The evolution of the Digital Ship

Maritime information technology market developments in 2016

Rob O'Dwyer Editor, Digital Ship



Digital Shiñ The Mantime Cyber Resilience Forum Bottendam, 31 Jan 2017

Maritime satcom revenues continue to climb in difficult market

While the merchant shipping sector continues to struggle is an unforgiving sconomic climate, the maritime schrifts communications market is prospering - with combined annual satellite operator and service provider revenues climbing into the billions



Martine Saultie Commissioni spot up that is 201 the sprites nation of opportunities of TAURY on indo coand \$100 ordina to In parater property and \$17 taka service provides With a part of the of the section

ton produced next for unlin operate manus uil contrasts \$1 billion in the seal of \$100, main-deleases has pass ago. produces if you Elife Internally before He and of Hill. Uses tell surgesteening real registrice Estrational non-factly offaper of a ship's consequent, factorials in of price and the philal corresp. such wood cannot be incoming.

remotionizes continued to grow, such as passively histored by incoming meaning



her figst (Danis 200) another Free Design new communities the report. Future development "billed and the property of the story of maritemental differences and all of

marked the unity into sectors at \$77 time mediat crandt in 1876, and affeiring Aca mark the number at adulties with a superior institute law have resulted in a sumbler of result. WhAT accesses in the suptom power with the entry rate constantial spectra lang discrete instant. By 9 per anti in 2011 to mark more time of however Goldal Spece an Roverse, densed for undity that \$2.00 accounted a new Second The Panelin, in addite m the largely of the first tasy lips A load of \$1 Object C. Rouard and Section Capacity Report

ne lice

manications In

connectuation and an appointly. Tached agains we used to such a consider of forecould and allo one connectuation which are fix then 1947 because, compared to other open.

Unlock the Potential of Inte



Digital S

NEWS

Latest News Highlights Popular

P&O Ferries to use GNS digital savigation systems

Turnetay, 29 Hovember 2016 12:29 In Electronics & Navigation

DMCA and Lloyd's Register sign R&D MOU

Torontov, 25 November 2016 12:25 IN Martime Software

Thursday, 24 November 2016 10.06 ID Martime Satellin

Tuesday, 22 November 2016 17:30 ID Martine Salellie

Satcom Global launches Ku-band VSAT service

Fleet-wide ITC deal for Zeabern Group

DOWNLOAD MAGAZINE

IOME

on 15 ships

Community allows

Community atoms



Fleet-wide ITC deal for Zeaborn Group Thursday, 24 November 2014 19:06

Maritime Satellite Communications

The Zeaborn Group has agreed a deal with Pronautas to supply a complete. IT and communications system to all of the vessels in its feet, including Sealink VSAT connectivity and the XChange platform from Martink, dual ECDIS, and Pronaulas' ship-board witualised client server system.

The Mantime CIO Forum

SUBSCRIDE

Latest - November

Digital Shij

ADVERTISE / EXHIBIT

Sponsored Video

Cobham

LOGIN

REGENTER

EVENTS

Satcom Global launches Ku-band VSAT service KVH reports expanding use of IP-MobileCast service



according to STCW 2010?

COBHINIT

INDUSTRY DIRECTORY CASE STUDIES

SAILOR 3965 UHF

Fire Fighter radio

Built for:SOLAS

Chapter II-2

Newsletter

Shipping Conference

Copenhages, 1 & 2 March 2017

Are you ready to provide ECDIS Training



What is a Digital Ship?



- What's happening on my ship?
- What's happening outside my ship?
- What will happen if I take this course of action?



What is a Digital Ship?

Data Flow



Applications



What kind of progress in maritime satcom have we seen in 2016?





Digital Ship

Million State

V.C. Statistics

warman in a .

IN THIS ISSUE

software.

Conductor's data institut

and the second se

Significant trends:

- Growth in maritime VSAT capacity and user base
- Mergers and Acquisitions consolidation and cross sector diversification



March - Epic era begins

Epic era begins

Intelsat has successfully launched the first in its EpicNG series of high throughput satellites, adding tens of gigabits of capacity for vessel traffic between Europe and the Americas. With a second launch scheduled in a matter of months, the availability of maritime broadband is set to change in a big way

The maritime communications revolution is well and truly gathering paos, with Intelsat completing the successful launch of the first in its EpicNG series of next generation high throughput satellites, promising to offer a massive increase in capacity for major shipping routes over the next couple of years as the fleet of spacemath is put into orbit.

The Intelast 29e satellite was launched from French Guiara aboard an Ariane 5 vehicle and signal aquisition was reported as confirmed shortly afterwards. Manufactured by Boeing, Intelast 29e will bring high throughput capacity in both C-band



Intelsat 29e, the company's first Epic satellite, was successfully launched in January. Photo: ESA



March - Epic era begins June/July - Telenor Ka-band satcom service is made commercially available

Telenor Ka-band service now commercially available

www.telenomat.com

Telenor Satellite has announced the commercial availability of services on its THOR 7 Ka-band satellite. The Ka-band payload offers highthroughput regional coverage over major

European shipping lanes, with Telenor third of world shipping traffic within the THOR 7 coverage area.

Since the commercial handever of the THOR 7 satellite in June 2015, Telenor Satellite says that it has been carrying out a testing programme prior to this commercial launch

The final testing phase involved 18 cus-

tomers manning sea trials on about 30 yearsels, in sectors including yachting, tankers and ferries, with up to 50 remote terminals testing the service at various points under THOR 7s footprint.

Ships tested the service in the 18 main beams that will be used for manitime traffic, with terminals connecting in 21 out of the 24 total available during the test phase. One of the test ships, the Color Line passenger vessel Color Fantasy, recorded a 61.8 Mbps download speed from the satellite in an Ookla test on board the yes-

"Telenor Satellin's THOR 7 Ka-band integrate. It's relatively open architecture mobility service has been designed specifically for the maritime market, providing the reliability and availability our customers expect at sea."

One somewhat surprising new customer already signed up for THOR 7 is Inmarset, which has agreed a deal to acquire Ka-band Satellite noting that it can serve about one- capacity from Telenor Satellite to supplement its own Ka-band Global Xpress coverage in Northern Europe.

> Speaking during Inmanat's Q1 eamings-call, Inmarsat/CEO Rupert Pearce-confirmed that a deal was in place to procure what he described as "substantial" Kaband-capacity on THOR 7.

"It's an ideal satellite for us to use to



THOR 7 only In Jaunch in 2015

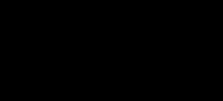
into GX. Other Ka-band networks could be very, very difficult to do that and require very substantial investment, essentially creating parallel structures alongside each other so that the beams themselves aren't interoperable; they just operate in parallel alongside each other." he said

"We're very happy with the prospect of partnering with Telenor around this Kaband capability, which has been built and developed with integration with Global Xpress in mind, because we use a common tacheology have."

In a statement to Digital Ship, Talamor Satellite also confirmed that it had signed a contract with Inmarvat for the supply of

> capacity and related services or THOR 7, which is "subject to satisfactory completion and testing of the technical solution provided by Telenos."

The anticipated start date for Inmanat to start using this apacity and related services will be in the second half of 2016 "This contract will provid connectivity for manual ever the North Sec exton and represents a small centage of the total capacity evailable on Telenor's THOR 7 Kalhand platform," the compa



March - Epic era begins June/July - Telenor Ka-band satcom service is made commercially available

June/July - SES adds maritime Ka-band VSAT service

SES adds maritime Ka-band VSAT service

www.ses.com

SES has unveiled its first regional maritime Ka-band service, which will be offered under the SES Maritime+ brand to customers operating in Europe.

This new service for the maritime and inland shipping mobility sector will use ASTRA 2E's and ASTRA 2G's Ka-band beams to provide satellite communications to the maritime industry.

The new Ka-band service will be launched in Q2 2016 and combines SES Kaband spot-beams, EPAK's DSi9 maritime antenna and Gilat Satellite Networks' broadband technology.

The offering is based on SES Techcom Services' Astra Connect solution and will provide coverage over Europe, including the North Sea, the Irish Sea and inland waterways. It will target customers such as offshore wind farms, inland shipping companies, and supply ships for oil platforms.

"Our new offering for the mobility market is a highly cost-effective maritime Kaband service, which is designed to deliver communications on the move and allows a wider range of customers to profit from maritime connectivity," said Norbert Willems, commercial vice president at SES Techcom Services.

"Providing connectivity at sea has become increasingly crucial. This new service not only meets this need, but also does so economically, thanks to the attractive price per megabit of our Ka-band offering,"

<u>Digital Ship</u>

March - Epic era begins June/July - Telenor Ka-band satcom service is made commercially available June/July - SES adds maritime Ka-band VSAT service August/September - Fleet Xpress boosted by summer deals

Fleet Xpress boosted by summer deals

With full global commercial service introduction having only come online in the second quarter of 2016, Inmarsat's new Fleet Xpress service has received a major boost through the announcement of two new contracts and, more significantly, major sales commitments from some of its main VSAT rivals

Inmarsat has announced that it has signed up two new costoreses for its Fleet Xpress (FX) service during summer 2016, shortly after securing commitments freen Kuband service providers Marlink and SpeedCast to bring some 4000 ships on to the Ka-band system over the next five years and prior to a further deal with Navarino promising to add a further 1,200 ships on FX.

Inmanut partner JSAT MOBILE Communications has signed an agreement with Mitsui O.S.K. Lines (MOL) to introduce Fleet Xpress across the majority of its car carrier fleet, while



The Aquamarine Ace, one of the MOL vessels soon to be fitted with Fleet Xpress

<u>Digital Ship</u>

March - Epic era begins June/July - Telenor Ka-band satcom service is made commercially available

June/July - SES adds maritime Ka-band VSAT service

August/September - Fleet **Xpress boosted by summer** deals

August/September - The silver anniversary of maritime VSAT

The silver anniversary of maritime VSAT

Twenty-five years ago, in 1991, the first mobile mustime VLAT installation was completed abourd a vessel operating in the North Sea. Digital Ship visited Elk taleport in Western Norway, the station which carried the signal for that first installation and is still carrying terabutes of traffic to and from ships today, to learn about the history of VSAT at sea

ended monitor in properties for the space and disand share ing the landscape for second. Also has used that uses als marked or norm Mor many years of fixed animous. TO at 1 degree Hint: That had a service the next operation. That sees in 19827 terrey in 181 Rays Publicum layer a Name & ' and Mr Dylored reget to trial an installation of a VANT when on proving connected specifics of the temperature of the technology and you had a manual rise of 1. No. and its 1999. in the FINC Parsaul 1

1517 installations more provident on which is all Southin today or Martink." fand of stations. The and of the

tensors of the pattern, step 2 days, ship and cats boost where passengers and has of the line stuply not a kantik At that time we had the Non-g-A. etc. induction of non-high tion which required big antimous, and you diffing unit, and restal it on the diffing intradvise, and the induction/CAM had nonprinters in both Ku, and Ku. And preserve inflution out at the of pro- unit/ said the Debuah

When the operation was over the are, this ever due replie for in diameter. At the same time, we had the whole souten would be convected at taken. had started a dree spread into the wider The automaty of other is befored to be first another with good to hand applied. Buck again to File her hill carrier market, with others in the otherse and in very limit merking VMUT insideation. It, a TV distribution with limits at one of and then it securit in property for passenger sectors taking advantage of the ULT in inflations on all and otherwaysing already made for load larged VULT radial. The inflatence provide Verenagias tale.

one company would could be augh with "The had the opticity indensided 3 marking VALT beyond the of indexity. Cruite Line uses first not then with C. May DIMA (denaed anigned endiple and too the powenger segment, policesdur is forgin to be the first time even, annexisantian when one performings, ing its first nameliaries with Lawin time areas in the UK with they bhome forming "They had a ship gamphack and time-3.8s. The totagene was to rapic this sta-

Swarts-discount ago the consectivity billed antimes partial the News Breyness, Sedware Nerwey and Demark, and when . Mondow, Netcount dans a draw, I would prices were encoded to find around a second became Nexuel 8 for mobile unity", I spirited in the and its diverses weregred and, 36 Debray told as with today, with hospital A knowledge which use the year feet product laceds, charactery with the company whether we North Sig defining units and . That was remained to "Normal Sealest", should start a test on heard a hore," We Oxfored field on. "They get Mid-ps on the Normal B ran-"It had then excells in get a bid one.

Patropal 1 propert way to counter a capitant take, howands A at that lane muld way bit, but is place, but it was no internating conhat could offer the improval handwidth. Mays over the acidite moders if I servers, whit as it would style the handwidth and - winite spine when they are and could

it with a took to the closest dartication and only. It was about 11 YOM AND 250 where it could be deeped out to the personale, and when't the had to use the In cashes;

By 1991 multile mariting 1932 mytems to the set of the

"To that they MTN had started their Instrum in Manti I think Versergie head services and these might have here tone overaid by Withonhought who prodand and doned previous out of

"It was a dive growth, there was the bubraithrough with the first day, hat the define and still led to type of the concepmatters when they task up the and-rehe are they was only chouse is our th



October - VSAT deals for approx. 200 Teekay, MOL LNG and Reederei NSB ships

Reederei NSB agrees fleet VSAT deal

www.marlink.com

NSB Niederelbe Schiffahrtsgesellschaft (Reederei NSB) has agreed a deal with Marlink to roll out fully managed VSAT services to its entire fleet of more than 50 vessels, including connectivity and selected related applications.

Marlink says that crew welfare was a key component of the contract, and that Reederei NSB seafarers will be provided with internet, phone, social media and messaging services as part of the 5GB data allowance per vessel.

Access will be managed via the Marlink XChange communications management system, which will be installed on board all of the ships, and the vessel e-mail systems will be migrated to Marlink's SkyFile Mail.

Reederei NSB crews will also be among the first users of the new XChange Media securing operational efficiency and business sustainability using an integrated package of solutions," said Tim Ponath, managing director of Reederei NSB.

"Our vessels already provide a comfortable environment for crew members to work and live in, but it is important for us to continue to meet the changing requirements of our people. Marlink is helping us to do this."

News of the deal came shortly after Marlink announced that it was doubling the burst speed on its Sealink VSAT services (from which Reederei NSB will benefit), enabling up to 3 Mbps for users on its data allowance packages as well as adding new 40, 60 and 80 gigabyte data allowances.

The Sealink Allowances can be used to combine up to four voice lines with eight data allowance plans, which now range from 1 GB up to 80 GB per month.

October - VSAT deals for approx. 200 Teekay, MOL LNG and Reederei NSB ships

October - Second Intelsat Epic satellite successfully launched

Second Intelsat Epic satellite prepares for service

The launch of Intelsal's 33e EpicNG satellite in August will significantly boost the bandwidth available on major shipping routos across the globe when it goes live early next year. Digital Ship speke to inteleat's Chris insall about the lipic impact on the maritime sector

placed balant SpirAC high Them will be before improvement access. Are the American and Arlants provided by One of the main datases that backan regland satellites, surportably premisered prevaluations one act. Instant 26. And pairs inward, addition repeate to had this samp in unable indic analysis from Farah Galera about an Indian dok take up by these containers of first savillan will continue to will not a will be the application of Highera and Argue Taranch whichers Arguet 3, with should be perty quick over the satellite in service to meet global shipping maples. Internet of DispotationRegistric shipping the Basing-manufactured satellite set to operational." Integ high throughput capacity in hoth C-

fast and Asia regionalism #PE in the first change in hardware, there's a process the partner, IAAT." contra of \$17

crost a maps of major shipping mates service provide a mached?

into Aria pintologicity silisitori tored saroly inclusion. the sandline operator's motion provider. Since it began communial question in the neutrans

Dente & "The reliant's survival A.W. the salary provided a 140 per cent officiency equatation have been capped due to the 10200 continues over the next two years of maritime VMT that a significant por-improvement on existing networking limitations of L-band, but that across is including the rescale of all existing cargo

means once the satellite is operational, in-Taripe and Asia holds on the caverage most objpping companies continue to face "Deveryour updalities further are which will previde arrives in the Parifer Arriban a efficiently a produle

and Karbandio Be Alvin, Rumpe, Maldle – can maline one-they're on Tpic, without a – tran 2013 is collaboration with sur-operate – – "As the commercial objecting autor whendy the artist providen duline and

This additional courses will integrate deploy that new capacity and we what it global coursepond type on depond prior, second the courses's wood data and with that provided by backet Ma, the first case ofter their contenses. They's going a Weakle have the inter other lipic adultion unlocking the bage value of that deter Indust RolAC salellie, which was writt present, and employ or despeed in development, they will create in any drough analytics : saling center stage. isoched in January 2014 over the an far as possible to be mendem. Wo'll of high demand to provide even more. Mithoull told on American and North Atlantic Onan. deliver that extra homoposer into the net-copacity for the these satellites will be what ragion. The two wallins will together work and that can be adied out by the given rapidal HTE overage by \$10, and hime operator survey we research commisiton the American Berugh Europe and . To far, the company has reported some us to define in those areas."

impressive numbers for performance of . In the commencial maritime sector that to implement data analytics including, Once He des pour line Inschut esparts, the lipic network on the Pile, which is not. Instruction of global coverage will follow aministra and all learney construing. Not the additional handwidth and series its ready carrying tasks from the American, the increasing intuil is deployment of its according root inductions, advantage regulation multipling you are subjects. Western Target and on North Atlantic VSRT, which is expected by most analysis increased efficiency use the second exact to continue to provid draffe digit area in important reason sited for up grading rea-

The many play these communication

late March 2016, that little lipic satellite has

tion of business is previousliked and business, and a 100 per cost efficiency charging new with VSUT. Basenth that counds, And at the same time, we use each

ments, including the Holecom Is satellite; as quantum efforts and work

continues its secreary, we do see the con-"Bat's when we will have complete uppe of realising value-added services

We have good insights from the manfour more that, as demand genue, allows sciented a in the most year of operation. ground a third of these surveyed intended sala' sentenne'

"Of onese, the mandatory reliest of



October - VSAT deals for approx. 200 Teekay, MOL LNG and Reederei NSB ships

October - Second Intelsat Epic satellite successfully launched

December - Maritime satcom revenues continue to climb in difficult market

Maritime satcom revenues continue to climb in difficult market

While the merchant shipping sector continues to struggle in an unforgiving economic climate, the maritime satellite communications market is prospering – with combined annual satellite operator and service provider revenues climbing into the billions

new report from analysts Euroconsult has daimed that the value of the martime satellite communications market has reached almost \$1 billion in annual revenue at the satellite openator level, and is dosing in on \$2 billion in annual revenue at the service provider level.

Specifically, the 'Prospects for Maritime Statellite Communications' report says that in 2025 the maritime market of approximately 338,000 terminals created 5953 million in statellite operator revenues, and Skr.2 billion for service providers.

With a growth rate of 5 per cent in terminals and revenue predicted over the rest len years, that would mean that satellite operator revenues will surpass \$1 billion by the end of 2016, and service providers will pass \$2 bilion annually before the end of 2018.



Combined revenues for satellite operators and service providers should hit \$3 billion from maritime in 2018. Photo: Tony Webster, Oreative Commons 2.0

main driver a few years ago. less than 2: Even though crew communications still represents the vast majority

less than 2 Gbps in 2010; according to icathe report.



In short:

- Gigabits of additional satellite capacity are available to maritime – shifting Supply v Demand
- Installation of maritime VSAT is accelerating and providers are betting billions on further growth
- So whatever you're paying for satcoms now, you should be getting more for your money in the near future



Jan/Feb - Airbus commercial satcoms sold to Apax

A irbus Group has announced that it has signed an agreenent with French private equity firm, Apax Partners, for the sale of 100 per cent of its commercial stellite communication business, including direct sales arm Marlink and all reseller contracts.

The final closing of the transaction based on this share purchase agreement (SPA) – subject to regulatory approvals – is expected to take place in the next few months. The cost of the transaction has not been disclosed.

Airbus Defence and Space announced in September of 2014, following an assessment of its business strategy, that it had defined military aircraft, space, missiles and related systems and services as its future core businesses.

As such, its commercial satcoms business, including serviors to the maritime industry, did not fit those strategic goals, The maritime and land commercial satcom business has a presence in 14 countries across Europe, Asia, the Middle-East and the Americas, with a distribution network of approximateby 400 re-sellers workdwide.

Airbus commercial satcoms

sold to Apax Partners

After protracted negotiations, Airbus Defence and Space has agreed a deal to sell back its commercial satcoms business to Apax Partners, from whom it originally purchased Vizada in 2011

> The deal represents a significant turnaround for Airbus, which had highlighted growing demand for maritime satellite services as a significant driver for its original purchase of Vizada, describing the market as "a perfect cornerstore for Astrium to





Apax has agreed to buy back part of the Vizada business sold in 2011 overall revenues not enough to convince management that commercial satcoms should be a core focus.

New VSAT contracts

As if to demonstrate the ongoing solid performance of its maritime business over the course of these discassions, Airbus Defence and Space announced a wide range of new VSAT contracts and system deployments towards the back-end of 2015 which will carry over to Apax following the acquisition.

Among them is BP Shipping, which has agreed a new global multi-band VSAT deal with Marlink covering its entire tanker fleet.

Under the new contract, Marlink will deliver primary communications capabilities to the BP ships via its Sealink VSAT service, and also include an L-band back-up service.

BP Shipping was one of the first operators to adopt mar-



Jan/Feb - Airbus commercial satcoms sold to Apax June/July - GEE buys EMC for \$550m

Global Eagle Entertainment buys EMC for \$550m

Another major maritime satcom acquisition has been announced, with Emerging Markets Communications set to be taken over by aviation connectivity and media delivery specialists Global Eagle Entertainment, in a deal worth half a billion dollars

G lobal Eagle Entertainment (GEE) has signed a definitive agreement to acquire Emerging Markets Communications (EMC), a provider of communications services to maritime and other mobility markets.

The combined company will offer global satellite-based communications and media content to both the maritime and aviation markets, as well as selected land-based sectors.

Under the agreement, GEE will pay \$550 million for IBAC in cash and shares, with payments to be spread between this year and 2017. IBAC is projected to reach \$290-200 million in 2016 revenue, with \$55-65 million in

 \mathcal{C}

EIIC

The combined company will serve some 1,600 vessels



Jan/Feb - Airbus commercial satcoms sold to Apax

June/July - GEE buys EMC for \$550m

June/July - Panasonic begins maritime play

Panasonic begins maritime play

http://maritime.panasonic.aero

Panasonic Avionics Corporation (Panasonic) has announced that it is to begin offering its broadband communications and digital entertainment services to passenger vessels across the maritime market.

Panasonic already delivers communications to a range of mobility markets via its Ku-band network, which it says covers more than ninety-eight per cent of maritime traffic routes.

"Panasonic, in close cooperation with ITC Global, is dedicated to delivering the best in digital entertainment and enterprise quality broadband communications to the maritime industry," said David Bruner, vice president, global communications services at Panasonic Avionics.

"We believe our network strategy sets a new standard in connectivity across a wide range of markets including yachts, river cruises and other passenger vessels."

In February, Panasonic announced multi-year contracts with satellite fleet operators, SES and Telesat, for high-powered HTS spot and wide beam Ku-band capacity to supplement its existing HTS capabilities and cover customers across the US, Canada, Mexico and the Caribbean, as well as the Mediterranean, Europe and the Middle East.

Over the next few years the company says that the network will continue to evolve as it rolls out extreme highthroughput (XTS) capacity in the densest of traffic areas – across North America, Europe and Asia – where these regions will be seeing multiple gigabits of capacity.

Panasonic's maritime entertainment options will leverage the experience gained in delivering approximately 8,000 inflight entertainment systems to global airlines, to make the same entertainment platform available to the shipping market.

Jan/Feb - Airbus commercial satcoms sold to Apax

June/July - GEE buys EMC for \$550m

June/July - Panasonic begins maritime play

Aug/Sept – Summer of love for maritime IT marriages

Summer of love for maritime IT marriages

The summer of 2016 has seen a slew of new maritime IT relationships consummated through a variety of acquisition deals, with some substantial cash changing hands for businesses in various shipping technology sectors

acquisitions the leading worldwide servicing company ported during the nummer of which will be the partner of chains to Fernescusics Marine Electronics business and eta acquisitions. He will build strate that are likely to impact the enable the digital iterationnation of all our unit has its origins in the founding of gir partnerships, inner are with start-op munity the most cash rich maritime chasts." had to-down was the panchase of CHII-Net-

implify the million.

Persy has by lot.

Name or Address of

envite his selection report or MOL a supplice for obligating married SBV offer to acquire all Oth was completed on 3 August 2016, with SpandCast confirming its appleition

dorthe company sucked agroment with of WINS Limited (WINS), a Europe-based hand-olden and gained the net many regletters approximate The satellite openance agreed to peer of the Euclided Orsep. 14 M as has to death to take its own-

rads from the company's based on a total enterprise value of approx- exitorizer. count anothe mining to Fearma the deal-Oblighted are advantage on nall its range between USBI will less and 1404 million, 545 mon it coperts to gotrate on additional 450 raillow of general complete in 2017, increasing to 4708 and-

manning by by 2021. SBS also alma to or said-date USBE 3 fall. send Officiality and almost constructure it to our family," and SpeedCast CBO, and any second state.

"Moving to 100 per and of ONA will be dily according for SHS, both from a strate- of Speed Card's growth strategies, and is a of constitution accolution the definition of important transformational and comitsnational surveying that are only provible - use of said lite communications," with 100 per cost consending? and Karles Michel Salkagh, pravident and CEO of 905.

Marlink and Telemar Staring in the untellite space, Marlink has

Banal is the UK. the Lemants. the Manzoni International Maritime SpeedCast and WINS Coglishee Marcesi in 1988, More reported, experted, Digitalization offers significant to a receiver of many VAT providen to Another new maritime autors marriage in 202 the unit was incorporated into growth potential for our outcomes and came in light shortly after the accessory. Soles: Communications (new aresther mant of the Markok and Tolemar deal, Lamande-Fernescusica-company) The former Leonardy Remarance

marine business has \$4 offices in major how \$5% also new the coprovider of anillite communications and British ports and a network of over 60 sup- Digital Marine Solutions (DMS) doal to IT services for the maritime sector and part pert tacheidane. Its diest base includes angelse the marine detains of juppeners now then 2000 comparison generating a pathology compares, first previous SpeedCast will appoint Residual's 70 per transver of about 622 million, a specificant in March. whip of CDb from 48.1 per user to 500 per annt explar in WDO for a constderation person of which is derived from non-UK

> 160% provides nervices to some 100 ing the acquisition expects to generate a CAMP portfolio self-continue to speech parameter carrying watch, such as cruiter tumous of approximatily 60 million, as a separate entity under the CAMA tors address, as well a approximately SEM says, through the supply of 2,00 mechant ships, from its postfolio of equipment for newspation, security and resources and management team ind by VIAT, L-hand, interruptional maritime intradiand untillite new text to the sup-Kine market.

CPM and accounting authority services. "We are very pleased to sed some WINS "We are particularly planed to have unit from Leonardo," axid Loca De Casare, "This acquisition is further affirmation CEO or SIRM.

"The integration of these articities withpt and expressive standpoint, in addition to significant indications for us, WDM brings a in SERDIWER allow untropacity ensurings a MAP, and onjoy continued access to an sending SEVs invaduant hards news, strong local presence in Company, a major strongly market such as the UK market and subsected range of high-quality electronic maritime market, any dias experime in the to plan the subsequent expansion into other Remptan and som Remptan markets." orate industry in Europe, a fast growing "This spengies is hilly ashealded in the

"Insuface, we are well point in middless of our basiness plan, with the expand our network to apport the grougrowth option for acquisition of its smach ing demand of VSAT services in the mardated companies in specific markets and upply capability integrand into that of In anneurating the deal SpeedCast also SRM, making it even more distinctive,"

Wartsilä and Eniram Group, with Marlink owner Apex Partners - sensing with WIN coloridary DIE-INTER- Our next deal is an all-Resold affair, with

eremparies and continuously recruit Communication company, nd up by new people to strengthen our digital the Milsteille." DMS and Joppesen

"But up it many proving

Digital Marine Solutions is moved by the Alter 2008 Fund. Under the terms of The sendy combined company follow- the agreement the Jappanes Marine and band same with its own dationed

"The completion of the deal is at news for C-MAP, our engineers, our staff finalized the acquisition of the business and the marine industry," said by Anniad "Our wide pariate of main name will an continuity in supply and improvements it the standards of occiliance debrared by C sprighternal display information and places and added value support."

ChartCo and Kelvin Hughes

age which will see ChartCo leave the Refeits Haghes Group, following an injectoo of what it describes as "equilibrium new funding itom Equitors Pattern Respects data for contrast growth of it



also are reproduced a dual to take over the basis on off much the signing of a contract to pro-

nas of maritime autom provider Tripmar while Kushand VAAT to 50 wearth in party

Jan/Feb - Airbus commercial satcoms sold to Apax

June/July - GEE buys EMC for \$550m

June/July - Panasonic begins maritime play

Aug/Sept – Summer of love for maritime IT marriages

December – SpeedCast buys Harris CapRock for \$425m

SpeedCast buys Harris CapRock for \$425m

Hong Kong-beadquartered SpeedCast has been on an extended shopping spree that has now seen it acquire a dozen companies in just four years - and the latest deal, to buy American satcom provider Harris CapRock, is the biggest of them all

edCat has entered into a definiagrament to acquire Namia pany on the Australian Securities in a cash transaction cal-Exchange that same August at UB455 million, with the aim of In 2015, Speed-Gest acquired Harman politonis for make and Datacomers, Gallok fundite ferrice, Nordet, SAT Communications and ST

The conditional antity will service more has 6.207 canada, as well as hundrads of based NewCon International as well as ip and plattering in addition to both. WDB Limited (WDR), a Turopean sparsies' estepsite and government

will also expand part of the Rashar Group. - 20global infrastruction to more - 140 Cale releases around the world. or 18 months all'at use that the transaction is anterdrive complete by the end of QL 2017 dusing conditions. anti-tand and regulatory panel. The company separate to prose prosingely UND4 million in genual ate Specificant's future rgies within the first two years. the the deal is completed by consolidatcombining of from and melacing costs. Funding will be parily underwritten by

appity raising on the Australian study scharge (where SpeedCart is listed). which aims to generate approximately AURISM colline (general UNED) colline). Shopping spree

he acquisition of Harris Capillock is just for latest move in an extended shapping one that has seen Mona-Hone headcoartnal ResultCast purchase a host of compaconversionalized (AAC) in December 1011. The way followed by deals to account Australia's Pacial International in April of all plagar, which means we ware not invite a different level where we will have a water

an around the world over the last from was about acquiring a presence in flumps, are starting with Australian Satellite where we had nothing "He wan doing way sell in our man-

controls in Max 2014 should believe an American unclosed in Roberton, the beart, he alled

initial public othering of durate in the const of the obigoing same in Tarope, and mally parts on that presence and no started gatting insided to global tenders - and us started winning glabel Londers." "Compaighted" has been a constant them in adaptant applicitions in the maritime

Telepost, and this year brought Floridaunits, galling territory when Specificat had little or recentiting passence "He sequired, last year, \$4.5 provider of satellite communications and. Communications to early have a strong Trysters for the maritime sector that was market share and presence in the Grach market, at a time when the persentation of Add Harris/Capillack to the list and that VEAT is still low but so expect the adopmakes an over down an quisitions in fact tion of VSAT to accelerate," and

years, eight of which have taken place Mr Boylins since the start of 2015, at a cost of around "We brought WING and improved with half a billion dollars - a remarkable spand- DH (Rutchat subsidiary DH-bitamon). ing run by anybody's standards. Digital which has a presence in farm any, the se-Ship upoke to Specificant CBD Parrockers and largest shipping madent in Europe Befor about his long term manage, and a shortlyness, and an interesting proce here these new firms will combine to one. the cruite argment, where we dolo?) have arothing but is a segment phase the Amount of the baseline in the sector of the "The acquisitions have name been

alout just building scale, such arguinition "Hart's Capitock mally makes up the strong hader in the main basiness comhas been throught of an filling a pap in our capabilities, incour approach to the market. bining Harris Capillack and WINE which The scholard tree behind these acquisitions further emoghers our global scale service ing the merchant shipping and off-base hardware warmer synangias," he told on "Combing these companies with making to and makes? frankfort will give us around to opport or

In short onlier Mr Beyler says that the ities, to contorners, to previous, and officer acculations have allowed the company to us to do a number of things that ware not fill three page in its capabilities it had idenpossible on our own. When you look at tilled by buying up additubligs and a such of these acquisitions, The failtons was contained have, along with technologies our use first maritime arguinition, that and infestmenture, moning from its home in AsiaPacific through Barrya and the

America, and into Africa as well. "It has not have driven by work, then all

More business in heir Parific as had some as a result of these accountings as have blockon faultie farvice in The partners in Europe hat we didn't have a citricusly reached a applicant scale and infrariance in January 2013, and preserve entraneous-being agints, with Harts Capillock we have blee that to

the more your, before adding furthermore and to global tenders. Belithermore further advertising or over over comparision,"



Specifical CED Parts Jack Bryle

tions are have learned and discounted stong the way some of the scale baselinsometimes beyond what we want extent ing. We understand now what we can achieve by being a bigger player and will knowings that an use integrate Harris Gollah and Smallet

While Marris Cannuk has stangly inits of and parand only hadsame. My Beyline periods and that discovering tion is not one of the one goals of the Speed at applitude strategy, with care party wandrandy prevent to some educed in mail of the sectors seried.

"I wouldn't say it's discriftation brane directly is part of Spanifard's between we're alwares here diversified and will continue to be discussibled We was The network force of course or two index. trian and had to diversity. We are making expandious in sectors where we are affine and alternate wait to stangthenous pair tion." he table as

In short:

- Scale is important in maritime satcom sharing costs across sectors while increasing buying power
- Consolidation will continue, most likely leaving just a handful of satcom providers – fewer options, but fierce competition
- So a small group of big players, with deep pockets, will be looking for your money



To take away...

- Exponentially greater supply of VSAT capacity
- A few big players will dominate having spent billions
- Maritime can benefit from cross-industry scale

Cheaper data is coming. Success will be had by those who use it to create value from their 'Digital Ship'



Thank you