RISK MANAGEMENT GUIDE

for

Cold Weather Operations

USARAK

Northern Warfare Training Center

United States Army Alaska Pamphlet 385-4 ***1 October 2015***

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY ALASKA
Fort Richardson, Alaska 99505-5000

United States Army Alaska Pamphlet 385-4 **1 October 2015**

Summary. Soldiers in Alaska must train to serve our nation in one of the harshest climates in the world. This pamphlet gives leaders at all levels a pocket reference for implementing the Risk Management (RM)process in order to develop safe and effective cold weather training plans, exercises and operations. ATP 5-19, Risk Management, was used to develop this pamphlet. Soldiers who attend a USARAK Northern Warfare Training Center (NWTC) course will receive training on the RM process and integrate RM into all aspects of training. The lesson plan pertaining to this pamphlet is available on the NWTC website, www.wainwright.army.mil/nwtc/.

Applicability. This pamphlet applies to units and activities assigned or attached to USARAK. This pamphlet supersedes USARAK Pamphlet 385-4, dated 1 October 2014.

Interim Changes. Interim changes to this pamphlet are not official unless they are authenticated by the director of information management. Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

Suggested Improvements. The proponent agency of this pamphlet is USARAK NWTC, Ft. Wainwright, Alaska, www.wainwright.army.mil/nwtc/. Users are invited to send comments and suggested improvements on Department of the Army (DA) Form 2028, Recommended Changes to Publications and Blank Forms, directly to APVR-WNW.

---

*This pamphlet supersedes United States Army Alaska (USARAK) Pamphlet 385-4, dated 1 October 2014.

For the Commander:

Official:

MARK S.KNERAM
Colonel, US Army
Chief of Staff

DEAN H. DENTER
LTC, SC
Director of Information Management

Introduction	*2*
Section I: Risk Management for Cold Weather Training and Operations	*5*
Risk Management	*6*
Risk Assessment Matrix for Cold Weather Operations	*7*
Risk Assessment Worksheet for Cold Weather Operations	*8*
DD Form 2977 Deliberate Risk Assessment Worksheet	*9*
Section II: Risk Management Examples for Select Cold Weather Training Events	*13*
Engage Targets in a Snow Covered Environment	*15*
Conduct Tent and Stove Drill	*19*
Move Over Snow on Snowshoes	*23*
Move Safely in Avalanche Terrain	*27*
Blank Copies of Matrix, Worksheet and DD Form 2977	*31*
Appendices	
A: Planning Considerations for Cold Weather Training and Operations (GEN II III ECWCS)	*73*
B: Planning Considerations for Cold Weather Training and Operations(FREE System)	*78*
C: Wind Chill Chart	*83*
D: 9 Line Medical Evacuation Request	*84*
E:Ahkio Group Contents	*85*
F: Avalanche Hazard Checklist	*86*
G: Commanding General Policy Letter 14	*87*

SECTION I

Risk Management for Cold Weather Training and Operations

Risk Management

Step 1: Identify hazards:

a. METT-TC provides the framework to identify hazards. In a garrison environment or for off-duty activities consider:

Activity (Mission)
Disrupters (Enemy)
Terrain and Weather
People (Troops)
Time
Legal considerations (Civil considerations)

b. You can also use regulations, accident data, risk assessment matrices, AAR's, experience, subject matter experts, etc.

Step 2: Assess the hazards:

Assess the probability of the event or occurrence.
Estimate the expected result or severity of an event or occurrence.
Determine the specified level of risk for a given probability and severity using the standard risk assessment matrix.

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		A	B	C	D	E
Catastrophic: *Death, unacceptable loss or damage, mission failure, or unit readiness eliminated*	I	EH	EH	H	H	M
Critical: *Severe injury, illness, loss, or damage; significantly degraded unit readiness or mission capability*	II	EH	H	H	M	L
Moderate: *Minor injury, illness, loss, or damage; somewhat degraded unit readiness or mission capability*	III	H	M	M	L	L
Negligible: *Minimal injury, loss, or damage; little or no impact to unit readiness or mission capability*	IV	M	L	L	L	L

Legend:
EH – extremely high risk H – high risk M – medium risk L – low risk

Step 3: Develop Controls:

a. Effective control measures address WHO, WHAT, WHEN, WHERE and HOW.
b. Reassess the risk after controls are in place to determine residual risk level.
c. Make risk decisions – Ask yourself what constitutes an acceptable level of risk for the mission or activity?
d. Involve the appropriate level of command based upon the residual risk level:

Risk Level	Low	Moderate	High	Extremely High
Who can approve the mission or activity?	Company Commander	Battalion Commander	Brigade Commander	Commanding General

Step 4: Implement Controls:

a. Ensure controls are converted into clear and simple execution orders.
b. Controls must be understood by all.

Step 5: Supervise and Evaluate:

a. Implement and enforce risk controls to standard.
b. Supervise the process – this is also a control measure.
c. Evaluate and make adjustments as necessary.

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to+20-	1	1	2	3
TEMP ZONE 2 +19 to -4	2	2	3	4
TEMP ZONE 3 -5 to-25	3	4	4	5
TEMP ZONE 4 -25 to-40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

SECTION II

Risk Management Examples for Select Cold Weather Training Events

This section contains example RM worksheets for some of the cold weather training conducted during courses at the Northern Warfare Training Center. <u>They are not all inclusive and do not negate the need to apply the RM process to training or operations in your unit.</u>

This Page Intentionally Blank

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*
Engage Targets in a Snow Covered Environment	

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer
	699-8030	

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	RANGE UTILIZATION	COLD WEATHER INJURIES	M	CONTACT GLOVES AS MINIMUM WHILE OUTSIDE DO NOT PLACE NOSE AGAINST STOCK OR CHARGING HANDLE USE NECK GAITER OR BALACLAVA TO PREVENT CONTACT FROSTBITE CLOTHING IAW USARAK 385-4 APPENDIX A-B TEMERATURE ZONE---------- MEDICAL PERSONEL REFRESHER CLASS ON SIGNS OF FROSTBITE EVACUATION PLATFORM IS ON SITE DURING THE ENTIRE OCCUPATION	How: UNIT SOP PCC/PCI Who: SQUAD LEADERS	L

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -		NEGLIGENT DISCHARGE	M	ALL SOLDIERS BRIEFED ON RANGE PROCEDURES PRIOR TO OCCUPYING FIRING LINE ALL SOLDIERS ATTEND PRELIMINARY MARKSMANSHIP INSTRUCTION PRIOR TO OCCUPYING RANGE AMMUNITION ISSUED JUST PRIOR TO OCCUPYING THE FIRING LINE WEAPONS RODDED ON AND OFF THE FIRING LINE	How: UNIT SOP REHEARSALS Who: PLATOON LEADER, PLATOON SERGEANT, SQUAD LEADERS	M

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☒ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

SQUAD LEADERS WILL CONTINUALLY CHECK THEIR SOLDIERS FOR SIGNS OF COLD WEATHER INJURIES. TIME FOR CONDUCTING PCC/PCI IS OUTLINE IN TRAINING SCHEDULE, PMI IS SCHEDULED FOR THE DAY PRIOR.

RECOMMNED APPROVAL.

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

RANGE SAFETY OFFICER WILL COMPLY WITH LOCAL RANGE USE SOP. RSO WILL REEVALUATE PLAN WHEN TEMPERATURES EXCEED TEMPERATURE ZONE ------.

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*
Conduct tent and stove drill. Bivouac in a ten man arctic tent.	

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer
	699-8021, 8022	

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	Operate SHA; bivouac in tent with SHA operating	Tent Fire		Operational fire extinguisher and smoke detector in the center of the tent Stove is placed on stove board to prevent stove from coming in contact with ground	How: Who:	M

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -				Only licensed personnel authorized to operate stove. Fire guard required when stove is in use. Fire guard must be licensed to operate the stove. When lighting the stove, all Soldiers must be awake, doors open to the outside. Ensure that flaps on stove pipe opening closure flap are tied open and do not come in contact with the stove pipe. Ensure that drip interceptor loop is in fuel supply hose to prevent fuel from running down the hose onto the tent. Tie lines from the stack cap assembly directly to the tent to allow stack to move with tent in windy conditions. Ensure that snow flaps are positioned to the outside of tent and are not frozen to the ground to allow Soldiers to roll-out. Tent pole is 6-8 feet in height to prevent tent from coming in contact with stove.	How: Who:	M
+ -		Carbon Monoxide poisoning	M	Ensure all ventilators are open when operating stove Use all sections of the stack assembly to allow the stove to draft properly. Ensure that the seams on the stove pipes are in-line with each other	How: Who:	L

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	Handle Fuel	Frostbite from handling fuel	H	Minimum of 1 pair of POL handler gloves in each ahkio group. Wear POL handler gloves when handling fuel	How: UNIT SOP Who: SQUAD LEADERS	M
+ -		Environmental damage from fuel spills	M	Fuel absorbent pads are in each ahkio group. Place fuel absorbent pads beneath fuel cans	How: UNIT SOP Who: SQUAD LEADERS	L
+ -	Pitch and strike the arctic ten man tent; set-up and dismantle heater	Cold Weather Injuries	M	Contact gloves must be worn at a minimum while working outside.	How: UNIT SOP Who: SQUAD LEADERS	L

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☒ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

Squad Leader will enforce all control measures. PSG will periodically make a check of each individual tent group. Buddy teams will monitor each other at all times during conduct of operations..

RECOMMNED APPROVAL.

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Daily risk assessment conducted; adjustments made to clothing and warming shelter breaks/CWI checks based upon current conditions. Per the requirements of USARAK Regulation 420-1 a serviceable 5lb ABC fire extinguisher and a smoke detector will be present. Continue to monitor changing conditions and take action IAW APP A-B USARAK 385-4

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*
Snowshoe movement	

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer
	699-8019	

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	Snowshoeing	Cold Weather Injuries	M	Clothing levels IAW APP A/B USARAK 385-4 Squad Leader check each Soldiers pack to ensure appropriate equipment is available Buddy teams are assigned Medical personnel check all Soldiers at conclusion of event in a warm shelter Check points along the route manned by medics with radios and evacuation vehicle with separate driver(not the medic)	How: UNIT SOP Who: SQUAD LADERS PLATOON SERGEANT	L
+ -		Dehydration	L	Each Soldier departs starting area with at least 2 litresof water. Water is positioned along the route. Ensure the pace is kept at a level that reduces the chances of sweating	How: SQUAD LEADER CHECK Who: SQUAD LEADERS	L

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -		Lost Soldiers	L	Soldiers briefed on route. Trail is well marked. Squad leaders have maps and navigation equipment	How: BRIEFING PRIOR TO START Who: PLATOON SERGEANT	L
+ -		Slips and falls	L	Ski poles used for balance for ski or snowshoe movement. Soldiers are trained to use snowshoes prior to execution	How: UNIT SOP/ CWIC PROGRAM Who: SQUAD LEADERS	L

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☒ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

Squad Leader will enforce all control measures. Buddy teams will monitor each other at all times during conduct of operations. Squad Leaders will keep their squads together at all times during the movement. Time for PCC/PCI is on the training schedule.

RECOMMNED APPROVAL.

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Daily risk assessment conducted; adjustments made to clothing and warming shelter breaks/CWI checks based upon current conditions. Continue to monitor changing conditions and take action IAW APP A-B USARAK 385-4

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*
Move Safely in Avalanche Terrain	

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer
	699-8027	

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	Avalanche training	Cold Weather Injuries	M	Clothing levels IAW APP A/B USARAK 385-4 Squad Leader check each Soldiers pack to ensure appropriate equipment is available Buddy teams are assigned Medical personnel check all Soldiers at conclusion of event in a warm shelter Medics with radios and evacuation vehicle with separate driver(not the medic)	How: UNIT SOP Who: SQUAD LADERS PLATOON SERGEANT	L
+ -		Dehydration	L	Each Soldier departs starting area with at least 2 litresof water. Water is positioned along the route. Ensure the pace is kept at a level that reduces the chances of sweating	How: SQUAD LEADER CHECK Who: SQUAD LEADERS	L

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -		Avalanche	M	Training area will be reconed prior to occupation. Medical personnel with evacuation vehicle present Snow pack and slope angles will be evaluated by qualified personnel prior to occupation Minimium equipment will include shovels per 2 Soldiers; probe per 2 Soldiers Minimize number of personnel in slide path	How: BRIEFING PRIOR TO START Who: AVALANCHE I CERTIFIED SOLDIER	L
+ -	Unit movement in avalanche terrain	Avalanche during unit movement	H	Snow pack and slope angles will be evaluated by qualified personnel prior to occupation Minimium equipment will include shovels per 2 Soldiers; probe per 2 Soldiers Minimize number of personnel in potential slide path Rehearse recovery of buried personnel before entering avalanche terrain. Thorough map and imagery reconnaissance prior to movement. Route overlay and timeline submitted to higher HQ	How: UNIT SOP/ CWIC PROGRAM Who: AVALANCHE I CERTIFIED SOLDIER SQUAD LEADERS	M

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☒ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

Squad Leader will enforce all control measures. Buddy teams will monitor each other at all times during conduct of operations. Squad Leaders will keep their squads together at all times during the movement. Time for PCC/PCI is on the training schedule.

Unit movements in avalanche terrain require very close scrutiny and supervision by knowledgeable people. Recovery of buried personnel must be rehearsed prior to entering this type of terrain.

RECOMMNED APPROVAL.

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Daily risk assessment conducted; adjustments made to clothing and warming shelter breaks/CWI checks based upon current conditions. Continue to monitor changing conditions and take action IAW APP A-B USARAK 385-4
Recovery of buried personnel must be rehearsed prior to entering this type of terrain.

Risk Assessment Matrix		**Probability** *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to +20	1	1	2	3
TEMP ZONE 2 +19 to -4	2	2	3	4
TEMP ZONE 3 -5 to -25	3	4	4	5
TEMP ZONE 4 -25 to -40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to +20	1	1	2	3
TEMP ZONE 2 +19 to-4	2	2	3	4
TEMP ZONE 3 -5 to -25	3	4	4	5
TEMP ZONE 4 -25 to -40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to +20	1	1	2	3
TEMP ZONE 2 +19 to -4	2	2	3	4
TEMP ZONE 3 -5 to -25	3	4	4	5
TEMP ZONE 4 -25 to -40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How:	
					Who:	
+ -					How:	
					Who:	
+ -					How:	
					Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to +20	1	1	2	3
TEMP ZONE 2 +19 to -4	2	2	3	4
TEMP ZONE 3 -5 to -25	3	4	4	5
TEMP ZONE 4 -25 to -40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How:	
					Who:	
+ -					How:	
					Who:	
+ -					How:	
					Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to +20	1	1	2	3
TEMP ZONE 2 +19 to -4	2	2	3	4
TEMP ZONE 3 -5 to -25	3	4	4	5
TEMP ZONE 4 -25 to -40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to +20	1	1	2	3
TEMP ZONE 2 +19 to -4	2	2	3	4
TEMP ZONE 3 -4 to -25	3	4	4	5
TEMP ZONE 4 -25 to -40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Risk Assessment Matrix for Cold Weather Operations

Use the risk assessment matrix and the risk assessment worksheet to help you complete Step 1 and 2 of the RM process: identify and assess hazards. This allows you to make your initial risk assessment.

Mission (Planning)			SCORE:
	Preparatory Time		
Guidance	Optimum	Adequate	Minimal
FRAGO	3	4	5
OPORD	2	3	4
OPLAN/MOI/POI	1	2	3

Mission (Command and Control)			SCORE:
	Event		
Task Organization	Support, Non-tactical, Garrison	Day Tactical	Night Tactical
Operational Control (OPCON)	3	4	5
Attached	2	3	4
Organic	1	2	3

Terrain			SCORE:
	Trafficability		
Type of Terrain	Optimum	Adequate	Minimal
Mountain*	3	4	5
Hills	2	3	4
Flat/ Rolling Terrain	1	2	3

*for snow covered, avalanche terrain, see Annex F, Avalanche Hazard Evaluation

Weather				SCORE:
Temperature (degrees F with wind chill)	Exposure Duration			
	< 8 hours	8-24 hours	24-72 hours	Over 72 hours
TEMP ZONE 1 +39 to +20	1	1	2	3
TEMP ZONE 2 +19 to -4	2	2	3	4
TEMP ZONE 3 -5 to -25	3	4	4	5
TEMP ZONE 4 -25 to -40	5	6	7	8
TEMP ZONE 5 below -40	6	7	8	9
Hazardous weather conditions (blizzard, whiteout, ice fog, snowstorm	6	7	8	9

Troops (Soldier Endurance)			SCORE:
	Soldier Preparation		
Environmental Preparation	Optimum	Adequate	Minimal
Non-acclimated	3	4	5
Partially acclimated	2	3	4
Acclimated	1	2	3

Troops (Soldier Selection)				SCORE:
	Soldier Experience			
Task	Extensive cold weather experience	CWI 2 / Some CW experience	CWI 1 / No CW experience	No cold weather training or experience
Complex	3	4	5	6
Routine	2	3	4	5
Simple	1	2	3	4

Troops (Rest and Maintenance)			SCORE:
	Equipment Status		
Personnel Rest Status	Optimum	Adequate	Minimal
<4 hours sleep in 24 hours	3	4	5
4-8 hours sleep in 24 hours	2	3	4
>8 hours sleep in 24 hours	1	2	3

Risk Assessment Worksheet for Cold Weather Operations

Assessment Factors	***Identify and Assess Hazards***	***Score***	***Risk Level***
Mission (Planning)			
Mission (Command and Control)			
Terrain			
Weather			
Troops (Soldier Endurance)			
Troops (Soldier Selection)			
Troops (Rest and Maintenance)			
Additional Considerations			
			Total Score:_____
Initial Risk Level:_____			

Interpreting the Score: Use the cumulative score to determine the initial risk level. CAVEAT: <u>If any individual area (e.g. weather) receives a high or extremely high risk, the overall initial risk level is high or extremely even if the cumulative score indicates low or moderate risk level.</u>

Individual Area	1,2	3,4	5,6	7,8,9
Risk Level	Low risk	Moderate Risk	High Risk	Extremely High Risk
Cumulative Score	7 to 12	13 to 23	24 to 35	36 to 40

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	
+ -					How: Who:	
+ -					How: Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend*:* **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted. **2. Date** *(DD/MM/YYY)***:** Self Explanatory. **3. Prepared By:** Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial **4. Sub-task/Sub-Step of Mission/Task:** Briefly describe all subtasks or substeps that warrant risk management. **5. Hazard:** Specify hazards related to the subtask in block 4. **6. Initial Risk Level:** Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column. **7. Control:** Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5. **8. How to Implement / Who Will Implement:** Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation. **9. Residual Risk Level:** After controls are implemented, determine resulting probability, severity, and residual risk level. **10. Overall Risk After Controls are Implemented:** Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).	**11. Supervision Plan and Recommended Course of Action:** Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment. **12. Approval/Disapproval of Mission/Task:** Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. **13. Risk Assessment Review:** Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations. **14. Feedback and Lessons Learned:** Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected. **15. Additional Comments or Remarks:** Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management. **Additional Guidance:** Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Appendix A: Planning Considerations for Cold Weather Training and Operations

Temperature Zone 1: 39º to 20º F Wet Cold			
Area of Consideration	**Special Requirements and Recommended Actions**		
Available Personal Clothing and Equipment	**Clothing Layer:**	**ECWCS Generation II**	**ECWCS Generation III**
	Base Layer	• Lightweight polypropylene top and bottom and/or • Mid-weight polypropylene top and bottom	• Lightweight cold weather undershirt and drawers and/or • Mid-weight cold weather shirt/drawers
	Insulating Layer	• Shirt, cold weather, black fleece and/or • Liner, cold weather, coat	• Green fleece jacket
	Outer Shell	• Generation II GORE-TEX® jacket and • Generation II GORE-TEX® trousers	• Wind cold weather jacket (Wind Shirt) • Extreme cold/wet weather jacket (Hard Shell) • Extreme cold/wet weather trousers (Hard Shell)
	Other: • Suspenders • Issued Wool Socks w/ synthetic liner sock • Temperate Boots; cold weather boots recommended (e.g. Belleville 795, Danner Ft. Lewis 400g Tan Military Boots)		• Balaclava and neck gaiter • Issued GORE-TEX® gloves with liners • Knife • Arctic necklace (lighter and chap-stick worn around neck)
Training	• Knowledge of cold weather environmental hazards • Knowledge of cold weather clothing capabilities and limitations • Skill to use cold weather clothing and equipment to provide protection from the elements • Skill to prevent, recognize and treat cold weather injuries • CWIC is required for all personnel		
Food and Water	• MREs • 1 hot meal daily as mission dictates • 3.5-5 quarts of water per day		
Shelter and Heat	• Patrol Bag • GORE-TEX® bivouac cover • sleeping mat • poncho • poncho liner (optional)		
Additional Control Measures	• water re-supply plan • sanitation plan		

Temperature Zone 2: 19º to -4º F Dry Cold			
Area of Consideration	**Special Requirements and Recommended Actions**		
Available Personal Clothing and Equipment	**Clothing Layer:**	**ECWCS Generation II**	**ECWCS Generation III**
	Base Layer	• Polypropylene undershirt and drawers • Drawers cold weather, polyester, brown lightweight undershirt and drawers	• Lightweight cold weather undershirt and drawers • Mid-weight cold weather shirt/drawers
	Insulating Layer	• Shirt and overalls, cold weather, black fleece and/or • Liner, cold weather, coat and trousers	• Green fleece jacket
	Outer Shell	• Generation II GORE-TEX® jacket and • Generation II GORE-TEX® trousers	• Wind cold weather jacket (Wind Shirt) • Extreme cold/wet weather jacket (Hard Shell) • Extreme cold/wet weather trousers (Hard Shell) • Extreme cold weather parka (Puffy Jacket)
	Other: • Suspenders • Issued Wool Socks w/ synthetic liner sock • Cold Weather Boots (e.g. Belleville 795, Danner Ft. Lewis 400g Tan Military Boots) • Balaclava and neck gaiter • Contact Gloves		• Issued GORE-TEX® gloves with liners • Trigger Finger Mittens w/ extra TF liners • Knife • Arctic necklace (lighter and chap-stick worn around neck) • Ski goggles
Training	• CWIC required for all personnel		
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates		• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner		Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	• Begin leader/medic checks for cold weather injuries; 2-3 times daily at minimum • water re-supply and storage plan (to prevent water from freezing) • Sanitation plan • No skin camouflage below 32 degrees F		• Contact gloves must be worn when working outdoors • POL gloves must be worn when working with fuel • Consider 4 season, 2-4 man shelters for personnel that work away from support base • Soft Shell available for lower end of temperature range

Temperature Zone 3: -5º to -25º F Intense Cold			
Area of Consideration	**Special Requirements and Recommended Actions**		
Available Personal Clothing and Equipment	**Clothing Layer:**	**ECWCS Generation II**	**ECWCS Generation III**
	Base Layer	• Polypropylene undershirt and drawers • Drawers cold weather, polyester, brown lightweight undershirt and drawers	• Lightweight cold weather undershirt and drawers • Mid-weight cold weather shirt/drawers
	Insulating Layer	• Shirt and overalls, cold weather, black fleece and/or • Liner, cold weather, coat and trousers	• Green fleece jacket
	Outer Shell	• Generation II GORE-TEX® jacket and • Generation II GORE-TEX® trousers	• Wind cold weather jacket (Wind Shirt) • Soft shell cold weather jacket (Soft Shell) • Soft shell cold weather trousers (Soft Shell) • Extreme cold weather parka (Puffy Jacket) • Extreme cold weather trousers (Puffy pants)
	Other: • Suspenders • Issued Wool Socks w/ synthetic liner sock • Cold Weather Boots (e.g. Belleville 795, Danner Ft. Lewis 400g Tan Military Boot) for short duration outdoor work • White Vapor Barrier Boots • Balaclava and neck gaiter		• Contact Gloves • Issued GORE-TEX® gloves with liners • Trigger Finger Mittens w/ extra TF liners • Arctic Mittens • Knife • Arctic necklace (lighter and chap-stick worn around neck) • Ski goggles
Training	• CWIC required for all personnel		
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates		• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner		Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	Implement all control measures from Temperature Zone 2 and change/add: • Increase frequency of leader/medic checks for cold weather injuries • Rotate Soldiers in static positions frequently		• Warm tents and/or vehicles available for Soldiers • 4 season shelters for personnel that work away from support base are mandatory

Temperature Zone 4: -25º to -40º F Extreme Cold			
Area of Consideration	**Special Requirements and Recommended Actions**		
Available Personal Clothing and Equipment	**Clothing Layer:**	**ECWCS Generation II**	**ECWCS Generation III**
	Base Layer	• Polypropylene undershirt and drawers • Drawers cold weather, polyester, brown lightweight undershirt and drawers	• Lightweight cold weather undershirt and drawers • Mid-weight cold weather shirt/drawers
	Insulating Layer	• Shirt and overalls, cold weather, black fleece and/or • Liner, cold weather, coat and trousers	• Green fleece jacket
	Outer Shell	• Generation II GORE-TEX® jacket • Generation II GORE-TEX® trousers	• Wind cold weather jacket (Wind Shirt) • Soft shell cold weather jacket (Soft Shell) • Soft shell cold weather trousers (Soft Shell) • Extreme cold weather parka (Puffy Jacket) • Extreme cold weather trousers (Puffy pants)
	Other: • Suspenders • Issued Wool Socks w/ synthetic liner sock • Cold Weather Boots (e.g. Belleville 795, Danner Ft. Lewis 400g Tan Military Boot) for short duration outdoor work • White Vapor Barrier Boots in the field • Balaclava and neck gaiter		• Contact Gloves • Issued GORE-TEX® gloves with liners • Trigger Finger Mittens w/ extra TF liners • Arctic Mittens • Knife • Arctic necklace (lighter and chap-stick worn around neck) • Ski goggles
Training	• CWIC required for all personnel		
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates		• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner		Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	Implement all control measures from Temperature Zone 3 and change/add: • Risk Level is high • Limit outdoor operations and training; close scrutiny of operations/training by leaders is required		• Hourly leader/medic checks for cold weather injuries • Cover all exposed skin • Static duty not recommended

Temperature Zone 5: Below -40º F Hazardous Cold			
Area of Consideration	**Special Requirements and Recommended Actions**		
Available Personal Clothing and Equipment	**Clothing Layer:**	**ECWCS Generation II**	**ECWCS Generation III**
	Base Layer	• Polypropylene undershirt and drawers • Drawers cold weather, polyester, brown lightweight undershirt and drawers	• Lightweight cold weather undershirt and drawers and/or • Mid-weight cold weather shirt/drawers
	Insulating Layer	• Shirt and overalls, cold weather, black fleece and/or • Liner, cold weather, coat and trousers	• Green fleece jacket
	Outer Shell	• Generation II GORE-TEX® jacket and • Generation II GORE-TEX® trousers	• Wind cold weather jacket (Wind Shirt) • Soft shell cold weather jacket (Soft Shell) • Soft shell cold weather trousers (Soft Shell) • Extreme cold weather parka (Puffy Jacket) • Extreme cold weather trousers (Puffy pants)
	Other: • Suspenders • Issued Wool Socks w/ synthetic liner sock • Cold Weather Boots (e.g. Belleville 795, Danner Ft. Lewis 400g Tan Military Boot) for short duration outdoor work • White Vapor Barrier Boots in the field • Balaclava and neck gaiter		• Contact Gloves • Issued GORE-TEX® gloves with liners • Trigger Finger Mittens w/ extra TF liners • Arctic Mittens • Knife • Arctic necklace (lighter and chap-stick worn around neck)
Training	• CWIC required for all personnel		
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates		• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner		Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	Implement all control measures from Temperature Zone 4 and change/add: • Risk level is extremely high		• Limit outdoor operations and training to critical life support tasks only • Warm tents and/or vehicles mandatory for all personnel

Appendix B Planning Considerations for Cold Weather Operations and Training FREE System

Temperature Zone 1: 39º to 20º F Wet Cold		
Area of Consideration	**Special Requirements and Recommended Actions**	
Available Personal Clothing and Equipment	**Clothing Layer:**	**Fire Resistant Environmental Ensemble (FREE)**
	Base Layer	• Layer 1 Under Layer, Layer 2 Base Layer
	Insulating Layer	• Layer 3 Mid Weight
	Outer Shell	• Layer 4 A2CU , Layer 5 LWOL
	Other: • FREE Socks • Temperate Boots; cold weather boots recommended (e.g. Belleville 795, Danner Ft. Lewis 400g Tan Military Boots)	• Issued Nomex gloves, FREE liners • Knife • Arctic necklace (lighter and chap-stick worn around neck)
Training	• Knowledge of cold weather environmental hazards • Knowledge of cold weather clothing capabilities and limitations • Skill to use cold weather clothing and equipment to provide protection from the elements • Skill to prevent, recognize and treat cold weather injuries • CWIC is required for all personnel	
Food and Water	• MREs • 1 hot meal daily as mission dictates • 3.5-5 quarts of water per day	
Shelter and Heat	• Patrol Bag • GORE-TEX® bivouac cover • sleeping mat • poncho • poncho liner (optional)	
Additional Control Measures	• Heavier layers must be available • ***Layer 7 EWOL IS THE OUTER SHELL IN RAINY CONDITIONS.*** • No skin camouflage below 32 degrees F	

Temperature Zone 2: 19º to -4º F Dry Cold		
Area of Consideration	**Special Requirements and Recommended Actions**	
Available Personal Clothing and Equipment	**Clothing Layer:**	**Fire Resistant Environmental Ensemble (FREE)**
	Base Layer	• Layer 1 Under Layer, Layer 2 Base Layer
	Insulating Layer	• Layer 3 Mid Weight, Layer 4 A2CU
	Outer Shell	• Layer 5 LWOL ***OR*** Layer 6 IWOL
	Other: • FREE Socks • Cold Weather Boots (e.g. Belleville 795, Danner Ft. Lewis 400g Tan Military Boot) for short duration outdoor work • Mukluks with standard or upgraded liners	• Issued Nomex gloves, FREE liners • Knife • Arctic necklace (lighter and chap-stick worn around neck)
Training	• CWIC required for all personnel	
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates	• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner	Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	• Begin leader/medic checks for cold weather injuries; 2-3 times daily at minimum • water re-supply and storage plan (to prevent water from freezing)	• Contact gloves must be worn when working outdoors • POL gloves must be worn when working with fuel • Consider 4 season, 2-4 man shelters for personnel that work away from support base

Temperature Zone 3: -5º to -25º F Intense Cold		
Area of Consideration	**Special Requirements and Recommended Actions**	
Available Personal Clothing and Equipment	**Clothing Layer:**	**Fire Resistant Environmental Ensemble (FREE)**
	Base Layer	• Layer 1 Under Layer, Layer 2 Base Layer, Layer 3 Mid Weight,
	Insulating Layer	• Layer 4 A2CU, Layer 7 EWOL fleece
	Outer Shell	• Layer 5 LWOL ***OR*** Layer 6 IWOL with vest and Layer 7 EWOL
	Other: • FREE Socks • Mukluks with upgraded liners	• Issued Nomex gloves, FREE liners • Knife • Arctic necklace (lighter and chap-stick worn around neck)
Training	• CWIC required for all personnel	
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates	• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner	Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	Implement all control measures from Temperature Zone 2 and change/add: • Increase frequency of leader/medic checks for cold weather injuries • Rotate Soldiers in static positions frequently • Layer 7 EWOL with fleece liner is the outer layer in wind	• Warm tents and/or vehicles available for Soldiers • 4 season shelters for personnel that work away from support base are mandatory • Heavier items must be available

Temperature Zone 4: -25º to -40º F Extreme Cold		
Area of Consideration	**Special Requirements and Recommended Actions**	
Available Personal Clothing and Equipment	**Clothing Layer:**	**Fire Resistant Environmental Ensemble (FREE)**
	Base Layer	• Layer 1 Under Layer, Layer 2 Base Layer, Layer 3 Mid Weight,
	Insulating Layer	• Layer 4 A2CU, Layer 5 LWOL OR Layer 6 IWOL
	Outer Shell	• Layer 7 EWOL with fleece liner
	Other: • FREE Socks • Mukluks with upgraded liners	• Issued Nomex gloves, FREE liners • Knife • Arctic necklace (lighter and chap-stick worn around neck)
Training	• CWIC required for all personnel	
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates	• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner	Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	Implement all control measures from Temperature Zone 3 and change/add: • Risk level is high	• Scrutinize all outdoor activities. • Medic and leader checks at least hourly • Warm tents and/or vehicles mandatory for all personnel

Temperature Zone 5: Below -40º F Hazardous Cold		
Area of Consideration	**Special Requirements and Recommended Actions**	
Available Personal Clothing and Equipment	**Clothing Layer:**	**Fire Resistant Environmental Ensemble (FREE)**
	Base Layer	• Layer 1 Under Layer, Layer 2 Base Layer, Layer 3 Mid Weight,
	Insulating Layer	• Layer 4 A2CU, Layer 5 LWOL OR Layer 6 IWOL
	Outer Shell	• Layer 7 EWOL with fleece liner
	Other: • FREE Socks • Mukluks with upgraded liners	• Issued Nomex gloves, FREE liners • Knife • Arctic necklace (lighter and chap-stick worn around neck)
Training	• CWIC required for all personnel	
Food and Water	• Meal, Cold Weather (MCW) 1 bag = 1 meal which provides about 1500 calories • 34 ounces of heated water are required to hydrate one MCW • 2 hot meals per day as mission dictates	• 3.5-5 quarts of water per day • 1 stove per team; Recommend MSR Whisperlite Internationale or MSR XGK-EX to heat water for rations and/or melt snow for water
Shelter and Heat	Individual: • MSS, all components • sleeping mat, poncho and poncho liner	Squad: • Ahkio Group complete IAW Appendix E • Arctic 10-man tent • Space Heater Arctic
Additional Control Measures	Implement all control measures from Temperature Zone 4 and change/add: • Risk level is extremely high	• Limit outdoor operations and training to critical life support tasks only • Medic and leader checks at least 30 minutes • Warm tents and/or vehicles mandatory for all personnel

Appendix C: Wind Chill Chart

Wind Speed (mph) ↓	Air Temperature (°F)																	
	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95

Wind speed based on measures at 33 feet height. If wind speed measured at ground level multiply by 1.5 to obtain wind speed at 33 feet and then utilize chart.

$$WCT\ (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where T is temperature (°F) and V is wind speed (mph)

RISK OF FROSTBITE (see times on chart below)

GREEN – LITTLE DANGER (frostbite occurs in >2 hours in dry, exposed skin)
YELLOW – INCREASED DANGER (frostbite could occur in 45 minutes or less in dry, exposed skin)
RED – GREAT DANGER (frostbite could occur in 5 minutes or less in dry, exposed skin)

Time to occurrence of frostbite in minutes or hours in the most susceptible 5% of personnel.

Wind Speed (mph) ↓	Air Temperature (°F)											
	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	>2h	>2h	>2h	>2h	31	22	17	14	12	11	9	8
10	>2h	>2h	>2h	28	19	15	12	10	9	7	7	6
15	>2h	>2h	33	20	15	12	9	8	7	6	5	4
20	>2h	>2h	23	16	12	9	8	8	6	5	4	4
25	>2h	42	19	13	10	8	7	6	5	4	4	3
30	>2h	28	16	12	9	7	6	5	4	4	3	3
35	>2h	23	14	10	8	6	5	4	4	3	3	2
40	>2h	20	13	9	7	6	5	4	3	3	2	2
45	>2h	18	12	8	7	5	4	4	3	3	2	2
50	>2h	16	11	8	6	5	4	3	3	2	2	2

WET SKIN COULD SIGNIFICANTLY DECREASE THE TIME FOR FROSTBITE TO OCCUR.

Appendix D: MEDEVAC REQUEST

USARAK 9-Line Medevac Request

9-Line MEDEVAC Request

1. Location of Pickup Site
2. Radio Frequency / Call Sign
3. Number of Patients by precedence:
   - A. Urgent
   - B. Urgent Surgery
   - C. Priority
   - D. Routine
   - E. Convenience
4. Special Equipment
   - A. None
   - B. Hoist
   - C. Extraction Equipment
   - D. Ventilator
5. # Patients by type
   - L. Litter
   - A. Ambulatory
6. Number and type of wounds
7. Method of Marking Pickup Site
   - A. VS-17 Panel
   - B. Pyro
   - C. Smoke
   - D. IR Light
   - E. None
8. Patient Nationality & Status
   - A. US Military
   - B. US Civilian
   - C. Foreign Military
   - D. Foreign Civilian
9. Terrain Description
   - Hills
   - Power Lines
   - Buildings
   - Landing Surface

ON FEDERAL TRAINING LANDS

(FWA,YTA,DTA,JBER,TFTA,etc)

1. Contact Range Control: Primary FM 38.30
   Secondary FM 40.50
   Contingency 907-353-7535

2. Relay 9-Line MEDEVAC Request on the back of this card.

3. Contact Your Unit with SITREP.

4. Continue to provide medical care until MEDEVAC arrives or ground EVAC completed .

OFF FEDERAL TRAINING LANDS

(Parks HWY, Richardson HWY, Glenn HWY, etc)

1. Dial 911

2. Inform 911 Operator of the location and injuries. (Refer to 9-Line)

3. Contact Your Unit with SITREP.

4. Continue to provide medical care until EMS or MEDEVAC arrives.

Appendix E: Ahkio Packing List

Ahkio Group: There is no standard for ahkio group contents. The following is recommended list of items for the ahkio sled group. The ahkio sled is no longer manufactured. In all likelihood, units will not tow this sled for long distances in training or actual operations. But it is still one of the most effective methods for managing the equipment a squad sized element needs to survive in a cold weather environment. It makes accountability simple and packages everything a squad needs for easy transport. The sled is still available through surplus stores. IMF can repair the sled and fabricate the cover for the sled.

ITEM	#	NSN or ordering information
Scow-sled, 200 lbs. capacity (ahkio)	1	8920-00-273-8211
Tent 10-man Arctic, complete with pole board	1	8340-00-262-3684 Steel stakes 8340-00-823-7451
Pole Board	1	Cut a 1'x1' piece of plywood. Cut a second 5"x5" piece of plywood. Bore a hole that is slightly larger than the tent pole diameter into the center of the 5"x5" piece and glue it to the center of the 1'x1' piece.
Door Poles	2	Cut two 6 foot poles that are 2-3 inches in diameter
Space Heater Arctic (SHA)	1	4520-01-444-2375
Stove board	1	Cut a piece of plywood 3' x 2', rip it lengthwise in half, cover top side with galvanized sheet steel and re-join the two pieces with hinges. This allows you to fold it in half for storage.
Five gallon fuel can	1	7240-01-337-5268
Five gallon water can	1	7240-00-089-3827
D-handle coal shovels	2	5120-00-188-8446
Machetes (with sheath)	2	5110-00-813-1286
Squad cook sets	2	7630-00-272-2485
Squad stoves	2	NWTC uses the MSR Whisperlite Internationale OR the MSR XGK-EX (this stove can be fitted with a jet that burns JP-8) Contact MSR www.msrgear.com 7310-01-578-6413
Fuel bottles	2	7240-01-351-2133
Bow saw	1	5110-00-340-3276
Ax	1	5110-01-416-7827
Hammers 2 lb.	2	5120-00-203-4656
50 or 60m static rope OR Army 120' Greenline	1	4020-01-526-6234) 4020-01-577-8714
Trace, ahkio pulling, 9 ft	3	Cut from static rope (you can buy in spools and cut)
Tow Rope 27 feet	1	Cut from static rope
Harnesses, Man's, Sled (ahkio towing)	4	8465-00-255-8413
Aluminum oval carabiners (used for towing and rescue systems)	8	8465-01-578-8906
Aluminum Locking Pear Shaped Carabiners (used for rescue systems)	2	8465-01-578-8898
25' 1 inch tubular nylon webbing (used for rescue systems)	1	8305-00-268-2455
6' 7mm cordelette	2	4020-01-577-8686
Fire extinguisher	1	4210-00-165-4703
Lantern, gasoline*, with case	1	NWTC utilizes a Coleman Brand White Gas Lantern

Recommended Repair Items

ITEM	NSN
CLIP, LINER	8340-00-242-7872
CLOTH, DUCK, 5 YARDS (Ahkio Cover)	8305-00-926-6171
D-RING, ONE INCH BRASS	5390-00-260-1414
LINER, TENT	8340-00-262-3698
PEAK PLATE	8340-00-965-4432
PIN, TENT, STEEL	8340-00-823-7451
POLE, TENT	8340-00-188-8413
SLIP, TENT LINE	8340-00-205-2759
TENT LINE, 12' 6"	8340-00-262-3658
TENT LINE, 19'	8340-00-262-6911

Appendix F: Avalanche Hazard Evaluation Checklist

AVALANCHE HAZARD EVALUATION CHECKLIST

Critical Data		Hazard Rating
PARAMETERS:	**KEY INFORMATION**	**G Y R**
TERRAIN: *Is the terrain capable of producing an avalanche?*		
-Slope angle (steep enough to slide? prime time?)		☐ ☐ ☐
-Slope aspect (leeward, shadowed, or extremely sunny?)		☐ ☐ ☐
-Slope configuration (anchoring? shape?)		☐ ☐ ☐
	Overall Terrain Rating:	☐ ☐ ☐
SNOWPACK: *Could the snow fail?*		
-Slab Configuration (slab? depth and distribution?)		☐ ☐ ☐
-Bonding Ability (weak layer? tender spots?)		☐ ☐ ☐
-Sensitivity (how much force to fail? shear tests? clues?)		☐ ☐ ☐
	Overall Snowpack Rating:	☐ ☐ ☐
Weather: *Is the weather contributing to instability?*		
-Precipitation (type, amount, intensity? added weight?)		☐ ☐ ☐
-Wind (snow transport? amount and rate of deposition?)		☐ ☐ ☐
-Temperature (storm trends? effects on snowpack?)		☐ ☐ ☐
	Overall Weather Rating:	☐ ☐ ☐
Human: *What are your alternatives and their possible consequences?*		
-Attitude (toward life? risk? goals? assumptions?)		☐ ☐ ☐
-Technical Skill Level (traveling? evaluating aval. hazard?)		☐ ☐ ☐
-Strength/Equipment (strength? prepared for the worst?)		☐ ☐ ☐
	Overall Human Rating:	☐ ☐ ☐

Decision/Action:

Overall Hazard Rating/GO or NO Go? **GO ☐ or NOGO ☐**

***HAZARD LEVEL SYMBOLS:**

R = Red light (stop/dangerous)
G = Green light (go/OK)
Y = Yellow light (caution/potentially dangerous).

©Alaska Mountain Safety Center, Inc.

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY ALASKA
724 POSTAL SERVICE LOOP #5000
JOINT BASE ELMENDORF-RICHARDSON AK 99505-5000

JUL 2 1 2015

APVR-ROP

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Cold Weather Physical Readiness Training (CG Policy #0-14)

1. References:

a. Army Regulation 385-10 (The Army Safety Program), 27 November 2013.

b. USARAK Regulation 350-1 (Training), 1 November 2012.

c. USARAK Pamphlet 600-2 (Arctic Warrior Standards), 1 October 2010.

d. USARAK Pamphlet 385-4 (Risk Management Guide for Cold Weather Operations), 30 September 2009.

2. Purpose. To establish procedures for conducting cold weather physical readiness training. This policy applies to all USARAK units.

3. General. Leaders are our first line of defense against cold weather injuries (CWIs). I expect every leader to thoroughly analyze the associated risks and exercise sound judgment, during the conduct of cold weather physical readiness training (PRT). You are expected to maintain an aggressive PRT program, but not at the expense of CWIs for your Soldiers. It is imperative that leaders train and educate Soldiers to train and operate in the cold without injury. To that end, I expect each of you to directly supervise your Soldiers to ensure they possess and properly utilize the right clothing/equipment for all training activities.

4. Policy/Procedures. During the winter months (Oct –Apr), all major subordinate commands (brigades, tenant units and separate commands) will check USARAK portal to determine the temperature (including wind chill) prior to the start of PRT. Care must be exercised as temperature variations of between 10 and 20 degrees are possible, depending on the time of day and training location. Leaders must ensure each Soldier is prepared to train under the coldest temperature for the given time period. Individuals may wear additional clothing such as long underwear, or upgrade to a warmer glove/mitten, as necessary, to avoid CWIs. Commanders may always determine that additional protective clothing must be worn, based on local conditions.

5. Use the following guidance as the minimum standard for the conduct of PRT during extreme conditions:

PRT UNIFORM

Temperature (Fahrenheit)	Army IPFU shirt & shorts with running shoes and reflective belt/vest	IPFU Jacket/pants	Issued gloves, Fleece Cap or Balaclava	Trigger finger mittens and balaclava	Polypropylene top and bottom, trigger finger mittens, balaclava (with arctic mittens carried)	Arctic field uniform, polypropylene, balaclava, VB boots, cortex, trigger finger mittens, arctic mittens
44 to 33 degrees	X	X				
32 to 10 degrees	X	X	X			
10 to -10 degrees	X	X		X		
-10 to –25 degrees	X	X			X	
Below –25 degrees (including wind chill)					X	X

a. At temperatures (including wind chill) of -10 to -25 degrees Fahrenheit, units will continue to conduct normal PRT. Units should conduct warm-up/stretching, conditioning and cool-down indoors. In this temperature range, the PRT uniform consists of Army PFU sweats, polypropylene tops and bottoms, running shoes, trigger finger mittens, balaclava, and arctic mittens (arctic mittens carried). If the balaclava is worn down during the run, it must stay down and over the nose until the unit moves indoors. If the temperature is below -20 degrees Fahrenheit, units will not spend more than four minutes outdoors before or after the run, and commanders should reduce the distance/duration of the run (recommend four miles maximum). At this temperature and

lower, unit commanders will allow Soldiers to move to a warm facility during PRT if they feel there is potential for injury.

b. At temperatures (including wind chill) below -25 degrees Fahrenheit, Soldiers will wear the arctic winter field uniform ECWCS GEN II or GEN III, VB boots, Gortex, trigger finger mittens, arctic mittens, and balaclava. Commanders should conduct an alternate form of aerobic PRT, such as snowshoeing or skiing. Indoor hallway/stair runs are authorized.

c. At temperatures below freezing (32 degrees Fahrenheit), unit commanders will ensure all Soldiers participating in outdoor PRT have the appropriate non-slip running devices or spikes for running shoes in order to mitigate the risks from slipping when running during winter conditions.

d. Any deviations of the prescribed uniform guidance above will be done by the unit commander or first sergeant IAW the unit's risk assessment.

e. Prevention of CWIs is a leader and individual Soldier responsibility. Consult USARAK Pamphlet 385-4, Risk Management Guide for Cold Weather Operations, prior to execution of PRT in extreme temperatures. By adhering to these guidelines and accepting the philosophy that no cold weather injury is acceptable, leaders can conduct safe and demanding PRT.

6. Point of contact for this policy is Sergeant Major Miller, USARAK G-3/5/7, (907) 384-2285.

BRYAN R. OWENS
Major General, USA
Commanding

DISTRIBUTION: A