

***439<sup>th</sup> AIRLIFT WING***

***WESTOVER ARB***

***SNOW PLAN***

***2023-2024***

An electronic version of this plan, complete with drawings is posted on the CE Sharepoint. Questions concerning this plan and snow removal activities should first be addressed to the respective Facility Manager. Questions may also be directed to the CE Control Desk at ext 3575. The Government Contracting Officer Representatives is Mr Arthur Herring at extension 2441 if further assistance is needed.

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## I. POLICIES AND PROCEDURES

### A. General Requirements:

1. As indicated in Air Force Instruction (AFI) 32-1001, Civil Engineer Operations, installations with over 150 millimeters (six inches) of average annual snowfall must maintain a Snow and Ice Control Plan (S&ICP) and form a Snow and Ice Control Committee (S&ICC). Westover Air Reserve Base (WARB) is located in Chicopee Massachusetts, which has an annual snowfall in excess of six inches and must comply with this requirement.

2. The AFI 32-1001 dated 25 October 2019, provides guidelines and procedures for the Base S&IC program; updates and clarifies previous guidance on S&IC, and emphasizes the environmental impact.

3. In addition, the Base Operating Support (BOS) Contract, Tab F, SNOW REMOVAL AND ICE CONTROL OPERATIONS states as follows: The contractor is responsible for providing snow removal and ice control operations as required to maintain installation mission capability at all times. The contractor shall perform the snow removal and ice control operations in accordance with AFI 32-1001 and the installations S&ICP. All snow removal and ice control will be ordered under the labor hour CLIN of the contract. Installation and removal of snow marker stakes, snow fences, hydrant flags, and placement, refilling and removal of sand buckets shall be accomplished under the Firm Fixed Price. Snow dumps will only be allowed in areas identified by the BCE. No other snow dumps are permitted.

4. This plan establishes the policies, procedures, and responsibilities for snow removal and ice control at WARB. Provisions of this plan apply to all snow and ice removal throughout this installation. This plan is based on the core principles from AFI 32-1001. WARB requires the contractor start runway S&IC operations just prior to, or at the onset of snowfall or icing conditions to provide continuous bare pavement. Additionally the Snow Control Center (SCC), command post, airfield management, airfield operations, and control tower must keep in close touch at all times.

B. Mission Support:

1. The 2022-2023 Snow Plan provides for the removal of S&IC from the airfield, roadway, parking lot and sidewalk areas to ensure the WARB has the capability to support the mission requirements of the 439<sup>th</sup> AW and tenant organizations.

2. Snow removal and ice control priorities, which the BOS contractor are responsible for are as follows:

a. Primary runways, overruns, taxiways, aprons, Base Fire Station, fire vehicle access roads, Buildings 7040 and 7000, and Echo 11 & 12 are Priority I (Snow Removal Map 2022-2023).

b. Primary base roads and streets, Security Check Points, main parking areas such as Security Police, Communication Center, and emergency parking lots are Priority II (Snow Removal Map 2022-2023).

c. Secondary base roads, streets, employee parking lots are Priority III (Snow Removal Map 2022-2023).

d. Sidewalks as shown or indicated on the Sidewalk Snow Removal Map 2022-2023.

e. Spreading of salt on roads and sidewalks as necessary after snow removal operations are complete.

C. Management Responsibilities and Roles:

1. HQ AFRC reviews installation requests for use of particular airfield deicing/anti-icing agents and perform other requirements as outlined in AFI 32-1001.

2. The installation is responsible for creating a S&ICP which will include requirements from AFI 32-1001 and list any local base requirements. The Wing Commander shall be the final approval authority for the S&ICP. The base must have at least one pre and one post season meeting to discuss the snow plan. The review must cover at least the topics covered in AFI 32-1001 and any other topics necessary that represent the interest of the base and its tenant units.

3. The S&ICC consists of Group Commanders, functional managers, other base representatives, the BOS contractor and representatives from major tenant units.

D. The S&ICC:

1. The Wing Commander is the chair of the S&ICC. The BCE is the appointed coordinator of all base snow removal and ice control activities. The S&ICC will be composed of:

- a. Wing Commander (Chairperson)
- b. Chief of Safety
- c. Mission Support Group Commander
- d. Base Civil Engineer
- e. Chief of Security Police
- f. Communications Officer
- g. Maintenance Group Commander
- h. Contracting Officer
- i. Operations Group Commander
- j. Airfield Operations Manger
- k. Control Tower Operations
- l. BOS Contractor – Real Property Maintenance Manager/Project Manager
- m. Airfield Manager
- n. BOS Contractor – Vehicle Maintenance Manager
- o. BOS Contractor – Chief of Supply
- p. Chief of Weather Operations
- q. Tenant Unit members

Additional members may be added at the discretion of the Chairperson to provide representation from other sections of the installation as may be necessary. The Chairperson shall convene two mandatory general committee meetings each year. The pre-season meeting will be held no later than 15 October and the post season meeting no later than 15 May.

2. The S&ICC agenda will consist of, but not limited to:
  - a. Review organization responsibilities.
  - b. Review problems encountered during previous season.
  - c. Review proposed summer rebuild program. Status of Snow Equipment.
  - d. Review stock level of spare parts, materials, and deicing chemicals (September meeting).
  - e. Review snow removal priorities and recommend changes as necessary.
  - f. Review annual repair needs.
  - g. Select mass parking lots for use in snow emergencies.
  - h. Chemical consumption and impacts on airfield, airfield infrastructure and the environment.

## **II. BASE PERSONNEL RESPONSIBILITIES :**

### **A. Wing Commander:**

1. The Wing Commander is the chair of the S&ICC and appoints additional members as needed.
2. The Wing Commander gives final approval to the Base S&ICP.

### **B. Chief of Safety:**

1. The Chief of Safety is responsible for:
  - a. Publicizing to Base personnel the hazards of snow and ice, and the precautions must be taken when encountering snow and ice equipment and icy conditions.
  - b. Reviews the S&ICP to make sure that the planned operations are safe.
  - c. Evaluates effectiveness of S&IC activities at maintaining or rapidly reestablishing runway conditions required for safe flying operations. Safety will report recommendations to the S&ICC.

C. Mission Support Group Commander:

The Mission Support Group Commander is responsible to the Wing Commander for snow removal operations.

D. The BCE:

1. The BCE is directly responsible to the Mission Support Group Commander for all S&IC activities on WARB. The BCE's responsibilities include:

a. Ensures the timely recommendation for approval of a work order input into NexGen OPS and properly estimated based on the National Weather Service prediction of precipitation by the RPM Manager for each snow or ice storm.

b. Ensures that money to fund snow removal work orders is available before approval.

c. Designation of areas (Taxiway R) to be utilized as snow dumps (snow dump areas to be located on level, grassy areas away from storm drains if possible).

d. Preparation of S&ICP for submission to Wing Commander.

E. Chief of Security Forces:

1. The Chief of Security Forces is responsible for:

a. Setting up and coordinating enforcement procedures consistent with the parking enforcement concept in AFI 31-218 (I), Motor Vehicle Traffic Supervision; and AFI 31-101, Integrated Defense (FOUO) for use during snow removal and ice control operations and Force Protection Conditions in effect at the time of the snow event.

b. Informing base personnel of emergency parking requirements when directed. This will be accomplished by public address announcements and/or verbal means as personnel enter base.

c. Sets up entry control procedures for snow removal personnel and equipment entering the "Restricted" areas.

F. Communications Officer:

1. The Communications Officer is responsible for:

a. Providing Land Mobile Radios (LMR) and LMR management support for snow removal operations by reviewing requests for LMR equipment in accordance with AFI 33-106; Managing High Frequency Radios, LMRs, Cellular Telephones and Military Affiliate Radio Systems.



b. Providing assistance at the request of the radio net custodian or manager in establishing a system for priority transmissions on multiple user nets.

G. Maintenance Group Commander:

1. The Maintenance Group Commander is responsible for providing services in support of S&IC operations. These responsibilities include:

a. Briefs the S&ICC on the actual and potential impacts of deicing chemicals on aircraft and weapons systems and reports on maintenance activities conducted to mitigate these impacts.

b. The AMXS Flight Chief will specify the areas under his control to be cleared for mission support.

c. Through the MOC (Maintenance Operation Center) function, directing responsible activities to:

(1) Remove all tools, stands, fire extinguishers, wheel chocks and other items from parking ramps to a designated area when not in use.

(2) Remove snow from around parked aircraft within the defined safety zone.

(3) Upon clearing a section of the ramp, Aircraft Maintenance shall relocate aircraft from areas to be cleared to an area that has been cleared.

(4) Perform initial snow removal activities around hangars 7 & 9, the Pull thru Hangar, Hangar 7000. The BOS Contractor shall perform follow-on snow removal after storm has subsided.

(5) Pre-positions aircraft on Echo 1-8.

H. Contracting Officer:

The Contracting Officer is responsible to the Mission Support Group Commander to ensure that the BOS contractor provides the necessary labor and equipment support to accomplish the requirements in the Base S&ICP in accordance with the existing BOS contract. The contracting officer shall ensure that any complaints for non-performance documented by the CORs will be forwarded to the contractor for prompt corrective action.

I. Operations Group Commander:

1. Operations Group Commander will:

a. Make decisions on operational implications of snow removal and relay through the Airfield Operations Manager (AOM) and Airfield Manager (AFM) all direction on snow removal priorities. The Operations Group Commander is the only person that can authorize deviations on the airfield from the S&ICP.

b. Ensure AOM is informed of all operational requirements pertaining to snow removal.

c. Serve as up-channel for airfield status information gained through AOM.

J. The Airfield Operations Manager:

1. The AOM will:

a. Ensure the 439 OG/CC is aware of all pertinent operation limitations that may include daily or hourly briefs.

b. Ensure Command Post and AFRC Consolidated Command Post are notified when the airfield is closed (operational restriction) for snow removal operations and subsequently reopened.

c. Periodically, along with airfield manager, inspect ramp and taxiways prior to daily operations. Operations safety is the goal of this inspection. Specifically, the AOM/AFM will inspect for proper placement of vehicles, maintenance stands, etc., and will inspect the safety aspect of windrows.

K. Control Tower Operations:

1. Control Tower Operators shall:

a. Monitor the Civil Engineer's Net when snow/ice removal operations are in progress on the airfield runways, taxiways, ramps, and parking areas.

b. If snow removal operations are interrupted for aircraft launches or recoveries, close liaison between the Control Tower, Snow Boss and Airfield Management must be maintained to ensure that all unacceptable snow conditions are removed from the runway to permit aircraft movements.

c. Notify the lead driver of all taxiing aircraft on ramps, aprons, or taxiways when snow removal operations are in progress in the immediate area.

d. Operate the airfield lighting system (during Tower operation hours) to assist in snow removal operations.

e. Notify Bradley Approach Control whenever the airfield is closed for snow removal operation and when reopened for use.

L. BOS Contractor: Real Property Maintenance Manager

1. The BOS Contractor shall be responsible for the following:

a. To provide snow removal and ice control operations as required maintaining installation mission capabilities at all times.

b. The annual formation of an internal contractor Snow and Ice Control Working Committee (S&ICWC) to ensure an effective and efficient S&ICP.

c. To create a work order and properly estimate the workload required to perform snow operations for each snow event.

d. Ensures that performance of job assignments is within time limits and priority as per local directives in the S&ICP. Meets with BCE at 1200 day prior to storm to plan response strategy based on type of storm, available personnel and equipment.

e. Ensures availability of properly trained personnel and equipment as required by shift schedules and conditions.

f. Ensures effective and safe operation of equipment in accordance with current directives. To include a rest plan.

g. Maintains close liaison with the Weather Forecaster/Observer and Airfield Management Operations (AMOPS) in order to keep abreast of the latest forecast.

h. Reports immediately to the Contracting Officer, Emergency Control Center, CE COR, and Base Operations any condition that may create a hazard to the operation of either aircraft or vehicles. Immediately remove any vehicle immobilized on runway or taxiway.

i. Confirms out-of-service equipment as reported by shift crew chiefs and submits report to BCE within 24 hours of completion of storm. Continues maintenance operations during snow clearance so that maximum number of vehicles are mission capable during clearing operations.

j. Makes recommendations for improvement of procedures and techniques of operations.

- k. Completes and processes operating records and maintenance of progress charts or maps.
- l. Ensures proper cleaning of equipment and area allotted for storage.
- m. All directives applicable to the operation of equipment on airfield, road, and ground surfaces.
- n. The local geographic area of operations.
- o. Conducts a daily inspection to ensure that residual snow banks do not create a hazard or violation of Force Protection Guidelines for building area clearances.
- p. Inspects the airfield infrastructure for corrosion or deterioration caused by deicing chemicals. Will report findings and recommendations to the S&ICC.
- q. Coordinates, records, and reports all chemical use and application locations with the environmental flight.
- r. Ensures timely procurement of requested equipment supplies in support of the entire S&ICP.

M. Airfield Manager (AFM):

- 1. The AFM is responsible for coordinating the interruption of flying operations, as needed, in support of S&IC operations. Responsibilities include:
  - a. Conducting runway friction readings according to T.O. 33-1-23, procedures for use of decelerometer to measure runway slickness.
  - b. When runway conditions are other than dry, if possible, the AFM will use the "best practice" of conducting and reporting the runway surface conditions and readings a minimum of once every two hours.
  - c. Declaring airfield surfaces cleared for, suspended or closed to, flying operations.
  - d. Notifying the Snow Control Center (SCC) of priority changes for clearing airfield surfaces if operational needs dictate a deviation from the established Plan. The AFM serves as the only authority for communicating those changes to the Plan.
  - e. Publishing local directives concerning:
    - (1) Vehicular traffic and communication procedures for airfield areas.

(2) Parking of aircraft and restriction of unnecessary flying in order to facilitate S&IC operations.

f. Making sure that snow removal operations on the airfield are given priority.

g. Suspending or closing runways during all major snow removal operations. Reopening will normally be made only when snow removal has been completed. Exceptions may be authorized for emergency aircraft or when authorized by the Airfield Manager. In all cases, a runway inspection and condition reading will be accomplished and reported to appropriate agencies prior to reopening the runway.

h. Monitoring snow removal operations on the intrabase radio net.

i. Publishing NOTAMs.

j. Notify AOM of inbound hazardous cargo so that priority may be given to clearing specified hot spots and access to the hot spots.

N. The BOS Contractor – Vehicle Maintenance Manager:

1. The Vehicle Maintenance Manager is responsible for:

a. Ensuring that a comprehensive post season rehabilitation program for S&IC equipment is set up.

b. Establishing a maintenance capability to ensure timely maintenance and repair of all equipment used in S&IC operations. This includes immediate repair of all breakdowns during actual snow removal operations, where possible. Every effort will be made to repair out-of-commission equipment between snowstorms.

c. Providing wrecker service during S&IC operations to make sure disabled equipment is immediately removed from runways or taxiways. Place lighted X to designate runway problem while recovery is taking place.

d. Coordinating with the BOS RPM personnel to ensure that a comprehensive post season rehabilitation program for snow removal equipment is set up. During the snow season, the status of rehab, parts on order, operator maintenance, etc., will be discussed at various meetings.

e. All seasonal inspections shall be completed NLT 1 October.

O. The BOS Contractor - Chief of Supply:

1. The Chief of Supply is responsible for:

a. Providing around the clock refueling for S&IC equipment during actual snow removal operations consistent with shifts and equipment fuel capacity.

b. Providing fuel dispensing vehicles for refueling equipment on-site when the base refueling pumps are not near the operation.

P. Chief of Weather Operations:

1. The Weather forecaster is responsible for:

a. Notifying the RPM manager, the SCC, Mission Support Group Commander, and BCE through local command and control system when forecasted weather conditions could require the employment of snow removal forces.

(1) Notification of significant changes to the forecast will be briefed to BOS Contractor personnel in Civil Engineering.

b. Providing weather briefings by telephone, emails or in the Base Weather Station when requested by the BOS Contractor personnel in Civil Engineering. Such briefings may include observations and forecasts for:

(1) Freezing precipitation (onset, duration, and intensity).

(2) Snow accumulation.

(3) Surface wind speed and direction.

(4) Air temperature.

(5) Equivalent chill-factor temperature.

### III. PREPARATION

#### A. Personnel:

All required S&ICP personnel will be provided by the BOS Contractor per the requirements of this plan. Some snow removal operations maybe performed by facility managers and aircraft maintenance.

#### B. Equipment:

1. At the end of the snow season, all equipment will be thoroughly inspected by BOS Contractor. If repair work is necessary, it will be accomplished expeditiously so that the equipment is available for the next winter season. Coordination between BOS Contractor RPM and transportation personnel will be accomplished to assure that all depot and motor vehicle repairs are completed during the summer months. To assure all equipment is operationally ready by 30 September, the following procedures will be followed:

a. Operational checks of equipment will be performed by fully qualified and experienced operators. It will consist of visual inspections, using the operator's checklist, and a road test that includes exercising all the gear ranges, operating all mechanisms, and confirming that all gauges indicate properly. Any discrepancies found will be noted on AF Form 1800 Series.

2. When available, during the snow season, the equipment will be stored under heated conditions.

#### C. Material and Parts:

1. BOS Contractor will take necessary action to assure that adequate stocks of salts, chemicals, plow parts, broom refills, and other materials and equipment are procured and available for the coming snow season. To assure a successful program, the following must be accomplished and reviewed:

##### a. Prior to 1 June:

- (1) Material and parts required must be identified to RPM manager and BCE.
- (2) Minimum level for all parts and material has been established.
- (3) Material and parts have been ordered.
- (4) Arrangements have been made for on-call items.

##### b. Prior to 15 September:

- (1) Material and parts stored and secured where practical.

- (2) Mark salt and sand to prevent inadvertent use.
- (3) Store deicer in dry storage area.

D. Airfield, Roads, and Facilities:

1. Prior to 1 September:

a. BOS Contractor conducts an inspection of pavement for potential areas that could damage snow clearing equipment. All potential surface obstacles on paved areas and safety strips must be identified and action taken to eliminate hazards to snow removal equipment. Sends inspection report to with photos CE COR.

b. Snow dump areas will be selected and access provided. Snow dump areas will be indicated on the Snow Map.

2. Prior to 1 October:

a. The BOS Contractor personnel shall inspect/police the airfield, level shoulders, and eliminate obstacles. Manholes, storm drains and like structures which protrude above the surface must have surrounding grades established that will permit snow plows to pass over them. The BOS Contractor shall notify the BCE in writing of all inspection findings/discrepancies no later than 1 October

3. Prior to 15 Nov, the following will be accomplished:

a. Markers will be installed on all obstacles, i.e., underground or surface mounted structures on the airfield. These markers will make it possible to locate essential fixtures and structures and will also serve to avoid damage to facilities or snow removal equipment. Snow stakes are installed to define edges of roadways, entrances and obstructions.

b. Culverts, catch basins, other drainage structures, and hazardous roads will be marked. Identification color will be RED.

c. Electrical distribution manholes will be marked. Identification color will be GREEN.

d. Sewer manholes, valves, and the water distribution system will be marked. Identification color will be BLUE. Gas valves will be coded YELLOW.

e. Refueling system, meter pits, valve boxes, etc., will be marked. Identification color will be BROWN.

f. Fire hydrants will be marked. Identification will be marked by use of bolted markers to hydrants. AAFES manhole by the AAFES Shopette.

g. Snow fences will be in place.



h. Sand barrels/chemicals are placed at entrances to facilities NLT November 15..

E. The SCC:

1. The Center will be established by the BOS Contractor. The following will be available prior to 1 November:

- a. Two telephone extensions (Class A: 2511, and Class C: 2886).
- b. One radio base station.
- c. Office furniture and supplies.
- d. Dispatch board showing vehicle number, description, nomenclature, vehicle status, duties, location, and the responsible operator on each shift.
- e. Snow Map showing all priority areas.
- f. Snow Control Plan and appropriate operating instructions.
- g. Duty status board of all personnel concerned.
- h. A chart for runway surface, ambient air temperatures, and current weather forecast.

F. Facility Managers:

1. The Facility Managers responsibilities are to ensure:

- a. Snow removal from the following areas be accomplished by the facility occupant of OPR by hand shoveling, small rotary blowers, or small tractor mounted plows.
  - (1) Sidewalks (25' from Facility). Treat icy areas as required.
  - (2) Entrances, emergency exits and steps to facilities.
  - (3) Loading and ramp areas.
- b. Remove, store and replace temporary security barriers.
- c. Inform facility personnel of parking lot snow removal procedures.

#### **IV. SNOW AND ICE CONTROL OPERATIONS:**

##### **A. General:**

1. Pre-storm Coordination Meeting. A pre-storm coordination meeting will be scheduled by the Command Post at 1330 the day prior to a snow/ice event to discuss airfield/base operations and priorities This meeting may be attended by the following personnel or designated representative:

- a. Wing Commander (CC) (Chairperson).
- b. Mission Support Group Commander
- c. Security Forces Commander
- d. Base Civil Engineer
- e. Base Fire Chief
- f. Operations Group Commander
- g. Airfield Operations Manager
- h. Maintenance Group Commander
- i. Weather Operations Representative.
- j. BOS Contractor Representative.
- k. Contracting Officer
- l. Airfield Manager
- m. Base Tenants

Please see appendix A for key issues to be discussed and agenda.

3. Snow and ice control will be accomplished with BOS personnel and equipment. Experience has shown that a successful Snow Plan largely depends upon the techniques employed, the numbers and types of equipment provided, and the availability of trained personnel to perform the task. A high in commission rate of equipment is paramount to a successful operation. Present day requirements preclude waiting for weather to abate before snow and ice clearing operations. While a variety of techniques are still required to clear snow of various depths from lower priority airfield and other areas, snow clearing on top priority airfield areas must commence with the start of precipitation in order to achieve the air of continuous "Bare Pavement." When snow removal operations are initiated, they will not be suspended until snow and ice have been removed to an acceptable operational standard. During snow removal operations on the airfield, close liaison between snow operations supervision, Control Tower, and Airfield Management Operations shall be maintained.

4. Uncontrolled operations for aircraft is allowed during times Westover Air Traffic Control Tower and Airfield Management are not manned. As of October 30, 2023 the airfield hours are 0800-2300 Mon-Fri, 0900-1700 Saturday and 1300-2100 Sunday and closed Federal holidays. May be open before/after these hours based on military need.

The Westover Control Tower will transfer control of the TOWER NET to the Fire Department during uncontrolled operations. All controlled vehicle operations will be briefed prior to relinquishing/resuming control of the net. Upon opening/closure of the tower transmit on the TOWER NET: "WESTOVER TOWER IS OPEN/CLOSED CONTACT TOWER/FIRE DISPATCH WHEN ENTERING AND EXITING CONTROLLED MOVEMENT AREAS".

***Snow Control vehicles operating in the Control Movement Area during hours that the Control Tower is closed will make radio contact with Westover Fire Control and advise Snow Vehicles ENTRING/EXITING the CMA. When METRO Air Services has an uncontrolled operation, METRO will make contact with the snow control lead by phone or LMR radio (METRO Air Services issued LMR for these times).***

5. Snow removal operations on the C-5 ramp consume the majority of vehicle resources. There is approximately 431,375 square yards of pavement that the snow must be removed from and hauled away to our snow dumps. This loading, transporting, and unloading must be accomplished in a time period that will permit the Base to accomplish its flying mission in the allotted time frame. In addition to removing and hauling snow from the C-5 ramp, snow must be removed and hauled (approximately 38,705 square yards) from the ramp on the south side of the DC Hangar 7000. Also, the fuel hydrant emergency shutoff switches and fire hydrants, east of the ramp, must be kept clear of snow for emergency access. Snow will not be blown into this area.

**THE SNOW CONTROL RADIO NET MUST BE MONITORED AT ALL TIMES IN THE CONTROL TOWER WHEN EQUIPMENT IS OPERATING ON THE RUNWAY. AT ANY TIME SNOW REMOVAL PERSONNEL ARE DIRECTED TO EVACUATE**

**THE RUNWAY, THE SNOW BOSS WILL ADVISE  
THE TOWER OF THE RUNWAY STATUS. It is highly recommended that the  
Command Post also monitor the radio during snow clearing operations.**

## B. Airfield Snow Removal:

1. Snow removal operations should commence on Priority I areas, starting with the primary instrument runway immediately when precipitation begins to accumulate or when center lines or taxiway lines become obscured. The BOS Contractor and Snow Removal Crews will generally start simultaneous operation on sidewalks, roadways, taxiways, ramps, and the primary runway. During the initial phases, the major effort will be expended on the primary runway and connecting taxiways. After the runway has been cleared, the major effort will be diverted to the remaining priority areas. The severity of a snowstorm will determine the amount of area to be cleared. The initial airfield plan shall provide for clearance of the entire Priority I area. Should precipitation increase, making it impossible to keep this amount of area cleared, the scope of operations for the airfield shall be reduced and all efforts concentrated on keeping the center width of the primary instrument runway and the connecting taxiways open to aircraft movement. If this width will not accommodate operational requirements, the scope of operations shall be reduced and all efforts concentrated to satisfy requirements.

2. Residual snow banks must not be allowed to become a hazard to aircraft movements. If snow is drifting across the runway axis, it must be removed from the overruns for a distance of 1,000 feet from the end of the runway, the full width of the runway. The runway safety band should be continued through the overrun area. Snow must not be deposited at the end of such cleared areas.

3. The use of salts and chlorides is prohibited on airfield areas. Only those chemicals specifically authorized for airfield use are to be used on runways or in any traffic area utilized by aircraft.

4. Operating Techniques. The types and quantities of equipment used will depend upon the operational status of the installation and TA 010 vehicle allowances. The high-speed snow removal technique employs use of runway sweepers and high-speed rollover plows in combination with high-speed rotary snow blower attachments. Conventional and high-speed concepts follow the same snow-clearing objective (Snow removal techniques are, by necessity, high speed and cannot be accomplished within the normal Base 15 mph flight line speed limitations). Control Tower personnel, other vehicle operators, and aircraft ground maintenance personnel should be aware of this requirement and yield whenever possible. Damage to both snow removal vehicles and attachments may be anticipated due to the nature of such as raised manhole and transformer covers, refueling pit lids, aircraft wheel chocks, fire bottles, etc.

5. Scope of Operations. All airfield snow removal operations will normally commence using runway sweepers throughout the duration of the snowfall to maintain the center width of the runway in bare pavement conditions regardless of the rate of snowfall. In light-to-moderate snowfall conditions, the scope of the operation should be enlarged to include the whole primary instrument runway utilizing the displacement plows and the rotary blowers as required to remove the windrows accumulated by the sweepers. Under heavy or extreme snowfall conditions, the scope of operations may, by necessity, be decreased to concentrate all efforts on keeping the centerline portion open. Wind velocity and direction determine the actual clearing pattern to be followed in most instances. At no time during snow removal operations must snow removal

equipment leave the clearing area and leave a windrow or a build up of snow on the active runway center section or at an active taxiway intersection unless ordered to evacuate by the tower. Close liaison between the Control Tower and Snow Control must be maintained to insure that all windrows are removed before the area is vacated to permit aircraft movements. Such windrows, however small, are capable of causing a loss of steering control and a possible aircraft accident. Snow removal from Priority II areas will be completed as soon as practicable without degrading the Priority I snow removal effort. However, Priority II snow removal must not conflict with the continued maintenance of operational runways and taxiways.

**NOTE: ESTABLISHING RUNWAY CENTERLINES AND TAXIWAY CENTERLINES SO THAT THEY ARE VISIBLE FROM THE AIRCRAFT IS ALWAYS OF PRIME IMPORTANCE.**

6. Distance between Vehicles. A safe distance between vehicles operating within a snow removal pattern to avoid accidents resulting from loss of visibility is necessary. Equipment movements must be carefully timed and coordinated to insure an orderly turn around and a safe re-entry at the return trip.

7. The High Speed Plowing Techniques. This is used to clear large areas not adaptable to removing snow from around parked aircraft. The Maintenance Group Commander is asked to ensure that aircraft which must be left on the mass parking aprons are grouped together during a storm. This leaves a maximum amount of pavement unobstructed for high-speed plowing. When this plowing has been completed, the aircraft should be relocated to the cleared areas to permit completion of the snow removal effort.

8. Operations under Variable Wind Conditions:

a. Still, Parallel, and Light Wind conditions:

(1) Light Snowfall: Under parallel or no wind conditions, snow removal will start at one end of the runway on one side of the centerline. When the wind-row of snow resulting from the sweeping operation becomes sufficient, a displacement snowplow may be used for disposal. By cleaning the center first, the runway is kept in operational readiness and available to aircraft movements.

(2) Heavy Snowfall: The procedures and techniques remain basically the same as for a light snowfall, except when the rate of snowfall prevents the available equipment from maintaining full width, bare pavement conditions. Reduce the scope of operations and concentrate the main effort on the center of the main runway until the snowfall lessens. During a heavy snowfall, the displacement snowplows will make several passes in each direction, accumulating a wind-row for the high speed rotary blower unit.

b. Cross-wind Conditions:

(1) It is permissible to commence snow clearing on the windward side of the runway and move the snow across the runway with the wind. Once such a clearing pattern is started, it must be completed for the entire width of the runway; otherwise, the runway centerline becomes obscured or wind-row is left on the runway. Except in the lightest of snowfall and wind conditions, snow removal during a crosswind will be carried out as described for heavy snowfall.

(2) When a strong crosswind is combined with a heavy snowfall, snow removal operations must be concentrated on the runway centerline at all times. A high speed displacement plow will be used to remove wind-row formed by the sweepers. Extreme care must be exercised in the end zone or turn-around area when this pattern is in use. The high speed rotary blower, if available, will be used to blow the snow completely off the runway area and over the lights whenever sufficient snow for this operation has been accumulated or wind-rowed by the high speed displacement plow units.

**NOTE: THE AIRFIELD SNOW BOSS SHALL INFORM AIRFIELD MANAGEMENT OPERATIONS (AMOPS) AND CONTROL TOWER ANYTIME SNOW REMOVAL OPERATIONS DO NOT COMMENCE AT THE RUNWAY CENTER SECTION.**

9. Runway Edge Lights:

a. Lights are an integral part of a runway system and must be maintained in a cleared condition in order to provide runway clearance for aircraft movements. Runway lights may be cleared during snow removal operations by using the air blast from the runway sweepers.

(1) During severe snow conditions, when snow removal operations are concentrating on runway centerline clearing only, one sweeper may be needed to make continual passes to clear the lights. Runway edge lights are generally positioned several inches above the runway surface so that even under heavy snowfall conditions it would take considerable time for them to become “snowed” under.

(2) During light snowfall operations, a runway sweeper with the air blast chute positioned and adjusted for this purpose will be needed to make the last pass along the rows of runway lights, removing the snow from each light fixture with the air blast.

(3) Under heavy snowfall conditions, it may be necessary to use a displacement snowplow periodically to clear a path in front of the lights so that the sweeper air blast can be used to clear each one.

10. In-Pavement (Semi-Flush) Lights. Semi-flush lights present a problem when packed snow, flush, or ice forms on the pavement. Caution should be used when operating a snowplow over the area. The sweeper or a rubber cutting edge equipped blade should be used whenever possible. If equipped with a steel blade, it must be adjusted to clear the top of the lights.

**NOTE: ALL AIRFIELD LIGHTS (PAPI, TAXIWAY, RUNWAY, APPROACH, THRESHOLD, EDGE, WING AND STROBES) MUST BE KEPT CLEAR OF SNOW AT ALL TIMES BY MECHANICAL OR MANUAL MEANS.**

11. Other Airfield Areas:

a. Snow removal, from around the following, shall be accomplished by the BOS Contractor by hand shoveling, small rotary blowers, or small tractor-mounted plows:

- (1) Aircraft hangars and shelters.
- (2) Facility 7040 & 7000 Hangar doors and Mobile Tail Enclosure (MTE) door tracks to include all movement areas to ensure emergency operation at all times.
- (3) Parked aircraft (outside circle of safety).
- (4) Aircraft refueling emergency stop switches east of Golf taxiway.
- (5) Fire hydrants east of Golf taxiway.
- (6) Areas that cannot be safely cleared by using snow removal equipment designed for airfield use.
- (7) Grounding points.

12. NAVAIDs:

a. Snow accumulation depths around NAVAID equipment shall be monitored by 439 CS personnel and Airfield Management. When snow depths reach the limits set in the individual TOs for the equipment, Airfield Management shall inform Snow Control Operations that removal is required. 439 CS is responsible for providing specific direction and oversight of the snow removal operation to ensure the snow is adequately removed or leveled so that the NAVAID can be returned to service.

**NOTE: THE SNOW BOSS SHALL NOTIFY THE CONTROL TOWER AND AIRFIELD MANAGEMENT OPERATIONS (AMOPS) OF CURRENT CONDITIONS/POTENTIAL HAZARDS WHEN SNOW REMOVAL OPERATIONS HAVE TO BE INTERRUPTED FOR AIRCRAFT LAUNCHES OR RECOVERIES.**

b. Snow removal operations in ILS area will be directed by airfield management. All



snow removal personnel will be accompanied by at least one NAVAID maintenance individual that monitors and ensures adequate snow removal in the antenna and field detector areas.

C. Snow Removal From Streets, Roads, Parking Areas:

1. Snow removal from roads and other secondary areas will be organized and equipment routed in such a manner that normal Base Operations can precede with a minimum of interference. Equipment will be concentrated in this system and moved to lower priority areas only after removal operations in main areas have been completed.

a. Procedures on Roads and Streets. Procedures for clearing snow from roads and other areas vary with the amount of snow equipment available, obstructions encountered, and the surrounding terrain. The basic methods are:

(1) Method One: Start plowing in the center of the road and clear the snow to form a wind-row on each side.

(2) Method Two: Start plowing on one side of the road and clear snow to form a wind-row on the opposite side. This method is effective in areas where obstructions such as buildings, retaining walls, or other obstacles exist on the side of the road and where drifting conditions occur on roads that are bordered by open terrain.

(3) Method Three: Move snow from both sides to form a wind-row along the center of the road. This procedure is used when roads are closely bordered on both sides by buildings, retaining walls, or other obstructions.

**NOTE: IN ALL THREE OF THE METHODS, SNOW BLOWERS OR FRONT-END LOADERS MAY BE USED TO LOAD THE WIND-ROWED SNOW INTO THE HAULING VEHICLES FOR DISPOSAL IN SNOW DUMP AREAS.**

NOTE: SNOW IS NEVER PERMITTED TO BE PUSHED ON BUILDINGS OR FENCES

b. Parking Lots. Separate areas will require individual treatment depending upon size, layout, urgency of use, etc. The following methods will be to facilitate snow removal in these areas:

(1) Clear lots in accordance with assigned priority.

(2) Parking lots will be identified for emergency parking when other lots cannot be plowed due to heavy snow accumulation.

(3) Establish “No Parking” areas to facilitate plowing (i.e., one half of lot “No Parking”).

(4) Overnight parking will not be permitted on Base streets during the snow season.

c. Other Areas. Snow removal from the following areas shall be accomplished by the BOS contractor utilizing hand shoveling, small rotary blowers, or small tractor mounted plows as necessary:

(1) Sidewalks as indicated on the plan.

(2) Court area in front of Commanders Building (1850).

d. Snow and ice removal operations shall also be accomplished in front of the refuse containers on base.

## PRIORITIES

### AIRFIELD PRIORITIES

#### PRIORITY I (Red)

1. Runway 05-23.
2. 05-23 Overrun Lights.
3. Runway 15-33 from Taxiway "G" to Pad "33".
4. Pad 5 (800 feet from edge of Runway).
5. Taxiway "G" from Runway 15-33 thru "G" Taxiway, thru "N" Taxiway.
6. Aircraft Parking Locations Echo 11 and Echo 12 on East Ramp.
7. Fire Station Fire Vehicle Access Road from Taxiway "T" thru East Ramp through Taxiway
8. "G" by way of the Fire Access Road.
9. Taxiway "L" to Taxiway "Y".
10. Taxiway "T" to East Ramp
11. South and North Apron, Pull Thru Hangar, Building 7040 and Taxiway leading to Echo 11 and Echo 12.
12. Taxiway "N" to South Apron of DC Hangar, B7000.
13. Access road to Control Tower (7060).
14. Fire access road from Fire Station to Bulk Fuel storage Area.
15. All airfield lighting (Runway, Taxiway, Approach, Flush, Strobe, Threshold, and Vasi Lights) must be kept clear of snow at all times.
16. Munitions Storage Area
17. Munitions Storage Area (east gate) to Pad 23

## PRIORITY II (Yellow)

1. Remaining portion of East Ramp and North Apron to DC Hangar, B 7000. Path to aircraft will be cut upon request from **Airfield Management Operations (AMOPS)**.
2. Vehicle access to Pump Houses 7700 and 7701.
3. Runway 15-33, including Pad "33" (May be raised in priority depending on critical wind direction).
4. Fire Vehicle access, Taxiway "R" to Runway 15-33.
5. Fire Vehicle access, North Ramp and Taxiway "Y".
6. Access road from rear of Building 1610 to Taxiway "T".
7. Road from Building 7905 & 7902 to Building 7975 (TACAN) to Pad 33.
8. Road from Pad 33 to 8202 (TVOR) to 8300 (Generator) to 8381 (Glide Slope) and 8210.
9. Access Road from Pad 23 to Perimeter Road and to Munitions Storage Area.
10. Access Roads to "05" Localizer/Generator (B 7466 & B7425) and 23 Localizer/Generator (B8395 & B8702).
11. Access Road from Pad 5 to 7522 (Glide Slope) to 7520 (Generator).
12. Vehicle Access Roads between Building 7040 and 7000
13. Fuel Pump House Area and Truck Refueling Stands and Parking Area
14. South Apron of DC Hangar, B7000
15. NOTE: Area in front of glide slopes (7522/8381) and Localizers may require snow removal depending on equipment operating conditions. Also access path to ceilometers 7460 "as call basis".

PRIORITY III (Green)

1. 05-23 Pavement Overruns
2. Compass Rose
3. Taxiway "R" to Pad 19. (Clear as required for snow dump access)
4. North Ramp & Taxiway "Y"
5. Taxiway "F" & Taxiway "D"
6. North Ramp Aircraft Parking Area

## STREETS AND PARKING LOT PRIORITIES

### PRIORITY I (Red) - STREETS

Flight line Access Road at Building 2426

Patriot Avenue, Industrial Gate to James Street Gate must be cleared by 0600 for opening

Airlift Drive, road leading to MEPS, Building 5411 must be cleared by 0530.

Fire Access Road to Flight line, North Side Hangar 3, Building 7075

Access Road and Exit, Building 5305, Vehicle Inspection Station

Fire Station to Hangar Ave. Building 7084

EOD Building 2452 North & South Garage Doors, Recall Ave to Patriot Ave

Airman Drive to Buildings 5101 – 5105 and 5551

Eagle Drive

Galaxy Road from Airlift Drive to Building 6640, Consolidated Club

Hangar Avenue

Walker Avenue

Jenkins Street

Provider Street

Marine Way

### PRIORITY II (Yellow) - STREETS.

Access Road to Building 7045, Military Gas Station.

Access Road from Hangar Avenue past Building 7087, Base Hangar to Ramp.

Saunders Ave.

Building 5425, Base Gas Station.

Access Road from Patriot Ave. to North Ramp (Building 1610)

Airman Drive, remainder from 5100 to Buildings 5550

Radar Hill Road.

Hercules Road from Galaxy Road to Building

Logistics Drive North and South Monument Avenue

Oil Tank Access Road behind Base Exchange.

Pittsburgh Street.

Training Avenue.

Recall Avenue, Building 2450 to Eagle Ave.

Starlifter Avenue

Access Road from Training Ave. to Munitions Storage Parking area.

Perimeter Road

### PRIORITY III (Green) - STREETS

Access Road to Rifle Range.

Recall Avenue, Hercules Road to Fam Camp.

Globemaster Ave

Hercules Road, remainder from Bld. 5402 to Recall Ave.

Port Street.

Security Road around outside Munitions Storage Area

Cowan Street

PARKING LOTS - Priority I.

**Parking Lots will be plowed after the streets have been completed with the exception to Building 5411 and 7000.**

Building 5411, 551 Airlift Drive, MEPS Parking Lot - by 0530 on days the MEPS facility is open.

Building 5310, Visitor Control Center Parking

Building 6640, Consolidated Club, Front Parking Area, East Side Building

Building 1850, Wing Commander's Parking Area

Building 5551, Fire/Emergency Response Vehicles

Building 2510, Security Forces, South Side Lot

Building 7000, Parking Lot across from building

Honor Guard Practice Area near 5100

PARKING LOTS - Priority II.

Building 1100, Base Chapel/Family Services.

Building 1301, Base Pharmacy

Building 1408, Mail Room, 439 AES

Building 1502, Recruiting Building.

Building 1510, USO/Civil Air Patrol/Galaxy Store (Hangar Avenue-Side and Front of Bldg).

Building 1610, Airfield Management Operations

Building 1700, Base Gym. (North side)

Building 1850/1875, Parking areas

Building 1800, Accounting and Finance

Building 2200 & 2201, Billeting Office and VOQ.



Building 2235, Medical Training Facility (1/3 South Side Lot).

Building 2400, Base Contracting

Building 2426, Avionics Shop Front, Loading Dock, and Side Lots.

Building 2450, Civil Engineering, Lots Front, Rear, and Across Patriot Ave.

Building 2452, EOD

Building 2510, Security Forces, North Side Lot

Building 3102, Marine Facility

Building 3103, Army Facility

Building 3400, Communications Facility

Building 3505, Marine Facility

Buildings 5101 – 5105, VAQ Parking

Building 5200, Base Exchange

Building 5375, Base Supply

Building 5402, Bowling Center

Building 5425, Shoppette

Building 5505, Comm Transmitter / Receiver

Building 6640, Consolidated Club, Remaining Areas

Between Building 7072, Hangar 7 and Building 7071, Hangar 9

Between Building 7073, Hangar 5 and Building 7072, Hangar 7

Between Building 7073, Hangar 5 and Building 7075, Hangar 3

Building 7075, Opposite 450 Hangar Avenue, Hangar 3 to Building 7071, Hangar 9.

Building 7084, Fire Station POV Parking Lot

Building 7087, Hangar 1 and Building 1610, Airfield Management Operations. Also Lots Between these buildings (as required for emergency parking).

Building 8840, Munitions Parking Area

Priorities may be changed, depending on storm intensity and depth.

PARKING LOTS – Priority III.

Building 1204, Conference Center Front and Rear Lots

Building 1307, 480 Patriot Ave.

Building 1408, Mail Room, 439AES, Lots across Patriot Avenue

Building 1520, 250 Jenkins Street Entrance Door Lot

Building 1520,

Building 1610, Base Operation, South Side Lot along Patriot Ave.

Building 1700, Base Gym, (South lot)

Building 2235, Medical Training Facility (Remainder of South and North Side Parking)

Building 5346, Outdoor Recreation, Bath House

Building 5375, Base Supply North Side Lot

Building 8005, Smoke House

Area and Long Term Parking, priority may be raised depending on storm duration and intensity.

## **Appendix A – Key Issues and Agenda for the Pre-Snow Meeting**

### Key issues to be discussed are:

- a. Flight Operations Requirements – 05/23 & 15/33 Runway requirements.
- b. Activation of Airfield lights.
- c. Coordination of aircraft positioning on Echo 1-8.
- d. Aircraft status in Fuel Cell.
- e. Speed Bumps.
- f. Personnel quarters access.
- g. Security Checkpoints.
- h. Cargo Marshalling yard.
- i. Security/Fire Snow removal issues.

### Pre-storm meeting agenda is as follows:

Weather Overview

#### Operational Requirements:

Base Ops

AMXS

SFS

#### Mission Partners:

Army

Marines

AAFES

MEPS

WMDC

SE Input

LRS Snow Vehicle Status

BCE Clearance Plan

FSS and DP Input

PA Input

#### Group Commanders:

OG

MXG

MSG

AW/CC

## **END OF PLAN**

***2023-2024 Base Wide Snow Removal Map & 2023-2024 Sidewalk Snow Removal Map is posted on the CE Sharepoint site.***