

Unmanned aircraft demonstrate success in crisis management

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Unmanned balloons and satellites can be effectively used to achieve integrated crisis management across large areas, EU researchers have confirmed.

A long-endurance drone was recently tested as part of a response to simulated threats and risks. The team reported that the overall performance and advanced imaging system of the craft – which can fly for over 20 hours non-stop – provided very high resolution images capable of identifying and precisely locating threats and risks. In addition, the drone demonstrated an ability to be deployed at very short notice.

The drone test was part of the four-year EU-funded AIRBEAM project, launched at the beginning of 2012. This project aims to develop a management system to cope with large-scale crises and to validate this system through operational demonstrations. Several intelligence platforms – [unmanned aerial systems](#), balloons and satellites – have so far been tested to meet these objectives, with information processed in [real time](#) by a coordination unit.

This latest drone test flight was operated in civil airspace from the Beja air base in Portugal and used realistic [homeland security](#) scenarios as defined by the Portuguese National Guard and air force. The flight proved to unexpectedly practical and beneficial, since it detected a fire at a range of more than 20 kilometres. This information was transmitted in real time to help coordinate response teams.

The drone system complies with NATO's interoperability standards and can support a wide spectrum of military and homeland security missions. Its modular design allows it to carry a multi-sensor payload of up to 250kg in the fuselage or in pods. Other systems have been tested as part of the project's aim of achieving a multi-platform approach to security.

The results of the project, which is due for completion at the end of 2015, will first and foremost benefit homeland security personnel, crisis management teams and units involved in the protection of critical infrastructure against emerging threats. AIRBEAM also supports the development of new research and technological innovations that will underpin future security capabilities and open up new hi-tech markets for SMEs.

Indeed, another key aim of the project has been to assist the emerging market of civilian remotely piloted aircraft systems, and to convince regulatory stakeholders that this technology is ready for widespread use.

The AIRBEAM project includes 21 partners and three third parties from 11 countries. Small and large companies, research organisations, universities, stakeholders and end users have been an important part of the collaboration.

More information: For further information please visit AIRBEAM project website: airbeam.eu/project/

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