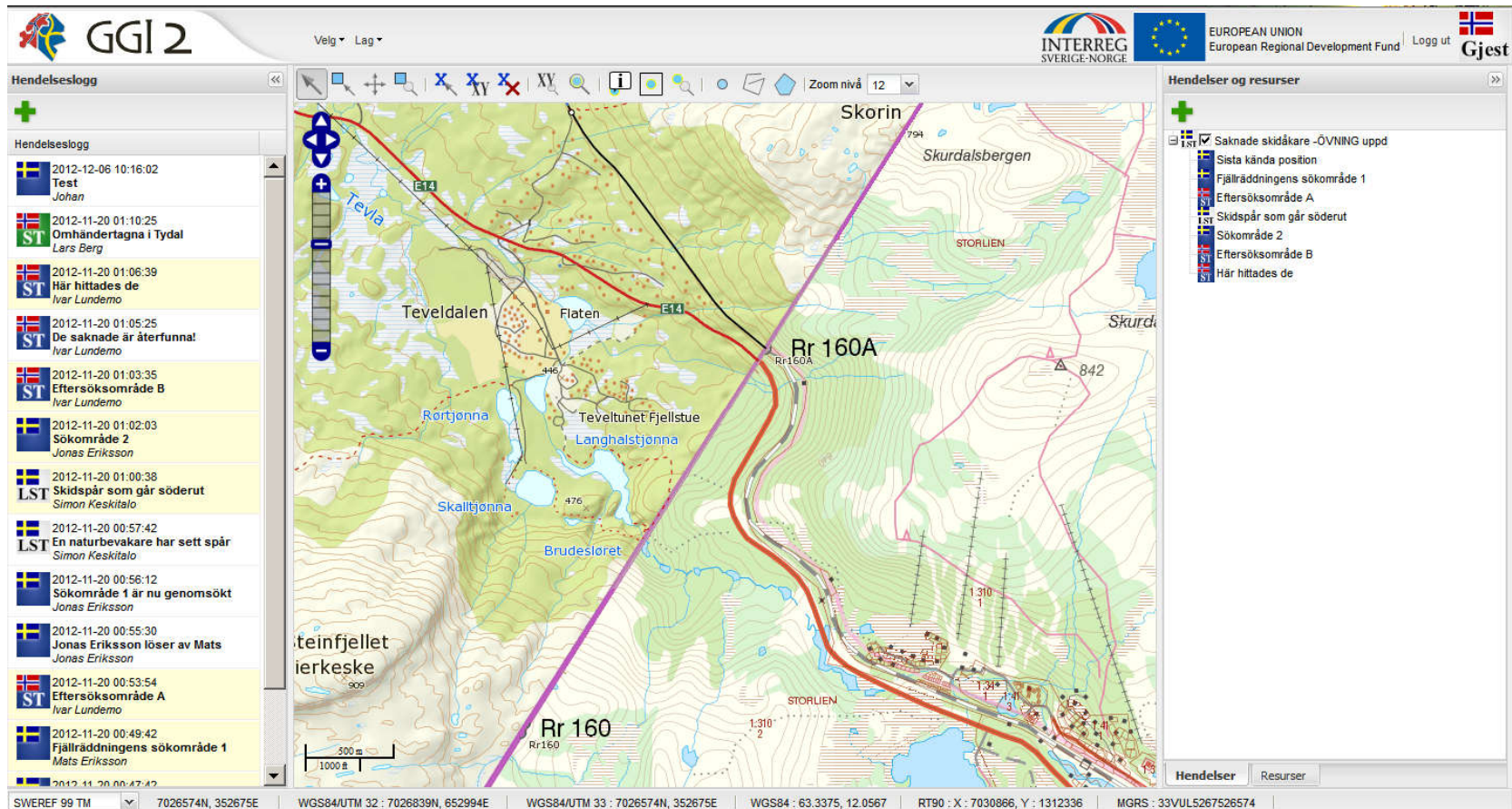




Geographic information in crisis communication

Ivar Svare Holand
Associate professor, Nord University
ivar.s.holand@nord.no





Emergency response across border:

- What functions does geographic information have in emergency response communication?
- Lessons learned about emergency response communication in the project?

GSS's Øvingssystem

Emergency management training system

- Presents scenario
- Logs
 - response
 - communication between participants
 - decisions
 - map use

The screenshot displays the GSS interface for a decentralized exercise on May 8, 2012. The top navigation bar includes 'Desentralisert øving 8. mai 2012 | Hendelse 05 | Playback | Statistikk | Logg ut'. The left panel shows incident details for five incidents (Hendelse 01 to 05) with their respective times and descriptions. The right panel shows a 'HANDLINGSLOGG' (Action Log) with a list of actions from 13:25 to 13:26, involving various agencies like Råddningstjenst, Polis, AMK, and Politi.

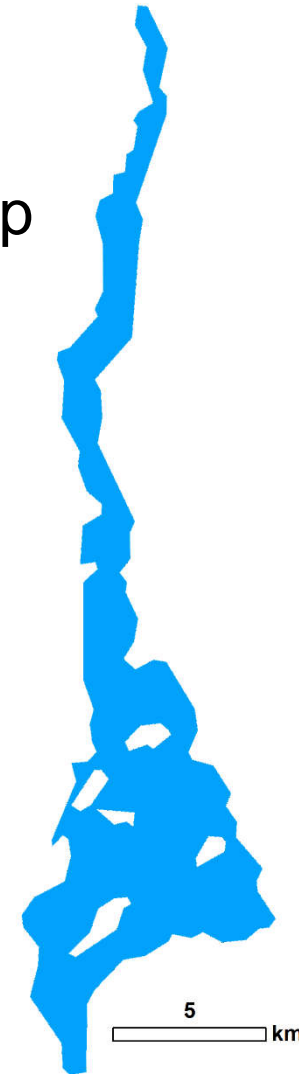
Communication of geographic information

Text

«Loch Lomond, the largest of Scottish lakes. It is about 23 m. long; its width varies from 5 m. towards the south end to 1/3 m. at the narrows to the north of the Isle of the Vow; its area is 27 sq. m. It contains 30 islands»

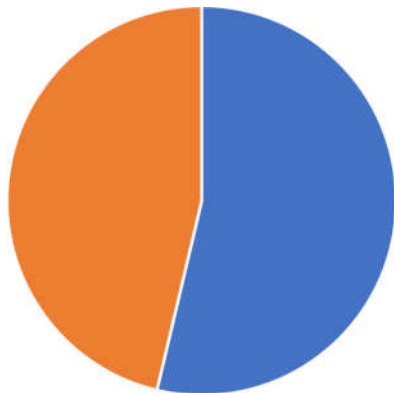
The map communicates more information, with less effort.

Map



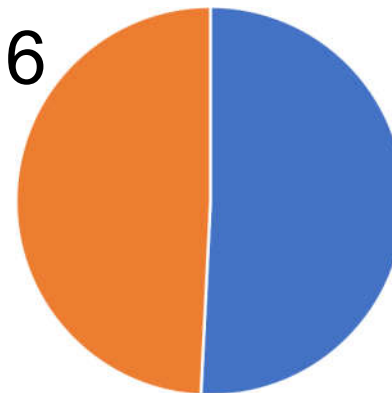
Geographic content in emergency communication

2013 exercise
table top, text
communication
n 581



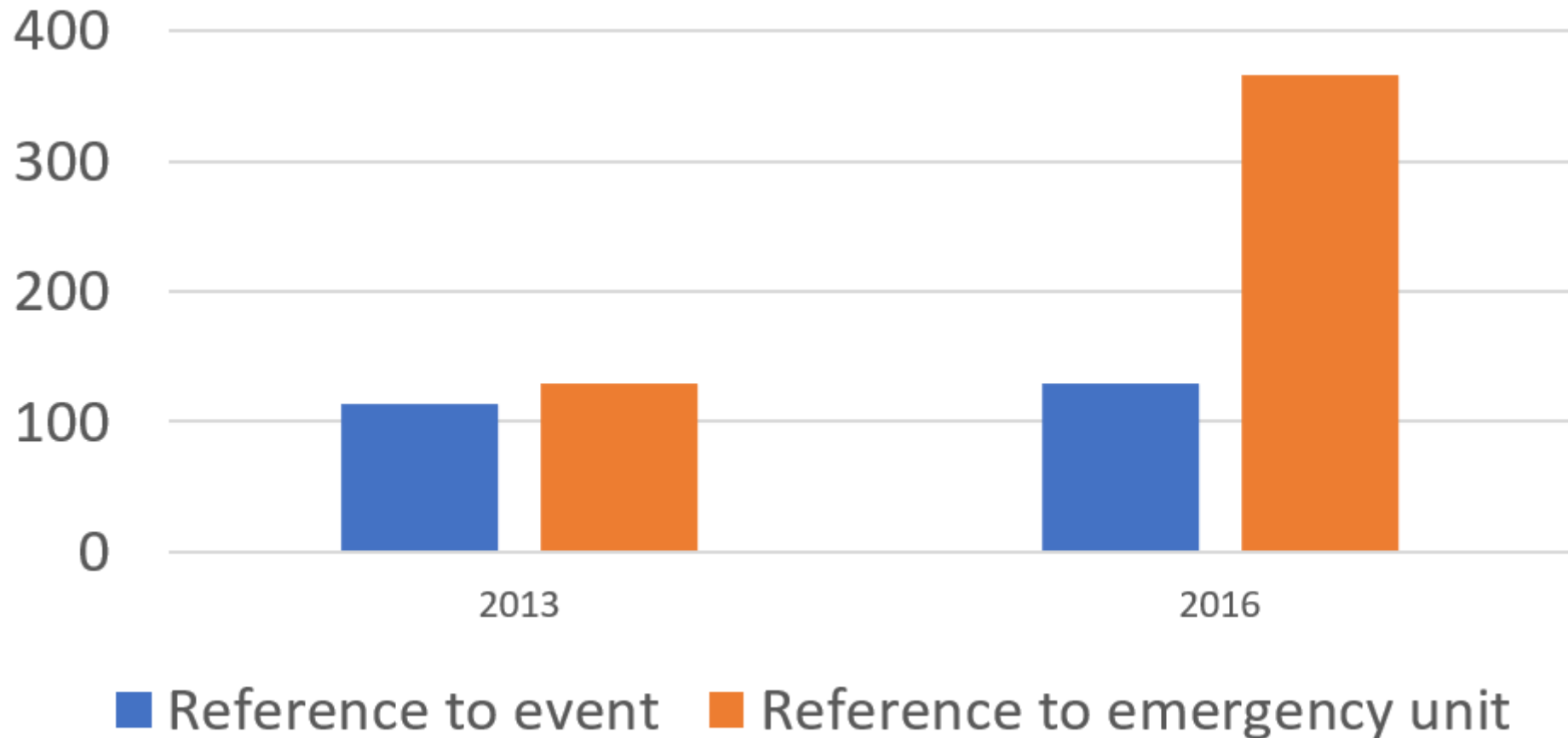
 Non geographic

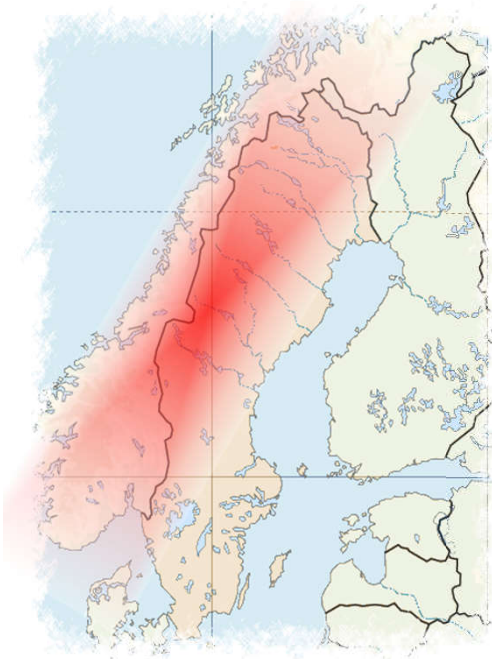
2016 exercise
full scale, radio
communications
interoperability test
n 1016



 Geographic

Type of geographic content





"two persons missing in border area between Norway and Sweden."

"widespread flooding i Jämtland"



"the two persons set out from Olden in Sweden towards Sørli in Norway"



"road E14 closed from Sjørdal to Meråker because of flooding"



Geographic information have different geometric properties (reference to area, line, or point) and varying presicion.



"oil leaking from petrol tank truck at crossing between roads E14 and E45"



Functions of geographic information

- Communicate analyses
 - exposure to hazard
 - potential events
 - potential search areas
- Communicate information about events
 - locations
 - search areas
 - contribute to overview
- Direct and coordinate emergency units
 - communicate location of units
 - in direction of event, search area
 - where to take affected people, patients
 - gathering points
 - communicate responsibilities
- Questions and answers about locations, places, areas

Geographic information as part of emergency unit name/ID (e.g. “Trondheim Ambulance 3”) eases coordination



Challenges I

Geographic information is in general communicated orally

- imprecise transmission of geographic information
- place names instead of locations/delimited areas
- time lost due to insufficient/imprecise information

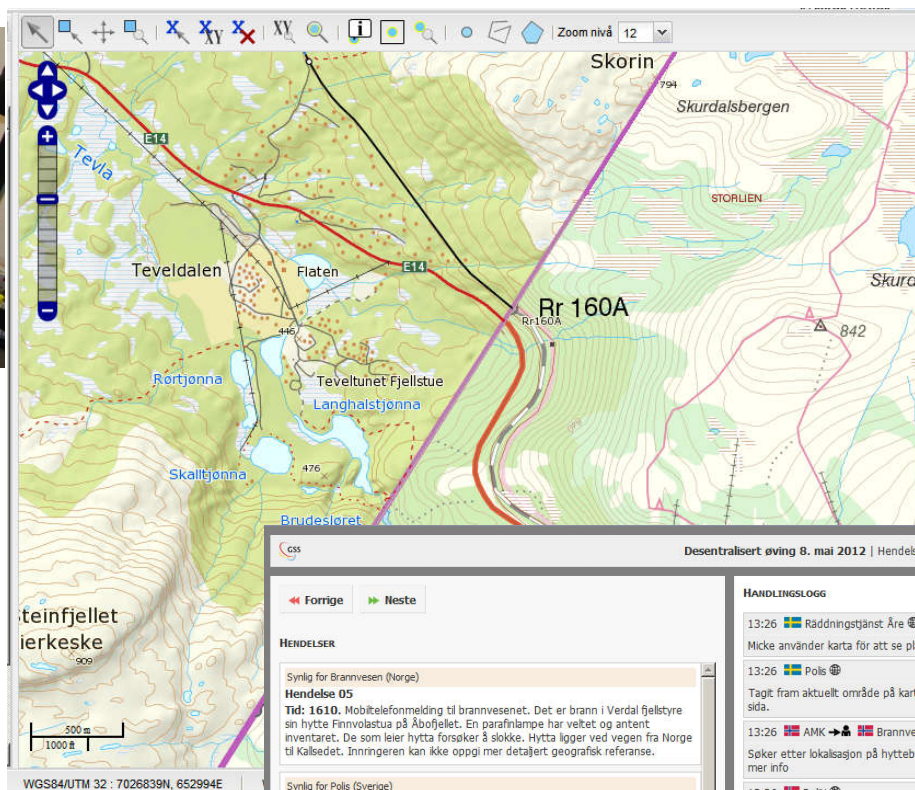
- place names are accurate if the persons who communicate have same spatial knowledge

Challenges II

Map systems exist but..

- not possible to mark off places and location of events
- not possible to communicate geographic event information from map to map
- lack of access to detailed maps
- incompatible geo reference systems (across border)
- insufficient search functionality (especially across border)
- map stops at border (but improved from 2011)
- digital map systems for vehicles, not for use in terrain

Questions?



Desentralisert øving 8. mai 2012 | Hendelse 05 | Playback | Statistikk | Logg ut

◀ Forrige ▶ Neste

HENDELSER

Synlig for Brannvesen (Norge)
Hendelse 05
Tid: 1610. Mobiltelefonmelding til brannvesenet. Det er brann i Verdal fjellstyre sin hytte Finnvolstua på Åbofjellet. En parafinlampe har vellet og antent inventaret. De som leier hytta forsøker å slukke. Hytta ligger ved vegen fra Norge til Kalsedet. Innringeren kan ikke oppgi mer detaljert geografisk referanse.

Synlig for Polit (Sverige)
Hendelse 04
Tid: 1605. Media hör av sig till svensk polis vad är det för typ av skred i Norge? Omfattning, finns det personskador?

Synlig for Polit (Norge)
Hendelse 03
Tid: 1605. Media hör av sig norsk polis vad är det för typ av skred? Omfattning? Skador?

Synlig for SOS Alarm (Sverige)
Hendelse 02
Tid: 1605. Samtal till 112 på svensk sida. En irriterad person har försökt ta sig in i Norge men fått vända eftersom det är stopp på vägen. Personen undrar varför finns det inga meddelanden om det.

Synlig for Polit (Norge)
Hendelse 01
Tid: 1600. Telefonmelding til politiet om at et Jordras har gått som sperrer vei

HANDLINGSLOGG

13:26 🇸🇪 Råddningstjänst Åre 📞
Micke använder karta för att se plats, mellan Meråker och Hegra

13:26 🇵🇸 Polis 📞
Tagt fram aktuellt område på kartan. Inget event är skapat från norsk sida.

13:26 🇸🇪 AMK → 🇸🇪 Brannvesen
Söker etter lokalsasjon på hyttebrann. Kontakter Verdal fjellstyre for mer info

13:26 🇸🇪 Polit 📞
dataprobblem, kommer ikke inn i kartet. bruker geopol.

13:26 🇸🇪 Polit → 🇸🇪 AMK
Koordinat på rassted er 63.27,7N 011,31,5

13:26 🇸🇪 AMK ← 🇸🇪 Brannvesen
Har dere posisjon på brann?

13:25 🇵🇸 Polis → 🇸🇪 Råddningstjänst Åre
RTJ önskar info.
Vill att fjällräddningsgrupperna i Åre/Anjan/Storlien sätts i beredskap. De ska kontakta insatsledaren i Järpen.

13:25 🇸🇪 SOS Alarm !
SOS meddelar Trafikverket (Banverket) och Tullen och meddelar om händelse i Norge och ev att stoppa trafik från Sverige in i Norge

13:25 🇸🇪 Övingsledelsen → 🇸🇪 AMK

Ivar Svare Holand
Nord University, Steinkjer
Ivar.s.holand@nord.no

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