

ATTACHMENT 20-5 The Helicopter Offshore Flight Operations

This attachment was established in accordance with Article 57-1 and 202-1 of this regulation, EASA Commission Regulation (EU) No 965/2012 and No 2016/1999.

1. Applicability

1.1 Helicopters shall abide by the provisions of this attachment when engaging in offshore flight operations on the main island of Taiwan, between outlying islands and offshore locations, and between offshore locations.

1.2 Helicopter offshore flight operations means a helicopter operation that has a substantial proportion of any flight conducted over open sea areas to or from an offshore location.

2. Certification requirement

2.1 Comply with the airworthiness standard of the helicopter in Paragraph 1 of Article 23 of Civil Aviation Act and have been certified or validated the Civil Aeronautics Administration.

2.2 Hold valid airworthiness certificate.

3. Personal requirement

3.1 The operator must designate a pilot who holds a current commercial pilot-helicopter or air transport pilot license, with a rating appropriate, for the helicopter offshore flight operations, and assign a pilot to be pilot in command.

3.2 The operator must designate one pilot as the chief pilot for helicopter offshore flight operations and be approved by CAA. If necessary, the chief pilot may also designate to a qualified pilot to perform the duty and responsibility for the chief pilot. The chief pilot and his/her designee shall holds a current commercial pilot-helicopter or air transport pilot license with an appropriate rating for helicopter offshore flight operations.

3.3 The operator shall establish the following procedures:

3.3.1 The selection and dispatch criteria for flight crew in considering his/her previously flight experience.

3.3.2 Establish the minimum experience requirements of chief pilot for offshore flight operations.

3.3.3 Establish flight crew training and proficiency check program. The program shall consider the operating environment of offshore flight operations and including normal, abnormal and emergency procedures, crew resource management and water survival training, etc.

3.4 Knowledge and skill requirements:

3.4.1 Operator shall establish respective training program, including initial and recurrent training, in according with 3.4.2 and 3.4.3 which will be carried into effect after approved

by CAA. Those who complete the training and pass the written and practical tests shall be authorized by operator then be permitted to perform helicopter offshore flight operations.

3.4.2 The knowledge training shall include the following subjects. The test of the training may be performed by oral or written at the option of operator.

3.4.2.1 Steps to be taken before starting operations, including a survey of the flight area.

3.4.2.2 Proper method of loading, rigging, or attaching in helicopter.

3.4.2.3 Performance capabilities, under approved operating procedures and limitations, of the helicopter to be used.

3.4.2.4 Proper operating procedures of flight and ground crews.

3.4.2.5 Appropriate manual procedures which include offshore flight operations manual, helicopter flight manual or operating manual.

3.4.3 Practical training and its proficiency check shall be established in accordance with the type of helicopter that intended to operate and including the following items:

3.4.3.1 Takeoffs and landings.

3.4.3.2 Demonstration of directional control while hovering.

3.4.3.3 Acceleration from a hover.

3.4.3.4 Flight at operational airspeeds.

3.4.3.5 Approaches to landing or working area.

3.4.4 CAA might agree recognize operator designated chief pilot's knowledge and skill to exempt or deduct part of the training and proficiency check which according with 3.4.2 and 3.4.3 based on his/her operating experience and safety records.

3.5 A pilot conducting offshore flight operations in the preceding 90 days shall comply any one of following requirements:

3.5.1 At least 3 take-offs, departures, approaches and landings at an offshore location in a helicopter of the same type or an approved full flight simulator (FFS) representing that type.

3.5.2 As approved to operate the offshore flight operations at night, he/she has carried out at least 3 take-offs, departures, approaches and landings at night at an offshore location in a helicopter of the same type or an approved FFS representing that type.

3.5.3 To whom did not complete at least 3 take-offs, departures, approaches and landings in the preceding 90 days, he/she shall complete the training program in a helicopter of the same type or an approved FFS representing that type, fulfill the requirement of 3.5.1 and 3.5.2, and pass the proficiency check before he/she dispatch to perform offshore flight operations.

4. Operational approval

4.1 Operator shall be approved before performing offshore flight operations. The Operation Specifications shall record the approved type of helicopter, its nationality and registration number.

4.2 The operator shall maintain the Operations Specifications up to date and provide lists of helicopter and equipment for inspection by CAA inspector.

5. Operating rules

5.1 The operator shall implement a safety management system according to article 9 of chapter 2 and article 285-2 of chapter 3, establish prevent activity to reduce the risk of offshore flight operation. The following shall be required:

5.1.1 Procedures for selection, composition and training of the pilot.

5.1.2 Duty and responsibility of flight crew and relevant personnel.

5.1.3 Required equipment and criteria for dispatch.

5.1.4 Flight operating procedures and limitations which including normal and abnormal procedures to mitigate risk of flight.

5.2 The operator shall abide the following rules:

5.2.1 An operational flight plan is prepared prior to each flight.

5.2.2 The occupant safety briefing includes any specific safety information on offshore flight operations related items and is provided prior to boarding the helicopter.

5.2.3 Pilots make optimum use of the automatic flight control systems (AFCS) throughout the flight.

5.2.4 Specific offshore approach profiles are established, including stable approach parameters and the corrective action to be taken if an approach becomes unstable;

5.2.5 Procedures are in place for a member of the flight crew to monitor the flight instruments during an offshore flight operations to ensure that a safe flight path is maintained;

5.2.6 The flight crew takes immediate and appropriate corrective action when a height alert is activated;

5.2.7 Procedures are in place to require the emergency flotation systems to be armed for all overwater arrivals and departures of offshore flight.

5.3 The operator shall only use offshore locations that are suitable in relation to size and weight of the type of helicopter and to the operations concerned.

5.4 During emergency operation, the following rules shall abide:

5.4.1 In an emergency involving the safety of persons or property, the PIC may deviate from the rules of this attachment to the extent required to meet that emergency.

5.4.2 Each person who deviates from a rule of this attachment shall notify CAA within 72 hours after the deviation. The operator shall provide a complete emergency operating report of the helicopter operation involved, including a description of the deviation and reasons for it. If the event involved as a Mandatory Occurrence Report item, operator shall follow the articles set forth in Regulations of Aircraft Flight Safety-related Events.

5.5 When takeoff from or landing to an offshore location, the operating performance and limitations of the helicopter shall be complied with.

5.6 The operator shall have the helicopter tracking capability to track the position of the helicopter which it operates throughout its area of operations, to preserve information and data, and to assist in the coordination of search and rescue.

5.7 Weather condition

When flying between offshore locations located in class G airspace where the overwater sector is less than 10 NM, VFR flights may be conducted when the limits are at, or better than, the following:

	<u>Day</u>		<u>Night</u>	
	<u>Height (note 1)</u>	<u>Visibility</u>	<u>Height (note 1)</u>	<u>Visibility</u>
Single pilot	300 feet	3 km	500 feet	5 km
Two pilot	300 feet	2 km (note 2)	500 feet	5 km (note 3)

Note 1. The cloud base shall allow flight at the specified height to be below and clear of cloud.

Note 2. Helicopters may be operated in flight visibility down to 800 m, provided the destination or an intermediate structure is continuously visible.

Note 3. Helicopters may be operated in flight visibility down to 1,500 m, provided the destination or an intermediate structure is continuously visible.

5.8 Wind limitations: Operation to an offshore location shall only be performed when the wind speed at the helideck is reported to be not more than 60 knots including gusts.

6. Carriage of persons.

6.1 No operator may allow a person to be carried during helicopter external-load operations unless that person:

6.1.1 Is a flight crewmember.

6.1.2 Is a flight crewmember in training.

6.1.2 Is a necessary person related to the operations of external-load.

6.2 The pilot in command shall ensure that all persons are briefed before takeoff on all pertinent procedures to be followed (including normal, abnormal, and emergency procedures).

6.3 In case of adverse weather, the following requirement shall be followed:

6.3.1 Approved life jackets shall be worn at all times by all persons on board unless integrated survival suits that meet the combined requirement of the survival suit and life jacket are worn.

6.3.2 All occupants on board shall wear an approved survival suit when one of the following occurs:

6.3.2.1 When the weather report or forecasts available to the pilot-in-command indicate that the sea temperature will be less than plus 10 °C during the flight.

6.3.2.2 When the estimated rescue time exceeds the calculated survival time.

6.3.2.3 When the flight is planned to be conducted at night.

6.3.3 When performing the offshore flight operations, all occupants on board shall carry and be instructed on the use of emergency breathing systems.

6.3.4 Life rafts

6.3.4.1 All life rafts carried shall be installed so as to be usable were evaluated and certificated.

6.3.4.2 All life rafts carried shall be installed so as to facilitate their ready use during offshore flight operations.

6.3.4.3 The number of life rafts installed:

6.3.4.4 In the case of a helicopter carrying less than 12 persons, at least one life raft with a rated capacity of not less than the maximum number of persons on board.

6.3.4.5 In the case of a helicopter carrying more than 11 persons, at least two life rafts, sufficient together to accommodate all persons capable of being carried on board and, if one is lost, the remaining life raft(s) having the overload capacity sufficient to accommodate all persons on the helicopter.

6.3.4.6 Each life raft shall contain at least one survival emergency locator transmitter (ELT).

6.3.4.7 Each life raft shall contain life-saving equipment, including means of sustaining life, as appropriate to the flight to be undertaken.

6.4 The operator may, based on a risk assessment result and take appropriately mitigate action, allow occupants, medically incapacitated at an offshore location, to partly wear or not wear survival suits on return flights or flights between offshore locations.

7. Airworthiness and equipment requirements

7.1 The operator shall establish a maintenance program in according with Instructions for Continued Airworthiness from manufacturer of helicopter, appliances and parts and approved by CAA to perform maintenance.

7.2 For the helicopter equipped with flight recorder in according with Article 111 and 112, the operator shall establish and maintain a flight data analysis program. The flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

7.3 The helicopter shall be equipped with an emergency lighting system with an independent power supply to provide a source of general cabin illumination to facilitate the evacuation of the helicopter.

7.4 The following helicopters conducting offshore flight operations shall be fitted with a Vibration Health Monitoring system capable of monitoring the status of critical rotor and rotor drive systems to collect monitoring and alerting information, analysis system performance and take appropriate corrective action for abnormal situation.

7.4.1 Helicopter of a maximum certificated take-off mass in excess of 3,175 kg for which the certificate of airworthiness is first issued on or after 31 Dec. 2016.

7.4.2 Helicopter with a seating capacity of more than 9 occupants, for which the certificate of airworthiness is first issued on or after 1 Jan. 2017.

7.4.3 Helicopter for which the certificate of airworthiness was first issued on or after 1 Jan. 2019.

7.5 Helicopters with a maximum operational occupant seat configuration (MOPSC) of more than 9 shall be equipped with a Passenger Address (PA) system. Helicopters with an MOPSC of 9 or less need not be equipped with a PA system if the operator can demonstrate that the pilot's voice is understandable at all occupants' seats in flight and approved by CAA.

7.6 Helicopters shall be equipped with a radio altimeter that is capable of emitting an audio and a visual warning below a pre-set height selectable by the pilot.

7.7 All emergency exits, including crew emergency exits, and any door, window or other opening that is intended for emergency egress, and the means for opening them shall be clearly marked for the guidance of occupants using them. Such markings shall be designed to remain visible if the helicopter is capsized or the cabin is submerged.

7.8 Helicopters with a maximum certificated take-off mass of more than 3,175 kg or a MOPSC of more than 9 and first issued with an individual certificate of airworthiness after 31 December 2018 shall be equipped with an Helicopter terrain awareness warning system that meets the requirements for FAA or EASA class A equipment as specified in an acceptable standard.

7.9 Non-jettisonable doors that are designated as ditching emergency exits shall have a means of securing them in the open position so that they do not interfere with the occupants' egress in all sea conditions up to the maximum sea conditions required to be evaluated for ditching and flotation.

7.10 The person signing a maintenance release shall be either the holder of a valid CAA aircraft maintenance engineer certificate, or the holder of a valid mechanic license acceptable to CAA, and shall ensure that operations in regard to maintenance and maintenance release be conducted as authorized by GMM. Under the conditions which approved by CAA that operator has established procedures, no malfunction occurs to the helicopter and flight crew who have completed the approved training, the requirement of a maintenance release may be waived after the pilot-in-command has conducted a preflight check and recorded the completion of the check in the maintenance log book.