the convention also has a range of Annexes covering issues such as aviation security, safety oversight, air worthiness, navigation, environmental protection and facilitation (expediting and departure at airports).

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The EU–US Open Skies Agreement

The EU–US Open Skies Agreement is an open skies air transport agreement between the European Union and the United States. The agreement allows any airline of the European Union and any airline of the United States to fly between any point in the European Union and any point in the United States. Airlines of the United States are also allowed to fly between points in the European Union. Airlines of the European Union are also allowed to fly between the United States and non-EU countries like Switzerland. The treaty disappointed European airlines as it was tilted in favor of United States airlines: while they are allowed to operate intra-EU flights, European airlines are not permitted to operate intra-US flights nor are they allowed to purchase a controlling stake in a US operator. The Agreement replaced and superseded previous open skies agreements between the US and individual European countries.

The initial agreement was signed in Washington, D.C., on April 30, 2007. The agreement became effective March 30, 2008. Phase two was signed in June 2010.

International Standards vs Regulations

Unlike Freedoms of the Air and bi-lateral economic agreements, civil aviation regulations have the force of law. Each State that has a civil aviation authority publishes an AIP, an Aeronautical Information Publication. The AIP, as defined by ICAO, is a publication containing aeronautical information essential to air navigation. It is designed to be a manual containing details of regulations, procedures and other information pertinent to operating aircraft within the particular country. The regulations in each State's AIP must follow the Standards in the ICAO Annexes unless the State has filed an exception (difference) that shows that at least an equivalent level of safety to the Standard.

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ICAO Standards and Recommended Practices (SARPS) are not regulatory but rather are used by States to develop and maintain their own civil aviation regulations. For instance, here in the U.S., 14 CFR Part 91.703 specifically requires that operations by U.S. registered aircraft over the high seas (including airline aircraft) must comply with ICAO Annex 2 as well as comply with the regulations of other countries within which they operate. If you, as a U.S. dispatcher operating under 14 CFR Part 121, operate a flight over the high-seas and do not comply with the SARPS in Annex 2, the FAA will not cite you and the pilot for an ICAO Annex 2 violation but rather for not operating in compliance with 14 CFR Part 91.703(A)(1).

Airlines...and dispatchers...are required to operate in compliance with the laws of every state into which or over which they operate. This means that a U.S. airline operating from JFK in New York to London Heathrow, overflying Canadian and Irish airspace must comply with U.S. aviation law, Canadian aviation law, ICAO Annex 2, Irish aviation law and U.K. aviation law. If one State's laws are more restrictive than the other, the more restrictive laws applies.

While we are talking about ICAO SARPS, we previously pointed out that Standards in the ICAO Annexes are always written in normal typeface. *Recommended Practices (RP) are always written in italic typeface. Recommended Practices* are sort of the ICAO equivalent of U.S. FAA Advisory Circulars (AC). They describe a means by which a Standard (or in the U.S., a regulation) can be met. Compliance with the *RP* or AC is not mandatory; that is, they are not necessarily the only means to comply with the Standard or regulation but the prudent dispatcher will try to comply with the *RP* or AC or be prepared to explain why you are doing it differently with at least an equivalent level of safety..

ARTICLE 83 *bis*

Let's talk briefly about aircraft registration and so-called "flags-of-convenience". For legal and economic reasons, operators may choose to register their aircraft in a foreign country. This is covered by the ICAO Convention in Article 83 *bis*.

ICAO Convention Article 83 *bis* allows the transfer of certain functions and duties from a State of registry of an aircraft to the State of the operator in case of lease, charter, or interchange. For example, this would allow an Embraer E-190 to be registered in Bermuda yet operated under lease by Air Moldova between Chisinau and Bucharest. Also, for many years, Western Airlines and then Delta Airlines operated, under a lease, a small fleet of B737-300 aircraft domestically in the U.S. that were owned by Guinness in Ireland and operated with Irish registration numbers.

(The reader can get extra points if you can tell the editor what "*bis*" means.)

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MH370 ATC Transcripts

We've recently learned that the search for the wreckage of MH370 have been suspended. In discussions with the IFALDA Board, Bernard Gonsalves, IFALDA-Director Global ATM has provided some background analysis as well as transcripts from the different ATSUs (air traffic service units).

First, here are the thoughts Bernard shared with us:

"Allow me to add the usual 2 cents from an ATM stand-point.

1. *While we do want to focus on the current Annex 6 requirements, we must not lose sight in the bigger scheme of ensuring safety of flight by means of 3 other Annexes of the Convention (emphasis mine)*
    a. *Annex 11- Provision of Air Traffic Control Services, Flight Information Services & Alerting Services*
    b. *Annex 12- Search & Rescue*
    c. *Annex 13- Aircraft Accident & Investigation*
2. *The role, functions and responsibilities of the Malaysian OCC, the availability of a 4-D Flight Tracking system supported by SATCOM and their performance thereof.*

As you are well aware, ICAO Annex provisions are transferred as required by each contracting State into their respective AIPs (and differences also filed as required). ATS, FIS & Alerting Services are then transcribed into ANS Procedural handbooks and supported by training, licensing & continual compliance processes. If you take a look at the attached transcripts from the Malaysian AIP and Procedural handbook, these just did not happen. I have summarized the outcomes from the role (or lack of) Annex 11 & 12 played by ACC, RCC & Management in the box titled "FACTS" in the document. There is a direct responsibility that can be attributed solely on the account of Annexes 11 & 12.

As for Annex 13, I doubt how honestly we can proceed to this stage where the current state of ATC, FIS & S&R combined took 4 hours and 11 minutes to accomplish what should have happened within a span of 30 minutes… but that's personal opinion.

Worse still is the abysmal role of the airline OCC. To support this notion, I have appended time transcripts highlighting in yellow the Operational Control function (or the lack of it)."

(The highlights in the transcripts are ours)

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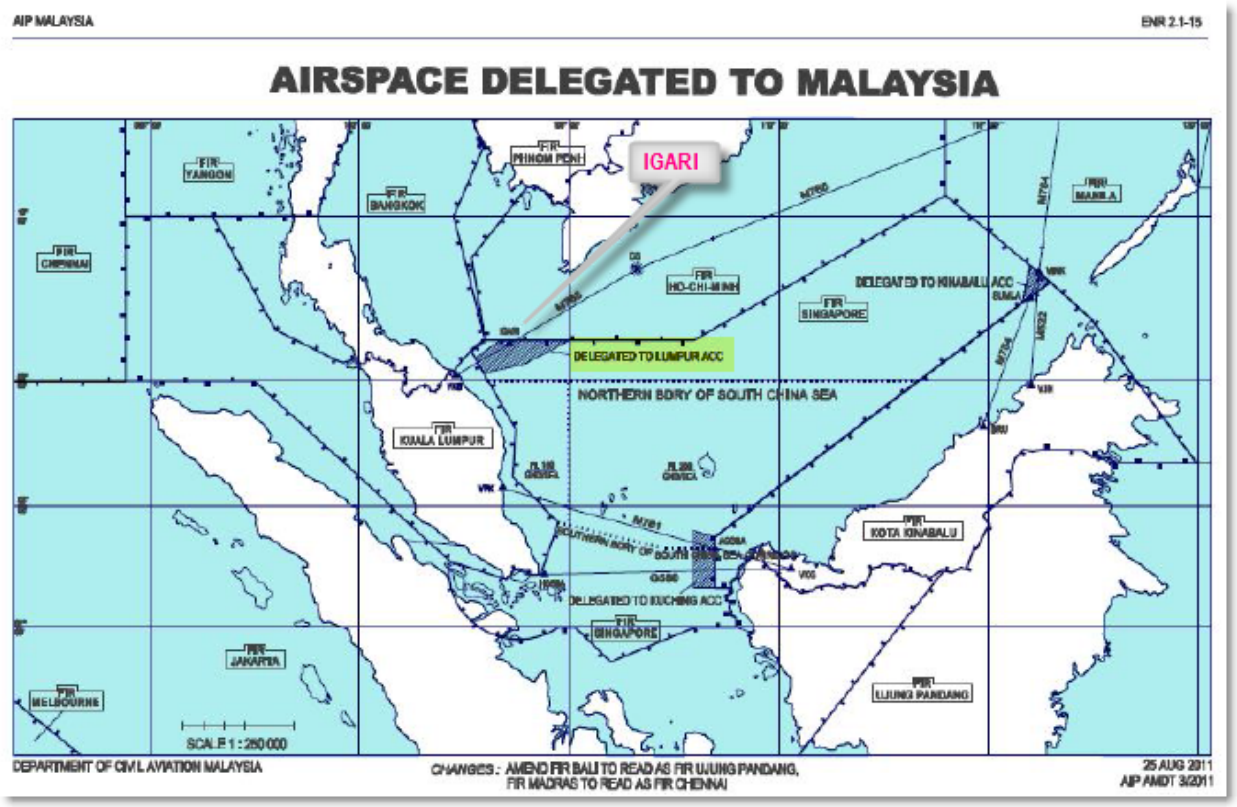
DELEGATED AIRSPACE The accident occurred in Singapore FIR where the airspace is either delegated or released to KL ATCC*). The portion of airspace delegated is RNAV route M765 between VENLI8 and IGARI9, and the portion released is ATS route R208 between IKUKO 10and IGARI. (*= *Kuala Lumpur*)



RESPONSIBILITY FOR FIS & ALERTING SERVICES

According to the Malaysian Aeronautical Information Publication (AIP) ENR 2.1-15 *Chart 1.18B*, ENR 3.1-10 and ENR 3.3-5. and Manual of Air Traffic Services [MATS] Vol. 2 page KL ATCC is responsible for the provision of Air Traffic Control Service, Flight Information Service and Alerting Service to all aircraft within Kuala Lumpur FIR and the "released airspace" on ATS route R208 and the "delegated airspace" on RNAV route M765 MATS part 9, page 9-6-5 para 6.7.2 states that "*if alerting service is required for an aircraft that is flight planned to operate through more than one FIR including the airspace delegated to the Kuala Lumpur and Kota Kinabalu ATSCs and, the position of the aircraft is in doubt, the responsibility for coordinating such service shall normally rest with the ATSC of the respective FIRs;*

a) Within which the aircraft was flying at the time of last radio contact;
b) That the aircraft was about to enter when last radio contact was established at or close to the boundary of the two FIRs;

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LETTERS OF AGREEMENT

Operational Letter of Agreement for the Provision of Search and Rescue Services between the Department of Civil Aviation Malaysia and the Department of Civil Aviation Singapore dated August 1984 page 6 para. 7.1 states that; *"In the event of an aircraft emergency occurring within the South China Sea Corridor (SCSC), the KL ATCC shall be responsible to take initial alerting action whilst the Singapore RCC shall be responsible for subsequent coordination of all SAR efforts. While the responsibility for the provision of SAR service within the SCSC rests with Singapore RCC, the Singapore RCC may as provided for in paragraph 3.2.2 delegate responsibility for the overall control of the SAR mission to Kuala Lumpur RCC or Kota Kinabalu RCC, whichever is deemed appropriate"*

a) Para. 3.2.2 on page 3 states that; "*When a transfer of responsibility for the overall SAR co-ordination is to take place, either from subsequent establishment of an aircraft's position or movement, or because an RCC other than the one initiating the action is more favourably placed to assume control of the mission by reason of better communication, proximity to the search area, more readily available facilities or any other reasons, the following procedures shall be adopted:-*

   i. *direct discussions, wherever possible, shall take place between the Search and Rescue Mission Co-ordinators (SMCs) concerned to determine the course of action.*
   ii. *if it is decided that a transfer of responsibility is appropriate for the whole mission or part thereof, full details of the SAR mission shall be exchanged,*
   iii. *the initiating RCC shall continue to retain responsibility until the accepting RCC formally assumes control for the mission."*

ACTION IN THE EVENT OF LOSS OF COMMUNICATION

The Operational Letter of Agreement between DCA Malaysia and Viet Nam Air Traffic Management stipulated that *"the accepting unit shall notify the transferring unit if two-way communication is not established within* ***five (5) minutes*** *of the estimated time over the TCP".*

OVERDUE ACTION

Manual of Air Traffic Services Part 9, Table 9-2.2 Overdue Action – Radio Equipped Aircraft **preliminary action** stipulates that "*when an aircraft fails to make a position report when it is expected, commence actions* ***not later than the ETA for the reporting point plus 3 minutes***"

and.

a) *The following actions shall be taken:*
i. request information from other ATS units and likely aerodromes,
ii. notify the RCC that the ***Uncertainty Phase****16 exists*
iii. ensure that RQS message is sent.

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FULL OVERDUE ACTION

***b) Full Overdue Action**: not later than 30 minutes after the declaration of the Uncertainty Phase:*

i. notify the RCC that the Alert Phase exists.
*ii. **notify the RCC that Distress Phase exists if**:*
*- **1 hour** has elapsed beyond the last ETA for the destination; or*
- the fuel is considered exhausted; or
- 1 hour has elapsed since the declaration of the Uncertainty Phase.

ALERT PHASE

MATS Part 9 para 6.2.4 stipulates that "*If controllers have reason to believe that an aircraft is lost, overdue or experiencing communication failure, they shall:*

a) inform appropriate radar units (civil and military) of the circumstances;
b) request the units to watch out for emergency SSR code display or the triangular radio failure pattern, and
c) notify these units when their services are no longer required."

DISTRESS PHASE (DETRESFA)

The Standard Operating Procedure for Search and Rescue for Kuala Lumpur Aeronautical Rescue Co-ordination Centre (ARCC); page 6 para 2.1 states that:

*2.1 **The Position of the Distress Aircraft Is Known:***
2.1.1 When the position of the distress aircraft is known, the responsibility for initiation of a SAR operation will be that of the RCC in whose area the aircraft or the craft is located.
2.1.2 When the RCC recognizes that the aircraft is continuing its flight or may leave the search and rescue region (SRR) for which it is responsible, it should;

- *Notify the RCCs associated with the planned or intended route of the aircraft and pass on all information.*
- *Continue coordination of the SAR operation until it has been notified by an adjacent ARCC that the aircraft has entered its Search and Rescue Region (SRR) and that it is assuming responsibility; and*
- *Remain ready to assist until informed that this is no longer required."* And page 8 para 2.2 states that;

2.2 The Position of the Distress Aircraft Not Known;
2.2.1 When the position of the aircraft in distress is in doubt, the ARCC shall;
Assume responsibility for the SAR operation; and consult adjacent RCCs along the route of the aircraft as to which centre will assume primary responsibility.
2.2.2 Notwithstanding any LOA, the RCC to assume responsibility should be the Centre responsible for the region;

- ***in which the aircraft was, according to its last reported position;***
- *to which the aircraft was proceeding if the last reported position was the boundary of two SRRs."*

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ATCO RESPONSIBILITIES

Para 3.3 on page 2/13 of the Supplementary Operational Instruction (SOI) 2/2014 issued on 1 March 2014, by the DCA ATM Sector on Search and Rescue for Air Traffic Control Centre/Aeronautical Rescue Coordination Centre/ Rescue Sub-Centre Requirement stipulates that *"…All initial action concerning aircraft overdue shall be under the responsibilities of the respective ATCO's handling the traffic, Upgrading of SAR phases may be made by the supervisors or ARCC/ARSC after activation."*

a) It is explicitly stated in para 4.1 of the Supplementary Operational Instruction (SOI) 2/2014 issued on 1 Mac 2014, by the DCA Air Traffic Management Sector on Search and Rescue for Air Traffic Control Centre/Aeronautical Rescue Coordination Centre/Rescue Sub-Centre Requirement that:

i. ***Duties of ATCO's***

- *Ensure overdue action followed according to procedures;*
- *Report overdue action to* DCA Managers/*Watch Supervisors*; and/or
- Report accident to DCA Managers/Watch Supervisors;

*ii****. Duties of Watch Supervisor ATCC (para 4.4)***

- *Ensure overdue action taken by ATC according to procedures;*
- Should SAR operation needed, direct the SAR trained officer to the ARCC, activate ARCC and ensure ATC operation undisrupted.

SEARCH & RESCUE PROCEDURES AND COORDINATION- RCC & SMC ROLES

The Kuala Lumpur Aeronautical Rescue Co-ordination Centre, Standard Operating Procedure for Search and Rescue, page 11, para 3.1 stipulated;

"The search and Rescue Mission Co-ordinator (SMC) is the officer assigned to co-ordinate response to an actual or apparent distress situation. In aeronautical search and rescue operations, the SMC is usually in the best position to assess the circumstances of a particular case, and to take whatever steps necessary to promote the safety of life an prevent further loss of property.

The SMC must use his/her best judgment in initiating and coordination operations to ensure use of the most suitable method of planning with least possible delay.

Initial Actions

On receipt of information regarding aircraft in difficulties normally form the Watch Supervisor in the ATCC, or from request of assistance from RSCs, MRCC (vessel or person – maritime distress) or from any adjacent RCCs and is aware that assistance is required the SMC shall act as follows;

- *Activate the SAR operation room;*
- *Appraise the situation;*
- *Continue to take the following actions if emergency situation involves civil aviation accident;*
- ***Declare the Distress phase** if not done yet by the duty Watch Supervisor;*

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- *Notify the SAR Chief and the SAR Co-ordinator (SC);*
- *Request Supervisor to recall SAR trained staff if deemed necessary;*
- *Initiate ARCC activation message;*
- *Assign specific position accordingly (SMC, ASMC… etc.)*
- *Initiate NOTAM actions.*
- *Initiate RQS request from AIS24 and weather report from Meteorological Office if not done yet by the Supervisor;*

Obtain information of aircraft position if necessary by;

- *Information contained in the flight plan or notification.*
- *Check all airports or possible alighting areas along the route of flight and within the possible flight range of the aircraft concerned.*
- *Notify other aircraft or agencies to attempt establishment of the aircraft's position, informing them of all known frequencies*
- *request for aircraft lookout made through the ATCC Watch Supervisor).*
- *Notify the Police, along the route of flight, and request them to verify alighting areas, or obtain information on the aircraft and its occupants,*
- *Request MRCC to alert the vessels in the area if the flight is over or near water,*
- *Ascertain the type of emergency equipment carried by the missing or distressed craft,*
- *When required, request Radar assistance for search from appropriate radar station or Radar Plot."*

FACTS

After four (4) hours and eleven (11) minutes had passed since the last contact with the aircraft, KL Aeronautical Rescue Coordination Centre (ARCC) was activated at time 2130:00 UTC [0530: MYT]. It took another **one (1) hour and two (2) minutes for the DETRESFA** message to be disseminated via the AFTN at 2232 UTC [0632 MYT].

ROLE OF OPERATIONS CONTROL

At **1739:03 UTC** [0139:03 MYT] Ho Chi Minh ATCC first enquired about MH370 and informed KL ATCC that verbal contact was not established with MH370 and the radar target was last seen at BITOD.

At 1741:22 UTC [0141:22 MYT]] Ho Chi Minh enquired information on MH370 and KL ATCC informed HCM ATCC that after waypoint IGARI, MH370 did not return to Lumpur Radar frequency.

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At 1741:23 UTC [0141:23 MYT] KL ATCC radar controller made a "blind transmission" to MH370.

At 1746:47 UTC [0146:47 MYT] HCM ATCC queried about MH370 again, stating that radar contact was established over IGARI but there was no verbal contact. HCM ATCC advised that the observed radar blip disappeared at waypoint BITOD. HCM ATCC stated that effort to establish communication by calling the MH370 many times for more than twenty (20) minutes.

At 1750:28 UTC [0150:28 MYT] KL ATCC queried HCM ATCC if any contact with MH370, HCM ATCC's reply was 'negative'.

At 1757:49 UTC [0157:49 MYT] HCM ATCC informed KL ATCC that there was officially no contact with MH370 until this time. Attempts on many frequencies and aircraft in the vicinity received no response from MH370.

At **1803:48 UTC** [0203:48 MYT] KL ATCC queried HCM ATCC on status MH370, HCM ATCC confirmed there was no radar contact at this time and no verbal communication was established. KL ATCC relayed the information received from Malaysia Airlines Operations that aircraft was in Cambodian airspace.

At 1807:47 UTC [0207:47 MYT] HCM ATCC queried for confirmation that MH370 was in Phnom Penh FIR as Phnom Penh did not have any information on MH370. KL ATCC indicated would check further with supervisor.

At 1812:15 UTC [0212:15 MYT] KL ATCC informed HCM ATCC that there was no update on status of MH370.

At 1815 UTC [0215 MYT] (no voice recording) extracted from Watch Supervisor Log Book, KL ATCC Watch Supervisor queried Malaysia Airlines Operations who informed that MH370 was able to exchange signals with the Flight Explorer.
At 1818:50 UTC [0218:50 MYT] KL ATCC queried if flight planned routing of MH370 was supposed to enter Cambodian airspace. HCM ATCC confirmed that planned route was only through Vietnamese airspace. HCM ATCC had checked and Cambodian advised that it had no information or contact with MH370. HCM ATCC confirmed earlier information that radar contact was lost after BITOD and radio contact was never established. KL ATCC queried if HCM ATCC was taking Radio Failure action but the query didn't seem to be understood by the personnel. HCM ATCC suggested KL ATCC to call Malaysia Airlines Operations and was advised that it had already been done.

At **1833:59 UTC** [0233:59 MYT] KL ATCC Radar Controller enquired with Malaysia Airlines Operations Centre about communication status with MH370 but the personnel was unsure if the message went through successfully or not. Malaysia Airlines Operations Centre informed that aircraft still sending the movement message indicating somewhere in Vietnam and giving the last position as coordinate N14.90000 E109 15500 at time 1833 UTC [0233 MYT].

At 1834:56 UTC [0234:56 MYT] HCM ATCC queried about status of MH370 and was informed that the Watch Supervisor was talking to the Company at this time.

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At 1837:34 UTC [0237:34 MYT] KL ATCC informed HCM ATCC MH370 still flying, aircraft kept sending position report to the airline and relayed to HCM ATCC the latitude and longitude as advised by Malaysian Airlines Operations.

At 1853:48 UTC [0253:48 MYT] MH386 which was from KLIA to Shanghai and within HCM FIR was requested by HCM ATCC to try to establish contact with MH370 on Lumpur Radar radio frequency. KL ATCC then requested MH 386 to try on emergency frequencies as well.

At **1930 UTC** [03:30 MYT] (no voice recording) (extract from Watch Supervisor's Log Book) MAS Operations Centre informed KL ATCC that the flight tracker information was based on flight projection and not reliable for aircraft positioning.

At 1930:03 UTC [0330:03 MYT] KL ATCC queried if HCM ATCC had checked with next FIR Hainan.

At 1948:52 UTC [0348:52 MYT] KL ATCC queried whether HCM ATCC had checked with the Sanya FIR, HCM ATCC informed KL ATCC no response until now.

At 1956:13 UTC [0356:13 MYT] KL ATCC queried Malaysia Airlines Operations for any latest information or contact with MH370.

At 2025:22 UTC [0425:22 MYT] HCM ATCC Supervisor queried KL ATCC on last position that MH370 was in contact with ATC.

At 2118:32 UTC [0518:32 MYT] HCM ATCC queried for information on MH370, KL ATCC queried if any information had been received from Hong Kong or Beijing

At 2109:13 UTC [0509:13 MYT] Singapore on behalf of Hong Kong enquired for information on MH370.

At 2120:16 UTC [0520:16 MYT] [name redacted] requested for information on MH370. He opined that based on known information, "**MH370 never left Malaysian airspace**"

At 2130:00 UTC [0530:00 MYT] The Watch Supervisor activated the Kuala Lumpur Aeronautical Rescue Coordination Centre (ARCC).

At 2141:20 UTC [0541:20 MYT] HCM ATCC queried for any updates.

At 2214:13 UTC [0614:13 MYT] KL ATCC queried HCM ATCC if SAR was activated.

At 2232:00 UTC [0632:00 MYT] KL ARCC issued a DETRESFA message

……..

(end of transcript)

FDW Editor's Note: Some operators use COTS (commercial off the shelf) flight tracking systems as a tool to exercise operational control. Among these flight tracking COTS are "Flight Aware", "Flight Explorer"…there are actually dozens of these systems around the world. They are generally quite good for maintaining situational awareness. That said, as dispatchers, we must understand the capabilities and the limitations of these systems,

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particularly if they are used for aeronautical decision-making…that is, exercising operational control.

In general, methods used for the exercise of operational control are listed in OpSpecs A008 and subject to approval by the State CAA. They must meet a certain standard. In the FDW Editor's view, we should be asking ourselves the same questions that a State regulator would ask the operator regarding the use of COTS flight tracking systems.

- What is their data source?
- Are positions displayed along with a time stamp?
- Are aircraft positions based on radar fixes?
- In Class II navigation airspace are positions displayed based on position reports from the aircraft or are they positions derived from projected times over fixes extrapolated from the filed ATC flight plan?
- If other information such as radar or satellite weather graphics are overlaid on the display:
    - are they near-real-time…how do you know?
    - are they forecast projections?
    - is there a time stamp?
        - There is generally a considerable latency between when aircraft positions are updated by the system every few minutes while the weather overlays may not be updated for an hour or more. You could be cautioning your flight about severe weather ahead according to the flight tracking display when, in fact, the flight passed that area 30 minutes earlier.

In summary, while COTS flight tracking display systems are useful in maintaining situational awareness, caution and prudence must be used when depending on them for operational control decision-making. When comparing displayed weather and aircraft position, make sure you also compare time-stamps. Make sure you know what you are looking at!

IFALDA Officer Elections

In accordance with our C&BL, officer elections are held every year. Half the Board is elected every other year on a staggered basis for 2-year terms. Because of a significant amount of Board turnover this year, at the Winter Board meeting the Board decided, pending the approval of the membership at the AGM, to put 4 officer positions up for election.

The following positions are up for election at the AGM:
President (currently Ken Kronborg) (special election 1 year term)
Vice President East (currently Jan Hohne…not seeking reelection)
Vice President Administration (currently Karl Fridriksson)
VP West if the current VP west is elected President

Additional nominations should be sent to Karl at: kfridriksson@ifalda.org, with a copy to IFALDA President Ken Kronborg at kkronborg@ifalda.org. Please be sure that:
First, you are a member-in-good-standing to be eligible to nominate someone;
Second, that the person you are nominating is also a member-in-good-standing to be eligible to run for the office;
Third, the person you nominate is willing and able to run for and hold the office if elected.

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Serving as Board Member

Something to think about regarding serving IFALDA as a Board member…whether as a Senior Officer or as a Director. This means a commitment of your time. Senior Officers (the President and the 4 VPs) are expected to be well-rounded on all matters of the flight dispatch profession and to stay up to date on IFALDA activities. Directors focus on specific functions and are expected to be subject matter experts (SMEs) on their specialty. Senior Board members are voting members; Directors are not voting members. Senior Board members are elected by the Membership; Directors are appointed by the Board subject to approval by the Membership.

While most of the Board's work involves electronic collaboration via email, DropBox or other "soft" communication, from time to time travel is required which must be budgeted and approved by the Board. In general Senior Board member's travel expenses (accommodations and per diem) are automatically covered. Directors and working group members expenses are only covered by specific approval of the Board, depending on the project and available funding. Generally, air travel expenses are not covered and the individual is expected to either use jump-seat privileges or if the airline allows it, pass privileges. Exceptions can be made by the Board based on individual need and available resources…depending on how critical the person's presence is to the project.

It is healthy for IFALDA to have a certain amount of regular turnover in Board members. We must maintain a mixture of experience as well as fresh ideas from new Board members. Many Directors are former Senior Board members who have stepped aside yet wish to continue to offer the Board their experience and knowledge in specific areas.

AGM May 2017

The International Airline Flight Dispatchers' Conference (IFALDA's 56th Annual General Meeting) will be held at the Hotel Presidente in Buenos Aires, Argentina May 9th - 12th, 2017 concurrently with EUFALDA's Annual General Meeting and APADA's Annual General Meeting. (Airport code EZE) Details are on the websites of the three organizations:
APADA http://apada.org.ar/
EUFALDA http://eufalda.org/
IFALDA http://www.ifalda.org/
Hotel Presidente Buenos Aires www.hotelpresidente.com.ar
Note- reservations for the AGM should be made directly with the hotel at the address above by following the directions and using the special hotel reservation form on the IFALDA home page in order to get the conference rate:
(amounts in U.S. $)
Single Room: $68/night incl. Breakfast
Double Room: $80/night incl. Breakfast
Suite: $115/night incl. Breakfast
Rates do not include taxes (VAT 21%)

IFALDA Membership (repeat from last Edition)

It is that time of year again! IFALDA membership runs from January 1 through December 31 each year. Your 2017 membership dues (U.S. $15/per person) are again payable. Because of fiscal year issues with our member associations we generally allow associations

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some flexibility; our bylaws allow an open dues-paying period for associations between January 1 and the AGM.

That said, we are an all-volunteer organization and our ability to function depends solely upon dues collected from the membership. We do accept some sponsorship from organizations, generally in connection with our AGM, but sponsor donations are normally used to offset some of the AGM expenses and are not adequate to support the day-to-day activities or IFALDA.

So, the sooner we can collect our annual dues, the better we are able to commit resources for the coming year to professional projects, many of which require considerable advance planning and funding allocation.

To those Friends of IFALDA copied in on our distribution of FDW, perhaps you may wish to consider joining or renewing your individual membership. We'd love to include your voice in professional and technical matters. Membership instructions including the use of PayPal to pay dues are prominently displayed on our homepage on the internet.

Winter Board Meeting

The IFALDA Winter Board meeting was held in Atlanta Saturday and Sunday January 21/22. We would particularly like to thank PAFCA-Delta for arranging a meeting room near Delta's OCC and providing lunch for the Board and meeting observers. Our colleagues at ADF also held their winter Board meeting in a nearby meeting room provided by Delta. IFALDA President Ken Kronborg and I were invited to sit in on part of the ADF meeting and we were privileged to be able to give ADF an update on IFALDA activities. We had an enjoyable social evening Saturday with our colleagues from ADF. It was great to see old friends again!

The minutes of the IFALDA winter Board meeting are posted on the IFALDA website. www.ifalda.org

All current IFALDA members are always invited to attend any of our Board Meetings as observers. Our next Board meeting will be held in Buenos Aires Tuesday May 9 at 1200 noon at the same hotel as the AGM which begins the following day.

Back issues of Flight Dispatcher's World are available. If you would like to receive a copy, please advise me. They are also posted on the IFALDA home page.

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Fun Quiz:

Identify the dispatch office in the picture below. What do all 4 individuals in the center of the picture have in common? (Hint: your editor worked there for several years.) (Answers below)

Finally, some personal comments:

I have been in the aviation business, in one capacity or another for about 55 years. I was in military aviation for 4+ years, with Delta Air Lines for 37 years, with the FAA for 5+ years and have worked as a contractor and consultant for about 9 years. I have served IFALDA since 1987 including 4 consecutive terms as IFALDA President in the 1990s. I also served on the ADF Board when it was formed and I was present in Bülach, Switzerland when EUFALDA was formed.

I will turn 74 this year and it is time to "throttle back". I am pretty much worn out and would like to spend more time with my wife, our kids and our grandchildren while I still have my health.

I advised the senior members of the IFALDA Board last summer that I would like to retire from most IFALDA duties and responsibilities sometime between January 1 and the 2017 AGM. After discussing this with my wife, I have begun to turn over most of my duties to others and will finish by the AGM. I will continue my individual IFALDA membership as well as my ADF individual membership and will be available to the Board as a consultant or mentor to anyone following me that would benefit from my experience. With the approval of the Board I plan to continue my involvement with the NATII/2 working group until it is completed and the ICAO Circular covering Normal Flight Tracking is published. The work itself should be complete in another month or two.

I have thoroughly enjoyed my time with IFALDA and all of the hard working professional flight dispatchers and flight operations officers I have been privileged to work with over the years. The flight dispatch profession is highly respected and exacting and demands constant

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internal oversight and the highest level of professional standards. We add a critical level of air carrier safety in the public interest and add immense value to our companies and their stockholders.

I wish you all the best and intend to remain in touch.

As always, cheers!

Dave

Fun quiz answers:

1. *This was the dispatch office in the PACAF AMOCC (U.S. Air Force Pacific Air Force Air Mobility Operations Command Center) at Hickam Air Force Base in Hawaii. Our office dispatched all Air Force Tanker and Airlift Channel, SAM and DV missions in the Pacific AOR (area of responsibility). I was the PACAF AMOCC Director-Flight Programs.*
2. *The four folks in the center of the picture are all former airline employees. The three smiling faces in the foreground were dispatchers with local Hawaiian airlines; the man in the blue Air Force uniform shirt in the background is the Mission Manager, an Air Force LCol who was a furloughed U.S. airline pilot. Because the dispatchers are civilian contractors, under U.S. law (Title 10 USC) they cannot task Air Force crews to operate missions so they must pass their flight plans along to the Air Force Mission Manager who approves them and passes them along to the flight crews as mission orders.*

Dave Porter
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Director – Professional and Technical Standards
Director - Membership
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