Announcement of Department of Civil Aviation (ADCA)
for the Air Navigation by Aeroplane of AOC holders B.E. 2553

By virtue of Article 3 from 3.1 to 3.6 of the RCAB No. 86 for the Air Navigation of Aircraft Given on 30 December B.E. 2552, which specify the AOC holders shall conduct operations in accordance with the requirement prescribed by the DCA in the topics of the Safety Management System of AOC holders, Flight Operations and Flight Operations Approval, Instruments, Equipment and Flight documents, Flight crew member, Manual/Logs and Record, Cabin Crews, Security in aircraft and Aircraft maintenance. Therefor, the DCA has issued the Announcement for the Air Navigation by Aeroplane of AOC holders B.E. 2553 as follows:

Article 1. This Announcement shall be called “The Announcement of the DCA for the Air Navigation by Aeroplane of AOC holders B.E. 2553”.

Article 2. This Announcement shall come into force upon expiration of 90 days from the date of notification.

Chapter 1

The Safety Management of AOC holders

Article 3. AOC holders shall establish a Safety Management System acceptable to the DCA.

(1) A Safety Management System shall include the following objectives;

(a) Identifies safety hazards and assesses, control and mitigates risk;

(b) Ensure that remedial action necessary to maintain an acceptable level of safety implemented;

(c) Provide for continuous monitoring and regular assessment of the safety level achieved; and

(d) Aim to make continuous improvement to the overall level of safety.

(2) A Safety Management System shall clearly define lines of safety accountability throughout the organization, including a direct accountability for safety on the part of senior management.

(3) AOC holders of aeroplane of a maximum certificated take-off mass in excess of 27000 kg shall establish and maintain a flight data analysis programme as part of its safety management system.

(4) A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

(5) An operator shall establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

(6) The establishment of a Safety Management System shall be accomplish in accordance with the SMS Guidance Material Reference number DCA-SMS AC 120-92 and must include the following components.

(a) Safety Policy and Objective;

1. Management commitment and responsibility;
2. Safety accountabilities of managers;
3. Appointment of key safety personnel;
4. Emergency response planning;
5. Documentation and records.

(b) Safety Risk Management;

1. Hazard identification processes;
2. Risk assessment and mitigation processes.

(c) Safety Assurance;

1. Safety performance monitoring and measurement;
2. Management of change;
3. Continuous improvement and audit.

(d) Safety Promotion;

1. Training and education;
2. Safety communication.

Chapter 2
Flight Operations and Flight Operations Approval

Article 4. The operator shall operate in accordance with standards established for Flight Operations and Flight Operations Approval as follow:

(1) Operating Facilities

An operator shall ensure that a flight will not be commenced unless it has been ascertained that the ground and/or water facilities such as Communication equipment, Air navigation aids and Equipment available and directly required on such flight, for the safe operation of the aeroplane and the protection of the passengers flight. An operator shall ensure that any inadequacy of facilities observed in the course of operations is reported to the authority responsible for them, without undue delay. In order that the facilities notify in the Aeronautical Information Publication: AIP or Notice to Air Men, NOTAM shall be available for such operation, regardless of weather conditions.

(2) Air Operator Certificate

An operator shall not engage in commercial air transport operations unless in possession of a valid air operator certificate issued by the DCA. The air operator certificate shall authorize the operator to conduct commercial air transport operations in accordance with the operations specifications.

(3) Operations Manual

An operator shall provide, for the use and guidance of operations personnel concerned, an Operations Manual shall have details in accordance with the ADCA

on the Guidance for establishing the Operations Manual. The Operations Manual shall be approved and send to the DCA 1 ea. The Operations Manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up to date. All such amendments shall be approved by the DCA and shall be issued to all personnel that are required to use this manual.

(4) Operating instructions

(a) An operator shall ensure that all operations personnel are properly instructed in their particular duties and responsibilities and the relationship of such duties to the operation as a whole.

(b) An aeroplane shall not be taxied on the movement area of an aerodrome unless the person at the controls is fully competent to taxi the aeroplane, has been duly authorized by the operator or a designated agent, is qualified to use the radiotelephone; and has received instruction from a competent person in respect of aerodrome layout, routes, signs, marking, lights, ATC signals and instructions, phraseology and procedures, and is able to conform to the operational standards required for safe aeroplane movement at the aerodrome. The operator should issue operating instructions and provide information on aeroplane climb performance with all engines operating to enable the pilot-in-command to determine the climb gradient that can be achieved during the departure phase for the existing take-off conditions and intended take-off technique. This information should be included in the operations manual.

(5) In-flight simulation of emergency situations

An operator shall ensure that when passengers or cargo are being carried, no emergency or abnormal situations shall be simulated.

(6) Checklists

An operator shall provide the checklists which shall be used by flight crews prior to, during and after all phases of operations, and in emergency, to ensure compliance with the operating procedures contained in the aircraft operating manual and the aeroplane flight manual or other documents associated with the certificate of airworthiness and otherwise in the operations manual. The design and utilization of checklists shall observe Human Factors principles.

(7) Minimum flight altitudes

An operator shall be permitted to establish minimum flight altitudes for those routes flown for which minimum flight altitudes have been established by the DCA or the responsible State flown over, provided that they shall not be less than those established by that State. An operator shall specify the method by which it is intended to determine minimum flight altitudes for operations conducted over routes for which minimum flight altitudes have not been established by the DCA or the responsible State flown over, and shall include this method in the Operations Manual.

(8) Aerodrome operating minima

(a) The Operator shall establish aerodrome operating minima for each aerodrome to be used in operations, and the method of determination of such minima shall be approved by the DCA. Such minima shall not be lower than any that may be established for such aerodromes by the State of the Aerodrome, except when specifically approved by that State.

(b) The Operator shall establish the aerodrome operating minima which will apply to any particular operation, full account shall be taken of:

(b.1) the type, performance and handling characteristics of the aeroplane;

(b.2) the composition of the flight crew, their competence and experience;

(b.3) the dimensions and characteristics of the runways which may be selected for use;

(b.4) the adequacy and performance of the available visual and non-visual ground aids;

(b.5) the equipment available on the aeroplane for the purpose of navigation, acquisition of visual references and/or control of the flight path during the approach, landing and the missed approach;

(b.6) the obstacles in the approach and missed approach areas and the obstacle clearance altitude/height for the instrument approach procedures;

(b.7) the means used to determine and report meteorological conditions; and

(b.8) the obstacles in the climb-out areas and necessary clearance margins;

(c) Category II and Category III instrument approach operations shall not be authorized unless RVR information is provided.

(9) Threshold crossing height for precision approaches

An operator shall establish operational procedures designed to ensure that an aeroplane being used to conduct precision approach operations crosses the threshold by a safe margin, with the aeroplane in the landing configuration and attitude.

(10) Fuel records

An operator shall maintain fuel records for each flight. Fuel records shall be retained for a period of 3 months.

(11) Crew member

(a) An operator shall designate one pilot to act as PIC for each flight.

(b) An operator shall establish flight time, flight duty period, duty period and rest period limitations which enable to manage fatigue of flight crew members and cabin crew members. However, those rest scheme shall follow the ADCA for Determination of flight time and duty period limitation, and shall include in the Operations Manual,

(c) If an operator need compliance differ from the ADCA for Determination of flight time and duty period limitation. An operator shall establish the difference procedures which shall be approved by the DCA and within the acceptable level of safety.

(d) An operator shall maintain records for all its flight and cabin crew members of flight time, flight duty periods, duty periods, and rest periods for at least 15 months from the date operation.

(e) An operator shall maintain records of total cosmic radiation that affected to each flight crew and each cabin crew for 12 months continuously in all flight operated above 15000 m (49000 ft).

(12) Passenger

(a) An operator shall ensure that passengers are made familiar with the location and use of seat belts, emergency exits, life jackets (if installed), oxygen dispensing equipment (if installed), and other emergency equipment provided for individual use, including passenger emergency briefing cards.

(b) The operator shall inform the passengers of the location and general manner of use of the principal emergency equipment carried for collective use.

(c) In an emergency during flight, passengers shall be instructed in such emergency action as may be appropriate to the circumstances.

(d) The operator shall ensure that, during take-off and landing and whenever considered necessary by reason of turbulence or any emergency occurring during flight, all passengers on board an aeroplane shall be secured in their seats by means of the seat belts or harnesses provided.

(13) Flight preparation

(a) A flight shall not be commenced until flight preparation forms have been completed certifying that the PIC is satisfied that:

(a.1) the aeroplane is airworthy;

(a.2) the instruments and equipment prescribed in Chapter 3 of this Announcement are sufficient for the flight;

(a.3) a maintenance release as prescribed in Chapter 8 of this Announcement;

(a.4) the mass of the aeroplane and centre of gravity locations are such that the flight can be conducted safely, taking into account the flight conditions expected;

(a.5) any load carried is properly distributed and safely secured;

(a.6) a check has been completed indicating that the operating limitations of Chapter 2/1 of this Announcement can be complied with for the flight to be undertaken;

(a.7) the Standards of Article 4 (13) (c) relating to operational flight planning have been complied with.

(b) Record/Form keeping

An operator shall maintain Completed flight preparation forms for a period of 3 months.

(c) Operational flight planning

An operational flight plan shall be completed for every intended flight. The operational flight plan shall be approved and signed by the PIC and, where applicable, signed by the flight operations officer/flight dispatcher, and a copy shall be filed with the operator or a designated agent, or, if these procedures are not possible, it shall be left with the aerodrome authority or on record in a suitable place at the point of departure. The operations manual must describe the content and use of the operational flight plan.

(d) Meteorological conditions

(d.1) A flight to be conducted in accordance with the visual flight rules shall not be commenced unless current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions along the route or that part of the route to be flown under the visual flight rules will, at the appropriate time, be such as to enable compliance with these rules.

(d.2) A flight to be conducted in accordance with the instrument flight rules shall not be commenced unless the appropriate information which follow a rule specified in Article 4 (13) (e) are available:

(d.3) A flight to be operated in known or expected icing conditions shall not be commenced unless the aeroplane is certificated and equipped to cope with such conditions.

(d.4) A flight to be planned or expected to operate in suspected or known ground icing conditions shall not take off unless the aeroplane has been inspected for icing and, if necessary, has been given appropriate de-icing/anti-icing treatment. Accumulation of ice or other naturally occurring contaminants shall be removed so that the aeroplane is kept in an airworthy condition prior to take-off.

(e) Alternate aerodromes

(e.1) *Take-off alternate aerodrome*

(e.1.a) A take-off alternate aerodrome shall be selected and specified in the operational flight plan if either the meteorological conditions at the aerodrome of departure are below the operator's established aerodrome landing minima for that operation or if it would not be possible to return to the aerodrome of departure for other reasons.

(e.1.b) The take-off alternate aerodrome shall be located within the following flight time from the aerodrome of departure:

(e.1.b.1) for aeroplanes with 2 engines,

(e.1.b.1.1.1) one hour of flight time at a one-engine-inoperative cruising speed, determined from the aircraft operating manual, calculated in ISA and still-air conditions using the actual take-off mass; or

(e.1.b.1.1.2) two hour of flight time for aeroplanes engaged in ETOPS in accordance with MEL at a one-engine-inoperative cruising speed, determined from the aircraft operating manual, calculated in ISA and still-air conditions using the actual take-off mass. In this case, aeroplanes and flight crews shall be approved ETOPS Operation by the DCA.

(e.1.b.2) for aeroplanes with 3 or more engines, two hours of flight time at an all engines operating cruising speed, determined from the aircraft operating manual, calculated in ISA and still-air conditions using the actual take-off mass.

(e.1.c) For an aerodrome to be selected as a take-off alternate the available information shall indicate that, at the estimated time of use, the conditions will be at or above the operator's established aerodrome operating minima for that operation.

(e.2) *En-route alternate aerodromes*

En-route alternate aerodromes, required by Article 4 (17) for ETOPS by aeroplanes with 2 turbine engines, shall be selected and specified in the operational and ATS flight plans.

(e.3*) Destination alternate aerodromes*

(e.3.a) For a flight to be conducted in accordance with the instrument flight rules, at least one destination alternate aerodrome shall be selected and specified in the operational and ATS flight plans, unless:

(e.3.a.1) separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure

(e.3.a.2) the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning, to the destination aerodrome is such that, at the duration time not less than one hours before arrival the approach and landing may be made under visual meteorological conditions;

(e.3.b) Two destination alternate aerodromes shall be selected and specified in the operational and ATS flight plans when, for the destination aerodrome:

(e.3.b.1) meteorological conditions at the estimated time of use will be below the operator’s established aerodrome operating minima for that operation; or

(e.3.b.2) meteorological information is not available

(e.4) *Meteorological conditions for the destination alternate aerodromes*

A flight to be conducted in accordance with the instrument flight rules shall not take off from the departure aerodrome that require the destination alternate aerodromes unless the meteorological conditions of aerodrome, at that time is not

less than 1 hours, both before and after the estimated time of arrival will not be lower than the conditions specified in a table below:

Approach and Landing Provision	Ceiling	Visibility Conditions
Aerodromes supporting instrument approach and landing operations, but not supporting straight-in approach and landing operations to at least two runway ends.	Applicable aerodrome operating minima plus an increment of 120 m (400 ft).	Applicable aerodrome operating minima plus an increment of 1,500 m.
Aerodromes supporting a straight-in instrument approach and landing operations to different suitable runways.	Applicable aerodrome operating minima plus an increment of 60 m (200 ft).	Applicable aerodrome operating minima plus an increment of 800 m.

Approach and Landing Provision	Ceiling	Visibility Conditions
Aerodromes supporting a minimum of two instrument approach and landing operations to different suitable runways, at least one shall be CAT II and III.	Foe CAT II operations at least 90 m (300 ft). For CAT III operations at least 60 m (200 ft).	For CAT II operations, a prevailing visibility corresponding to at least an RVR of 1,200 m. For CAT III operations, a prevailing visibility corresponding to at least an RVR of 550m.

(e.5) *Procedures to select destination alternate aerodromes shall be:*

(e.5.a) Comply with the Article (4) (13) (e) (e.3) and Article (4) (13) (e) (e.4) or

(e.5.b) The selection of destination alternate aerodromes which differ from Article (4) (13) (e) (e.3) (e.3.a) shall be approved by the DCA.

(e.6) If an operator cannot creating the selection procedure for destination alternate aerodromes in accordance with Article (4) (13) (e) (e.3) and/or Article (4) (13) (e) (e.4). The approval of the different procedures by the DCA will be depending on the performance and risk assessment based on SMS program of an operator. However, its shall not be lower than the procedures in Article (4) (13) (e) (e.3) and/or Article (4) (13) (e) (e.4).

(f) Fuel requirements

(f.1) An operator shall establish Flight Planning and in-flight Re-Planning which approved by the DCA to ensure that an aeroplane shall carry a sufficient amount of usable fuel to complete the planned flight safely and to allow for deviations from the planned operation.

(f.2) The amount of usable fuel to be carried shall, as a minimum, be based on:

(f.2.a) the data provided by the aeroplane manufacturer and/or the current aeroplane-specific data derived from a fuel consumption monitoring system, and

(f.2.b) the operating conditions for the planned flight including:

(f.2.b.1) anticipated aeroplane mass;

(f.2.b.2) current meteorological reports and forecasts;

(f.2.b.3) air traffic services procedures, restrictions and anticipated delays;

(f.3) The pre-flight calculation of usable fuel required shall include:

(f.3.a) ***taxi fuel***, which shall be the amount of fuel expected to be consumed before take-off, taking into account local conditions at the departure aerodrome and auxiliary power unit (APU) fuel consumption;

(f.3.b) ***trip fuel***, which shall be the amount of fuel required to enable the aeroplane to fly from take-off, or the point of in-flight re-planning, until landing at the destination aerodrome taking into account the operating conditions of air traffic services environment, meteorological conditions and NOTAM.

(f.3.c) ***alternate fuel***, shall be:

(f.3.c.1) ***contingency fuel***, which shall be the amount of fuel required to compensate for unforeseen factors. It shall be

(f.3.c.1.1.1) the amount of fuel calculated using a data-driven method based on safety risk assessment that includes a fuel consumption monitoring programme or the advanced use of alternate aerodromes or

(f.3.c.1.1.2) five percent of the planned fuel for the trip.

(f.3.c.1.1.3) three percent of the planed fuel for the trip where a flight is operated with En-Route alternate aerodrome which shall be aerodromes is in a circle area that have the radius twenty percent of total trip. The center of a circle shall be located on the route at the distance from the destination aerodrome 25 percent of the trip in accordance with the flight planned or 20 percent of the flight planned trip plus 50 NM. The calculation of fuel shall calculate from the still air condition.

(f.3.c.1.1.4) The amount of contingency fuel in Article 4 (13) (f) (f.3.c) (f.3.c.1) (f.3.c.1.1.1) (f.3.c.1.1.2) or (f.3.c.1.1.3) is not lower than the amount of fuel for holding speed at 1,500 ft above the destination aerodrome for 5 minutes at standard conditions.

(f.3.c.2) ***destination alternate fuel***, which shall be:

(f.3.c.2.2.1) where a destination alternate aerodrome is required, the amount of fuel required to enable the aeroplane to perform a missed approach from the destination aerodrome to the destination alternate aerodrome including conduct the

approach and landing at the destination alternate aerodrome under the expected operation;

(f.3.c.2.2.2) where two destination alternate aerodromes are required, the amount of fuel, required to enable the aeroplane to proceed to the destination alternate aerodrome which requires the greater amount of alternate fuel; or

(f.3.c.2.2.3) where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the aeroplane to fly for 15 minutes at 1 500 ft above destination aerodrome elevation in standard conditions; and

(f.3.c.3) ***final reserve fuel***, which shall be the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required for a reciprocating engine aeroplane, the amount of fuel required to fly for 45 minutes, under ISA, or for a turbine-engined aeroplane, the amount of fuel required to fly for 30 minutes at holding speed at 1500 f above aerodrome elevation in standard conditions;

(f.3.d) ***additional fuel***, which shall be the supplementary amount of fuel required if the minimum fuel calculated in accordance with Article 4 (13) (f) (f.3) (f.3.c.1) ***contingency fuel*** and Article 4 (13) (f) (f.3) (f.3.c.2) ***destination alternate fuel*** is not sufficient to;

(f.3.d.1) allow the aeroplane to descend as necessary and proceed to an alternate aerodrome in the event of engine failure or loss of pressurization, whichever requires the greater amount of fuel based on the assumption that such a failure occurs at the most critical point along the route fly for 15 minutes at holding speed at 1500 ft above aerodrome elevation in standard conditions; and make an approach and landing;

(f.3.d.2) the critical fuel scenario as established by the DCA.

(f.3.e) ***discretionary fuel***, which shall be the extra amount of fuel to be carried at the discretion of the pilot-in-command.

(g) In-flight fuel management

(g.1) An operator shall establish policies and procedures, approved by the DCA, to ensure that in-flight fuel checks and fuel management are performed.

(g.2) The PIC shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.

(g.3) The PIC shall declare a situation of fuel emergency by broadcasting “PAN PAN”, when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

(h) Refuelling with passengers on board

(h.1) An aeroplane shall not be refuelled when passengers are embarking, on board or disembarking unless it is properly attended by qualified personnel ready to initiate and direct an evacuation of the aeroplane by the most practical and expeditious means available.

(h.2) When refuelling with passengers embarking, on board or disembarking, two-way communication shall be maintained by the aeroplane’s inter- communication system or other suitable means between the ground crew supervising the refuelling and the qualified personnel on board the aeroplane.

(i) Oxygen supply

(i.1) A flight to be operated at flight altitudes at which the atmospheric pressure in personnel compartments will be less than 700 hPa at altitude 10,000 ft shall not be commenced unless sufficient stored breathing oxygen is carried to supply:

(i.1.a) all crew members and 10 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa or at altitude between 10,000-13000 ft ; and

(i.1.b) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be less than 620 hPa or at altitude above 13000 ft.

(i.2) A flight to be operated with a pressurized aeroplane shall not be commenced unless a sufficient quantity of stored breathing oxygen is carried to supply all the crew members and passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurization, for any period that the atmospheric pressure in any compartment occupied by them would be less than 700 hPa. In addition, when an aeroplane is operated at flight altitudes at which the atmospheric pressure is less than 376 hPa or at altitude or which, if operated at flight altitudes at which the atmospheric pressure is more than 376 hPa and cannot descend safely within four minutes to a flight altitude at which the atmospheric pressure is equal to 620 hPa, there shall be no less than a 10-minute supply for the occupants of the passenger compartment.

(14) In-flight procedures

(a) Aerodrome operating minima

(a.1) A flight shall not be continued towards the aerodrome of intended landing, unless the latest available information indicates that at the expected time

of arrival, a landing can be effected at that aerodrome or at least one destination alternate aerodrome, in compliance with the operating minima established in accordance with Article 4 (8) (a).

(a.2) An instrument approach shall not be continued below 300 m (1 000 ft) above the aerodrome elevation or into the final approach segment unless the reported visibility or controlling RVR is at or above the aerodrome operating minima.

(a.3) If, after entering the final approach segment or after descending below 300 m (1 000 ft) above the aerodrome elevation, the reported visibility or controlling RVR falls below the specified minimum, the approach may be continued to DA/H or MDA/H. In any case, an aeroplane shall not continue its approach-to-land at any aerodrome beyond a point at which the limits of the operating minima specified for that aerodrome would be infringed.

(b) Meteorological observations

The operator shall establish the procedures for making meteorological observations on board aircraft in flight and for recording and reporting them to the relevant authority and in case hazardous flight conditions encountered, other than those associated with meteorological conditions, shall be reported to the appropriate aeronautical station as soon as possible. The reports so rendered shall give such details as may be pertinent to the safety of other aircraft.

(c) Flight crew members at duty stations

(c.1) All flight crew members shall be at their stations during take-off and landing.

(c.2). All flight crew members shall remain at their stations during en route except when their absence is necessary for the performance of duties in connection with the operation of the aeroplane or for physiological needs.

(c.3) Any flight crew member occupying a pilot's seat shall keep the safety harness fastened during the take-off and landing phases, all other flight crew members shall keep their safety harnesses fastened during the take-off and landing phases unless the shoulder straps interfere with the performance of their duties, in which case the shoulder straps may be unfastened but the seat belt must remain fastened.

(d) 5 Use of oxygen

(d.1) Whenever the circumstances prevail for which its supply has been required in Article 4 (13) (i) (i.1) or Article 4 (13) (i) (i.). All flight crew members shall use breathing oxygen continuously when engaged in performing duties essential to the safe operation of an aeroplane in flight.

(d.2) All flight crew members of pressurized aeroplanes operating above an altitude where the atmospheric pressure is less than 376 hPa (25000 ft) shall have available at the flight duty station a quick-donning type of oxygen mask which will readily supply oxygen upon demand.

(e) Safeguarding of cabin crew and passengers in pressurized aeroplanes in the event of loss of pressurization

Cabin crew should be safeguarded so as to ensure reasonable probability of their retaining consciousness during any emergency descent which may be necessary in the event of loss of pressurization and, in addition, they should have such means of protection as will enable them to administer first aid to passengers during stabilized flight following the emergency. Passengers should be

safeguarded by such devices or operational procedures as will ensure reasonable probability of their surviving the effects of hypoxia in the event of loss of pressurization.

(f) In-flight operational instructions

Operational instructions involving a change in the ATS flight plan shall, when practicable, be coordinated with the appropriate ATS unit before transmission to the aeroplane.

(g) Instrument flight procedures

All aeroplanes operated in accordance with instrument flight rules shall comply with the instrument flight procedures of the aerodrome specified in AIP which approved by the DCA.

(h) Aeroplane operating procedures for noise abatement

The operator shall operate in accordance with the aeroplane operating procedures for noise abatement specified by aerodromes.

(15) Duties of PIC

(a) The PIC be responsible for the safety of all crew members, passengers and cargo on board when the doors are closed. The PIC shall also be responsible for the operation and safety of the aeroplane from the moment the aeroplane is ready to move for the purpose of taking off until the moment it finally comes to rest at the end of the flight and the engine(s) used as primary propulsion units are shut down.

(b) The PIC shall ensure that the checklists specified in Article 4 (6) are complied with in detail.

(c) The PIC shall be responsible for notifying the nearest appropriate authority by the quickest available means of any accident involving the aeroplane, resulting in serious injury or death of any person or substantial damage to the aeroplane or property.

(d) The PIC shall be responsible for reporting all known or suspected defects in the aeroplane, to the operator, at the termination of the flight.

(e) The PIC shall be responsible for the journey log book or the general declaration containing the information listed in Chapter 5 Article (9) (4) (a)

(16) Duties of flight operations officer/flight dispatcher

(a) Flight operations officer/flight dispatcher in conjunction with a method of control and supervision of flight operations as follow:

(a.1) assist the PIC in flight preparation and provide the relevant information;

(a.2) assist the PIC in preparing the operational and ATS flight plans, sign when applicable and file the ATS flight plan with the appropriate ATS unit;

(a.3) furnish the PIC while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight.

(b) In the event of an emergency, a flight operations officer/flight dispatcher shall:

(b.1) initiate such procedures as outlined in the operations manual while avoiding taking any action that would conflict with ATC procedures;

(b.2) convey safety-related information to the pilot-in-command that may be necessary for the safe conduct of the flight, including information related to any amendments to the flight plan that become necessary in the course of the flight.

(17) Additional requirements for operations for Extended Range Operations by aeroplanes with Two Turbine Power Units (ETOPS)

(a) An aeroplane with two turbine engines shall not be operated on a route, calculated in ISA and still-air conditions at the one-engine-inoperative cruise speed, beyond 60 minutes from a point on a route to an en-route alternate aerodrome. Unless the ETOPS operation has been approved by the DCA in accordance with ADCA on ETOPS.

(b) When DCA approving ETOPS, the following particulars are taken into account:

(b.1) airworthiness of the aeroplane type

(b.2) reliability of the propulsion system

(b.3) maintenance operations, flight dispatch procedures and training program in providing the overall level of safety. Also, the identified en-route, the estimated operations, and the location of en-route alternate aerodromes shall be evaluated.

(c) A flight shall not proceed in accordance with (17) (a) unless during the estimated time of use, the appropriate en-route alternate aerodrome is available and the most up-to-date information indicates that the conditions at those aerodromes will be at or above the operator’s established aerodrome operating minima for the operation.

(18) Carry-on baggage

The operator shall ensure that all baggage carried onto an aeroplane and taken into the passenger cabin is adequately and securely stowed.

(19) Additional requirements for single pilot operations under the instrument flight rules (IFR) or at night

(a) An aeroplane shall not be operated under the IFR or at night by a single pilot unless approved by the DCA.

(b) An aeroplane shall not be operated under the IFR or at night by a single pilot unless:

(b.1) the flight manual does not require a flight crew of more than one;

(b.2) the aeroplane is propeller-driven;

(b.3) the maximum approved passenger seating configuration is not more than nine;

(b.4) the maximum certificated take-off mass does not exceed 5 700 kg

(b.5) the aeroplane is equipped as described in Chapter 3 Article 6 (22);

(b.6) the PIC has satisfied requirements of experience, training, checking and recency described in Chapter 4 Article 7 (4) (e).

(20) The DCA shall approve the special operations as follow:

(a) Reduced Vertical Separation Minimum (RVSM);

(b) Required Navigation Performance (RNP);

(c) Minimum Navigation Performance Specification (MNPS);

(d) Extended Range Two-Engine Aircraft Operation (ETOPS);

(e) All Weather Operations (AWO);

(f) Other special operations prescribed by the DCA.

The approval of specials operations in Article 4 (20) shall be in accordance with the rules and procedures prescribed by the DCA.

Chapter 2/1
Aeroplane Performance Operating Limitations

Article 5. The operator shall operate in accordance with standards established for the Aeroplane Performance Operating Limitations as follow:

(1) General

(a) Aeroplanes shall be operated in accordance with a comprehensive and detailed code of performance established by the DCA of this chapter.

(b) Except as provided in Article 5 (4), single-engine aeroplanes shall only be operated in conditions of weather and light, and over such routes and diversions there from, that permit a safe forced landing to be executed in the event of engine failure

(2) Applicable to aeroplanes certificated in accordance with Parts IIIA and IIIB of Annex 8

(a) The Standards contained in Article 5 (2) (b) to Article 5 (2) (j) inclusive are applicable to the large aeroplanes (MTOM exceeding 5700 kg).

(b) The level of performance defined in Article 5 (2) (a) for the large aeroplanes (MTOM exceeding 5700 kg) shall be at least substantially equivalent to the overall level embodied in the Standards of this chapter.

(c) An aeroplane shall be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.

(d) A flight shall not be commenced unless the performance information provided in the flight manual, supplemented as necessary with other data acceptable to the DCA, indicates that the Standards of Article 5 (2) (f) to Article 5 (2) (j) can be complied with for the flight to be undertaken.

(e) In applying the Standards of this chapter, account shall be taken of all factors that significantly affect the performance of the aeroplane, including but not limited to: the mass of the aeroplane, the operating procedures, the pressure-altitude appropriate to the elevation of the aerodrome, the ambient temperature, the wind, the runway slope, and surface conditions of the runway i.e., presence of snow, slush, water, and/or ice for landplanes, water surface condition for seaplanes. Such factors shall be taken into account directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aeroplane is being operated.

(f) Mass limitations

(1) The mass of the aeroplane at the start of take-off shall not exceed the mass at which Article 5 (2) (g) is complied with, nor the mass at which Article 5 (2) (h), Article 5 (2) (i) and Article 5 (2) (j) are complied with, allowing for expected reductions in mass as the flight proceeds, and for such fuel jettisoning as is envisaged in applying Article 5(2) (h) and Article 5 (2) (i) and, in respect of alternate aerodromes, Article 5 (2) (f) (3) and Article 5 (2) (j).

(2) In no case shall the mass at the start of take-off exceed the maximum take-off mass specified in the flight manual for the pressure-altitude appropriate to the elevation of the aerodrome, and, if used as a parameter to determine the maximum take-off mass, any other local atmospheric condition.

(3) In no case shall the estimated mass for the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the maximum landing mass specified in the flight manual for the pressure-altitude appropriate to the elevation of those aerodromes, and if used as a parameter to determine the maximum landing mass, any other local atmospheric condition.

(4) In no case shall the mass at the start of take-off, or at the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the relevant maximum masses at which compliance has been demonstrated with the applicable noise certification Standards in Annex 16, Volume I, unless otherwise authorized in exceptional circumstances for a certain aerodrome or a runway where there is no noise disturbance problem, by the competent authority of the State in which the aerodrome is situated.

(g) 5.2.8 *Take-off.* The aeroplane shall be able, in the event of a critical engine failing, or for other reasons, at any point in the take-off:

(g.1) to discontinue the take-off and stop within the accelerate-stop distance available, or

(g.2) to continue the take-off and clear all obstacles along the flight path by an adequate vertical or horizontal distance until the aeroplane is in a position to comply with Article 5 (2) (h). When determining the resulting take-off obstacle accountability area, the operating conditions, such as the crosswind component and navigation accuracy, must be taken into account.

(g.3) In determining the length of the runway available, account shall be taken of the loss, if any, of runway length due to alignment of the aeroplane prior to take-off.

(h) *En route — one engine inoperative*. The aeroplane shall be able, in the event of the critical engine becoming inoperative at any point along the route or planned diversions therefrom, to continue the flight to an aerodrome at which the Standard of Article 5 (2) (j) can be met, without flying below the minimum flight altitude at any point.

(i) *En route — two engines inoperative.* In the case of aeroplanes having three or more engines, on any part of a route where the location of en-route alternate aerodromes and the total duration of the flight are such that the probability of a second engine becoming inoperative must be allowed for if the general level of safety implied by the Standards of this chapter is to be maintained, the aeroplane shall be able, in the event of any two engines becoming inoperative, to continue the flight to an en-route alternate aerodrome and land.

(j) *Landing.* The aeroplane shall, at the aerodrome of intended landing and at any alternate aerodrome, after clearing all obstacles in the approach path by a safe margin, be able to land, with assurance that it can come to a stop or, for a seaplane, to a satisfactorily low speed, within the landing distance available. Allowance shall be made for expected variations in the approach and landing techniques, if such allowance has not been made in the scheduling of performance data.

(3) Obstacle data

(a) Obstacle data shall be provided to enable the operator to develop procedures to comply with Article 5 (2) (g).

(b) The operator shall take account of charting accuracy when assessing compliance with Article 5 (2) (g).

(4) Additional requirements for operations of single-engine turbine-powered aeroplanes at night and/or in Instrument Meteorological Conditions (IMC)

(a) In approving operations by single-engine turbine-powered aeroplanes at night and/or in IMC, the Operator shall provide to have:

(a.1) the reliability of the turbine engine;

(a.2) the operator's maintenance procedures, operating practices, flight dispatch procedures and crew training programmes;

(a.3) equipment and other requirements provided in accordance with Appendix A of this Announcement.

(b) All single-engine turbine-powered aeroplanes operated at night and/or in IMC shall have an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2005 shall have an automatic trend monitoring system.

Chapter 3

Aeroplane Instruments, Equipment and Flight Documents

Cancelled by

ADCA

for the Air Navigation by Aeroplane of AOC holders B.E. 2557 (Issue 2)

Chapter 4
Aeroplane Flight Crew

Article 7. The operator shall operate in accordance with standards established for the Aeroplane Flight Crew as follow:

(1) Composition of the flight crew

The number and composition of the flight crew shall not be less than that specified in the operations manual. The flight crews shall include flight crew members in addition to the minimum numbers specified in the flight manual or other documents associated with the certificate of airworthiness, when necessitated by considerations related to the type of aeroplane used, the type of operation involved and the duration of flight between points where flight crews are changed.

(2) Flight crew member emergency duties

An operator shall, for each type of aeroplane, assign to all flight crew members the necessary functions they are to perform in an emergency or in a situation requiring emergency evacuation. Annual training in accomplishing these functions shall be contained in the operator’s training programme and shall include instruction in the use of all emergency and life-saving equipment required to be carried, and drills in the emergency evacuation of the aeroplane.

(3) Flight crew member training programmes

(a) Ground and Flight training

An operator shall establish and maintain a ground and flight training programme, approved by the DCA, which ensures that all flight crew members are adequately trained to perform their assigned duties. The training programme shall:

(a.1) include ground and flight training facilities and properly qualified instructors as determined by the DCA;

(a.2) consist of ground and flight training in the type(s) of aeroplane on which the flight crew member serves;

(a.3) include proper flight crew coordination and training in all types of emergency and abnormal situations or procedures caused by engine, airframe or systems malfunctions, fire or other abnormalities;

(a.4) include training in knowledge and skills related to visual and instrument flight procedures for the intended area of operation, charting, human performance including threat and error management and in the transport of dangerous goods;

(a.5) ensure that all flight crew members know the functions for which they are responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures;

(a.6) be given on a recurrent basis, as determined by the DCA and shall include an assessment of competence.

(b) The requirement for recurrent flight training in a particular type of aeroplane shall be considered fulfilled by:

(b.1) the use of flight simulation training devices approved by the DCA for that purpose; or

(b.2) the completion within the appropriate period of the proficiency check required by Article 7 (4) (d) in that type of aeroplane.

(4) Flight Crew Qualifications

(a) Recent experience of PIC and co-pilot

(a.1) An operator shall not assign a PIC or a co-pilot to operate at the flight controls of a type or variant of a type of aeroplane during take-off and landing unless that pilot has operated the flight controls during at least three take-offs and landings within the preceding 90 days on the same type of aeroplane or in a flight simulator approved by the DCA.

(a.2) When a PIC or a co-pilot is flying several variants of the same type of aeroplane or different types of aeroplanes with similar characteristics in terms of operating procedures, systems and handling, the requirements of Article 7 (4) (a) (a.1) for each variant or each type of aeroplane can be combined.

(a.3) When a PIC or a co-pilot is flying different types of aeroplanes, the requirements of Article 7 (4) (a) (a.1) cannot be combined.

(b) Recent experience — cruise relief pilot

(b.1) An operator shall not assign a pilot to act in the capacity of cruise relief pilot in a type or variant of a type of aeroplane unless, within the preceding 90 days that pilot has either:

(b.1.a) operated as a PIC, co-pilot or cruise relief pilot on the same type of aeroplane; or

(b.1.b) carried out flying skill refresher training including normal, abnormal and emergency procedures specific to cruise flight on the same type of aeroplane or in a flight simulator approved for the purpose, and has practised approach and landing procedures, where the approach and landing procedure practice may be performed as the pilot who is not flying the aeroplane.

(b.2) When a cruise relief pilot is flying several variants of the same type of aeroplane or different types of aeroplanes with similar characteristics in terms of operating procedures, systems and handling, the requirements of Article 7 (4) (b) (b.1) for each variant or each type of aeroplane can be combined.

(c) PIC area, route and aerodrome qualification

(c.1) An operator shall not utilize a pilot as PIC of an aeroplane on a route or route segment for which that pilot is not currently qualified until such pilot has complied with Article 7 (4) (c) (c.2) and Article 7 (4) (c) (c.3).

(c.2) Each such pilot shall demonstrate to the operator an adequate knowledge of:

(c.2.a) the route to be flown, and the aerodromes which are to be used. This shall include knowledge of:

(c.2.a.1) the terrain and minimum safe altitudes;

(c.2.a.2) the seasonal meteorological conditions;

(c.2.a.3) the meteorological, communication and air traffic facilities, services and procedures;

(c.2.a.4) the search and rescue procedures; and

(c.2.a.5) the navigational facilities and procedures, including any long-range navigation procedures, associated with the route along which the flight is to take place.

(c.2.b) procedures applicable to flight paths over heavily populated areas and areas of high air traffic density, obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures, and applicable operating minima.

(c.3) A PIC shall have made an actual approach into each aerodrome of landing on the route, accompanied by a pilot who is qualified for the aerodrome, as a member of the flight crew or as an observer on the flight deck, unless:

(c.3.a) the approach to the aerodrome is not over difficult terrain and the instrument approach procedures and aids available are similar to those with which the pilot is familiar, and a margin to be approved by the DCA is added to the normal operating minima, or there is reasonable certainty that approach and landing can be made in visual meteorological conditions; or

(c.3.b) the descent from the initial approach altitude can be made by day in visual meteorological conditions; or

(c.3.c) the operator qualifies the PIC to land at the aerodrome concerned by means of an adequate pictorial presentation; or

(c.3.d) the aerodrome concerned is adjacent to another aerodrome at which the PIC is currently qualified to land.

(c.4) The operator shall maintain a record, sufficient to satisfy the DCA of the qualification of the pilot and of the manner in which such qualification has been achieved.

(c.5) An operator shall not continue to utilize a pilot as a PIC on a route or within an area specified by the operator and approved by the DCA unless, within the preceding 12 months, that pilot has made at least one trip as a pilot member of the flight crew, or as a check pilot, or as an observer in the flight crew compartment:

(c.5.a) within that specified area; and

(c.5.b) if appropriate, on any route where procedures associated with that route or with any aerodromes intended to be used for take-off or landing require the application of special skills or knowledge.

(c.6) In the event that more than 12 months elapse in which a PIC has not made such a trip on a route in close proximity and over similar terrain, within such a specified area, route or aerodrome, and has not practised such procedures in a training device which is adequate for this purpose, prior to again serving as a PIC within that area or on that route, that pilot must requalify in accordance with Article 7 (4) (c) (c.2) and Article 7 (4) (c) (c.3).

(d) Pilot proficiency checks

(d.1) An operator shall ensure that piloting technique and the ability to execute emergency procedures is checked in such a way as to demonstrate the pilot's competence on each type or variant of a type of aeroplane. Where the operation may be conducted under IFR, an operator shall ensure that the pilot's competence to comply with such rules is demonstrated to either a check pilot of the operator or to a representative of the DCA. Such checks shall be performed twice within any period of one year. Any two such checks which are similar and which occur within a period of four consecutive months shall not alone satisfy this requirement.

(d.2) When an operator schedules flight crew on several variants of the same type of aeroplane or different types of aeroplanes with similar characteristics in terms of operating procedures, systems and handling, the requirements of Article 7 (4) (d) (d.1) for each variant or each type of aeroplane can be combined.

(e) Single pilot operations under the IFR or at night

(e.1) The pilot shall have experience and training as follow:

(e.1.a) for operations under the IFR or at night, have accumulated at least 50 hours flight time on the class of aeroplane as described in a ADCA on the

procedure to apply for flight crew license and rating, of which at least 10 hours shall be as PIC;

(e.1.b) for operations under the IFR, have accumulated at least 25 hours flight time under the IFR on the class of aeroplane, which may form part of the 50 hours flight time in sub-paragraph (e.1.a);

(e.1.c) for operations at night, have accumulated at least 15 hours flight time at night, which may form part of the 50 hours flight time in sub-paragraph (e.1.a);

(e.1.d) for operations under the IFR, have acquired recent experience as a pilot engaged in a single pilot operation under the IFR of:

i) at least five IFR flights, including three instrument approaches carried out during the preceding 90 days on the class of aeroplane in the single pilot role; or

ii) an IFR instrument approach check carried out on such an aeroplane during the preceding 90 days;

(e.1.e) for operations at night, have made at least three take-offs and landings at night on the class of aeroplane in the single pilot role in the preceding 90 days;

(e.1.f) have successfully completed training programmes that include, in addition to the requirements of Article 7 (3), passenger briefing with respect to emergency evacuation, autopilot management, and the use of simplified in-flight documentation.

(e.2) The initial and recurrent flight training and proficiency checks indicated in Article 7 (3) (a) and Article 7 (4) (d) shall be performed by the PIC in the single pilot role on the class of aeroplane in an environment representative of the operation.

(f) Flight crew equipment

A flight crew member assessed as fit to exercise the privileges of a licence, subject to the use of suitable correcting lenses, shall have a spare set of the correcting lenses readily available when exercising those privileges.

(g) Flight time, Flight duty period, and Rest period

The operator shall authorize Flight crew member to conduct flight operations and other duties as prescribed in the ADCA for Flight time and Flight duty Limitation.

Chapter 4/1

Flight operations officer/Flight dispatcher

Article 8. The operator shall operate in accordance with standards established for Flight operations officer/Flight dispatcher as follow:

(1) A flight operations officer/flight dispatcher, employed in conjunction with an approved method of control and supervision of flight operations under DCA approval shall be licensed.

(2) In case a person does not has flight operations officer/flight dispatcher licence. Such persons shall meet the requirements specified in RCAB for the Qualification of Flight Crew Member.

(3) A flight operations officer/flight dispatcher shall not be assigned to duty unless that person has:

(3.a) satisfactorily completed an operator-specific training course approved by the DCA that addresses all the specific components of its approved method of control and supervision of flight operations;

(3.b) made, within the preceding 12 months, at least a one-way qualification flight in the flight crew compartment of an aeroplane over any area for which that individual is authorized to exercise flight supervision. The flight should include landings at as many aerodromes as practicable;

(3.c) demonstrated to the operator a knowledge of:

(3.c.1) the contents of the operations manual;

(3.c.2) the radio equipment in the aeroplanes used;

(3.c.3) the navigation equipment in the aeroplanes used;

(3.d) demonstrated to the operator a knowledge of the following details concerning operations for which the officer is responsible and areas in which that individual is authorized to exercise flight supervision:

(3.d.1) the seasonal meteorological conditions and the sources of meteorological information;

(3.d.2) the effects of meteorological conditions on radio reception in the aeroplanes used;

(3.d.3) the peculiarities and limitations of each navigation system which is used by the operation;

(3.d.4) the aeroplane loading instructions;

(3.e) demonstrated to the operator knowledge and skills related to human performance relevant to dispatch duties;

(3.f) demonstrated to the operator the ability to perform the duties specified in Chapter 2 Article 4 (15).

(4) A flight operations officer/flight dispatcher assigned to duty should maintain complete familiarization with all features of the operation which are pertinent to such duties, including knowledge and skills related to human performance.

(5) A flight operations officer/flight dispatcher should not be assigned to duty after 12 consecutive months of absence from such duty, unless the provisions of Article 8 (2) are met.

Chapter 5

Manuals, Logs and Records

Article 9. The operator shall operate in accordance with standards established for the Manual, Logs and Records as follow:

(1) Flight manual

The flight manual shall be approved and updated by implementing changes made mandatory by the DCA.

(2) General Maintenance Manual (GMM)

The operator shall provide, for the use and guidance of maintenance and operational personnel concerned, a GMM, approved by the DCA, in accordance with the requirements of Chapter 8 Article (12) (2) shall contain the following information:

(a) Introduction, containing:

(a.1) Table of Content;

(a.2) List of Effective Pages;

(a.3) Distribution List;

(a.4) Abbreviation.

(b) General, containing:

(b.1) Accountable Manager Statement;

(b.1.a) The GMM or documents or other manuals reference in this manual show that the organization and the aeroplane maintenance procedures of an operator have been established in accordance with the Law, Rules, Regulations, Announcement or Procedure of the DCA concerning airplane maintenance.

(b.1.b) The operator shall maintain the aeroplane in accordance with the procedures set forth in this GMM or documents or other manuals reference in this GMM.

(b.1.c) The operator shall not maintain the aeroplane contrary to the Law, Rules, Regulations, Announcement or Procedure of the DCA concerning aeroplane maintenance.

(b.1.d) The operator shall amend the GMM as necessary such as, to correct typo error, to increase or decrease type of aeroplane, to increase or decrease or improve or correct statements in the GMM or change the Accountable Manager.

(b.1.e) The DCA will approve this organization whilst the DCA is satisfied that the GMM or documents or other manuals reference in the GMM are being followed.

(b.2) General information including Fleet Composition and Type of Operations.

(b.3) A description of personnel and duties and responsibilities of management personnel;

(b.3.a) Accountable Manage;

(b.3.b) A person who responsible for the continuing airworthiness;

(b.3.c) A person in groups who responsible for the continuing airworthiness.

(b.4) Manpower Resources.

(b.5) Training Policy.

(b.6) Management Organization Chart.

(b.7) Notification procedure to the DCA regarding changes to the approved operations and procedures, organization’s name, location and management personnel.

(b.8) GMM amendment procedure containing:

(b.8.a) Drafting procedure and a person who responsible for amending;

(b.8.b) A description of a major change which required the DCA approval before use and a minor change which the operator can use without the DCA approval.

(c) Continuing Airworthiness Management Procedures, containing:

(c.1) Aircraft Maintenance Records such as a maintenance certification, aircraft, engine or propeller maintenance log etc;

(c.2) Minimum Equipment List development procedure that have details in accordance with Chapter 3, Article 6 (1);

(c.3) Aircraft Maintenance Program Development, Analysis, Amendment and Approval.

(c.4) Time and Continuing Airworthiness Record, Responsibilities, Retention and Access;

(c.5) Accomplishment and Control of Airworthiness Directive;

(c.6) Non-Mandatory Modification Embodiment Policy;

(c.7) Major repair and Modification Standards;

(c.8) Defect report and Service difficulty Report;

(c.9) Engineering Activities;

(c.10) Reliability Programs, consist of;

(c.10.1) The scope of the reliability program;

(c.10.2) Organization structure and Duties and Responsibilities;

(c.10.3) Analysis;

(c.10.4) Corrective action;

(c.10.5) Meeting to review the reliability program of:

- Airframe;
- Powerplant;
- Component;

(c.11) Preflight Inspection;

(c.11.1) Preparation of aircraft for flight;

(c.11.2) Sub-contracted ground handling function;

(c.11.3) Security of cargo and baggage loading;

(c.11.4) Control of refueling, quantity/quality;

(c.11.5) Control of snow, ice, dust and sand;

(c.12) Aircraft Weighing;

(c.13) Check Flight Procedures

(d) Quality System, consist of;

(d.1) Continuing airworthiness quality policy, quality plan, quality audit procedure, quality audit remedial action procedure.

(d.2) Monitoring of continuing airworthiness Management Activities;

(d.3) Monitoring of the effectiveness of maintenance program;

(d.4) Monitoring that all maintenance is carried out by appropriate maintenance organization;

(d.5) Monitoring that all contracted maintenance is carried out in accordance with the contract including sub-contractor used by the maintenance contractor;

(d.6) Quality audit personnel;

(d.7) Maintenance contractor Selection Procedure;

(d.8) Quality Audit of Aircraft;

The audit will include:

(d.8.1) compliance with approved procedures

(d.8.2) compliance with the contract

(d.8.3) compliance with related rules and regulation

(e) Airworthiness review, consist of;

(e.1) Airworthiness review staff;

(e.2) Review of aircraft records;

(e.3) Aircraft Survey;

(e.4) Issuance of airworthiness review document;

(e.5) Airworthiness review records, responsibility, retention and access;

(f) Appendix, consist of;

(f.1) Sample documents;

(f.2) List of airworthiness review staff;

(f.3) List of sub-contractors;

(f.4) List of approved maintenance organization contracted;

(f.5) Copy of contracts for sub-contracted work;

(f.6) Copy of contracts with approved maintenance organizations;

(3) Maintenance Programme

(a) A maintenance programme for each aeroplane as required by Article 12 (3) shall contain the following information:

(a.1) maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the aeroplane;

(a.2) when applicable, a continuing structural integrity programme;

(a.3) procedures for changing or deviating from (a.1) and (a.2) above;

(a.4) when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components and engines.

(b) Maintenance tasks and intervals that have been specified as mandatory in approval of the type design shall be identified as such.

(c) The maintenance programme should be based on maintenance programme information made available by the State of Design or by the organization responsible for the type design, and any additional applicable experience.

(4) Journey log book

(a) The operator shall provide a journey log book on board. The Journey log book should contain the following items:

(a.1) Aeroplane nationality and registration;

(a.2) Date;

(a.3) Names of crew members;

(a.4) Duty assignments of crew members;

(a.5) Place of departure;

(a.6) Place of arrival;

(a.7) Time of departure;

(a.8) Time of arrival;

(a.9) Hours of flight;

(a.10) Nature of flight (private, aerial work, scheduled or non-scheduled);

(a.11) Incidents, observations, if any;

(a.12) Signature of person in charge;

(b) Entries in the journey log book should be made currently and in ink or indelible pencil.

(c) Completed journey log book should be retained to provide a continuous record of the last six months' operations.

(5) Records of emergency and survival equipment carried

Operators shall at all times have available for immediate communication to rescue coordination centers, lists containing information on the emergency and survival equipment carried on board any of their aeroplanes engaged in international air navigation. The information shall include, as applicable, the number, color and type of life rafts and pyrotechnics, details of emergency medical supplies, water supplies and the type and frequencies of the emergency portable radio equipment.

(6) Flight recorder records

An operator shall ensure, to the extent possible, in the event the aeroplane becomes involved in an accident or incident, the preservation of all related flight recorder records and, if necessary, the associated flight recorders, and their retention in safe custody pending their disposition as determined in accordance with the accident or incident investigation committee who responsible in the area of occurrence.

Chapter 6

Cabin Crew

Article 10. The operators shall operate in accordance with standards established for the Cabin Crew as follow.

(1) Number and Composition of Cabin Crew.

(1.a) An operator shall not operate an aeroplane with a seating configuration prescribed in an Aircraft Flight Manual of more than 19 and carrying one or more

passengers, unless at least one cabin crew member carried on board to execute the safety duties as prescribed in an Operation Manual in order to administer safety to passengers:

(1.b) To comply with Article 10 (1) (1.a), the operator shall provide one cabin crew member for every 50, or fraction of 50, passenger seats installed on the same deck of the aeroplane and the number of cabin crew member carried on board shall not be less than the number of the main emergency doors.

(1.c) If necessary the DCA may require an operator to include additional cabin crew members more than as prescribed in Article 10 (1) (1.b).

(1.d) in the event of unforeseen circumstances the minimum number of cabin crew may be reduced subject to the following conditions:

(1.d.1) The number of passengers shall be reduced in accordance with the method prescribed in an Operations Manual;

(1.d.2) Report to the DCA after the end of such flight.

(1.e) Operators should provide crew uniforms which readily distinguish the wearer as a member of the cabin staff.

(2) Cabin crew at emergency evacuation stations

Each cabin crew member assigned to emergency evacuation duties shall occupy a seat provided in accordance with Chapter 3, Article 6 (16) during take-off and landing and whenever the PIC so directs.

(3) Protection of cabin crew during flight

Each cabin crew member shall be seated with seat belt or, when provided, safety harness fastened during take-off and landing and whenever the PIC so directs.

(4) Training

An operator shall establish and maintain a training programme, approved by the DCA, to be completed by all persons before being assigned as a cabin crew member. Cabin crew members shall complete a recurrent training programme annually. These training programmes shall ensure that each person is:

(a) competent to execute those safety duties and functions which the cabin crew member is assigned to perform in the event of an emergency or in a situation requiring emergency evacuation;

(b) drilled and capable in the use of emergency and life-saving equipment required to be carried, such as life jackets, life rafts, evacuation slides, emergency exits, portable fire extinguishers, oxygen equipment, first-aid and universal precaution kits, and automated external defibrillators;

c) when serving on aeroplanes operated above 3000 m (10000 ft), knowledgeable as regards the effect of lack of oxygen and, in the case of pressurized aeroplanes, as regards physiological phenomena accompanying a loss of pressurization;

d) aware of other crew members' assignments and functions in the event of an emergency so far as is necessary for the fulfillment of the cabin crew member's own duties;

e) aware of the types of dangerous goods which may, and may not, be carried in a passenger cabin; and

f) knowledgeable about human performance as related to passenger cabin safety duties including flight crew-cabin crew coordination.

(5) Fatigue management

The operator shall establish flight time, flight duty period, duty period and rest period limitations of cabin crews that are within the ADCA on Flight Time and Flight Duty Period Limitations.

Chapter 7
Security of Aeroplane

Article 11. The operators shall operate in accordancewith standards established for the Security of Aeroplane as follow:

(1) Security of the flight crew compartment

The operator shall perform security of the flight crew compartment in accordance with the rules prescribed in the RCAB 65 on Security of the Flight

Crew Compartment and ADC on the Procedure for monitoring from pilot's station the entire door area outside the flight crew compartment.

(2) Aeroplane search procedure checklist

An operator shall ensure that there is on board a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting aeroplanes for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the aeroplane may be the object of an act of unlawful interference.

The checklist shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aeroplane.

The determination of the least-risk bomb location shall be in accordance with Appendix E attached to this Announcement.

(3) Training programmes

(3.a) An operator shall establish and maintain an approved security training programme, approved by the DCA, which ensures crew members act in the most appropriate manner to minimize the consequences of acts of unlawful interference. As a minimum, this programme shall include the following elements:

(3.a.1) determination of the seriousness of any occurrence;

(3.a.2) crew communication and coordination;

(3.a.3) appropriate self-defence responses;

(3.a.4) use of non-lethal protective devices assigned to crew members whose use is authorized by the DCA;

(3.a.5) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behavior and passenger responses;

(3.a.6) live situational training exercises regarding various threat conditions;

(3.a.7) flight crew compartment procedures to protect the aeroplane;

(3.a.8) aeroplane search procedures and guidance on least-risk bomb locations where practicable.

(3.b) An operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

(4) Reporting acts of unlawful interference

Following an act of unlawful interference, the PIC shall submit, without delay, a report of such an act to the designated local authority.

Chapter 8

Aeroplane Maintenance

Article 12. The operators shall operate in accordance with standards established for the Aeroplane Maintenance as follow:

(1) Operator's maintenance responsibilities

(a) Operators shall be responsible for maintenance to ensure that, in accordance with procedures acceptable to the DCA as follow:

(a.1) each aeroplane they operate is maintained in an airworthy condition;

(a.2) the operational and emergency equipment necessary for an intended flight is serviceable; and

(a.3) the certificate of airworthiness of each aeroplane they operate remains valid.

(b) An operator shall not operate an aeroplane unless it is maintained and released to service by an organization approved in accordance with Article 12 (7) or by the holder of an aircraft maintenance license or by the holder of a pilot license which has been authorized by the operator in accordance with a procedure approved by the DCA. Notwithstanding, the holder of a pilot license shall have the privileges for release to service only after a maintenance before flight or a preventive maintenance which no defect found and no part replacement during maintenance.

(c) An operator shall employ a person or group of persons to ensure that all maintenance is carried out in accordance with the general maintenance manual and the maintenance program approved by the DCA.

(2) General Maintenance Manual (GMM)

(a) The operator shall provide, for the use and guidance of maintenance and operational personnel concerned, a GMM, approved by the DCA, in accordance with the requirements of Chapter 5, Article 9 (2). The design of the manual shall observe Human Factors principles.

(b) The GMM shall be amended as necessary to keep the information contained therein up to date. Copies of the GMM shall be furnished promptly to all operator organizations including the DCA. If major amendment has been done, the operator shall submit the amendment details to the DCA for approval before use.

(c) The operator shall send the GMM together with all amendments and/or revisions to it to the State of Registry without delay.

(3) Maintenance programme

(a) The operator shall provide, for the use and guidance of maintenance and operational personnel concerned, a maintenance programme, approved by the DCA, containing the information required by Chapter 5, Article 9 (3). The design and application of the operator's maintenance programme shall observe Human Factors principles.

(b) The maintenance programme shall be amended as necessary to keep the information contained therein up to date. Copies of the maintenance program shall be furnished promptly to all operator organizations including the DCA. If major amendment has been done, the operator shall submit the amendment details to the DCA for approval before use.

(4) Maintenance records

(a) An operator shall ensure that the following records are kept for the periods mentioned in Article 12 (4) (a):

(a.1) the total time in service (hours, calendar time and cycles, as appropriate) of the aeroplane and all life-limited components;

(a.2) the current status of compliance with all mandatory continuing airworthiness information;

(a.3) appropriate details of modifications and repairs;

(a.4) the time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the aeroplane or its components subject to a mandatory overhaul life;

(a.5) the current status of the aeroplane's compliance with the maintenance programme; and

(a.6) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(b) The records in Article 12 (4) (a.1) to (a.5) shall be kept for a minimum period of 90 days after the unit to which they refer has been permanently withdrawn from service, and the records in Article 12 (4) (a.6) for a minimum period of one year after the signing of the maintenance release

(c) In the event of a temporary change of operator, the records shall be made available to the new operator. In the event of any permanent change of operator, the records shall be transferred to the new operator.

(5) Continuing airworthiness information

(a) The operator of an aeroplane over 5700 kg maximum certificated take-off mass shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and provide the information as prescribed in the ADCA for Service Difficulty Reporting System. Notwithstanding, the mentioned system shall have details concerning the reporting to the state of registry.

(b) The operator of an aeroplane over 5700 kg maximum certificated take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the organization responsible for the type design and shall implement resulting actions considered necessary in accordance with the ADCA on Airworthiness Directive.

(6) Modifications and repairs

All modifications and repairs shall comply with the relevant provisions contained in the ADCA for Maintenance, Preventive Maintenance, Rebuilding and

Alteration. Procedures shall be established to ensure that the substantiating data supporting compliance with the mentioned the ADCA.

(7) Approved maintenance organization

(a) Issue of approval

(a.1) A repair station wise to perform maintenance on airplane of operators shall obtain a Repair Station Certificate issued under the ADCA for an approved maintenance organization. The repair station certificate shall contain at least the following:

(a.1.a) organization’s name and location;

(a.1.b) date of issue and period of validity;

(a.1.c) rating; and

(a.1.d) repair station operations specifications;

(a.2) The continued validity of the approval shall depend upon the organization remaining in compliance with the relevant provisions contained in the ADCA for an approved maintenance organization.

(b) Repair Station Manual

The holder of a repair station certificate shall provide for the use and guidance of maintenance personnel concerned a repair station manual which approved by the DCA. The repair station manual shall contain the information as prescribed in the ADCA for an Approved Maintenance Organization, Chapter 5, Article 27 and 33:

(c) Safety management

The holder of a repair station certificate shall establish a safety management system in accordance with the ADCA for approved maintenance organizations, Chapter 5, Article 36:

(d) Maintenance procedures and quality assurance system

(d.1) The holder of a repair station certificate shall establish procedures for aeroplane maintenance, which contain the details in the ADCA for approved maintenance organizations, Chapter 5, Article 27 (i):.

(d.2) The holder of a repair station certificate shall establish an quality system to monitor all works compliance with the procedures for aeroplane maintenance which contain the details in the ADCA for approved maintenance organizations, Chapter 5, Article 28.

(e) Housing, Facilities, Equipment, Material, and Data

(e.1) The holder of a repair station certificate shall have housing, facilities as prescribed in the ADCA for approved maintenance organizations, Chapter 3, Article 13;

(e.2) The holder of a repair station certificate shall have equipment, material and data for maintenance as prescribed in the ADCA for approved maintenance organizations, Chapter 3, Article 16;

(e.3) The holder of a repair station certificate shall have storage facilities for equipment, tools and material under the control of the repair station as prescribed in the ADCA for approved maintenance organizations, Chapter 3, Article 16;

(f) Personnel

(f.1) The holder of a repair station certificate shall nominate a person or group of persons whose responsibilities include ensuring that the maintenance organization is in compliance with the requirements of the ADCA for an approved maintenance organization, Chapter 4, Article 17 (a);

(f.2) The holder of a repair station certificate shall employ the necessary personnel to plan, perform, supervise, inspect and release the work to be performed is in compliance with the requirements of the ADCA for approved maintenance organizations, Chapter 4, Article 17 (b);

(f.3) The holder of a repair station certificate shall establish the competency of maintenance personnel by taking the qualification concerning Age, Knowledge and the appropriate Experience into account. In consideration to prescribed the competency of personnel who has responsible to sign maintenance release for entire aircraft to service after maintenance. That person shall hold an aircraft maintenance license with aircraft type rating endorsed issued by the DCA or by the state having jurisdiction over that repair station as prescribed in the ADCA for approved maintenance organizations, Chapter 4, Article 17 (c), Article 17 (d) and Article 18 to Article 20;

(f.4) The holder of a repair station certificate shall ensure that all maintenance personnel receive initial and continuation training appropriate to their assigned tasks and responsibilities. The training programme established by the holder of a repair station certificate shall include training in knowledge and skills related to human performance, including coordination with other maintenance personnel and flight crew as prescribed in the ADCA for approved maintenance organizations, Chapter 4, Article 22;

(g) Records

(g.1) The holder of a repair station certificate shall retain detailed maintenance records to show that all requirements prescribed in the ADCA for approved maintenance organizations for signing of a maintenance release have been met.

(g.2) The holder of a repair station certificate shall keep the records required by Article 12 (7) (g) (g.1) shall be kept for a minimum period not less than of two year after the signing of the maintenance release.

(8) Maintenance release

(a) A maintenance release shall be completed and signed to certify that the maintenance work performed has been completed satisfactorily and in accordance with approved data and the procedures described in the operator's GMM or the repair station manual of the.

(b) A maintenance release shall contain a certification including:

(b.1) basic details of the maintenance carried out including detailed reference of the approved data used;

(b.2) the date such maintenance was completed;

(b.3) when applicable, the identity of the approved maintenance organization; and

(b.4) the identity of the person or persons signing the release.

In this regard, the details of operations shall be in accordance with the ADCA for Maintenance, Preventive Maintenance, Rebuilding and Alteration.

Given on this 24th day of August B.E. 2553

Vutichai Singhamanee
Director General
Department of Civil Aviation