



National
Operational
Learning

Action note

Action note - 20190424-1844 - A

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NFCC

Fire Central
Programme Office

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Contents

Action note - 20190424-1844 - A 3

Action note - 20190424-1844 - A

Overview of event

Over the border FRS attended the Incident as part of the pre determined attendance. Digital radios used by the OTB FRS caused interference with host FRS handheld radios. This made the radios inoperable unless turned to analogue. This had a direct impact on safety within the fireground.

Different radio channels are also used for specific roles by each service.

Summary of learning

The lack of intraoperability between differing fireground radio systems.

NOLUG Recommendations

Effective fireground communications are crucial to the work of fire and rescue services in resolving incidents and ensuring firefighter safety, particularly between sectors and when breathing apparatus (BA) crews are deployed. The intraoperability of communications between services at cross-border and major incidents can also be critical to effective operations.

Fireground radios for voice communications were originally operated using analogue radio technology. The introduction of new technology has led to fire and rescue services procuring and using digital fireground radios. The new digital radios are programmed to use the same radio frequencies that are, and have been, historically used for existing analogue radios. These frequencies can still be used without issue for both analogue and digital radio and will therefore continue to operate for fire and rescue services that choose not to adopt digital technology.

However, analogue and digital radios that are operated within range of each other using the same frequency will be subject to interference. FRSs have reported that when they have attended an over the border incident and attempts have been used to use both analogue and digital radios at the same incident, the interference experienced has been so severe the radios have been inoperable. It is essential that Fire and Rescue personnel are aware of these issues and the mitigations that must be put in place to avoid loss of crucial communications at an operational incident.

To ensure effective cross-border interoperability with fireground radios, it is essential that all personnel are aware that using both digital and analogue radios at the same incident is likely to

generate issues for one or both services.

At incidents where both analogue and digital radio technologies are in use, or occasions where radio equipment may be within range (e.g. service boundaries), an effective communications plan is essential and should be implemented at the earliest opportunity. It should clearly define the channels nominated, including whether they are analogue or digital.

Recommended actions

- Services who regularly attend cross border incidents as re-enforcements or as part of first attendance, are encouraged to speak to their neighbouring FRS to ascertain if they operate with analogue or digital radios. Where there is a difference, they should have a predetermined comms plan which has been tested.

Personnel who regularly attending cross border incidents should also be aware of potential radio problems that could occur when both analogue and digital radios are in use at the same incident, as well as the actions that should be taken to resolve such issues.

It is appropriate to highlight that National Operational Guidance on fireground radios was produced in the last two years that provides advice covering all the issues above which FRS should be implementing to avoid compromising their own, or their neighbours operations. Should you require any additional information that is not covered in the guidance and this information note, you should contact your own FRSs communications lead for further guidance.

[Fireground Radios Guidance](#)

Contact information

NOL would be keen to hear of any further associated learning identified by fire and rescue services as a result of this Action Note. Please contact: NOLmail@ukfrs.com