

## Improving the efficiency of critical security operations

# Police Scotland

### The Challenge

- Search and seal 7,000 assets across Glasgow
- Manage a large team comprising partner resources and officers from multiple forces

### The Benefits

- Up to 75% faster search and seal operations
- A more rapid response to potential security issues
- Improved management of a vital security operation
- Efficient collaboration with partners
- A lower carbon impact with reduced paper use

When Glasgow hosted the United Nations' COP26 Conference, the need for tight security was absolutely paramount. Police Scotland developed an innovative, GIS-based digital workflow that enabled it to carry out a highly robust search and seal process, with fewer resources and just four sheets of paper.

### The Challenge

In 2021, thousands of people from all over the globe converged on Glasgow for the COP26 Climate Change Conference, including 104 Heads of State, members of the British Royal Family and world-renowned environment and climate experts. Before and during this high-profiled event, Police Scotland needed to search and seal around 7,000 drains, vents, lamp posts, utility cabinets and similar assets with small openings where improvised explosive devices, firearms and other items for disrupting the event could be concealed. The organisation knew that an operation on this massive scale was going to be almost impossible with the resources available, if it used the standard paper-based search and seal process.

### The Solution

Police Scotland addressed this pressing challenge by developing a digital, mobile workflow for search and seal operations using the combination of ArcGIS Field Maps and ArcGIS Dashboards. The bespoke solution was created quickly and cost-effectively by the force's in-house GIS team, using out-of-the-box functionality, to operate on police officers' existing devices.

Using the new workflow, specialist police officers were tasked to search and seal specific clusters of assets, all of which were uniquely numbered. They could see pictures and maps of the assets on their mobile devices helping them to find and correctly identify them in the field, and ensure none were missed. Next the solution was used to carry out inspections to identify any damaged seals. When potential issues were identified, field staff used online forms within the solution to flag assets that needed to be searched and sealed again and raise any concerns.

An ArcGIS Dashboard in ArcGIS Online provided senior officers with a complete, real-time view of the entire operation, enabling them to better manage the allocation of tasks to field teams. Broken seals or issues recorded in the field were instantly visible, enabling specialist teams to take action quickly. Furthermore, when coastguard personnel were brought in to help the police inspect seals during the event, Police Scotland could use ArcGIS Online to give them limited, secure access to the data they needed, on their own devices, while still complying with the strict security controls governing the event.



### The Benefits

#### *Up to 75% faster search and seal operations*

Using ArcGIS, Police Scotland could search and seal drains and other assets 50% to 75% faster than before. Consequently, the force could cover a large area of Glasgow and carry out an effective search and seal process on the enormous scale needed for COP26, with a relatively small team. The previous paper-based approach would not have been able to scale up adequately with the resources available.



#### *A more rapid response to potential security issues*

Critically, the ArcGIS solution enabled Police Scotland to respond more quickly to potential security issues during the event. For example, whenever an inspection team reported a broken seal, the fault was instantly flagged on the ArcGIS Dashboard, so the reseal team could go immediately to this location to secure it again. With the previous paper-based system, it could have been the next day before information from the field was received in the office and passed back out again to another team.

The ArcGIS-based search and seal workflow developed by Police Scotland

#### *Improved management of a vital security operation*

ArcGIS provided a single operating picture and live updates of what was happening in the field, on any device. As a result, senior officers could monitor the progress of search and seal operations in real-time, on their mobile devices, see where seal damage was occurring most frequently and then allocate teams to the areas of greatest risk. They could also be a lot more mobile and make decisions about search and seal on the fly, while doing other important policing tasks to ensure the safety of people throughout the city.

#### *Efficient collaboration with partners*

During COP26, the team of 20 specialist search and seal officers from Police Scotland was able to work efficiently with 20 coastguard personnel and around 80 additional police resources from English forces, using the same ArcGIS workflow. Without this ArcGIS-based approach, Police Scotland estimates that it would have needed three times as many police and partner resources to manage the search and seal process throughout the event.

#### *A lower carbon impact*

In keeping with the aims of COP26, the new ArcGIS workflow enabled Police Scotland to reduce the unnecessary use of paper. The force estimates that its previous approach would have generated around five file boxes of paper, but in the entire search and seal process for the event, just four sheets of paper were printed. Police Scotland is now building on its experience with the search and seal solution and plans to develop new digital workflows with ArcGIS, to continue the legacy of COP26.

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