

Aviation Task Profile - Aerial Transport

This task profile outlines the identified hazards associated with Aerial Transport of people, animals, fodder and equipment operations by helicopter and fixed wing aircraft. Failure to utilise the practical controls to those hazards identified in this plan will unnecessarily raise the risk profile of the task.

This task profile can be used to develop standards and/or to provide a reference for auditing and assessment by identifying the controls that are in place, assessing the risk and then determining what extra (if any) controls should be utilised.

Compliance with aviation and state WHS regulations, as well as any other applicable regulation, are implied and are to be considered and complied with in addition to the controls identified in this profile.

Task Profile Name	Transport – Helicopter/Fixed Wing
Objectives of Task	To transport people, animals, fodder and equipment by air in support of NSW DPI Emergency Management tasks.
Description of task	The task involves planned and short notice callout to at risk areas as part of emergency management. Heights flown shall be a minimum of 500ft AO unless landing, sling loading, taking off or due stress of weather. Landings and take-offs at non-aerodromes will be required. Tasks may require the carriage of emergency response staff, non-Government/Operator personnel, animals, fodder and equipment.
CASA permit/approval	Air Operating Certificate (AOC) endorsed for charter operations. Compliance with Part 133 (Australian air transport operations—rotorcraft), Part 121 (Australian air transport operations—larger aeroplanes with seating capacity of more than nine seats, or a maximum take-off weight (MTOW) of more than 8,618 kg), and or Part 135 (Australian air transport operations—smaller aeroplanes). Operators require a Part 138 aerial work certificate if carrying 9 aerial work passengers or less. Operations conducted within the parameters permitted by the Civil Aviation Safety Regulations, associated orders and relevant advisory publications.
Aircraft Type	Both fixed wing and helicopters may be utilised. Fixed wing aircraft may have either piston or turbine engine(s). Helicopters shall be turbine powered.
Number of engines	Single or multi-engine. Multi-engine helicopters must be operated at a minimum to Class 2 performance. Class 3 performance for single engine helicopters will require the assurance of suitable forced landing areas.

Task Profile Name	Transport – Helicopter/Fixed Wing
Task profile (sequence)	<ul style="list-style-type: none"> • Callout • Planning includes map reconnaissance for hazards, assessments of take-off and landing areas, aircraft and passenger support availability where appropriate • Briefing including update of hazards as shown on appropriate map, flight following procedures, weather, task objectives, landing/take-off areas, communications, aerial risk assessment. Proper manifesting and power calculations to be made. Identification of aerial work passengers and task specialists to be recorded. • Contact landowner/manager if being picked up (include briefing on appropriate clothing) and/or utilising their land • Fuelling by aviation contractor when required. • Conduct Crew and passenger brief • Start/Taxi/Take-off • Transit to area of operation at a height commensurate with conditions and regulatory requirements but in any case, at a height not below 500 feet (ft) Above Obstacles (AO). • Conduct route and area of operations identification, aerial hazard survey and pre-descent brief prior to descent below 500ft AO to Helicopter Landing Sites (HLSs) or non-certified Aircraft Landing Areas (ALAs) or aerodromes. • Conduct area surveillance if descending to conduct a winch (hoist) or sling load activity. Requires authorisation, risk assessment and hazard identification before attempting task. • Descend to the HLS or ALA commensurate with task objectives, authorisations, and conduct further hazard/target identification if required. • Communicate with Air Services as required by standard regulatory, advisory and Company procedures and documentation. • Communicate with LCC or Operator (as approved) for flight following and/or task update. • Transit to operating base/fuelling area. Conduct pre-landing brief. • Land / Shut Down. • Debrief and report.

Task Profile Name	Transport – Helicopter/Fixed Wing
Task conditions or technical aspects	<p>Information from aerial surveillance of the HLS/ALA may, where practicable, be augmented by information obtained from ground-based information.</p> <p>Pilots to ensure helicopters operate with a minimum 5% power margin based on Out of Ground Effect power requirements (nil wind).</p> <p>Sling load activities may be conducted if aircraft equipped and manned appropriately, approved in the aviation operations plan and conditions are suitable.</p> <p>The task is normally conducted when an agricultural incident occurs and it is determined that aerial transport of people, animals, fodder or equipment is needed. This transport may originate from or arrive at non-certified landing areas.</p> <p>Maps may be provided to assist pilots, but these should not be relied on for the identification of hazards and therefore the reconnaissance of operating areas that are not certified landing areas, before descent is essential. The responsibility of ensuring the area is safe to descend into, operate and depart from remains with the pilot.</p> <p>Although 500ft has been nominated as the safe level of operations, it should be noted that wires may be strung between hills at higher levels and therefore constant vigilance by pilots and crew is required. Pilot to make additional considerations when sling loading.</p> <p>Descent below 500ft may be conducted if approved in the Aircraft Operations Plan, required for the task and the pre-descent reconnaissance has been completed. The entire area that the aircraft operates below 500ft shall have been fully inspected in the pre-descent reconnaissance. The area should be continually assessed during the descent below 500ft. The purpose should be only to deliver or depart with personnel, animals, fodder or equipment.</p> <p>Landings by fixed wing aircraft should be made to pre-inspected Aircraft Landing Areas. Such landings require prior arrangement with, and area description from the landowner/manager.</p> <p>In all cases, a complete pre-landing survey is required to ensure that no obstacles may impinge on the safe operation of the fixed wing aircraft or helicopter.</p> <p>Aircraft are not to be operated with any part of the aircraft extending into vegetation (e.g. long grass which may be hiding fences, ant hills or posts).</p>
Time of Year	Operations are year-round
Terrain description	<p>The areas of operations will encompass all types of terrain within NSW including paddocks, hills, and urban areas.</p> <p>The high terrain areas can experience low air density which can adversely affect aircraft performance. Also, the terrain can experience severe downdraughts and turbulence as a result of the strong winds. Cloud can roll in quickly.</p> <p>The lower areas can experience extensive areas of fog, mist or smog, which can limit visibility.</p> <p>High environmental temperatures and adverse winds will also negatively impact helicopter performance.</p> <p>The areas can be extensively wooded and/or populated with domestic structures in close proximity to power lines. Fences may be hidden in long vegetation.</p> <p>Areas may be flooded and therefore pickups maybe from outcrops, small areas of high ground or from buildings.</p>

Task Profile Name	Transport – Helicopter/Fixed Wing
Limitations	<p>Flights into or out of non-certified landing areas conducted during day visual conditions only.</p> <p>Landings at, and departures from non-certified landing areas shall be preceded by an appropriate risk assessment (as approved in the aviation operations plan) including aerial aviation hazard identification and assessment, assessment of environmental risks and an assessment of the operational impact of conducting the retrievals within the conditions established by this task profile.</p> <p>Descent below a safe height (clear of all known and potential obstacles - generally 500 ft AO) is not to be conducted until the pilot confirms a low level of risk factoring in the route and area of operations, aircraft performance, aerial hazard and obstacle survey, environmental conditions and has conducted a low-level flying pre-descent brief. This must be conducted for each descent below a safe height.</p> <p>Personnel working for or on behalf of NSW DPI are considered aerial work passengers or task specialists depending on their role in the aircraft. All persons on board aircraft operating on behalf of NSW DPI must have a designated essential role in the performance of the aircraft task unless being transported as a passenger.</p> <p>Doors would normally be fitted to the aircraft unless a specific reason is identified for their removal and the removal is identified as essential to conduct the task and considered in the risk assessment process.</p> <p>Animals shall be caged when onboard aircraft.</p> <p>(CAAP 92-2) Helicopter Landing Site (HLS), Air Landing Ground (ALG) or aerodromes are normally required for landings and departures, however, should the task require, operations to other areas may be authorised following a risk assessment.</p> <p>Sterile Cockpit Procedures shall be implemented when the aircraft is operating below 500ft AO.</p> <p>Pilots should be aware of the chances of blockages in aircraft intakes due to flying through insect swarms.</p>
Height restrictions	As a general rule, flights are to be conducted at the highest altitudes commensurate with the task objectives. Any operations to non-certified landing areas shall require to be identified and approved in the aviation operations plan.
Minimum height above obstacles	500ft AO is generally accepted as the minimum operating height unless otherwise authorised. This operating height may need to be raised commensurate with the terrain and potential obstacles such as power lines.
Operating times	Nominally 2 hours per session with a maximum of four sessions in any one day and consistent with the Contractors' fatigue management plan or CASA industry exemptions (whichever represents the greater restriction). Restricted to daylight hours and due consideration to visibility.
Aviation Contractor Requirements	<p>Contractor must be tasked through the RFS SAD and meet all requirements of the Standing Offer such as having:</p> <ul style="list-style-type: none"> • an AOC and CASA authorisations suitable to the task • a demonstrably functioning Safety Management System • fatigue management, or CASA approved flight and duty time, system • been audited and assessed as being suitable and capable of conducting NSW DPI Emergency Management transport operations including the particular tasks noted • detailed and documented training system • a minimum 5-year history general operations with no accidents indicating a trend in poor oversight or safety management • proper and detailed maintenance records of the helicopter to be used
Crew composition	2 to 3 - person crew; Pilot, Crewman, Air Surveillance Officer, Landowner/manager (passenger), other possible passengers who meet the requirements to be an aerial work passenger.

Task Profile Name	Transport – Helicopter/Fixed Wing
Qualification / Training of each crew member	<p>Pilot – CASA licenced, medically current, appropriate approvals, map and GPS navigation, Crew Resource Management, Fly the Wire (or similar), HUET, Sling Endorsed (if required), winch endorsed (if required and helicopter equipped with winch) and experience (see EOI)</p> <p>Crew (if carried) – medically current, appropriate approvals, Crew Resource Management, HUET, trained and qualified to utilise equipment on helicopter, navigation and radio usage trained.</p> <p>Air Surveillance Officer (if carried) – Crew Resource Management, Work Safety Around Aircraft, GPS and map reading skills, Fly the Wire (optional), HUET (optional). Animal handling experience (optional). As a task specialist, the ASO will require specific approval within the approved contractor’s operations manual.</p>
Role of each crew member	<p>Pilot – Identify hazards and maintain hazard clearance, operate aircraft, navigation, communication, responsible for safety of the aircraft and crew/passenger, pre-flight and in-flight briefings.</p> <p>Crewman (if carried) – Assist the pilot in hazard identification and avoidance, map reading, aircraft operation, sling load operations and communication. Passenger and animal control.</p> <p>Air Surveillance Officer (Task Specialist) – Assist the pilot in hazard identification and avoidance and communication. Provides local knowledge aspects and environmentally sensitive areas. Animal control responsibilities, loading, unloading and securing loads prior to being attached to and lifted by the aircraft (at direction of crewman if present). Responsible for recording, and mapping activities.</p> <p>Landowner/manager (Aerial work passenger) – Maybe untrained. Provides local knowledge aspects, hazard identification and environmentally sensitive areas. Animal control responsibilities.</p>
Landing zone details	Landings should be conducted to low risk (CAAP 92-2) Helicopter Landing Site (HLS), Aircraft Landing Areas (ALAs) (CAAP 92-1) or aerodromes. It should be noted that CAR 92(1) puts the responsibility on the pilot to ensure that the place is suitable for use as an aerodrome; and having regard to all conditions of the proposed landing or takeoff (including prevailing weather conditions), that the aircraft can land at, or takeoff from, the place safely. Where ALA information is provided by a person other than the pilot, it is still the pilot’s responsibility to ensure that the facility is suitable for the intended aircraft operations.
Communication requirements	<p>The communications requirements for flight following purposes shall be detailed during the pre-flight briefing. It should be noted that the communications management may reside with the Contractor but the LAOM shall be responsible for ensuring that the flight following is being conducted.</p> <p>Communications need to be maintained at all times between the pilot, the crewman, the air surveillance officer in relation to hazard and targets identification. Passenger(s) should have headsets when embarked in helicopters.</p> <p>Communications should also be established and maintained between the aircraft and the ground crew element as appropriate in order to facilitate the communication of operational and hazard related information. Communications as required with flight services.</p> <p>Communications are to be established and maintained with other low flying aircraft in the immediate vicinity.</p>

Task Profile Name	Transport – Helicopter/Fixed Wing
SAR requirements	Flight-following should be conducted by the aviation contractor using satellite-based tracking systems showing real time information with at a minimum location and height reports not exceeding 5 minutes. The Local Air Operations Manager should have access to the satellite tracking system where possible to monitor task progress and aircraft location. In circumstances where it is not possible or practical, the Local Air Operations Manager may decide to use an air base manager to coordinate flight following.
PPE	<ul style="list-style-type: none"> • Appropriate flying helmet (equipped with visor) worn by each helicopter crewmember • Flammable resistant clothing worn by each crewmember and passenger • Enclosed leather footwear (hardened toe and supported heel preferred) • Cotton or wool underclothing, socks • Aviation standard gloves (recommended)