



HeliMedia delivers long range High Definition Air-to-Ground video links across Northern Italy



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Helica, a remote sensing company specialising in airborne mapping and surveys, completed a project for the Italian Department of Civil Protection to supply a helicopter to provide live aerial images to assist with disaster recovery missions.

The next challenge was to be able to deliver these live images from the helicopter to a central command and control centre at Palmanova and/or to individual mobile sites at the scene to aid with critical decision making and situation assessment.

of individual pieces of equipment, for example checking alarms, temperature or current draw. This capability is crucial as it saves valuable time and resources as problems can be rapidly diagnosed at base, before sending out engineers to remote receive sites across the Alps.



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Helica contracted HeliMedia to deliver a system that would deliver uninterrupted video and data over the entire Friuli Venezia Giulia region of Northern Italy, which includes the Italian Alps, using as few receive sites as possible.

HeliMedia delivered a complete solution which included one fixed, one mobile and one transportable Ground Receive System (GRS).

Mobile GRS

The mobile GRS is enclosed in a Pelicase [1] comprising two antennas. It is used for rapid deployment for command teams on the ground and was successfully deployed during the L'Aquila earthquake response in 2009. Live HD video is displayed on an integral LCD and can be shown on larger screens via HD-SDI outputs.

Fixed GRS

This primary receive site, located on the roof of the command and control centre in Palmanova, uses a mast-mounted, intelligent directional multi-antenna pod. Inside the pod are a combination of medium gain sector antennas and a high-gain directional antenna giving 360° coverage of up to 250kms. The video from the receiver is displayed on large plasma screens in the command and control centre, where a state of the art PC based monitoring and control system, capable of supporting multiple, networked GRS systems, is run by a single operator.

Transportable GRS

The transportable GRS includes the mobile GRS together with 4x 90° sector antennas. This extends the range of the mobile GRS and can be deployed on a vehicle mounted pump-up mast to give 360° coverage on the move.

With a complete end-to-end system now installed, Helica provides an aerial video service for the Italian Department of Civil Protection, which assists emergency services in a range of disaster relief missions across the Friuli Venezia Giulia region of Italy.

HeliMedia Ltd

Aerotech Business Park
Bamfurlong Lane
Cheltenham
Gloucestershire
GL51 6TU

Tel: 01452 857155
Fax: 01452 857115
info@helimedia.co.uk

www.helimedia.co.uk

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The operator can not only control all the equipment at all the receive sites, such as changing downlink frequency channels, but also monitor the performance