



AIR PLATFORM DATA EXCHANGE SYSTEM

EVENLODE IS HELPING EU COUNTRIES TO KEEP THEIR BORDERS SAFE

For several years now, ECS's world-leading air platform data exchange system, Evenlode, has been in use with EU nations that have problems on their borders with drug running, illegal weapon smuggling and illegal immigration. Evenlode enables the encrypted transmission of real-time full motion video from observation aircraft to multiple ground users.

Evenlode: The purchase of Evenlode Air and Ground Data Terminals (ADTs and GDTs) by EU nations has often been facilitated by funding from the EU's FRONTEX Agency. FRONTEX is a centre of excellence for border control activities at the EU's external borders, sharing intelligence and expertise with all EU Member States, as well as neighbouring non-EU countries affected by migratory trends and cross-border crime. Countries at the outer edge of the EU need a reliable, efficient and user-friendly system like Evenlode to allow the Border Guard Forces to effectively monitor the borders with non-EU countries.

Why was Evenlode selected by Border Forces? The ECS Evenlode Data link is supplied and fitted to multiple air platforms around the world, proving its reliability and robustness. It has a multi-channel data link carrying Video Data and IP data simultaneously, set up by expert ECS engineers at the precise frequency required by the customer, and altogether weighing in at under 4kg. Shown below is the GDT (Ground Data Terminal) used in conjunction with the ADT (Air Data Terminal), also shown below. The datalink is a highly robust, COFDM (Coded Orthogonal Frequency Division Multiplexing) communications link. It is fully encrypted and comprises; encoder/decoder, transceiver, and an ECU (Encryption Control Unit). Encryption ensures secure data under national control, for the customer and gives peace of mind too.



EVENLODE Air Data Terminal Equipment



Upgradeable lightweight air platform system



EVENLODE Ground Equipment



Modular Ground Data System (GDS)



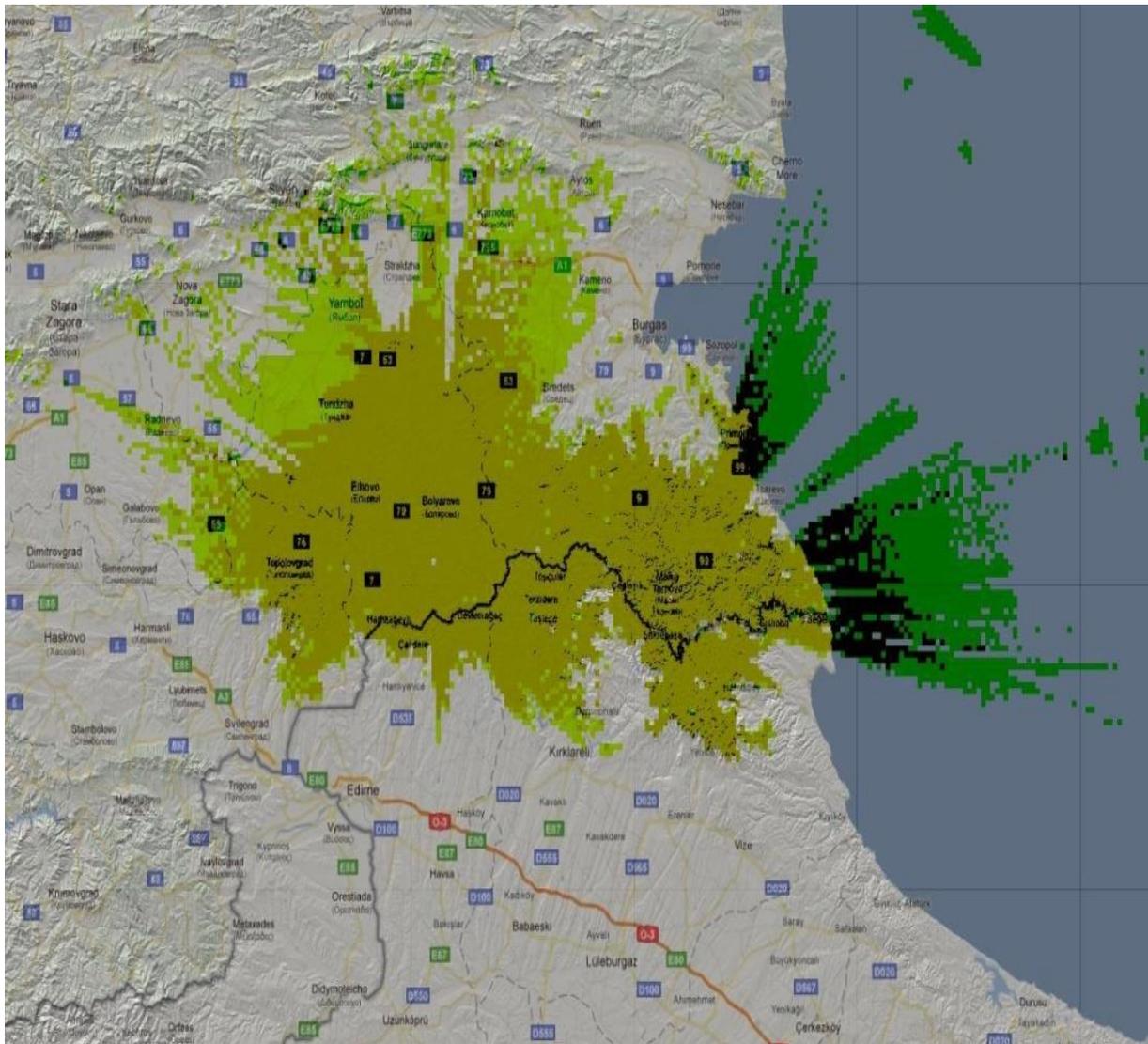
Handyview portable monitoring terminal

Evenlode is a system designed with the user in mind: Each part of the Evenlode system has been designed for ease of use, with the Evenlode GDT linked to the aircraft ADT, giving access to the Command and Control HQ on the ground, allowing the Commander of the

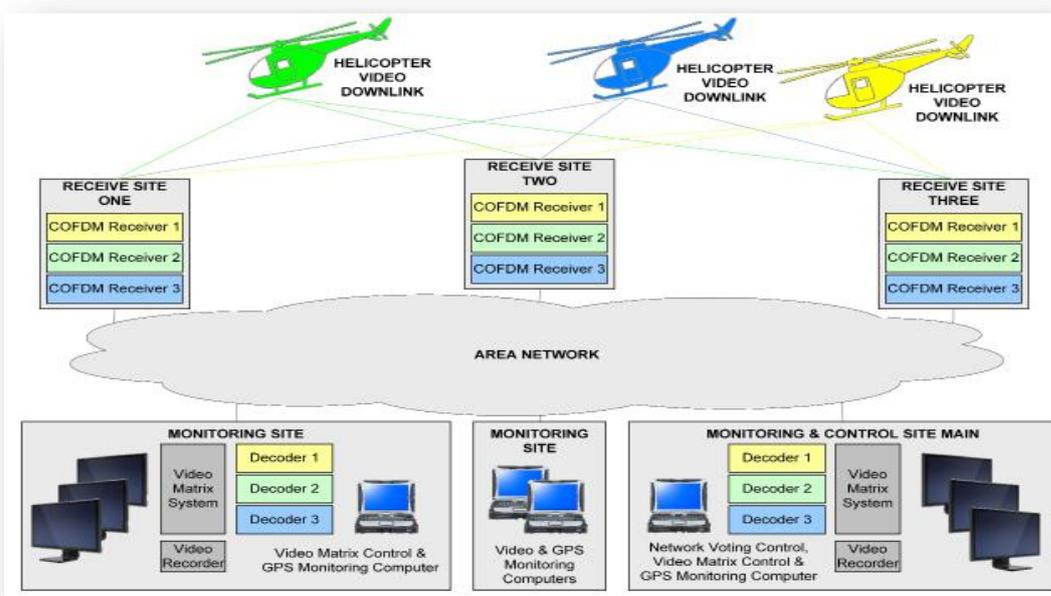
Border Force to direct operations from his base. The Evenlode Handyview hand-held user terminal (shown below) allows multiple users to be mobile and be able to see what the aircraft can see at the same time, providing flexibility and continuous situational awareness.

Complete Border Coverage: ECS installation experts stay in country with the customer to run trials on frequency coverage for the whole border area, with a typical coverage plot being shown below. By running these plots in areas designated by the Border Police, full coverage of all the sensitive areas of a country's borders with its neighbours can be successfully modelled and this translates into the best operational use of Evenlode GDT and ADT equipments by the Border Forces.

With a range of up to 200km, Evenlode allows any Border Force to monitor the length of the border and send and receive video and IP data to and from the HQ on the ground. GDTs spread out tactically around the country allow the straightforward relaying of information to the forces on the ground, who can take the necessary action in support of the air platform.



Air Platform Communications and Border Control - a typical set-up:



This set-up will enable the Border Forces to control and filter the passage of information to and from the users on the network, allowing faster response times and a more efficient use of border control assets. It can be tailored to suit the exact needs and requirements of each Border Force, to ensure the right Evenlode secure communications solution for each country.

Evolution of Evenlode for border protection - what next?

ECS is continually developing versions of Evenlode to suit specific air platforms such as drones and UAVs. A recent development is the WCM (Wireless Connectivity Module), shown below, which allows on-board aircraft wireless gateway interfacing to Evenlode equipment, enabling a secured BYOD (Bring Your Own Device) walk-on capability. The Evenlode WCM, in conjunction with an Evenlode 3 secure bidirectional IP protocol, allows access in the air to connected ground services, such as secure VOIP (Voice over IP) and access to classified user networks. This offers a significant advantage for Police and Border Forces whose role is to collect information and use it to defeat crime on the border or internally.



Wireless Connectivity Module (WCM)



WCM with external antenna

WCM with internal antenna

Summary: Borders are porous and easy to cross discretely unless they are constantly monitored by the forces of law and order. By using Evenlode as part of their security and communications plan, Border Forces have an advantage over those criminals who carry drugs and weapons or smuggle people into the country illegally, and it is thus a vital asset in the fight against illegal activities in the EU's sensitive border areas.

For further information on our product range please contact sales@enterprisecontrol.co.uk