

TriaGnoSys is a leading applied research company and a leading provider of solutions for satellite communications from anywhere to anywhere. In this newsletter, we have included articles about both the research TriaGnoSys is involved in, and the commercial aspects of our work. If you would like more information, please either contact the relevant person, whose details are at the end of each article, or call me on + 49 (0) 81 53 88 67 80.

Axel Jahn



Next generation interactive satellite communication: Generic Stream Encapsulation (GSE) for DVB-S 2

The Generic Stream Encapsulation (GSE) for the DVB-S2 was published in May 2007 in a DVB-BlueBook, marking the introduction of a new and efficient transport protocol for the Generic Streams of the second generation of DVB via satellite. TriaGnoSys chaired the development and standardisation of GSE, for what will be the world-leading standard for interactive satellite services.

GSE reduces protocol overhead by a factor of 4 compared to traditional MPE/MPEG-TS protocol. Efficient data transmission over satellite is TriaGnoSys' key strength.

For more information, contact Axel Jahn on Axel.Jahn@triagnosys.com



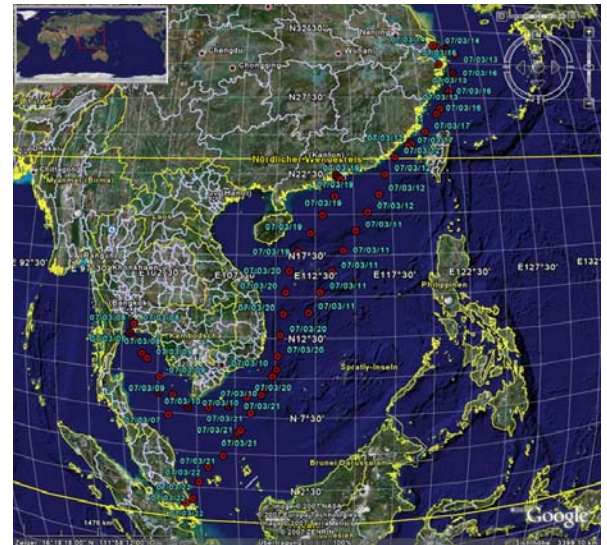
Wireless Cabin

All the information of the WirelessCabin project is now available on the TriaGnoSys website at <http://wirelesscabin.triagnosys.com>. Dr. Axel Jahn of TriaGnoSys led the WirelessCabin research project, which developed much of the technology for inflight passenger communications. The project finished at the end of 2004.

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Keeping track of cargo

In March, the cargo ship *Kota Gemar* sailed across the South China Sea. On board was a refrigerated container fitted with the latest in container tracking technology, which monitors both the security of the container, and the environmental conditions of the contents.



This new technology, called SECURED by CargoTrax®, was developed by TriaGnoSys for its Finnish customer CargoTrax and uses GSM, GPRS and GPS technology to monitor the container and to send regular signals from the ship, via satellite, to ground monitoring stations which can include the shipping company's headquarters, the ship's home port operator, or government security services.

The monitoring technology provides a heightened level of security to meet new levels set by government security services, particularly in the US, as well as monitoring of critical conditions that ensure the integrity of containerised cargo that can be worth up to US\$10million per container.

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Bavaria Research Alliance – TriaGnoSys on the Board

Dr Axel Jahn, Managing Director of TriaGnoSys, has been appointed to the Board of the Bavaria Research Alliance. The Research Alliance – der Bayerischen Forschungsallianz gGmbH– is a not-for-profit organisation that supports scientific research across Bavaria, in both Universities and companies. It also supports and coordinates applications for research funds from the European Union.

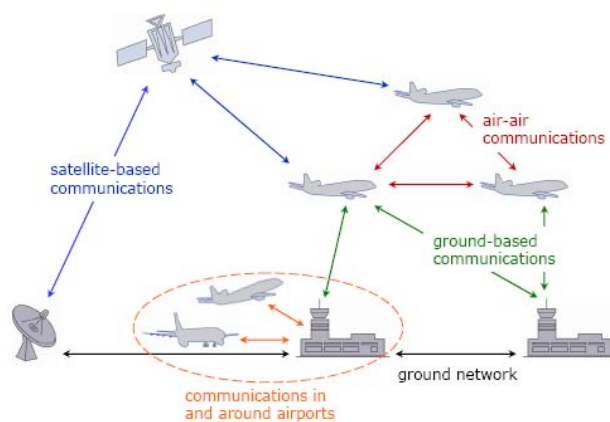
For more information, contact Axel Jahn on Axel.Jahn@triagnosys.com



Next generation of air-ground communications - NewSky

TriaGnoSys is working with leading aerospace research organisations, including the German Aerospace Centre (DLR), Thales and QinetiQ to develop the next generation aeronautical communication system for air traffic control. Full implementation of the system, being developed with EU-funding, will take between 15-20 years and will provide the basis for aircraft communications of the future.

The concept behind the project, called NetWorking the Sky, is to use satellite-based Internet technologies to improve air-to-ground, and air-to-air communications.



There will be four main areas of benefit:

1. Integrated communications between pilots and air traffic controllers, both in terms of content and geographical coverage. Of particular importance is coverage over remote regions, including the Poles, and over heavily congestion regions, such as Western Europe
2. Improved information flow will allow for the optimization of flight routes to reduce fuel consumption, and therefore a reduction in the environmental impact of flights
3. Cockpit and passenger communication will be combined into a single network, providing new business opportunities for both passenger communications and inflight entertainment
4. The technology will be modular, meaning it will be future-proofed because it will be simple and cost efficient to deploy future new technologies

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Satellite broadcasting in rural South America

Digital Video Broadcasting is moving to South America, thanks to an EU-funded project that TriaGnoSys is closely involved in. The Broadband to Rural America over Satellite Integrated Links (BRASIL) project, launched in May, will promote DVB-RCS technology in South America.



Digital Video Broadcast – Return Channel Satellite is the perfect technology to deliver broadband services for South America, and in particular rural areas, because of the large geographical extension of the involved areas, and the need for a cost effective, efficient and highly scalable solution. It is expensive and often impractical to install a cable, making satellite-based services the best option. Furthermore, DVB-RCS is an open standard, meaning that competition is encouraged and end users have a choice in service and hardware providers.

The benefits of access to broadband services, for both business and consumers, are well-documented. And the BRASIL project gives the companies involved access to new markets. The other companies involved in BRASIL are AnsuR, the German Aerospace Centre (DLR), the University of Bologna, and Norintec. South American partners are Provisuale, the organiser of the Brazilian Futurecom expo, and Unisat.

TriaGnoSys will be discussing BRASIL at two industry events in 2007. The first is the IST Mobile and Wireless Communications Summit in Budapest from 1-5 July. The second is Futurecom, in Florianopolis, southern Brazil, from 1-4 October. Please do visit us if you are attending either or both events.

For more information, contact Axel Jahn on Axel.Jahn@triagnosys.com

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The European Aviation Safety Authority just announced the certification of the OnAir passenger communications equipment, which will allow passengers to use their mobile phones and smartphones during flights. The satellite communications software part was designed and implemented by TriaGnoSys.