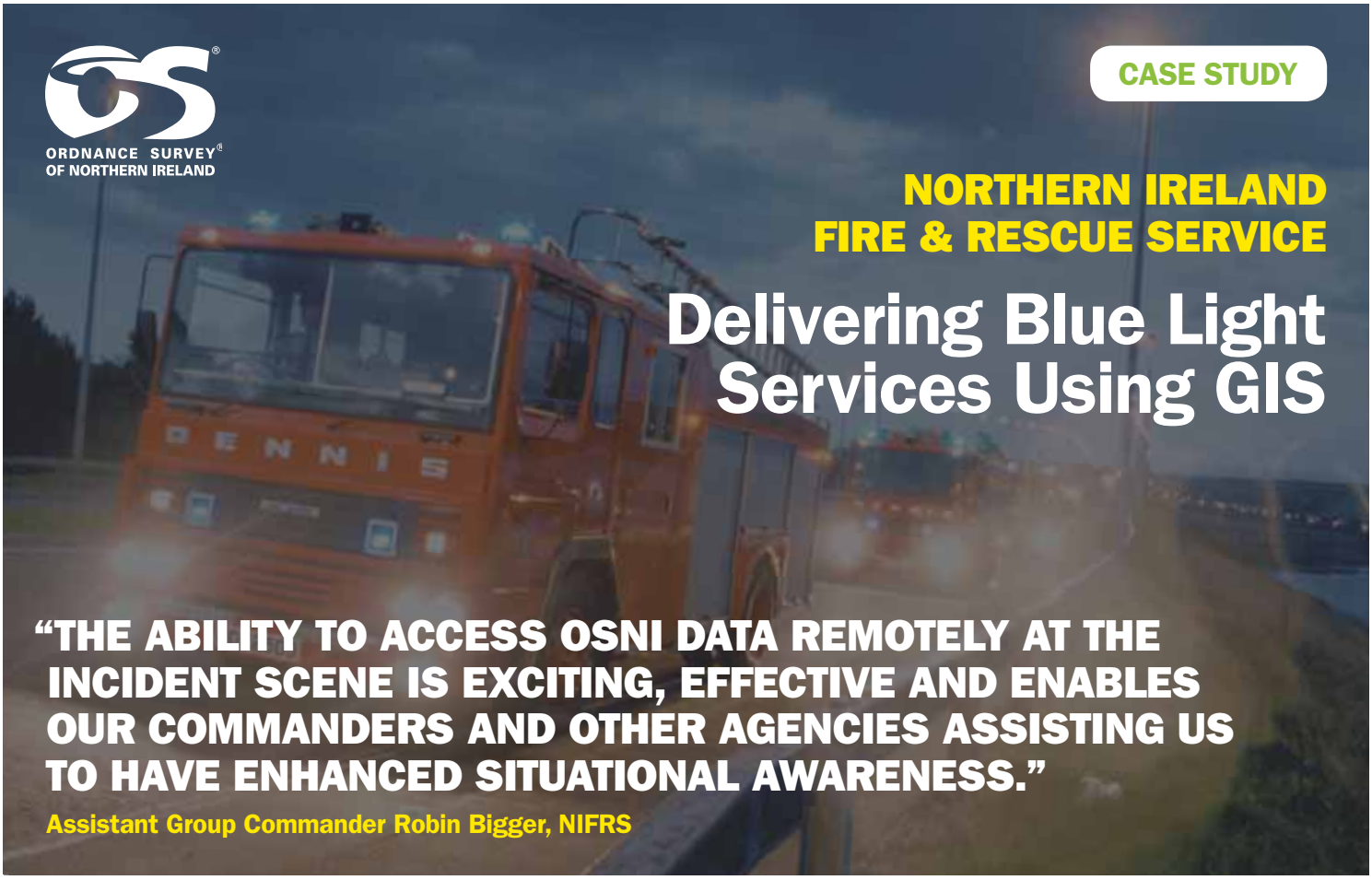
ORDNANCE SURVEY® OF NORTHERN IRELAND

CASE STUDY

NORTHERN IRELAND FIRE & RESCUE SERVICE

Delivering Blue Light Services Using GIS



"THE ABILITY TO ACCESS OSNI DATA REMOTELY AT THE INCIDENT SCENE IS EXCITING, EFFECTIVE AND ENABLES OUR COMMANDERS AND OTHER AGENCIES ASSISTING US TO HAVE ENHANCED SITUATIONAL AWARENESS."

Assistant Group Commander Robin Bigger, NIFRS

Background

It is estimated that over 80% of information held within UK Government is geographically based. Every incident involving the Emergency Services occurs at a place that can be geographically referenced, whether it is a house, road junction or the middle of a forest. We at Northern Ireland Fire & Rescue Service (NIFRS) recognise that it is vital that Emergency Services can pinpoint the location of emergency situations quickly and accurately.

To achieve this we use a Geographic Information System (GIS). This supports strategic processes throughout the service and provides a format in which geographic information can be exchanged with other services and agencies in line with government initiatives such as the forthcoming Geo-Hub.

The Challenge

An effective geographic information strategy should bring key benefits to the strategic emergency service response to help ensure the public's safety.

Our current processes include producing mobilising information for use while handling and processing emergency calls, information for incident command support, managing site-specific risk information, and identifying water sources for firefighting. The NIFRS Integrated Risk Management Plan has confirmed the use of GIS as a software tool for assessing the emerging risk profile within the service area and providing response options that ensure the most effective emergency cover is provided 24/7.

Useful Terms

What is a Geographic Information System (GIS)?

GIS is a software information system that finds, analyses and displays geographical information. GIS tools visualise the layout of a location to aid the user in their decision making.

Northern Ireland Office Mapping Agreement (NIOMA)

NIOMA is a supply agreement between Ordnance Survey of Northern Ireland (OSNI) and the Northern Ireland Office (NIO). It provides NIO's core department, its Agencies and Non Departmental Bodies (NDPBs) with unrestricted access to eighteen Geographic Information (GI) products from OSNI.

Although each emergency service still needs to make careful choices in the use and deployment of GIS, we know that a diluted approach to GIS and its opportunities for data sharing is not cost effective in service delivery. An integrated GI strategy offers the opportunity for:

- more efficient rescue operations that will save lives and property;
- better co-operation between services and agencies;
- cost savings through increased efficiency of service and economies of scale; and
- better management and documentation of operations.

For example, we currently access an LPS/ Ordnance Survey Northern Ireland (OSNI) hosted web-based 'live' GIS from Command Support Units located at incident scenes. This gives rapid access to mission critical information such as gas and electricity services, historical information and vehicle access.

The Solution

We are maximising opportunities for data sharing with other agencies and strategic partners through careful choice and deployment of GIS. This is already proving cost effective in our service delivery. An effective and integrated GI strategy within Northern Ireland is already realising key benefits to our strategic emergency response, helping us ensure the safety of citizens in Northern Ireland and parts of the Republic of Ireland.

The Benefits

GIS has already made a significant impact within NIFRS in response planning using Fire Services Emergency Cover methodology. It is a 'bedrock' component in next generation command and control systems, empowering dynamic mobilising by using automatic vehicle location technology loaded with high quality intelligence. This helps ensure the safety of Firefighters and citizens alike, often in the most challenging of environments.

We are currently loading all Premise Specific Risk Information held in NIFRS, which needs to be made available on Mobile Data Terminals, to a central corporate address hub. This address hub has LPS/OSNI Pointer Plus data as the 'trusted' data set. The Location or Address Hub holds a Unique Premise Reference Number for each premise in Northern Ireland.

The uptake of these rich geographic datasets has been greatly stimulated by the recent NI Mapping Agreement (NIMA). We are now able to use all data provided by OSNI, which includes some very useful and practical information for emergency services such as that relating to terrain, or OSNI aerial photography helping Firefighters ascertain how a roof is constructed for example during the hours of darkness.

We can share data in a cohesive manner, ensuring that the information offers the opportunity for more efficient rescue operations saving lives and property, better co-operation between services, agencies and local government, and better management and documentation of operations.

The Northern Ireland Fire & Rescue Service Board replaced the Fire Authority for Northern Ireland on 1 July 2006 with powers granted under the Fire and Rescue Services (Northern Ireland) Order 2006. Our mission is to deliver a fire and rescue service and work in partnership with others to ensure the safety and well-being of our community.

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