

Greater Stockholm Fire Brigade

Service Analysis and Initial Modelling



KEY BENEFITS

- First analysis and modelling study of this nature in Sweden
- Overcame data challenges to fully assess current provision
- Evidence-based approach evaluated station locations and appliance deployments
- Assisted SSBF prevention staff by mapping coverage against building code standards



Supporting strategic planning in a European capital city

KEY FACTS

Population = 1,305,000

Area Covered = 1,641 km²

Fire Stations = 25 (including 8 volunteer)

Annual Incidents = 10,000

Operational Staff = 850

ABOUT SSBF

Greater Stockholm Fire Brigade (Storstockholms brandförsvaret, SSBF) is the largest fire service in Sweden, covering 10 municipalities around the capital. SSBF's functions include fire and emergency response, preventive work to reduce fires and accidents, and supervision of public buildings.

THE CHALLENGE

SSBF sought to develop a new strategic plan for implementation in 2016. The aim of the study was to provide SSBF with an improved understanding of service delivery through a combination of analysis (reviewing current and historical

trends) and modelling (assessing options for change). SSBF required an evidence-based assessment of station locations, numbers of vehicles and crewing options.

ORH'S APPROACH

As the first study of its kind in Sweden, ORH worked closely with SSBF to understand the processes for mobilising resources and the methods for capturing data. ORH's analysis included the seasonality of demand and the impacts of pre-alert systems. Using simulation modelling ORH assessed the workload, performance and interactions of pumping and aerial appliances. This, in conjunction with optimisation modelling, evaluated potential efficiencies and improvements in station and appliance locations.

RESULTS

ORH's analysis identified how reductions in call handling and crew turnout times improved response times to incidents.

Through optimisation ORH found that stations were well located across Stockholm, but that there was potential for local efficiencies through additional stations or standby points operating during peak hours. For aerial appliances, ORH mapped coverage to identify areas inside and outside of Swedish Building Code standards.



Professionally-run development work is based on analysis of facts and traceable assumptions. Experience and practices have large and obvious value but, when challenged, need to be certified and validated. Through a partnership with ORH, SSBF now takes a big step towards evidence-based development.

Svante Borg, Director,
Greater Stockholm Fire Brigade



**Emergency
Service Planning
Case Study**

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About ORH

PLAN. PREPARE. PERFORM.

ORH helps emergency services around the world to optimise resource use and respond in the most effective and efficient way.



We have set the benchmark for emergency service planning, with a proven approach combining rigorous scientific analysis with experienced, insightful consultancy. Our expert team uses sophisticated modelling techniques to identify opportunities for improvement and uncover hidden capacity. Simulating future scenarios ensures that solutions are objective, evidence-based and quantified.

Every organisation faces a unique set of challenges, so remaining independent and flexible allows us to deliver an appropriate solution every time. The outputs of our work enable clients to make robust, data-driven decisions and explain them clearly to stakeholders.

ORH's approach is always tailored to the needs of the client. Above all, we are committed to getting it right, for the good of our clients and the people who rely on their services.

ORH WORKS WITH FIRE AND RESCUE SERVICES TO:

- Optimise the locations of vehicles and stations
- Support decision making
- Deliver efficiency savings
- Assess alternative duty systems and service delivery options
- Develop contingency plans
- Evaluate the potential for co-responding

For control rooms, ORH provides its DCT software to support dynamic decision making and enable effective and efficient resource use.



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