

Airfield Management

OP-MS-500

Revision 4

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Active Divisions/Departments

Area Directorate

Logistics/ATO

FEMC

109th Air National Guard

NSF

SPAWAR

Science Support

All personnel on airfield

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Purpose

To assure that a safe, efficient and effective airfield environment exists for conducting aircraft operations in support of the USAP. This document also helps assure that airfield operations and management procedures are in place to support Antarctic flight operations on McMurdo Station airfields.

This Standard Operating Procedure (SOP) supplements guidance contained in the USAP *Air Operations Manual* (AOM) published by the NSF. Managers and supervisors involved with airfield operations should review the USAP AOM annually.

Scope/Applicability

These procedures apply to all personnel working on McMurdo Station airfields.

Responsibilities

The USAP airfield manager plans, programs, and manages airfield support and training in accordance with the USAP Air Operations Manual, NSF, RPSC, and applicable USAF instructions.

The USAP airfield manager is also responsible for assuring the Sea-Ice Runway, Pegasus White-Ice Runway and Williams Field Skiway are built and operated to assure safe conditions for flight operations. The airfield manager assures airfield operations and inspections are performed on a daily basis and after any event (heavy snowfall, multiple aircraft operations, high winds, etc.) that may affect the condition of the runways/skiways.

The airfield manager has the authority to close, restrict, suspend, and resume airfield, skiway, taxiway, and snow and ice road operations. In absence of the USAP airfield manager, this authority rests with the McMurdo Operations Manager or designated individual. The airfield manager also provides technical airfield management support and training to USAP personnel to assure a safe and efficient environment exists for conducting airfield and airlift operations.

The airfield manager acts as single point of contact for all airfield operations. He or she will interface daily with airfield users to determine airfield support requirements and to assure airfield safety and customer satisfaction.

The Station Operations manager is responsible for identifying power requirements annually for the systems listed below to assure power is available to operate the required Federal Aviation Administration (FAA) flight certification systems throughout the season. The systems include the following navigational aids at each airfield:

Annual Sea Ice Runway: Microwave Landing System (MLS), Precision Approach Radar (PAR), Tactical Air Navigation System (TACAN), and Precision Approach Path Indicator (PAPI) lights

Williams Field Skiways: MLS, PAR, TACAN, and PAPI lights

Pegasus White Ice Runway: MLS, TACAN, and PAPI lights

The Facilities, Equipment Maintenance, and Construction (FEMC) construction manager is responsible for assuring that linemen and electricians are available to support the annual FAA certification. This includes alignment of the PAPI lights and wiring of the systems to the power systems to meet the required annual FAA certifications.

The survey supervisor is responsible for all airfield survey engineering work, sea-ice monitoring, and reporting related to the annual sea-ice runway complex including the snow and ice roads, Williams Field Skiways, Pegasus White Ice Runway, Long Duration Balloon Facility and the white-out landing area. Additionally, the survey supervisor shall survey, monitor, and report sea-ice conditions for the sea-ice channel in support of the annual icebreaker operations. Other projects can be tasked through the airfield manager as required. Field Safety Training Program (FSTP) can be called upon to assist the survey supervisor if needed.

FSTP is responsible for issuing sea-ice reports. However, these reports shall clearly state that they do not reflect sea-ice conditions on the airfields or the sea-ice channel or turning basin. Because of the highly technical aspects of United States Air Force (USAF) Engineering Technical Letters (ETL) for the airfields, FSTP shall assure sea-ice reports generated by FSTP do not include the areas outlined above. This can cause confusion by users of the applicable reports.

Station/camp managers of outlying camps shall designate a representative to personally make twice-daily inspections (more frequently if conditions deteriorate) of skiways, taxiways, and ramp facilities using form OP-M-500b. Station/Camp Managers are encouraged to communicate with the McMurdo Station airfield manager regarding questionable areas or assistance when needed.

The South Pole Station Operations manager shall keep the USAP airfield manager informed daily on changes to airfield status and crane operations near South Pole Station runways and

skiways. The South Pole Skiway, including the snow road crossing and ramp, shall be inspected twice daily, additional airfield inspections during high winds and/or snowfall are also required using OP-M-500b. Airfield status reports shall be forwarded through McMurdo Operations (Mac Ops) for relay to the USAP airfield manager. The South Pole Station operations manager shall designate an individual to conduct annual airfield driver safety training (using form OP-MS-500c) for the South Pole Station airfield.

All supervisors and managers are responsible for disseminating the requirements specified in this document to the appropriate work centers as needed.

RPSC IT shall assure wireless network and telephone systems are fully operational at airfield town sites prior to the opening of the annual Sea-Ice Runway and Williams Field. Pegasus Airfield (White Ice Runway) shall have wireless network and telephones operational from October through February each season.

Discussion

Airfield Ground Safety

Safety of personnel working on the airfields is the responsibility of each work center manager and supervisor. To assure a safe airfield environment and prevent injuries, managers/supervisors must assure training, operating procedure reviews, and safety briefings are held to explain the hazards of working on ice- and snow-covered airfields. All personnel working on the airfields shall also understand and adhere to the weather conditions and safety procedures posted at www.mcmurdo.usap.gov

Careful attention to known hazards when working on the ice is essential. Slips and falls can be avoided with proper footwear. All personnel working on the Sea Ice Runway ramp shall wear grippers and/or safety shoes with anti-slip soles at all times. Grippers and safety shoes will be provided by work centers at no cost to individuals. When personnel are working on the ramp, hearing protection shall be issued by work centers and worn at all times. Aerospace Ground Equipment (AGE) shall assure aircraft heaters are not operated during high winds in excess of 25 knots sustained.

Because of aircraft operations safety requirements, photographers or other visitors to the airfield that are on or near the airfield or ramps require the prior approval of the USAP airfield manager and must be escorted with an airfield-driving-trained escort. The snow and ice roads are an approved method of travel to the airfields and are open for travel or recreation without an escort.

Approval to use snow and ice roads for recreation is approved by station management and the NSF. Personnel using the snow and ice roads for recreation will travel on the flagged routes only to the airfield town site when approved.

Aircraft Rescue and Fire Fighting (ARFF)

ARFF personnel are to reside on the airfields once the LC-130 aircraft arrive on station. During periods when the airfield dining hall is closed, the fire chief shall make arrangements through main dining hall to assure adequate food is available at the airfield dining hall prior to storms or other periods of reduced access. Exception: During the Thanksgiving and Christmas holidays, ARFF personnel, in shifts of three, can return to the main dining hall to have a holiday meal. During this period, the fire chief shall assure that at least three fire fighters are available on the airfields for fire protection. Under no conditions shall all fire fighters be off the airfields unless approved by the Station Operations manager, MCM 500 commander, and airfield manager.

ARFF personnel will assure all ARFF equipment is inspected daily, free of snow, and serviceable. If a heater is required to melt snow from the apparatus, then ARFF personnel shall coordinate with AGE for assistance. All ARFF personnel performing duties on the airfields must be certified to National Fire Protection Association standards. ARFF personnel will not be assigned duties which may conflict with their assigned ARFF duties. Other duties, such as performing lock-out assistance in dormitories, rest with Station Services. Deviations require the approval of the USAP airfield manager, McMurdo Station Operations Manager and McMurdo Area Director.

All ARFF vehicles will be closely monitored during operations. The fire chief shall notify the USAP airfield manager anytime any ARFF vehicle is out of service for any reason, providing an estimate as to when the vehicle could be back in service. ARFF support for the vehicles and rigs will be accomplished in accordance with the lay-down plan annually provided by NSF and RPSC. Deviations to the lay-down plan require approval from the USAP airfield manager and Commander, Support Force Antarctica (SFA).

Aircraft Fire Bottles

Fire bottles are placed at the nose of all aircraft when parked by Skier Maintenance or AGE. Fire bottles on standby near the ramp shall be kept in working order and free of drifted snow by fire department personnel. To assure serviceability, ARFF personnel will inspect all aircraft fire bottles monthly. Once certified serviceable, fire bottles will be monitored in accordance with fire department procedures.

Adverse Weather, Pre-Storm and Snow Removal Priorities

Weather conditions on or near the McMurdo Station airfields can seriously impact the ability to conduct airfield operations. The USAP airfield manager monitors weather on a daily basis. When weather conditions are forecasted to impact the airfield with winds, blowing or drifting snow, the airfield manager may close the airfields and the snow and ice roads leading to the airfield(s) (See OP-M-500d). When notified by weather forecasters of an approaching storm, the USAP airfield manager shall coordinate with the United States Air Force to position all parked aircraft on the forward parking spots on the ramps to assure efficient cleanup after a storm.

Prior to the storm, airfield vehicles (excluding Aircraft Rescue and Firefighting) will be driven back to McMurdo Station to prevent additional snow drifting on the airfield town site. In the event the roads are not passable, then those vehicles will be parked as directed by Fleet Operations out on the airfields, with keys left in the ignition. Fleet Operations personnel will be placed on standby, subject to recall when the storm is over, to begin snow removal operations on a continuous basis. Once an airfield is closed, all non-essential personnel will depart the airfield, return to McMurdo Station and report to their work center to check in with their supervisor until the airfield is recovered after the storm.

Snow Removal and Re-Opening of Airfield Roads

The airfield manager shall be kept informed on snow removal progress and coordinate directly with Fleet Operations supervisor. Once the airfields are opened after a storm, Fleet Operations can resume normal shifts. Snow removal is normally performed in the following order:

1. Access roads to the airfields are normally cleared first
2. Runways and/or skiways
3. The town site is cleared to assure buildings are accessible
4. Ramp and JATO area are cleared.

Final determination for setting snow removal priority rests with the airfield manager. If possible, both the town site and runways or skiways are worked simultaneously with separate equipment. When both Williams Field and Pegasus Airfield are operational, the first priority is Williams Field and all equipment required to augment clean-up will be shifted to Williams Field.

Once snow removal is underway, the Fleet Operations supervisor shall provide an estimated time for removal of drifted snow on the airfields to the airfield manager. During reopening operations, AGE shall assure all AGE equipment and fire bottles are removed from ramp during snow removal and returned to ramp after completion of snow removal. Building occupants on the airfield are responsible for keeping drifted snow away from stairs at all times. Fire Department

personnel are responsible daily for assuring common areas such as the dining hall, passenger terminal and restroom stairs are cleared of drifted snow. The airfield manager and/or Fleet Operations supervisor can call on fire department and Antarctic Terminal Operations (ATO) personnel to assist in storm recovery.

Vehicles or personnel will not travel on airfield roads to the airfields until cleared to do so by Fleet Operations or by the USAP airfield manager through the Fire House on the MCC net.

When weather conditions two or three is announced, it does not automatically mean that the airfield roads are again open.

The Shuttle Operations supervisor coordinates with the Fleet Operations supervisor or USAP airfield manager to determine the types of vehicles to be used for primary transport of personnel to and from the airfields. The ATO manager will assure revised shuttle schedules are coordinated and published in a timely manner.

After storm recovery, ATO, ANG, ARFF, Fuels, and AGE supervisors shall notify USAP airfield manager when they are ready to support aircraft operations. Policy Letter OP-M-500d shall be used for closing and reopening of airfields impacted by adverse weather. Once recovery is completed, critical snow removal equipment should not be left on the airfields but should be staged in McMurdo town for ready return to the airfields when needed.

Aircraft Arrival When the Tower is not Operational

The Fire House shall notify the airfield manager of all aircraft in-flight and ground emergencies, weather divers or mishaps, providing all known detail. The Fire house shall also notify the airfield manager on termination of emergency or mishaps. Raven Operations shall notify the Fire House dispatch (ext. 2555) on all emergencies, weather divers, training flights, or other arrivals to uncontrolled airfields. When possible, notice will be provided a minimum of one hour prior to the estimated time of arrival.

When any aircraft is arriving to an uncontrolled airfield (the control tower is not operational) the following procedures (outlined in RPSC Policy Letter OP-M-500e, *Control of Vehicles and Heavy Equipment on Airfields when the Control Tower is not Operational*) shall apply. The fire chief shall assure the checklist in OP-M-500e is followed at all times to assure effective control of vehicles, heavy equipment or personnel traffic on the airfields at all times when the tower is not operational.

In the event of a landing at an uncontrolled airfield, MAC Center shall notify the Fire House of the situation a minimum of one hour prior to the landing. Typically these landings occur on the Pegasus White Ice Runway or Williams Field Skiway. The Fire House will immediately dispatch

ARFF support to the affected airfield. The Fire House will announce the emergency or weather divert over the following radio nets:

- MCC Net (Channel 5)
- I Net (Channel 1)
- Emergency ARFF Net (Channel 2)

The announcement will instruct personnel that may be operating on the applicable runway or skiway of an imminent landing on that runway or skiway and that they must exit the indicated area immediately. The Fire House shall also request that the personnel radio the Fire House when they have exited the runway or skiway.

Once the ARFF equipment arrives at the applicable airfield, the ARFF personnel shall inspect the runway or skiway to assure a clear deck and notify Mac Center when a clear deck is available. Normally a clear deck is called while the aircraft is still a minimum of 100 miles out from the applicable airfield. In the event ARFF personnel cannot arrive in time to call a clear deck, fire dispatcher shall call Fleet Operations via MCC Net, or AGE if available, to inspect the applicable runway or skiway and assure a clear deck is available for the emergency or weather divert aircraft. If the Fire House dispatcher is unable to determine a clear deck, then Mac Center shall be notified immediately as to when a clear deck can be called.

Animals on Airfields

Wildlife (particularly Penguins, Seals, and Skuas) will periodically be observed on the airfield. Under the Antarctic Treaty, all wildlife is protected. In the event wildlife is observed on the airfields and could pose a safety of flight problem; the fire station personnel (only) are authorized to move the wildlife away from the airfield after approval is provided by the NSF Station Manager. The Fire House shall report wildlife activity on airfields to the USAP airfield manager and NSF Station Manager.

FOD (Foreign Object Damage) Prevention

The FOD potential on airfields is enormous. If you see debris on or near the airfield, **you** must remove it. If the debris is too large to pick up yourself, call Fleet Operations management and request assistance.

Airfield Safety and Driver Training

To drive on USAP airfields, employees must have a valid state-issued driver's license or equivalent. Personnel new to the USAP program who will be operating vehicles on the airfields must also complete *Airfield Driver Practical Training*, conducted by their immediate supervisor, prior to operating a vehicle on the airfield. The trainee and the assigned supervisor shall sign the *Airfield Practical Driver Training* form (OP-M-500c) after the training is completed. The supervisor shall return the signed form to the airfield manager's office. New supervisors shall contact the airfield manager for airfield practical driver training. Training by the USAP airfield manager is announced via email and normally held at least twice a week.

During WINFLY and until the USAP airfield manager arrives on station, the responsibility for airfield driver training rests with the RPSC Operations Supervisor. The RPSC Operations Supervisor shall assure training is accomplished prior to allowing personnel to operate on the airfields. The USAP airfield manager reviews all airfield driver-training aids annually and those training aids shall be provided to the Operations Supervisor annually, no later than 15 July.

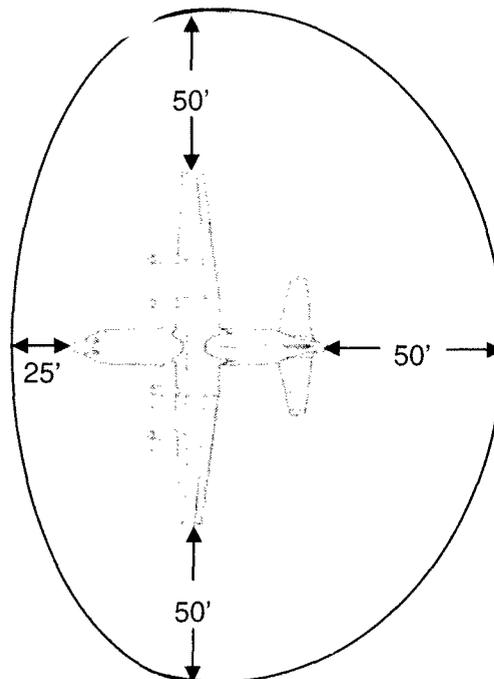
Untrained personnel present a serious hazard to aircraft operations. Personnel observed on the airfield who have not attended training shall be reported to their immediate supervisor for administrative action.

Ground support personnel must be vigilant when conducting ground operations to prevent mishaps. Raised parka hoods reduce peripheral vision and increase the potential for personnel injury. Individuals not directly involved in aircraft ground support or airfield operations are not authorized on airfields. Unauthorized vehicle intrusions on runways/skiways or taxiways under the control of tower are a serious safety matter. They are reported to the violator's assigned supervisor for administrative action and can lead to termination of employment. At Williams Field, Pegasus White Ice Runway, and Sea Ice Runway, no person shall enter the skiways/runways or taxiways without clearance from the tower on Channel 6. When the tower is not open, vehicle operators will contact Fire Department Dispatch (Call Sign: Fire House) on Channel 5 and advise them of their intended movement on the runway/skiway. Only those personnel required to support aircraft operations are authorized on the ramp, taxiways, skiways, or runways. All vehicles operating on the airfield will be two-way radio equipped or be escorted by a radio-equipped vehicle. Station Managers at outlying airfields will establish procedures that assure controlled access to skiways and aircraft ground operating areas. All vehicles accessing the airfields will use voice call signs or assigned vehicle numbers. Vehicular and maintenance operations contribute debris, oil, gas and other heat absorbing materials which cause premature deterioration of aircraft operating areas. Therefore, all personnel will be indoctrinated to limit use of such areas and to assure that trash, oil spills and other contaminants are removed and cleaned up promptly.

Circle of Safety

Support personnel must be aware of the hazards involved in working and moving around aircraft, including propeller and jet engine danger zones. The **circle of safety** is the area around a parked aircraft extending 25 feet beyond the wingtips, nose and tail, within which no vehicle may be operated except as required for servicing, loading or unloading of aircraft. If an engine or engines are turning, this area is increased to 50 feet, in the semi-circle from abeam the wingtip, around the aircraft tail to abeam the opposite wingtip.

Figure 1. Circle of safety for aircraft with engines running.



Vehicles or personnel not directly involved in loading, maintenance or servicing of aircraft will avoid approaching the aircraft and will remain outside the circle of safety. Support personnel shall not approach an aircraft until directed to do so by the aircrew. During concurrent refueling, only personnel engaged in servicing of aircraft are authorized within the circle of safety. All other personnel will exit and remain outside circle of safety.

General Precautions

The McMurdo airfields are large and busy complexes. Driving on airfield taxiways, runways, skiways, and ramps should be kept to a minimum and in direct support of aircraft operations. Violations of procedures can result in administrative action up to and including termination of employment. **The following general precautions are in effect at all times:**

Smoking on the airfield, excluding town sites, is **prohibited**.

Never enter the runways/skiways, taxiways unless specifically authorized to do so by the Control Tower (or Fire House if control tower is not active).

Vehicle operators will do FOD checks prior to entering the Williams Field Skiway transition snow road near Scott Base.

Do not cross taxiways when an approaching aircraft is within 200 feet or until it has passed by at least 500 feet.

Vehicle spotters must be used when backing up or approaching an aircraft

Always yield to taxiing aircraft and emergency response vehicles.

Vehicles stopped for aircraft holding on a taxiway will not cross the taxiway in front of the aircraft unless signaled to do so by the pilot.

Remain at least 100 feet from helicopters with rotors in motion at all times.

Exercises or other priority maintenance missions are not an emergency; you must adhere to speed limits.

Personal entertainment devices will not be used in vehicles operating on the skiways or runways. This includes AM/FM radios, tape players, CD players, and personal stereos (Walkmans, iPods, etc.).

Always drive on the far right side of the taxiway.

Do not pass a stopped or towed aircraft unless the aircrew or marshaller indicates that you may proceed. Maintain at least a 25 foot lateral clearance.

When you encounter an aircraft coming towards you, do one of the following:

- Turn around and exit the taxiway at the closet point.
- Notify the Tower of your location.

Turn on hazard warning lights and other lights when operating on airfield.

Earplugs or hearing protection shall not be worn when operating on taxiways, runways, or skiways.

Always chock your vehicle and park vehicles no closer than 25 feet from an aircraft unless supporting offloading or on-loading of cargo.

All vehicles must approach parked aircraft with the driver's side of vehicle toward aircraft (after permission is granted from aircrew, tower, or skier maintenance).

Do not drive between parked aircraft.

Do not point vehicles facing toward aircraft (except for fire department vehicles).

During engine-running on- or off-loads, drivers shall assure they:

- Do not approach aircraft until directed by aircrew or marshals
- Pay attention and follow aircrew or marshaler instructions
- Stay away from running engines at all times.
- Watch for jet wash or prop blast at rear of aircraft.

Air porters, the Terra Bus, and other large vehicles will not be driven through airfield town sites or under power lines. These vehicles shall only access the ramp from the main entry and exit point located adjacent to the cargo yards.

Vehicles and equipment shall not be left unattended near the ramps, runways, or skiways since they can be an obstruction to aircraft movement.

Speed Limits (all vehicles including snowmobiles)

Close proximity (within 100 ft) of aircraft - 5 MPH

Ramps and access roads- 10 MPH

Taxiways, runways and all snow and ice roads - 25 MPH

Parking

Never leave a vehicle unattended on the airfield.

Do not park closer than 25 feet in front of or 200 feet to the rear of any aircraft when aircraft engines are running or about to start.

Place transmission in park (automatic transmission) or reverse (manual transmission) when stopped on airfield.

Set the hand brake. Do not point the vehicle so it will roll towards any aircraft, and the vehicle must not be parked in any manner to impede other traffic. Use chocks on a rear wheel.

Hazard warning lights and/or driving lights on all vehicles must be turned on.

Violations of Airfield Rules and Instructions

All safety incidents involving vehicles, snowmobiles or personnel operating on the airfields are investigated by the USAP airfield manager and are treated as a serious safety incident. Personnel intruding onto the runways/skiways or taxiways without approval from the control tower or Fire House will have their airfield driving privileges suspended (from a minimum 60 days to a permanent revocation). Other infractions of the driving rules can also lead to suspension of airfield driving privileges for a minimum of 30 days. Personnel who have airfield driving privileges suspended or revoked are not authorized to work on the airfields. Reinstatement requires a letter of request, from the applicable manager to the USAP airfield manager, requesting reinstatement of driving privileges. When requesting reinstatement, the applicable manager shall assure all requirements for training have been re-completed. This retraining includes reviewing the airfield driving training module, and hands-on airfield familiarization by the assigned supervisor.

Airfield Operating Hours and Communications

The Annual Sea Ice Runway operates 24 hours daily from October through December each season and is staffed to support those hours. Williams Field Skiway operates October through December each season as an emergency, weather, training, or divert airfield with limited support for ski-equipped aircraft. Normally no air traffic control, ATO, ARFF or AGE support is available during this period. When support is required for training or diverts, the 139th Expeditionary Airlift Squadron Raven Operations coordinates directly for support to the fire chief. Once the Annual Sea Ice Runway closes (in early December each season) Williams Field Skiway operates 24 hours daily to support ski-equipped aircraft until the close of the summer season.

During the month of August, prior to each summer season, Pegasus White Ice Runway operates only to support WINFLY flights. After WINFLY is completed, the markers and support buildings are removed until December. From December to close of season, Pegasus White Ice Runway also serves as a divert airfield for LC-130 aircraft or other wheeled or ski-equipped aircraft. From December through February each season, Pegasus White Ice Runway serves as the only runway for wheeled aircraft and is operated only to support those scheduled aircraft operations. This airfield operates uncontrolled without a control tower. AGE, ATO and ARFF are available during scheduled aircraft operations. The white ice runway surface may become unusable during the warmer parts of the Austral Summer (December and January) and operating hours for supporting wheeled operations could be restricted for safety reasons.

Field camps operate as emergency and weather-divert airfields from October through February for ski-equipped LC-130 or Twin Otter aircraft. Aircraft diverting to field camps notify MAC Center who in-turn notifies the field camp of possible divert aircraft through Mac Ops.

Camp supervisors shall radio or phone daily, at 0715 local time or earlier, the current airfield status and subsequent changes to the airfield status to MAC Operations. Mac Ops shall patch or relay the call directly to MAC Center for dissemination to aircrews. Camp supervisors shall report daily all weather reports and observations directly to MAC Weather. RPSC Science Support shall assure that personnel staffing field camps are trained by SPAWAR or other designated organizations on taking weather observations and that they have an understanding on how and when to report weather observations.

All airfield restrictions are published by the airfield manager and provided to MAC Center for distribution and published as a Notice to Airmen (NOT AM). Operating hour restrictions are coordinated with the McMurdo Station ATO Manager for scheduling those flights within the restricted operating hours. Deviations to airfield operating hour restrictions can be coordinated 24 hours in advance with the airfield manager.

All exercises, traverses, or training taking place on or near McMurdo or South Pole airfields and the McMurdo white out area must be coordinated with the USAP airfield manager and SPPO Site Manager at least seven working days in advance. This coordination is to assure events or exercises shall not impact the safe, continuous operations of airfields. Failure to coordinate in advance could result in the USAP airfield manager suspending airfield operations until the hazard is mitigated. Personnel listed above act as trusted agents and do not divulge exercise scenarios.

Radio Communication Protocol

Listen before transmitting to assure frequency is not in use

Know what you want to say

Be professional

Prior to entering the airfield:

- Know your vehicle call sign
- Know where you are (so you can explain your current location to the control tower)
- Know where you want to go

Airfield Radio Phraseology

Table 1. Control/Tower Call Signs.	
Location	Tower/Control Call Sign
Annual Sea Ice Runway	Ice Tower
Williams Field	Willie Tower
Fire House	Fire House
Pegasus Field (White Ice Runway)	Pegasus Control (there is no tower at Pegasus)

The individual call sign for a vehicle is typically one or two words describing the type of vehicle, followed by the last three digits of the vehicle number (for example: Tractor 571, Pisten Bully 109, Truck 157, Snowmobile 436, etc.) Stating the type of vehicle helps the Tower or other controllers to locate and identify you visually. In the following examples, the speaker is indicated in parentheses at the beginning of the transmission.

WARNING If at any time the Control Tower directs you to hold short, stop where you are and do not proceed until further instructed by the tower. Immediately acknowledge that you have received and understood the hold short instruction as follows:

(Control Tower:) "Truck 157, HOLD SHORT for taxiing LC-130."

(Truck 157 :) "157 copies HOLD SHORT"

An instruction to Hold Short generally indicates that proceeding would create an immediate hazard to aircraft landing, taking off, taxiing, and/or to you.

Always read back instructions to assure clarity and that the tower is talking to you:

(Control Tower:) "Truck 157, proceed as requested, advise when clear of runway."

(Truck 157:) "157 copies proceed as requested, will advise when clear."

Notify the Tower when you are clear of the runway/taxiway:

(Truck 157:) "Willie Tower, Truck 157, clear of skiway 25."

Field Clearance can be used to request approval on any portion of runways, skiway, or taxiways.

(Truck 100:) "Willie Tower, Truck 100 requests Field Clearance to inspect runway lighting."

(Control Tower:) "Truck 100, Field Clearance is granted. Advise when clear of runways."

(Truck 100:) “Truck 100 copies Field Clearance granted. Will advise when clear of the runways.”

The following is a series of actual radio transmissions between Snowmobile 605 (**605**) and the Tower (**T**) at Williams Field:

(605:) “Willie Tower, snowmobile 605.”

(T:) “605 go ahead.”

(605:) “605 is at the MLS, requesting clearance to cross Skiway 25 to the ramp.”

(T:) “605, HOLD SHORT for Twin Otter departing skiway 07.”

(605:) “605 copies HOLD SHORT.”

After aircraft takes off:

(T:) “605, Willie Tower, proceed across skiway 25. Report when clear of skiway.”

(605:) “605 copies proceed. Will report when clear.”

After crossing runway:

(605:) “Willie Tower, 605 is clear of the skiway.”

(T:) “605, Tower copies clear. Thank you.”

Light gun signals from tower in cases of radio failure

Figure 2. Control Tower Light Signals.

CONTROL TOWER LIGHT SIGNALS		
SIGNAL	FOR AIRCRAFT	FOR VEHICLES
STEADY GREEN ■ ■ ■ ■ ■	CLEARED TO LAND CLEARED FOR TAKE-OFF	CLEARED TO CROSS
FLASHING GREEN ■ ■ ■ ■ ■	RETURN FOR LANDING CLEARED TO TAXI	NOT APPLICABLE
STEADY RED ■ ■ ■ ■ ■	GIVE WAY TO AIRCRAFT STOP	STOP
FLASHING RED ■ ■ ■ ■ ■	AIRPORT UNSAFE CLEAR RUNWAY	CLEAR RUNWAY
FLASHING WHITE □ □ □ □ □	RETURN TO STARTING POINT ON AIRPORT	
ALTERNATING RED & GREEN ■ ■ ■ ■ ■	GENERAL WARNING SIGNAL EXERCISE EXTREME CAUTION	

Airfield Generators

Airfield Generators are critical airfield systems and shall be maintained to assure reliable power at all times. Airfield generators providing power to airfield town sites, air traffic control systems (excluding MLS generators), Long-Duration Balloon (LDB) launch facilities, and airfield lighting systems (excluding small Honda type generators) are the sole responsibility of the Vehicle Maintenance Facility (VMF). This includes initial setup, daily checks, and startup. Small, Honda-type and MLS generators will be setup serviced and maintained by AGE. Electrical systems on the airfield generators are the responsibility of FEMC electrical mechanics.

Power to navigation systems, including control towers and associated SPAWAR equipment, shall have reliable power no later than two weeks prior to airfield opening for aircraft operations or use as an emergency weather divert. Pegasus White Ice Runway shall have separate back-up generators for the TACAN and MLS when those navigation systems are operational.

VMF/AGE shall assure an adequate inventory of parts both mechanical and electrical is available for routine, emergency, and major overhauls. Major overhauls of airfield/LDB generators shall be scheduled and staffed during the winter months, except for emergencies. Periodic maintenance of generators, which require the generator to be taken off line, shall be coordinated 24 hours in advance by VMF with SPAWAR Ground Electronics and the USAP airfield manager. To prevent damage to air traffic control systems, generators shall not be taken off line without prior approval. All outages and fluctuations of power shall be reported to VMF and the USAP airfield manager immediately.

Fuel Supplies

The Fuels supervisor shall assure that:

- Adequate, clean fuel is available and fuel is tested on site monthly and before initial startup of airfield/LDB generators.
- Fuel tanks are inspected prior to startup to assure clean fuel tanks.
- Fuel deliveries are tracked to assure stock on hand is adequate to meet fuel consumption.

For Pegasus Airfield, the fuel tank for the airfield generators shall be of a size to assure seven days fuel availability for the airfield.

Airfield Lighting Installation, Maintenance and Inspection

For lighting setup and siting, the airfield electrician and surveyor shall follow the specific instructions identified in *SSALR and PAPI Lighting Systems* (OP-M-506).

The PAPI lights shall be installed and leveled with the aiming point set at 2.5 degrees. The aiming point for the PAPI Lights shall be checked weekly by the airfield electrician to assure the aiming angle remains at 2.5 degrees. All airfield lighting systems (PAPI and SSALR for the main approach end of the runway/skiway), shall be hard-wired to operate from the SSALR generator.

Exceptions: At Williams Field, a separate, small generator powers the PAPI lights on the crosswind runway. This generator shall be installed no closer than 75 feet from the runway edge.

The SSALR light generator shall be sited no closer than 500 feet from centerline of runway/skiway measured at the approach end of the runway. All airfield lighting at Pegasus is hard wired to the SSALR light generator. Deviations require coordination with USAP airfield manager. During WinFly and Mainbody, the PAPI lights, SSALR lights, and REIL are turned on and shall remain on at all times to reduce the potential for damage to lights in cold weather.

Extreme caution must be taken when adjusting the light settings on the SSALR lights. Rapid changes in intensity will damage the bulbs in cold weather. The normal setting for the SSALR lights is step three. Changes in light intensity are governed by the weather and light setting above step three must be requested from either MAC Center or the operating control tower, in accordance with FAA 71.10.65, *Air Traffic Control Procedures*.

Airfield lighting inspections will be accomplished in accordance with this SOP. If airfield lighting problems are noted during the inspections, AGE (or Fleet Operations at Pegasus) shall notify the airfield electrician to respond to the problem immediately. Burned-out bulbs will be replaced as required by airfield electrician. The airfield manager shall determine when a system is out of service because of burned out bulbs. Generators used to power the PAPI lights will be refueled by AGE as scheduled by the airfield electrician. RPSC FEMC shall hard wire PAPI Lights on the main runways and skiways at Pegasus, Williams Field, and Annual Sea Ice Runway to the main generator for the Simplified Short Approach Light system with Runway alignment indicator (SSALR) system. When requested by tower, AGE personnel will adjust lighting intensity of SSALR lights. The airfield electrician will accomplish training for the airfield lighting adjustments and refueling of generators annually.

Pegasus Airfield Aircraft, Vehicle and Pedestrian Control

Pegasus Airfield (the White Ice Runway) is non-tower controlled. All aircraft arrive and depart the airfield in control of MAC Center. Control of vehicle and pedestrian traffic during flight operations is managed by fire department personnel with an ARFF vehicle (call sign: Pegasus Control) positioned near the approach end of runway 33.

When notified by MAC Center that the aircraft is within 100 miles, Fire Department personnel will have all personnel exit the runway and hold at the town site. Personnel are not authorized to

hold on the ramp or within 500 feet of centerline of runway. AGE and ARFF personnel can hold outside of the flag line to conduct marshal or ARFF support. All other personnel will be held at town site until ARFF is notified by MAC Center that it is safe to approach the aircraft.

Once the aircraft is ready for departure, all personnel except AGE and aircraft maintenance personnel will be required to leave the airfield and hold at the town site during aircraft departure. All personnel on the airfield shall use Channel 2 as outlined in Airfield Driver Safety procedures and this SOP. ARFF, AGE, and Fuels personnel shall remain on the airfield until aircraft has departed and been airborne for one hour. When the C-17 is parked on Ramp 2 at Pegasus White Ice Runway, all passenger pickup and drop off will be located off the ramp to avoid bringing dirt onto the ramp. An exception to this is the ambulance, which may park on the ramp. Additional exceptions can be made by the USAP Airfield manager as needed. ARFF equipment shall be parked in the designated hardstand located off the ramps at Pegasus White Ice Runway.

Note Aircraft parking shall be in accordance with the standardized aircraft parking plan OP-M-505, unless a deviation is approved by the USAP Airfield Manager.

Pegasus White Ice Runway Certification and Testing

The Pegasus White Ice Runway is built and maintained in accordance with ETL 02-16, *Design, Construction, Maintenance, and Evaluation of the Pegasus Glacier Ice Runway for Heavy Wheeled Aircraft Operations*. The USAP airfield manager assures certification and build of the Pegasus White Ice Runway is accomplished in accordance with this ETL.

Two important certification tests are required: one prior to WinFly aircraft operations in July of each season, and one prior to reopening after the runway has been recapped or altered, normally in November or December each season. These two tests shall be accomplished according to ETL02-16. The Fleet Operations supervisor shall assure these tests are completed and include the geometric surveys. Once these tests are completed, the fleet operations supervisor shall pass all the testing data to the USAP airfield manager and operations manager. The USAP airfield manager shall forward the testing data to the agencies listed in the ETL and request formal certification.

Periodic Testing

At least once a week during flight operations random testing will be performed. During warm weather (December - January), testing samples shall be taken 24 hours before conducting flight operations to assure stability and strength of the compacted snow. The random testing locations will be accomplished according to ETL02-16. Any runway surface failures will be tested and the data provided to the USAP airfield manager for forwarding to the Air Mobility Center (AMC).

Runway Condition Readings (RCR), Airfield/Lighting Inspections

The AGE and Fleet Operations supervisors shall assure personnel are identified and trained by AGE or the airfield manager to conduct airfield inspection and RCR tests. This training shall be documented on the master training checklist. RCR and airfield lighting inspection report times are listed below. Both checklists for conducting RCR (OP-M-500a) and airfield lighting inspections (OP-M-500b) can be downloaded from the Master List or www.mcmurdo.usap.gov. A separate airfield inspection and RCR form for each airfield shall be used. Runway Condition Readings/Reports, Airfield, and Lighting Inspections are required during the timeframes described below.

When the Annual Sea Ice Runway is active, AGE personnel are responsible for accomplishing airfield runway condition readings (RCR) and lighting inspections, using forms OP-M-500a and OP-M-500b to document the RCR checks and airfield inspections. AGE will also perform and document lighting inspections at Williams Field when the skiway is active, but RCR checks are not required on the skiways.

When the Pegasus White Ice Runway is active, responsibility for conducting airfield, RCR, and lighting inspections rests with Fleet Operations personnel at Pegasus airfield. RCR and airfield inspections shall cover the areas outlined on RPSC forms OP-M-500a and OP-M-500b. Additional Airfield Inspections shall be accomplished when high wind or snowfall is observed on or near the airfield, or at the request of the airfield manager. During the WINFLY period at Pegasus airfield, the RCR and airfield status report for the airfield will be accomplished by Fleet Operations on the day prior to a flight (prior to the end of the duty day) and called to McMurdo Field Operations Center (MAC Center). **Exception:** if weather conditions change that could affect the RCR or airfield status, then Fleet Operations will accomplish another RCR and airfield status report at the earliest opportunity.

Using form OP-M-500b, ARFF personnel shall again inspect the airfield no later than one hour prior to aircraft arrival. After each flight, a copy of the completed airfield inspection form will be forwarded electronically to the airfield manager's office for filing.

All documentation of RCR checks and airfield lighting inspections shall be turned over to the USAP airfield manager each Monday for filing and quality control. The USAP airfield manager shall conduct airfield inspections of the runways, skiways, and taxiways periodically for quality assurance and to assure airfield safety.

Collecting Runway Condition Readings/Reports

To determine runway condition readings (RCR), the Tapley brake meter inspection decelerometer will be used in accordance with this SOP. The electronic Bowmonk AFM 2 brake meter will be used in accordance with separate operating instructions kept with the meter. RCR checks should never be estimated. RCR decelerometer checks aid in the reduction of aircraft accidents on ice runways. To determine Runway Surface Condition (RSC), visual observations shall be made during the testing for RCR. Using form OP-M-500a, the Runway Surface Condition shall be reported by the following terms:

- SLR-Slush on runway
- LSR-Loose snow on runway
- PST-Packed snow on runway
- P-Patchy
- IR-Ice Runway

Depth of the snow should be estimated as accurately as possible to the nearest 1/10 of an inch. Depth information is needed for pre-flight planning. (No more than two inches of snow may be on runways, skiway, taxiways, or ramps (aircraft parking locations).

How to Collect Runway Condition Readings:

1. Drive the vehicle on the ice at a speed of 20 MPH within 20 feet right or left of the runway centerline.
2. Apply brakes smoothly and firmly to induce a full skid. Then release the brakes to prevent the vehicle from coming to a full stop.
3. Read the braking efficiency percent dial indication, divide the reading by three, and record the reading on OP-M-500a, then zero the instrument.
4. Repeat the above procedure at approximately 1,000-foot intervals for the length of the runway.

The readings taken during these tests will be added and averaged by dividing the total by the number of readings. This average is known as the RCR and reported in two-digit numbers between 1 and 26. Each report will also include visual observations gathered during the RCR.

Inspections for Strategic Airlift Missions C-17/C-130

The RCR, airfield and lighting inspections are to be completed six hours prior to launch from Christchurch. As directed by the reporting procedures in the USAP AOM, these inspections are

included with the Airfield/Navigational Aids (NAVAID)/AGE status report sent via email to MAC Center. In addition, a runway inspection shall be conducted after each aircraft arrival and departure.

All inspections must be accomplished, and the results reported to MAC Center, to meet the reporting times specified in the USAP AOM. The information is used during the Operational Risk Management (ORM) process in determining Go/No-Go mission launch decision. RCR, airfield and lighting inspections are also required at other times as noted below:

- One hour prior to any C-130/C-17 aircraft passing PSR
- RCR and airfield inspections are required when significant weather or temperature changes occur that could affect the previous RCR readings

Aircrew may request additional RCR checks when the RCR value becomes a critical factor in mission planning.

Inspections for LC/C-130 Airlift Missions

The RCR, airfield, and lighting inspections are required two hours prior to the first daily launch from the Ice Runway, Williams Field, or Pegasus Runway. RCR, airfield, and lighting checks will also be conducted at 1100 and 1600 during intra-continental flight operations. The airfield manager will reschedule RCR and light checks to reflect flight schedules and to eliminate redundant checks. RCR and airfield inspections are required when significant weather or temperature changes occur that could affect the previous RCR readings.

Aircrew may request additional RCR checks when the RCR value becomes a critical factor in mission planning.

Helicopter Operations

At Williams Field or the Sea Ice Runway, all helicopter arrivals and departures are via the taxiways leading to the runways or skiways, under control of the tower or MAC Center. At Pegasus Runway, all helicopters land and depart on Ramp 2. Deviations require approval by the airfield manager. When scheduling helicopter operations on the airfields, user will notify the airfield manager and applicable control tower or MAC Center in advance. On all active airfields, helicopters can be refueled on Pit 1 if one-hour advance notice is provided to the USAP airfield manager, Fuels and MAC Center.

McMurdo Airfield Entry and Exit Procedures

Annual Sea Ice Runway

When operational, the control tower approves vehicle traffic on the Annual Sea Ice Runways and taxiways—Tower Net, Channel 6, Call Sign: Ice Tower. When operational (normally when the LC-130s arrive), Skier Maintenance controls access to the ramp—ANG Net, Channel 12, Call Sign: Skier Maintenance.

When the control tower is operational, the Fire House controls access to runways and taxiways—MCC Net, Channel 5, Call Sign: Fire House.

When Skier Maintenance and the control tower are both not operational, the Fire House controls access to runways, taxiways and ramp—MCC Net, Channel 5, Call Sign: Fire House.

Williams Field Skiways

From October to December, Williams Field Skiways are used as an emergency alternate divert airfield. The Fire House controls access to skiways, taxiways, and ramp via radio on the MCC Net, Channel 5, Call Sign: Fire House.

When operational (December through February), Tower controls vehicle traffic on skiways and taxiways—Tower Net, Channel 6, Call Sign: Willie Tower. When Skier Maintenance is operational at Williams Field (when the LC-130s move from Annual Sea Ice Runway), then Skier Maintenance controls access to the ramp—ANG Net, Channel 12, Call Sign: Skier Maintenance. Whenever the tower or Skier Maintenance is not operational, skiways, taxiways, and ramp control revert to being monitored by the Fire House—MCC Net, Channel 5, Call Sign: Fire House.

Pegasus White Ice Runway

There is no control tower located at the Pegasus White Ice Runway to approve vehicles or personnel on the airfield. However, the Pegasus airfield is used throughout the season (November through February) as an emergency divert airfield and is subject to short notice diverted aircraft landings. Therefore, all personnel or vehicles shall request permission from the Fire Station on channel two prior to entering the airfield and shall monitor channel two while on the airfield. During flight operations, all vehicles shall check in with the ARFF Officer-In-Charge (call sign: Pegasus Control) on channel 2, prior to entry and when exiting the airfield. **Exception:** During construction and maintenance, Fleet Operations personnel shall monitor channel 5 for entry and exit with the Fire House.

Because of the small ramp size, vehicles and personnel shall not be on ramp, approach corridor or any part of the flagged airfield when aircraft are arriving or departing. All personnel and vehicles holding for arriving or departing aircraft shall hold near the town site, at least 500 feet from the flagged airfield.

Flight Operations Control

During flight operations, a Fire Department vehicle (Call Sign: Pegasus Control) shall control all vehicle and personnel access to the airfield. The vehicle shall be positioned near the entry to airfield, no closer than 500 feet from centerline of runway. The vehicle will be in place no later than one hour prior to aircraft arrival and will remain in place until the aircraft clears McMurdo Station airspace.

Upon assuming control of the airfield, the Fire Department vehicle will notify Fire Department Dispatch that Pegasus Control is activated. Fire Department dispatch will then make an announcement on all channels stating the following:

“Attention all stations, attention all stations: Pegasus airfield is activated. The airfield is now a controlled area. Vehicles or personnel entering or departing Pegasus airfield, contact Pegasus Control, on Channel 2, for clearance.”

Pegasus Control is responsible for notifying MAC Center when all vehicles, equipment, and personnel are off the airfield (Clear Deck) for arriving or departing aircraft. A clear deck will be called by Pegasus Control 30 minutes prior to arriving aircraft (10 minutes for departing aircraft). Clear deck shall be called after Pegasus Control makes an airfield inspection to assure vehicles and personnel are off the airfield, including the ramp area. Once a clear deck is called, Pegasus Control ensures vehicles; personnel and or equipment are not allowed onto the airfield. Cargo shall not be staged within the flagged airfield or approach corridors during this time. In addition, cargo being staged outside the flagged area of the airfield shall be staged NLT 30 minutes prior to estimated time of aircraft arrival. Sleds shall not be parked inside the flagged area or within the approach corridor of the runway.

Explosive and Hazardous Cargo Area Procedures

Prior to loading or unloading explosives, ATO will notify VMF and Safety to conduct an inspection of forklifts and other vehicles used, to assure brakes and other systems are fully functional. Twenty-four hours prior to on-loading or offloading explosives or hazardous cargo, McMurdo Station ATO will send an advance message, identifying the amount and type of material being on-loaded or offloaded, to the following agencies or individuals:

- Fire Department

- airfield manager
- Support Forces, Antarctica
- Safety Department
- explosives manager

The explosive and hazardous cargo area for the annual sea ice runways and Williams Field is located on the ends of the runways/skiways. Explosive and hazardous cargo area for Pegasus White Ice Runway is located at the departure end of Runway 33 (See applicable airfield diagrams).

When aircraft carrying explosives or hazardous cargo are parked on a runway, the runway/skiway is closed until the explosives or hazardous cargo is offloaded and the aircraft moves off the runway or skiway. Only essential personnel involved in servicing or offloading explosives are authorized near the aircraft. All explosives will be offloaded or on-loaded after the aircraft shuts down, unless coordinated in advance by the USAP airfield manager.

Once offloaded, all explosives and hazardous cargo will immediately be removed from the airfield and transported on dedicated routes using the service roads. The fire chief shall assure the routes from the airfields are shown on airfield diagrams and ATO and the blaster crew are briefed prior to movement of hazardous cargo, explosives, or JATO. Hazardous cargo, JATO, and explosives will not be moved across the ramp except for upload to the JATO locker on the airfields.

ATO, ARFF and others involved with loading or unloading explosives or hazardous cargo shall have separate written procedures governing handling explosives or hazardous cargo.

Jet Assisted Takeoff Area

This procedure supplements information contained in the USAP Airfield Operations Manual. All agencies shall use this procedure to coordinate JATO loading of aircraft while maintaining the 350-foot clear zone, or circle of safety, as established by the Air Force. The primary loading and unloading area for JATO support to LC-130 aircraft is located on the ramp, as depicted on the applicable airfield diagrams. Skier Maintenance shall assure the 350-foot circle of safety is not comprised. When aircraft are taxiing on the ramp and JATO loading or unloading is taking place, Skier Maintenance shall assure aircraft do not taxi through the circle of safety depicted on the airfield diagram. Skier Maintenance shall assure the taxi instructions are given to avoid the area during loading or unloading of JATO.

Ramp Control

Skier Maintenance provides ramp control of aircraft, personnel, and vehicles when operational. When Skier Maintenance is not operational on the ramps, the Fire House controls vehicles, personnel, and equipment. Ramp control personnel shall assure positive control of all aircraft, vehicles, personnel, and equipment while on the ramps.

The ramps on the airfields are designated as an uncontrolled area for vehicles, personnel, and equipment. However, personnel, equipment, and vehicles are not authorized to approach within 25 feet of USAF/ANG aircraft without approval of ramp control (Skier Maintenance). When personnel, equipment, or vehicles require access to USAF/ANG aircraft, Ramp Control shall coordinate the approval with the requester. For example, the MC-1 (Movement Control) assigned to ATO shall check in with Skier Maintenance, on ANG Net, for approval to approach USAF/ANG aircraft for loading or off-loading of aircraft by ATO personnel and equipment. Once Skier Maintenance gives the MC-1 approval, he/she may proceed to down load or upload that aircraft without further approval from Skier Maintenance.

Under no circumstances shall MC-1 approve ATO vehicles on the ramp if he/she is not present on the ramp. All other vehicles assigned to ATO shall address requests to enter/exit the ramp or approach aircraft directly to MC-1 on MCC Net. The MC-1 is responsible to assure all ATO vehicles enter and approach the aircraft in accordance with the traffic flow map. MC-1 responsibilities outlined above shall not be delegated. MC-1 shall only use the ANG Net for initial approval to approach aircraft or to clear off the ramp. If skier maintenance requires communication with MC-1, the call must be made over the MCC Net.

Shuttles and all other ATO vehicles shall enter and exit the ramps from the entrance/exit location adjacent to the cargo yard. Passengers being dropped off or picked up for the Twin Otter aircraft will be dropped or picked up on the ramp with the vehicle positioned on the ramp, pointed away from the aircraft. Never approach the aircraft from the rear.

When Skier Maintenance requests AGE support on USAF/ANG aircraft, AGE personnel can enter the aircraft's circle of safety without further coordination or approval on ANG net, unless advised otherwise by Skier Maintenance. AGE shall monitor ANG Net while on the ramps, to coordinate AGE support with 109th AW personnel. Skier Maintenance shall issue aircraft movement advisories when aircraft are about to start or taxi on the ramps. All aircraft entering the ramps shall be under the control of ramp control at all times until the aircraft reaches the designated parking locations. Ramp control personnel shall issue traffic advisories to all aircraft, specifying how aircraft are to reach the designated parking locations. Ramp control personnel shall remain vigilant at all times to assure safe conditions are maintained.

WARNING Aircraft, vehicles, personnel or equipment shall not operate on any portion of the airfields during weather condition one. During concurrent refueling, only personnel engaged in servicing, loading, or unloading of USAF/ANG aircraft are authorized within the circle of safety. All other personnel will exit and remain outside the circle of safety.

Engine Run Locations

Engine runs shall not be conducted without ARFF coverage. Skier Maintenance coordinates all engine runs on the airfield with Control Tower and ARFF. At Pegasus Airfield, MAC Center coordinates with Pegasus Control to assure ARFF coverage. All full-power engine runs on the airfields will be accomplished with the aircraft pointed away from town and other aircraft and only in dedicated engine run areas as depicted on airfield diagrams.

Cargo Yards

Cargo yards are located on the airfields to facilitate the movement and loading or unloading of cargo. ATO shall keep the cargo yards and sleds neat and orderly and within dedicated locations, as depicted on applicable airfield diagrams. All cargo shall be tied down to prevent loose objects from blowing out onto the airfields during high winds.

Mobile Airfield Town Sites

The occupants of buildings located on the airfields shall police around their assigned buildings daily and pick up trash or discarded material. Buildings interiors shall be kept in an orderly fashion and present a neat appearance at all times. Storage of equipment between or in front of the buildings located near the ramps is not authorized since it would pose a hazard to aircraft operations. Tool sheds and other equipment shall be stored to the rear of building located on the back-side of the town site. Equipment shall not be stored near exits since this could block access to the building in the event of a fire. Flammable and combustible liquids and materials shall not be stored inside mobile buildings. Flammable and combustible material shall be stored in an approved safety storage locker outside and away from the mobile buildings.

Building occupants shall inspect their own mobile buildings including the portable stairs to assure safe conditions. All discrepancies shall be reported directly to RPSC FEMC work order scheduling for corrective action. FEMC shall issue a work order and estimate of completion.

Fleet Operations shall assure that the skis of all portable buildings are covered with loose snow to prevent the skis from melting into the compacted snow at Williams Field Skiway. All vehicles

shall enter or exit airfield town sites on the Ice Runway and Williams Field to and from the back side of town. The designated shuttle drop-off location is the dining hall. All shuttles and taxis shall pick up or drop off passengers at the dining hall.

Note During periods of unusually warm weather, it may be necessary to restrict wheeled vehicles from the town area altogether. When this restriction is in effect, shuttles will stage at the cargo yard and passengers shall be required to walk to/from the staging area.

The center of airfield town sites is designated as a pedestrian area. Vehicles, including shuttles and passenger buses, are not authorized in center of airfield towns, unless staging equipment or clearing snow.

Aircraft Parking and Offloading

Air Force Instruction 11-208, *Aircraft Operations and Movement on the Ground*, covers aircraft movement on the airfield.

The surveyor shall mark all aircraft parking locations with flags as follows:

- The flags shall be located in the open snow in front of the forward aircraft parking locations.
- The flags shall mark the nose wheel parking spots for the LC-130 and C-17 aircraft.

All C-17 aircraft park, unload, and refuel from refueling Pit One. When more than one C-17 aircraft is on the ground, the second aircraft will be marshaled to hold short of the refueling pits adjacent to the JATO area until marshaled to Pit One for refueling and offload. If the pilot concurs, the airfield manager can have the second C-17 shut down adjacent to the JATO area and offloaded (double block).

All LC-130 aircraft parking on the ramps will park on the forward parking locations to minimize snowdrifts during storms. Deviations require USAP airfield manager approval. The aircraft commander has the final decision on parking arrangements. When winds are expected to sustain or exceed 25 knots, all aircraft shall be parked facing into the wind. Loading or unloading of Cargo during high winds (25 knots or greater) requires approval from McMurdo ATO Manager who shall inform the USAP airfield manager.

When heaters are operational on parked aircraft, heaters shall be closely monitored at all times either by the user or AGE personnel. Heaters shall not be left unattended when operational nor operate when sustained wind speed is above 25 knots.

Aircraft Fuel Pit Control

When deployed, the 139th EAS Skier Maintenance (MX) controls the use of aircraft fuel pits. Skier Maintenance personnel review the daily flight schedule and assure that an open pit is available for refueling aircraft. C-17 aircraft have priority at Pegasus White Ice Runway and the Sea Ice Runway and shall be parked on pit one. LC-130 aircraft have secondary priority. With two fuels personnel on duty, aircraft can be simultaneously refueled when parked on pits one and two or three and four.

If the fuel pits are full and an additional aircraft requires fuel, Skier Maintenance shall provide the commander of the additional aircraft with an estimate of the expected delay. All delays shall be noted and the airfield manager notified.

Excluding holiday weekends, the evening LC-130 return flights may park and remain overnight in the refueling pits to enhance launches in the morning, provided the 139th EAS Supervisor of Flying has reviewed the latest weather forecast to assure VFR conditions are forecasted during the parking evolution. The 139th EAS must be prepared to move the aircraft if a maintenance problem occurs or when a weather change causes delays to planned flights.

Note USAP airfield manager can coordinate with Skier Maintenance to change the parking arrangements to meet mission requirements.

Cargo Operations While Parked at Fuel Pits

The use of sleds is an approved method for loading aircraft in the refueling pits. However, there must be an open parking space next to the aircraft loading or unloading cargo. ATO and the 139th EAS have the responsibility for assuring that an aircraft parking space between the parked LC-130 aircraft is available.

For example, when loading or unloading cargo on an aircraft in Pit 1; Pit 2 must be open. Also, the use of sleds in Pit 4B (the Twin Otter pit) is approved. Since refueling Pit 4B is assigned to the Twin Otters, when an LC-130 is using Pit 4B, Pit 1 or Pit 2 shall be open for Twin Otter refueling.

Cargo drifting is allowed, but only at the designated location as outlined in the USAP *Air Operation's Manual* and airfield diagram.

Note The above can be restricted by the USAP airfield manager, if snow conditions require it. Storage of Liquid Oxygen or other flammable material will be no closer than 150 feet from fuel storage tanks.

Grooming the Fuel Pits

When grooming of the fuel pits is required, the ATO manager will coordinate with Skier Maintenance, AGE, and Fleet Operations to move the aircraft parking spots 25 feet left or right of the current parking locations.

Skier Maintenance or ATO/MC-1 shall coordinate directly with Fleet Operation (x2355) or on channel 5 with the on-duty foremen. AGE will assure power carts and fire bottles are moved to allow for routine grooming and will coordinate this directly with Fleet Operations. Fleet Operations will then groom the parking spots.

The 139th Skier Maintenance shall assure 5/ LC-130 aircraft are parked on the first row of parking before starting a second row. The second row of aircraft parking is reserved to allow for grooming of the first row of aircraft parking and aircraft will be cycled to the second row when the first row requires grooming.

Airfield Restrooms

ARFF personnel will monitor restrooms daily and sign off on the daily checklist posted in each restroom. If the restrooms require servicing, McMurdo Station janitorial services shall be notified. Janitorial service for the restrooms will be done each Monday, Wednesday, and Friday at a minimum to assure cleanliness and that supplies are available. Janitorial services shall sign a daily checklist on those days the cleaning is done.

Airfield Dining Hall

The airfield dining hall is for the exclusive use of personnel working on or near the airfields. The consumption of wine and other spirits is prohibited. Personnel shall follow proper procedures for obtaining meals. When road conditions prevent light-vehicle traffic, food services shall make other provisions to assure meals are available.

Airfield Metrics

Airfield metrics shall be reported to Performance Excellence/Quality Assurance monthly, from August to February each season.

References

- USAP Air Operations Manual*
- AFTO 33-1-23 - Procedures for use of Decelerometer*
- AFMAN 32-1076 - Design Standards for Visual Air Navigation Systems*
- AFI 11-208 0 - Aircraft Operations and Movement on the Ground*
- RPSC Policy Letter OP-M-501 - Use of Snowmobiles Assigned to McMurdo Station Airfields*
- OP-M-505 - Aircraft Parking Ramps and Refueling Pit Procedures (McMurdo Station)*
- OP-M-506 - SSALR and PAPI Airfield Lighting Systems*
- OP-M-507 - Annual Sea Ice Runway Move to Williams Field and Pegasus White Ice Runway*
- OP-M-508 - Airfield Snow and Ice Road Procedures*
- OP-DMS-511 - Airfield Terms and Definitions*

Records

Record Identification, Format, & Owner	Active Location Storage, Protection, & Retrieval	Facility Storage, Protection & Retrieval	Retention Time (Active and/or Facilities Storage)	Ultimate Disposition
RPSC Form OP-M-500a, <i>Results of Runway Braking Tests.</i> Hard copy, airfield manager	Stored in files in airfield managers office in Building 165/Room 105	N/A	1 year	Destroyed
RPSC Form OP-M-500b, <i>USAP Airfield Inspection Checklist.</i> Hard copy, airfield manager	Stored in files in airfield managers office in Building 165/Room 105	N/A	1 year	Destroyed
RPSC Form OP-M-500c, <i>Airfield Driver Training Practical.</i> Hard copy, airfield manager	Stored in files in airfield managers office in Building 165/Room 105	N/A	1 year	Destroyed

Attachments, Appendices

Form OP-M-500a - *Results of Runway Braking Tests*

Form OP-M-500b - *USAP Airfield Inspection Checklist*

Form OP-M-500c - *Airfield Practical Driver Training*

Policy Letter OP-M-500d - *Closing and Opening Airfields and Snow and Ice Roads*

Because of Adverse Weather

Policy Letter OP-M-500e - *Control of Vehicles and Heavy Equipment on Airfields when the Control Tower is not operational*

Engineering Technical Letter (ETL) 07-12 - *Design, Construction, Maintenance, and Evaluation of the McMurdo Sound (Antarctica) Sea Ice Runway for Heavy Wheeled Aircraft Operations*

Engineering Technical Letter (ETL) 02-16 - *Design, Construction, Maintenance, and Evaluation of the Pegasus Glacial Ice Runway for Heavy Wheeled Aircraft Operations*

RESULTS OF RUNWAY BRAKING TESTS				
NOTE: Report all airfield discrepancies to the airfield manager promptly.				Date:
Temperature:		Time of Test:		Airfield:
I. TEST READINGS			II. SUPPORTING DATA	
Vehicle Speed: 20 MPH Runway Number	DECELEROMETER Main Runway	DECELEROMETER Crosswind Runway	RUNWAY SURFACE	<input type="checkbox"/> ICE
			<input type="checkbox"/> SNOW	<input type="checkbox"/> COMPACTED SNOW/ICE
1,000 FT			RUNWAY SURFACE COVER (RSC) DEPTH OF CONDITION	
2,000 FT			<input type="checkbox"/> WR (WET)	
3,000 FT				
4,000 FT			<input type="checkbox"/> SLR (SLUSH)	
5,000 FT				
6,000 FT			<input type="checkbox"/> LSR (LOOSE SNOW)	
7,000 FT				
8,000 FT			<input type="checkbox"/> PSR (PACKED SNOW) Estimate depth for loose and packed snow	
9,000 FT				
10,000 FT			<input type="checkbox"/> IR (ICE) 	
			NOTE: No more than one inch of snow on runway	
			_____ PATCHY _____ %z OF Runway bare (estimated)	
Results of runway braking tests are emailed in accordance with USAP Air Operations Manual to MAC Center. Time Report Sent:			ANOMALIES ON RUNWAYS	
TOTAL: Number of Reading=Runway Condition Reading (RCR) OR _____ DIVIDED BY _____ = RCR			Vehicle (type)	
PRINT NAME:			Tires (snow, etc.)	
			SIGNATURE:	
REQUIRED ACTION				
DISPOSITION INSTRUCTIONS				
COMPLETED FORMS SHALL BE FORWARDED TO THE USAP AIRFIELD MANAGER AND RETAINED FOR ONE YEAR.				

USAP AIRFIELD INSPECTION CHECKLIST

Note: Print double-sided, landscape, flipped on short edge.

Airfield:

REFERENCE	Report all discrepancies to the USAP airfield manager				
	Surface Condition	SAT	UNSAT	N/O	Remarks
OP-M-500	Runway/skiway/taxiway/ramp/turn-around areas				
	Snow banks/drifts/location (no more than 1 inch of loose snow)				
USAP AIR OPS MANUAL (AOM)	Overall condition of airfield				
OP-M-500	Imaginary Surfaces/Obstructions				
USAP AOM	Fire bottles positioned, nose of aircraft				
	AGE equipment parked away from taxiing aircraft				
	No obstructions 500 ft either side of runway				
	Ramps clear of unnecessary equipment				
	Clear access to buildings on airfield				
	Fuel pit area neat and in order				
	Aircraft parking spots marked				
109 AWI 10-3	Airfield Markings and Signs				
	Condition of flags/markers and signs				
OP-M-500	Airfield Construction				
USAP AOM	Obstructions, barricades, foreign objects damage (FOD), equipment				
USAP AOM	3000-ft turn-around areas at each end of runways groomed smooth for aircraft to turn around				
USAP AOM	Airfield Lighting				
	Obscured, damaged, missing, and inoperable				
	Other				
	Wind cone (Condition)				
USAP AOM	Access road to runway				

USAP AIRFIELD INSPECTION CHECKLIST

Note: Print double-sided, landscape, flipped on short edge.

Airfield:

REFERENCE

Report all discrepancies to the USAP airfield manager

ON	OUT	Runway Lights				Discrepancies On Lights
		Sequence flashing lights				
		PAPI lights				
		Approach lights				
		PAPI lights generator fuel				
		PAPI lights generator oil				

Name of Inspector and Office Assigned	Type of Inspection	Time of Inspection	Discrepancies
			Additional airfield checks

Closing and Opening Airfields and Snow and Ice Roads Because of Adverse Weather

Responsibilities

Between 0730 and 1730, the USAP airfield manager is responsible for reviewing weather forecasts to determine when adverse weather conditions are forecasted to impact the airfield with blowing or drifting snow and/or high winds. In the event such adverse weather conditions are forecasted, the airfield manager may close the airfields, snow roads and ice runway roads. Likewise, the USAP airfield manager is responsible for recovery and re-opening of the airfields and associated ramps and roads.

Between 1730-0730 daily, the on-duty Aerospace Ground Equipment (AGE) lead flight-line mechanic is responsible for obtaining a weather forecast prior to assuming the shift and monitoring the weather forecasts at all times. During periods where adverse weather (i.e. high winds, blowing snow or heavy snowfall) could impact the ability to operate the airfields, the on-duty lead AGE flight-line mechanic shall immediately inform the USAP airfield manager to allow time to prepare to close the airfields, snow and ice roads. Likewise, the lead flight-line mechanic is responsible for recovery and re-opening of the airfields and associated ramps and roads.

Airfield status reports will be updated regularly through Mac Center by the AGE lead flight-line mechanic or the USAP airfield manager.

Closing the airfield and snow and ice roads

The following steps shall be taken to close the airfields and snow and ice roads:

1. The USAP Airfield Manager (during duty hours 0730-1730) or the on-duty AGE lead flight-line mechanic (1730-0730 **after** coordination with the USAP airfield manager) shall notify the Fire Department dispatcher to announce **on all channels**, the following message:
“Attention all stations, attention all stations, per the USAP airfield manager, the snow and ice roads are closing due to approaching adverse weather, high winds and/or blowing snow. All personnel shall prepare to evacuate the airfields and return to their work centers at McMurdo Station.”
2. The Fire Department dispatcher shall also notify the airfield dining hall by telephone (Ext. 3282) and ATO shuttle dispatch (Ext. 2264).
3. ATO shuttle dispatch shall immediately dispatch the Terra Bus or passenger Deltas to pick up personnel at the applicable airfield(s) and return them to McMurdo Station.
NOTE: The only personnel allowed to remain on the airfields during adverse weather are Aircraft Rescue and Firefighting personnel to maintain fire protection.

4. When the evacuation announcement is made, personnel on the airfields shall all gather at the airfield dining hall for pick-up. Supervisors shall ensure a head count is taken and that all personnel are accounted for. (**Travel during condition 1 is prohibited.**)
5. Once all personnel have been evacuated from the airfields, the on-duty Fire Department dispatcher **shall announce on all channels:**

“Attention all stations, attention all stations, per the USAP airfield manager, due to adverse weather conditions, the snow and ice roads and airfields are closed until further notice.”

Recovery of Airfields, Snow and Ice Roads

NOTE The airfields shall not be reopened to conduct flight operations until AGE, ATO, ARFF, Fuels and 139 Maintenance are ready to support aircraft operations and the minimum snow removal has been completed on the runways/skiways, taxiways, ramp and fuel pits.

1. Once the airfield manager or Fleet Operations determines that the adverse weather is no longer a factor for McMurdo Station airfields, the Fleet Operations supervisor shall have Fleet Operations personnel inspect the roads and airfield to determine the level of effort required to reopen the facilities.
2. Once the Fleet Operations supervisor has determined how long it will take to reopen the airfield, he or she shall inform the USAP airfield manager.
3. The USAP airfield manager shall then notify the deployed commander and Fire Department Dispatch as to when it is estimated that the snow and ice roads and airfields will reopen and airlift operations can resume.

Standard Snow Removal Priorities

NOTE Priorities can be changed by the USAP airfield manager to meet airlift requirements

1. Snow and ice roads
2. Main runway, skiway, taxiways
NOTE Runways/skiways for LC-130 or C-17 operation must have a minimum of 75 feet cleared on both sides of the entire length of the runway or skiway centerline before aircraft operations may be conducted.
3. ARFF building, rigs and associated area
4. AGE buildings 48 and 11 to allow for movement of AGE equipment
5. Ramp areas behind and in front of parked LC-130 aircraft for loading and movement of aircraft
6. Refuel pit 1, then 2, 3, 4 and 4b, where the Twin Otters refuel
7. Aircraft parking locations
8. Remainder of ramp

9. JATO area including access road to JATO locker
10. Other airfield town buildings
11. Crosswind runway

Reopening Airfields

The airfield manager (0730-1730) or on-duty lead flight-line mechanic (1730-0730) will coordinate with the Fleet Operations supervisor to approve the reopening of the snow and ice roads. Prior to reopening of the snow and ice roads, the Fleet Operations supervisor shall coordinate with ATO Shuttle Dispatch on any restrictions regarding the types of vehicles approved on snow and ice roads. The Fleet Operations supervisor shall inform the Fire Department dispatcher when the snow and ice roads can be reopened. If the Fleet Operations supervisor determines that snow and ice roads are unsuitable for use by wheeled vehicles, Fire Department Dispatch shall advise vehicle traffic requesting use of snow and ice roads that the roads are closed, except for tracked vehicles, unless specifically approved by the USAP airfield manager. In the case of this event, the Fire Department dispatcher will announce over all channels:

“Per the airfield manager, the snow and ice roads are reopened to the following types of vehicle traffic: [state type of vehicles approved on snow roads].”

For additional information refer to the Airfield Management document (OP-M-500) on the Master List.

Vehicle and Heavy Equipment Control on Airfields when the Control Tower is not Operating

The Fire Department dispatcher controls, logs and monitors all vehicles and heavy equipment operating on airfield runways, ramps and skiways when the control tower is not operational, per OP-M-500, *Airfield Management*. Typically, this will apply to the Pegasus White-Ice Runway, Williams Field Skiway, and the Sea-Ice Runway.

The following steps shall be completed when the control tower is not operating:

1. MAC Center and Raven Operations Supervisor of Flying shall notify the fire house dispatcher (ext. 2555) of intentions to land any aircraft at an uncontrolled (control tower not open) airfield a minimum of one hour prior to landing. (Three hours prior for training flights.)
2. The firehouse dispatcher shall immediately dispatch Aircraft Rescue and Firefighting (ARFF) support to the affected airfield. When the Control Tower is not open, Mac Center shall announce the emergency, weather diverts, or any other arrival over the following radio nets:
 - I Net (Channel 1)
 - Emergency ARRF Net (Channel 2)
 - MCC Net (Channel 5)

The announcement will state:

“Attention all stations, attention all stations, this is Mac Center with an aircraft landing announcement. [Call-Sign of Aircraft; example: Skier 92] an [aircraft type (LC-130 or Twin Otter, etc.)] is [diverting to/landing at] [Williams Field Skiway/Pegasus White-Ice Runway/Sea-Ice Runway]. Estimated time of arrival at the affected airfield is _____.”

3. The Fire Department dispatcher, using the logs maintained to track vehicles or heavy equipment that have been cleared onto the runway or skiways, shall verify the vehicles or heavy equipment have reported off the runway or skiways to ensure a clear deck.
4. Once the ARFF equipment arrives at the applicable airfield, the ARFF personnel shall physically inspect the runway or skiway (using Form OP-M-500b) to ensure a clear deck and then notify Mac Center that a clear deck is available. Normally a clear deck is called while the aircraft is still a minimum of 100 miles out from the applicable airfield.

NOTE Personnel and equipment shall not be approved onto runways or skiways when inbound aircraft are inside the 100-mile limit, unless prior approval has been obtained from the USAP airfield manager.

In the event ARFF personnel cannot arrive on time to verify a clear deck, complete the following:

1. Fire dispatcher shall notify Fleet Operations or AGE and ascertain their availability to inspect the applicable runway or skiway to determine whether a clear deck is available for the emergency, weather divert or other aircraft arrival. If the fire dispatcher cannot determine a clear deck, the fire dispatch shall notify Mac Center (ext 2446).
2. Once the Officer-in-Charge (OIC) arrives at the Pegasus/ Williams Field/Ice Runway airfield, the OIC shall notify fire dispatch when he or she is ready to take control of movement on the ramp, skiways or runway.
3. Once the OIC has assumed control, the fire house dispatcher will announce the following on all channels:
“Attention all stations, attention all stations, [Pegasus/ Williams Field/Ice Runway] is now a controlled airfield. Request approval from [Pegasus/Williams Field/Ice Runway] control on channel 2 for any intended movement on the ramp, skiway or runway.”
4. The fire house dispatcher will relay messages to Mac Center as requested by (Pegasus/Williams Field/Ice Runway) control.
5. Once aircraft operations are completed, the Control Tower will notify fire dispatch the airfield is no longer controlled by the OIC. The fire house dispatcher will announce the following on all channels:
“Attention all stations, attention all stations, [Pegasus/Williams Field/Ice Runway] is no longer a controlled airfield by [Pegasus control/ Williams Field control/Ice control]. Movement on the ramps, taxiways, runways or skiways requires approval of fire house dispatch.”

Use of Snowmobiles Assigned to McMurdo Station Airfields

OP-M-501

Revision 1

Approved by 

Posting Date 05/25/2004

Active Divisions/Departments
All

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Purpose

Provides procedures and policies governing the use and operation of snowmobiles assigned to McMurdo Airfields.

Scope/Applicability

These procedures apply to all personnel operating a snowmobile on McMurdo Station airfields or associated snow and ice roads.

Terms and Definitions

AGE

Aerospace Ground Equipment – The shop that maintains equipment dedicated specifically to aircraft maintenance and repair

ATO

Antarctic Terminal Operations

Mapcon

A computer based maintenance, and inventory tracking system

MEC

Mechanical Equipment Center – The workcenter at McMurdo Station that maintains and repairs mechanical equipment for the Science Division of Raytheon Polar Services

Runway

A designated, marked, hard-surfaced (including solid ice) area dedicated to the landing and take-off of wheeled or ski equipped aircraft

RPSC

Raytheon Polar Services Company

Skiway

A designated, marked, (usually snow-covered) area dedicated to the landing and take-off of ski equipped aircraft

Taxiway

The designated, marked, aircraft pathway between a runway or skiway and an aircraft parking area.

USAP

United States Antarctic Program

Responsibilities

The USAP Airfield Manager and McMurdo Logistics Manager are responsible for monitoring the operation of the snowmobiles and ensuring compliance with the guidelines for operations published within this Station Operating Procedure OP-M-501.

Discussion

Airfield support and related work activities are the primary roles of the snowmobiles and their use for recreation is not authorized unless prior approval is provided by the McMurdo Area Directorate, through the USAP Airfield Manager or McMurdo Logistics Manager.

Before operating snowmobiles, personnel will receive training from the Science Support facility. Training is by appointment only. Contact the MEC Supervisor to schedule training. Snowmobile operators are required to read and understand these procedures, sign the *Statement of Understanding and Responsibility* (OP-M-501b, see Attachment 1) and attend training on operation of a vehicle/snowmobile on the airfields (see SOP OP-M500, *Airfield Management*). After successful completion, the training is valid for the remainder of the deployment season in which it was received. Training must be reaccomplished during subsequent seasons at McMurdo Station.

It will be the direct responsibility of the snowmobile operator to operate in a manner that ensures the safety of all personnel and equipment. This includes the safety of passengers.

Operating the snowmobile in an unsafe manner or in blatant disregard for operating procedures will result in the suspension of the operator's snowmobile and airfield vehicle driving privileges and can lead to termination of employment as deemed appropriate by the USAP Airfield Manager or Logistics Manager through the Area Directorate, McMurdo Station and/or the NSF Representative for those not assigned to RPSC.

Before use, snowmobile operators will conduct an inspection using the *Snowmobile Operator Checklist* (OP-M-501a, see Attachment 2) to include fuel level, engine oil level, coolant level, engine belts and any loose fasteners, or damage to the snowmobile, etc. Anything out of the ordinary will be reported immediately to the USAP Airfield Manager or McMurdo Logistics Manager and the snowmobile will not be operated without the USAP Airfield Manager's or McMurdo Logistics Manager's consent.

In the event the snowmobile needs fuel, the Operator will coordinate with the on-duty AGE Lead or ATO Supervisor on the active airfield to ensure proper fuel mixture is used prior to refueling the fuel tank by the operator.

Fuel or Oil spills will be immediately reported to fire house regardless of amount.

Snowmobile operations are limited to the airfield snow/ice roads, the McMurdo Airfields, and fuel areas (to include inspections of fuel lines to the airfields). Use of the snowmobile outside of these areas requires prior approval of the USAP Airfield Manager or McMurdo Logistics Manager (Exception: the snowmobiles can be used to conduct white-out ground surveys or monitoring when approved by USAP Airfield Manager).

Snowmobile speed limits are:

- Within 100 ft of an aircraft: 5 MPH,
- Ramp and access roads leading to airfields, 10 MPH,
- Taxiways, Runways, Skiways and Airfield snow and ice roads 25 MPH.

This is not to say that at times when the road is rough, driving the snowmobile at 25 miles per hour is acceptable. Reduce speed to adjust for weather conditions at all times. **Snowmobiles will not be operated during weather condition 1 or 2 or when visibility is less than one-half mile. Safety helmets and appropriate boots will be worn when operating snowmobiles.**

Operators will exercise due caution when in the vicinity of other personnel and will yield the right-of-way to heavy equipment and all other traffic. Due to the quick turning reaction of

snowmobiles, operators must exercise extra care while turning to ensure the snowmobile does not flip or become unstable. Reduce speed prior to turning to ensure a safe turn.

When the snowmobile is parked after use, the operator is responsible for topping off the fuel tank ,using the correct fuel mixture.

Snowmobiles are multiple-occupant vehicles. Operators must take passengers into account when they are aboard, and adjust operating parameters to maintain safety at all times.

When towing sleds behind the snowmobiles, operators must remain cognizant of the effects of the tow on the stability of the snowmobile and make the necessary adjustments to reduce speed and ensure safety.

Science Support Center Mechanic will be responsible for:

- Training Operators.
- Periodic Maintenance of snowmobiles as required by Mapcon
- Occasionally inspecting equipment to find unreported problems

Science Support Center Training for licensing will include the following topics:

- Layout and function of controls.
- Pre-operation inspection requirements.
- Procedure for starting equipment.
- Normal operating parameters and procedures
- Procedure for accident reporting.

References

RPSC, OP-M500, Airfield Management, <http://www.mcmurdo.gov/>

Records

Record Identification, Format, & Owner	Active Location Storage, Protection, & Retrieval	Facility Storage, Protection & Retrieval	Retention Time (Active and/or Facilities Storage_	Ultimate Disposition
OP-M-501A	On File McMurdo	Electronic/Paper	1 Year	Destroyed

	Airfield Managers Office/Master List	copy on file McMurdo Airfield Managers office		
OP-M-501B	On file McMurdo Airfield Managers Office/Master List	Electronic/Paper copy on file McMurdo Airfield Managers Office	1 Year	Destroyed

Attachments, Appendices

OP-M-501a, McMurdo Snowmobile Checklist

OP-M-501b, Statement of Understanding and Responsibility

