



News

TSBc presents partnership with Globelynx	2
NRK's summer together tour via 1° West	3
60 seconds with Morten Tengs	4
TSBc brings Fox's latest HD channel to Nordic audiences	5
Welcoming new channels to 1° West	6
Breaking news brought to you by satellite	7
Network and Data capacity availability	8
A note for your diaries: Upcoming events	9

In Focus



Ka-band and High-Throughput Satellites (HTS) – a transformational shift? 10

Industry Opinion



Next generation of maritime satcoms set for launch 11



## TSBc presents partnership with Globelynx

Telenor Satellite Broadcasting (TSBc) would like to introduce GLOBELYNX, a television broadcasting solution that can be installed in your office to enable you to appear live on any television channel worldwide, without the need for in-house technical staff.

GLOBELYNX makes the decision to accept an interview request from a broadcaster easy. Its real-time web-enabled booking system coordinates all the technical aspects of a broadcast, leaving you free to concentrate on the interview. Simple to use, the GLOBELYNX system meets the highest HD broadcast quality standards. Some 600 to 800 live interviews per month pass through the Globelynx network to broadcasters around the world.

The Globelynx 24/7 master control-room operation is provided by TSBc from its central London teleport, where terrestrial and satellite connectivity is available to almost every broadcaster worldwide.

[Click here](#) to find out more about this occasional live-event solution.



## NRK's summer together tour via 1° West

The Norwegian Broadcasting Corporation (NRK), the largest media organisation in Norway, is offering something very special for its television, radio and internet audiences throughout summer 2013.

Using the MS Sjøkurs ship as a base, NRK is currently cruising along the Norwegian coast to film its "summer together extravaganza", which begins and ends in the Oslo Fjord. The tour, which lasts seven weeks and runs from June 22<sup>nd</sup> to August 10<sup>th</sup>, will transmit live from 38 locations along the Norwegian coast with the programmes delivered back to NRK's broadcasting centre via TSBc's THOR 10-02 satellite.

Much of the journey will be transmitted live on NRK1, featuring the ship's arrivals and departures with local crowds and popular activities taking place along the harbour fronts. There will be a half-hour programme slot, Tuesday to Saturday at 19:30, which will show the best footage of the voyage, including chats, interviews, and information about the route and destinations. This is followed by NRK's prime time showing, dubbed Sommeråpent (Summer Open) transmitting from Tuesday to Saturday at 21:30.

[Click here](#) to view NRK's next port of call on-board the MS Sjøkurs



## 60 seconds with Morten Tengs

Morten Tengs, Telenor Satellite Broadcasting's new CEO, shares his insights into the challenges and opportunities that TSBc faces over the next few years.

[TSBc has come a long way from its roots as a Nordic satellite operator. What do you see as the potential growth drivers for the business?](#)

For broadcasting services in the markets in which TSBc operates, there are plenty of opportunities. From the satellite operator's perspective, we expect to see more demand for our services from new players, new channels, new HD services – including localised channel versions – and, further down the line, we expect Ultra HD to come to the market.

In our maritime VSAT business area, we are witnessing increases for connectivity and services, both for corporate networks and for private usage by crew and passengers. For the industry, this is important for personnel retention and for service differentiation and it translates as increased demand because these are all bandwidth-hungry applications. We are also seeing specific growth from increased Oil and Gas activities in the northern regions of our 1°West coverage area (Barents Sea).

[TSBc is currently procuring its latest satellite, THOR 7. How will this change the way TSBc is positioned?](#)

THOR 7 is TSBc's first pure growth satellite and includes both Ku- and Ka-band payloads. The Ku-band payload will provide essential capacity to help existing and new customers expand their channel bouquets in the CEE market. The Ka-band payload on THOR 7 represents a first for TSBc and will target the maritime and oil and gas sectors. We believe we will be able to provide cost-effective solutions to satisfy pent-up demand in these sectors.

[Does TSBc have any plans for expansion beyond the launch of THOR 7?](#)

At the moment, the company's main priority is to ensure the commercial success of THOR 7. TSBc is also actively working with partners to evaluate future demands for satellite communications in the Arctic region. We will, of course, continue to seek ways to innovate, improve and expand our satellite-services portfolio, providing our customers with the reliability and security they require to enable future growth.

[How do you see the communications landscape changing over the next few years and how do you hope to position TSBc within this landscape?](#)

There is an ever-changing and rapid development in applications as well as continual growth in demand for data and content. For TSBc, our position is simple: we will continue to develop our strong broadcast position in the CEE region, offering growth capacity on THOR 7, while maintaining our leading broadcast position in the Nordic market. In maritime VSAT services, we are increasing our market share and look forward to significant growth by satisfying customers' increased bandwidth requirements through capacity on THOR 7.



## TSBc brings Fox's latest HD channel to Nordic audiences

TSBc has recently been contracted to contribute TV services to Fox International Channels, distributing regional versions across the Nordic region of the broadcaster's latest HD channel for its National Geographic brand.

Utilising our terrestrial video network (known as MSNW), a flexible and secure vehicle for the distribution of global feeds to the Nordic countries, TSBc will receive Fox's new Nordic HD feeds directly from their play-out facilities and provide HD contribution and encoding for the new services.

The new National Geographic HD channel comes in three localized versions; one serving Norway, one for Denmark and one for distribution in both Sweden and Finland. TSBc will also distribute the new HD service, Fox HD Norway.

The channels are scheduled to launch in July.

# Welcoming new channels to 1° West

It's a pleasure to welcome the following new TV channels to our 1° West platform.

Service name	Country
TV2 Fri	Denmark
Eurosport 2HD	Nordic countries
Travel channel HD	Nordic countries
MAX HD	Norway

➤ The full up-to-date channel line-up at 1°West can be found at our website: [click here for our complete channel listings.](#)





## Breaking news brought to you by satellite

The Occasional Broadcast team experienced one of its busiest times on June 7 as coverage of some of the worst floods ever experienced in Europe took up prime time on all available satellites and third-party capacity.

Nelson Mandela's health scare on Tuesday June 11 caused a rush on Telstar 12 capacity, which offers excellent coverage from South Africa back to Europe.

With the upcoming Tour De France from June 29<sup>th</sup> to July 21<sup>st</sup>, capacity on 10-02 is already being booked by the major broadcasters of cycling's premier competition. Nonetheless, TSBC is able to offer available capacity on all other satellites.

Other major events covered by TSBC's Occasional Broadcast team were as follows:

- Heineken Cup final
- GAA Ulster Live
- Cricket from Lord's
- Speedway
- Kessler Boxing
- Champions' League Final
- Spring Watch
- Royal Wedding in Sweden

Space available on: THOR 10-02 S1, Telstar 12, Astra 4A, Astra 3B, Eurobird, NSS7, IS 905, and any of the available Eutelsat satellites.

➤ Please call bookings, [+44 207 923 6555](tel:+442079236555), to reserve capacity for scheduled live events or any last-minute news requirements.



# Network and Data capacity availability

Coupled with our own high-powered satellite capacity, TSBc offers additional capacity resources from third-party providers to enable extended geographical coverage.

➔ For further information on capacity and available services, [click here](#) to contact us.

Satellite	Capacity
IS 10-2 (Ku Band )	European and Middle Eastern capacity
Telstar 12 (Ku band)	Northern and Middle Eastern capacity European and Middle Eastern capacity
T11n (Ku band)	Gulf of Mexico and West Africa
IS 12 (Ku band)	European and Middle Eastern capacity Middle Eastern capacity
THOR 5 (Ku band)	North Sea and Northern European capacity European capacity with strong northerly coverage
IS 902 (C band)	Africa connectivity Africa and Asia capacity
IS 10-02 (C band)	Africa connectivity
NSS 7 (C band)	Africa capacity
SES 4 (C band)	Africa and Americas capacity
Thor III (inclined orbit)	Middle Eastern capacity

# A note for your diaries: Upcoming events

Telenor Satellite Broadcasting (TSBc) has a full calendar of events and participates in major industry exhibitions and conferences. To arrange a meeting at any of the events listed below, please email: [infosatellite@telenor.com](mailto:infosatellite@telenor.com)

## World Satellite Business Week

Meet TSBc at the World Satellite Business Week, a unique executive meeting place for leaders of the global satellite communications and information business.

Participants represent a whole spectrum of geographical markets and industry sectors and all levels of the value chain.

Place	Date
Paris, France	9 <sup>th</sup> – 13 <sup>th</sup> September

➤ For more information on this event, please visit: [www.satellite-business.com](http://www.satellite-business.com)

## IBC 2013

Join us at this year's IBC, the leading global show for professionals involved in the management and delivery of broadcast media and entertainment.

TSBc will be exhibiting at: Hall: 1, Stand:1.A59

Place	Date
Amsterdam, The Netherlands	12 <sup>th</sup> – 17 <sup>th</sup> September

➤ To arrange a meeting with TSBc at this event contact: [sbcsales@telenor.com](mailto:sbcsales@telenor.com)

For more information on how to register for this event, please visit: [www.ibc.org](http://www.ibc.org)

## OilComm 2013

OilComm is the only event dedicated to the communications challenges faced in the oil and gas community throughout the lifecycle of drill sites and platforms.

Visit us at our stand located at booth: 414

Place	Date
Houston, Texas	6 <sup>th</sup> – 8 <sup>th</sup> November

➤ To arrange a meeting with TSBc at this event, please contact: [sbcsales@telenor.com](mailto:sbcsales@telenor.com)

For more information on how to register for this event, please visit: [www.oilcomm.com](http://www.oilcomm.com)

## Digital Ship Athens

TSBc is pleased to be the European Sponsor of the Digital Ship 2013 series which focuses on communications and information technology for the maritime industry.

Place	Date
Athens, Greece	27 <sup>th</sup> – 28 <sup>th</sup> November

➤ For more information about this event, please visit: [www.thedigitalship.com](http://www.thedigitalship.com)



## Ka-band and High-Throughput Satellites (HTS) – a transformational shift?

Telenor Satellite Broadcasting's latest satellite, THOR 7, which is scheduled to commence commercial operation in 2014, has a Ka-band payload, which offers high-powered capacity for the maritime and offshore sectors for coverage in the North Sea, the Red Sea, the Baltic Sea, the Persian Gulf and the Mediterranean. Alongside our Ka-band development, TSBc plans to maintain its present provision of Ku band to enable the continuity of services.

With more and more Ka-band satellites being launched, there is some debate about which of the two bands is better for certain kinds of service. It is clear to TSBc that both Ku- and Ka-band have a role to play, and that the choice of one or the other will be largely dependent upon the applications and services required by our customers. Jan Hetland, TSBc's CTO for Network and Data services, has written a white paper considering the position of Ka band in the market place and shares with us his views.

### [What does this technical white paper cover?](#)

In the paper, we show how a Ka-band HTS satellite can provide services and service levels that in most cases equal Ku-band services. We performed this analysis using both real satellite-link measurements and relevant ITU-R propagation models.

### [What's driving the trend towards more Ka-band HTS satellites?](#)

The trend towards Ka-band HTS satellites is driven by several factors. From a regulatory perspective, it is at

present a lot easier to find a new orbital slot for a Ka-band satellite than for a Ku-band satellite. In addition the demand for ever-increasing bit rates and the desire to lower communication costs drive HTS designs, which can deliver significantly higher throughput than conventional satellite designs. This holds true regardless of frequency band. An added advantage for Ka-band is that there is more Ka-band spectrum available than Ku-band spectrum.

### [Physics dictates that Ka-band frequencies are more susceptible to rain. What impact does this have on service?](#)

It is true that Ka-band signals are more susceptible to rain fade. But carefully designed teleports infrastructure, including antenna diversity, translates to Ka-band service availability on a par with most current Ku-band services, which are typically contracted to have an availability in the range of 99.5 – 99.8% for an average year.

### [Is there an impact on ground operations?](#)

Ground operations remain largely the same, although if you want to provide the highest service levels on Ka-band you will almost certainly need to implement antenna site diversity. This is slightly more complicated than having a single uplink antenna, but it has been done for years by DTH providers in the US, for instance.

[Click here](#) to download the technical white paper, entitled 'Ka-band and high-throughput satellites – a transformational shift'.



## Next generation of maritime satcoms set for launch

By Rob O'Dwyer,  
editor Digital Ship

The maritime industry stands at an interesting crossroads when it comes to satellite communications.

Since the creation of Inmarsat in 1979, L-band technology has been the mainstay of communication in shipping, allowing vessels at sea to stay in touch with people and offices on shore. Companies would pay to use these services on a per-minute or per-bit basis – expensive, to a degree, but reliable and available on a global basis.

However, the digital revolution of the past few decades has completely changed the way that people do business and interact with each other on a personal level – leading to an explosion in the amount of data transferred around the world on a daily basis.

The shipping industry is no exception to this thirst for data, but the technology available at sea struggles to keep up with the demands made of it.

Modern vessel operators now require the ability to monitor, in real time, the performance of their ships and the equipment on board from anywhere in the world. Integration of information from shore into route planning and navigation systems is helping to optimise operations and reduce fuel bills that can run to over \$1 billion for larger fleets.

Similarly, the crews working on these ships increasingly expect to have access to the basic online services they are used to at home. The ability to communicate using programmes such as Facebook or e-mail, or to be able to read daily news from their own communities via the internet is something that a growing number of seafarers are demanding from their employers.

Inmarsat's current flagship product, FleetBroadband, is the fastest-selling system it has ever introduced, and yet with a maximum bandwidth of 432 kbps such a connection would be deemed laughable in any modern office or home.

The costs involved in transferring large amounts of data using the L-band frequency would, similarly, seem preposterous in a terrestrial setting. So the maritime industry has begun to look at new technologies and new frequencies that might

help to increase the speed and decrease the cost of vessel communications to meet this growing demand.

In the last decade the use of VSAT in the maritime industry has seen significant growth, with the improved coverage over the oceans offered by Ku-band services in recent years in particular fuelling more general interest in what had previously been considered a 'niche' technology.

While the Ku-band frequency band itself has fundamental limitations when applied to the maritime setting, particularly with respect to its performance in heavy weather in comparison with L-band, in the right conditions it offers the potential to transmit and receive much greater quantities of data at a significantly reduced cost.

A consequence of this growth in maritime VSAT use in recent years has been a move away from development of the traditional L-band services by satellite operators towards a new generation of technology – the era of high-throughput satellites.

In the next couple of years, Ka-band technology is set to become widely available to the maritime industry for the first time. Inmarsat is set to launch its Global Xpress network, while Telenor will offer Ka-band coverage of Europe, the Middle East and parts of the North Atlantic via its THOR 7 satellite. Intelsat is also set to launch a range of improved technologies that will offer new capabilities in the Ku-band, as well as offering Ka-band payloads.

These technologies could offer shipping companies a range of options, in terms of bandwidth speeds and cost-efficient data delivery, that has never before been seen in the maritime industry, and thereby help to quench at least a portion of its ever-growing thirst for communications.

With its inherent reliability and exemplary track record, L-band technology will without doubt continue to provide the backbone for ship connectivity for the foreseeable future. But the possibilities offered by the new services to come are sure to change the landscape and help to bridge that gap between the ship and the shore.