



# ENGLISH WELSH & SCOTTISH RAILWAY



The driving force behind Britain's rail freight revival

*English Welsh & Scottish Railway (EWS), Britain's leading rail freight operator, moves over 100 million tonnes of freight each year and runs over 7000 trains each week. Daily train services link all parts of Britain with Europe and the company is involved in an increasingly wide variety of fields, from freight and distribution to postal services and infrastructure track renewals and repairs.*



As part of its commitment to provide the best possible service to all its customers, EWS identified the need to implement a vehicle tracking system across its fleet of locomotives. There was a requirement to provide real-time data to satisfy both their own and their customers' "real-time" needs together with the ability to retrieve historical information on demand, for example where its locomotives had been and at what time. **INCA** from APD Communications was selected as the solution to

meet all the EWS vehicle tracking requirements and provide the platform for further development. The initial installation of 623 **INCA** units was completed in March 2001.

## **Making a difference real-time**

With the new **INCA** system an operator can optimise locomotive allocation to services at any given location in response to a Customer's order and receive real time notification of delivery progress. A practical illustration of this is where **INCA** data has been linked to ECOS, the Electronic Coal Ordering System, which enables all data associated with Electricity coal delivery, from order placement to actual delivery, to be retained in one system.

In addition to improving response times, operators also have the ability to track exactly where a locomotive conveying a Customer's commodity is at any given time. This information enables EWS to verify and validate delivery times to customers as well as using the data for internal analysis.

## **Using INCA to provide historical data**

However, it is not just real-time information that has proved to be valuable to the company. EWS frequently hires its locomotives to other operators and, therefore, does not always have autonomy over how they are run. In such instances they can use on-board **INCA** units to track and log these vehicle's positions, utilising this information to ascertain where the hired



locomotive is and if it will be returned as agreed in the hiring contract. If appropriate, such data enables EWS to enforce penalties when the terms of hire are broken.

As a user of the national rail infrastructure, EWS is automatically responsible to network operators for the use of tracks throughout the country. Once again, **INCA** provides valuable data to EWS, validating the amount of time its locomotives spend on each network - not only does this allow the company to monitor its track leasing costs, but also provides them with substantive data if either party questions track use or delay causation.

### **Not just a vehicle location product!**

A locomotive's position on the move is determined precisely using the GPS capabilities of the in-cab **INCA** unit. However, its status at rest is an important management consideration. Locomotives, like cars, start up on battery power - if locomotives are parked up with their lights left on, for example, this can have a detrimental effect on battery performance next time the locomotive is due to be started. The **INCA** system has been programmed to alert the control room if a battery is still active when the locomotive has been stationary in the sidings for a pre determined period of time. The **INCA**

unit alerts the control room who, in turn, page the driver, telling him to return to the cab and turn the battery off.

EWS is delighted with the performance of the **INCA** system. "The tracking functionality has proved to be a great asset", says Phil Harrison, Project Manager at EWS, "Both our customers and the company itself benefit from knowing when and where stock is at any given moment. In addition, as the **INCA** system tracks locomotives both on and off the rail network, we never lose visibility of them. For the first time we now have access to accurate real-time data on actual fleet deployment and utilisation."

In fact, EWS intends to develop the **INCA** systems functionality further in the future. Phil Harrison explains, "Currently, if a locomotive is involved in an incident it takes a lot of man-hours to retrieve the black box data. However, using the **INCA** as a communications platform we intend to explore linking the **INCA** system to the black box so this data is automatically downloaded, saving EWS a lot of time and money."



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