# **MEMORANDUM OF COOPERATION**

Between

# THE AVIATION ACCIDENT AND INCIDENT INVESTIGATION BOARD (AAIIB)

and

THE JOINT RESCUE COORDINATION CENTRE

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#### 1. THE COOPERATING PARTIES ('Parties')

#### **Aviation Accident and Incident Investigation Board**

1.1. The Aviation Accident and Incident Investigation Board (AAIIB) was established on 1<sup>st</sup> October 2003, few months before the accession of the Republic of Cyprus to the European Union. The Commission, which is a permanent individual authority, was set up pursuant to Articles 214- 230 of the Civil Aviation Law of 2002-2012. It consists of two to four members operating as investigators and the chairman operating as the chief investigator of aviation accidents. It is assisted by staff, which is provided by the Minister as necessary.

For parliamentary control purposes, the Commission is under the general supervision of the Minister for Communications and Works, but neither asks nor takes general or special instructions by this Ministry or any other administrative authority.

- 1.2. The Commission's mission, in accordance with Article 214 of the Civil Aviation Law, is to investigate and prevent aviation accidents and incidents in accordance with the requirements of Annex 13 to the 1944 International Chicago Convention and of EU Regulation 996/2010, as well as to ensure timely availability of information relating to persons and dangerous goods on board an aircraft involved in an accident. The exclusive purpose of the investigation of aviation accidents and incidents is to prevent them and not to apportion blame or liability.
- 1.3. The AAIIB investigates accidents or serious incidents under its jurisdiction, in accordance with the provisions of Article 5(1) and (2) of Regulation (EU) 996/20-10, involving any type of aircraft, including, among others, aircrafts with a maximum take-off mass less than or equal to 2 250 kg, if this investigation is expected to result in lessons for the improvement of safety.
- **1.4.** The AAIIB may decide to investigate other incidents, apart from those mentioned in paragraph 1.3, involving other types of aircrafts as well, if it may be expected that the relevant investigation will result in findings concerning aviation security.
- 1.5. The Commission is administratively and operationally independent from the authorities responsible for certification or checking of aircraft airworthiness, issuance of other relevant certificates and granting of civil aviation authorisations, flight operations control and aircraft maintenance, air traffic control, airport operation and airport control. It is also independent from anybody or third party whose interests or mission could conflict with the Commission's competencies or affect its objectivity.

#### Joint Rescue Coordination Centre

- 1.6. In accordance with the Laws of 1994 and 2007 (Law 5(III)/1994 and Law 13(III)/2007) ('Law') on the International Convention on Maritime Search and Rescue of 1979 (Ratifications) and Matters Connected Therewith, concerning Search and Rescue within the jurisdiction of the Republic of Cyprus, the Minister for Communications and Works is nominated as the competent authority for implementation of the Convention's provisions.
- **1.7.** For the purposes of extensive coordination of the search and rescue operations, the Joint Rescue Coordination Centre ('JRCC') was established under Article 6(1) of the above Law.
- **1.8.** The mission of the JRCC is to organise the search and rescue system, to coordinate, control and direct search and rescue operations, in order to locate and rescue, in the least possible time, people whose lives are in danger as a result of aeronautical or maritime accidents within its area of responsibility, which is identical with the Nicosia FIR.

#### 2. GENERAL

This memorandum is drawn up in the framework of previous arrangements on the coordination of aviation accidents and serious incidents involved in the investigation process, in accordance with the requirement of Article 12(3) of Regulation (EU) 996/2010 and in particular between the Safety Investigation Authority - AAIIB and the JRCC, as the coordinating body of the SAR System of the Republic of Cyprus.

#### 3. PURPOSE

The purpose of this Memorandum of Cooperation is to establish procedures for the timely and prompt two-way notification of the Parties in case of a Distress Phase, relating to aviation accidents or serious incidents within the joint area of responsibility, to facilitate the appropriate preparation and timely arrival of the Investigation Board at the scene of the accident/ serious incident.

**3.1.** As part of this Memorandum of Cooperation, the desired protection of evidence, as far as possible, during the rescue operation and without impeding it, is also mentioned.

#### 4. DEFINITIONS

- **4.1. Safety Investigation**: a process conducted by a safety investigation authority for the purpose of accident and incident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of cause(s) and/or contributing factors and, when appropriate, the making of safety recommendations;
- 4.2. Aircraft: any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. For investigation purposes, fixed- wing aircraft, helicopters, gliders, motor gliders, ultra- lights, hang gliders, motor hang gliders, parachutes and balloons are also included.
- **4.3. Aircraft operation:** the flight in progress, as well as all the necessary actions executed before or after the commencement of the flight or after its completion, either on board or under the aircraft, which are directly related to the realisation of the flight.
- **4.4. Accident:** an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

a) a person is fatally or seriously injured as a result of:

- being in the aircraft, or

- having direct contact with any part of the aircraft,

including parts which have become detached from the aircraft, or

- direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

b) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or minor damage to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the radome); or

c) the aircraft goes missing or is completely inaccessible;

- **4.5. Serious incident:** an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down. A list of examples of serious incidents is set out in the Annex.
  - A near collision requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate;
  - a controlled flight collision course, where the collision is only marginally avoided;
  - aborted take-offs on a closed or engaged runway, on a taxiway, excluding authorised operations by helicopters, or from an unassigned runway;
  - landings or attempted landings on a closed or engaged runway, on a taxiway, excluding authorised operations by helicopters, or from an unassigned runway;
  - gross failure to achieve predicted performance during take-off or initial climb;
  - fire or smoke in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents;
  - events requiring the emergency use of oxygen by the flight crew;
  - aircraft structural failure or engine disintegration, including uncontained turbine engine failures, not classified as an accident;
  - multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft;
  - flight crew incapacitation in flight;
  - fuel quantity requiring the declaration of an emergency by the pilot;
  - runway incursions classified 'severity level A' according to the Manual on the Prevention of Runway Incursions (ICAO Doc 9870) which contains information on the severity classifications;
  - take-off or landing incidents; incidents such as undershooting, overrunning or running off the side of runways;
  - system failures, weather phenomena, operation outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft;
  - failure of more than one system in a redundancy system mandatory for flight guidance and navigation.

- **4.6.** Incident: an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of its operation.
- **4.7.** Research: an operation usually coordinated by the Rescue Centre with employment of all available personnel and means in order to locate persons in danger;
- **4.8.** Rescue: an operation for the purpose of recovery of persons in danger, provision of basic medical care or other needs and transfer to a place of safety.
- **4.9.** 'SAR Operation' refers to a specific mission based on an action plan adopted and coordinated by the JRCC.
- **4.10.** 'Operational control' refers to the authority transferred to a commander to operate the forces that have been made available to him in order to fulfil certain missions or assignments which are usually restricted in respect of time and place.
- **4.11.** Aviation emergency phases: A general term referring, depending on the situation, to Uncertainty Phase, Alert Phase or Distress Phase.
- 4.12. Uncertainty Phase (Uncertainty, UNCERFA): A state of uncertainty related to the safety of an aircraft or its passengers. Indicative circumstances (ANNEX 11, Chapter 5).When communication from an aircraft has not been received within 30 minutes after the time a communication should have been received or after the time an unsuccessful attempt to establish

communication with such aircraft was first made, whichever is earlier. When an aircraft fails to arrive within 30 minutes after the time of arrival estimated (estimated time of

arrival - ETA) by the pilot or by the air traffic control (ATC) services, whichever is later, unless there is no doubt about the safety of the aircraft or its passengers.

**4.13.** Alert Phase (Alert, ALERFA, possible reference as PAN-PAN): A state of grave uncertainty related to the safety of an aircraft or its passengers.

Following the Uncertainty Phase when subsequent attempts to establish communications with the aircraft, or inquiries to other relevant sources have failed to reveal any information about the aircraft.

After receiving information which indicates that the operating efficiency of the aircraft has been impaired but not to the extent that a forced landing is likely, unless there is reported evidence mitigating the feeling concerning the safety of the aircraft or its passengers.

When communication from an aircraft has not been received within 60 minutes after the time a communication should have been received or after the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is earlier.

When the aircraft has received landing clearance and did not land within 5 minutes after the estimated landing time, while there is breakdown of radio communication.

**4.14.** Distress Phase (Distress, DISTRESFA, possible reference as MAY-DAY): A state of reasonable certainty that the aircraft and its passengers are in imminent life-threatening risk and in need of immediate assistance.

Following the Alert Phase when further attempts to establish communications with the aircraft and more widespread inquiries are unsuccessful. When the fuel on board is considered to be exhausted or to be insufficient for the aircraft to land safely. When information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely. When information is received or it is reasonably certain that the aircraft is about to make a forced landing.

**4.15.** The terms used in this Memorandum of Cooperation and not explicitly interpreted herein, bear the meaning attributed to them by the 'NEARCHOS' National Search and Rescue Plan posted on the JRCC website (<u>www.mod.gov.cy/CJRCC.nsf</u>).

#### 5. RATIONALE

- **5.1.** The joint area of responsibility of both Parties is the Nicosia FIR. Within this area, the JRCC serves the purposes of search and rescue and the AAIIB investigates accidents and serious incidents.
- **5.2.** In the course of mobilising the competent agencies in case of any Emergency Phase, there is a great amount of transmitted information which involves a degree of uncertainty depending, mainly, on the extent of understanding of the facts based on testimonies by eyewitnesses and witnesses in general.
- 5.3. Determination of each Emergency Phase and the relevant notification of the JRCC are carried out by the Flight Control Centre services (ICAO Annex 11 paragraphs 5.1 and 5.2). However, in cases where the information does not originate from these services, the JRCC shall determine the Emergency Phase and activate the relevant procedures in accordance with the 'NEARCHOS' National Search and Rescue Plan and the guidelines of International Organisations (ICAO Annex 12, paragraph 5.1).
- 5.4. The JRCC, being the final recipient of information related to aircrafts in Emergency Phase, shall carry out, insofar as possible, through its specialised personnel and available equipment, an assessment, in order to form the most accurate image of each incident and prepare and plan the operation for the purpose of prompt and accurate mobilisation, direction and coordination of the search and rescue means, whenever necessary.
- 5.5. In case of Distress Phase, the JRCC shall carry out a series of actions, including mobilisation of means, location identification of the aircraft with the respective degree of uncertainty, mobilisation of relevant bodies that may assist in the operation, as well as notification of the services involved, one of them being the AAIIB, in accordance with:

The 'NEARCHOS' National Search and Rescue Plan and Annex 12 of the ICAO on Search and Rescue, paragraph 3.2.3.

- 5.6. Immediate and, as far as possible, accurate notification of the AAIIB on aviation accidents and serious incidents is of paramount importance, since proper investigation requires the timely arrival of investigators at the accident scene. Any delay may threaten to cause damage to or the disappearance of vital evidence due to the removal, transfer or improper management of wreckage, the effects of the weather, corrosion, disappearance of evidence on the soil, witnesses changing their minds following contact with each other.
- 5.7. Therefore, initial notification and ongoing communication between the AAIIB and the JRCC ensures a more thorough and accurate picture of the accident, so as to minimise the time required for response, appropriate preparation and activation of the Board and the investigation units. For this purpose, it is necessary to adopt the use of the standard AAIIB form of accident or incident report, attached as ANNEX 'A', which constitutes the basis of information collection and should be updated during the search and rescue operation.
- **5.8.** The notification procedure should be simple and effective, by using the most direct means of communication (telephone, fax, email). The AAIIB has been organised to receive notifications round the clock, so as to avoid delays affecting the timely commencement of the investigation, and contact details are set out in Attachment 2 of this memorandum.
- **5.9.** The notification should be in simple language and include all available information. Its release must not be delayed due to lack of complete information. If there are ommissions, this will be remedied retrospectively, when the relevant information is available.
- **5.10.** The notification procedure is completed upon termination of the search and rescue operation. If investigators do not arrive after the termination of the above operation, the AAIIB must be notified by using the On Scene Coordinator's contact details.
- 5.11. In general, pending the arrival of safety investigators, no person shall modify the state of the site of the accident, take any samples therefrom, undertake any movement of or sampling from the aircraft, its contents or its wreckage, move or remove it, except where such action may be required for safety reasons or to bring assistance to injured persons, or under the express permission of the authorities in control of the site and, when possible, in consultation with the safety investigation authority, in accordance with Article 13 of Regulation (EU) 996/2010 on preservation of evidence.
- **5.12.** Therefore, the work of the JRCC has priority during the rescue stage until the injured are rescued, while attention should be paid, as far as possible and without impeding its work, to the protection of this evidence, and any recordings or photographs must by brought to the investigators' attention.

#### 6. PROCEDURE

- 6.1. If a civil aircraft is declared to be in Distress Phase within Nicosia FIR, the JRCC shall notify the AAIIB through the Report Form set out in Annex 'A' and posted on the AAIIB website <a href="http://www.aaiib.gov.cy/mcw/dca/aaiib/aaiib.nsf/page30\_en/page30
- **6.2.** Provided that the incident falls under its jurisdiction or it decides to get involved, the AAIIB shall initiate the investigation procedures and preparation by notifying and setting up a communication line with the JRCC and determining, *inter alia* the person responsible for communication and receipt of information with the Centre.
- **6.3.** The JRCC shall provide the AAIIB with additional information and updated data in addition to what was initially available, to ensure they are complete, during the course of the search and rescue operation, especially concerning the scene of the accident and the current conditions (casualties, access, weather, fire, OSC, etc.)
- **6.4.** During the rescue operation, the JRCC shall make its best endeavours, without impeding its mission, to protect the evidence, including, as far as possible, recording and photographing parts of the aircraft, before their removal, for rescue purposes.
- **6.5.** Communication between the JRCC and the AAIIB is concluded upon completion of the rescue mission and the transfer of the last injured person at a place of safety.
- **6.6.** Any recorded or photographic material shall be provided by the JRCC to the AAIIB for assessment and investigation purposes.
- **6.7.** The evidence aircraft wreckage may be removed from the scene of the accident and transferred, for further investigation, to a secured space located next to Larnaca Airport, according to ANNEX 'D' and shall be made available by the JRCC for the purposes of the necessary investigation procedure carried out by the AAIIB.
- **6.8.** The exact determination of the actions and the cooperation framework between the two parties must be described in detail and as appropriate in the aviation accidents response plans issued by the JRCC.

#### 7. FINAL PROVISIONS

- **7.1.** Any amendments to this Memorandum of Cooperation shall be made upon written proposal by the bodies involved and approval by the JRCC Commander and the Chairman of the AAIIB.
- **7.2.** The Parties are encouraged to establish ongoing communication and cooperation, so as to improve this Memorandum and exchange views and proposals for strengthening the individual agreement within their common mission.
- **7.3.** This Memorandum of Cooperation shall enter into force upon its signing.
- 7.4. Annexes A, B and D constitute integral parts of this Memorandum.

JRCC COMMANDER

AAIIB CHAIRMAN

Captain (NAVY) Constantinos Fitiris

Captain Ioannis Loizou

Monday, 4 August 2014

# ANNEX 'A'



AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION BOARD OF CYPRUS

Report Form -	Accident Serious	Incident	
Owner, Operator	Pilot in Command	Instructor	

Tick as appropriate **v** 

# **REPORT FORM**

In order to assist the AAIIB further in the investigation of this occurrence, please complete this Report Form to the best of your ability providing details of the event. Please then sign it to confirm the accuracy of all details therein, and return the completed form within fourteen days to the Chief Inspector of Air Accidents at the address below.

If you have any difficulties in completing this Form or any other queries relating to the occurrence please contact the AAIIB (see contact details below).

Should additional information be required, an Inspector of Air Accidents will contact you in due course.

### It is recommended that you retain a copy of your completed form for your records

In Accordance with Annex 13 to the International Civil Aviation Organisation Convention, Regulation (EU) No 996/2010, and Cyprus Civil Aviation Law 2002-2012, the sole purpose of these investigations is to prevent aviation accidents and serious incidents occurring in the future.

It is not the purpose of these investigations to apportion blame or liability.

Signature: .....

Name: .....

Date: .....

**Reporting Officer** 

ΕΔΑΑΣ, Αχαιών 28, 1424 Λευκωσία, Τηλ:00357-22800208/209/210/211 Φαξ: 00357-22800212 Ηλεκτρ. Ταχυδρομείο: <u>aaiib@mcw.gov.cy</u> AAIIB, 28 Achaeon 1424 Nicosia, Tel: 00357-22800208/209/210/211 Fax: 00357-22800212 Email: <u>aaiib@mcw.gov.cy</u>

# Occurrence notification



# .W. Send to: Email: <u>aaiib@mcw.qov.cv</u>

# Fax: +357-22800212

a) for accidents the identifying abbreviation ACCID, for serious incidents INCID;	ACCID (Accident)	INCID (Serious Incident)		Incident (optional)	
			nciuerit)		
<ul> <li>b) manufacturer, model, nationality, flight number and registration marks, and serial number of the aircraft;</li> </ul>					
<ul> <li>c) name of owner, operator and hirer, if any, of the aircraft;</li> </ul>					
<ul> <li>d) name of the pilot-in-Command, name of co-pilot for Communications purpose and nationality of crew and passengers;</li> </ul>					
<ul> <li>e) date and time (local time or UTC) of the accident or serious incident;</li> </ul>	(dd/mm/yyyy - hh:mm) local date: local time:		(dd/mm/yyyy- hh:mm) UTC date: UTC time:		
<ul> <li>f) last point of departure and point of intended landing of the aircraft;</li> </ul>	Last point of departure: Point of intended landing:				
<ul> <li>g) position of the aircraft with reference to some easily defined geographical point and latitude and longitude;</li> </ul>					
<ul> <li>h) number of crew and passengers; aboard, killed and seriously injured; others, killed and seriously injured;</li> </ul>	Persons On board Fatal Serious injury Minor	crew crew crew crew	pax pax Pax pax	others others others	
<ul> <li>i) description of the accident or serious incident and the extent of damage to the aircraft so far as is known;</li> </ul>					
<ul> <li>j) physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site;</li> </ul>					
<ul> <li>k) presence and description of dangerous goods on board the aircraft.</li> </ul>	□No □Y	es - If yes, l	JN#		
Operation Type (If information is available)	Commercial aviation □	Schedu	lled □	Passenger	
	General aviation □	Non-sC	heduled □	Cargo □	
Level of damage to aircraft (If information is available)	Destroyed		S	Substantial	
	Minor 🗆 🗆		Ν	lone	
I) identification of the originating authority (Name - Address - Email - Phone)					

## ANNEX B:

# **CONTACT DETAILS**

## AAIIB

AVIATION ACCIDENT AND INCIDENT INVESTIGATION BOARD Ministry of Communications and Works 28, Achaeon 1424 Nicosia Tel. +357-22800208/209/210/211 Fax: +357-22800212 24 hours: +357 99633500

Email: aaiib@mcw.gov.cy

## JRCC

JOINT RESCUE COORDINATION CENTRE 50, Spirou Kiprianou Avenue 3, Irida St., 11<sup>th</sup> Floor, 6057 Larnaca Tel:+357-1441, +357-24643005 Fax: +357-24643254 **Email:** <u>ircc\_cyp@cytanet.com.cy</u>

# ANNEX 'C'

### **ABBREVIATIONS & LEGISLATION**

### **ABBREVIATIONS**

AAIIB	AVIATION ACCIDENT AND INCIDENT INVESTIGATION BOARD
AAIIB	AIRCRAFT ACCIDENT & INCIDENT INVESTIGATION BOARD
JRCC	JOINT RESCUE COORDINATION CENTRE
JRCC	JOINT RESCUE COORDINATION CENTRE
ICAO	INTERNATIONAL CIVIL AVIATION ORGANISATION
ICAO	INTERNATIONAL CIVIL AVIATION ORGANISATION
FIR	FLIGHT INFORMATION REGION

LEGISLATION

#### AAIIB

Civil Aviation Law 213.(I)/2002

Regulation (EU) No. 996/2010 of the European Parliament and of the Council of 20 October 2010.

ICAO ANNEX 13 'AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION'

JRCC

Laws of 1994 and 2007 (Law 5[III]/1994 and Law 13[III]/2007) ('Law') on the International Convention on Maritime Search and Rescue of 1979 (Ratifications) and Matters Connected Therewith.

Ratification Law 213 of 1988 on ICAO International Convention of 1944

ICAO ANNNEX 11 'AIR TRAFFIC SERVICES'

ICAO ANNEX 12 'SEARCH & RESCUE'

# FLOOR PLAN OF AVAILABLE SPACE



