

Republic of South Sudan

Laws of South Sudan

**CIVIL AVIATION AUTHORITY FATIGUE
MANAGEMENT REGULATIONS, 2026**

CIVIL AVIATION AUTHORITY FATIGUE MANAGEMENT REGULATIONS, 2026
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CIVIL AVIATION AUTHORITY FATIGUE MANAGEMENT REGULATIONS, 2026

In exercise of the powers conferred upon me under the provision of section 99 of South Sudan Civil Aviation Act,2012 (Amendment) Act,2024, I hereby issue the following Regulations:

CHAPER I PRELIMINARY PROVISIONS

1. Title and Commencement

These regulations may be cited as the Fatigue Management Regulations, 2026. And shall come into force on the date of its signature by the Minister.

2. Purpose

The purpose of these Regulations is to establish legal frame work to regulate issues related to Fatigue management.

3. Authority and Application

These Regulation is drafted in accordance with section 99 of the South Sudan Civil Aviation Act,2012 (Amendment) Act,2024 and shall apply to Fatigue management in South Sudan

4. Interpretation

In these Regulations unless the context otherwise requires:

“Acclimatisation” means a state in which a crew member's circadian biological clock is synchronised to the time zone where the crew member is. A crew member is considered to be acclimatised to a 2-hour wide time zone surrounding the local time at the point of departure. When the local time at the place where a duty commences differs by more than 2 hours from the local time at the place where the next duty starts, the crew member, for the calculation of the maximum daily flight duty period, is considered to be acclimatised in accordance with the values in the Table below;

X	Time difference (h) between reference time and local time where the crew member starts the next duty				
Y	Time elapsed since reporting at reference time				
X	Y				
	<48	48–71:59	72–95:59	96–119:59	≥ 120
<4	B	D	D	D	D
≤ 6	B	X	D	D	D
≤ 9	B	X	X	D	D
≤ 12	B	X	X	X	D

Where:

“B” means acclimatised to the local time of the departure time zone,

“D” means acclimatised to the local time where the crew member **starts his/her next duty**,

“X” means that a crew member is in an unknown state of acclimatisation;

“Accommodation” means, for the purpose of standby and split duty, a quiet and comfortable place not open to the public with the ability to control light and temperature, equipped with adequate furniture that provides a crew member with the possibility to sleep, with enough capacity to accommodate all crew members present at the same time and with access to food and drink;

“Air Navigation Service Provider” means a directorate in the Authority designated for the purposes of operating and managing air navigation services;

“Air Traffic Controller Schedule or Roster” means a plan for allocating air traffic controller duty period and non-duty periods over a period of time;

“Air” Traffic Service Provider means a person certificated, authorized or otherwise designated by the Authority for the purpose of operating and managing air traffic services;

“Airport Stand by” means a standby performed at the airport;

“Augmented Flight Crew” means a flight crew that comprises more than the minimum number required to operate the aeroplane and in which each flight crew member can leave his or her assigned post and be replaced by another appropriately qualified flight crew member for the purpose of in-flight rest;

“Break” means a period of time within a flight duty period, shorter than a rest period, counting as duty and during which a crew member is free of all tasks;

- “Bio-Mathematical Model”** means a computer program designed to predict aspects of a schedule that might generate an increased fatigue risk for the average person, based on scientific understanding or the factor contributing to fatigue. Bio-mathematical models are an optional tool (not a requirement) for predictive fatigue hazard identification within an FRMS. All bio mathematical models have a limitation that needs to be understood for their appropriate use.
- “Cabin Crew Member”** means a crew member who performs, in the interest of the safety of passengers, duties assigned by the operator or the pilot-in command of the aircraft, but who shall not act as a flight crew member;
- “Commercial Air Transport”** means an aircraft operation involving the transport of passengers, cargo, or mail for remuneration or hire;
- “Crew Member”** means a person assigned by an operator to duty on an aircraft during a flight duty period;
- “Cumulative Fatigue”** means fatigue that occurs after incomplete recovery from transient fatigue over a period of time;
- “Cycle or Rotation”** means a duty or a series of duties, including at least one flight duty, and rest periods out of home base, starting at home base and ending when returning to home base for a rest period where the operator is no longer responsible for the accommodation of the crew member;
- “Circadian Body Clock”** means a neural pace marker in the brain that monitors day and night cycle via a special light input pathway from the eyes and determines our preference for sleeping at night. Shift work is problematic because it requires a shift in the sleep wake pattern that is resisted by circadian body clock, which remains “locked on” to the day night cycle. Jet lag is problematic because it involves a sudden shift in the day/night cycle to which the circadian body clock will eventually adapt given enough time in the new time zone.
- “Consecutive”** means a continuous, unbroken period of time for the duration of the hours or days Mentioned;
- “Counter Measures”** means personal mitigation strategies that individuals can use to reduce their own fatigue risk. Sometimes divided in strategic counter measures for use at home for example good sleep habits, napping before night duty, an operational counter measures, for example controlled napping and strategic use of caffeine;

- “Cumulative Sleep Debt”** means a sleep loss accumulated when sleep is insufficient for multiple nights or twenty-four (24) hour days in a row. As cumulative sleep debt builds up, performance impairment and objective sleepiness increase progressively and people tend to become less reliable at assessing their own level of impairment;
- “Delay to Report”** means the postponement of a scheduled FDP by the operator before a crew member has left the place of rest;
- “Deviation”** means a mechanism to vary from prescriptive regulations under flexibility provisions;
- “Duty operation of Aircraft”** means any task that flight or cabin crew members are required by the operator to perform, including flight duty, administrative work, training, positioning and standby when it is likely to induce fatigue;
- “Duty Air Traffic Services”** means any task that an air traffic controller is required by an air traffic services provider to perform. These tasks include those performed during time-in-position, administrative work and training;
- “Duty Period Operation of Aircraft”** means a period which starts when a flight- or cabin-crew member is required by an operator to report for or to commence a duty and ends when that person is free from all duties;
- “Duty Period Air Traffic Services”** means a period which starts when an air traffic controller is required by an air traffic services provider to report for or to commence a duty and ends when that person is free from all duties;
- “Duty Period Aircraft Maintenance Engineer”** means a period which starts when an aircraft maintenance engineer is required by an operator or maintenance organization to report for or to commence a duty and ends when that person is free from all duties;
- “Fatigue”** means a physiological state of reduced mental or physical performance capability Resulting from sleep, loss, extended Wakefulness, circadian phase or workload mental or physical activity that can impair a person’s alertness and ability to perform safety-related operational duties Fatigue.
- “Fatigue Risk Management FRM”** means a data driven means of continuously monitoring and managing fatigue- related safety risks based upon scientific principles, knowledge and

operational experience that aim to ensure relevant personnel are performing at adequate levels of alertness.

“Flight Crew Member” means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period;

“Flight Duty Period” means a period which commences when a crew member is required to report for duty that includes a flight or a series of flights and which finishes when the aeroplane finally comes to rest at the end of the last flight on which he or she is a crewmember;

“Flight Time” means:

- (a) for aeroplanes and gliders, the total time from the moment an aeroplane or a glider moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight and it is synonymous with the term “block to block” or “chock to chock” time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight;
- (b) for helicopter the total time from the moment a helicopter rotor blades start turning until the moment a helicopter comes to rest at the end of the flight and the rotor blades are stopped;
- (c) for airships or free balloon, the total time from the moment an airship or free balloon first becomes detached from the surface until the moment when it next becomes attached thereto or comes to rest thereon;

“General Aviation Operation” means an aircraft operation other than a commercial air transport operation or an aerial work operation;

“Interrupted Circadian Pattern” is a duty or series of duties that disrupts the sleep opportunity During the optimal sleep window, An FDP or combination of FDPs that encroach, start or finish at any part of the day or night where the crew member is acclimatised may interrupt the circadian pattern due to early starts, late finishes or night duties.

“Local Day” means a period of 24 hours starting at 00:00;

“Local Night” means an 8-hour period falling between 22:00 and 08:00;

“Minister” means minister responsible for Transport

“Home Base”	means the location nominated by the operator to the crew member from where the crew member normally starts and ends a duty period or a series of duty period;
“Night”	means the hours between the end of evening civil twilight and the beginning of morning civil twilight or the time between 15 minutes after sunset and 15 minutes before sunrise, sunrise and sunset being determined at surface level and include anytime between sunset and sunrise when an unlighted aircraft or other unlighted prominent object cannot be clearly seen at a distance of 4,572 metres;
“Operational Base”	means the location nominated by the operator to the crew member from where the crew member normally starts and ends a duty period or a series of duty periods;
“Operator”	means a person, organization or enterprise engaged in or offering to engage in an aircraft operation;
“Operations Manual”	means a manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties;
“Positioning or Deadheading”	means the transferring of a non-operating crew member from place to place as a passenger at the behest of the operator;
“Reference Time”	means the local time at the reporting point situated in a 2hour wide time zone band around the local time where the crew member is acclimatised.
“Reporting Time”	means the time at which flight and cabin crew members are required by an operator to report for duty;
“Rest Facility”	means a bunk or seat with leg and foot support suitable for crew members’ sleeping on board an aircraft;
“Reserve”	means a period of time during which a crew member is required by the operator to be available to receive an assignment from FDP, positioning or other duty notified at least 3 hours in advance;
“Rest Period”	means a continuous and defined period of time, subsequent to or prior to duty, during which flight or cabin crew members, aircraft maintenance engineers and air traffic controllers are free of all duties;

- “Roster”** means a list provided by an operator of the times when a crew member, aircraft maintenance engineers and air traffic controllers are required to undertake duties;
- “Sector of a Flight”** means the part of an FDP between an aircraft first moving for the purpose of taking off until it comes to rest after landing and parks. Synonymous with segment or leg of a flight;
- “Single Day Free of Duty”** means a time free of all duties and standby consisting of one day and two local nights, which is notified in advance. A rest period may be included as part of the single day free of duty;
- “Standby or On-Call”** means a defined period of time during which a flight or cabin crew member is required by the operator to be available to receive an assignment for a specific duty without an intervening rest period;
- “Suitable Accommodation”** means a furnished bedroom which provides for the opportunity of adequate rest;
- “Transient Fatigue”** means fatigue that is dispelled by a single sufficient period of rest or sleep;
- “Unforeseen Operational Circumstance”** means an unplanned event, such as an forecast weather, equipment malfunction, or air traffic delay that is beyond the control of the operator;
- “Window of Circadian Low (WOCL)”** means the period between 02:00 and 05:59 where the crew member is acclimatised. Application 3:
- (1) These regulations shall:
 - (a) apply to safety critical personnel involved in aviation activities;
 - (b) prescribe the requirements for:
 - (i) the maximum duty periods;
 - (ii) maximum flight time;
 - (iii) minimum rest periods and;

Acceptable variations to the prescriptive requirements based on fatigue management to ensure that safety critical personnel do not experience fatigue during their assigned aviation duties.
 - (2) For the purpose of these Regulations the safety critical personnel shall include air traffic controllers, aircraft maintenance personnel, flight

operations officers, flight and cabin crew in general aviation for large and turbojet aircraft and aircraft used for commercial air transport.

CHAPTER II

PRESCRIPTIVE FLIGHT TIME AND DUTY TIME LIMITATIONS

5. Compliance With Laws, Regulations and Procedures

The operator or the pilot-in command of a South Sudan registered aircraft to which these Regulations apply, shall:

- (a) comply with the laws, regulations and procedures of any other State in which operations are conducted;
- (b) be familiar with the laws, regulations and procedures, pertinent to the performance of his or her duties, prescribed for the areas to be traversed, the aerodromes to be used and the air navigation facilities; and
- (c) ensure that the members of the flight crew are familiar with the laws, regulations and procedures as are pertinent to the performance of their respective duties in the operation of the aircraft.

6. Knowledge or Suspicion of Crew Fatigue

- (1) A person shall not act as a crew member of an aircraft in commercial air transport if he or she knows or suspects that he or she is suffering from such fatigue as may endanger the safety of the flight.
- (2) A person shall not cause or permit a crew member to fly in commercial air transport if that person knows or suspects that the crew member is suffering from such fatigue as may endanger the safety of the flight.

7. Fitness for Duty

- (1) Each crew member shall report for flight duty period when rested and prepared to perform his or her assigned duties.
- (3) An operator shall not assign and a crew member shall not accept assignment to a flight duty if a crew member has reported with fatigue likely to impair the safe performance of his or her assigned duties.
- (4) An operator shall not permit a crew member to continue a flight duty if the crew member has reported himself or herself fatigued.
- (5) As part of the dispatch or flight release, each flight crew member shall affirmatively state that he or she is fit for duty prior to commencing flight.

8. Prescriptive Fatigue Management Approach

- (1) An operator or air navigation service provider shall adopt prescriptive fatigue management Regulation's approach as prescribed under these

- (2) Subject to sub-regulation (1), the implementation of prescriptive fatigue management system does not relieve the operator of the responsibility to manage fatigue related risks under the safety management system.
- (3) The Authority may approve in exceptional circumstances variations to the requirements in these Regulations on the basis of a risk assessment provided by the operator or air navigation service provider.
- (3) The Authority shall grant the approval referred to in sub-regulation (2), where the proposed variations provide a level of safety equivalent to or better than that achieved through the prescriptive fatigue management approach.

9. Fatigue Management Programme

- (1) The operator shall establish and implement a prescriptive fatigue management programme approved by the Authority that ensures all operator personnel involved in the operation, Air Navigation Services provider and maintenance of aircraft do not carry out their duties when fatigued.
- (2) The programme shall address flight and duty times and be included in the operations manual or fatigue management manual.

10. Mirroring of Flight and Cabin Crew Schedules

An operator may elect to apply the flight crew member flight duty and rest requirements to the cabin crew members without seeking separate approval from the Authority.

11. Record Keeping

- (1) The operator shall maintain the records for tracking flight times, duty times and rest periods.
- (2) The records maintained under sub-regulation (1) shall be kept up to date and made available before a person begins his or her duty or first flight of the day.
- (3) The operator, Air Navigation Service Provider or Approved Maintenance Organization shall maintain the records for tracking flight times, duty times and rest periods for at least 24 months unless a longer period has been prescribed for the purpose of investigation.
- (4) Relevant information will be readily available before a person begins their duty or their first flight of the day to ensure their compliance with the regulations.
- (5) The records shall be maintained within the provisions for the Fatigue Risk Management regulation and within the operators' Safety Management System.

12. Maximum Number of Flight Time Hours and Duty Aloft

- (1) An operator shall not schedule any flight crew member and a flight crew member shall not accept an assignment for flight time in commercial air transport, where that flight crew member's total flight time for any consecutive 24-hour period shall exceed:

- (a) 8 hours where the operation is conducted with a 2-pilot flight crew;
 - (b) 13 hours where the operation is conducted with a 3-pilot flight crew; or
 - (c) 17 hours where the operation is conducted with a 4-pilot flight crew.
- (2) An operator shall not schedule any flight crew member and a flight crew member shall not accept an assignment in commercial air transport as a required crew member for more than:
- (a) 10 flights during a 10-hour consecutive duty period; or
 - (b) 7 flights during an 18-hour consecutive duty period.
- (3) An operator shall not schedule any flight crew member and a flight crew member shall not accept an assignment for flight time where that flight crew member's total flight time will exceed:
- (a) 34 hours in any consecutive 7-day period;
 - (b) 110 hours in any consecutive 28-day period; or
 - (c) 1000 hours in any consecutive 12 calendar months period.
- (4) An operator shall not schedule any flight crew member and a flight crew member shall not accept an assignment for flight time in commercial air transport, where that crew member's total flight time, total flights or duty aloft in commercial flying will exceed the limitations prescribed by the Authority.
- (5) Duty aloft shall be considered as all time spent on an aircraft by an assigned flight crew member or relief flight crew member, whether resting or performing task.
- (6) A flight crew member shall be considered to be on continuous duty aloft unless the flight crew member receives a rest period of 8 consecutive hours on the ground.
- (7) An operator shall provide adequate sleeping quarters, including a berth on the aircraft whenever a flight crew member is scheduled to be aloft for more than 12 hours during any 24 consecutive hours.

13. Exceeding Flight Time in Unforeseen Circumstances

- (1) Where unforeseen operational circumstances arise after take-off that are beyond the control of the operator, a flight crew member may exceed the maximum and cumulative flight time specified in regulation 10 to the extent necessary to safely land the aircraft at the next destination airport or alternate airport.
- (2) An operator shall report to the Authority within 7 days, any flight time that exceeded the maximum flight time limits permitted by regulation 10 and Part 1 of Schedule 1.
- (3) The report referred to in sub-regulation (2) shall contain a description of the extended flight Time limitation and the circumstances surrounding the need for the extension. General responsibilities 13.

- (4) An air operator, Air Navigation Service Provider or Approved Maintenance Organization shall:
 - (a) publish duty rosters sufficiently in advance to provide the opportunity for crew members to plan adequate rest;
 - (b) ensure that duty periods are planned in a way that enables crew members to remain sufficiently free from fatigue so that they can operate to a satisfactory level of safety under all circumstances;
 - (c) specify reporting times that allow sufficient time for ground duties;
 - (d) take into account the relationship between the frequency and pattern of duty periods and rest periods and give consideration to the cumulative effects of undertaking long duty hours combined with minimum rest periods;
 - (e) allocate duty patterns which avoid practices that cause a serious disruption of an established sleep/work pattern, such as alternating day/night duties;
 - (f) Provide rest periods of sufficient time to enable crew members to overcome the effects of the previous duties and to be rested by the start of the following duty period.
 - (i) plan recurrent extended recovery rest periods and notify crew members sufficiently in advance; and
 - (ii) Plan duties in order to be completed within the allowable duty period taking into account the time necessary for pre- duties, the sector and turnaround times.
- (5) The air operator, Air Navigation Service Provider or Approved Maintenance Organization shall ensure that his or her crew members make optimum use of the opportunities and facilities for rest provided and plan and use their rest periods properly.
- (6) For the purposes of these regulations, crew member includes:
 - (a) Flight crew;
 - (b) Cabin crew;
 - (c) Maintenance personnel; and
 - (d) Air traffic controllers.

14. Flight Scheduling

- (1) An air operator shall consider the following during scheduling of a flight:
 - (a) the flight to be completed within the maximum permitted flight duty period;
 - (b) the time needed for pre-flight duties, taxiing, the flight and turnaround times;
 - (c) work patterns which avoid undesirable practices such as alternating day/night duties, alternating eastward-westward or westward eastward

- time zone transitions, positioning of crew members so that a serious disruption of established sleep/work patterns occurs;
- (d) sufficient rest periods after long flights crossing several time zones;
 - (e) preparation of duty rosters sufficiently in advance with planning of recurrent extended recovery rest periods; and
 - (f) Notification of the crew members well in advance to plan adequate pre-duty rest.
- (2) All time spent on an aircraft as an assigned or relief flight crew member, whether resting or performing tasks shall be included in the determination of the flight duty period.
 - (3) Where an operator requires a flight crew member to engage in deadhead transportation for more than 4 hours, one half of that time shall be included in the calculation of the flight duty period, unless a flight crew member is given 10 hours of rest on the ground before being assigned to flight duty:
 - (a) all time spent in deadhead transportation is duty time and is not rest period; and
 - (b) For purposes of determining the maximum flight duty period, deadhead transportation is not considered a flight segment.
 - (4) An operator shall not schedule a crew member and a crew member shall not accept an assignment involving the extension of the flight duty period for cabin crew up to a maximum of 18 hours, unless:
 - (a) not more than 2 landings are carried out within a flight duty period;
 - (b) rest facilities are available on board for resting cabin crew members; and
 - (c) Each cabin crew member is relieved of all tasks during a part of the flight.

15. Flight Duty Roster

- (1) An operator shall publish duty rosters at least 14 days in advance.
- (2) The operator shall establish and monitor performance indicators to ensure the robustness of the roster.
- (3) Subject to sub-regulation (2), above the operator shall demonstrate how operational robustness is achieved following a rostered crew pairing for a duty period within the planned duration of that period.
- (4) When rostering night duties of more than 10 hours, the operation shall ensure that the crew member obtains sufficient sleep before such duties when he/she is adapted to being awake during day time hours at the local time where he or she is acclimatized.
- (5) Subject to sub-regulation (4), to optimise alertness on long night duties, the operation shall consider the likelihood of obtaining sleep as close as possible to

the start of the FDP, when rostering rest periods before long night duties, by providing sufficient time to the crew member to adapt to being awake during the night.

- (6) Subject to sub-regulation (5) rostering practices leading to extended wakefulness before reporting for such duties shall be avoided.
- (7) Fatigue risk management principles that shall be applied to the rostering of long night duties shall include:
 - (a) avoiding long night duties after extended recovery rest periods;
 - (b) progressively delaying the rostered ending time of the FDPs preceding long night duties;
 - (c) starting a block of night duties with a shorter FDP; and
 - (d) Avoiding the sequence of early starts and long night duties.
- (8) Fatigue risk management principles shall be applied to the rostering of long night duties by means of:
 - (a) Considering operator or industry operational experience and data collected on similar operations;
 - (b) evidence-based scheduling practices; and
 - (c) bio-mathematical models.
- (9) In-flight rest shall be taken during the cruise phase of the flight.
- (10) In-flight rest periods shall be allocated in such a way that it optimizes the alertness of those flight crew members at control during landing.

CHAPTER III PRESCRIPTIVE DUTY PERIODS

FLIGHT CREW AND CABIN CREW MEMBERS

16. Duty Periods

- (1) A crew member shall be considered to be on duty if he or she is performing any tasks on behalf of the operator.
- (2) A crew member shall be considered to be in compliance with prescribed duty limitations, if he or she exceeds the limitations during an emergency or adverse situation beyond the control of the operator.

17. Cumulative Duty Hours

- (1) An operator shall not schedule any crew member and a crew member shall not accept an assignment for duty which shall exceed:
 - (a) 1800 hours in any 12 consecutive months;
 - (b) 190 hours in any 28 consecutive days; and
 - (c) 55 hours in any 7 consecutive days

- (2) With regard to the cumulative duty hours, a break during a split-duty assignment shall be calculated in the following manner:
 - (a) where the break is less than 8 hours, the full period of the break is accountable;
 - (b) Where the break is 8 hours or more, 50% of the period of the break is accountable.

18. Flight Time and Duty Period

- (1) An operator shall not schedule any crew member and a crew member shall not accept an assignment for flight duty periods that shall exceed the limitations specified in these regulations
- (2) The total duty periods to which a crew member may be assigned shall not exceed:
 - (a) 60 duty hours in any 7 consecutive days;
 - (b) 110 duty hours in any 14 consecutive days; and
 - (c) 190 duty hours in any 28 consecutive days, spread as evenly as practicable throughout that period.
- (3) The total flight time of the sectors on which an individual crew member is assigned as an operating crew member shall not exceed:
 - (a) 34 hours of flight in any 7 days
 - (b) 100 hours of flight time in any 28 consecutive days;
 - (c) 900 hours of flight time in any calendar year; and
 - (d) 1000 hours of flight time in any 12 consecutive calendar months
- (4) A crew member is considered to be on duty when he or she is performing any tasks on behalf of the operator.
- (5) All time spent on an aircraft as an assigned or relief flight crew member, whether resting or performing tasks shall be included in the determination of the flight duty period.
- (6) Where an operator requires a flight crew member to engage in deadhead transportation for more than 4 hours, one half of that time shall be included in the calculation of the flight duty period, unless a flight crew member is given 10 hours of rest on the ground before being assigned to flight duty:
 - (a) all time spent in deadhead transportation is duty time and is not rest period; and
 - (b) For purposes of determining the maximum flight duty period, deadhead transportation is not considered a flight segment.
- (7) An operator shall not schedule any crew member and a crew member shall not accept an assignment involving the extension of the flight duty period for cabin crew up to a maximum of 18 hours, unless:
 - (a) not more than 2 landings are carried out within a flight duty period;

- (b) rest facilities are available on board for resting cabin crew members; and
- (c) Each cabin crew member is relieved of all tasks during a part of the flight.

19. Post-Flight Duties

- (1) The operator shall specify post-flight duty times taking into account the type of operation, the size and type of aircraft and the airport conditions.
- (2) Post-flight duty shall count as duty period and the operator shall specify in its operations manual the minimum time period for post-flight duties.

20. Annual

A crew member shall not accumulate a total annual working time of more than 2,000 hours during the period of 12 months expiring at the end of the month before the month in question

21. Positioning

- (1) A crew member shall not accumulate a total annual working time of more than 2,000 hours during the period of 12 months.
- (2) Where an operator positions a crew member, the following shall apply:
 - (a) positioning after reporting but prior to operating shall be counted as FDP but shall not count as a sector;
 - (b) All time spent on positioning shall count as duty period.

22. Day Duties

The operator shall:

- (a) define reporting times appropriate to each individual operation as specified under these regulations;
- (b) Establish procedures specifying how the pilot in command shall, in case of special circumstances which may lead to severe fatigue, and after consultation with the crew members concerned, reduce the actual FDP and/or increase the rest period in order to eliminate any detrimental effect on flight safety;
- (c) The start time of the FDP in table 2 of the Second Schedule refers to the 'reference time' and to the local time of the point of departure, where this point of departure is within a 2-hour wide time zone band around the local time where a crew member is acclimatized;
- (d) The Basic maximum daily FDP without the use of extensions for acclimatized crew members shall be in accordance with table 2 in the Second Schedule to these regulations;
- (e) The maximum daily FDP when crew members are in an unknown state of acclimatization shall be in accordance with table 3 in the Second Schedule to these Regulations; and
- (f) The maximum daily FDP when crew members are in an unknown state of acclimatization and the operator has implemented a FRMS, shall be in accordance with table 4 in the Second Schedule to these Regulations.

23. Night Duties

Night duties shall comply with the following:

- (a) When establishing the maximum FDP for consecutive night duties, the number of sectors is limited to 4 sectors per duty; and
- (b) The operator shall apply appropriate fatigue risk management to actively manage the fatiguing effect of night duties of more than 10 hours in relation to the surrounding duties and rest periods.

24. Flight Duty Period Extensions with or Without Inflight Rest

- (1) An operator shall provide for in-flight rest facilities as specified in regulation 18 (d) and fulfil the following minimum standards:
 - (a) Class 1 rest facility:
 - (i) a bunk or other surface that allows for a flat or near flat sleeping position and reclines to at Least 80° back angle to the vertical;
 - (ii) Located separately from both the flight crew compartment and the passenger cabin in an area that allows the crew member to control light; and provides isolation from noise and disturbance.
 - (b) Class 2 rest facility:
 - (i) a seat in an aircraft cabin that reclines at least 45° back angle to the vertical;
 - (ii) has at least a pitch of 55 inches (137.5 cm), a seat width of at least 20 inches (50 cm);
 - (iii) provides leg and foot support;
 - (iv) separated from passengers by at least a curtain to provide darkness and some sound mitigation; and
 - (v) Reasonably free from disturbance by passengers or crew members.
 - (c) Class 3 rest facility:
 - (i) a seat in an aircraft cabin or flight crew compartment that reclines at least 40° from the vertical;
 - (ii) provides leg and foot support;
 - (iii) separated from passengers by at least a curtain to provide darkness and some sound mitigation; and
 - (iv) not adjacent to any seat occupied by passengers.
- (2) The extension of FDP with in-flight rest under this regulation shall be based on the following:
 - (a) the FDP is limited to 3 sectors; and
 - (b) At least 90-minute consecutive period of in-flight rest for each crew member; and
 - (c) 2 consecutive hours for the flight crew members at control during landing.

- (3) The maximum daily FDP under this Regulation may be extended due to in-flight rest for flight crew:
 - (a) with one additional flight crew member:
 - (i) up to 14 hours with class 3 rest facilities;
 - (ii) up to 15 hours with class 2 rest facilities; or (iii) up to 16 hours with class 1 rest facilities.
 - (b) with two additional flight crew members:
 - (i) up to 15 hours with class 3 rest facilities;
 - (ii) up to 16 hours with class 2 rest facilities; or (iii) up to 17 hours with class 1 rest facilities.
- (4) The minimum in-flight rest for each cabin crew member shall be provided as specified under table 6 in the second Schedule to these Regulations.
- (5) The limits specified in sub-regulation (2) may be increased by 1 hour for FDPs that include 1 sector of more than 9 hours of continuous flight time and a maximum of 2 sectors
- (6) All time spent in the rest facility shall be counted as FDP.
- (7) The minimum rest at destination shall be:
 - (a) at least as long as the preceding duty period; or
 - (b) 14 hours, whichever is greater
- (8) A crew member shall not start a positioning sector as part of operating crew on the same flight.
- (9) The operator may delay the reporting time in the event of unforeseen circumstances, where procedures for delayed reporting are established in the operations manual and the operator maintains records of delayed reporting.
- (10) The extension of FDP without in-flight rest under this regulation shall be limited to the values specified in table 5 in the First Schedule to these Regulations.

25. Split-Duty Assignments

- (1) An operator may increase the allowable planned flight duty period through the application of the split-duty policies specified in the First Schedule to these Regulations and subject to the following conditions:
 - (a) the flight duty period shall not consist of more than 2 periods of duty;
 - (b) there shall be a single break of sufficient length;
 - (c) the crew member is notified in advance;
 - (d) adequate facilities shall be provided; or
 - (e) suitable accommodations shall be provided, were the break:
 - (i) is 6 hours or more; or
 - (ii) Covers 3 hours or more of the period 2200-0600 local time at the place where it occurs.

- (2) Subject to the conditions set out in sub-regulation (1) above, an operator shall not schedule Any crew member and a crew member shall not accept an assignment that involves a split-duty assignment, unless:
 - (a) parts of the flight duty period before and after the break do not exceed 10 hours; and
 - (b) The total flight duty period does not exceed 18 hours.
- (3) Where the total travelling time in both directions between the place of duty and the adequate facilities or suitable accommodation exceeds one hour, any travelling time in excess of one-hour of the total shall be deducted from the break for the purpose of calculating the increased flight duty period.
- (4) Split-duty shall not be combined with the provisions for an augmented flight crew or for cabin crew, extension of the allowable flight duty period.

26. Split-Duty

- (1) The conditions for extending the basic maximum daily FDP due to a break on the ground shall include the following:
 - (a) in determining the flight time, operator shall specify the following elements as applicable to the type of operation:
 - (i) the minimum duration of a break on the ground;
 - (ii) the possibility to extend the FDP taking into account the duration of the break on the ground; and
 - (iii) the facilities provided to the crew member to rest and other relevant factors;
 - (b) The break on the ground shall count in full as FDP; and
 - (c) split duty shall not follow a reduced rest.
- (2) Subject to sub-regulation (1), the extension shall be based on the following:
 - (a) The break on the ground within the FDP has a minimum duration of 3 consecutive hours;
 - (b) The break excludes the time allowed for post and pre-flight duties and travelling; the minimum total time for post and pre-flight duties and travelling is 30 minutes; the operator specifies the actual times in its operations manual;
 - (c) The maximum FDP may be increased by up to 50 % of the break;
 - (d) Suitable accommodation shall be provided either for a break of 6 hours or more or for a break that encroaches the window of circadian low (WOCL);
 - (e) In all other cases:
 - (i) accommodation shall be provided; and
 - (ii) any time of the actual break exceeding 6 hours or any time of the break that encroaches the WOCL shall not count for the extension of the FDP.

- (3) Split duty cannot be combined with in-flight rest.

27. Augmented Flight Crew Assignments

- (1) An operator shall not schedule any crew member and a crew member shall not accept an assignment involving the use of an augmented flight crew to increase the length of a flight duty period for more than:
 - (a) 18 hours, where every flight crew member can leave his or her post for at least 50% of the total flight time of all flights within the flight duty period; or
 - (b) 16 hours, where every flight crew member can leave his or her post for at least 25% of the total flight time of all flights within the flight duty period.
- (2) An operator shall not schedule any crew member and a crew member shall not accept an assignment that involves the use of an augmented flight crew to increase the length of a flight duty period unless the crew is scheduled to carry out no more than:
 - (a) 2 landings within a flight duty period; or
 - (b) 3 landings, if the following conditions are met
 - (i) the flight time for one sector is 3 hours or less; and
 - (ii) The rest period immediately following the flight duty period is increased by 6 hours.
- (3) An operator shall not schedule any crew member and a crew member shall not accept an assignment that involves the use of an augmented flight crew to increase the length of a flight duty period unless there are adequate rest facilities approved by the Authority available on board the aircraft for all resting flight crew members.

28. Mixed Flying Types of Operation

An operator shall not schedule any flight crew member for mixed flying types of operation, such as flight simulator and conversion or recurrent training flights prior to commercial air transport flights unless authorised by the Authority.

29. On-Call Duty

When assigning the scheduled on-call duty to crew members, an operator shall:

- (a) apply the on-call duty period limitation for flight crew members in the First Schedule to these Regulations;
- (b) Provide suitable rest facilities where:
 - (i) a member of the flight crew is requested for call duty at a distance base; and
 - (ii) on-call duty is to be carried out at the aerodrome;
- (c) Maintain records of scheduled on-call duty for crew members and make them available before a person begins their duty or their first flight of the day.

- (d) Make sure the following items are included in the total duty time prescribed in this Chapter:
 - (i) 50% of the on-call duty time excluding the first 4 hours of on-call duty done at home;
 - (ii) if being notified for the duty, 50% of the notification time is calculated if the notice period is less than 10 hours;
- (e) Ensure that a flight crew member has completed on-duty call time without doing the duty, the crew member shall have rest period of at least 10 hours before commencing duty or the next on-call duty.

30. Time Zone Difference

- (1) For the purpose of these Regulations, ‘rotation’ shall refer to a series of duties, including at least one flight duty, and rest period out of home base, starting at home base and ending when returning to home base for a rest period where the operator is no longer responsible for the accommodation of the crew member.
- (2) The operator shall monitor rotations and combinations of rotations in terms of their effect on crew member fatigue, and adapts the rosters as necessary.

Minimum local nights of rest at home base to compensate for time zone differences

Maximum time difference (hours) between reference time and local time where a crew member rests during a rotation	Time elapsed (hours) since reporting for the first Duty Period in a rotation involving at least 4-hour time difference to the reference time			
	< 48	48 – 71:59	72 – 95:59	≥96
≤6	2	2	3	3
≤9	2	3	3	4
≤12	2	3	4	5

- (3) Time zone differences shall be compensated by additional rest at home base and where the rotation involves a 4-hour time difference or more, the minimum rest shall be as specified in Table 2 below.

Table 2 Above: Minimum Local Nights of Rest at Home Base to Compensate for Time Zone Differences

- (4) In case of an Eastward-Westward or Westward-Eastward transition, at least 3 local nights of rest at home base shall be provided between alternating rotations.
- (5) The monitoring of combinations of rotations shall be conducted under the operator’s management system provisions.

31. Maintenance Time Limitation

PRESCRIPTIVE DUTY TIME LIMITATIONS

Rest and duty limitations for persons performing maintenance functions in an AMO:

- (1) A person shall not:
 - (a) assign maintenance functions for aircraft unless the assignee has had a minimum rest period of 8 hours prior to the beginning of duty;
 - (b) Schedule a person performing maintenance functions on an aircraft for more than 12 consecutive hours of duty.
- (2) A person shall not:
 - (a) perform maintenance functions on an aircraft unless that person has had a minimum rest period of 8 hours prior to the beginning of duty; or
 - (b) Perform maintenance functions on an aircraft for more than 12 consecutive hours of duty.
- (3) An AMO shall relieve the person performing maintenance functions from all duties for 24 consecutive hours during any 7 consecutive day period.
- (4) An aircraft maintenance engineer shall not perform his or her duties and the employer shall not permit the aircraft maintenance engineer to perform his or her duties, where the engineer or the employer knows or suspects that the engineer is suffering from or, having regard to the circumstances of the period of duty to be undertaken, is likely to suffer from, such fatigue as may endanger the safety of any aircraft to which an engineer may be provided.
- (5) The operator shall apply appropriate fatigue risk management to actively manage the fatiguing effect of night duties of more than 10 hours in relation to the surrounding duties and rest periods
- (6) The total to which an aircraft maintenance engineer may be assigned shall not exceed 60 Duty hours in any 7 consecutive days;

CHAPTER IV AIR TRAFFIC CONTROLLERS

PRESCRIPTIVE DUTY TIME LIMITATIONS

32. Fatigue Management in Air Traffic Control Service

- (1) An air traffic services provider shall establish procedures for the purpose of managing fatigue in the provision of air traffic services.
- (2) The air traffic service provider shall subject to sub-regulation (1) base the procedures upon scientific principles, knowledge and operational experience, with the aim of ensuring that air traffic controllers perform at an adequate level of alertness.
- (3) For purposes of managing fatigue-related safety risks, the air traffic service provider shall establish one of the following:

- (a) air traffic controller schedules commensurate with the services provided in compliance with prescriptive limitations specified in these Authority;
 - (b) an FRMS in compliance with these regulations; and
 - (c) an FRMS complying with these regulations for a defined part of its air traffic control services in conjunction with schedules in compliance with the prescriptive limitation specified in these regulations.
- (4) The air traffic service provider shall:
- (a) provide evidence that the limitations are not exceeded and that non-duty period requirements are met;
 - (b) familiarize its personnel with the principles of fatigue management and its policies with regard to fatigue management;
 - (c) apply for variations from the prescriptive limitation regulations to address any additional risks associated with sudden, unforeseen operational circumstances; and
 - (d) subject to sub-regulation 4(c), demonstrate that any associated risk is being managed to a level of safety equivalent to, or better than that achieved through the prescriptive fatigue management regulations.
- (5) The air navigation service provider shall ensure that the following conditions are met in the provision of air traffic control service;
- (a) establishment of a rostering system that addresses duty period time and adopted rest period
 - (b) implement, monitor the rostering system and specify;
 - (i) maximum consecutive working days with duty;
 - (ii) maximum hours per duty period;
 - (iii) maximum time providing air traffic control service without breaks;
 - (iv) the ratio of duty periods to breaks when providing air traffic control service;
 - (v) minimum rest periods;
 - (vi) maximum consecutive duty periods encroaching the night time, where applicable,
 - (vii) depending upon the operating hours of the air traffic control unit concerned;
 - (viii) minimum rest period after a duty period encroaching the night time; and
 - (ix) minimum number of rest periods within a roster cycle
- (6) An air traffic controller shall not perform any safety relevant tasks when he or she knows that he or she is fatigued or feels unfit to the extent that safety may be adversely affected.
- (7) Subject to sub-regulation (6), a person holding an air traffic controller's licence or authorization shall not act as an air traffic controller nor shall an employer

allow a licensed controller, if the controller or the employer knows or suspects that the controller is suffering from or, having regard to the circumstances of the period of duty to be undertaken is likely to suffer from such fatigue in a way that may endanger the safety of any aircraft to which an air traffic control service may be provided.

33. Maximum Working Hours for Air Traffic Controllers

Except in an emergency, an air traffic controller shall not serve or be required to serve:

- (a) for more than 10 hours in any duty period;
- (b) for more than 10 hours during a period of 24 consecutive hours, unless the air traffic controller has had a rest period of at least 8 hours at or before the end of the ten hours of duty;
- (c) for more than 3 consecutive work days;
- (d) for more than 50 hours worked within 7 days; and
- (e) Time-in-position 4 consecutive hours depending on traffic level.

34. Minimum Rest Periods for Air Traffic Controllers

The Air traffic service provider shall ensure that:

- (a) Duration of non-duty periods for Air Traffic Controller is not less than 54 hours between the end of one consecutive period of duty days and the next;
- (b) The number of non-duty days for air traffic controllers within a period of 28 days is not less than 8 days;
- (c) In determining minimum rest period, consideration should be made of the travelling and handover time; and
- (d) operational duty shall not exceed a period of 4 continuous hours without there being taken During or at the end of, that period a break or breaks totalling not less than 30 minutes during which period a controller does not exercise the privileges of their licence.

35. Unscheduled Duties for Air Traffic Controllers

The air traffic service provider shall establish a process to avoid extended periods of being awake For air traffic controllers when assigning unscheduled duties.

36. Variations to Air Traffic Controllers Scheduling Limits

- (1) The air traffic services provider shall subject to regulation 28 sub-regulation (4)(c), provide the following for approval of variations to scheduling limits:
 - (a) the reason for the need to deviate;
 - (b) the extent of the deviation;
 - (c) the date and time of enactment of the deviation; and
 - (d) A safety case, outlining mitigations to support the deviation.
- (2) Variation to the scheduling limitations established by the Authority shall be approved at the discretion of Authority.

- (3) Subject to sub-regulation (1), the air traffic service provider shall comply with the process for variation as specified in the applicable Technical Guidance Material issued by the Authority.

37. Fatigue Risk Management System

- (1) Where the Air Traffic Services Provider implements an FRMS to manage fatigue-related safety risks in accordance with provision of part or all of its air traffic control services in accordance with Chapter V below of these regulations the ANSP shall establish a process to integrate FRMS functions with its other safety management functions.
- (2) The FRMS established by the air traffic service provider shall provide a level of safety acceptable to the Authority.
- (3) The FRMS established by the air traffic service provider shall be approved by the Authority in accordance with a documented process specified in the applicable technical guidance material issued by the Authority.

CHAPTER V

REST PERIODS FOR FLIGHT CREW AND FLIGHT OPERATIONS OFFICERS

38. Rest Period

- (1) With respect to rest periods, a crew member shall not:
 - (a) perform duties unless he or she has had at least the minimum rest period applicable to those duties as prescribed by these Regulations; or
 - (b) Accept an assignment during any required rest period.
- (2) The operator may exercise the option to reduce a crew member's rest period within the limitations prescribed in the First Schedule.
- (3) A person shall not fly in an aircraft to which this regulation applies as a crew member unless immediately before the duty period in the course of which that person makes that flight, the person has had a sufficient rest period as set out in Table 7 of the First Schedule.
- (4) Where a rest period is taken by a person at a place which is not within 50 miles of that person's ordinary place of residence, it shall be deemed to be a sufficient rest period if it includes a period of eight hours falling between 2200 hours and 0800 hours local time as set out in Table 8 of the First Schedule.
- (5) Time spent in local transportation in excess of 30 minutes shall not be considered a part of a crew member's rest period.
- (6) Time spent in transportation, not local in character that is required by the operator to position crew members to or from flights is not considered part of a rest period.

- (7) Time spent in transportation on aircraft at the insistence of the operator to or from a crew member's home station is not considered part of a rest period.

39. Duty and Rest Periods for Flight Operations Officers

- (1) An operator shall not schedule a flight operations officer for more than 10 consecutive hours of duty within a 24 consecutive hour period, unless that person is given an intervening rest period of at least 8 hours at or before the end of the 10 hours duty.
- (2) An operator shall establish the daily duty period for a flight operations officer so that it includes a time that allows him or her to become familiar with existing and anticipated weather conditions along the route before he or she dispatches any aircraft.

40. Minimum Rest Period Each 7 Or 10 Consecutive Day Period

The operator shall relieve the flight crew member, flight operations officer or cabin crew member from all duties for:

- (a) 36 consecutive hours during any 7 consecutive day period; and
- (b) 60 consecutive hours during any 10 consecutive day period.

41. Records of Flight Time and Duty Period

- (1) An operator of an aircraft to which this regulation applies shall not cause or permit any person to fly as a crew member unless the operator has in his or her possession an accurate and up-to-date record maintained by him or her or by another operator of aircraft in respect of that person and in respect of the 28 days immediately preceding the flight showing:
 - (a) the times of the beginning and end of each flight in any aircraft made by that person as a crew member in the course of any of the duty periods;
 - (b) the times of the beginning and end of each duty period of that person in the course of which he or she made a flight as a crew member;
 - (c) the times of the beginning and end of each duty period of that person ending within a period of 72 hours immediately preceding the beginning of any duty period of that person in the course of which he or she made a flight in any aircraft as a crew member; and
 - (d) Brief particulars of the nature of the work or other duties carried out by that person during each of the crew member's duty periods of which a record is required to be kept under these regulations.
- (2) Subject to sub-regulation (1), an operator of an aircraft shall preserve the records referred to in this regulation for a period of at least 6 months after the end of the flight duty period or rest period to which they relate.

42. Duties of Operators to Prevent Excessive Fatigue of Crew Members

An operator of an aircraft to which this regulation applies shall ensure, in respect of each person flying as a crew member of that aircraft, that:

- (a) the period during which that person is required or permitted by the operator to carry out any work or other duties are so limited in length and frequency; and
- (b) A person is afforded such period for rest, that his or her work and duties are not likely to cause the person such fatigue while the person is flying in the aircraft, in respect of flight crew, as may endanger the safety thereof, and in respect of other crew members, as may impair their efficiency to adequately perform their duties in relation to the possible evacuation or control of passengers or the provision of assistance in the event of an emergency situation.

43. Minimum Rest Period for Flight and Cabin Crew

- (1) The operator shall ensure that the minimum rest period is not less than:
 - (a) 9 hours for flight crew members; and
 - (b) 8 hours for cabin crew members.
- (2) Subject to sub-regulation (1), the operator shall ensure that, before the start of a flight duty period, a crew member has completed a rest period at least as long as the preceding duty period, or 11 hours, whichever is greater. Then (6) the minimum rest period following a flight duty period in which split-duty credit has been used:
 - (a) shall be at least as long as the total flight duty period, including the break;
 - (b) except that, if suitable accommodations were provided, the duration of the break shall not be included in the rest period calculation; and
 - (c) the operator may reduce the rest period by not more than 3 hours, but not less than 11 hours, subject to the following conditions:
 - (i) the previous rest period must have been completed in accordance with paragraph (a);
 - (ii) the amount by which the rest period is reduced shall be added to the next rest period, which cannot be reduced; and
 - (iii) The amount of time by which the rest period is reduced shall be deducted from the subsequent allowable flight duty period.

44. Time Elapsed Since Reporting

The time elapsed since reporting for a rotation involving at least a 4-hour time difference to the reference time stops counting when the crew member returns to his/her home base for a rest period during which the operator is no longer responsible for the accommodation of the crew member.

45. Pattern of Work

- (1) An operator who organizes work in a specific pattern shall take into account personnel health and safety to ensure that the pattern:
 - (a) provides the crew member adequate rest breaks; and
 - (b) offers the crew member work within the scope of his or her duties.

- (2) The operator shall, upon request provide such information as the Authority may specify relating to the working patterns of crew members.
- (3) The operator shall maintain information relating to work patterns of crew members for a period of not less than 24 months.

46. Nutrition

- (1) An operator shall ensure that during the FDP there is an opportunity for a meal and drink in order to avoid any detriment to a crew member's performance, especially when the FDP exceeds 6 hours.
- (2) Subject to sub-regulation (1), of this regulation the operator shall specify in the operations manual how the crew member's nutrition during FDP is ensured, including:
 - (a) the minimum duration of the meal opportunity in particular where the FDP encompasses the regular meal windows; and
 - (b) The time frames in which a regular meal shall be consumed in order not to alter the human needs for nutrition without affecting the crew member's body rhythms.

**CHAPTER VI
FATIGUE RISK MANAGEMENT SYSTEMS**

47. Approval of Fatigue Risk Management System (FRMS)

- (1) An operator or Air Navigation Service Provider may adopt an FRMS approved by the Authority in lieu of any or all of the prescriptive fatigue management requirements prescribed under these Regulations for the purposes of managing fatigue related safety risks.
- (2) The Authority shall, before granting the approval in sub-regulation (1) of this regulation satisfy Itself that, the operator's or air navigation services provider's proposed FRMS provides a level of safety equivalent to, or better than, the prescriptive fatigue management requirements prescribed under these Regulations.
- (3) The operator's or air navigation service provider's FRMS shall establish a process to ensure a level of safety equivalent to, or better than, the prescriptive fatigue management approach.
- (4) Where an Operator or an Air Navigation Service Provider (ANSP) adopts fatigue risk Management approaches for part or all of its operations, the Authority may approve, in exceptional circumstances, variations to these Regulations on the basis of a risk assessment provided by the operator.

- (5) To be eligible for that approval, the proposed variations shall provide a level of safety equivalent to or better than that achieved through the fatigue management approach.
- (6) As part of the process referred to in sub-regulation (3) the operator or ANSP shall:
 - (a) Establish maximum values for flight times, flight duty periods, and minimum values for rest periods based upon scientific principles and knowledge, subject to safety assurance processes.
 - (b) cater for a decrease in maximum values and an increase in minimum values in the event that the data indicates the values are too high or too low, respectively; and
 - (c) Provide a justification for the changes, based on accumulated FRMS experience and fatigue-related data.
- (7) To be eligible for approval, the operator's or air navigation service provider's FRMS to manage fatigue-related safety risks shall, as a minimum, meet the following general process requirements and the implementing requirements outlined in Schedule 2:
 - (a) incorporate scientific principles and knowledge within the FRMS;
 - (b) identify fatigue-related safety hazards and the resulting risks on an ongoing basis;
 - (c) ensure that remedial actions, necessary to effectively mitigate the risks associated with the hazards, are implemented promptly;
 - (d) provide a system for continuous monitoring and regular assessment of the mitigation of fatigue risks achieved by such actions; and
 - (e) Provide for performance evaluation and continuous improvement to the overall performance of the FRMS.
- (8) The operator or ANSP shall establish an FRMS policy as provided for in the second schedule to these regulations.

48. FRMS Implementation

Prior to implementing an FRMS to manage fatigue related safety risks an Operator or an Air Navigation Service Provider (ANSP) shall:

- (a) comply with requirements of FRMS specified in these regulations;
- (b) establish processes to integrate FRMS functions with its other safety management functions; and
- (c) Submit for approval an FRMS manual containing a documented process that provides a level of safety acceptable to the Authority as specified in regulation (40).

49. Integration of FRMS and SMS

An Operator or Air Navigation Service Provider that has established an FRMS shall ensure that the FRMS is integrated with SMS.

50. FRMS Manual

An Operator or Air Navigation Service Provider shall develop and keep current FRM documentation that describes and records:

- (a) FRM policy and objectives;
- (b) FRM processes and procedures;
- (c) accountabilities, responsibilities and authorities for these processes and procedures;
- (d) mechanisms for on-going involvement of management, flight and cabin crew members, and all other involved personnel;
- (e) FRM training programmes, training requirements and attendance records;
- (f) scheduled and actual flight times, duty periods and rest periods with deviations and reasons for deviations; and
- (g) FRM outputs including findings from collected data, recommendations, and actions taken.

51. Identification of Hazards

- (1) An Operator or Air Navigation Service Provider shall establish and maintain documented process for fatigue hazard identification.
- (2) Subject to sub-regulation (1), the process shall be:
 - (a) Predictive - identify fatigue hazards by examining crew scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance including, but are not limited to:
 - (i) operator or industry operational experience and data collected on similar types of operations;
 - (ii) evidence-based scheduling practices; and
 - (iii) bio-mathematical models.
 - (b) Proactive - identify fatigue hazards within current flight operations including but are not limited to:
 - (i) self-reporting of fatigue risks;
 - (ii) crew fatigue surveys;
 - (iii) relevant flight and cabin crew performance data;
 - (iv) available safety databases and scientific studies; and (v) analysis of planned versus actual time worked.
 - (c) Reactive - identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine the impact of fatigue and how it could have been minimized; the process may be triggered by any of the followings:
 - (i) fatigue reports;
 - (ii) confidential reports;
 - (iii) audit reports;

- (iv) incidents; or
- (v) flight data analysis events.

52. Risk Assessment

- (1) An Operator or Air Navigation Service Provider (ANSP) shall:
 - (a) develop and implement risk assessment procedures that determine the probability and potential severity of fatigue related events; and
 - (b) Identify when the associated risks require mitigation.
- (2) subject to sub-regulation (1), the risk assessment procedures shall include review of identified hazards and link them to:
 - (a) operational processes;
 - (b) their probability;
 - (c) possible consequences; and
 - (d) the effectiveness of existing safety barriers and controls.

53. Risk Mitigation

The operator shall develop and implement risk mitigation procedures that:

- (a) Select the appropriate mitigation strategies
- (b) Implement the mitigation strategies; and
- (c) Monitor the strategies implementation and effectiveness

54. FRM Safety Assurance Processes

An Operator or Air Navigation Service Provider shall establish and maintain FRM safety assurance processes to:

- (a) provide for continuous FRM performance monitoring, analysis of trends, and measurement to validate the effectiveness of the fatigue safety risk controls;
- (b) the sources of data may include:
 - (i) hazard reporting and investigations;
 - (ii) audits and surveys; and
 - (iii) reviews and fatigue studies.
- (c) provide a formal process for the management of change which shall include:
 - (i) identification of changes in the operational environment that may affect FRM;
 - (ii) identification of changes within the organisation that may affect FRM; and
 - (iii) consideration of available tools which could be used to maintain or improve FRM performance prior to implementing changes.
- (d) provide for the continuous improvement of FRM and this shall include:
 - (i) the elimination or modification of risk controls that have had unintended consequences or that are no longer needed due to changes in the operational or organizational environment;

- (ii) routine evaluations of facilities, equipment, documentation and procedures; and
- (iii) the determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.

55. FRM Promotion Process

- (1) An Air Operator, ANSP or Approved Maintenance Organization shall conduct FRM promotion process to support the on-going development of FRMS, the continuous improvement of its overall performance, and attainment of optimum safety levels.
- (2) Subject to sub-regulation (1), the Air Operator, ANSP or Approved Maintenance Organization shall as part of the FRM promotion process, establish and implement:
 - (a) training programmes to ensure competency commensurate with the roles and responsibilities of management, flight and cabin crew, and all other involved personnel under the planned FRM; and
 - (b) an effective FRM communication plan that:
 - (i) explains FRM policies, procedures and responsibilities to all relevant stakeholders; and
 - (ii) Describes communication channels used to gather and disseminate FRM-related information.

56. Rationale for Variation/ Flexibility

- (1) The Air Operator, ANSP or Approved Maintenance Organization may apply in writing to the Authority requesting flexibility in case of:
 - (a) unexpected circumstances beyond the control of the service provider; and
 - (b) expected but exceptional circumstances.
- (2) Subject to sub-regulation (1), the Authority may upon satisfactory assessment of Circumstances, grant the applicant flexibility by way of variations on prescribed limits to meet operational needs and risks.
- (3) Subject to sub-regulation (1) (a), in the event of unexpected operational circumstances that May occur to which a service provider must respond immediately, the Authority shall:
 - (a) assess and approve flexibility extending beyond prescribed limits to enable such on-the-day extensions;
 - (b) determine outer limits and the circumstances in which they can be used to grant flexibility; and
 - (c) permit the applicant flexibility to manage on-the-day disruptions by requiring them to develop their own on-the-day response protocol.

- (4) The Operator shall retain records of work and non-work periods that including planned and Actual work and non-work periods, with significant deviations from prescribed limits and minima.

57. Analysis and Audit on Flexibility Records

- (1) The Authority shall:
 - (a) Conduct analysis of work and non-work records, including trending the use of any flexibility provisions by the operator for purposes of monitoring compliance.
 - (b) Conduct further, analysis of these records, coupled with fatigue reports to identify fatigue risk associated with operator's rostering practices.
- (2) The Authority shall retain the records for audit purposes for a period of time as determined By the State.

**CHAPER VII
APPLICATION FOR EXEMPTIONS**

58. Application

- (1) A person may apply to the Authority for an exemption from any provision of these Regulations.
- (2) A request for exemption shall be made in accordance with the requirements of these Regulations and an application for such exemption shall be submitted and processed in a manner prescribed in the applicable technical guidance material.
- (3) A request for an exemption must contain the applicant's:
 - (a) name;
 - (b) physical address and mailing address;
 - (c) telephone number;
 - (d) fax number where available; and
 - (e) email address where available;
- (4) The application shall be accompanied by a fee prescribed by the Authority in the applicable aeronautical information circulars for technical evaluation.

59. Exemptions

- (1) The Authority may, upon consideration of the circumstances of a particular person issue an exemption providing relief from specified provisions of these Regulations, provided that:
 - (a) the Authority finds that the circumstances presented warrant the exemption; and

- (b) A level of safety shall be maintained equal to that provided by the Regulations from which the exemption is sought.
- (2) The exemption referred to in sub-regulation (1) may be terminated or amended at any time by the Authority.
- (3) A person who receives an exemption shall have a means of notifying the management and appropriate personnel performing functions subject to the exemption.

60. Possession of the Approval or Authorization

A holder of an approval or authorization issued by the Authority shall have it in his or her physical possession or displayed at the work station when exercising the privileges of that approval or authorization.

61. Inspection of Approval or Authorization

A person who holds an approval or authorization required by these Regulations shall present it for inspection upon a request from the Authority or any other person authorized by the Authority.

62. Replacement of Approval or Authorization Documents

An Operator may apply to the Authority in a form and manner determined by the Authority in the applicable technical guidance material for replacement of documents issued under these Regulations when such documents are lost or destroyed.

63. Suspension and Revocation of Approval or Authorization

- (1) The Authority may, where it considers it to be in public interest, suspend provisionally, pending further investigation, any approval or authorization issued under these Regulations.
- (2) The Authority may, upon the completion of an investigation which has shown sufficient ground to the Authority's satisfaction and where it considers it to be in public interest, revoke, suspend, or vary any approval or authorization issued or granted under these Regulations.
- (3) The Authority may, where it considers it to be in public interest, prevent any person or Air craft from flying.
- (4) A holder or any person having the possession or custody of any approval or authorization which have been revoked, suspended or varied under these Regulations shall surrender the approval or authorization to the Authority within fourteen days from the date of revocation, suspension or variation.
- (5) The breach of any condition subject to which any approval or authorization has been granted or issued under these Regulations shall render the document invalid during the continuance of the breach.

64. Use and Retention of Approval or Authorization and Records

- (1) A person shall not:

- (a) use any approval or authorization, exemption or such other document issued or required under these Regulations which has been forged, altered, revoked, or suspended, or to which that person is not entitled;
 - (b) forge or alter any approval or authorization, exemption or any such other document issued or required by, or under these Regulations;
 - (c) lend any approval, authorization or exemption or any such other document issued or required under these Regulations to any other person;
 - (d) Make any false representation for the purpose of procuring for himself or herself or any other person, grant, issue, renewal or variation of approval, authorization, exemption or any such other document.
- (2) During the period for which it is required under these Regulations to be preserved, a person shall not mutilate, alter, render illegible or destroy any records, or any entry made therein, required by or under these Regulations to be maintained, or knowingly make, or procure or assist in the making of, any false entry in any such record, or wilfully omit to make a material entry in such record.
 - (3) All records required to be maintained by or under these Regulations shall be recorded in a permanent and indelible ink.
 - (4) A person shall not purport to issue any approval, authorization or any such other document for the purpose of these Regulations unless he or she is authorized to do so under these Regulations.
 - (5) A person shall not issue any approval, authorization, exemption or any such other document of the kind referred to in these Regulations unless he or she has satisfied himself or herself that all statements in the approval, authorization or any such other document are correct, and that the applicant is qualified to hold that approval, authorization or any such other document.

65. Reports of Violation

- (1) A person who knows of a violation of the Civil Aviation Act, these Regulations, rule, or order made there-under, shall report it to the Authority.
- (2) The Authority shall determine the nature and type of any additional investigation or enforcement action that shall be taken.

66. Enforcement of Directives

- (1) A person who fails to comply with any directives given to him or her by the Authority or by any authorized person under any provision of these Regulations shall be deemed for the purposes of these Regulations to have contravened that provision.
- (2) The Authority shall take enforcement action on any regulated entity that fails to comply with any provisions of these Regulations.
- (3) The Inspectors of the Authority holding valid delegations shall take necessary actions to preserve safety where an undesirable condition has been detected.

- (4) The action (s) referred to in sub-regulation (2) may include:
 - (a) In the case of a regulated entity, imposition of operating restrictions until such a time when the existing undesirable condition has been resolved; or
 - (b) In case of a licensed personnel, require that the individual does not exercise the privileges of the approval or authorization until such a time that the undesirable condition has been resolved.
- (5) In carrying out enforcement actions pursuant to the provisions of sub-regulation (3), the Inspectors of the Authority shall invoke the powers with due care and act in good faith in the interest of preserving safety.

67. Aeronautical User Fees

- (1) The Authority shall notify applicants of the fees to be charged in connection with the issue, validation, renewal, extension or variation of any approval or authorization or such other document, including the issue of a copy thereof, or the undergoing of any examination, test, inspection or investigation or the grant of any permission or approval, required by, or for the purpose of these Regulations by publishing orders, notices or proclamations made thereunder.
- (2) Upon an application being made in connection with which any fee is chargeable in accordance with sub-regulation (1), the applicant shall be required, before the application is entertained, to pay the fee so chargeable.
- (3) Where, payment of fees has been made and the application is withdrawn by the applicant or otherwise ceases to have effect or is rejected, the Authority shall not refund such payment.

68. Extra- Territorial Application of Regulations

Except where the context otherwise requires, the provisions of these Regulations shall:

- (a) in so far as they apply, whether by express reference or otherwise, to crew operating aircraft registered in South Sudan, apply to such crew wherever they may be;
- (b) in so far as they apply, whether by express reference or otherwise, to crew when they are operating within South Sudan;
- (c) in so far as they prohibit, require or regulate, whether by express reference or otherwise, the
- (d) doing of anything by any person in, or by any of the crew of, any aircraft registered in South Sudan, shall apply to such persons and crew, wherever they may be; and
- (e) in so far as they prohibit, require or regulate, whether by express reference or otherwise, the doing of anything in relation to any aircraft registered in South Sudan by other persons shall, where such persons are citizens of South Sudan, apply to them wherever they may be.

69. Contravention of Regulations

A person who contravenes any provision of these Regulations commit an offence, his or her approval, authorization, exemption or such other document shall be revoked, suspended.

70. Offence and Penalties

- (1) Where any provision of these Regulations, orders, notices or proclamations made there under is contravened in relation to crew, Operator. ANSP or, the pilot in command is not the person who contravened that provision the person shall, without prejudice to the liability of any other person under these Regulations for that contravention, be deemed for the purposes of the following provisions of this Regulation to have contravened that provision unless he or she proves that the contravention occurred without his or her consent or connivance and that he or she exercised all due diligence to prevent the contravention.
- (2) Where it is proved that an act or omission of any person, which would otherwise have been a contravention by that person of a provision of these Regulations, orders, notices or proclamations made there under was due to any cause not avoidable by the exercise of reasonable care by that person, the act or omission shall be deemed not to be a contravention by that person of that provision.
- (3) Where a person is charged with contravening a provision of these Regulations, orders, notices or proclamations made there under by reason of his or her having been a member of the flight crew of an aircraft on a flight for the purpose of commercial air transport operations, the flight shall be treated, without prejudice to the liability of any other person under these Regulations, as not having been for that purpose where he or she proves that he or she neither knew nor had reason to know that the flight was for that purpose.
- (4) A person who contravenes any provision of these Regulations, orders, notices or proclamations made thereunder not being a provision referred to in sub-regulation (6) below shall, upon conviction, be liable to a fine, and in the case of a continuing contravention, each day of the contravention shall constitute a separate offence.
- (5) The Authority and any person specifically authorized by name or any police officer not below the rank of inspector specifically authorized by name by the Minister, may compound offences under Part A of the third Schedule to these Regulations by assessing the contravention and requiring the person reasonably suspected of having committed the offence to pay to the Authority a sum not exceeding USD 1000.
- (6) Where a person contravenes any provision specified in Part B of the Third schedule to these Regulations, upon conviction is liable to a fine not less than the equivalent in sum of not Exceeding USD 2000 or to imprisonment for a term of twelve months or both.

- (7) A person who contravenes any provision specified as an “A” provision in the Third Schedule to these Regulations commits an offence and shall on conviction be liable to a fine not exceeding USD 500 for each offence or each flight or to imprisonment for a term not exceeding one year or to both.
- (8) A person who contravenes any provision specified as a “B” provision in the Third Schedule to these Regulations commits an offence and shall on conviction be liable to a fine not exceeding USD 2000 for each offence or each flight or to imprisonment for a term not exceeding three years or to both.
- (9) A person who contravenes any provisions of these Regulations not being a provision referred to in the Third Schedule to these Regulations, commits an offence and is liable on conviction to a fine not exceeding USD 2000 and in the case of a second or subsequent conviction for the same offence to a fine not exceeding USD 4000.
- (10) Where any person is aggrieved by any order made under these Regulations he or she may, within twenty-one days of such order being made, appeal against the order to a higher court and the relevant provisions of the Criminal Procedure Act, shall apply *mutatis mutandis*, to every such appeal as if it were an appeal against a sentence passed by a High Court in the exercise of its original jurisdiction.

71. Revocation and Savings

- (1) The Fatigue Management Regulations Act No. 34 is revoked.
- (2) A valid approval, authorization, exemption or any other document issued or granted by the Authority before the commencement of these regulations shall, until its expiry, have effect as if issued under these Regulations.

SCHEDULES

FIRST SCHEDULE DUTY PERIODS AND FLIGHT TIME LIMITATIONS ALLOWABLE FLIGHT DUTY PERIOD - SINGLE PILOT

Regulation 11 (2)

- (a) The maximum allowable flight duty period may be extended for single-pilot operations as provided in the following table:

Reporting time	Number of landings as operating crew member		
	1-4	5	>= 6
0600-1730	0930	0830	0800
1800-2159	0830	0800	0800
2200-0459	0800	0830	0800
0500-0659	0830	0800	0800

- (b) For flights operated by a single pilot and conducted wholly under VFR, allowable flight duty periods must be derived from first column (column addressing 1-4 landings) in this case however there is no limit to the number of landings.
- (c) Where the number of landings exceeds an average of 4 per hour, a break of at least 30 minutes must be taken within any period of 3 consecutive hours.

MAXIMUM UNINTERRUPTED FLIGHT TIME

Regulation 14 (1)

- (a) the maximum uninterrupted flight time for a crew of 1 or 2 shall be:

Local Time of Start Maximum Uninterrupted Flight Time

0600- 1359	11 hours
1400- 1759	10 hours
1800-0459	9 hours
0500-0659	10 hours

ALLOWABLE FLIGHT DUTY PERIODS – MULTI- PILOT

Regulation 14 (1)

The maximum allowable flight duty period may be extended during multi- pilot operations as provided in the following table.

Reporting time	Number of landings as operating crew member				
	1-2	3	4	5	>= 6
0600-1759	1300	1230	1200	1100	1030
1800-2159	1230	1200	1130	1030	1000
2200-0459	1200	1130	1100	0930	0900
0500-0659	1230	1200	1130	1030	1000

ACCEPTABLE SPLIT-DUTY EXTENSION

Regulation 15 (1)

Consecutive hours break	Increase in flight duty period
0- 2hours 59minutes	NIL
3 - 6 hours 59 minutes	1/2 length of break
7 - 10 hours 59 minutes	2/3 length of break or 1 1/2 length of break if at least 8 hours of the break fall between 2000-0800 local time where the break occurs

ON-CALL DUTY LIMITATION

Regulation 18 (a)

Notification Time	Maximum On-Call Duty Period
0 - 5 hours 59 minutes	12 Hours
From 6 hours and more	18 Hours

THE ACCEPTABLE METHODS FOR REDUCING FLIGHT CREW REST PERIODS

Regulation 21 (2)

Conditions required for flight crew member rest reduction.			
Flight Deck Duty Period (Hours)	Normal Rest Period (Hours)	Authorised Reduced Rest Period (Hours)	Next Rest Period if Reduction Taken
Less than 8	9	8	10
8 – 9	10	8	11
9 or more	11	9	12

THE ACCEPTABLE METHODS FOR REDUCING CABIN CREW REST PERIODS

Regulation 21 (2)

Conditions required for cabin crew member rest reduction				
Scheduled Duty Period (Hours)	Extra Cabin Crew Members Required	Normal Rest Period (Hours)	Authorised Reduced Rest Period (Hours)	Next Rest Period if Reduction Taken
14 or Less	0	9	8	10
14-16	1	12	10	14
16-18	2	12	10	14
18-20	3	12	10	14

TABLE 5: MAXIMUM DAILY FLIGHT DUTY PERIOD WITH EXTENSION

Starting time of FDP	1-2 sectors (in hours)	3 sectors (in hours)	4 sectors (in hours)	5 sectors (in hours)
0600-0614	not allowed	not allowed	not allowed	not allowed
0615-0629	13:15	12:45	12:15	11:45
0630-0644	13:30	13:00	12:30	12:00
0645-0659	13:45	13:15	12:45	12:15
0700-1329	14:00	13:30	13:00	12:30
1330-1359	13:45	13:15	12:45	not allowed
1400-1429	13:30	13:00	12:30	not allowed
1430-1459	13:15	12:45	12:15	not allowed
1500-1529	13:00	12:30	12:00	not allowed
1530-1559	12:45	not allowed	not allowed	not allowed
1600-1629	12:30	not allowed	not allowed	not allowed
1630-1659	12:15	not allowed	not allowed	not allowed
1700-1729	12:00	not allowed	not allowed	not allowed
1730-1759	11:45	not allowed	not allowed	not allowed
1800-1829	11:30	not allowed	not allowed	not allowed
1830-1859	11:15	not allowed	not allowed	not allowed
1900-0359	not allowed	not allowed	not allowed	not allowed
0400-0414	not allowed	not allowed	not allowed	not allowed
0415-0429	not allowed	not allowed	not allowed	not allowed
0430-0444	not allowed	not allowed	not allowed	not allowed
0445-0459	not allowed	not allowed	not allowed	not allowed
0500-0514	not allowed	not allowed	not allowed	not allowed

Starting time of FDP	1-2 sectors (in hours)	3 sectors (in hours)	4 sectors (in hours)	5 sectors (in hours)
0515-0529	not allowed	not allowed	not allowed	not allowed
0530-0544	not allowed	not allowed	not allowed	not allowed
0545-0559	not allowed	not allowed	not allowed	not allowed

TABLE 6: MINIMUM IN-FLIGHT REST (IN HOURS)

Maximum extended FDP	Minimum in-flight rest (in hours)		
	Class 1	Class 2	Class 3
up to 14:30 hrs.	1:30	1:30	1:30
1432-1500	1:45	2:00	2:20
1501-1530	2:00	2:20	2:40
1531-1600	2:15	2:40	3:00
1601-1630	2:35	3:00	not allowed
1631-1700	3:00	3:25	not allowed
1701-1730	3:25	not allowed	not allowed
1731-1800	3:50	not allowed	not allowed

Table 7: Minimum Rest Periods for Flight Crew

Length of immediately preceding duty period	Minimum length of sufficient rest period
Not exceeding 10 hours	11 hours
Exceeding 10 but not exceeding 11 hours	12 hours
Exceeding 11 but not exceeding 12 hours	13 hours
Exceeding 12 but not exceeding 13 hours	14 hours
Exceeding 13 but not exceeding 14 hours	15 hours
Exceeding 14 but not exceeding 15 hours	16 hours
Exceeding 15 but not exceeding 16 hours	17 hours
Exceeding 16 but not exceeding 17 hours	19 hours
Exceeding 17 but not exceeding 18 hours	21 hours
Exceeding 18 but not exceeding 19 hours	23 hours
Exceeding 19 but not exceeding 20 hours	25 hours
Exceeding 20 but not exceeding 21 hours	27 hours
Exceeding 21 but not exceeding 22 hours	29 hours
Exceeding 22 but not exceeding 23 hours	31 hours
Exceeding 23 hours	33 hours

Table 8 – Minimum rest period: distance not within 50 miles of place of residence

Length of immediately preceding duty period	Minimum length of sufficient rest period
Exceeding 10 but not exceeding 11 hours	10 hours
Exceeding 11 but not exceeding 12 hours	12 hours

Exceeding 12 but not exceeding 14 hours	13 hours
Exceeding 14 but not exceeding 17 hours	15 hours
Exceeding 17 but not exceeding 20 hours	16 hours
Exceeding 20 but not exceeding 23 hours	17 hours
Exceeding 23 hours	18 hours

SECOND SCHEDULE
FATIGUE RISK MANAGEMENT SYSTEM

Regulation 39

A Fatigue Risk Management System (FRMS) established in accordance with Part 6 of these regulations, shall contain, at a minimum:

1. FRMS POLICY AND DOCUMENTATION

1.1 FRMS policy

1.1.1 The operator shall define its FRMS policy, with all elements of the FRMS clearly identified.

1.1.2 The policy shall require that the scope of FRMS operations be clearly defined in the operations manual and MANSOPs.

1.1.3 The policy shall:

- (a) reflect the shared responsibility of management, flight and cabin crews, maintenance personnel, air traffic controllers, flight dispatchers and other involved personnel;
- (b) clearly state the safety objectives of the FRMS;
- (c) be signed by the accountable executive of the organization;
- (d) be communicated, with visible endorsement, to all the relevant areas and levels of the organization;
- (e) declare management commitment to effective safety reporting;
- (f) declare management commitment to the provision of adequate resources for the FRMS;
- (g) declare management commitment to continuous improvement of the FRMS;
- (h) require that clear lines of accountability for management, flight and cabin crews, and all other involved personnel are identified; and
- (i) require periodic reviews to ensure it remains relevant and appropriate.

1.2 FRMS DOCUMENTATION

The operator shall develop and keep current FRMS documentation that describes and records:

- (a) FRMS policy and objectives;
- (b) FRMS processes and procedures;
- (c) accountabilities, responsibilities and authorities for these processes and procedures;
- (d) mechanisms for ongoing involvement of management, flight and cabin crew members, and all other involved personnel;
- (e) FRMS training programmes, training requirements and attendance records;
- (f) scheduled and actual flight times, duty periods and rest periods with significant deviations and reasons for deviations noted; and
- (g) FRMS outputs including findings from collected data, recommendations, and actions taken.

2. FATIGUE RISK MANAGEMENT PROCESSES

2.1 IDENTIFICATION OF HAZARDS

The operator shall develop and maintain three fundamental and documented processes for fatigue hazard identification:

2.1.1 Predictive the predictive process shall identify fatigue hazards by examining crew scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance. Methods of examination may include but are not limited to:

- (a) operator or industry operational experience and data collected on similar types of operations;
- (b) evidence-based scheduling practices; and
- (c) bio-mathematical models.

2.1.2 Proactive

The proactive process shall identify fatigue hazards within current flight operations. Methods of examination may include but are not limited to:

- (a) self-reporting of fatigue risks;
- (b) crew fatigue surveys;
- (c) relevant flight and cabin crew performance data;
- (d) available safety databases and scientific studies; and
- (e) analysis of planned versus actual time worked.

2.1.3 Reactive

The reactive process shall identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine how the impact of fatigue could have been minimized. At a minimum, the process may be triggered by any of the following:

- (a) fatigue reports;
- (b) confidential reports;
- (c) audit reports;
- (d) incidents; and
- (e) flight data analysis events.

2.2 Risk assessment

2.2.1 The operator shall develop and implement risk assessment procedures that determine the probability and potential severity of fatigue-related events and identify when the associated risks require mitigation.

2.2.2 The risk assessment procedures shall review identified hazards and link them to:

- (a) operational processes;
- (b) their probability;
- (c) possible consequences; and
- (d) the effectiveness of existing safety barriers and controls.

2.3 Risk mitigation

The operator shall develop and implement risk mitigation procedures that:

- (a) select the appropriate mitigation strategies;
- (b) implement the mitigation strategies; and
- (c) monitor the strategies' implementation and effectiveness.

3. FRMS SAFETY ASSURANCE PROCESSES

The operator shall develop and maintain FRMS safety assurance processes to:

- (a) provide for continuous FRMS performance monitoring, analysis of trends, and measurement to validate the effectiveness of the fatigue safety risk controls. The sources of data may include, but are not limited to:
 - (i) hazard reporting and investigations;
 - (ii) audits and surveys; and

- (iii) reviews and fatigue studies;
- (b) provide a formal process for the management of change which shall include but is not limited to:
 - (i) identification of changes in the operational environment that may affect FRMS;
 - (ii) identification of changes within the organization that may affect FRMS; and
 - (iii) consideration of available tools which could be used to maintain or improve FRMS performance prior to implementing changes; and
- (c) provide for the continuous improvement of the FRMS. This shall include but is not limited to:
 - (i) the elimination and/or modification of risk controls that have had unintended consequences or that are no longer needed due to changes in the operational or organizational environment;
 - (ii) routine evaluations of facilities, equipment, documentation and procedures; and
 - (iv) the determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.

4. FRMS PROMOTION PROCESSES

FRMS promotion processes support the ongoing development of the FRMS, the continuous improvement of its overall performance, and attainment of optimum safety levels. The following shall be established and implemented by the operator as part of its FRMS:

- (a) training programmes to ensure competency commensurate with the roles and responsibilities of management, flight and cabin crew, and all other involved personnel under the planned FRMS; and
- (b) an effective FRMS communication plan that:
 - (i) explains FRMS policies, procedures and responsibilities to all relevant stakeholders; and
 - (ii) describes communication channels used to gather and disseminate FRMS-related information.

**THIRD SCHEDULE
OFFENCES AND PENALTIES**

REG. NO.	TITLE	PART
4	Compliance with laws, regulations and procedures	B
5	Knowledge or suspicion of crew fatigue	A
6	Fitness for duty	A
10	Record keeping	A
11	Maximum number of flight time hours and duty aloft	A
12	Exceeding flight time in unforeseen circumstances	A
13	Duty periods	B
14	Cumulative duty hours	A
15	Flight time and duty period	B
16	Post-Flight Duties	A
17	Positioning	A
18	Day Duties	A
19	Night Duties	A
20	Flight Duty Period Extensions – with or without in-flight rest	A
21	Split-duty assignments	A
22	Split-Duty	A
23	Augmented flight crew assignments	A
24	Mixed flying types of operation	A
25	On-call duty	A
26	Time zone difference	A
27	Fatigue Management in Air Traffic Control Service	B
28	Maximum working hours for air traffic controllers	B
29	Minimum Rest Periods for Air Traffic Controllers	A
30	Unscheduled duties for Air Traffic Controllers	A
31	Variations to Air Traffic Controllers Scheduling Limits	A
32	Fatigue Risk Management System	B
33	Rest period	B
34	Duty and rest periods for flight Operations officers	A
35	Minimum rest period each seven or ten consecutive day period	B
36	Records of flight time and duty period	B
37	Duties of operators to Prevent excessive fatigue of crew members	B
38	Minimum rest period for flight and cabin crew	B
39	Approval of fatigue risk management system (FRMS)	B
40	FRMS implementation	B
41	Integration of FRMS and SMS	A
42	FRMS Manual	A
43	Identification of Hazards	A

44	Risk Assessment	A
45	Risk Mitigation	A
46	FRM Safety Assurance Processes	A
47	FRM Promotion Process	A
48	Reports of violation	

Issued under my hand in Juba on this ^{1^h}12..... day of the month of Feb..... in Year 2026.

12 02
2026



Hon Rizik Zakaria Hassan
Minister of Transport
Republic of South Sudan - Juba