



DELIVERING DATA TO FIGHT WILDFIRES AND PROTECT FORESTS IN SWEDEN

16 APRIL 2020

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SWEDISH MAPPING, CADASTRAL AND LAND REGISTRATION AUTHORITY



WILDFIRES IN SWEDEN SUMMER 2018



REQUEST FROM REGIONAL COUNTY

July 18th, late night

The county administrative board reached out to Lantmäteriet asking for support by GIS operators to be placed in the crisis management staff in Ljusdal (Färila)



REQUESTING THE SWEAF GEOCELL

July 19th, early morning Lantmäteriet requested the Swedish Civil Contingencies Agency (MSB) to send a formal request to the Swedish Armed Forces (SweAF) duty officer asking for support to the wildfire fighting by deploying the Geocell.



REQUESTING THE SWEAF GEOCELL

July 20th, afternoon
Lantmäteriet establish the
SweAF Geocell at the
regional crisis management
HQ at Färila School, 350
km north of Stockholm.

24 hours Geosupport
managed by 4 geo-
analytics.



ORGANIZATIONAL DETAILS

4 persons incl. 1 Geocell Chief and 3 GIS-officers.

Working directly under Fire Analysis Group.

Part of General Command Staff including representatives from Fire and Rescue Service, Police, Armed Forces, County Administrative board, Transport Administration.

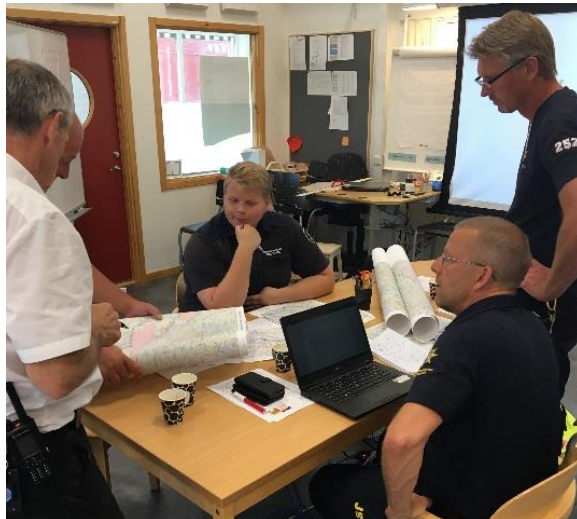


SUPPORTING THE RESCUE LEADERS AND ACTIVE PERSONNEL

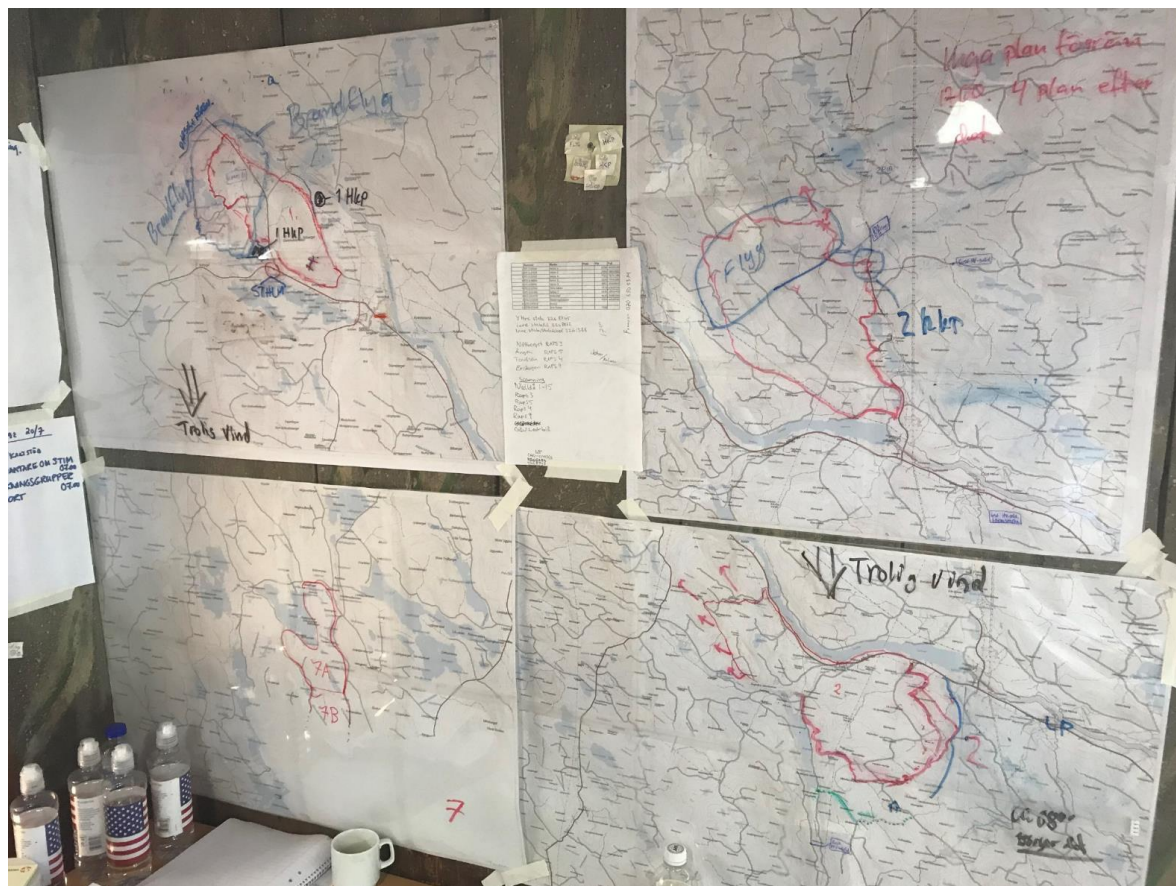
Primary assignment of the Geocell was to support the operation with situational awareness, by producing every day approx.

- 700 maps, scale 50K, size A3
- 50 maps, scale 50K, size A0

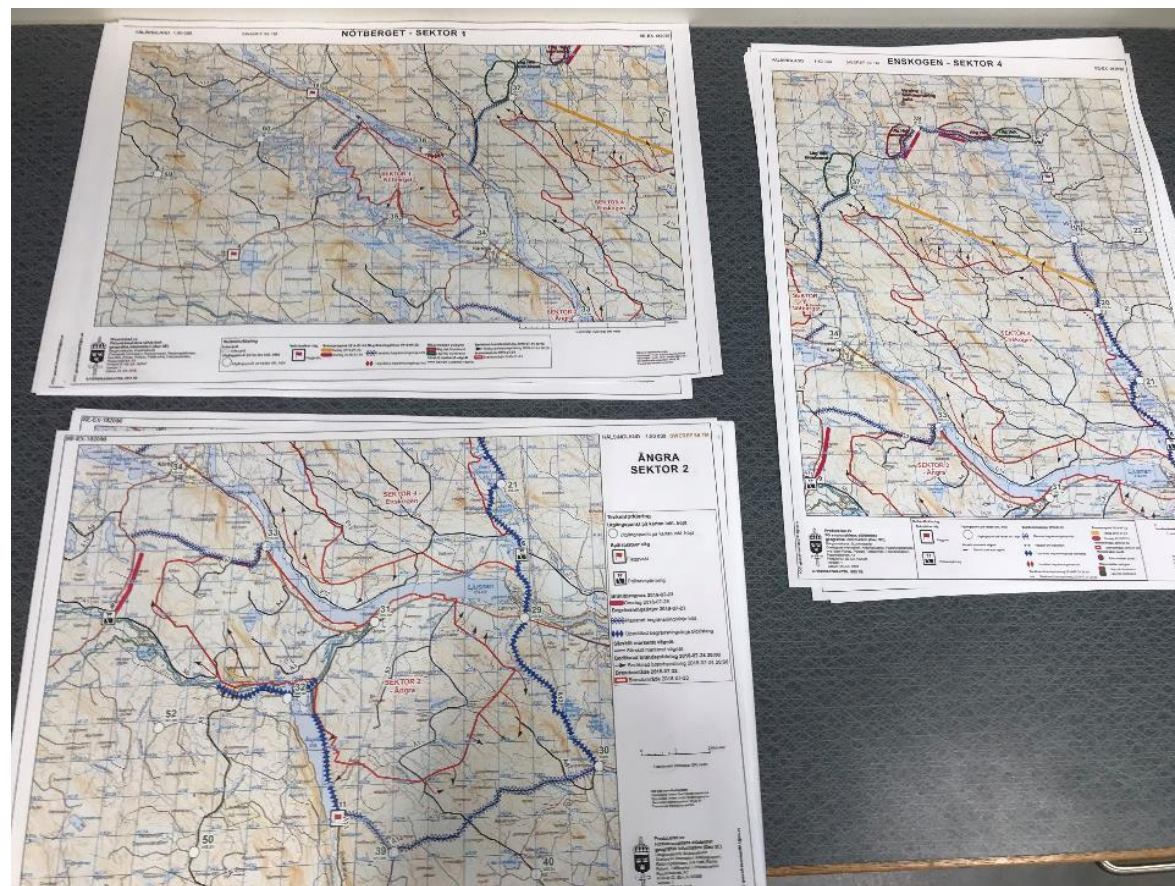
Secondly to support analysis and decision-makers with geographic information.



BEFORE



AFTER



DEPLOYED GEOCELL

Equipment

- 4 laptops
- A3-printer, ~1000 A3-maps/hour
- 42 inch plotter, ~20 A0-maps/hour
- NAS for data storage, UPS battery backup
- Ipad for collecting data and information
- Software: ArcGIS, FME, Global Mapper

HW and SW has to work offline without internet access.

Logistic:

Self-supported for 3 days; food and sleeping.



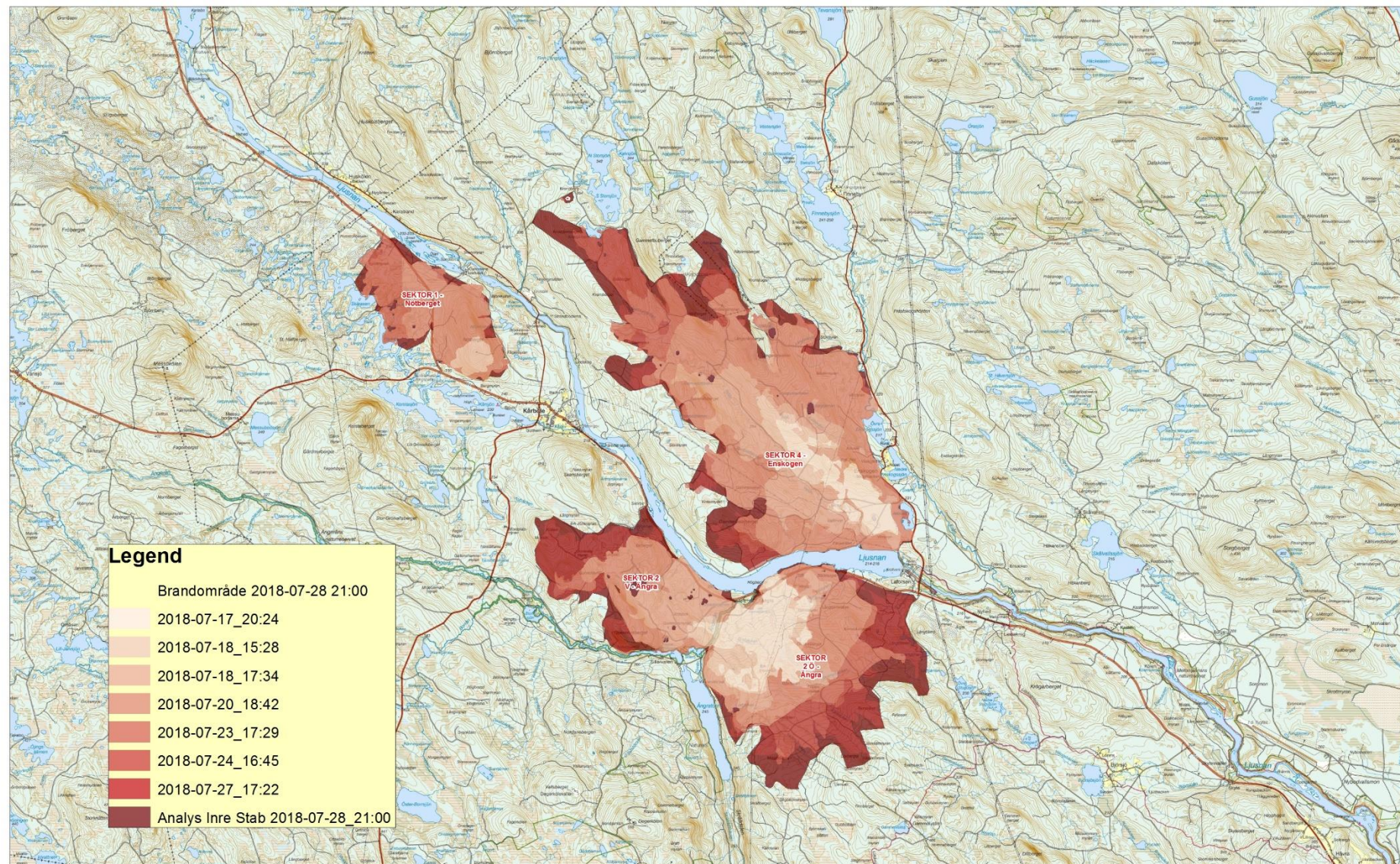
HÄLSINGLAND

1:50 000

SWEREF 99 TM

Brandutveckling satellit Källa: Copernicus/EU, samt analys Inre Stab

SE-EX-182229



SE-EX-182096

Table Of Contents

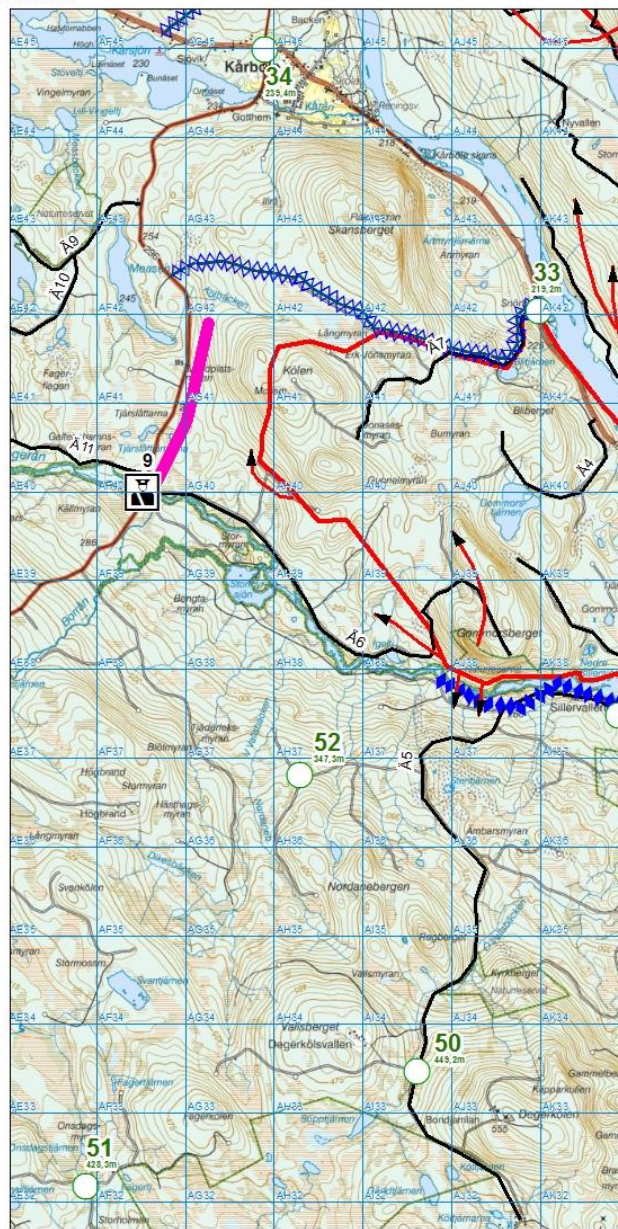


Layers

- ☒ brandfront_kartering_20180801
 - ☒ Vagar
 - <all other values>
 - Status
 - Öppen
 - Avstängd
- ☒ Helikopter_tracking_brandfront_20180731
 -
- ☒ avlysta_sjoar
 -
- ☒ Verksamhetsdata
 - ☒ Varm situation att hantera 2018-08-01
 - ✕
- ☒ Begränsningslinjer_20180731_2100
 - ◆ Planerad begränsningslinje blöt
 - ◆ Planerad begränsningslinje torr
 - Rapport om brandfront
 - ◆ Upprättad begränsningslinje blöt/s
 - ◆ Upprättad begränsningslinje torr
- ☒ Byggnadsstatus_20180731

HUSTYP

- HUS
- HUS VET EJ
- HUSNB
- ▲ HUSÖVR
- ▲ HUSÖVR VET EJ
- ▲ HUSÖVRNB



HÄLSINGLAND 1:50 000 SWEREF 99 TM

ÅNGRA SEKTOR 2

Teckenförklaring

Utgångspunkt på kartan inkl. höjd

○ Utgångspunkt på kartan inkl. höjd

Spärrplatser väg

■ Flaggvakt

■ Polisavspärring

Brandprognos 2018-07-23

Onsdag 2018-07-25

Begränsningslinjer 2018-07-23

◆ Planerad begränsningslinje blöt

◆ Upprättad begränsningslinje blöt/slang

Särskilt markerat vägnät

— Särskilt markerat vägnät

Beräknad brandspridning 2018-07-24 20:00

→ Beräknad brandspridning 2018-07-24 20:00

Brandområde 2018-07-23

■ Brandområde 2018-07-23

0 1 2 kilometer
1 centimeter motsvarar 500 meter

Nat och koordinatssystem
Hög anges i meter över havets medelvärde
Största avvikelse från referensnivå
Geoidalt referenssystem: WGS 84
Transversalt matrisrepresentation



Producerad av
Försvarsmakten stödenhet
geografisk information (Geo SE)
Bakgrund och data: Lantmäteriet
Övergripande information: Analysgruppen,
Räddningstjänsten, Inre Stab (Faria),
Polisen, Trafikverket, Försvarsmakten
Papperstyp: A3
Produkt ID: SE-EX-182096
Version: 1
Datum: 23 JUL 2018

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POC:geoinformation@geo.se

LESSONS LEARNED

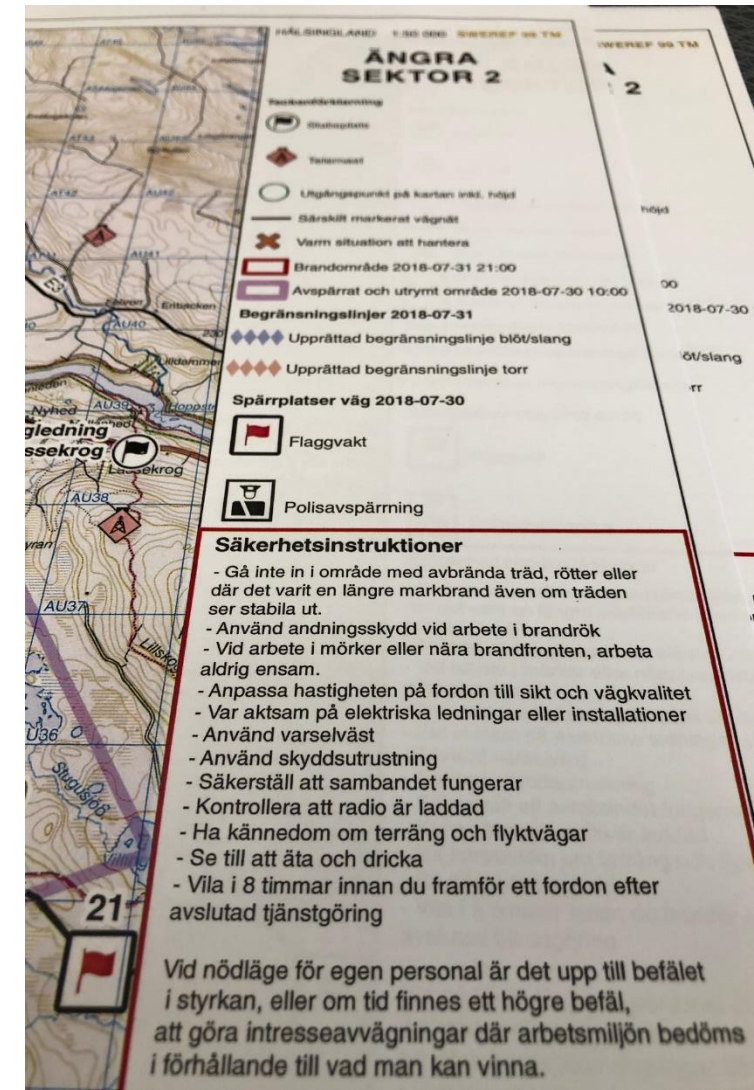
Feedback from staff and field personnel **very positive**.

The Geocell filled a previously missing resource and **added a new dimension** to the operation.

Lack of knowledge in respect to the usefulness of geographic information and GIS, especially thematic data, e.g. biomass, vegetation, proximity to water, soil humidity.

First time a Geocell was incorporated in a civil crisis management staff – need to define requirements, responsibilities and organisation.

Huge amount of collaborating organisations, apart from Swedish authorities and NOGs; Poland, Germany, Italy, France, Portugal, Lithuania, Finland, Norway, Denmark and six firefighters from Greenland.



Thank you for listening

