



Islander March 2014

Technology Update

Last week, my colleague Tony Holland and I attended the **Global VSAT Forum (GVF)** in London, where we had been asked to do a presentation on the current and future state of play in super yacht communications to a wide audience including satellite companies, representatives from the aircraft industry, and other maritime sectors, such as merchant, passenger and offshore. It was a fascinating couple of days, and we left with the distinct impression that the communications technology which we are offering to super yachts is well ahead of all other sectors.

The Connected Aircraft

We have all got used to switching off all our electronic communication devices during flights, and indeed this sometimes gives a welcome respite from being constantly “on call”. However, some airlines have recently introduced Wi-Fi, and we are about to see a huge growth in these services over the next few years. At the end of 2012, of the 30,000 commercial aircraft, 2,600 were connected of which only 940 were connected by satellite and the others from the ground. At that time, 56 airlines provided connectivity and the average price for Internet on-board was \$12. There was only a 5% take-up, as the service was so slow. This is all about to change with connectivity provided by satellites with much higher bandwidths. As Nick Burrett of **SES** said, “It is expected to be the same price as an appalling cup of coffee on EasyJet, so which would you prefer to spend your money on?”

The Connected Car

Having satellite Internet built-in on your new car might not be as far fetched as it sounds. **UIEvolution**, provider of connected services platforms, is working with **Kymeta** to integrate its meta-materials based antenna into cars, as we are doing in the super yacht market. The partnership was announced at CES 2014, and since then the companies have begun working together to provide a new connectivity solution, which will create the means for cars to access the Internet more easily.

Currently UIEvolution uses **4G LTE** services to deliver content to cars. “We know that while LTE is fast, there are going to be inefficiencies in the ability to service rural areas” said Chris Ruff, CEO of UIEvolution. “The car is going to be connected,” he said. “Nearly every major automotive manufacturer has announced some sort of connected services platform, and for the most part, they are moving from an option to a standard feature. That’s not 100% yet, and it certainly skews more heavily to industrialized countries like

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the United States, but the trends are all there. I think we're at the very early stages right now."

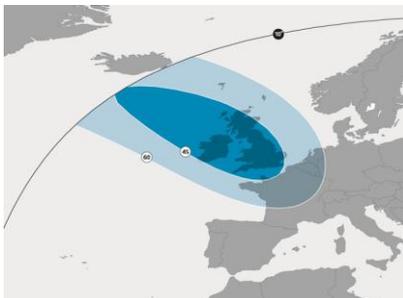
From our discussions with **Kymeta**, they plan to drop software, firmware and map updates to cars from the sky continuously to keep all of the one hundred plus processors found in today's car electronically up to date in preparation for the future "driverless car"!

Adding Kymeta's antennas to vehicles will provide satellite-based connectivity to larger areas while making use of less bandwidth than LTE.

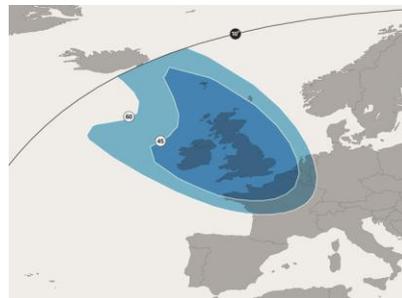
BBC's Services on Astra move to a new satellite

As some of you may by now be aware, there have been recent changes to **BBC's** services on **Sky** and **Freesat** which have been carried on six transponders on satellites operated by **SES Astra** located at 28.2°East. In February 2012, one of these satellites (Astra 2D) was retired and BBC services moved to a new temporary home on Astra 1N. Astra 1N is shortly to be moved to its permanent position at 19°East, so the affected BBC services have transferred to a new permanent home on Astra 2E (28.2°East). This change took place on Thursday 6th February, and ITV and Channel 4 followed suit soon after.

Old Coverage



New Coverage



How has this affected your viewing?

Astra 2E and 2F now have slightly tighter and more powerful coverage, which means that UK households should get a slightly stronger signal. However, the overspill of the BBC's services will be reduced, so viewers outside the UK will find it even harder to receive them. Freeview channels only are affected – your subscription channels remain unchanged.

What can you do if you are outside the UK?

There are various steps that can be taken to improve your viewing.

1. Try the various regional channels from 950 onwards as some

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- are stronger than others. I have heard that BBC TWO for Scotland, Wales and Northern Ireland are stronger.
2. Install a bigger satellite dish.
 3. If you have a good internet connection, you can watch freeview channels (including BBC) live on www.filmon.com .
 4. Explore the best of British TV with the BBC iPlayer (Global) - available on iPad and iPhone! <http://itunes.apple.com/us/...> You can download the free App for taster clips and episodes, or pay €7.99 per month for unlimited access.

Mobile World Congress 2014 (MWC)

Later this month the world's biggest mobile event, the MWC, opens its doors again in Barcelona. The e3 team will be attending to explore the future technology and current improvements and additions to existing technology. So what do we expect to be the main highlights this year?

The first area showcased will be the Connected City. This is the area where we can go and explore how mobile will be embedded in the many devices that will make an impact on our lives. We expect to see connected cars, connected health monitors and connected utility meters.

The event will itself be connected with its own NFC ecosystem where visitors can go around the show with their NFC enabled smart phones to download information, presentations and videos at 61 "tap and go posts" positioned around the venue. They will also have an NFC entry badge that can be downloaded onto your smartphone that can then be used for fast track entry into the event but also at bars and restaurants.

There are a number of keynote presentations which this year includes Mark Zuckerberg, CEO of Facebook, and Ginny Rometty, CEO of IBM, talking about the implications of mobile and the cloud.

The big themes for MWC predicted by the wider industry analysts are 4K and entertainment, increasing the resolution and streaming of entertainment, wearable technology (such as health monitors and fitness bands), low end of the market smart phones and the move to ecosystems. One of the analysts says it's no longer just about devices, it's now about the complete experience within an ecosystem such as those being developed by Google and Microsoft.

4G-LTE news

Further to my report last month about the blistering speeds experienced on 4G LTE on the new Vodafone Spain network, we are experiencing a rapid migration by yachts to 4G-LTE.

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In the world's most advanced mobile markets it is driving a surge in data usage, with 4G users typically consuming twice as much data per month as other users.

However a word of warning please be aware that due to the wide range of frequency bands in use worldwide the equipment and antennas need to be carefully specified. Please seek advice.

Roger Horner of e3 Systems

For further information on any of the above, please contact us.

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