



National
Operational
Guidance

Control measure

**Consider deploying unmanned
aircraft**



NFCC
National Fire
Chiefs Council

Developed and maintained by the NFCC



Contents

Control measure - Consider deploying unmanned aircraft 3



Control measure - Consider deploying unmanned aircraft

Control measure knowledge

Unmanned aircraft can be used at wildfires to provide an overhead view of the incident. They can be used for a variety of purposes, such as:

- Information gathering
- Monitoring fire behaviour and firespread
- Monitoring the location of personnel on the incident ground
- Spotting potential water sources that may not be visible or apparent from the ground
- Inspection of access, egress and escape routes
- Spotting hotspots from above, particularly if equipped with a thermal imaging camera (refer to control measure 'Consider using thermal imaging cameras')

Unmanned aircraft can be used to assist in developing tactical plans for wildfires and in implementing a safe system of work. Unlike fixed-wing aircraft and helicopters, unmanned aircraft may be able to work well during the hours of darkness if they are equipped with thermal imaging cameras.

The Civil Aviation Authority has produced specific guidance for unmanned aircraft ([CAP 722 - Unmanned Aircraft System Operations in UK Airspace - Guidance](#)). The guidance is intended to assist those who are involved in all aspects of developing unmanned aircraft systems, to identify the route to certification, outline the methods by which permission for aerial work may be obtained, and ensure that all requirements are met by the unmanned aircraft system industry. The document highlights the safety requirements that have to be met before an unmanned aircraft system is allowed to operate in the UK.

Strategic actions

Fire and rescue services should:

- Consider pre-planning activity to obtain an awareness of potential unmanned aircraft providers, and the capabilities and limitations of individual unmanned aircraft and providers
- Consider improving and maintaining interoperability between unmanned aircraft providers/operators and fire and rescue personnel by organising co-operative training and joint multi-agency exercises

Tactical actions

Incident commanders should:

- Consider the challenges of establishing and maintaining communications between personnel on the ground, unmanned aircraft operator(s) and any other aircraft that may be deployed at the incident
- Provide briefings and/or inform ground personnel and other aircraft (i.e. fixed-wing aircraft and helicopters) of the presence of an unmanned aircraft, and provide details about the area the unmanned aircraft will be operating in
- Provide briefings and/or inform unmanned aircraft operators of any known hazards present at the incident and the locations of personnel on the ground
- Consider the support required for the unmanned aircraft, including identifying suitable take-off and landing areas
- Consider the limitations of the unmanned aircraft and its operator
- Consider the potential impact that the fire, weather conditions and topography may have on the flight and performance of an unmanned aircraft
- Consider the medium and long-term weather forecasts to assess the potential impact of the weather on the safety and effectiveness of unmanned aircraft deployed at the incident
- Consider if there is a need to suspend unmanned aircraft operations at the incident while other aerial or ground operations are taking place