ATTACHMENT A – FLIGHT TIME, FLIGHT DUTY PERIODS, AND REST PERIODS

DRAFT POLICY
MAY 2012

1. HELICOPTER OPERATIONS

1.1 Objective and Scope

1.1.1 The following content is based on scientific knowledge and flight experience. This document is designed to ensure that duty and rest patterns, for helicopter flight crews involved in commercial aviation, are arranged in such a way as to avoid fatigue.

1.1.2 This content assumes that most helicopter operations are conducted in an area where local time varies no more than by 1 hour.

1.1.3 An operator shall include in its Operations Manual a flight and duty time limitations (FTL) and rest scheme complying with the provisions of this policy, and implement an approved FRMS as soon as possible.

1.1.4 Each operator and every flight crew member shall comply with the provisions of the scheme referred to in para. 1.1.2.

1.1.5 Flight crew members working on a freelance or private basis shall maintain an individual record of their flight hours, flight duty hours and duty hours together with their rest hours and days free of duty, which shall be presented to all operators who employ their services before undertaking any flight duty.

1.1.6 No person shall act as a flight crew member of a helicopter if he/she knows or suspects that he/she is suffering from, or is likely to suffer from, such fatigue or feel unfit in such a way as may endanger the safe conduct of the flight.

1.1.7 Planned operations shall allow for flights to be completed within the maximum permitted flight duty period taking into account the time necessary for pre- and post-flight duties, the flight and the turn-around times and the nature of operation.

1.1.8 An operator shall prepare and publish a planned duty roster a minimum of 28 days in advance. Any subsequent change to a rostered Day Off shall be given at a minimum of 7 days’ notice. Account shall be taken of the effect of circadian rhythm disruptions and sleep deprivation, sufficiently in advance to provide the opportunity for flight crew members to plan adequate rest. The operator shall also take into consideration the type of operation when procuring the roster.
1.1.9 It is recognised that not all operators will conform to provisions of this content and that they may apply for variations. Any variation to the company published FTL/FRMS scheme must be submitted to the relevant National Aviation Authority for approval. In doing so, the operator shall have to demonstrate that all affected crew have been fully consulted, and that any mitigations provided for the variation will maintain the current expected level of flight safety.

1.2 TERMINOLOGY/DEFINITIONS

1.2.1 ACCLIMATISED
A flight crew member is acclimatised when he/she has spent 3 consecutive local nights on the ground within a time zone which is 2 hours wide, and has been able to take an uninterrupted night’s sleep on each occasion. The flight crew member shall remain acclimatised thereafter until a duty period finishes at a place where local time differs by more than 2 hours from that at the point of departure.

1.2.2 BREAK
A period free of all duties, which shall count as duty, being less than that required as that for a rest period.

1.2.3 A short period of time during the day, other than on a ‘day off’, whereby a crewmember must be available for notification of the commencement of a duty period. This short period shall not exceed 1 hour in duration and shall not be less than 10 hours ahead of the scheduled start of said duty.

1.2.4 CREW/CREW MEMBER
A member of the aircraft operating crew licenced or otherwise, that performs his/her duties in a helicopter during the flight or any part thereof.

1.2.5 DAY (LOCAL)
A period from 00:00 to 24:00 local home domicile local time

1.2.6 DAY OFF
Day free of all duties, available for rest and/or recreation. A single day off shall be of 36 hours duration, containing 2 local nights, with any additional day off being a further 24 hours. A day off can only be assigned at home base, and may include a Rest Period.

1.2.7 DUTY
A continuous period during which a crew member is required to carry out any task associated with the business of the aircraft operator.
1.2.8 **DUTY PERIOD**
A period which starts when the crew member is required by an operator to report for a duty until the flight crew member is free from all duties.

1.2.9 **EARLY START**
A duty which commences in the period 0500 to 0659 (local time) shall be deemed to be an Early Start.

1.2.10 **EQUAL TIME ROSTER (50/50)**
A roster which utilises a pre-planned set number of working days, followed by an equal number of days off.

1.2.11 **FLIGHT CREW MEMBER**
Means those members of the Crew who act as pilot.

1.2.12 **FLIGHT DUTY PERIOD (FDP)**
A period of time which commences when an operating flight crew member is required to report for a duty period that includes a flight, and which finishes at the end of the flight time when both engines and rotors have stopped. Any post flight ground runs are to be included as part of the FDP.

1.2.13 **FLIGHT TIME (HELICOPTER)**
The total time from the moment a helicopter first starts the rotor for the purpose of taking off, until the rotor is stopped at the end of the flight.

Note 1: This definition is for Flight and Duty Time purposes only.
Note 2: Apart from ground runs for engineering purposes, whenever helicopter rotors are engaged, the time shall count and be included in the total flight time.

1.2.14 **MONTH**
A rolling period of 28 consecutive days for FTL/FRMS purposes.

1.2.15 **NIGHT (LOCAL)**
A continuous period of 8 hours, falling between 22:00 and 07:59 hour’s local time.

1.2.16 **NIGHT DUTY**
A duty is a Night Duty if any part of that duty falls between 0200 and 0459 hours local time.

1.2.17 **NOTIFICATION TIME**
The standard period of time that an operator allows between the times a crew member on standby duty receives a call requiring him/her to report for duty and the time he/she is required to report for that duty.

1.2.18 **POSITIONING**
The transferring of Flight Crew by air or surface transport, as a passenger from place to place, at the behest of an operator.
1.2.19 **PRE-FLIGHT/POST-TIME FLIGHT**
The minimum time to be allowed for pre-flight planning shall be not less than one hour, except for those engaged in HMT, SAR and/or other relevant State Activity. Post flight time shall be a minimum of thirty minutes.

1.2.20 **REGULAR**
When applied to Early Start, Late Finish or Night duties, means a run of 4 or 5 consecutive duties, within a run of a single 7 consecutive day period, which is not broken by a day off.

1.2.21 **REMOTE SITE**
Where the crew are based for example, on an offshore oil rig/platform, or at a location which has been established and intended for temporary/non-permanent operations only.

1.2.22 **REST PERIOD**
The time provided to a flight crew member for the specific purposes of enabling him/her to rest prior to the commencement of a planned FDP. Time subsequent to the FDP shall also count and be part of a rest period. A minimum of 10 hours in suitable accommodation and the opportunity to obtain not less than 8 consecutive hours sleep shall be achievable. The rest period does not include break time. Rest period time is determined in advance, is continuous, is free from all duty and restraint, and may not be interrupted by the employer.

1.2.23 **ROSTER**
A pre-planned crew schedule, taking into account the requirement of the published FTL/FRMS scheme, which reflects work days on/days off along with duty report/finish times. Roster periods shall be regular consecutive periods of time consisting of weeks, and/or months. The roster shall be published a minimum of four weeks in advance, in order to allow crew the opportunity to plan for recreation time and adequate rest.

1.2.24 **SECTOR**
A time between when a helicopter first moves under its own power until completing a landing, or an approach followed by a hover (in or out of ground effect), for the purposes of:-

a. Embarkation and/or disembarkation of passengers and/or crew, with or without hoist/sling operation
b. Loading/unloading of freight with/without hoist/sling operation
c. Refueling

1.2.25 **SHORT SECTOR**
A sector of less than five minutes or less than 5 nautical miles.

1.2.26 **SPLIT DUTY (EXTENDED FDP)**
A continuous flying duty period, planned and notified in advance with the crews agreement and co-operation, which consists of two time periods, separated by a break of not less than two hours.
1.2.27 **STANDBY DUTY**
A period of time in which a flight crew member has not been assigned to any specific duty, but is required to be contactable to receive an assignment for duty.

1.2.28 **SUITABLE ACCOMMODATION**
A well-furnished single occupancy bedroom with appropriate facilities that are subject to minimum noise (30dB). The room shall be ventilated and have the ability for the crewmember to control the levels of light and temperature which provide the opportunity for undisturbed rest. Access to food and drink shall also be available.

1.2.29 **TRAVELLING**
All reasonably planned travelling time spent by a flight crew member in transit between his/her place of rest provided by the operator, to the place of duty and vice-versa.

1.2.30 **WEEK**
A rolling period of 7 consecutive days for FTL/FRMS purposes.

1.2.31 **WINDOW OF CIRCADIAN LOW (WOCL)**
The hours between 0200 and 0559 for individuals adapted to a routine usual day-wake/night-sleep schedule. The WOCL is 0200-0559 within a band of three time zones based on home-base/domicile local time. Beyond these three time zones, the WOCL refers to home base time for the first 48 hours after departure from the home base and then local time thereafter.
1.3 LIMITATIONS – FLIGHT CREW

1.3.1 CUMULATIVE DUTY HOURS
No operator shall schedule a flight crew member for a duty period and no flight crew member shall accept an assignment for a duty if his/her total duty time would be more than:-

a. 1800 hours in 12 consecutive months, if the flight time is 800 hours or below.
b. 1900 hours in 12 consecutive months, if the flight time is 700 hours or below.
c. 2000 hours in 12 consecutive months, if the flight time is 600 hours or below.
d. 190 hours in 28 consecutive days.
e. 50 hours in 7 consecutive days, or
f. 60 hours in 7 consecutive days, if the crew member is conducting flights from a remote site/base, is based offshore, or working an Equal Time roster (50/50).
g. 45 hours in 5 days.
h. Maximum duty hours in accordance with Table 1.
i. Maximum duty days and FDP on an Equal Time roster in accordance with Table 2.

1.3.2 CUMULATIVE FLYING HOURS/FLIGHT DUTY PERIOD
No operator shall schedule a flight crew member for a flying duty period and no flight crew member shall accept an assignment for a flying duty period if his/her total flight time should be more than:-

a. 800 hours in any period of 12 consecutive months
b. 240 hours in any 3 consecutive 28 day periods
c. 90 hours in any period of 28 consecutive days
d. 35 hours in any period of 7 consecutive days
e. 18 hours in any period of 3 consecutive days
f. The maximum uninterrupted flight time shall be Single Pilot - 2 hours
   Multi Pilot - 4 hours
g. Maximum flight times in accordance with Table 1.
### TABLES

**Table 1. Maximum Duty Time and FDP.**

<table>
<thead>
<tr>
<th>Local Time of Start</th>
<th>Single Pilot</th>
<th>Two Pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max. Length FDP (Hours)</td>
<td>Max. Flying Time (Hours)</td>
</tr>
<tr>
<td>0700 - 0759</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>0800 - 1259</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>1300 - 2159</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>2200 - 0659</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

**Split Duty Table**

<table>
<thead>
<tr>
<th>Consecutive Hours Rest</th>
<th>Maximum Extension of FDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2</td>
<td>Nil</td>
</tr>
<tr>
<td>Between 2 &amp; 3</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Between 3 &amp; 10</td>
<td>A period equal to half the consecutive hours rest subject to a maximum of 2:30</td>
</tr>
</tbody>
</table>

**Table 2. Maximum FDP on an Equal Time Roster (50/50)**

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Maximum FDP (Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>38</td>
</tr>
<tr>
<td>5</td>
<td>44</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>56</td>
</tr>
</tbody>
</table>

Note. The figures in table 2 may also be applied to working at a remote site or offshore installation with the agreement of the crew.

1.3.3.1 Where the pilot workload is unusually high, the pilots should limit their Helicopter Flight Duty Period to a maximum of two hours at the end of which a period of rest of not less than one hour should be taken, away from the helicopter. Operations where pilot workload is considered to be unusually high include the following:

a. Whenever 5 sectors or more per hour are flown;
b. Whenever 4 instrument procedures per hour are flown;
c. Whenever more than 20 minutes per hour are flown in the hover.
1.3.3.2 In the case of repetitive short sectors, such as offshore shuttling, where the pilot workload is unusually high, the following limits shall apply:

a. Maximum of 40 landings per FDP with 1 night landing counting as 2 day landings  
b. 30 – 35 landings: flight duty time reduced by 1 hour  
c. 36 – 40 landings: flight duty time reduced by 2 hours

1.3.3.3 **SPLIT DUTY (EXTENDED FDP)**
The Regulatory Authority may grant approval to an operator for operations based on a split duty (extended FDP) including a break. All duty from the first start until the final finish shall be totally accountable in accordance with Table 1

Each operator will have to demonstrate to the Regulatory Authority, using operational experience and taking into account other relevant factors, such as scientific knowledge, that its request for an extended FDP produces an equivalent level of safety.

1.3.3.4 **LATE FINISHES/EARLY STARTS**

a. Not more than 3 consecutive FDP’s that occur in any part of the period 0000 to 0759 local time may be undertaken, nor may there be more than 4 such duties in any 7 consecutive days.  
b. There shall not be more than 5 planned FDP’s falling between the hours of 0000 to 0659, within any roster period of 28 days  
c. There shall be a maximum of 1 FDP falling between the hours or 2100 to 0659, to prevent the operator from planning a new FDP should the landing occur after 2200. This shall prevent the operator from utilizing split duty periods at night and shall not prevent the use of any standby crew.  
d. A maximum of 7 planned and/or actual consecutive FDP’s, where 3 hours of the FDP finishes between the hours of 2100 to 0659, within in any roster period of 28 days.

1.3.4 **POSITIONING**
Time spent positioning associated with a flight duty shall count as being part of the FDP.

1.3.5 **MINIMUM REPORTING TIMES**
Shall be in accordance with 1.2.22
1.3.6 MINIMUM REST REQUIREMENTS

Crew members will be notified in advance of an FDP so as to allow sufficient and un-interrupted rest prior to commencement.

1.3.6.1 No operator shall schedule a flight crew member for a flight duty period and no flight crew member shall accept an assignment for a flight duty without a rest period preceding that flight duty period of:
   a. At least as long as the preceding duty period
   b. 12 hours, whichever is the greater

1.3.6.1.1 In the case when the rest period earned by a flight crew member is 14 hours, and suitable local accommodation within one and a half hours travelling time is provided by the company, then the rest period may be reduced to 12 hours at the accommodation.

1.3.6.2 The planned minimum rest period may be reduced by a maximum of three hours but not less than 11 hours under the following conditions:
   a. The preceding rest period shall have been at least a normal minimum rest period as defined in para. 1.3.6.1; and
   b. The amount of reduction of the rest period shall be added to the next rest period which cannot be reduced
   c. After a reduced rest as stated in sub-para. 1.3.6.2, the maximum flight duty period as determined in para 1.3.3.1 shall be reduced by twice the amount of reduction of the preceding rest period
   d. There may only be one reduced period in any 7 consecutive days.

1.3.6.3 Minimum rest periods shall be as follows:

   a. One 36 hour period in any 7 consecutive days including 2 local nights, or
   b. One 60 hour period in any 10 consecutive days including 3 local nights, or
   c. One 96 hour period in any 14 consecutive days including 4 local nights.

1.3.6.4 When rest periods away from the home base are required, the operator shall provide suitable accommodation.

1.3.6.5 In any 7 consecutive days, the minimum of a single day off shall be provided.

1.3.6.6 The Regulatory Authority may grant reduced rest arrangements to those operators who have an approved Fatigue Risk Management System (FRMS) as part of the company Safety Management System (SMS). Each operator will have to demonstrate to the Regulatory Authority, using operational experience and taking into account other relevant factors, such as current scientific knowledge, that its request for reduced rest arrangements together with suitable mitigating measures will produce an equivalent level of safety.
1.3.6.7 TRAVELLING TIME
   a. If the travelling time from the place of duty to suitable accommodation provided by the operator and return does not comply with the requirement of a rest period, then any excess shall be added to the minimum rest period.
   b. Where the travelling time from the accommodation, provided as above, to the place of duty exceeds 1 hour, the flight duty period will commence 1 hour after departing the accommodation.

1.3.6.8 DAYS OFF
   a. An Operator shall ensure that a flight crew member is given days free of all duty and standby duty, which is notified in advance.
   b. A minimum of 8 days off shall be given at home base in each consecutive 28 days.
   c. Days off at base shall be taken in groups of two or more consecutive days off.
   d. Crew members shall:
      Have 1 day off in any 7 consecutive days.
      Have 3 days off (2 of which shall be consecutive) in any 14 consecutive days.
   e. In the event of being away from home base more than 12 consecutive days, have 1 extra day, and 2 extra days if away for 16 days or more added to 1.3.6.8 d.
   f. Have a minimum of 30 days off at base in 13 consecutive weeks.
   g. Have a minimum of 30 days’ vacation per year.

1.3.7 NIGHT DUTY
1.3.7.1 There shall be no more than 3 consecutive duties which impinge upon the period between 00:00 and 07:00 hour’s home base/domicile local time, nor may there be any more than 4 such duties in any 7 consecutive days. Should 3 or more flight duty periods within a 7 consecutive days period, encroach on all or any portion of the window of circadian low, then the standard rest period (36 consecutive hours within 7 days) shall be extended to 48 hours to ensure recovery.
1.3.7.2 Except as provided below, when a flight duty period impinges or overlaps on the window of circadian low, there shall be no further landings in that flight duty period.

a. If the WOCL is impinged upon during a ground stop, and the elapse flight duty time prior to commencing the stop is less than three hours, and close by sleeping accommodations are provided to all flight crew members when ground stop time exceeds 2:30, then one additional landing is allowed which must be completed within the limits of the original flight duty period.

b. If the complete WOCL is overlapped during a ground stop within a flight duty period, and close by sleeping accommodations are provided to all flight crew members for the period of the ground stop, then one additional landing is allowed regardless of length of elapsed flight duty period prior to the ground stop. This additional landing shall be completed within the limits of the original flight duty period.

1.3.8 TIME ZONE CROSSING DURING POSITIONING

If the time zone difference, based on UTC time zones, between the beginning and the end of the positioning is three hours or more, the minimum rest period shall be at least as long as:

a. The preceding duty time, plus a minimum of 60 minutes per time zone passed when positioning in an easterly direction.

b. Minimum 14 hours plus 30 minutes per time zone passed, whichever is greater.

1.3.9 STANDBY DUTY

1.3.9.1 When an operator elects to place crews on standby duty, he shall apply the following limits on standby duty periods for flight crew members:

a. A flight crew member shall not be assigned to standby duty for a period exceeding 12 hours, and the operator shall notify the pilot of the time of the beginning and end of the standby duty at least 48 hours in advance.

b. During the time a flight crew member is on standby duty the operator can assign the flight crew member to work up to the maximum flight duty period of the check-in time outlined in Table 1 or up to 18 hours after the time of commencement of a standby duty whichever comes first. Takeoff time shall be no later than 2 hours after the end of the standby duty period.

1.3.9.2 Standby duty can be undertaken at home or in suitable accommodation provided by the operator.
1.3.9.3 Standby duty undertaken at home shall count at 50% of duty time, both on the day and cumulatively. All other standby duty shall count as full for the purposes of cumulative duty hour’s limitations as specified in para. 1.3.1.

1.3.9.4 The standard notification time shall be at a minimum of 1 hour. If it is less than two hours, the flight duty time period commences at the start of the standby duty.

1.3.9.5 Following completion of a standby duty without being called for duty, a minimum rest period of 12 hours shall be provided prior to the next duty time or standby duty.

1.3.9.6 AIRPORT STANDBY:
   a. A crew member is on airport standby from reporting at the normal report point until the end of the notified standby period.
   b. Airport standby shall count in accordance with para. 1.3.9.3
   c. Where the airport standby does lead to assignment on a flight duty, it shall be followed at least by a rest period as described in para 4.3.6. or as regulated by the Authority.

1.3.9.7 Whilst on airport standby, the operator shall provide the crew members with a quiet and comfortable pace not open to the public, and with the ability to control light and temperature. There shall be adequate furniture, with enough capacity to accommodate all crew members present at the same time, and have access to both food and drink.

1.3.10 COMMANDER’S DISCRETION

1.3.10.1 During the actual flight operation, which starts at the reporting time, the limits on flight duty and rest periods prescribed in this document may be modified in the event of unforeseen circumstances. Any such modifications shall be acceptable to the commander after consultation with all other crew members and shall, in all circumstances, comply with the following:

   a. The maximum flight duty time may be extended by two hours at the commander’s discretion in the event of contingencies occurring after the departure of the helicopter from home base. A written report shall be submitted to the Regulatory Authority. The following rest shall be as long as the preceding duty period plus twice the extension of the duty.
   b. If a flight is delayed or re-scheduled on the day of operation before a flight crew member leaves the place of rest, then the flight crew member is considered to be on standby duty commencing at the original reporting time.

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1.3.10.2 If, due to an unforeseen circumstance, a duty period which was planned outside the night duty time period specified in paragraph 1.3.7.1 falls more than 1 hour within the night duty time period during actual flight operation, that duty will count as a night duty and the rest requirements of paragraphs 1.3.6 and 1.3.7 shall be complied with.

Note 1: Unforeseen circumstance - means any event that occurs after a crew member has reported for duty, which causes a delay or disruption to the planned operation, being outside of the control of either the crew member or the operator.

1.3.10.3 Reports on exceeding duty and/or reducing rest periods:

a. Reasons for exceeding the maximum flight duty period and/or reducing the minimum rest period in actual flight operation shall be reported to the operator by the commander concerned.

b. If the extension or reduction is more than one hour, then a copy of the report (with the operator’s comments) shall be forwarded within 28 days after the event by the operator to the Regulatory Authority.

1.3.10.4 If there are special circumstances, which led to severe fatigue, the commander shall reduce the actual flight duty time and/or increase the rest time.

Note 2: Severe fatigue – means a condition characterised by a lessened capacity for work and reduced efficiency of accomplishment, usually accompanied by an extreme feeling of weariness and tiredness.
1.3.11 BREAKS AND NUTRITION

a. A crewmember shall have a break for at least 30 minutes, before he/she reaches a total of 5 hours actual flight duty time.

b. In multicrew operations only, and at the crew’s discretion, should a proper meal be provided to the crew whilst on board, this may be regarded as a meal break. In this situation, the flight time may be extended to a maximum of 8 hours.

c. If the planned total multicrew flight time is more than 4 hours but less than 5 hours, the flight time shall be interrupted by a break of at least 30 minutes. In the case of single pilot operations, if the planned total flight time is more than 3 hours, but less than 4 hours, the flight time shall be interrupted by a break of at least 30 minutes.

d. If the planned total multicrew flight time is more than 5 hours, the flight time shall be interrupted by one break of 45 minutes or two breaks of 30 minutes. In the case of single pilot operations, if the planned total flight time is more than 4 hours, but less than 5 hours, the flight time shall be interrupted by a break of 45 minutes of two breaks of 30 minutes.

e. If the planned total multicrew flight time is more than 5 hours, the flight time shall be interrupted by one break of 45 minutes or two breaks of 30 minutes. In the case of single pilot operations, if the planned total flight time is more than 4 hours, but less than 5 hours, the flight time shall be interrupted by a break of 45 minutes of two breaks of 30 minutes.

f. At the Commander’s discretion, not having had the opportunity to take a break, then the flight time maybe extended up to a maximum of 30 minutes in order to finish the flight and return to home base. In such circumstances, this shall only be allowed to occur once in any FDP.

g. All flights shall be planned with a sufficient time consideration margin so as to take into account operational constraints such as taxing time, refueling, etc. As a guide, for every 1 hour planned for flights less than 4 hours, a minimum of 5 minutes per hour should be added to the planned total flight time, plus 1 minute extra for each landing.

1.3.11.1 Commanders may exercise their discretion to exceed these periods as described above without taking a crew break, in which case a Discretion Report Form shall be submitted.
1.3.12 **FLIGHT DUTY, DUTY AND REST PERIOD RECORDS.**

1.3.12.1 Sufficiently detailed records of crew member’s duty and rest periods shall be maintained to ensure compliance with all aspects of the flight and duty time limitations contained below:

1.3.12.2 An operator shall ensure that sufficiently detailed records of crew member’s actual:

   a. Helicopter Flight Time
   b. Flight duty periods
   c. Duty periods
   d. Rest periods and local days free of all duties, are maintained to ensure compliance with the requirements of this policy.
2. HELICOPTER SEARCH AND RESCUE (SAR) AND HELICOPTER MEDICAL TRANSPORT (HMT) OPS
DRAFT-POLICY MAY 2012

2.1 FATIGUE AVOIDANCE STRATEGY

2.1.1 The avoidance of fatigue in SAR and HMT crews shall be achieved by:

a. Ensuring that the establishment of crew members for each SAR/HMT unit is sufficient to maintain the contracted readiness states.

b. Making provisions for crew members' days off, annual leave, and rest periods, and making allowances for training days, days lost through sickness, and the absence of crew members for other reasons.

c. Devising duty rosters and working practices which are compatible with the physiological and psychological needs of the SAR/HMT crew members. The roster must comply with the absolute minimum as stated within this document, and must be approved by the National Aviation Authority concerned.

d. Making provision for the disruption of duty rosters that will inevitably result when lengthy SAR/HMT missions, or those which extend the planned SAR/HMT Flying Duty Period, are required.

e. Providing suitable accommodation together with comfortable crew room facilities which are appropriate for long hours at readiness to undertake emergency missions.

2.2 Terminology/Definitions (in addition to para. 1.2)

2.2.1 EMERGENCY MISSION
A flight solely for the purpose of assisting in the resolution of an emergency situation, which may or may not involve the saving of human life.

2.2.2 HMT (AIR AMBULANCE) FLIGHT
A flight solely for the purpose of carrying an ill/injured person to a recognised medical facility, or for the transportation of donor organs as required for transplant operations.

2.2.3 SAR/HMT CREW MEMBER
Any member of an SAR/HMT crew, whether ‘Flight crew’ or ‘Cabin Crew’.
2.2.4 **SAR/HMT FLYING DUTY PERIOD**
A duty period, when the SAR/HMT crew member is at immediate readiness to undertake such SAR/HMT missions as may be required. Any SAR/HMT FDP shall not be planned to exceed 12 hours duration by day or 14 hours by night.

2.2.5 **SAR/HMT REST PERIOD**
A period free from all duties, provided to an SAR/HMT crew member by the air operator for the specific purposes of enabling him/her to rest prior to undertaking an SAR/HMT FDP. A SAR/HMT rest period shall not be less than 10 hours duration.

2.2.6 **SAR/HMT READINESS STATE**
The promulgated duration of the reaction period commencing when the SAR or HMT unit receives a request for an emergency mission, and within which 95% of missions will be ready for take-off.

Note: The readiness state of an "on base" crew will be approximately 1.6 times the average reaction time. When crew members are "off base" the readiness state will include an allowance for the time required to assemble the crew.

2.3 **PROVISIONS RELATING TO SAR/HMT DUTY**
2.3.1 **TRAINING DAYS**
There shall be provision for not less than 5 days of training duty for each crew member in every year, on which individual crew members will not be available to undertake SAR readiness duties.

2.3.2 **CONTINGENCY DAYS**
There shall be provision for the contingency that each SAR crew member may be unfit or otherwise unavailable for duty on 13 days in any period of 365 days, for reasons other than training.

2.3.3 **DAYS OFF**
There shall be provision for a minimum number of days off as follows:-

a. 1 day off in 7 consecutive days.

b. 3 days off in 14 consecutive days, of which 2 shall be consecutive.

c. 8 days off in 28 consecutive days (104 days off in 365 consecutive days)

Except, that the accountability of continuous periods of duty which exceed one hour in duration may be reduced by 50%, provided that they are undertaken as part of an SAR or HMT FDP during which the readiness state is one hour or greater and the crew member is not required to remain at the place of work and may return to his/her residence.

May 2012
2.3.4 **FLIGHT TIME**
Due to the nature of SAR and HMT operations, and the long hours spent at immediate readiness, an SAR or HMT crew member shall not undertake an SAR/HMT Flying Duty Period if his/her cumulative flight time exceeds the following:

a. 600 flying hours in any period of 12 consecutive months.
b. 60 flying hours in any period of 28 consecutive days.
c. 30 flying hours in any period of 7 consecutive days.
d. Maximum flight times in accordance with Table 3

2.3.5 **DUTY TIME**
No operator shall schedule a flight crew member for a duty period and no flight crew member shall accept an assignment for a duty if his/her total duty time would be more than:-

a. 1800 hours in 12 consecutive months.
b. 190 hours in 28 consecutive days
c. 50 hours in 7 consecutive days, or
d. Maximum duty hours in accordance with Table 3
e. Maximum working days and FDP if on an Equal time roster in accordance with Table 4.
2.3.6 **TABLES**

**Table 3. Maximum HMT Duty Time and FDP.**

<table>
<thead>
<tr>
<th>Local Time of Start</th>
<th>Single Pilot</th>
<th>Two Pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max. Length FDP (Hours)</td>
<td>Max. Flying Time (Hours)</td>
</tr>
<tr>
<td>0600 - 0659</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>0700 - 1359</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>1400 - 2159</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>2200 - 0559</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

**Table 4. Maximum FDP on an Equal Time Roster (50/50)**

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Max FDP (Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>44</td>
</tr>
<tr>
<td>6</td>
<td>52</td>
</tr>
<tr>
<td>7</td>
<td>60</td>
</tr>
<tr>
<td>Any further day</td>
<td>+ 7 hrs. per day</td>
</tr>
</tbody>
</table>

2.4 **SAR & HMT DUTY ROSTERS**

2.4.1 SAR and HMT rosters should ensure that:

a. no planned SAR/HMT FDP exceeds a duration of 12 hours by day or 14 hours by night;

b. no planned rest period is of less than 10 hours duration;

c. the limitations in cumulative duty for 7 days, 28 days, and 12 months are not exceeded; and

d. the requirements for days off are satisfied.
2.4.2 **STANDBY TIME**

When a crewmember is scheduled to be on standby, the operator shall ensure that:

a. The maximum standby period duration within 24 hours is 12 hours, and that the actual duty period does not exceed 16 hours.

b. Suitable accommodation is provided if a crewmember is required to be on standby away from home base

c. The crewmember is notified no less than 24 hours in advance of the start time of the standby period.

d. The crewmember is notified at least 1 hour in advance of a cancellation of a standby/remainder of a standby period.

e. If a crewmember is assigned standby immediately after a duty period, and without intervening rest, that the duty and subsequent time on standby are totaled and include/added as required in
   - any immediately subsequent FDP, or
   - any immediately subsequent duty period

f. When a crewmember completes a standby without being called for duty, that he/she completes a rest period of at least the duration described in the rest requirements.

g. 50% of the amount of standby undertaken at home by a crewmember counts as duty. All other duty counts at 100%. (All standby time counts as duty at 100% between 0600 – 2200. Between 2200 – 0600, standby duty at home counts at 50%. Away from home without suitable accommodation shall count at 100% duty.)

h. Unless otherwise agreed, crewmembers shall be able to report for duty within one hour of being called.

i. If the notification time is less than 1 hour, then the whole standby period shall be counted as duty time.
2.4.3 CREW MEMBER ESTABLISHMENT AT SAR & HMT UNITS

The numbers of crew members established at each SAR/HMT unit should be sufficient to maintain the contracted readiness states without the SAR/HMT crew members suffering from fatigue.

Note 1: After subtraction of the allowances for leave, training, sickness, absent days and days off, which amounts to 152 days per year, an SAR or HMT crew member would be available to undertake an SAR/HMT FDP on 213 days per year.

However, in order to comply with the limitations in cumulative duty, the FDPs would either have to be of very short duration, or else include substantial periods at reduced readiness states of one hour or more. The consequence is that, when the coastguard or hospital or similar client requires an operator to provide SAR or HMT services which are to be entirely at high readiness states of less than one hour, the number of crew members established at a unit to fill each crew position will be given by:

$$365 \times 24 \div 1800 = 4.87 \text{ i.e. 5 crew members per crew position}$$

(e.g. in a 2 pilot crew: $$2 \times 365 \times 24 \div 1800 = 9.73 \text{ i.e. 10 pilots will be required.}$$)

However, if the service is to be provided entirely from readiness states which are one hour, or longer than one hour, the minimum number of crew members required per crew position will be given by:

$$365 \times 24 \div 213 \div 12 = 3.42 \text{ i.e. 4 crew members will be required}$$

(e.g. in a 2 pilot crew: $$2 \times 365 \times 24 \div 213 \div 12 = 6.85 \text{ i.e. 7 pilots will be required.}$$)

Note 2: The frequency with which emergency missions are undertaken will dictate the minimum number of crew members required on the establishment of an SAR or HMT unit.

Note 3: The reaction time within which an SAR or HMT unit can respond to a request for an emergency mission will be inversely related to the number of crew members established at the SAR or HMT unit.

Note 4: The financial cost of an SAR or HMT operation will be directly related to the rapidity with which the air operator has undertaken to react to requests for emergency missions.
Note 5: The expectation that SAR and HMT emergency services will be able to react within the promulgated response time, and that the SAR/HMT crew members will be in fit condition to undertake missions in difficult and dangerous conditions, and not be suffering from fatigue, will be reliant upon sensible regulation of flying and duty hours and adequate provision for rest and recuperation.