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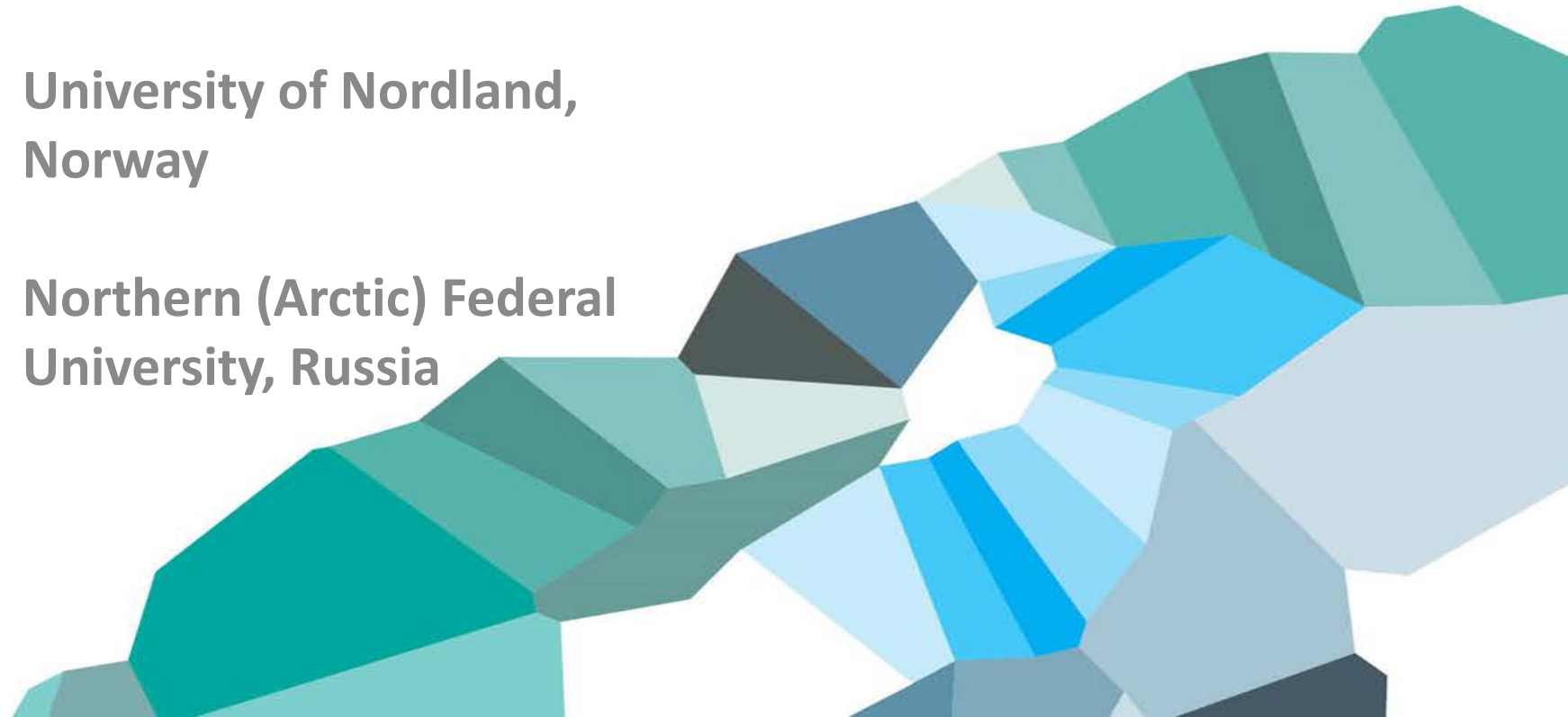
Emergency management in mass rescue operations. The case of the joint Norwegian-Russian rescue of MV Maxim Gorkiy

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M A R P A R T

MARITIME INTERNATIONAL PARTNERSHIP IN THE HIGH NORTH

- *Project focuses on cross-border partnership within the maritime preparedness system in the High North;*
- *Lead partner - Business School at University of Nordland;*
- *Team - 20 researchers from 9 universities in Norway, Russia, Iceland and Greenland;*
- *Financial support by Norwegian Ministry of Foreign Affairs, The Nordland County Administration and research partners.*



Mass evacuation and emergency management

- The International Maritime Organization (IMO) defines mass rescue evacuation as “an immediate response to a large number of persons in distress so that the capabilities normally available for search and rescue authorities are inadequate”.
- Emergency management refers to the coordination and control of operations that aim to evacuate people in distress.
- Coordination of mass evacuation operations is crucial but depends on complexity and scale of an accident.



The purpose of the paper

- is to investigate the coordination roles that are used in situations of mass evacuation in the specific context of the High North
- Case of the Maxim Gorkiy catastrophe



Challenges for the maritime preparedness in the Arctic

- Underdeveloped infrastructure: ports and harbours capacity, amount of depots.
- Scarce resources: limited amount and reduced functionality of emergency preparedness capacity;
- High volatility: difficulties with the system functionality, lack of understanding of the cause-effect relations;
- Multi-nationality: different cultures, languages and geopolitical interests and cross-border relations;
- High complexity: a very complicated set of formal institutions and a large number of stakeholders.



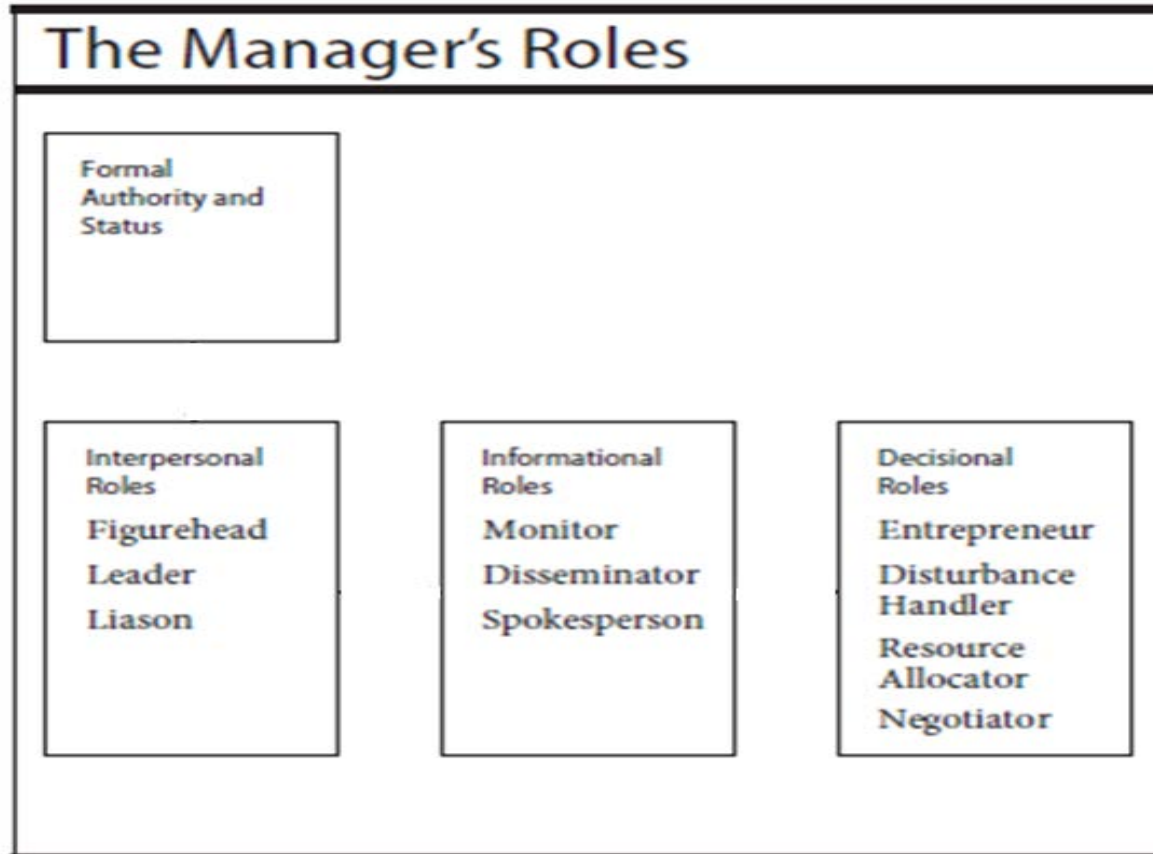
Challenges of mass rescue operations in the Arctic

- shortage of duly equipped support vessels that may be called on for assistance with regards to their maneuvering and station-keeping abilities in ice;
- cold temperatures affect on human physiology and psychology, equipment, materials and supplies;
- possible flight limits of the rescue helicopters and aircrafts due to technical limitations or military regulations;
- lack of experienced personnel and training facilities for the specific evacuation systems in the Arctic Seas;
- polar night with extended periods of darkness;
- possible lack of qualified medical help for large numbers of people in distress (and bodies, if necessary);
- lack of satellite coverage;
- communication / language difficulties in joint operations.



Different types of coordination roles

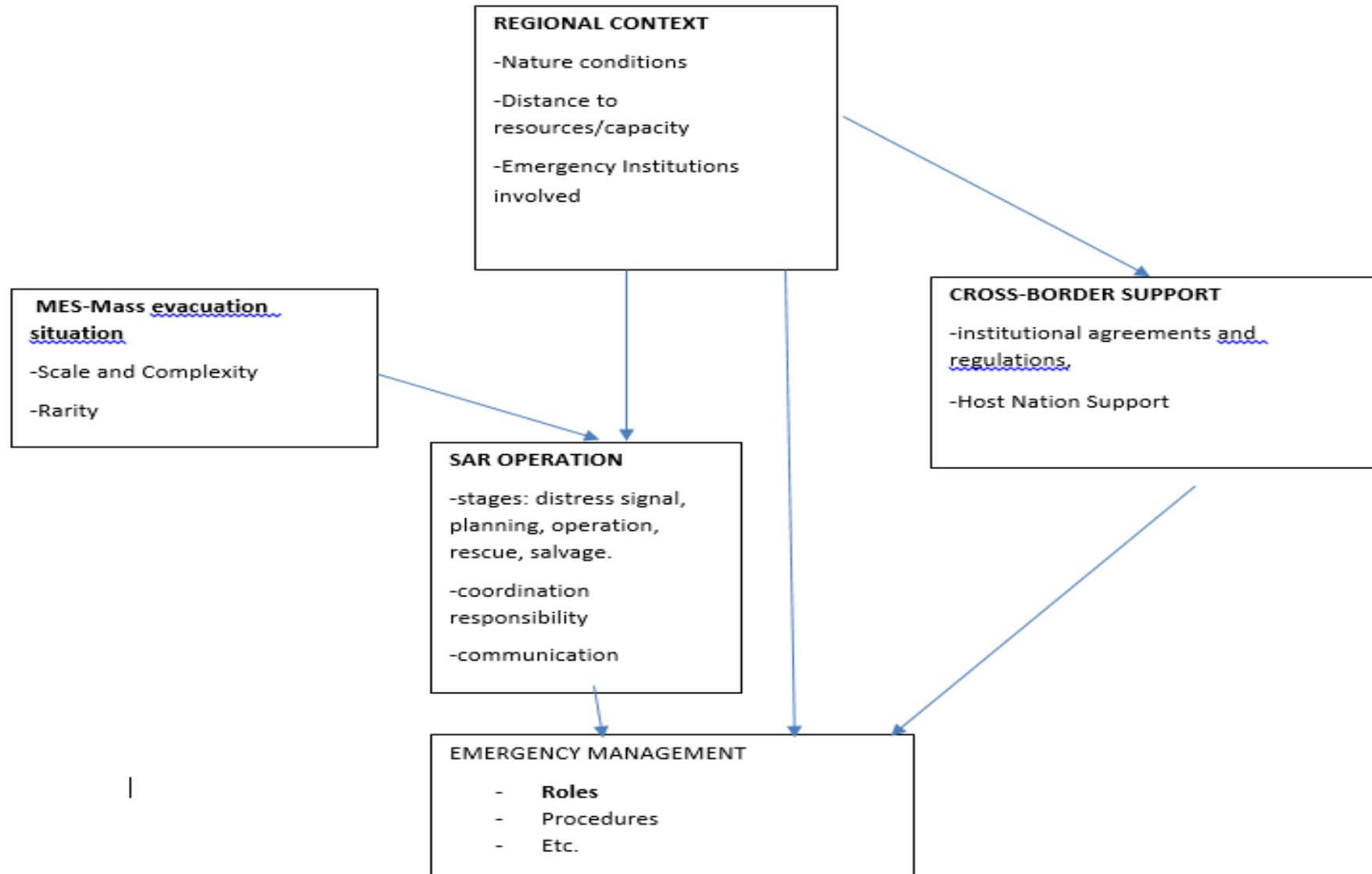
- In management (Mintzberg, 1973):



- In mass rescue operations (IAMSAR Manual, 2015):

- The SAR Coordinator
- The SAR Mission Coordinator
- The On Scene Coordinator
- The Aircraft Coordinator

Analytical model



THE CASE OF THE “MAXIM GORKIY” ACCIDENT

- 19 June 1989, around midnight
- hit an ice floe at very high speed
- outside Svalbard
- 954 people on board
- distress signal



Actors involved in the operation

NORWAY:

- coastal radio station on Svalbard,
- The Norwegian Rescue Coordination Center (RCC),
- Norwegian Coast Guard vessel “Senja”,
- the ice-reinforced search ship Polarsyssel from LRCC Svalbard,
- The Orion aircraft from Andøya,
- Sea King helicopter from Bjørnøya,
- Hospitals in Hammerfest, Tromsø, Harstad and Bodø
- JRCC NN in Bodø,
- Ministry of Justice, Ministry of Defense, Ministry of Foreign Affairs.

RUSSIA:

- the Sea Rescue Center in Murmansk
- surveillance aircraft “Ilyushin Il-38”
- Two rescue helicopters
- passenger aircraft “Tupolev TU-142” to Longeyarbyen



THE RESCUE OPERATION

- 12:27 AM Incomplete distress signal received via Svalbard Radio by the Norwegian Rescue Coordination Center,
- 12:40 AM Coast Guard ship was dispatched to assist,
- FROM 01:00 AM LRCC Svalbard began to establish the preparedness plan for receiving injured people in Longeyarbyen,
- JRCC NN in Bodø was planning the resources capacity,
- Poor connection between RCC and “Senja”
- “Senja” had to plan the rescue operation and took the overall responsibility for the operation
- 04:00 AM “Senja” arrived on scene – passengers on ice floes and life rafts, limited visibility due to fog and humidity, water conditions didn’t allow stabilization, began to evacuate passengers
- 04:30 AM The Orion aircraft arrived, “Senja” assigned a helicopter control officer on board with radio connection with aircrafts around,
- 05:00 AM 2 soviet “Hip-8” helicopters from the Kap Heer base (language challenges) and Russian surveillance aircraft
- 05:40 AM The Sea King helicopters from Bodø and Banak
- 07:30 AM all passengers rescued.



Discussion: Managerial roles vs Mass rescue coordination

Managerial roles →	Interpersonal	Informational	Decisional
Mass rescue coordination roles ↓			
The SAR Coordinator	Only the liaison role towards outside the national preparedness system.	-	-
The SAR Mission Coordinator	Took the figurehead role and represented the crisis situation towards different stakeholders within the system.	Took the monitor role in order to establish resources and the spokesman role in order to pass on information. The disseminator function failed because of bad communication.	The resource allocator role.
The On Scene Coordinator	Took the role of leader motivating the crew within the goal of the mission.	As spokesman, they reported some information to the SAR mission Coordinator. Had a disseminator role towards the Aircraft coordinator.	Took the entrepreneurial role considering all possible information. When the new changing conditions of ice and waves came up, they initiated new actions and decisions. As a disturbance handler, they solved the situation of communication with Russian helicopters by finding the Russian-speaking captain who reported to the Russian side.
The Aircraft Coordinator	-	Took the monitor role on scene in order to establish a plan on how to rescue the passengers.	As resource allocators on scene, they ensured that all helicopters and aircrafts had sufficient fuel and coordinated them in order to avoid panic, extra traffic and to maximize efficiency.



Conclusions: mass evacuation operation

1. Coordination was challenged by cross-border support: limited formal agreements and practices, limited skills in language, culture and understanding of overall technological capability.
2. Coordination was challenged by the regional context of the High North and the scale of accident: limited visibility, summer fog, dynamic water conditions, and floating blocks of ice, long distances for helicopters and aircrafts, lack of communication, lack of experience in rescue in these conditions



Demands for joint emergency system

- Better institutional framework with international agreements, cross-border support and better government capacity,
- larger capacity and infrastructure for emergency resources in this area,
- a broader range of managerial tools to face the challenges of coordination in complex and volatile environment,
- relevant information on time, good satellite communication facilities, foreign language skills, well-trained personnel, common language platform and and cultural understanding/trust.



Thank You

for your attention

