# Americas-Air Transport

Americas-Air Transport SGRAO Implementation Guide

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Mandatory Restricted

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# AMERICAS-AIR TRANSPORT SAFE OPERATIONS MANUAL FOR AVIATION OPERATIONS

Compliance with the Shell Group Requirements for Aircraft Operations (SGRAO) is mandatory across the Americas-Air Transport region for all aviation activities, assets, & facilities, including those conducted/owned by third parties and P&T operations regardless of contract mode. Mode 3 contract operations with aviation activity or assets and purchase of data collected by aircraft are included. Means of compliance shall be as stated in the SGRAO unless alternative means are specified in this document. Means of compliance differing from the SGRAO or this document requires the approval of the Americas-Air Transport (AAT) Regional Aviation Manager. Hereafter AAT and "Americas" may be used interchangeably within this document.

The contract holder for any direct aviation support contract or non-aviation contract with subcontracted aviation activity, assets, or facilities shall ensure that the necessary clauses representing the AAT implementation of the SGRAO are included as contractual requirements. The AAT aviation contract templates shall be used as the source material for contract development. Alternate means of compliance that differ from the standard AAT aviation contract templates requires the approval of the AAT Regional Aviation Manager.

The provisions of applicable law shall prevail over Shell requirements where they are more restrictive in their application, or where they prohibit a Shell requirement. In other cases, the Shell requirement shall be applied.

# SHELL GROUP REQUIREMENTS FOR AIRCRAFT OPERATIONS (SGRAO) IMPLEMENTATION

Note: AAT implementation or AAT specific requirements are preceded by "(AAT)" or can be simply stated and used interchangeably with "Americas" hereafter in this document.

# SGRAO Air Operator Requirements

# SAFETY REQUIREMENTS

# SAF 01.00 SAFETY MANAGEMENT - Comply with SGRAO requirements

The Americas Aviation HSE Case shall be included by reference for all AAT business HSE cases conducting operations with aviation content. There shall be no other standalone aviation HSE cases in the Americas. The best practice bow-ties contained in the Americas Aviation HSE Case shall be used as the basis for local HSE case development. Local aviation hazards specific to a business or operating area shall referred to the AAT Regional Aviation Manager for inclusion in the Americas Aviation HSE Case.

Contractor bridging documents for contracts with aviation content shall be prepared using the Americas Aviation HSE Case as a reference including the applicable best practice bow-ties and Hazard and Effects table controls and recovery measures.

Where Contractors do not have an acceptable Change Management process reference shall be made to the Management of Change section of the Shell HSSE Control Framework HSSE & SP Management System Manual for guidance.

Contractors providing services with aviation content shall develop a Bridging Document to demonstrate how their corporate SMS links to the Americas Aviation Safety Case and HSE-MS. The responsible AAT Aviation Manager will provide the necessary materials and guidance to complete the Bridging Document. This shall be completed before the commencement of the Contract unless otherwise agreed.

# SAF 02.00 LEADERSHIP COMMITMENT - Comply with SGRAO requirements

#### SAF 03.00 POLICY, ACCOUNTABILITY AND KPIS - Comply with SGRAO requirements

Coordination with the Global Category Manager for Aviation for guidance on current performance indicator reporting requirements shall be done by responsible AAT Aviation Manager. These requirements shall be included in applicable contracts.

#### SAF 03.01 DRUGS AND ALCOHOL POLICY - Comply with SGRAO requirements

# SAF 04.00 DOCUMENTED PROCEDURES - Comply with SGRAO requirements

#### SAF 05.00 PERSONNEL AND COMPETENCE - Comply with SGRAO requirements

The Contractor shall establish a program to train all company personnel performing work under Shell contract on the requirements of that contract.

#### SAF 06.00 SAFETY COMMUNICATIONS - Comply with SGRAO requirements

#### SAF 07.00 SAFETY REPORTING AND INVESTIGATIONS - Comply with SGRAO requirements

Responsible Aviation Managers or Contract Holders as applicable shall report incidents, near misses, and unsafe conditions in accordance with the AAT Aviation Incident Reporting Matrix.

Contractors shall notify the responsible AAT Aviation Manager in accordance with the terms of their contract, which shall be aligned with the AAT aviation contract template.

#### SAF 08.00 MANAGEMENT OF CHANGE (MOC) - Comply with SGRAO requirements

#### SAF 09.00 HAZARD/RISK MANAGEMENT - Comply with SGRAO requirements

Contractors providing services with aviation content shall document all hazards associated with the performance those services. The risk of these hazards shall be assessed using the Shell Risk Assessment Matrix (RAM). The Contractor shall:

- Manage hazards having risks in the dark and light blue areas of the RAM through the effective implementation of their own Corporate SMS.
- Document and implement controls and recovery measures in a Hazards and Effects table or equivalent methodology for hazards in the yellow area and in block 4A of the RAM.
- Document Safety Bow-Ties or equivalent methodology for all hazards which are rated in the red area or in blocks 5A and 5B of the RAM. These should be aligned with the Americas Aviation HSE Case best practice bow-ties in order to facilitate the development of the Bridging Document described in section 01.00 above.

# SAF 10.00 QUALITY ASSURANCE - Comply with SGRAO requirements

Contractors shall implement a compliance monitoring system that includes all aspects of company operations including flight operations, maintenance operations, and ground servicing operations. The activities to be checked shall be selected based on hazard analysis and historical incidents and near misses.

#### SAF 10.01 FUEL QUALITY CONTROL - Comply with SGRAO requirements

When conducting refueling operations from drums or bladders, the Contractor shall provide a documented procedure for fuel management that meets the specifications found in Annex D of the OGP 420 "Helicopter guidelines for land seismic & helirig operations" with all "should" statements treated as requirements.

# SAF 11.00 SENIOR MANAGEMENT REVIEW - Comply with SGRAO requirements

#### FLIGHT OPERATIONS REQUIREMENTS

FOP 01.01 AIR OPERATOR CERTIFICATE (AOC) - *Comply with SGRAO requirements* FOP 01.02 ORGANISATION AND PERSONNEL - *Comply with SGRAO requirements* FOP 01.03 AIRCRAFT CREW MEMBER DUTIES AND RESPONSIBILITIES - *Comply with SGRAO requirements* FOP 01.04 FLIGHT CREW SCHEDULING - *Comply with SGRAO requirements* FOP 01.05 FLIGHT PREPARATION AND PRE-FLIGHT - *Comply with SGRAO requirements* 

#### FOP 01.06 WEATHER MINIMA - Comply with SGRAO requirements

Special VFR departures and arrivals (day or night) shall not be conducted with less than the Overland - Day cloud base and visibility minima in the VFR minima set out in FOP 01.06 without prior authorization from AAT. The authorization shall be location specific, and shall be based on a defined requirement, a Contractor hazard assessment, and agreed controls to render the operations as safe as reasonably practicable. Unapproved special VFR operations during AAT service shall be reported to AAT.

The pilot in command shall not cancel an IFR clearance and proceed visually unless the weather conditions are sufficient to conduct VFR terminal operations as defined by the Regulator.

Circling approaches shall not be conducted with visibility less than published minimums for the approach class of the aircraft, and cloud base less than the following:

- Helicopter 600-foot cloud base or MDA plus 100 feet whichever is higher;
- Prop airplane <= 5,700 kg (12,500 lb) maximum gross weight 1000 Feet cloud base or MDA plus 200 feet whichever is higher;
- Airplane >5,700 kg (12,500 lb) maximum gross weight and all turbojet 1500 Feet cloud base or MDA plus 200 feet whichever is higher.

Day contact approaches shall not be conducted with less than the VFR minima set out in FOP 01.06, except that the cloud base shall be no less than 100 feet above the required obstacle clearance altitude. Obstacle clearance altitude shall be in accordance with published regulation until the required visual reference is acquired in order to conduct a normal landing. Vertical guidance from navigation aids or certified visual glide slope indicators should be followed where available.

Night contact approaches shall not be conducted without prior authorization from AAT. The authorization shall be location specific, and shall be based on a defined requirement, a Contractor hazard assessment, and agreed controls to render the operations as safe as reasonably practicable. Vertical guidance from navigation aids or certified visual glide slope indicators shall be followed where available.

Day visual approaches are permitted subject to the VFR minima set out in FOP 01.06, unless regulation requires a higher cloud base and greater visibility. Vertical guidance from navigation aids or certified visual glide slope indicators should be followed where available.

Night visual approaches shall not be conducted without prior authorization from AAT. The authorization shall be location specific, and shall be based on a defined requirement, a Contractor hazard assessment, and agreed controls to render the operations as safe as reasonably practicable. Vertical guidance from navigation aids or certified visual glide slope indicators shall be followed where available.

#### FOP 01.07 ADVERSE WEATHER - Comply with SGRAO requirements

The acceptable means of compliance for the SGRAO wake turbulence requirement is: While conducting a AAT flight, the pilot in command shall not:

- Waive a wake turbulence hold time;
- Request or accept decreased wake turbulence separation;
- Decrease the separation that existed when a visual approach behind an aircraft of a heavier wake turbulence class was issued, unless they can remain on or above the flight path of the preceding aircraft;
- Descend below the flight path of the preceding aircraft, or land at or before the preceding aircraft's touchdown point; or touchdown at or beyond the preceding aircraft's rotation point when:
- Landing a medium or heavy aircraft less than 2 minutes behind arriving or departing heavy aircraft, or
- Landing a medium aircraft less than 2 minutes behind arriving or departing medium aircraft, or
- Landing a light aircraft less than 3 minutes behind arriving or departing medium or heavy aircraft.
- Landing a light aircraft less than 2 minutes behind arriving or departing light aircraft.
- If necessary a missed approach shall be executed.

Note: For US operations replace light/medium/heavy with small/large/heavy.

FOP 01.08 MINIMUM FLIGHT ALTITUDES, AIRPORT USABILITY AND OPERATIING MINIMA - *Comply with SGRAO* requirements

A departure requiring a minimum climb gradient shall not be commenced in a multi-engine aircraft where climb gradient cannot be maintained with one engine inoperative at actual aircraft departure weight. Special engine out instrument departure procedures are allowed where provided.

An instrument approach shall not be commenced in a multi-engine aircraft where a required missed approach climb gradient cannot be maintained with one engine inoperative at actual aircraft arrival weight. Special engine out missed approach procedures are allowed where provided.

FOP 01.09 PRE-DEPARTURE POLICY, WEIGHT AND BALANCE, ATS AND OPERATIONAL FLIGHT PLANS - *Comply* with SGRAO requirements

# FOP 01.10 MINIMUM EQUIPMENT LIST AND CONFIGURATION DEVIATION LIST (MEL/CDL), AIRCRAFT TECHNICAL LOG (ATL), AIRCRAFT PRE-LIGHT INSPECTIONS - *Comply with SGRAO requirements*

In Americas operations, the pilot-in-command's use of the words "Nil Defects" when certifying in the ATL that there were no defects observed during operation may be modified to the phrase "No defects noted" or some other phrase that is equivalent.

- FOP 01.11 REFUELLING WITH PASSENGERS ON BOARD Comply with SGRAO requirements
- FOP 01.12 DE/ANTI-ICING Comply with SGRAO requirements
- FOP 01.13 AIRSPACE RULES Comply with SGRAO requirements
- FOP 01.14 IN-FLIGHT OPERATIONS Comply with SGRAO requirements
- FOP 01.15 BIRD STRIKE AVOIDANCE Comply with SGRAO requirements

For helicopter operations in bird strike hazard area:

Unless otherwise directed by ATC, helicopters shall be flown at less than 100 knots when at or below 1000 feet AGL.

Pulsed landing lights and position strobes shall be on during flight unless their activation causes a distraction or hazard.

Pilots shall wear helmets with visors down. Where agreed with the AAT Regional Aviation Manager, safety glasses may be used instead for dual pilot operations. Safety glasses must be confirmed compatible with flight operations or they may not be used.

Where an FDM system has been installed, it shall be used to verify operator compliance with bird strike prevention profiles.

# FOP 01.16 USE OF OXYGEN - Comply with SGRAO requirements

# FOP 01.17 FLIGHT FOLLOWING - Comply with SGRAO requirements

Where the equipment is available for the aircraft type in use monitored satellite/GPS flight tracking is required for all Americas aviation operations instead of radio position reporting. The use of radio position reporting is a backup in case of satellite system unserviceability.

#### FOP 01.18 AIRCRAFT DOCUMENTATION - Comply with SGRAO requirements

#### FOP 01.19 STABILISED APPROACH - Comply with SGRAO requirements

# FOP 01.20 AIRCREW AND PASSENGER SURVIVAL EQUIPMENT STANDARDS - Comply with SGRAO requirements

Immersion suits are also required for extended low-level overwater fixed-wing survey flights when operating in conditions when they would be required for helicopter operations. The ATT Aviation Manager responsible for low level overwater fixed wing operations shall ensure that personal survival equipment can be donned within the time of descent from the planned operational altitude plus time to brace for impact or that equipment must be worn for the duration of the flight.

In the Go/M immersion suits are not required. Compliance with the cold weather / water risk mitigation plan is required instead as specified in the current and approved DW GOM or SPLC Control Framework Exception.

The use of passenger PLBs shall be determined as part of the required SAR ALARP analysis. PLBs chosen shall be compatible with local SAR equipment.

The use of EBS Cat A is intended. Incorporation in respective geographical sub-regions in the Americas for all offshore helicopter operations has been studied and is dependent in the short term on achieving alignment of peer OGP companies in the region to implement since contractor working offshore are typically drawn from the same contract providers as well as availability of an OPITO wet training course from an approved HUET Provider in the sub-region.

# FOP 02.01 PILOTS AND OTHER FLIGHT CREW QUALIFICATIONS AND EXPERIENCE LEVELS – *Comply with SGRAO* requirements

FOP 02.02 ALTERNATIVE TO TIME ON TYPE REQUIREMENTS - Comply with SGRAO requirements

FOP 02.03 USE OF FREELANCE PILOTS - Comply with SGRAO requirements

FOP 02.04 PILOTS FLYING MORE THAN ONE AIRCRAFT TYPE - Comply with SGRAO requirements

# FOP 02.05 MAXIMUM AGE LIMITS FOR AIRCREW - Comply with SGRAO requirements

Responsible ATT Aviation Managers and Contract Holders shall take legal advice from Shell attorneys familiar with the laws of the country where the aircraft operator is based and the country of operation when implementing the SGRAO requirements regarding maximum age limits for aircrew.

#### FOP 02.06 MEDICALS - Comply with SGRAO requirements

Pilots on an AAT contract shall hold a medical certificate appropriate to the level of license required under the Shell contract. Where the regulator will allow operations with a lesser license (i.e. CPL) and the contract requires a higher license (i.e. ATPL), the medical certificate shall be that required by the regulator for the higher license.

Responsible ATT Aviation Managers and Contract Holders shall take legal advice from Shell attorneys familiar with the laws of the country where the aircraft operator is based and the country of operation when

implementing the SGRAO requirements regarding age based medical requirements beyond that required by the regulator.

FOP 02.07 FLIGHT CREW TRAINING - GENERAL - Comply with SGRAO requirements

The Contractor should implement the requirements and acceptable means of compliance for their entire operation, but may alternately apply them solely for flight, maintenance, and support personnel engaged in the operation and maintenance of aircraft provided for Americas service. Where this "ring fenced" approach is taken, the Contractor shall upon demand present the full training documentation required for each person providing service to AAT, including any persons temporarily assigned.

Human factors in maintenance training shall be provided every two years. It is recommended to give this in conjunction with continuation training.

FOP 02.07.01 FLIGHT CREW1 TRAINING - PROFICIENCY TRAINING - Comply with SGRAO requirements

FOP 02.07.02 FLIGHT CREW 1 TRAINING – EMERGENCY AND SAFETY EQUIPMENT TRAINING - *Comply with* SGRAO requirements

First Aid Training - For sole use passenger carriage operations, at a minimum pilot or (if provided) cabin attendant first aid training shall encompass:

(i) use of the items contained in the aircraft first aid kit;

(ii) use of the aircraft AED if one is carried;

(iii) the importance of protecting oneself and making the scene safe, including the use of gloves and PPE;

(iv) methods for determining responsiveness;

(v) identifying and clearing a blocked airway;

(vi) either CPR certification or hands only CPR training;

(vii) recognizing head and spine injuries and means of stabilizing the injured person;

(viii) stopping serious bleeding; The printed document is not controlled.

(ix) treatment for shock.

FOP 02.07.03 FLIGHT CREW1 TRAINING - NON-TECHNICAL TRAINING - Comply with SGRAO requirements

# FOP 02.07.04 TRAINING - OTHER TRAINING - Comply with SGRAO requirements

Mountain Flying

A formal and recorded training scheme flying in mountain operations shall have been undertaken plus a minimum of 6 months operations in mountainous terrain. For helicopter operations, the minimum elements should be based on the Helicopter Association of Canada Mountain Flying training guidelines.

Arctic / Cold Weather Flying

A formal and recorded training scheme flying in Arctic conditions which covers at a minimum: snow/ice and cold weather considerations, unprepared site and on ice landings, flat light and white out procedures, and operating area familiarization and procedures including fueling, communications and flight tracking.

#### Helicopter External Transport System (HETS)

An approved initial and annual recurrent training program is required for pilots assigned to Class D External Load Operations. The training program shall be based on the Helicopter Association of Canada Class D training guidelines, and shall include:

(i) instruction on the applicable flight manual supplement or airworthiness approvals, including weight and balance calculation procedures, method of loading, rigging and attaching the external load and pre-flight procedures;

(ii) instruction on operational requirements, including calculation of one engine inoperative performance as applicable, co-ordination communications procedures and operational restrictions;

(iii) steps to be taken before commencing Class D load operations, including flight and ground crew briefings and instructions and pre-flight inspection requirements; and

(iv) flight training with representative Class D loads including, as applicable to the load attachment configuration:

- Precision hovering in and out of ground effect, including vertical reference maneuvering;
- Pick-up, departure, approach and delivery of Class D loads;
- Simulated emergencies and malfunction procedures with representative Class D loads.

Helicopter External Transport System (HETS) Spotters and Technicians

An approved initial and annual recurrent training program is required for Spotters and Technicians assigned to Class D External Load Operations. The training program shall be based on the Helicopter Association of Canada Class D training guidelines.

# Helicopter landing officer training - Comply with SGRAO requirements

Brazil – HLOs shall be trained and certified under the ALPH national regulatory requirements by attending the EMCIA course.

Canada – CAPP approved training is required. The accepted certificates are:

• Helicopter Landing Officer Certificate issued by the Marine Institute, St. Johns, Newfoundland and Labrador

• Helicopter Landing Officer Certificate issued by Survival Systems Ltd., Dartmouth, Nova Scotia

Colombia / French Guiana / USA – Attend the AAT accepted HLO training course or any OPITO or OPITO equivalent course. Consult with the Responsible AAT Aviation Manager for acceptability.

DW GOM HLO refresher training will be conducted on a periodicity of 3 years vice 2 as specified in the current and approved DW GOM Control Framework Exception.

Trinidad – Designated OPITO equivalent course as specified. Consult with the Responsible AAT Aviation Manager for acceptability.

# Helideck Assistant (HDA) training - Comply with SGRAO requirements

Brazil – HDAs shall be trained and certified under the BOMBAV national regulatory requirements by attending the EMCIA course.

All other areas - Local training requirements shall be observed. The DW GOM HDA CBT may be used.

# Air traffic controller training - Comply with SGRAO requirements

A log of air traffic control radio transmissions is not required if communications are recorded on an automatic system which retains the recording for a suitable period to aid in SAR and incident investigation.

#### Radio operator training - Comply with SGRAO requirements

Brazil – Radio operators are licensed under local regulation and associated required EPTA CAT "M" given by ICEA.

Canada – An individual employed in the position of Radio Operator shall hold:

• General Operator's Certificate endorsed for Global Maritime Distress and Safety System (GMDSS) issued by Industry Canada

• a GMDSS Certificate from an accredited GMDSS training institution; and

• aviation and marine weather observer certification from a recognized training institution or qualified instructor

USA – No radio operator's license is required. Local training requirements shall be observed.

Other areas – As per national regulation. Local training requirements shall be observed.

FOP 02.07.05 PILOT EXPERIENCE AND QUALIFICATION LEVELS – FIXED WING - *Comply with SGRAO requirements* FOP 02.07.06 PILOT EXPERIENCE AND QUALIFICATION LEVELS – HELICOPTERS - *Comply with SGRAO requirements* FOP 02.07.07 AB-INITIO AND LOW EXPERIENCE PILOT TRAINING HELICOPTERS - *Comply with SGRAO requirements* 

FOP 03.01 FLIGHT DATA MONITORING (FDM) - GENERAL - Comply with SGRAO requirements

Where there is a significant number of flight data monitoring system installations required combined with a low annual usage a cost benefit analysis shall be conducted with SAI and agreement with the using business reached before the SGRAO requirement is applied.

FOP 03.02 FLIGHT DATA MONITORING (FDM) - ORGANISATION STRUCTURE - Comply with SGRAO requirements

FOP 03.03 FLIGHT DATA MONITORING (FDM) - HARDWARE - Comply with SGRAO requirements

FOP 03.04 FLIGHT DATA MONITORING (FDM) - PROCESSES - Comply with SGRAO requirements

FOP 03.05 FLIGHT DATA MONITORING (FDM) - TRAINING, SERVICEABILITY AND AUDIT - *Comply with SGRAO* requirements

FOP 04.01 FUEL REQUIREMENTS - HELICOPTERS - Comply with SGRAO requirements

In addition to the SGRAO requirements:

For the following missions:

- A contingency shall also be allowed for start-up and taxi.
- Fuel computations for the leg to the alternate should be calculated at the low altitude cruise fuel consumption if this is likely to be the case.
- Holding fuel is computed at holding speed.
- The above requirements are in addition to unusable fuel as listed in the aircraft Flight Manual.

Helicopter External Transport System (HETS)

a) Fuel shall be sufficient for the leg to the extraction site and return to the recovery landing area where fuel is available plus:

(i) Additional fuel based on the rules of the State of the operator or 5% of the planned trip fuel whichever is greater, plus:

(ii) Fuel for the insertion of the technician, additional return trips for any other equipment required, HOGE hover during preparation for patient extraction, plus;

(iii) 20 minutes fuel at planned transport speed, plus;

(iv) Extra fuel, at the discretion of the commander

Offshore SAR & hoist Medevac operations

a) Fuel shall be sufficient for the leg to the rescue area and return to planned patient transfer point plus:
(i) Additional fuel based on the rules of the State of the operator, or fuel to fly for 30 minutes at cruise speed at the planned altitude, or 10% of the planned trip fuel whichever is greater, plus:

(ii) Fuel to fly for 30 minutes at holding speed at 1500 feet above the rescue area, plus;

(iii) Fuel to conduct a search for survivors and to conduct the necessary hoist operations at anticipated hoist speed and interval for the number of anticipated survivors, plus;

(iv) Fuel for a missed approach at planned patient transfer point, plus transit and approach and landing at alternate, plus;

(v) Extra fuel, at the discretion of the commander

Helirig and Seismic support

a) Fuel requirements shall be determined in accordance with the OGP recommended practices detailed in OGP 420 as modified in FOP 05.03.

FOP 04.02 COMPOSITION OF FLIGHT CREW - HELICOPTERS - Comply with SGRAO requirements

FOP 04.02.01 TWO PILOT OPERATIONS - HELICOPTERS - Comply with SGRAO requirements

FOP 04.02.02 SINGLE PILOT OPERATIONS - Comply with SGRAO requirements

FOP 04.02.03 MAXIMUM FLYING HOURS LIMITS - HELICOPTERS - Comply with SGRAO requirements

Flying hour limits from FOP 04.02.03 for ad hoc or short-term service shall be applied as indicated in the following table:

	Period of continuous service provision (Note 1)				
Flight hour limit	< 7 days	7 to 14 days	2 to 4 weeks	4 to 8 weeks	> 8 weeks
Per year	N/A	N/A	N/A	N/A	N/A
3 x 28 days	N/A	N/A	N/A	N/A	Yes
Per 28 days	N/A	Yes	Yes	Yes	Yes
Per 7 days	Yes	Yes	Yes	Yes	Yes
Per 24 hours (including notes for SGRAO Flight Hour limit table)	Yes	Yes	Yes	Yes	Yes

Note 1: Service shall be considered continuous if an aircraft is dedicated to the Company, even if there are days during that period when no flying is conducted.

Note 2: The Contractor shall manage crew assignments to meet the requirements of this table. Crew assigned to Company service shall be available to fly the maximum number of hours indicated in the table in FOP 04.02.03 without exceeding a required flight time limit for the period of their assignment, including previous flight time from non-Company service. Some alleviation may be made at the discretion of the responsible AAT Aviation Manager for short notice operations.

FOP 04.03 MAXIMUM FLYING DUTY PERIODS (FDP) - HELICOPTER - Comply with SGRAO requirements

The SGRAO duty period definition shall be applied in all AAT operations.

Crews on even-length continuous work rotations (i.e. 7 on & 7 off or 14 on & 14 off) in AAT service shall observe the following requirements.

(i) Crew assignments where regular flying is conducted without days off on site shall not be assigned longer than 14-day duty rotations. Rotations longer than 14 days shall use the normal SGRAO days off scheme.

(ii) Crew assignments for SAR or Medevac standby where only training and currency flights are conducted shall not be assigned longer than 21-day duty rotations without days off on site. Rotations longer than 21 days shall use the normal SGRAO days off scheme.

(iii) Crew training and non-AAT service during the AAT scheduled off work periods shall be conducted in the days immediately following AAT duty. Crew shall have no less than the following number of days off work immediately prior to traveling to report for Company duty.

Company work rotation	Days off prior to reporting for Company rotation		
7 / 7	5		
14 / 14	10		
21 / 21	14		

While in Shell service crews shall be provided:

(i) one hour at the beginning of a crew duty period for preflight preparation, and;

(ii) a minimum of  $\frac{1}{2}$  hour break near the middle of their duty period for a meal which shall not start until the crew is at their meal, and;

- (iii) necessary breaks for personal comfort, and;
- (iii) at least  $\frac{1}{2}$  hour at the end of the duty period for post-flight duties.
- (iv) These times shall be included in the crew daily FDP total.

When reducing the required 12-hour rest period to 11 hours, the place of accommodation shall be no more than 30 minutes from the place of work under normal conditions.

Crewmembers changing from day to duty to night duty, or from night duty to day duty, shall be provided no less than 24 hours off duty when making the shift change.

Cabin attendant limits shall be applied to SAR cabin crew.

Assigning night standby duty to crews performing regular day flying is prohibited in AAT unless specifically authorized by the AAT Regional Aviation Manager.

SAR / Medevac crews assigned to 24-hour duty where allowed by regulation and where only training and currency flights are conducted shall have no less than 12 hours of on-call rest per 24-hour period which is reducible to 11 hours where accommodation is close to the place of work. When reducing the required 12 hour on-call rest period to 11 hours, the place of accommodation shall be no more than 30 minutes from the place of work under normal conditions. These requirements apply to both pilots and cabin crew.

# FOP 04.04 GUARDING OF FLIGHT CONTROLS - HELICOPTERS - Comply with SGRAO requirements

# FOP 04.05 NIGHT OPERATIONS - HELICOPTERS - Comply with SGRAO requirements

# Continued Competency

- For offshore night operations, of the 3 night take-offs and landings required every 90 days, a minimum of 2 night take-offs and landings shall be on an offshore helideck. In order to minimize overall risk exposure and complete offshore helideck emergency response procedures training, night take-off and landing competency requirements on an offshore helideck can be periodically met in a flight simulator that is of the same type, model, and series as the aircraft on-contract with prior approval from the Regional Aviation Manager.
- A minimum of one night deck landing per year shall be assessed by a Base or Line Training Captain.
- If the above are not completed, the Pilot may not operate offshore by night, other than to participate in formal night training.

FOP 04.06 ROTORS RUNNING REFUELLING (RRRF) – HELICOPTERS - *Comply with SGRAO requirements* FOP 04.07 FLOAT ARMING FOR OFFSHORE FLIGHTS – HELICOPTERS - *Comply with SGRAO requirements* FOP 04.08 ROTOR BRAKE SERVICEABILITY FOR OFFSHORE OPERATIONS – HELICOPTERS - *Comply with SGRAO requirements* 

FOP 04.09 HELICOPTERS BASED OFFSHORE - Comply with SGRAO requirements

FOP 04.10 GROUND TAXI ON OFFSHORE HELIDECKS - HELICOPTERS - Comply with SGRAO requirements

FOP 04.11 - AIRCRAFT OPERATIONS - HELICOPTER PERFORMANCE - Comply with SGRAO requirements

FOP 04.12 USE OF OFFSHORE ALTERNATES - HELICOPTERS - Comply with SGRAO requirements

# FOP 05.01 LAND SEISMIC AND HELI-RIG OPERATIONS - Comply with SGRAO requirements

A fly away crash box shall be provided for any operation with more than one assigned helicopter.

# FOP 05.02 SPECIALIST ROLES - MARINE PILOT TRANSFER - HELICOPTERS - Comply with SGRAO requirements

A suitable alternate method of compliance for each vessel master having a copy of the ICS document would be for the vessel company publishing a company document based on the ICS document, or the supporting helicopter winching company publishing a compatible winching instruction that is provided to the vessel master.

The required winching area inspection may be carried out by AAT approved helicopter company representatives. It shall be documented in an inspection report which shall be held in AAT files. Where the receiving vessel is arriving from an area where an inspection cannot be conducted a desktop review is permissible with concurrence from the helicopter winching company and SAI.

# FOP 05.03 SPECIALIST ROLES - AIRBORNE GEOPHYSICAL SURVEY - Comply with SGRAO requirements

A suitable alternate method of compliance for the aircraft to be in radio contact with an appropriate SAR organization is for the aircraft to be in radio contact with their operating base flight following team who is able to contact suitable Search and Rescue (SAR) support. In this case satellite flight following shall be provided and shall be continuously monitored for the entire duration of the flight.

When conducting refueling operations from drums or bladders, the contractor shall provide a documented procedure for fuel management that meets the specifications found in Annex D of the OGP 420 "Helicopter guidelines for land seismic & helirig operations" with all "should" statements treated as requirements.

# FOP 05.04 SPECIALIST ROLES - AERIAL PIPELINE INSPECTIONS - Comply with SGRAO requirements

# FOP 6.01 PERFORMANCE REQUIREMENTS - FIXED-WING OPERATIONS - Comply with SGRAO requirements

The EASA performance class definitions given below shall be used when meeting the SGRAO requirement:

NOTE: Maximum operational passenger seating configuration (MOPSC) means the maximum passenger seating capacity of an individual aircraft, excluding crew seats.

(i) Performance class A airplanes means multi-engined airplanes powered by turbo-propeller engines with an MOPSC of more than nine or a maximum take-off mass exceeding 5 700 kg, and all multi-engined turbo-jet powered airplanes.

(ii) Performance class B airplanes means airplanes powered by propeller engines with an MOPSC of nine or less and a maximum take-off mass of 5 700 kg or less. This includes single engine airplanes.
(iii) Performance class C airplanes means airplanes powered by reciprocating engines with an MOPSC of more than nine or a maximum take-off mass exceeding 5 700 kg.

Where short takeoff and landing (STOL) procedures are published for a multi-engine airplane, the Contractor shall ensure that when operating on a AAT flight, the aircraft shall not be caused to become airborne at less than VMCA, and that during landing that the airplane shall not be slowed below VMCA until committed to land. Required takeoff and landing distances shall be adjusted accordingly.

Multi-engine operations shall be conducted to ensure balanced field takeoff operations. Where manufacturer data is not available to directly compute balanced field performance weights, the Contractor shall ensure that airplane payload and fuel load is adjusted such that:

(i) the airplane can accelerate towards V1, lose an engine and come to a complete stop prior to leaving the end of the runway plus stopway (accel-stop computation), and

(ii) the airplane can lose an engine at or past V1 and continue the takeoff while maintaining required terrain clearance and climb gradients (accel-go computation), and

(III) airplane fuel load shall be no less than that required in FOP 06.03.

Single engine operations shall be conducted to ensure that the airplane can accelerate towards Vr, abort the takeoff, and come to a complete stop prior to leaving the end of the runway plus stopway. Airplane fuel load shall be no less than that required in FOP 06.03.

Airplane landing performance weights shall be computed to ensure that the airplane crossing the threshold at  $V_{REF} + 5$  can land anywhere in the first third of the runway and come to a complete stop prior to leaving the end of the runway. Necessary landing distance additives shall be applied and stopway length shall not be utilized in planning.

The Contractor shall include procedures for computing performance for operations from contaminated runways in the Contractor OM. Operations from ice runways shall be considered contaminated field operations.

Where there is no manufacturer's data for operations related to the following conditions, the safety factors specified in either the Contractor's operating manuals or instructions, or the following factors below shall be applied in AAT operations for both takeoff and landing:

(i) Weight of the Aircraft
(ii) Airfield Altitude
(iii) Air Temperature
(iv) Wind
(v) Slope
(vi) Surface (Soft or Contaminated) - See the FSF BN 8.3 below for wet, snow, or ice contaminated runways.

NOTE: Reference to additional material such as the Flight Safety Foundation Approach & Landing Accident Reduction BN 8.3 (FSF BN8.3) or FAA AC 91-79 is recommended.

No credit shall be taken for the retarding effect of the runway surface when computing accel-stop distance.

No credit shall be taken for the retarding effect of the runway surface for landing performance requirements.

#### FOP 06.02 USE OF SINGLE-ENGINE AIRCRAFT - Comply with SGRAO requirements

Single engine shall not be operated over hostile terrain at an altitude that would preclude the aircraft from gliding to a place to carry out a safe forced landing.

#### Exception:

Request for night or IMC use of single-engine turboprop aircraft for passenger or cargo service where allowed by regulation will be supported and addressed with SAI based on positive analysis of the following items. This use may require an HSSE & SP Control Framework exception request if SAI will not agree the use and the necessity of the service should be significant.

Cessna Caravan or Pilatus PC-12 operations only:

(i) Current fleet engine out 10-year history from the manufacturer

(ii) A thorough examination of the provider's power plant & propeller maintenance and fuel quality programs

(iii) A review of the provider's engine out and forced landing training program

(iv) A 10-year review of the provider's accident & incident history

(v) Successful SAI Contractor audit

FOP 6.03 FUEL REQUIREMENTS - FIXED-WING OPERATIONS - *Comply with SGRAO requirements* FOP 06.04 COMPOSITION OF FLIGHT CREW - FIXED-WING OPERATIONS - *Comply with SGRAO requirements* FOP 06.05 MAXIMUM FLYING HOUR LIMITS – FIXED WING - *Comply with SGRAO requirements* 

Apply the 28-day flight time limit for all short-term operations exceeding 6 continuous days of company service including flight time in the period prior to Americas service, even if there are days during Americas service when no flying is conducted.

The Contractor shall manage crew assignments to meet these requirements. Crew assigned to Americas service shall be available to fly the maximum number of hours indicated in the table in FOP 06.05 without exceeding a required flight time limit for the period of their assignment, including previous flight time from non-Americas service. Some alleviation may be made at the discretion of the responsible AAT Aviation Manager for short notice operations.

# FOP 06.06 MAXIMUM FLYING DUTY PERIODS (FDP) - FIXED-WING - Comply with SGRAO requirements

Crews on even-length continuous work rotations (i.e. 7 on & 7 off or 14 on & 14 off) in AAT service shall observe the following requirements.

(i) Crew assignments where regular flying is conducted without days off on site shall not be assigned longer than 14-day duty rotations.

(ii) Crew assignments for Medevac standby where only training and currency flights are conducted shall not be assigned longer than 28-day duty rotations without days off on site.

(iii) Crew training and non-AAT service during the AAT scheduled off work periods shall be conducted in the days immediately following AAT duty. Crew shall have no less than the following number of days off work immediately prior to reporting for Company duty.

Company work rotation	Days off prior to reporting for Company rotation
7 / 7	5
14 / 14	10
21 / 21	14
28 / 28	19

While in Company service crews shall be provided:

(i) one hour at the beginning of a crew duty period for preflight preparation, and;

(ii) a minimum of  $\frac{1}{2}$  hour break near the middle of their duty period for a meal which shall not start until the crew is at their meal, and;

(iii) necessary breaks for personal comfort, and;

(iii) at least  $\frac{1}{2}$  hour at the end of the duty period for post-flight duties.

The printed document is not controlled. <u>Underlined terms</u> are defined in the HSSE & SP Control Framework Glossary. (iv) These times shall be included in the crew daily FDP total.

Two pilot operations using split or continuous duty periods which total more than 13 hours from beginning to end shall still comply with the minimum rest requirements. Next day start times shall be adjusted as necessary.

For single day ad hoc charters, the crew shall receive the Shell specified rest period prior to reporting for Shell duty.

Crewmembers changing from day to duty to night duty, or from night duty to day duty, shall be provided no less than 24 hours off duty when making the shift change.

Assigning night standby duty to crews performing regular day flying is prohibited in AAT unless specifically authorized by the AAT Regional Aviation Manager.

Medevac crews assigned to 24-hour duty where allowed by regulation and where only training and currency flights are conducted shall have no less than 12 hours of on-call rest per 24 hour period which is reducible to 11 hours where accommodation is close to the place of work. When reducing the required 12 hour on-call rest period to 11 hours, the place of accommodation shall be no more than 30 minutes from the place of work under normal conditions. These requirements apply to both pilots and cabin crew.

# FOP 07.01 PASSENGER GENERAL REQUIREMENTS - Comply with SGRAO requirements

Carriage of personnel not on company business in company owned or chartered aircraft is prohibited unless approved in writing by the business leader of the venture or business.

# FOP 07.02 CARGO AND LUGGAGE - Comply with SGRAO requirements

Carriage of checked-in baggage or cargo in aircraft cabins requires the case-by-case approval of the Responsible AAT Aviation Manager.

Carriage of hand baggage and luggage in offshore helicopter cabins requires the case-by-case approval of the Responsible AAT Aviation Manager.

The only items that may be carried in offshore helicopter cabins without special authorization are small bound books and magazines. Loose papers such as newspapers are prohibited.

NOTE: The requirements of 49 CFR 175 apply to all shipments offered for air transport to, from, or within the United States, including when the shipment is prepared in accordance with the ICAO Technical Instructions for the "Safe Transport of Dangerous Goods by Air" (Doc. 9284-AN/905).

#### FOP 07.03 MANIFESTS - Comply with SGRAO requirements

Americas businesses and contractors shall comply with the specifications of the current OPS0081.

# FOP 07.04 PASSENGER WEIGHTS AND SIZE - Comply with SGRAO requirements

Use of declared weights in remote areas requires AAT Regional Aviation Manager approval. All efforts shall be made to provide a means of collecting actual weights.

Where standard passenger mass is used, the Responsible AAT Aviation Manager shall conduct representative surveys of passenger weights at the beginning of the operation and at intervals no greater than every two years thereafter. The higher of the Group prescribed standard weights or the local survey standard weights shall be used. The local survey standard weight shall be set as the mean of the surveyed weights plus one standard deviation. It may be divided by gender; otherwise male weights shall be used for all passengers.

#### FOP 07.05 PASSENGER BRIEFINGS - Comply with SGRAO requirements

The safety briefing shall be given prior to the passenger's first flight of the day even if this is less than 24 hours since the last briefing.

Hats and caps may not be carried into the helicopter cabin and shall be stowed in luggage unless authorized in the helicopter cabin as part of a cold weather clothing ensemble.

#### FOP 07.06 PASSENGER MARSHALLING AREAS - Comply with SGRAO requirements

#### FOP 08.00 AIRCRAFT EQUIPMENT STANDARDS - Comply with SGRAO requirements

ELTs shall be 406 MHz SARSAT capable.

All aircraft operating offshore shall be equipped with Underwater Location Beacons where available for the aircraft type, including fixed wing aircraft.

#### ENGINEERING REQUIREMENTS

ENG 01.01 AIRWORTHINESS MANAGEMENT - Comply with SGRAO requirements

The AAT contract helicopter replacement schedule shall be managed by AAT Aviation Logistics in consultation with supported AAT businesses. Where a business deems it necessary to operate a helicopter type past the service date limits given in the SGRAO and agreement cannot be obtained from SAI, the business will execute an HSSE Control Framework exception request.

#### Exception:

In the USA, the following requirements for Equivalent non-EASA Part 66 Qualification Independent Inspection authorization shall be used.

I First and Second Signatory Mechanic A, P, A&P as per 14 CFR 65.

Recent experience as per 14 CFR 65.

[] Required inspection personnel in accordance with 14 CFR 135.429 regardless of the number of seats on contracted aircraft.

Additionally - Providing evidence of suitable training and relevant experience to certify that level of independent inspection.

#### ENG 02.01 CONTINUING AIRWORTHINESS ORGANISATION - Comply with SGRAO requirements

A complete description of maintenance staffing shall be submitted by the Contractor describing number of personnel at each maintenance work site, roles, multiple roles held by an individual, normal shift periods, days on shift and days off at site, maximum duty hours while on shift, etc. A tool for this documentation is available from AAT and should be reviewed with SAI for compliance.

Contractor shall ensure that for local and remote operations, sufficient approved maintenance personnel are assigned to be able to conduct Completion of Independent / Duplicate Inspections / Required Inspection Items (RII) without utilizing pilots for these tasks, and without delaying Company operations to bring in an inspector from another location. The minimum number of appropriately licensed maintenance personnel for field maintenance operations shall be two, and at least one shall be approved as an Independent Inspector.

#### ENG 02.02 AIRCRAFT MAINTENANCE PROGRAMME - Comply with SGRAO requirements

Contractors shall have working at height policies that meet the requirements of the Shell Life Saving Rule # 6. The following requirements shall be met unless modified with agreement from the AAT Regional Aviation Manager:

#### 1. Applicability:

a. Controls are mandatory for contractors and subcontractors providing direct support to Shell operations where man-hours are collected for maintenance operations.

b. Controls are recommended in pooled maintenance activities (Shell & non-Shell) where man-hours are not collected for maintenance operations.

- c. Controls apply to both maintenance personnel and pilots.
- 2. Definitions:

a. Working at height is defined as work at height from which people can fall more than 6 feet or 1.8 meters; and gaining access to the work at height.

b. Fall restraint consists of equipment used to keep an employee from reaching a fall point, such as the edge of an elevated working surface. They include guardrails and toe boards. The protective environment provided by a work stand with guardrails is a fall restraint. A tie off system that "restrains" the employee from falling off an elevated working surface is another type of fall restraint.

c. Fall arrest means a system used to arrest an employee in a fall from a working level. It consists of an anchor point, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these.

3. General requirements:

a. When working at height outside of a fall restraint system a bump cap or helmet shall be worn. The bump cap or helmet shall be donned before leaving the protected environment of a work stand to work on the aircraft fuselage.

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b. When working at height outside of a fall restraint system a safety observer shall be provided to ensure a rapid response in case of a fall.

c. When climbing on aircraft and other equipment personnel shall maintain three points of contact. d. Work stand use is required when working at height is conducted on a hard surface area, work stand use is appropriate to the task, and a device is available. The work stand shall have appropriate guardrails and toe boards and shall conform to the shape of the aircraft sufficiently to prevent falls between the work stand and the fuselage.

e. Working at height rules and warning signage shall be prominently displayed in hangar bays. 4. Airplane providers:

a. Fall arrest systems shall be utilized in hangars where working at height is performed on aircraft provided for Shell use.

5. Helicopter providers:

a. Provision of fall arrest systems shall be based on a risk analysis and if provided shall be compatible with the helicopter type. They shall not present a hazard in use.

b. Helicopter components shall not be used as a tie-off anchor unless the manufacturer has certified that component for this use.

ENG 02.03 AIRWORTHINESS DIRECTIVES AND (ALERT) SERVICE BULLETINS - Comply with SGRAO requirements

# ENG 02.04 AIRCRAFT TECHNICAL RECORDS - Comply with SGRAO requirements

# ENG 02.05 CONTRACTED MAINTENANCE AND SERVICES - Comply with SGRAO requirements

A complete description of maintenance staffing shall be submitted by the Contractor describing number of personnel at each maintenance work site, roles, multiple roles held by an individual, normal shift periods, days on shift and days off at site, maximum duty hours while on shift, etc. A tool for this documentation is available from AAT and should be reviewed with SAI for compliance.

Contractor shall ensure that for local and remote operations, sufficient approved maintenance personnel are assigned to be able to conduct Completion of Independent / Duplicate Inspections / Required Inspection Items (RII) without utilizing pilots for these tasks, and without delaying Company operations to bring in an inspector from another location. The minimum number of appropriately licensed maintenance personnel for field maintenance operations shall be two, and at least one shall be approved as an Independent Inspector.

ENG 02.06 AUTHORISATIONS, COMPETENCE AND TRAINING (CONTINUING AIRWORTHINESS) - *Comply with* SGRAO requirements

ENG 03.01 MAINTENANCE ORGANISATION MANAGEMENT - Comply with SGRAO requirements

Contractors shall implement a compliance monitoring system that includes all aspects of company operations including flight operations, maintenance operations, and ground servicing operations. The activities to be checked shall be selected based on hazard analysis and historical incidents and near misses.

#### ENG 03.02 MAINTENANCE CONTROL AND RELEASE TO SERVICE - Comply with SGRAO requirements

#### ENG 03.03 DUPLICATE AND INDEPENDENT INSPECTIONS - Comply with SGRAO requirements

In addition to the SGRAO requirement:

The use of pilots to act as the second signatory is solely intended to return an aircraft to a maintenance location from a non-maintenance site. Field maintenance in support of seismic, helirig, aerial survey operations and other temporary project support shall be adequately staffed to support operations.

# ENG 03.04 TOOLS AND EQUIPMENT - Comply with SGRAO requirements

In addition to the SGRAO requirement:

- Tools shall be inventoried at the beginning of each maintenance action, and shall be inventoried and accounted for prior to an aircraft being released to service. These inventories shall be documented in an auditable form.
- All tools shall be secured when not in use and Contractors shall implement a policy prohibiting the undocumented borrowing of personal tools which could render the control and accounting of tools ineffective.
- In the event that a tool cannot be accounted for, any aircraft provided for Americas service shall be removed from service if there is any cause to believe that the tool may have been left on that aircraft, which shall include the possibility of undocumented borrowing of tools. The aircraft shall not be returned to service until a thorough inspection has been conducted to confirm that the missing tool was not left on the aircraft being provided for AAT service.

#### ENG 03.05 FACILITIES - *Comply with SGRAO requirements*

In addition to the SGRAO requirement:

Contractors shall have a process for the quality inspection of all parts and consumables upon receipt from their supplier. All rejected parts and consumables shall be stored in the secure quarantine area until returned for credit, or properly disposed of in a way that precludes their inadvertent use in maintenance.

Parts and consumables that rely upon undamaged packaging for shelf-life assurance (such as packaged Orings) shall be inspected to ensure that the packaging is not damaged and that it has not been pierced during handling or through inadvertent stapling or other action. Such parts and consumables shall be rejected upon receipt if damaged packaging is detected.

#### ENG 03.06 IDENTIFYING ORGANISATIONAL WEAKNESS (IOW) - Comply with SGRAO requirements

# ENG 03.07 STAGED WORKSHEETS - Comply with SGRAO requirements

#### ENG 03.08 FITNESS FOR WORK AND FATIGUE MANAGEMENT - Comply with SGRAO requirements

Contract Holders shall take legal advice from Shell attorneys familiar with the laws of the country where the aircraft operator is based and the country of operation when implementing the requirements in ENG 03.08 regarding maximum age limits for engineers and age based medical requirements beyond that required by the regulator.

In addition to the SGRAO requirements:

Minimum rest period

The minimum planned rest period for engineers is 10 hours, reducible to 9 hours where the place of accommodation is no more than 30 minutes from the place of work under normal conditions.

Days off while on-site during an equal length on/off rotation (i.e. 28/28 rotation)

- Engineers serving as flight crew shall comply with the pilot duty rules.
- Engineers not serving as flight crew shall receive one day off per week with no more than 12 working days between days off. Preference is for a regular schedule of days off with no more than 6 working days between days off.

Control of fatigue caused by commuting to work

- Contractor shall have a process to control engineer fatigue caused by commuting from a location not local to the work site for Company service. Commuting from place of residence or from another duty assignment shall both be controlled.
- Daily commutes shall not exceed one hour each way. If a daily commute is longer than one hour each way, Contractor shall provide local accommodations that shall be used when on Company service or a different engineer shall be assigned to maintain aircraft provided for AAT service. Alternatively, if it does not impede aircraft availability for AAT service, the engineer's work shift may be reduced by the amount of time spent in round-trip commute greater than two hours.
- Where an engineer commutes to a work site for a multi-day Company assignment and that commute is greater than two hours, the engineer shall either:
  - o report no later than 9 hours prior to commencing Company service and shall be provided local accommodations in order to achieve no less than 8 hours of local rest, or;
  - work a reduced shift of no more than 12 hours adjusted for the time spent in the commute that exceeds two hours, i.e. maximum work shift = 14 hours - total time spent in commute to work site.

ENG 03.09 AUTHORISATIONS, COMPETENCE AND TRAINING (AMO) - Comply with SGRAO requirements

ENG 03.10 FOREIGN OBJECT DAMAGE - Comply with SGRAO requirements

ENG 03.11 AIRCRAFT STORES - Comply with SGRAO requirements

ENG 04.01 AIRCRAFT FUEL - Comply with SGRAO requirements

When conducting refueling operations from drums or bladders, the Contractor shall provide a documented procedure for fuel management that meets the specifications found in Annex D of the OGP 420 "Helicopter guidelines for land seismic & helirig operations" with all "should" statements treated as requirements.

ENG 5.01 HEALTH AND USAGE MONITORING SYSTEM (HUMS) - GENERAL - Comply with SGRAO requirements

ENG 5.02 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – EQUIPMENT FIT REQUIREMENT - *Comply with SGRAO requirements* 

ENG 5.03 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – OEM SUPPORT AGREEMENT - *Comply with SGRAO requirements* 

ENG 5.04 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – REQUIRED SERVICEABILITY - *Comply with SGRAO requirements* 

ENG 5.05 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – DOWNLOAD AND LINE ANALYSIS FREQUENCY - *Comply with SGRAO requirements* 

ENG 5.06 HEALTH AND USAGE MONITORING SYSTEM (HUMS) - SECOND LINE ANALYSIS FREQUENCY - *Comply with SGRAO requirements* 

ENG 5.07 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – RECORDING AND RELEASE TO SERVICE - *Comply with SGRAO requirements* 

ENG 5.08 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – TRAINING - Comply with SGRAO requirements

ENG 5.09 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – QUALITY ASSURANCE (QA) - *Comply with SGRAO requirements* 

ENG 5.10 HEALTH AND USAGE MONITORING SYSTEM (HUMS) – GROUNDSTATION - *Comply with SGRAO* requirements

OTHER REQUIREMENTS

OTH 01.00 - SECURITY - Comply with SGRAO requirements

All Americas aviation activities shall comply with the Shell Corporate Security Plan as it applies to aviation operations.

OTH 02.00 - SEARCH AND RESCUE OPERATIONS (SAR) - Comply with SGRAO requirements

OTH 03.00 - REMOTELY PILOTED AIRCRAFT SYSTEMS (RPAS) OPERATIONS - Comply with SGRAO requirements

#### BUSINESS PROCESSES

#### iBUR MANAGE AIR TRANSPORT BUSINESS

iBUR MAN Note - Comply with SGRAO requirements

iBUR MAN - SECTION 2: AUDIT, CONTRACTING AND CONTRACT MANAGEMENT - Heading only

iBUR MAN - 2.4 - Appointment of AFP, AOS or HAS - Comply with SGRAO requirements

The cognizant Logistics Manager shall manage all aviation activity in their respective region and unless otherwise agreed with the AAT Regional Aviation Manager, the Responsible AAT Aviation Manager shall be the contract holder for any directly contracted aviation support.

Where a non-aviation Contractor is approved to subcontract aviation services by the AAT Regional Aviation Manager, those operations shall be overseen and assurance provided by the Responsible ATT Aviation Manager.

All Americas aviation activities including JV and subcontracted operations shall report flight activity to the AAT Regional Aviation Manager using the reporting template provided for consolidation and forwarding to SAI.

iBUR MAN - SECTION 3: SAFETY & QUALITY MANAGEMENT - Heading only

iBUR MAN - 3.6 - Safety Management System elements - Comply with SGRAO requirements

iBUR MAN - 3.12 - Enhanced Operational Controls - Comply with SGRAO requirements

Maximum sustained wind speed for normal helicopter operations shall be 45 knots unless the business or destination has established a lower limit in which case that limit shall be used. Maximum sustained wind speed

for normal helicopter operations shall not exceed any wind related SAR limit. Maximum sustained wind speeds for emergency operations shall be the limit set in the operator's operations manual for landing and ground operations or for hoisting as applicable.

Maximum sea state or wave height for normal offshore helicopter operations shall be the lower of:

- The float certification limit delineated by aircraft type. If more than one type float system is in use for a given aircraft type this limit may be applied according to the individual system certification limit as installed on the helicopter.
- The maximum sea state for personnel vessel recovery if this is the primary means for SAR, including any FRC launch limits.
- The maximum sea state for personnel hoist recovery as established by the helicopter SAR provider if this is the primary means for SAR.

Maximum sea state or wave height for offshore airplane operations shall be the lower of:

- The maximum sea state for personnel vessel recovery if this is the primary means for SAR, including any FRC launch limits.
- The maximum sea state for personnel hoist recovery as established by the helicopter SAR provider if this is the primary means for SAR.

Maximum vessel motion shall be the lower of:

- The maximum vessel motion established by the vessel. This limit may be applied vessel by vessel if properly published to the pilots.
- The maximum motion limit established by the helicopter operating company.
- The limits given in the Helideck Certification Agency HLL Part C available from their website download page.

Minimum water temperature when immersion suits are in use shall be the temperature at which survival time exceeds 1.5 X rescue time. If survival time cannot be properly computed using that method then survival time may be calculated as 2/3 X manufacturer's claimed survival time.

Minimum water temperature when immersion suits are not in use shall be the higher of 15 degrees C / 59 degrees F or the temperature at which survival time exceeds 1.5 X rescue time.

A tool for Enhanced Operational Control documentation is available from the Responsible AAT Aviation Manager.

iBUR MAN - SECTION 4: AIRCRAFT OPERATIONS - GENERAL - *Heading only* 

iBUR MAN - 4.7.14 - Bird strike avoidance - Comply with SGRAO requirements

iBUR MAN - 4.9 - Flight Following - Comply with SGRAO requirements

iBUR MAN - SECTION 5: HELICOPTER OPERATIONS - Heading only

iBUR MAN - 5.5 - Hostile and non-hostile environment - Comply with SGRAO requirements

iBUR MAN - 5.16.1 - Offshore/over-water flights (hostile & non-hostile) - Comply with SGRAO requirements

iBUR MAN - SECTION 7: TRAINING, QUALIFICATION AND EXPERIENCE - Heading only

iBUR MAN - 7.6.14 - SAR Winch/hoist training & recency requirements - Comply with SGRAO requirements

# **iBUR MANAGE AIR TRANSPORT CONTRACTS**

iBUR CON - Note - Comply with SGRAO requirements

iBUR CON - SECTION 1: INTRODUCTION - Heading only

iBUR CON - 1.4 - Scope - Comply with SGRAO requirements

iBUR CON - 1.7 - Notes - Comply with SGRAO requirements

# iBUR CON - SECTION 2: AUDIT, CONTRACTING AND CONTRACT MANAGEMENT - Heading only

# iBUR CON - 2.2.1 - Contracted Air Operators - Comply with SGRAO requirements

Requests for review of potential aviation Contractors shall be submitted to the AAT Regional Aviation Manager or the Responsible AAT Aviation Manager who will also schedule recurrent audits.

The AAT Regional Aviation Manager shall be consulted for all emergency aviation use:

- Prior to the inclusion of any aviation support provisions in Emergency Response Plans (ERPs). ERPs shall comply with **Shell Group Requirements for Aircraft Operations** requirements.
- Prior to activation of an unassessed aircraft operator for emergencies not covered under an ERP <u>if time</u> <u>permits.</u>
- During planned or unplanned use in all cases if time permits.
- After use in all cases where the AAT Regional Aviation Manager was not previously consulted.

Request for One-time approvals shall be submitted to the AAT Regional Aviation Manager or the Responsible AAT Aviation Manager for referral to SAI.

# Note 4: - Comply with SGRAO requirements

Requests for review of potential aviation Contractors shall be submitted to the AAT Regional Aviation Manager or the Responsible AAT Aviation Manager who will also schedule recurrent audits.

# iBUR CON - 2.3 - Directory transport contracts - Comply with SGRAO requirements

# Note 2: - Comply with SGRAO requirements

All contracts for both aviation and non-aviation services which have aviation content either direct or subcontracted shall contain contract template language provided by Responsible AAT Aviation Manager for the aviation services specified.

Initial planning for new Air Transport operations shall be conducted with the AAT Regional Aviation Manager prior to consultation with SAI. Consultation with SAI shall be made by the AAT Regional Aviation Manager.

All contracts for both aviation and non-aviation services which have aviation content either direct or subcontracted shall contain contract template language provided by Responsible AAT Aviation Manager for the aviation services specified.

All contracts with direct or subcontracted aviation content shall be categorized as High HSSE risk unless otherwise agreed with the AAT Regional Aviation Manager.

# iBUR CON - 2.3.2 - AT services direct contracted . . . - Comply with SGRAO requirements

SAI conducts an audit of the non-aviation Contractor which if successful will allow the non-aviation Contractor to subcontract for aviation services provided:

- The Responsible AAT Aviation Manager oversees the aviation operations at the Contractor and subcontractor level to provide the required oversight and assurance, and
- The aviation subcontractor selected successfully completes an SAI audit.

If the non-aviation Contractor SAI audit is unsuccessful or if they cannot meet the SGRAO requirements they can subcontract for aviation service provided:

- The Responsible AAT Aviation Manager directly oversees the subcontracted aviation service, and
- The aviation subcontractor selected successfully completes an SAI audit, and
- The aviation subcontractor makes satisfactory progress in SAI audit closure and complies with the SGRAO and AAT requirements.

Otherwise, the cognizant Logistics Manager shall directly contract for the aviation services required under and the non-aviation Contractor shall schedule their aviation service through the respective Shell Logistics activity.

#### iBUR CON - 2.3.3 - Third party use - Comply with SGRAO requirements

AAT companies shall not directly hire out contracted aircraft or seats to third parties. The hiring out or apportionment of seat costs shall be done through the aircraft provider.

#### iBUR CON - 2.3.4 – Aircraft insurance & indemnity - Comply with SGRAO requirements

Deviations from Contractual Allocation of Risk (CARM) requirements shall be agreed with the respective Americas Contract Management Team.

iBUR CON - SECTION 4: AIRCRAFT OPERATIONS GENERAL - Heading only

- iBUR CON 4.5.1 Airworthiness Comply with SGRAO requirements
- iBUR CON SECTION 5: HELICOPTER OPERATIONS Heading only
- iBUR CON 5.17 Other specialist roles Comply with SGRAO requirements
- iBUR CON SECTION 6: FIXED WING OPERATIONS Heading only
- iBUR CON 6.6 performance requirements Comply with SGRAO requirements
- iBUR CON SECTION 9: AIRCRAFT EQUIPMENT STANDARDS Heading only
- iBUR CON 9.5 Minimum Aircraft Equipment Fit General Comply with SGRAO requirements
- iBUR CON 9.5.3 Underwater Location Beacons Comply with SGRAO requirements
- iBUR CON 9.5.6 High Intensity Strobe Lights (HISLs) Comply with SGRAO requirements
- iBUR CON Airborne Collision Avoidance System (ACAS) Comply with SGRAO requirements

# IBUR EXECUTE AIR TRANSPORT OPERATIONS

- iBUR OPS Note Comply with SGRAO requirements
- iBUR OPS SECTION 1: INTRODUCTION Heading only
- iBUR OPS FORWORD Comply with SGRAO requirements
- iBUR OPS 1.3 Control Framework Comply with SGRAO requirements
- iBUR OPS 1.4 Document Structure Comply with SGRAO requirements
- iBUR OPS 1.5 Scope Comply with SGRAO requirements

Managers responsible for Joint Venture agreements shall consult with the AAT Regional Aviation Manager and Shell Aircraft to agree aviation standards adoption in the Joint Venture. Consultation is required for both new and existing Joint Ventures. Where existing Joint Venture agreements cannot be rewritten with appropriate aviation standards adoption, the Business Leader responsible for the Joint Venture shall be notified of the shortfall for further action.

#### iBUR OPS - 1.6 - Derogation - Comply with SGRAO requirements

All exceptions to the Air Transport Manual and Variances to the SGRAO shall be requested through the AAT Regional Aviation Manager who will prepare the necessary hazard analysis prior to submission to SAI.

Note 11: - Variances from the SGRAO shall be requested using the Group HSSE & SP Control Framework exception process.

iBUR OPS - SECTION 3: SAFETY & QUALITY MANAGEMENT - Heading only

- iBUR OPS 3.5 Regulatory Requirements Comply with SGRAO requirements
- iBUR OPS SECTION 4: AIRCRAFT OPERATIONS GENERAL Heading only
- iBUR OPS 4.4 Scope Comply with SGRAO requirements

iBUR OPS - 4.5 - Operating Categories and Usage - Comply with SGRAO requirements

iBUR OPS - 4.5.2 - Use of scheduled airlines and airline safety - Comply with SGRAO requirements

Requests for airline assessments shall be submitted to AAT Regional Aviation Manager for processing.

iBUR OPS - 4.5.3 - Senior executives travelling in the same aircraft - Comply with SGRAO requirements

To ensure business continuity in the event of an aviation accident, each Americas business unit shall consider limiting the number of senior executives or members of a single leadership team flying in the same aircraft. The management level for leadership group travel approval shall be the Senior Shell Business Executive whose subordinates are affected or the Senior Shell Business Executive accountable for the air transport exposure.t

iBUR OPS - 4.5.4 - Use of non-scheduled or non-contracted aircraft and one-time approvals - *Comply with SGRAO* requirements

Request for One-time approvals shall be submitted to the AAT Regional Aviation Manager or the Responsible AAT Aviation Manager for referral to SAI.

iBUR OPS - 4.5.5 - Use of private or non-approved aircraft - Comply with SGRAO requirements

Employees shall not fly on Contractor or Industry Partner corporate fleet aircraft without a positive SAI assessment arranged through the Responsible AAT Aviation Manager.

Employees and Contractors shall not accept "lifts" on third party aircraft while conducting company business without attempting to consult with the AAT Regional Aviation Logistics and obtain an assessment. Line manager approval is required in all cases and if travel is conducted without an SAI assessment or consultation the AAT Regional Aviation Manager, all HSE risk falls to the business leader of the respective AAT business.

iBUR OPS - 4.5.6 - Use of flights flown by licensed private Pilots - Comply with SGRAO requirements

Employees and contractors shall not pilot private or rental aircraft while on company business, or ride in an aircraft piloted by a pilot holding a private or sports license while on company business.

iBUR OPS - 4.5.7 - Use of military or government aircraft - Comply with SGRAO requirements

AAT employees shall not fly on military or government aircraft without a positive SAI assessment which shall be arranged through the AAT Aviation Logistics.

iBUR OPS - 4.5.8 - The use of non-approved aircraft/aircraft operators for emergency and med-rescue flights - *Comply* with SGRAO requirements

iBUR OPS - 4.5.9 - Evacuation of OU personnel by air - Comply with SGRAO requirements

Country emergency aviation evacuation plans for countries or regions of potential political instability shall be coordinated with SAI through request to the AAT Regional Aviation Manager.

iBUR OPS - SECTION 5: HELICOPTER OPERATIONS - Heading only

iBUR OPS - 5.6 - Helicopter Performance Classes - Comply with SGRAO requirements

iBUR OPS - 5.14 - Rotors running refueling (RRRF) / Helicopter Rapid Refueling - Comply with SGRAO requirements

iBUR OPS - 5.17 - Other Specialist Roles - Comply with SGRAO requirements

iBUR OPS - 5.17.1 - Winch Operations - Comply with SGRAO requirements

Where a contract for winching is established, the Contractor shall publish a winching instruction which shall be provided to all vessels and platforms where winching could be performed.

Where vessel hoisting operations are anticipated, designated vessel hoisting points shall be evaluated against the CAP 437 and the International Chamber of Shipping (ICS) "Guide to Helicopter/Ship Operations". Depending on winching exposure this may be done by a desktop review or physical inspection.

iBUR OPS - 5.17.2 - Marine Pilot transfer - Comply with SGRAO requirements

iBUR OPS - 5.17.3 - Heliportable land seismic operations - Comply with SGRAO requirements

iBUR OPS - 5.14.4 - External / underslung load operation - Comply with SGRAO requirements

iBUR OPS - 5.17.5 - Helirig operations - Comply with SGRAO requirements

iBUR OPS - 5.17.6 - Airborne geophysical survey requirements - Comply with SGRAO requirements

iBUR OPS - 5.17.7 - Aerial pipeline inspection - Comply with SGRAO requirements

iBUR OPS - 5.17.8 - Helicopter external transport system (HETS) - class D external load - *Comply with SGRAO* requirements

iBUR OPS - SECTION 6: FIXED WING OPERATIONS - Heading only

iBUR OPS - 6.7 - Use of single engine aircraft - Comply with SGRAO requirements

iBUR OPS - 6.8 - Use of piston engine aircraft - Comply with SGRAO requirements

iBUR OPS - 6.11 - Flying hour limits - maximum - Comply with SGRAO requirements

iBUR OPS - SECTION 7: TRAINING, QUALIFICATION AND EXPERIENCE - Heading only

iBUR OPS - 7.9.4 - Ground support crews - Comply with SGRAO requirements

iBUR OPS - 7.9.5 - Helicopter Underwater Escape Training (HUET) - Comply with SGRAO requirements

iBUR OPS - SECTION 8: PASSENGERS AND FREIGHT - Heading only

iBUR OPS - 8.6.4 - Restricted articles - Comply with SGRAO requirements

iBUR OPS - 8.12 - Passenger equipment standards and procedures - Comply with SGRAO requirements

iBUR OPS - 8.12.1 - Immersion suits and survival in the sea - Comply with SGRAO requirements

Approved Control Framework Exceptions are in place for DW GOM and SPLC in regard to Immersion Suits; the controls and mitigation therein apply and will be adhered to for those Business Units and sub-regional areas of operations

iBUR OPS - APPENDIX 9: AERIAL PIPELINE INSPECTION (FIXED WING & ROTARY OPS) - Heading only

iBUR OPS - 10 FLIGHTS OVER URBAN AREAS - Comply with SGRAO requirement

iBUR PROCURE OPERATE & MAINTAIN AIR TRANSPORT FACILITIES

iBUR OMA - Note - Comply with SGRAO requirements

iBUR OMA - SECTION 8: PASSENGERS AND FREIGHT - Heading only

iBUR OMA - 8.5 - General - Comply with SGRAO requirements

The printed document is not controlled. <u>Underlined terms</u> are defined in the HSSE & SP Control Framework Glossary.

- iBUR OMA 8.5.1 Smoking Comply with SGRAO requirements
- iBUR OMA 8.5.2 Alcohol and drugs Comply with SGRAO requirements
- iBUR OMA 8.5.3 Operation of portable electronic devices Comply with SGRAO requirements

Specified stipulations and operational controls defined in OPS0081 will apply relative to the Business Units and sub-regional areas of operations defined therein.

- iBUR OMA 8.5.5 Carriage of non-company passengers indemnities Comply with SGRAO requirements
- iBUR OMA 8.6 CARGO Heading only
- iBUR OMA 8.6.2 Carriage of freight and luggage with passengers Comply with SGRAO requirements
- iBUR OMA 8.6.3 Passenger bags and luggage Comply with SGRAO requirements
- iBUR OMA 8.6.4 Restricted articles Comply with SGRAO requirements
- iBUR OMA 8.6.5 Carriage of dangerous goods and restricted articles by air Comply with SGRAO requirements
- iBUR OMA 8.7 MANIFESTS Heading only
- iBUR OMA 8.7.1 Information to be recorded Comply with SGRAO requirements
- iBUR OMA 8.8 PASSENGER WEIGHTS Heading only
- iBUR OMA 8.8.1 Aircraft with seating capacity of 19 or less seats Comply with SGRAO requirements
- iBUR OMA 8.8.2 Aircraft with seating capacity of 20 or more seats Comply with SGRAO requirements
- iBUR OMA 8.8.3 Use of standard mass values Comply with SGRAO requirements
- iBUR OMA 8.8.4 Oversize passengers Comply with SGRAO requirements
- iBUR OMA 8.9 PASSENGER BRIEFINGS Heading only
- iBUR OMA 8.9.1 Briefing frequency Comply with SGRAO requirements
- iBUR OMA 8.9.2 Language Comply with SGRAO requirements
- iBUR OMA 8.9.3 Minimum briefing requirements Comply with SGRAO requirements
- iBUR OMA 8.9.4 Additional helicopter briefing requirements Comply with SGRAO requirements
- iBUR OMA 8.10 PASSENGER MARSHALLING AREAS Heading only
- iBUR OMA 8.10.1 Onshore and offshore Comply with SGRAO requirements
- iBUR OMA SECTION 10: AIRFIELDS, HELIPORTS, HELIDECKS AND FACILITIES Heading only

Second helicopter operations to obstructed helidecks - Comply with SGRAO requirements

The following expanded requirements shall be followed.

For concurrent maintenance recovery landings (two aircraft on a single helideck with the disabled aircraft outside of a properly sized parking area):

- a) Determine if alternate means of transporting engineers and material can be used such as vessel transport. Use the alternate means of transport where practicable.
- b) Operations shall be daylight only and shall be authorized by the Contractor's Operations Manual.
- c) Only personnel required for the recovery activity may travel on the recovery helicopter. No other passengers may be transported to or from the facility in the recovery helicopter unless the full Obstacle Free Sector is available. Deviation from this requirement requires AAT Regional Aviation Manager approval.
- d) A smaller helicopter shall be used where possible.

- e) Minimum obstruction clearance during landing or take-off shall not be less than the greater of 1/3 rotor diameter or 4 meters. Any such obstructions shall be located within the area swept by the 8 o'clock forward through to the 4 o'clock position of the landing helicopter as viewed from the flight deck.
- f) The landing helicopter's landing gear may not be placed closer than 1 meter / 3 feet to the edge of the Safe Landing Area.
- g) The disabled helicopter shall be completely tied down airframe and all blades.
- h) The combined weight of the landing helicopter and disabled helicopter shall be checked to ensure it does not exceed the maximum limit for the helideck.
- i) The disabled helicopter PIC & recovery helicopter PIC shall consult prior to conducting the landing.
- i) The helicopter operator, PIC of the recovery helicopter, PIC of the facility, and responsible aviation manager must all agree that the landing can be safely conducted.

# iBUR OMA - 10.5 - Airfield - Minimum Requirements - Comply with SGRAO requirements

Runways/airstrips shall be long enough to allow, without reliance on STOL procedures and taking into consideration runway condition and any contamination,

- Multi-engine airplanes to conduct balanced field operations for the conditions found at the computed operational weight; or,
- Single-engine airplanes to accelerate to VR, lift off, and meet all required climb gradients; and,
- The airplane to land in the touchdown zone or first third of the runway and come to a full stop on the runway. While reverse thrust may be used to bring the airplane to a stop, it cannot be used to compute required runway landing length.

# iBUR OMA - 10.5.1 - Alleviation to ICAO Annex 14 Vol 1 Requirements - Comply with SGRAO requirements

Operations under alleviation to the ICAO Annex 14 Vol 1 requires the approval of the AAT Regional Aviation Manager.

iBUR OMA - 10.5.2 - Unregulated or non-compliant airplane landing strips - Comply with SGRAO requirements

iBUR OMA - 10.5.3 - Unprepared airplane and floatplane landing sites - Comply with SGRAO requirements

iBUR OMA - 10.6 - Heliports - Comply with SGRAO requirements

iBUR OMA - 10.6.1 - Unregulated or non-compliant prepared helicopter landing sites - *Comply with SGRAO* requirements

iBUR OMA - 10.6.2 - Unprepared helicopter landing sites - Comply with SGRAO requirements

# IBUR PROVIDE ESSENTIAL SUPPORT

iBUR SUP - NOTE - Comply with SGRAO requirements

iBUR SUP - SECTION 2: AUDIT, CONTRACTING AND CONTRACT MANAGEMENT - Heading only

iBUR SUP - 2.2 - Audit Requirements - Comply with SGRAO requirements

- iBUR SUP 2.2.1 Contracted Air Operations Comply with SGRAO requirements
- iBUR SUP 2.2.2 "One-time approvals" Comply with SGRAO requirements
- iBUR SUP 2.2.3 Principles of audit Comply with SGRAO requirements

iBUR SUP - SECTION 3: SAFETY & QUALITY MANAGEMENT - Heading only

iBUR SUP - 3.15 - Fuel Quality Control - Comply with SGRAO requirements

iBUR SUP - SECTION 11: EMERGENCY RESPONSE PLANNING - Heading only

iBUR SUP - 11.4 - Introduction - Comply with SGRAO requirements

iBUR SUP - 11.5 - Aircraft in the Emergency Response Role - Heading only

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#### iBUR SUP - 11.5.2 - Shell company responsibilities - Comply with SGRAO requirements

#### iBUR SUP - 11.5.3 - Planning considerations - Comply with SGRAO requirements

Where limited SAR capabilities preclude recovery of survivors offshore at night, flying shall cease early enough in the day to ensure that the full aircraft POB can be recovered prior to sunset.

iBUR SUP - 11.6 - SENARIO BASED DRILLS - Heading only

iBUR SUP - 11.6.1 - General - Comply with SGRAO requirements

iBUR SUP - 11.6.2 - Planning and conducting emergency response drills - Comply with SGRAO requirements

iBUR SUP - 11.7 - Search and Rescue (SAR) services and equipment - Heading only

Each offshore operating region shall prepare a Search and Rescue (SAR) ALARP study to determine if national SAR provisions are adequate. If the study determines that national SAR provisions are not adequate, a commercial SAR service shall be contracted.

iBUR SUP - 11.7.2 - SAR supportive equipment - Comply with SGRAO requirements

iBUR SUP - 11.8 - Emergency Flights - Heading only

iBUR SUP - 11.8.1 - Planning - Comply with SGRAO requirements

#### iBUR SUP - 11.8.2 - Contingency aviation operators - Comply with SGRAO requirements

iBUR SUP - 11.9 - Overdue aircraft - Comply with SGRAO requirements