SD - MF



STANDARDS DOCUMENT – MERCY FLIGHTS

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Standards Document MERCY FLIGHTS

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PREFACE

General

Fiji's National Aviation Law consists of a three-tier regulatory system, comprising Acts, Regulations and Standards Documents; the purpose of which is to ensure, where deemed appropriate, compliance and conformance with ICAO Standards and Recommended Practices (SARPS).

The three-tier regulatory system represents Fiji's Primary Legislation System and Specific Operating Regulations to meet Critical Elements CE1 and CE2 of ICAO's Eight Critical Element of a safety oversight system. Standards Documents (SD) are issued by the Civil Aviation Authority of Fiji under the provision of Section 14 (3) (b) of the Civil Aviation Authority Act 1979 (CAP 174A).

Where appropriate, the SD also contains technical guidance (Critical Element CE5) on standards, practices, and procedures that are acceptable to the Authority.

Notwithstanding the above, and where specifically indicated in this Standards Document that such a provision is available, consideration may be given to other methods of compliance that may be presented to the Authority provided they have compensating factors that can demonstrate a level of safety equivalent to or better than those prescribed herein. Accordingly, the Authority will consider each case based on its own merits holistically in the context of and relevancy of the alternative methods to the individual applicant.

When new standards, practices, or procedures are determined to be acceptable, they will be added to this document.

Purpose

This Standards Document – Mercy Flights is issued by the Civil Aviation Authority of Fiji pursuant to Regulations 68 (3) and (4) of the Air Navigation Regulations 1981 (as amended). This Document is intended for use by the Authority, and holders of an Air Operators Certificate and their staff.

Change Notice

This Standards Document has been developed pursuant to the Authority's obligation to provide oversight on operators and their personnel, as well as the operator's obligation to comply with standards notified by the Authority and is the means by which such notification is given.

Theresa O'Boyle-Levestam ACTING CHIEF EXECUTIVE

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1 INTRODUCTION

- 1.1 There are occasions when there is a need for an aircraft to make a flight for the purpose of carrying a person for urgent specialized medical treatment to avoid permanent disability or as a lifesaving measure, or to remove them from grave and imminent danger, or for the urgent protection of property when it may not be possible to comply with some Air Navigation Regulations (ANR).
- 1.2 The ANR defines a Mercy Flight as "... a flight for the sole purposes of saving a person in a life-threatening situation."

2 STATUTORY PROVISIONS

- 2.1 In most cases, such flights can be conducted in accordance with the requirements of the Air Navigation Regulation 68 (1), (2) and any relevant Standards Document. These flights are usually for the carriage of a person or cargo for hire or reward and as such are classified as an air transport operation and are required to meet specific requirements. Notwithstanding 68 (1), a pilot may conduct a mercy flight in accordance with guidelines or standards issued by the Authority. The decision to conduct a mercy flight is the sole responsibility of the pilot in command.
- 2.2 Subject to subsections (2.3) and (2.6), in an emergency arising in flight, the pilot-incommand may breach the provisions of the ANRs and this SD.

The odd occasion arises when the need for the flight is urgent, and one or more of the regulatory requirements or normal standards cannot be met. In view of the infrequent need for such operations, the Authority is prepared to consider relief from certain provisions of the regulations for the operation of a MERCY FLIGHT. (1)



- 2.3 For the purposes of subsection (2.1), a breach of any prescribed requirement is permitted only if the pilot-in-command is satisfied that— (a) the emergency involves a danger to life or property; and (b) the extent of the breach of the prescribed requirement goes only as far as is necessary to deal with the emergency; and (c) there is no other reasonable means of alleviating, avoiding, or assisting with the emergency; and the degree of danger involved in complying with the prescribed requirement (d) is clearly greater than the degree of danger involved in deviating from it. 2.4 Subject to subsections (2.5) to (2.6), where an emergency (not being an emergency that arises in flight) necessitates the urgent transportation of persons or medical or other supplies for the protection of life or property, the pilot-in-command of the aircraft or the operator of the aircraft may breach the provisions of the ANRs. 2.5 For the purposes of subsection (2.4), a breach of any prescribed requirement is permitted only if— (a) the emergency involves a danger to life or property; and (b) the extent of the breach of the prescribed requirement goes only as far as is necessary to deal with the emergency; and
 - (c) there is no other reasonable means of alleviating, avoiding, or assisting with the emergency; and
 - (d) the degree of danger involved in deviating from the prescribed requirement

is clearly less than the degree of risk in failing to attend to the emergency.



2.6 Nothing in subsection (2.3) permits—

(a) the breach of any prescribed requirement as to the airworthiness of an aircraft; or

- (b) the operation of an aircraft by a person who is not lawfully entitled to operate that aircraft.
- 2.6. Where, in any emergency described in this section, a pilot-in-command or an operator breaches the regulations in accordance with the provisions of this section, the pilot-in-command or the operator, as the case may be, shall immediately notify the relevant air traffic control service of the action; and in accordance with 6.9 notify the Authority with a written report in respect of the action taken.

3 OPERATOR'S RESPONSIBILITY

- 3.1 AOC holders may elect to carry out mercy flight or may decide that they are not prepared to participate in such operations. If they decide that they are not prepared to do so, then they shall state as such in their operations manual. If they are prepared to consider undertaking a mercy flight when so requested, then they are required to address the subject in detail in their operations manual (ANR 43.4(q) and SD-AOC refers).
- 3.2 Operators may be more restrictive than the conditions imposed by the Authority, in this Standards Document, and any such limitations shall be documented in their operations manual. For example, AOC holders may require more hours in command, on type or total than those recommended by the Authority, and or operators may require more recency or other differences. Such changes may mitigate the level of

risk with their insurers. However, the Authority requirements stated in this Standards Document are to be observed.

- 3.3 Operators shall ensure that pilot in command has adequate knowledge of the route to be taken, the aerodromes / heliports of take-off and landing, and any alternate aerodromes (ANR 46 (1) refers).
- 3.4 Additional guidelines required in company Operations Manuals for Mercy Flights:
 - (a) Whether or not flight after nightfall is permitted, and if so, stipulations and conditions that need to be met.
 - (b) The minimum experience and currency required of the Mercy Flight pilot if flight at night and IMC is or may be required;
 - (c) Minimum aircraft instrumentation that is required to be operational;
 - (d) Weather; extent of visibility, cloud height and extent of cover, for both day VFR and night IFR operations. For Helicopters flying at night to mention the extent of celestial light required in terms of full, part or new moon, and the use of the cultural lighting.
 - (e) Alternative destinations required in the event of visibility deteriorating below acceptable limits;
 - (f) The need for the Mercy Flight pilot to discuss risks and other related factors with another senior pilot;
 - (g) The need to discuss with the healthcare or similar professional, the ANR regulations that might be breached and related risks that might be incurred if the Mercy Flight was undertaken as well as the possibility of alternative

medical facilities that may be more accessible with alternative transportation

options.

(h) The need to consider alternative transportation options, including a combination of road and sea transport together with fixed and/or rotary wing flight;

4 MERCY FLIGHTS

- 4.1 A flight shall not be declared a Mercy Flight when all the requirements of the applicable regulations can be complied with and the patient is transported as an ordinary passenger or when the aircraft is undertaking a Search and Rescue (SAR) operation and receives the appropriate special consideration or priority from air traffic services.
- 4.2 A mercy flight shall not be undertaken unless the pilot-in-command holds a valid professional pilot licence (Commercial Pilot or higher licence).
- 4.3 Nothing in this SD permits the breach of any prescribed requirement relating to crew qualification ANR 45 (1)(a)(i) and (ii), (1)(b)(i) and (ii), 1(c)(i) and (ii), 1(e)(i) and (ii) refers).

4.4 Nothing in this SD permits the breach of any prescribed requirement as to the airworthiness of an aircraft;

4.5 Operators are to be mindful of those aircraft, in their fleet, currently using exceptions in accordance with their respective Minimum Equipment Lists, which would prohibit a Mercy Flight. Furthermore, operators must ensure that no flight is commenced with multiple Minimum Equipment List items inoperative without determining that any interrelationship between inoperative systems or components

will not result in an unacceptable degradation in the level of safety and/or undue increase in the flight crew workload.

- 4.6 A mercy flight shall not be undertaken when -
 - (a) alternative means of transportation or relief is available to the patient or person concerned; or
 - (b) the crew and other occupants will be exposed to undue hazard as a result of the flight being undertaken; or
 - (c) relief or rescue can be delayed until more suitable operating conditions are available.
- 4.7 For a flight at night, the aircraft shall be equipped with instrument(s), ANR 23 Table 1 (continued) (2) and (2(a), (b), (c), (d) & (e), refers as a minimum, that will mitigate the risk of spatial disorientation and the pilot should have a clear understanding of the risks of trying to fly visually without adequate internal or external references.
- 4.8 Night MERCY FLIGHTS for fixed wing aircraft shall only be flown from an airfield equipped with serviceable runway lights, these may be portable runway lights approved by the Authority, to an airfield so similarly equipped, with an approved published instrument approach procedure.
- 4.9 Night MERCY FLIGHTS for Helicopters; a helicopter may in extreme circumstances, depart from an approved Helicopter Landing Site and be restricted to the nearest airport equipped with serviceable runway lights from which other transport options are available, except where the Helicopter Landing Site is approved for night operations, by the Authority, and lit in accordance with ICAO Annex 14, Aerodromes Volume II, Heliports.

- 4.10 Once the patient has been disembarked the MERCY FLIGHT criteria terminates.
- 4.11 The Robinson 44 helicopter is considered unsuitable for Mercy Flights and shall not undertake such flights.

5 PILOT QUALIFICATIONS

- 5.1 Whilst the circumstances of any particular instance may be such that the only pilot available does not have the qualifications below, the Authority recommends that the pilot-in-command of a Mercy Flight should have at least:
 - (a) 1000 hours flight time;
 - (b) 100 hours on type, including 50 hours as pilot-in-command; and
 - (c) 6 months experience of operating in the general area through which the flight will be conducted.
- 5.2 Additionally, as an air transport flight, the operator's Accountable Manager or Chief Pilot if so designated shall specifically approve each Mercy Flight.

6 PILOT-IN-COMMAND RESPONSIBILITES

- 6.1 In accordance with Air Navigation Regulation 68 (4), the final decision as to whether or not the Mercy Flight will be undertaken shall rest solely with the pilot-incommand.
- 6.2 The pilot-in-command shall carefully consider any request from the appropriate competent authority (medical or Police) with regard to the requirements in section 4.
- 6.3 The pilot-in-command shall also consider the following other factors:
 - (a) The weather conditions en-route and at the destination;



- (b) Whether his experience reasonably qualifies him to undertake the particular flight;
- (c) The distance and type of terrain involved;
- (d) The availability and reliability of any navigational facilities to be used including, where appropriate, suitable landmarks for visual flight;
- (e) The availability of suitable alternate airports or hospitals to which the flight can be made and the availability of alternative medical aid;
- (f) The availability and reliability of communications facilities;
- (g) The number of persons to be carried on the aircraft, limiting this to the minimum required;
- (h) Any other factors that may have any effect on the safe conduct of a flight,Flight Time Limitations and fatigue; and
- Once the patient is offloaded, all regulatory requirements must be observed for any subsequent air transport flight.
- 6.4 If the pilot-in-command is prepared to undertake the flight, he or she shall then notify the competent authority (medical or Police) and, where practicable, any passengers to be carried, of any expected deviations from the provisions of the regulation applicable and the suitability or otherwise of the aircraft for the carriage of the patient concerned so that they may have the opportunity of considering the circumstances that will be applicable and any likely or possible effect on the patient. Only patient(s) and those directly and actively supporting the patient(s) shall be carried.

- 6.5 When the pilot-in-command is satisfied that the Mercy Flight can be carried out successfully, the pilot-in-command shall notify the appropriate air traffic service unit of all pertinent details and identify the operation as a **MERCY FLIGHT**.
- 6.6 The notification must, in addition to normal flight plan details, include the basic reason for the flight and the reporting points or times at which appropriate reports will be made to the air traffic service unit and details of the arrangements made or any assistance required at the destination, such as a road ambulance.
- 6.7 A Mercy Flight shall, after consultation with the **competent** authority (medical or Police), in relation to the relief required by the patient and any operational considerations, be restricted to the nearest airport (by night), hospital or facility where such relief can be provided to the patient or from where other transportation, if appropriate, is available.
- 6.8 A Mercy Flight shall not commence unless continuous two-way radio communications with the appropriate air traffic service unit can be maintained throughout the flight. However, where this capability may not be readily available, then the use of an alternative communication capability can be considered acceptable provided a flight watch or flight monitoring is established. Air traffic services will provide appropriate priority, maintain a special watch on the progress of the flight, notify appropriate ground organisations and provide the pilot with the appropriate advice and information on conditions or action taken.
- 6.9 Immediately after the completion of the Mercy Flight, and within 48 hours, the pilotin-command shall submit, to the Authority, a report marked '**CONFIDENTIAL MERCY FLIGHT**', on all aspects of the operation made under the provisions for such flights,

including the factors which led to the pilot-in-command's decision to make the flight as follows:

- (a) Overview of the flight;
- (b) medEvac request originator: the name, appointment, contact details and address of the person(s) requesting the mercy flight;
- (c) patient's name and age;
- (d) attending / accompanying Doctor and contact details;
- (e) pilot-in-command's qualifications and hours;
- (f) regulations and or standards requirements not met.
- (g) A detailed narrative of all relevant flight details including;
 - Airfield / landing site used to include fuel and performance considerations.
 - 2) a copy of the Weather;
 - 3) a copy of the Weight and Balance / Load sheets
 - 4) a copy of the Tech Log
 - 5) a copy of the PIC's FTL last 28 days;
 - 6) a copy of the operator's Risk Assessment

7 OTHER AIRWORTHINESS AND OPERATIONAL CONSIDERATIONS

7.1 Most large airlines have procedures for the carriage of sick or injured persons on normal passenger flights; however, due to lack of specialised handling facilities such persons may be refused and would be transported on a special flight.

- 7.2 The International Air Transport Association has developed certain guidelines for its members with regard to the carriage of injured or such persons on normal passenger flights. Passengers requiring special handling arrangements for medical reasons are in most cases required by the airline to submit a doctor's certificate or obtain a special medical clearance.
- 7.3 Operators are reminded of the need to ensure that operations covering air transportation of sick and injured persons and any Mercy Flights undertaken are covered by adequate insurance provisions as these may involve abnormal utilisation of the aircraft such as the carriage of:
 - (a) passengers not able to use a regular passenger seat in the upright position (e.g. stretcher cases);
 - (b) premature infants in electric incubators;
 - (c) patients fitted with electronic devices such as cardiac pacemakers;
 - (d) radio active materials for medical purposes;
 - (e) divers suffering from decompression sickness flight at or below 300ft ASL; or
 - (f) patients with other medical conditions such as fractures, defective lung tissue or blood disease.
- 7.4 In some cases, air transportation of such patients may aggravate their condition unless adequate precautions are taken.
- 7.5 All operators of public transport aircraft who make the aircraft available for the carriage of sick or injured persons are also reminded that the regulations require that any passengers carried occupy a seat approved under the regulations.

- 7.6 This requirement also applies to patients on stretchers and prior approval for use of stretchers should be obtained and included in the Operations Manual. Each stretcher must be provided with adequate anchorages and a quick release safety harness. Stretchers should not exceed the floor loading applicable and anchorages and harness must be designed to accept the load factors applicable to normal seats (See 7.9).
- 7.7 Other requirements that may arise when transporting patients are:
 - (a) Requirement to provide a suitable access for the loading or unloading of stretchers.
 - (b) Provision for the safe storage of oxygen required by the patient.
 - (c) Provision of additional or modified sources of electric power for any medical equipment carried,
 - (d) Provision of space for the carriage of other medical equipment (additional to equipment carried under the provisions of the Air Navigation Regulations) including suitable attachment for the administration of blood transfusion or a drip.
 - (e) In normal passenger aircraft, provision of suitable screens around the patient and any attendant carried.
- 7.8 Where the patient will require attention during the flight, suitable accommodation should be provided for a doctor or nurse near the patient. The pilot-in-command should ensure that, where practicable, all passengers are briefed on the emergency evacuation procedures.

7.9 Airworthiness approval must be in place for all aircraft modifications including any stretcher installations. Operators should note that unapproved modifications or additions could affect the structural limitations and airworthiness of the aircraft, navigational equipment, (e.g. interference from electrical equipment) and so seriously affect the safety of the aircraft and all on board.

8 INFECTION CONTROL

- 8.1 Operators are reminded of the corrosive nature of blood should it seep into the aircraft structure, and requirement for infection control after a Mercy Flight has taken place before undertaking normal Air Transport Operations. Studies in Australia and the USA found that the helicopter floor recorded higher bacterial counts than the seat harness buckles and headsets used by the patients and medic staff.
- 8.2 Any additional requirements that may be imposed by the government in response to an international pandemic, prior to departing on a Mercy Flight. This may include the wearing of Personal Protective Equipment by the crew for infectious diseases, providing hand sanitiser for passengers upon boarding, and the requirement for all passengers to wear a mask. An aircraft disinfecting programme to disinfect the aircraft prior to departure and on return.
- 8.3 International Mercy Flights: Approval from the Department of Civil Aviation and the Authority if not covered by the operators Air Service Licence.