Ministry for Primary Industries
Manatū Ahu Matua

Helicopter Safety Policy for Suppliers

PURPOSE

- To provide clarity on the health and safety requirements governing all activities in which helicopters are used for MPI work.
- To, so far as is reasonably practicable, eliminate risks to health and safety associated with the use of helicopters by MPI and the other parties it works with; and otherwise, minimise risks so far as is reasonably practicable.

BACKGROUND

For context, helicopters are used in a wide range of activities for MPI work, including in:

- The National Wilding Conifer Control Programme: for aerial spraying, application of herbicide via spot spraying or a Civil Aviation Authority of New Zealand (CAA)-approved wand, transport of people, and aerial surveillance.
- Compliance work: fisheries surveillance, illegal logging surveillance, marine border biosecurity surveillance.
- Adverse events work: for collecting intelligence following an adverse event.
- Forestry work: transport of people to forests when access by ground transport is limited, surveillance, protection, and aerial spraying as part of site preparation or post-planting weed control.
- Pest management under the National Wallaby Management Programme: hunting from the helicopter, helicopter transport for people to do ground hunting, aerial animal control programmes, and aerial surveillance.
- Biosecurity response activities: aerial spraying.
- The National Interest Pest Responses (NIPR) Programme: weed eradication.
- Working in remote or isolated areas.
- Operations over water.
- Sling load operation.

SCOPE

This policy applies to all work activities (both current and future) that involve the use of helicopters by MPI workers (including volunteers). Contractors should have comparable operational policies in place.

This policy is also intended to manage risk to the health and safety of members of the public from MPI-related helicopter operations.

RELEVANT LEGISLATION AND REGULATIONS

Health and Safety at Work Act 2015:
http://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html

Civil Aviation Act 1990: http://www.legislation.govt.nz/act/public/1990/0098/latest/whole.html

Civil Aviation Rules: https://www.aviation.govt.nz/rules/

Defence Aviation Rules

Helicopter operations will be carried out in accordance with Civil Aviation Rules (for civilian helicopters) or Defence Aviation Rules (for military helicopters).

GLOSSARY

AOC	Air Operator Certificate
AAOC	Agricultural Aircraft Operator Certificate
CAA	Civil Aviation Authority of New Zealand
HSWA	Health and Safety at Work Act 2015
HUET	Helicopter Underwater Escape Training
PCBU	Person Conducting a Business or Undertaking
PPE	Personal Protective Equipment
TAIC	Transport Accident Investigation Commission
UAOC	Unmanned Aircraft Operators Certificate

CONSIDER APPROPRIATENESS OF USING HELICOPTERS FOR AN ACTIVITY

While helicopters are a useful tool for MPI work, the use of aircraft to conduct work activity has been categorised by MPI as carrying a high level of health and safety risk. When planning MPI activities, consideration should first be given to the use of alternative work methods that avoid the use of helicopters, where practicable.

KEY ACCOUNTABILITIES IF HELICOPTERS ARE USED

This section details the accountabilities introduced under this policy for a range of people carrying out work for MPI that involves helicopter use.

MPI's Senior Leadership Team (Officers)

MPI's Senior Leadership Team are Officers under the Health and Safety at Work Act 2015, and two of their key responsibilities listed in MPI's Health, Safety and Wellbeing Policy which are of particular relevance to helicopter safety are:

- Ensuring that systems and appropriate processes are in place to effectively manage health and safety, including safe working procedures for specific areas of MPI's operations which are considered safety sensitive or high risk.
- Ensuring where MPI has shared PCBU duties with other persons or agencies (e.g. shared worksites) these duties are appropriately discharged by both/all agencies.

MPI Managers

Under this policy, MPI Managers leading work being carried out using helicopters must:

- Ensure that sound contractor procurement and contractor management processes are used to procure and manage helicopter services, if contracting these (either directly or through a contractor) by:
    - For direct procurement use an MPI approved (prequalified) helicopter provider.
    - Selecting helicopter companies who hold a CAA Air Operator Certificate or an Agricultural Air Operator Certificate, which includes the necessary approvals allowing them to conduct the tasking.
    - Documenting health and safety requirements in any contracts.
- Exchanging information regularly with contracted agencies about work sites andrisks:
    - Monitoring the health and safety performance of contractors
    - Carrying out post-contract evaluation.

- Ensure work is covered by a Health and Safety Management Plan [or equivalent alternative system used for operations with NZDF] prior to work commencing.
- Ensure that training requirements for their workers have been met.
- Ensure all accidents, injuries, and near misses are recorded and investigated; and ensure that control measures to prevent reoccurrence are implemented in a timely manner.

Contracted Agency Managers (subcontracted helicopter services)

In some cases, MPI contracts other agencies to deliver a programme/services which involve the use of helicopters e.g. Regional Councils who are contracted to deliver work under the National Wilding Conifer Control Programme, or private companies. The contracted agencies will, in turn, contract helicopter companies to carry out work, and managers within these contracted agencies have responsibilities under this policy.

Under this policy, Contracted Agency Managers leading work being carried out using helicopters must:

- Ensure that sound contractor procurement and contractor management processes are used to procure and manage helicopter services, if contracting these (either directly or through a contractor) by:
    - Selecting helicopter companies who hold a CAA Air Operator Certificate or an Agricultural Air Operator Certificate, which includes the necessary approvals allowing them to conduct the tasking.
    - Documenting health and safety requirements in any contracts.
    - Exchanging information regularly with contracted agencies about work sites and risks.
    - Monitoring and assessment of the health and safety performance of contractors.
- Ensure work is covered by a Health and Safety Management Plan [or equivalent alternative system used for operations with NZDF] prior to work commencing.
- Ensure that training requirements for their workers have been met.
- Ensure their agency has a comprehensive policy regarding the use of alcohol, prescribed medication, pharmacy drugs, and recreational drugs applicable to all workers used in taskings; and be able to demonstrate that this policy has been implemented.
- Ensure all accidents, injuries, and near misses are recorded and investigated; and ensure that control measures to prevent reoccurrence are implemented in a timely manner.
- Ensure an independent verification process is conducted.

Aircraft operators

Under this policy, aircraft operator must:

- Ensure work is covered by a Health and Safety Management Plan prior to work commencing.
- Hold a valid NZCAA issued Air Operator Certificate (AOC), or Agricultural Aircraft Operator Certificate (AAOC1).
- Be able to demonstrate their internal process for consulting, cooperating and coordinating with other PCBUs including the contracting agency. Ensure that training requirements for their workers have been met. For clarification this requirement covers the pilot, air crew and ground support crew, including refuelling, loading/unloading and refilling chemical sprays, sling lifting and loading equipment.
- Ensure their company has a comprehensive policy regarding the use of alcohol, prescribed medication, pharmacy drugs, and recreational drugs applicable to all crew used in taskings; and be able to demonstrate that this policy has been implemented.
- Ensure all accidents, injuries, and near misses are recorded and investigated; and ensure that control measures to prevent reoccurrence are implemented in a timely manner.
- Maintain necessary certifications for the helicopter/equipment (e.g. aerial spray rig, slings etc).
- Undertaking, and being able to produce evidence of, training and competency in specific knowledge or skills where required by this policy.
- Ensure all CAA Rules are complied with, and in particular ensuring that:
    - Weight and balance limitations are not exceeded at any time.
    - Flight paths, including take-off and landing paths, are planned to avoid any third-party risks.
    - Operations over congested areas are carried out in accordance with all CAA rules and third-party risks are reduced as far as practicable

Managers in the New Zealand Defence Force providing helicopter services to MPI

Under this policy, Managers in the New Zealand Defence Force providing helicopter services to MPI must:

- Ensure work is covered by the NZDF work planning system prior to the work commencing.
- Ensure that training requirements for their workers have been met.
- Ensure all accidents, injuries, and near misses are recorded and investigated; and ensure that control measures to prevent reoccurrence are implemented in a timely manner.
- Maintain necessary certifications for the helicopter/equipment.

NZDF aircraft captains must also ensure that approval for the carriage of non-NZDF civilian

personnel is obtained by email/telephone from Joint Air Operation Centre. When the carriage of civilians is approved, the approving authority should issue a civilian approval number and record the details in the applicable Civilian Authorisation Register.

Helicopter pilots, operational staff and ground crew

Helicopter pilots, operational staff and ground crew engaged by MPI shall comply with this policy by:

- Being familiar with all requirements of the policy (including relevant Operational Supplements) relating to pilots, ground crew, aircraft and role equipment, aircraft operations, incident management and risk management.
- Complying with relevant Civil Aviation Rules and associated Advisory Circulars, Aircraft Flight Manuals, Operations Manuals (or for military aircraft, NZDF Aviation Orders) throughout the tasking.
- Delivering a safety briefing, including emergency procedures, to anyone who will be a passenger before that person travels on the helicopter for the first time that day, or ensure that another suitably qualified person delivers the safety briefing. NB: If the task involves NZDF helicopters and involves winching or photography, it is likely that NZDF Helicopter Loadmasters will provide the briefing for the task.
- Ensuring radio communications/hand signal systems are in place prior to undertaking any operation.
- Ensuring they know any agreed hand signals (if required) prior to undertaking any operation. For example, operational staff carrying out helicopter work in remote areas will need to know agreed hand signals to communicate about the preparation and management of temporary landing zones.
- Ensuring flight plans and weather reports and conditions are considered are recorded.
- Ensuring requirements for internal loads (including passengers, and equipment) and the aircrafts external maximum take-off weight loads and lifting sling type and ratings are met.
- Ensuring that internal and external loads are rigged and loaded appropriately, including giving consideration to weights, sling lifting types and load ratings. NB: Trained ground crew may accept responsibility for this when the pilot is occupied. Refusing, discontinuing or deferring any requested activity, if this is necessary to maintain the safety of the helicopter and of those involved in the operation.
- Ensuring flight tracking is on and being monitored.
- Ensuring all known hazards and risks within the flight zone have been identified and mitigated and logged in to the aircraft GPS, including flight path powerlines, overhead electric fence wires, aerials, uprights, and obstacles.
- Ensuring that all requirements for the type and use of PPE are met.
- Ensuring appropriate communication and survival equipment are carried (and worn

when required) during helicopter operations.

- Ensuring the appropriate safety requirements for herbicides/pesticides, and firearms and hunting from the helicopter are followed and Dangerous Goods are carried in accordance with CAA Rule Part 92
- Ensuring operational staff are trained in, and can safely use, specialist equipment installed on a modified aircraft.

MPI Manager/Lead travelling in a helicopter for a particular tasking (who is able to observe and confirm the below on the day)

Under this policy, MPI Managers/Lead travelling in a helicopter for a particular tasking must:

- Ensure that the tasking is understood by all stakeholders.
- Ensure all people involved in a helicopter operation receive a helicopter safety briefing recorded and signed off by all parties, including emergency procedures, from the pilot/other suitably qualified person before going up in the air, and (if relevant) by the operations manager in charge of ground-based activities associated with the helicopter operation before carrying out the operation.
- Ensure radio communications/hand signal systems are in place prior to undertaking any operation.

Other Passengers in helicopters

Other passengers in helicopters include MPI staff, contractors, volunteers, and staff from other organisations e.g. Regional Councils in joint operations, and Ministers ofthe Crown. Under this policy, they must:

- Be trained in helicopter awareness and safety.
- Have received the prescribed health/safety briefings.
- Be aware of the risks associated with the flight.
- Follow the directions given in safety briefings, and any other directions given by the pilot.
- Advise the pilot if they have any dangerous goods with them.
- Raise any health and safety concerns they have.

Any person may refuse to fly in a helicopter being used for MPI work if they feel an unsafe condition exists.

MPI'S Director Health, Safety & Wellbeing and Health, Safety & Wellbeing Directorate staff

Under this policy MPI's Director Health, Safety & Wellbeing and Safety & Wellbeing Directorate

staff will:

- Have responsibility for keeping this policy current, taking into account feedback received.
- Ensure a review of this policy is carried out every two years, or earlier if indicated.
- Maintaining a list of MPI approved (prequalified) helicopter aircraft operators.
- Manage records of any incidents (accidents, injuries and near misses) involving helicopters.

HOW PCBUS WITH OVERLAPPING HEALTH AND SAFETY DUTIES FOR HELICOPTER OPERATIONS WILL CONSULT, CO-OPERATE, AND CO-ORDINATE ACTIVITIES

- Where PCBUs have overlapping health and safety duties for helicopter operations via a contracting chain or due to sharing a workplace, a Health and Safety Management Plan or equivalent alternative work planning system for operations carried out with the NZDF will specify who will carry out specific tasks in the first instance/how work will be carried out/how risks will be managed.
- The extent of each PCBU's responsibility for health and safety matters in helicopter operations will depend upon their ability to control the hazards and associated risks.
- Regular meetings of PCBUs with overlapping health and safety duties for helicopter operations will be held to discuss health and safety.

HELICOPTER REQUIREMENTS

- Helicopters must be:
    - Fit for the task they are being used for, in respect of capability and performance under both normal and emergency circumstances
    - Operated within their design limitations e.g. for loads
    - Operated in a way that is appropriate for the prevailing weather conditions and terrain, including CAA Special Flight Rules and General Operating and Flight Rules.
    - Aircraft is equipped with a shoulder harness for each crew seat.
- Aircraft shall be operated in accordance with (where relevant):
    - Civil Aviation Rules (or for military aircraft, Aviation Orders).
    - Aircraft Flight Manual
    - Aircraft operator's Exposition and SMS Manual.
    - Documented Standard Operating Procedures.
    - Documented Hazard ID and Risk Assessments (including risk control measures).
    - Documented Job Safety Analysis or Tailgate discussions.
    - This policy and associated Operational Supplements.
- Only civilian helicopters listed on a helicopter company's CAA Air Operator Certificate or

Agricultural Air Operator Certificate may be used (and there must be adherence to the operations/approval specifications, safety systems and procedures of the certificate), or a helicopter provided by the NZDF.

- Any type of helicopter listed in the current TAIC watch list [accessible at: https://www.taic.org.nz/watchlist] should not be used in helicopter operations.
    - For clarification, MPI has the same duty of care to pilots and passengers, therefore whether helicopter work with the pilot flying solo is planned, or pilot and passenger helicopter work is planned, this must not be carried out using any type of helicopter listed in the current TAIC watch list. For the avoidance ofdoubt, this means that Robinson helicopters (which are in the current TAIC watchlist) may not be used.

Fuel management and refuelling

The aircraft operator is responsible for maintenance of a supply of fuel for the uninterrupted deployment of its own aircraft. Coordination of fuel supplies between operators to achieve this is acceptable.

- Refuelling shall be conducted in accordance with CAR Part 91.15 and Advisory Circular 91-22 or the relevant Aviation Orders for military aircraft.

The operator shall have documented procedures for fuel management, fuel supply and aircraft fuel quality control and aircraft refuelling. These procedures should be informed by the company's SMS [Risk management]. The procedure shall include (but not be limited to):

- Regulatory requirements regarding vehicle and driver standards.
- Appropriate and adequate fire precautions during refuelling.
- Appropriate Personal Protective Equipment to be worn during refuelling.
    - Selection of PPE should be informed by the operator's SMS and Risk Assessment.
    - Procedures, training and equipment to prevent, contain and clean up fuel spills.
    - Any spills that cannot be contained and cleaned up with available resources shall be reported to the MPI Manager and or the Contracted Agency Managers
    - Such occurrences shall be considered reportable events.
- Hot refuelling' of Jet A1 shall not take place with passengers onboard the aircraft.
    - The only exception is when the aircraft is in a controlled environment i.e. refuelling at an airport, and the risk is higher if passengers were to depart the aircraft onto an operational apron without direct supervision.

- In this instance, 'hot refuelling' of Jet A1 may occur with passengers remaining on board the aircraft strictly in accordance with documented procedures required under AC119-3 [135.73 (b)].

- Training requirements/ training records for persons authorised to conduct refuelling.
- An 'Emergency' section describing how fuel supplies and individual aircraft quality samples will be immediately quarantined in the event of an emergency involving any aircraft that has drawn fuel from that supply, irrespective of whether:
  - The affected aircraft is operated by the operator or another operator, or
  - The emergency is thought to be fuel-related, or not.

Security of doors and latches

The aircraft operator's documented procedures or SMS shall include procedures to ensure that all aircraft door closing mechanisms, cowl latches and exterior locker/pod/basket or role equipment security catches are correctly adjusted to prevent inadvertent release or failure of its intended purpose during flight.

The operator shall be able to demonstrate their procedure that will ensure the security of all door mechanisms, cowl latches and exterior locker/pod/basket or role equipment catches will be assured prior to any take-off.

This process should include:

- Technical Directive, or other instruction to the aircraft maintenance provider for rectification (prior to next flight) of any reported defective mechanism.
- "prior to next flight" means the next flight departing a place where rectification could be accomplished.
- A requirement that any difficulty experienced in using the above referenced mechanisms either before, or during flight, is a mandatory reportable incident in the company's SMS.

There should be specific reference to the 'process' and 'procedure' during all crew training.

WORK PLANNING

For MPI operations with the NZDF

NZDF's Aviation Safety Programme includes regulations, rules, Standard Operating Procedures, risk management plans, flight manuals, and the Defence Aviation Safety Assurance Manual.

Helicopter operations carried out by MPI with the NZDF will use a work planning system involving:

- An operational briefing outlining the goals of the operation, plan B if relevant, and how the tasks are expected to be achieved
- A hot debrief on completion of the tasks or at a refuelling period so that personnel have an opportunity to discuss any issues that have occurred
- A post-operational report that formalises what occurred, provides feedback and identifies any lessons learned.

For clarity, NZDF does not use a work planning system in which a single document called a Health and Safety Management Plan is used.

For other operations, work planning will involve Health and Safety Management Plans

A Health and Safety Management Plan is provided by the Supplier and accepted by MPI, for the management of risks and hazards relating to the Supplier's delivery of Services to MPI. This information may be provided in a single document, or Suppliers can provide several documents which together form the plan. The plan should include the following:

(a) The health and safety risk register, specific to the contracted work and its operational requirements, including:
    i. Critical Risks and critical controls;
    ii. clearly assigned responsibilities for managing risks to health and safety;
    iii. evidence the Contractor has relevant critical controls in place that are comparable to MPI Health and Safety Risks and Critical Controls Information for MPI's Suppliers & Contractors;
(b) Any applicable standard operating procedures;
(c) Evidence that workers have relevant certification/training qualifications (as appropriate);
(d) Emergency procedures, specific to the contracted work and its location;
(e) Required personal protective equipment;
(f) The name of any and all Subcontractors and if applicable, volunteers, engaged to assist with the work;
(g) How any Subcontractors and volunteers will be managed by the Contractor, including how the Contractor will ensure that Subcontractors and volunteers have relevant critical controls in place that are comparable to MPI Health and Safety Risks and Critical Controls Information for MPI's Suppliers & Contractors.

Tasking

Operator and aircraft availability, tasking and tracking may be integrated using an integrated aircraft operator data management and aircraft tracking system. It shall be the responsibility of individual aircraft operators to enter and maintain up-to-date company information, capability and operational status through individual web-site portals (if applicable)

Tracking

The Helicopter Aircraft Operator is responsible for ensuring that flight Tracking reports the location of the aircraft every fifteen (15) seconds.

It is acceptable to send bursts of data which show the actual position of the aircraft every fifteen (15) seconds (this must be a GPS recorded position from the tracker – not an estimation of the position). These data bursts should be received by a tracking gateway service system no less than two (2) minutes apart.

If the above capability is used, the aircraft tracking device must include a mechanism by which, if the aircraft is to suffer a failure (marked by a sudden reduction in altitude or speed, or a collision) an alert will be created and immediately sent, along with the current position data, to the ARENA System (or other tracking gateway service).

Aircraft communications

All aircraft shall have, as a minimum, a serviceable VHF-AM radio, and a VHF-FM ES Band radio capable of maintaining effective communication on relevant frequencies.

The aircraft operator shall arrange discrete frequencies for their own aircraft on which to arrange logistics or conduct other company communications.

For operations involving multiple helicopters the aircraft operator is responsible for establishing and maintaining an effective Radio Communications Plan (RCP). The frequencies allocated shall allow for communications between:

- All aircraft involved in the operation.
- Each pilot in command and the Agency Lead
- Each pilot in command and associated ground crews (if required).
- Aircraft working in a designated individual sector of the operation, exclusively, if required.

The RCP shall include contingency arrangements for loss of communications.

This shall include a requirement for an aircraft experiencing communications failure of an operating frequency in use to stand down until communications are restored.

The RCP may allow for the use of standard non-radio marshalling hand signals from the ground crew under agreed circumstances. In such circumstances, aircraft operator ground crews shall be able to demonstrate knowledge of the relevant marshalling hand as agreed by all

SAFETY TRAINING

Safety briefings

- All people who will be travelling in a helicopter will receive a safety briefing before the person travels on the helicopter for the first time that day.
- Safety briefings will be specific to the type of helicopter being used and the type of tasking the helicopter will be used for.
- A safety briefing for a passenger performing no function on the flight must cover:
    - basic safety around helicopters on the ground and in flight including accidental interference with the controls
    - use of seatbelts, doors, and headset
    - location of the emergency exits, the fire extinguisher, crash axe, and the first aid kit, and their use
    - weather forecast
    - flight path
    - emergency procedures.
- A safety briefing for a person who is going to carry out a helicopter work tasking must cover:
    - basic safety around helicopters on the ground and in flight including accidental interference with the controls
    - use of seatbelts, doors, and headset
    - location of the emergency exits, the fire extinguisher, crash axe, and the first aid kit, and their use
    - weather forecast
    - flight path
    - emergency procedures
    - proper use of doors/lockers/baskets/pods/racks
    - Threat & Error Management, and Crew Resource Management.
- Ground crew and supplementary crew members will also be appropriately briefed before an operation, including on Threat & Error Management and Crew Resource Management.

Training /Competency

Records of training, competency and ongoing currency shall be kept by the organisation responsible for the trainee.

- The aircraft operator or Agency (as the case may be) shall have a system to ensure expiry dates for recurrent training (where specified) are tracked and monitored.
- Where training is provided by the aircraft operator to Agency staff, a record of that

training shall be retained by the operator and a copy provided to the Agency.

- Where training is provided by the Agency to staff of an aircraft operator, the Agency shall retain a record of that training and a copy provided to the aircraft operator.
- All records of training shall be made available on request from either party as part of routine audit/verification or post incident/ accident review.

Note: Training requirements specific to individual Operational Supplements will be documented within that Supplement.

A training matrix is in place for:

- All personnel must undertake a Helicopter Awareness Training course. This course will cover topics such as general helicopter safety, emergency procedures, and communication. This training will need to be refreshed, in accordance with the frequency direction from their Manager.
- All those flying over water more than 10 nautical miles beyond autorotational distance from shore must carry out HUET training first, and this competency must be kept current.
- People who will be entering or exiting a helicopter while it has made a single-skid landing, or a toe-in landing, and loading/unloading cargo in such situations, must first carry out training in safe procedures. This training competency must be kept current.
- Other specific helicopter safety training should be undertaken, in accordance with the specific helicopter work activities of an individual, as directed by the individual's manager. For example, training in the use of Human External Transport (HETS, also known as Human sling load) is required before anyone can use this equipment. Training is required for any person involved in loading or unloading cargo.
- All helicopter safety training undertaken by MPI employees will be recorded in Tiritiri.
- Helicopter safety training undertaken by staff of helicopter companies, or by NZDF personnel providing helicopter services to MPI, or by personnel of any other provider of helicopter services or organisation, will be recorded in their respective training record systems, and this information should be made available to MPI on request.

GENERAL REQUIREMENTS

Incident management

Aircraft operators, their pilots and other key personnel shall be familiar with their Incident Management System and be capable of complying with and operating effectively within that environment.

- All civilian helicopter accidents and incidents reportable under Civil Aviation Rule Part 12

are to be reported to the CAA. All civilian helicopter accidents and incidents are to be reported to all PCBUS relevant to the work e.g. all PCBUs in the contracting chain.

- All military helicopter accidents and incidents are to be reported to the duty officer at the nearest RNZAF base and to all PCBUs relevant to the work, in accordance with NZDF flight safety reporting policy.
- All accidents are to be notified as soon as practicable and reported in detail within 10 days of the accident [see Civil Aviation Rules, 12.51 and 12.53].
- All reportable incidents are to be notified as soon as practicable or within 72 hours and reported in detail within 14 days of the incident [see Civil Aviation Rules, 12.55 and 12.57].

Verification

MPI will administer this policy by:

- Ensuring an independent verification process is conducted to assure compliance with this policy.
- Establishing and maintaining a list of approved helicopter aircraft operators that meet the standards of this policy.
- Considering any complaints or matters arising from incident reports which may be indicative of non-conformance with this policy and taking follow up action as necessary including a special review if this is deemed necessary to provide assurance of future compliance.

OTHER KEY TECHNICAL REQUIREMENTS

Please note that the 'Other Key Technical Requirements' section is not intended to be an exhaustive list of all the recommended safety measures to take in relation to the listed activities. It is just intended to highlight the most important relevant safety measures.

Flying in remote areas

When undertaking work in remote areas, the following are the key additional safety requirements:

- The helicopter needs to carry emergency survival equipment, clothing and food appropriate to the environment being flown in, and suitable for the number of people being carried.
- The pilot and any another crew member flying must hold current first aid certificates.
- The safety briefing must inform passengers about the Emergency Response Plan, so that they are aware of what will happen if there is a failure to return to base or an accident.

Flying over water

CAA Rule 135.87 for civilian helicopters: When flying over water more than 10 nautical miles beyond gliding or autorotational distance from shore:

- life rafts sufficient to carry every occupant must be carried in the helicopter, and
- life preservers must be worn by each occupant of the helicopter (or for twin engine helicopters, life preservers just need to be available for use for each occupant).

In addition, single engine helicopters flying over water more than 10 nautical miles beyond autorotational distance from shore must be equipped with an operable flotation device, or each occupant must wear an immersion suit.

Night flying

Night is defined as the time between the end of evening civil twilight (which is when the centre of the setting sun's disc is 6 degrees below the horizon) and the beginning of morning civil twilight (which is when the centre of the rising sun's disc is 6 degrees below the horizon) [CAA Rules Part 1].

Night flying **is not** permitted by civilian helicopter companies unless CAA approval for night flying has been given **and** a case for specific night flying operations has been presented to the Health, Safety and Wellbeing Governance Committee and written approval by this Committee isgiven for these operations to go ahead.

Night flying **is** permitted in operations in which NZDF helicopters are used.

Night flying operations involving aerial hunting above Public Conservation Land will also need approval to be granted by the Department of Conservation.

For NZDF helicopters flying at night over water:

All occupants must wear Constant Wear Immersion Suits/Anti-Exposure Suits during flight over water when the forecast:

- Water temperature is below 15 degrees C; or
- Combined air and water temperature is below 31 degrees C.

Safety harnesses

If helicopters are being operated without doors Aircraft Operators must ensure the aircraft is equipped with a shoulder harness for each crew seat.

An approved retractable seat belt and safety harness must be worn by operators using a wandto carry out Aerial Basal Bark Application for wilding conifer control, by those carrying out hunting from a helicopter, and for other work activities where someone is required to leanoutside the body of the helicopter.

Aerial hunting

- Shooters must wear a helmet, hearing protection and eye protection.
- Shooters must hold a current New Zealand Firearms Licence for the firearm being used.
- Shooters must set out with firearms that are fully functioning, maintained, safe for use from a helicopter, and they must be able to operate them competently.
- All semi-automatic shotguns and rifles used in aerial shooting must be fitted with an effective deflector or shell catcher to prevent damage to the helicopter's main rotor blades.
- Neighbours and others in the target area, and other affected parties, must be given advance notification of when hunting will take place, and a description of the helicopter that is going to be used.

Internal loads

- Non-essential passengers (with respect to the particular task the helicopter is being used for) must not be carried.
- Items that could cause damage to the helicopter need to be suitably covered, and if appropriate, bound together to protect the helicopter and passengers during the flight.
- Firearms should be transported in a safe state (un-loaded and bolt out if applicable),

apart from any firearms being used during the flight to shoot from the helicopter for pest control operations.
- Ammunition and other equipment, such as toxic chemicals and spray equipment, are to be stored safely in the helicopter before flight.
- Any live animals (e.g. hunting dogs) being transported must be safely restrained so that they will not interfere with the pilot in command of the helicopter or damage the helicopter in any way.

External loads

Except for a pilot in command, a pilot under training/induction and supplementary crew (where required), no other persons shall be carried simultaneously with external loads.

Note: This requirement is intentionally more restrictive than the provisions of Civil AviationRule 135.95.

Single skid, Toes in, Entry/Exit Procedure (STEP) and Hover Loading/Unloading

The preferred type of landing is a full skids-on landing where the skids are in full contact with the ground. Where that is not possible or safe due to conditions such as slopes in excess of the helicopter's permitted landing capability to land with both skids fully on the ground, or rubble strewn terrain, or soft deep snow conditions, or icy surfaces, then the following procedures are possible options for loading or unloading of cargo or passengers:

- Single skid: one skid is in contact with the surface to provide a degree of lateral stability.
- Toe-in: the front portion of both skids are in contact with the surface to provide a degree of longitudinal stability.

It is not permitted for the loading or unloading of cargo or passengers to take place when the helicopter is held in a hover with no surface contact to provide stability.

Pods (CAA-approved supplementary cargo storage capacity commonly attached to skids either side of the helicopter or beneath the fuselage) must only be used during STEP loading or unloading of cargo or passengers, if the person is specifically trained in the safe operation and security of pods and approval given by the pilot in command.

OTHER RELEVANT DOCUMENTS

Good Practice Guide for Wilding Conifer Control: Aerial Basal Bark Application (ABBA): https://www.wildingpines.nz/assets/Documents/Wilding-Conifers-Good-Practice-ABBA-May-2023-V3.1.pdf

Appendix: document review

Document review date	Summary of consultation/changes made	Reviewer
01/2021	First version. Approved for use by the Health, Safety and Wellbeing Governance Committee on: 13 November 2020. Implemented on: 13 January 2021	Andrea Kapoutsos and Ian Govey
07/2021	Second version. Updated after modifications made to align more closely with FENZ practices. Approved for use by Health, Safety and Wellbeing Governance Committee on: 8 July 2021	Chris O'Flaherty
11/2021	Document control and footnote added	Grace Habershon
09/2022	Added comments from CAA	Charlie Morrison
05/2023	Added comment from FENZ ref refuelling	Charlie Morrison
08/2023	Clarified contractor requirements	Jeanette McKeogh
09/2023	Removed linked references to documents and contacts on MPI's intranet, as suppliers are unable to access these.	Michelle Ellis
09/2024	12-month review: updated link to the Wilding Conifers Good Practice Guide for Aerial Basal Bark Application (ABBA); Updated wording of Health and Safety Management Plan requirements	Michelle Ellis