



Workgroup Incident Command Systems Presentation and Discussion

Ásgeir Kristinsson ICE-SAR

Ásgeir Kristinsson



- Member of the Akranes mountain rescue team since 1986
- Training:
 - mountain rescue
 - Incident commanding





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Main goals of the workgroup

- Started/launched in November 2017
- Overview about Incident command systems used by different MR-Units
- Find new solutions for the same problems
- Discuss "Best Practice"





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Edward Deming's
circle of
improvements





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Incident command, constant improvements

- What are the benefits?
- Main objectives with planning search and rescue operations
- Bringing the right people with the right training and right equipment





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What characterizes a successful search and rescue

- Ratio of correct and incorrect information at the beginning of the operation
- Did the participants in the action get the right information on time?
- Does the story fit well with what was posted?
- Will the follow up take a short or long time?
- How do we measure this all?





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What can go wrong in a rescue mission?

- The scope of chaos
- Wrong information
- Ability to spot information that can change the course of action
- Unexpected development of the rescue mission
- Overestimation of ability
- Overvaluation of equipment
- Please don't die with a perfect plan
- Every plan is perfect when they are published, but “No plan survives first contact with the enemy”





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From search to rescue, challenges, fragile

- When the focus changes in action, can we respond quickly and change plans?
- Things to keep in mind:
 - Importance of keeping an overview, focus on security, making new plans, taking care of the rescue and the environment
- The importance of a powerful platform. Unified command. Continue gathering intelligence, information, dissemination
- Ensure communication
- Can we handle the situation?
- Time, distance, difficulty, equipment and rescue

Vatnajökull Glacier 17.05.2018

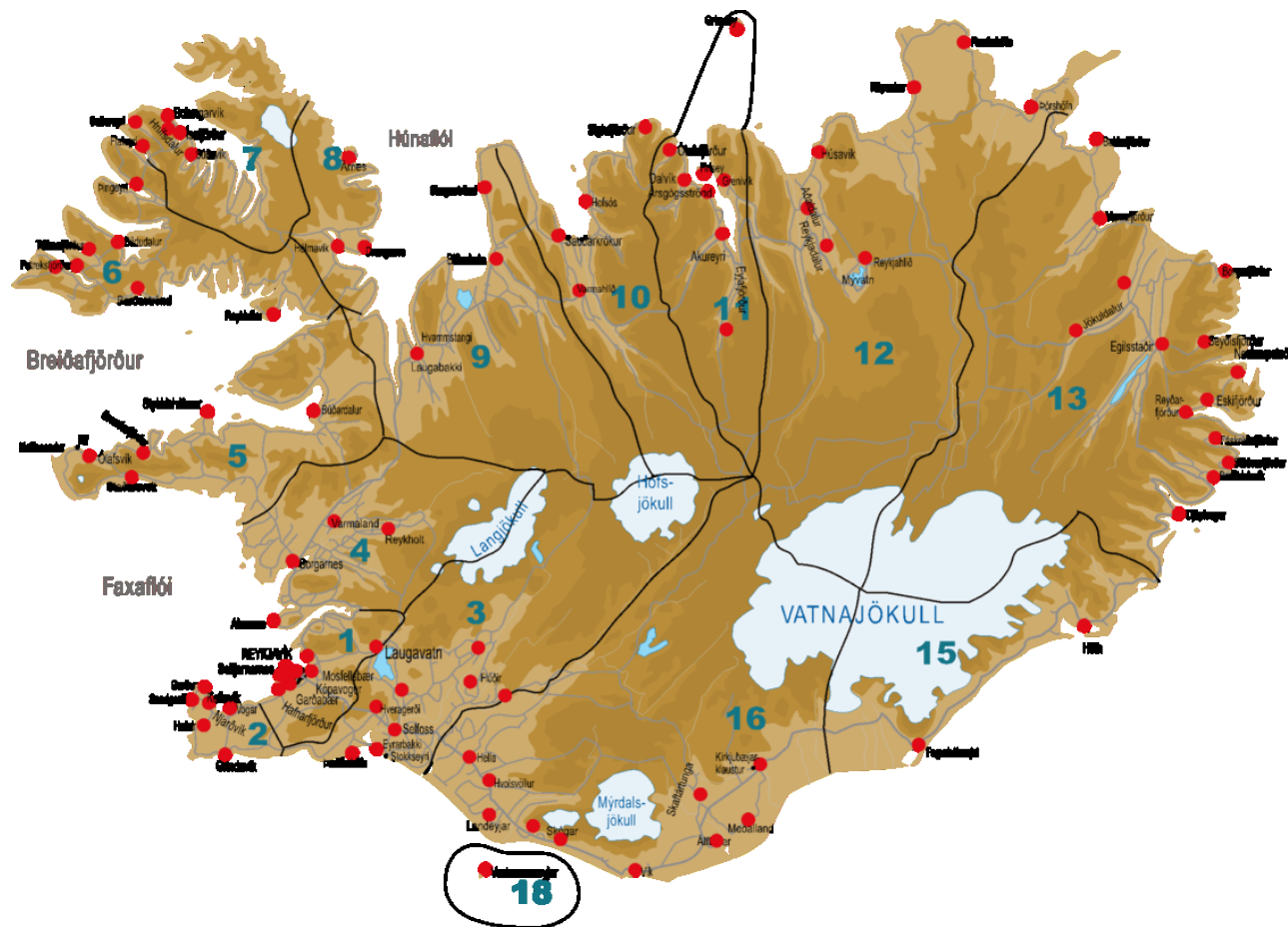
rescue of two travellers

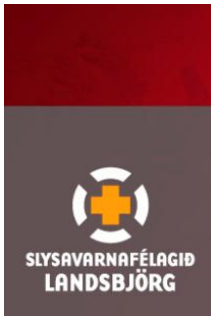
How does it work in Iceland?



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Country split in 16 regions (regional command)





Sharing information

Software, SAREYE Crisis & Incident Management platform

Navigation bar: Framgangur | Neyðarsendir í gangi við Sviahnjúk eystri (15) | Svæðisstjórn - Ásgeir Örn Kristinsson

Atvik (110)

Lýsing

- 18.05 14:27:23 [SL - Svæðisstjórn] - Ingólfur Einarsson
Allir komnir í hus og bunnir að tanka og borða takk fyrir okkur
- 18.05 14:07:48 [SL - Svæðisstjórn] - Friðrik Jónas Friðriksson
Allir komnir í hús á Höfn og svæðisstjórn þakkar kærlega fyrir
- 18.05 12:21:57 [SL - Svæðisstjórn] - Friðrik Jónas Friðriksson
Höfn Einar kominn í hús með ferðalangana
- 18.05 11:21:06 [SL - Svæðisstjórn] - Ingólfur Einarsson
Höfn 1 farinn með eldsnelli á móti jeppum sem eru að verða komnir niður af jökli
- 18.05 10:30:08 [SL - Dagrenning] - Magnús Kristjánsson
Dagrenning 1& 2 komnir í hús og farnir heim. Takk fyrir okkur
- 18.05 09:09:18 [SL - Svæðisstjórn] - Þórunn Inga Austmar
Hella snjóbíll kominn í hús
- 18.05 08:53:56 [SL - Svæðisstjórn] - Þórunn Inga Austmar
Hella 1 og 4 komnir í hús
- 18.05 08:50:43 [SL - Svæðisstjórn] - Jens Olsen
Höfn 1 kominn í hús með alla 5 BFH sleðamenn
- 18.05 07:53:30 [SL - Svæðisstjórn] - Friðrik Jónas Friðriksson
Höfn 1 er kominn með sleðamenn í bíl og eru að halda him á leið
- 18.05 07:51:31 [SL - Svæðisstjórn] - Friðrik Jónas Friðriksson
Höfn sleðar komnir niður af jökli
- 18.05 07:05:33 [SL - Svæðisstjórn] - Jens Olsen
Höfn 1 tilkynnir sig tilbúin að taka á móti sleðunum.
- 18.05 06:08:08 [SL - Svæðisstjórn] - Jens Olsen
Höfn 1 fer úr húsi á leið upp í Jöklasel
- 18.05 05:40:44 [SL - Svæðisstjórn] - Friðrik Jónas Friðriksson
Gerpir komnir í hús
- 18.05 05:37:55 [SL - Svæðisstjórn] - Friðrik Jónas Friðriksson
allir bílar og sleðar á jökli lagðir af stað heim
- 18.05 05:26:44 [SL - Svæðisstjórn] - Friðrik Jónas Friðriksson

Hópar (23/40)

Nafn	Meðlimir	Staða
[Svæðisstjórn] Solvi Kristinn Jónsson [8966499]	3	■
HELLA Sleðar hilmar [6162466]	3	■
[Höfn einka sleði] Gunnar Örn Olgeirsson [8572323]	2	■
Hella hús [8660005]	6	■
Hella 4 [6606879]	1	■
[Höfn bláir sleðar] Ragnar Már Alfredsson [8692308]	2	■
[Höfn hvítir Sleðar] Baldvin Svafar Guðlaugsson [8618099]	2	■
[Höfn] Gunnar Örn Olgeirsson [8572323]	1	■
[Dagrenning] Þorsteinn Jónsson [6998352]	4	■
[Dagrenning] Dagrenning 1 [undefined]	7	■
[Dagrenning] Bjarki Hafberg Björgvinsson [7759818]	0	■
hella snjóbíll [8636219]	4	■
kópur hús [8481480]	1	■

Verkefni (5)

Verkefni	Staða	#
Höfn 1 fer að Jöklaselli að sækja búnað og farþega	✓ 1x	F2 ↑↓
Snjóbíll að Gps punkti frá neyðarsendi	✓ 2x	F1 ↑↓
Fara á sleðum inn að Grímsvötnum að gps punkti frá neyðarsendi	✓ 1x	F2 ↑↓
Skípulagning og vinna í húsi	■	F2 ↑↓
Fara að Grímsfjalli og kanna með neyðarsendir	✓ 1x	F2 ↑↓

Kort

N: 63 08.289 V: -18 45.045

Smelltu hér til að velja sveit

Grunnupplýsingar

Sendir frá Landsbjörgu í gangi við Grímsvötn



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The beginning, phase one

18:35

- PLB Beacon sends out distress signal
- Beacon rented from ICESAR
- Travel plan known through SafeTravel. Two persons crossing the glacier
- Location of Beacon matches travel plan
- Heavy wind, fog, drifting snow, visibility 30-60m
- Helicopters unable to assist





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PHASE 1 – Rescue Mission

ICP in Höfn – No field Command

18:44

- ICP for Region 15 is activated

18:55

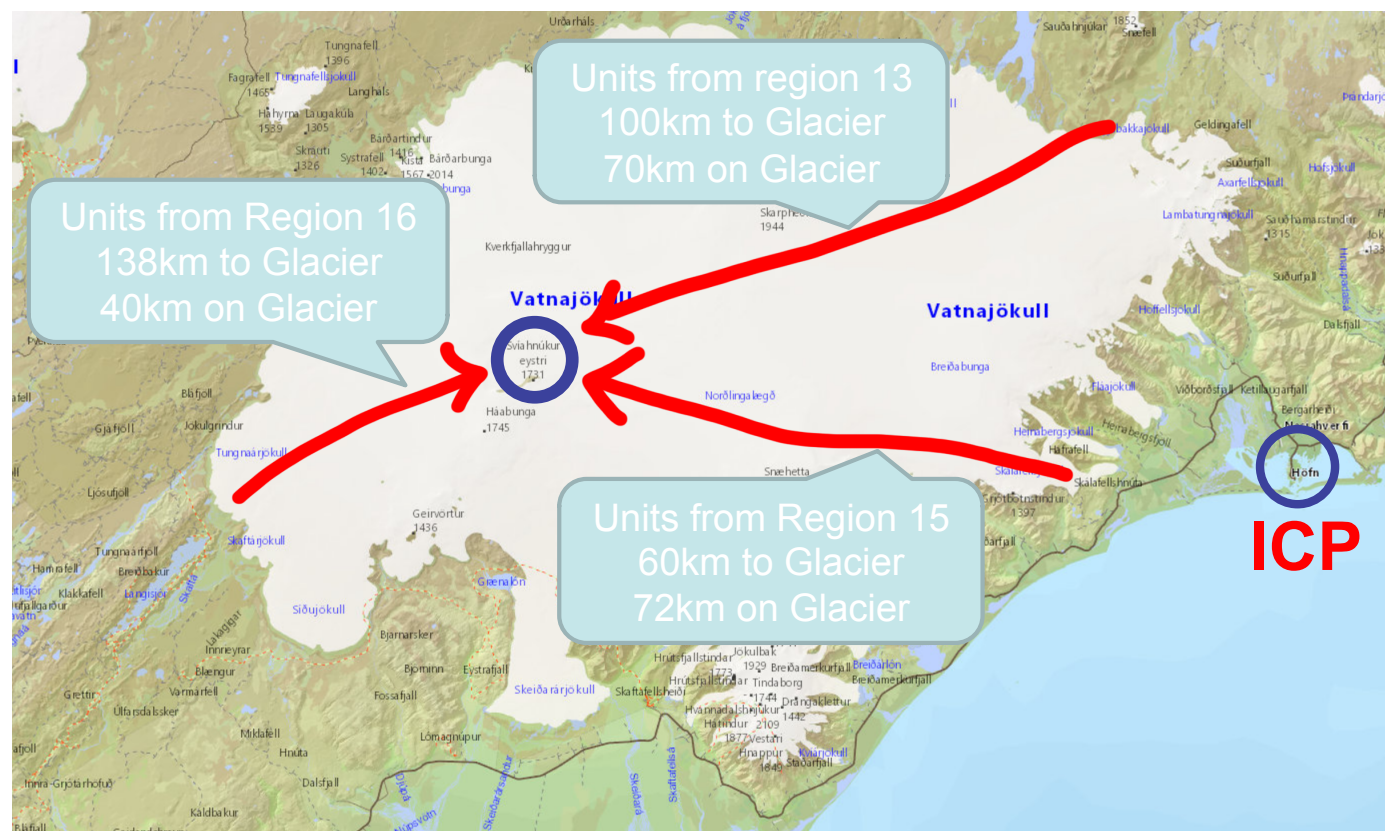
- Units from 3 Regions called out

19:20

- First units leave their Headquarters
- The plan was to go after travelers in trouble

23:39

- First Units Reach Beacon coordinates

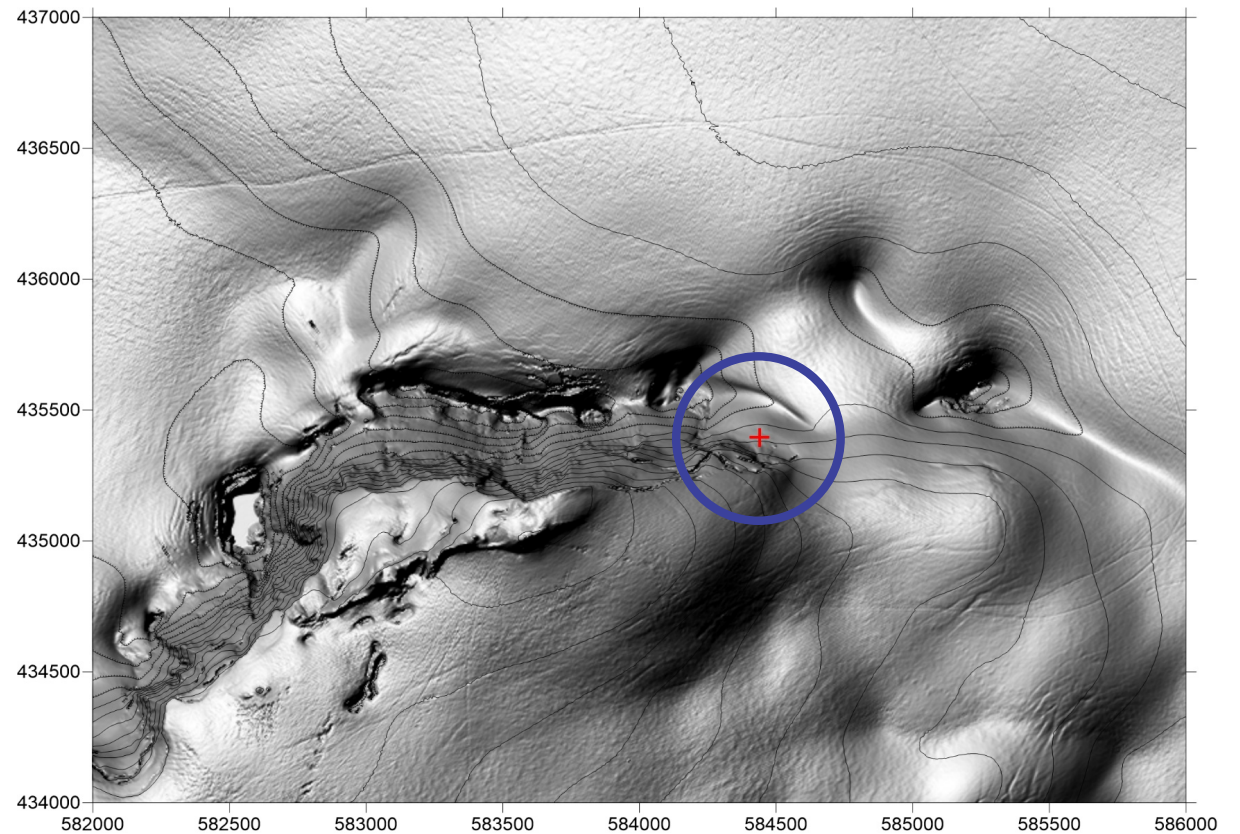


PHASE 2 – Search and Rescue Mission

IC is in charge – Field Command is a link

00:22

- No sign of distress at beacon coordinates. Search within 300m radius has no results.
- Units from Region 13 and 16 still approaching
- Travel time on Glacier to location 3.5h both ways on snowmobiles
- Travel time on Glacier to location 5-7h both ways on Superjeeps and Snowcats



PHASE 2 – Search and Rescue Mission

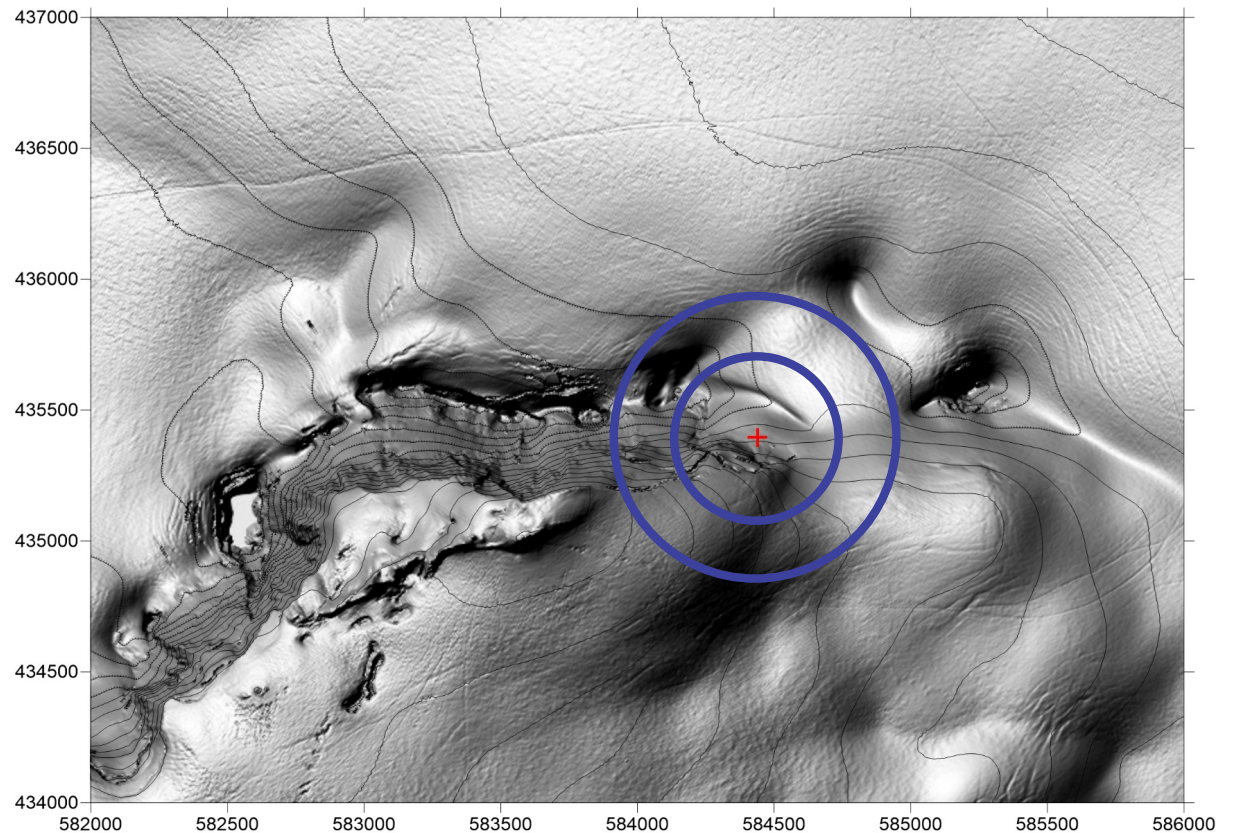
IC is in charge – Field Command is a link

00:44

- Rescue operation ongoing for 6 hours
- More units called out from other regions. Travel time to Glacier up to 7h

01:15

- Visibility improves. SAR personnel continue searching a bigger area
- IC decides to transfer SAR personnel to the edge of glacier by helicopter





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PHASE 3 – Search and Rescue Mission

Field Command is in lead – IC is backup and planning

01:35

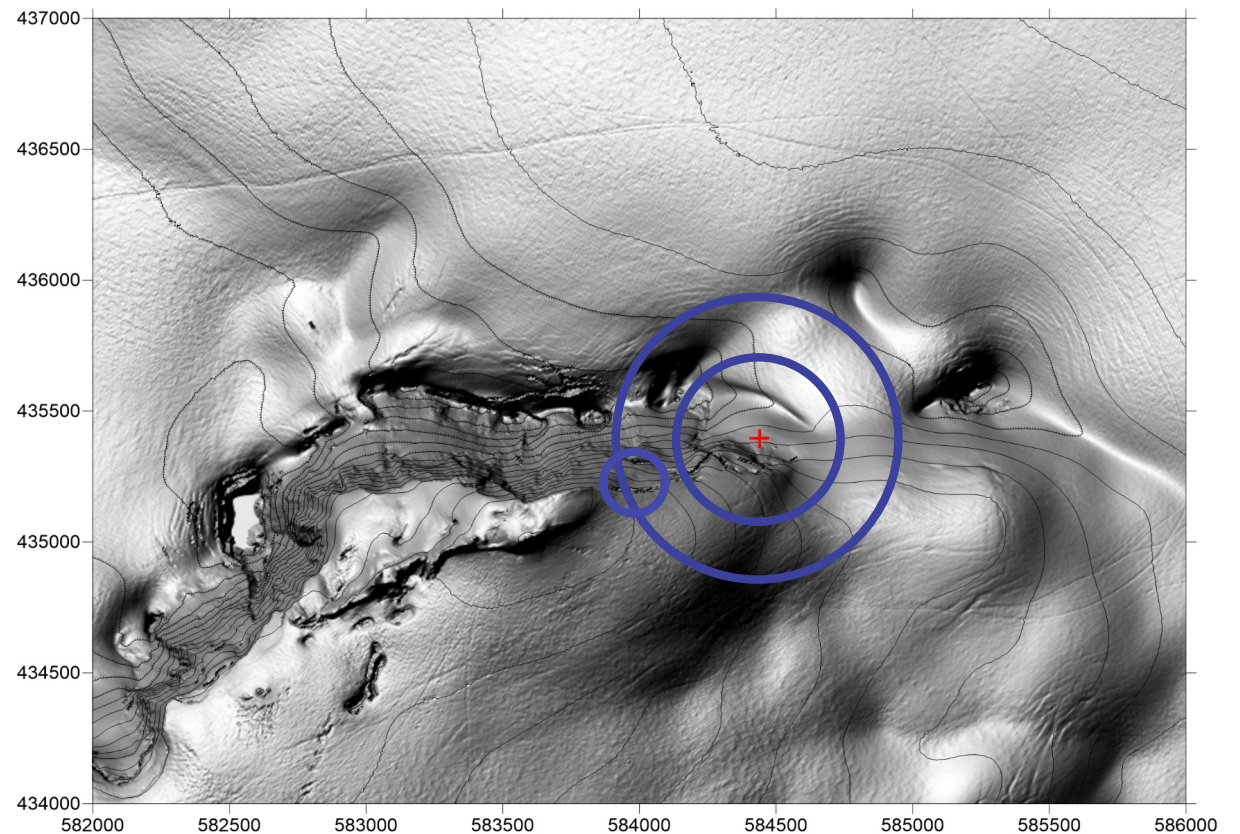
- A large avalanche is discovered

02:08

- Pulk found in avalanche. Picture becomes clearer
- IC starts planning to have fuel, shelter and other provisions transferred to site

02:56

- Footsteps found leading from avalanche





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PHASE 4 – Rescue Mission

Field Command is leading – IC is more in backup and planning

03:15

- Both persons found alive in a snow hole nine hours after they sent the PLB Beacon
- Both suffering from exhaustion and mild/severe hypothermia
- Taken to a hut not far away

05:14

- First super jeeps arrive to transfer them off the glacier

12:21

- Mission over. Both persons arrive at the town of Höfn

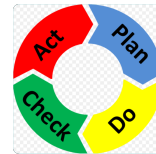




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The aftermath

Edward Deming's circle of improvements



- **We planned:** we designed a strategy that was logical
- **We did:** we implemented the plan and measured its performance
- **We checked:** we assessed the mission and reported the results to decision makers
- **We are acting.** Deciding on changes needed to improve the process

The hut in Grímsvötn





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Summary from the salvage operation. Result and several points to work with

- Everything went well. People and equipment came home safe
- Plan vs reality
- Very long distances and major transport problems
- Facilities for work very difficult
- Large scale avalanche search in these circumstances would have created unforeseen problems





**And lastly, can we do better in our
Incident Command?
Where and how?**



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