



INCOSE UK Chapter Rail Interest Group

Head Up Displays for Trains

(David Golding & Paul Wisely, BAE Systems)

1730H for 1800H, Wednesday 2nd April 2008, London

Interoperability, speed, increased safety, capacity, reliability and efficiency are the cornerstones of UK and European rail industry plans to remain competitive against road transport and low cost airlines over the next 20 years. The introduction of the European Rail Traffic Management System (ERTMS) over the next 10-20 years supports these goals. In the UK, July 2007, the UK Secretary for State for Transport published "Delivering a Sustainable Railway"; a white paper which outlines plans for growth and development for the UK railways through 2014. Clearly Europe's rail industry is taking significant steps to invigorate, modernise and enhance its service.

This modernisation agenda has provoked interest in technologies used in the aerospace industry. Across Europe, aerospace technologies are being considered for possible transition to the rail sector. One product under the spotlight is a Head Up Display (HUD).

In aeroplanes, the HUD is placed in front of a pilot's line of sight to display "real-time" essential flight information, typically, altitude, attitude, airspeed, and heading, overlaid on a view of the outside world. BAE Systems is evaluating the possibility of developing a HUD for a train driver's cabin to display essential data 'Head Up'. This would improve safety, aid punctuality (leading to cost savings) and afford the driver greater situational awareness.

David Golding and Paul Wisely of BAE Systems will present work done to date and discuss potential methods of integrating a HUD into the train control system.

The meeting will take place at Halcrow Group Ltd. 1st Floor Meeting room, Vineyard House, 44 Brook Street, Hammersmith, London W6 7BY. Non-members are welcome and there is no charge for attendance but places must be booked in advance. To book, obtain directions or for any other questions, please contact the RIG Chair, Bruce Elliott on bruce.elliott@arbutus-tc.co.uk or +44 (0)7970 694043.

The International Council on Systems Engineering (INCOSE) is an international professional society for systems engineers whose mission is to foster the definition, understanding, and practice of world-class systems engineering in industry, academia, and government. INCOSE was formed in 1992 to develop, nurture, and enhance the interdisciplinary approach and means to enable the realization of successful systems. Since then, INCOSE has grown dramatically. Today there are over 5,000 member systems engineers, 50 chartered chapters worldwide, and more than 40 Corporate Advisory Board members from government, industry, and academia.

The INCOSE UK Rail Interest Group has been formed:

- To provide a forum for those interested in Systems Engineering in rail to network in a less formal environment, to exchange good practice and to provide mutual support in an area which can require some sustained perseverance;*
- To promote, improve and share the practice of Systems Engineering within the rail industry;*
- To foster connections with other professional bodies within rail and thereby promote cross fertilisation of knowledge and experience across sectors and community disciplines; and*
- To promote awareness of INCOSE UK and encourage membership within the rail industry.*

For further information, see <http://www.incose.org.uk/rig.htm>.