



## *Leadership in challenging environment*

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*"If you can fight and survive in the extremes of the Arctic, you can fight anywhere in the world"*

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NATO Centre of Excellence  
Cold Weather Operations



## ***Content***

- ✓ *What is winter?*
- ✓ *Challenges of Winter*
- ✓ *Leadership and the leaders role*
- ✓ *Control functions and risk management*
- ✓ *Education*





## Definitions

- ✓ **Cold Weather Operations** are defined by NATO as *“operations in any region where cold weather and/or temperature phenomena affect military and civilian functions. Executing operation in cold weather conditions requires special planning, training and equipment” (ATP 3.2.1.5)*
- ✓ .....temperatures of +8 °C and below”
- ✓ Cold weather is not limited to the winter season, its a defined condition which also include some mountain areas in summertime





# ***Cold weather environments***

## **Scandinavia**

- ✓ Climate affected by the Gulfstream bringing weather from tropical conditions
  - ✓ Wet and cold coast
  - ✓ Dry and cold further inland
- ✓ Lack of sun

## **Eastern European countries**

- ✓ Continental: affected by weather coming from Siberia = dry and cold

## **Middle East**

- ✓ Cold weather environment in mountainous areas
- ✓ Kabul, Afghanistan
- ✓ Difference between day/night





## ***Cold Weather Injuries***

The danger of cold weather injuries is present during the majority of the year for all military activity in Norway and other Northern countries.

### **Hypothermia or General Cooling:**

- ✓ Core temperature 35 °C and below

### **Non-Freezing Cold Injuries:**

- ✓ Nerve and tissue damage can occur as a result of moisture, cold and pressure over time.
- ✓ Typically occurs from 0 to +10 °C

### **Freezing Injuries or Frost Bite:**

- ✓ Frozen Tissue
- ✓ Superficial (1 and 2 degree)
- ✓ Deep (3 and 4 degree)





# ***Trends and Reasons for Cold Weather Injuries***

## **✓ Where do we get Frost Bite:**

- ✓ Hands and feet
- ✓ Ears, nose and chin

## **✓ Possible reasons for Cold Weather Injuries:**

- ✓ Use of incorrect clothing or incorrect use of clothing
- ✓ Ignoring the danger signs and fear of informing leaders
- ✓ Bare skin against metal
- ✓ Wet or frozen boots
- ✓ Ambition of commanders exceeding the units ability
- ✓ Food - water - sleep
- ✓ Different or reduced cold tolerance

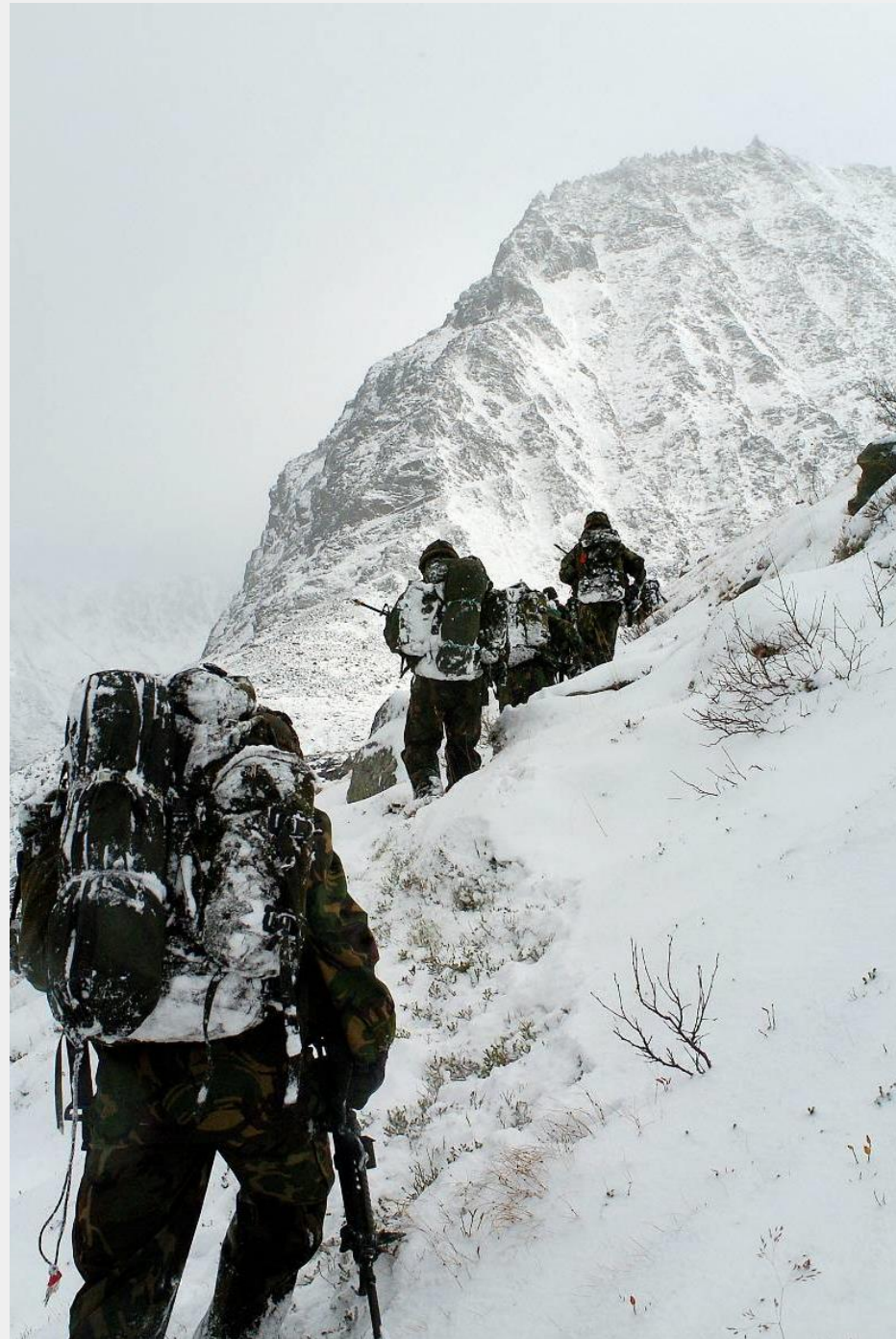






## *Challenges*

- ✓ Navigation and movement
- ✓ Avalanches
- ✓ Ice
- ✓ Food and hydration
- ✓ Hygiene
- ✓ Keeping up fighting capabilities
- ✓ Maintenance
- ✓ Everything takes more time
- ✓ The risk of cold weather injuries





## *Challenges*

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Some are already dressed for winter



Others need to improve!







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## ***How Do we meet the Challenges?***

- ✓ Leadership at every level
- ✓ Discipline and routines
- ✓ Practical training
- ✓ Correct use of equipment
- ✓ Correct equipment

*20% equipment – 80% field craft*





# *Leadership During Winter Time*

- ✓ Winter makes leadership more demanding and challenging – winter will bite you
- ✓ Suck it up does not work in the winter!
- ✓ Gain trust through professional competency, good leadership and clear communication
- ✓ Two-way dialogue – cultural differences
- ✓ Task – Purpose - Intention





## *A Leaders Responsibility*

- ✓ Presence in the situation
- ✓ Make sure that the soldiers and officers are being followed up
- ✓ Amplify the control at all levels: individual, buddy pair, patrol, platoon...
- ✓ Responsible for ensuring that their own personnel are given the necessary education, and that they are mentally and physical fit
- ✓ Ensure that their own subordinates are trained in the appropriate use of their issued equipment
- ✓ Risk assessment conducted before the planned activity starts, and continuously during the activity
- ✓ Know the correct safety regulations





## *Control Functions*

Control Functions are the units standard operating procedures and routines put into a system to ensure all missions are executed as intended, and to prevent unwanted situations.





## ***Control Functions***

- ✓ Must be based on the units collective training level, equipment and mission
- ✓ System for control is a leaders responsibility at all levels:
  - from Brigadier to Section leader
- ✓ Who, what, where, when and how
- ✓ Requires presence and continuous follow-up of routines







## *Examples*

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- ✓ **Handing out equipment**  
Right size and quality? Does it meet winter requirement.....
- ✓ **Battle readiness check**  
All of personal and team equipment shall be controlled
- ✓ **Buddy check**  
Everyone shall have a buddy
- ✓ **Hygiene**  
Are the conditions set to go to the toilet?
- ✓ **Nutrition**  
Is everybody eating at least one hot meal a day?
- ✓ **On the march**  
Regulation of clothing
- ✓ **Water**  
Do all personnel have a thermos? Is there enough time to melt snow?
- ✓ **In the bivouac**  
Are routines incorporated? TEXAS / SIBERIA / LAS VEGAS / DETROIT



## *Safety and Risks*

Safety is the absence of situations that leads to unwanted events, near misses or accidents

### ✓ **Ambitions vs training levels:**

- ✓ Is the unit trained and equipped for the activity or the mission?
- ✓ Avoid – Handle - Exploit

### ✓ **Risk management**

- ✓ Paperwork vs fieldwork
- ✓ Integrated in planning
- ✓ Continuous risk assessment

### ✓ **Abort criteria**

- ✓ When is enough, enough?





# ***The Individual Responsibility***

- ✓ Regardless how good the preparations are, it's often up to the individual leader and/or soldier on the ground to make the final decision.
- ✓ Encourage junior leaders to take responsibility and decisions.

*Who is the local commander on the scene to take the decision?*





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# *Education*

*«Winter service is a collective skill»*

- Brigadier Lervik CO Brigade North





## *Education*

Basic winter lectures for Norwegian soldiers:

- ✓ Clothing and gear
- ✓ Carbon monoxide and heat sources
- ✓ Control functions
- ✓ Establishing winter bivouacs
- ✓ Cold weather injuries
- ✓ Safe routing
- ✓ Buddy rescue and use of Txr



- These are basic introduction lectures – winter service is taught and experienced over time in the environment.
- Norwegian conscripts are used to the environment since childhood.

Focus on the basics first - knowledge, skills and attitude





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## ***Basic Cold Weather Unit Training***

- ✓ 4 week program
  - Week 1: NCO, medic, staff
  - Week 2-4: Unit training
- ✓ Supported by winter instructors
- ✓ Move – fight - maintain combat readiness
- ✓ End state:  
Unit ready to start specialist to arms training and field integration training with other units in cold environment.



### **Curriculum for NATO Basic Cold Weather Unit Training**

Determined for use by  
Centre of Excellence – Cold Weather Operations

Elverum, 1. October 2020

A handwritten signature in blue ink, appearing to read 'Jo Christen Haugom'.

Jo Christen Haugom  
Colonel  
Director of Centre of Excellence  
Cold Weather Operations



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# *Education support*

- ✓ Courses
- ✓ Individual and unit training programs
- ✓ Mobile training teams
- ✓ SME
- ✓ Handbooks, lectures and templates
- ✓ [coe-cwo.org](http://coe-cwo.org)



Home > Organization > Centre of Excellence - CWO

## Centre of Excellence – Cold Weather Operations



Surrounded by freezing temperatures and extreme weather, the Norwegian Armed Forces have experience and knowledge on how to survive and conduct military operations in cold weather.

Updated: 1. Oct 2020 14:02

### [For information about the upcoming Cold Weather Operations Conference 2021, click here.](#)

The NATO Centre of Excellence for Cold Weather Operations acts as the main provider and coordinator of expertise and capabilities in the area of Cold Weather Operations in NATO.

We provide NATO and partner nations the necessary competence in order to operate under Arctic, sub-Arctic and Cold Weather conditions. This is done through utilizing the full spectrum of competence in the Norwegian Armed Forces, coordinated with other nations' competence in cold weather environment.

The centre is a Norwegian-sponsored organisation that provides NATO with a tool to enhance interoperability in the area of operating in a cold weather climate.

The centres of excellence (COE) are not in the C3 of the NATO Command structure, but HQ SACT's Transformation Network Branch is responsible for providing the Centre with the annual Request for Support on behalf of NATO.



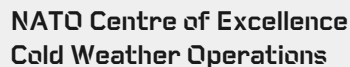
### [Our courses and educations](#)

Through our courses and seminars we offer specialised training and education for operating in cold weather.



### [NATO Staff Officer Cold Weather Operations Webinar](#)





## Education support



*"If you can fight and survive in the extremes of the Arctic, you can fight anywhere in the world"*

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## Handbook in Winter Service – Cold Weather Injuries

Adopted for use by the Norwegian Armed Forces

Rena, 1 September 2020

Lars Magnus Huse

Chief of the Norwegian Army Weapons School



## Curriculum for NATO Basic Cold Weather Unit Training


Determined for use by  
Centre of Excellence – Cold Weather Operations

Elverum, 1.October 2020

J. K. K. K.

Jo Christen Haugom  
Colonel  
Director of Centre of Excellence  
Cold Weather Operations

RECOMMENDED INDIVIDUAL PACKING LIST FOR WINTER TRAINING AND OPERATIONS			QTY
ITEM	LINE 1 - Uniform/On body	COMMENTS	
Wool uniform jacket	Daily uniform/jacket - weather dependent, individual preference. (Not in use - Line 5)		1
Wool uniform trousers	Daily uniform/trousers - weather dependent, individual preference. (Not in use - Line 5)		1
Trousers, field	Combat trousers - weather dependent, individual preference. (Not in use - Line 5)		1
Jacket, field	Weather dependent, individual preference. (Not in use - Line 5)		1
Trousers, Gore-Tex	Weather dependent, individual preference. (Not in use - Line 4)		1
Jacket, Gore-Tex	Wool		1
Fuller underwear/topbottom	Wool - weather dependent, individual preference. (Not in use - Line 5)		1
Long underwear/topbottom	Wool, Female soldiers - 4 Bra, preferably wool		1
Underwear, boxer	Wool, Female soldiers - Not recommended		1
Trousers, winter camouflage	Cotton not recommended		1
Jacket, winter camouflage	Cotton not recommended		1
Headwear	Gore-Tex boots are NOT recommended. Boots must fit in two layers of socks.		1
Boots, combat	Wool		1
Overboots/gaiters	(Not in use - Line 3)		1
Socks, thick	Wool (Use as liner-sock)		1
Socks, thin	Weather dependent, individual preference.		1
Combat gloves	Preferably one thick wool inliner and one windproof overlayer. (Not in use - Line 3)		1
Mittens			1
Headshim	No pocket knife		1
Knife	Waterproof		1
Gloves			1
Eye seal	Waterproof pocket bag. Pen not recommended due to freezing.		1
Watch	Strapped close to body underneath the jacket.		1
Paper/pen	(Not in use - Line 3)		1
Avalanche transceiver	Strapped together. (Not in use - Line 3)		1
Force goggles	Mission specific. Ballistic vest not recommended for long winter patrols.		1
Combat vest/gear/bagging/BE			1
Personal weapon	For individual use. Fast response pack.		1
Combat helmet			1
Medical kit	Ballistic eye protection.		1
Compass	Not recommended (Inflation casing if it is)		1
Protective glasses			1
Sunglasses			1
Water bottle			1
Cup			1
Map casing			1
Emergency kit			1



**BREAK THROUGH ICE - BASIC DRILL**

describes COE-CWO recommended way to go through the hatches



## BREAK THROUGH ICE - BASIC DRILL

This document describes COE-CWO recommended way to  
'break through the ice'

**Purpose:**

- The purpose of this exercise is make soldiers get used to the body heat of a situation where we've gone through the rain.

**Aims:**

- The soldier going to experience how the body react on cold water.
- The soldier will implement correct procedure to get to the safe side.
- The soldier will know the importance with support from the buddy in the period after they enter the cold water.
- The soldier will change clothes rapidly and effective - off with the wet, on with the dry.
- The soldier will know how the weather affects this activity.
- The soldier will know what measures we implement to avoid unwanted accidents.
- The soldier will understand how the body get the basal heat production going and normal body temperature.
- The soldiers will execute the exercise on their own.

- Reconnaissance and prepare ahead of the activity.
- Presentation and explanation of the organization, demands and experience exercise area.
- Demonstration of the exercise "break Through Ice".
- Short summary at the spot.

Examples on material needed for the exercise:

**Examples on material needs**

- 1 complete team, tent with stove (Option 2)
- 1 BV 200 (Medical vehicle under the exercise - Option 2)
- 1 SAR bag (to be handled with a medic)
- 2 survival blankets
- 1 heat station
- 2 gear skids with floating elements and Para cord for anchorage
- 2 gear skids with floating element
- 2 pair de poles with floating element
- 1 rockback with water can (at least 16 liter)
- 1 soft water bag
- 2 24 hours and light stick
- 2 safety rope
- 2 screw carbide
- 2 pair neoprene gloves (used under peeps ahead of the exercise)
- 2 soft garbage bags
- 2 ice drill
- 2 sets of ice picks
- 2 brand of beer
- 1 chainsaw with long blade (protection gear, heat and oil)
- 1 saw

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Control function	SIBERIA
SIBERIA – executed once a day or more when necessary	
CHECK LIST	
WHAT	HOW/QUESTIONS
General condition	<ul style="list-style-type: none"> <li>- Fluid and nutrition</li> <li>- Urine and feces</li> <li>- Freezing/cold, not able to regain warmth</li> <li>- Special events?</li> <li>- Equipment: wet or unfunctional sleeping bag?</li> </ul>
Face w/ ears and neck	<ul style="list-style-type: none"> <li>- Abnormal color</li> <li>- Redness</li> <li>- White spots</li> <li>- Blisters and/or swelling</li> <li>- Pain and/or soreness</li> <li>- Cracked lips</li> <li>- Capillary refill &gt;2 seconds</li> <li>- Dry skin</li> <li>- Equipment: wet or broken; hat, face mask, goggles, etc.?</li> </ul>
Hands and feet	<ul style="list-style-type: none"> <li>- Abnormal color</li> <li>- Redness</li> <li>- White spots</li> <li>- Blisters and/or swelling</li> <li>- Pain and/or soreness</li> <li>- Cracked lips</li> <li>- Capillary refill &gt;2 seconds</li> <li>- Dry skin</li> <li>- Abnormal</li> </ul>

### SAFE ROUTING AND COMPANION RESCUE

During winter conditions



is an aid memoir on the important issues that are required when conducting manoeuvre training wintertime.  
V04 2020

**COLD WEATHER  
INJURIES  
(CWI)**

The purpose of this folder is to give military personnel awareness on prevention of CWI, and provide bookmarks on symptoms and treatment.



## ***COE CWO E&T offers to NATO***

- **Pre deployment support -Trainer and advisor team at home base**  
Key personnel - Planners, Coy and Plt leaders and trainers
  - **NATO Staff Officer Cold Weather Webinar**  
2 days Sep – Oct. Online seminar on CWO and the different field functions on brigade level
- **Courses:**
  - **Army SERE C Instructor Course - Autumn**  
18 days Aug - Sep
  - **NATO Cold Weather Operation Survival Instructor Course**  
12 days Oct - Nov
  - **NATO Cold Weather Combat Medic Instructor Course**  
12 days Nov - Dec
  - **NATO Winter Instructor Course**  
26 days Jan - Feb
  - **NATO Avalanche Warning Course**  
10 days Feb - Mar.
  - **NATO Avalanche Companion Rescue Instructor Course**  
5 days Mar – Apr
  - **NATO Staff Officer Winter Course**  
12 days Feb - Mar
- **Unit support after deployment and during CET/FIT**  
SME and trainers





## ***Cold Weather Capable?***

A comparison of articles and literature done by Norwegian Defence Research Establishment (FFI) points out three factors needed to be capable for CWO:

- ✓ The technology must **withstand the weather**, and the units needs sufficient equipment
- ✓ Soldiers must be able to **take care** of themselves and to keep their equipment operational
- ✓ Leaders and planners must understand the **limitations** that weather gives, but also make use the **possibilities** that cold weather offers







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# End of Brief

