GLOBAL
NAVIGATION
SOLUTIONS

The Ultimate Guide to Going Digital

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With just a couple of months to go until the majority of tankers have to be compliant with the new regulations to use ECDIS and ENCs and only 38 months before the final 2018 deadline, many shipping companies are finding there is still much to do to make the transition to digital navigation.

Some operators and managers are well ahead, but some have still only dipped a toe in the water and many others have yet to make a start.

Switching from paper charts to digital charts sounds simple, but most shipping companies that have done it will tell you otherwise. From a massive increase in admin for the purchasing teams to getting to grips with everything from new ways to buy charts, manage inventories, update charts, demonstrate compliance to port state inspectors, passage plan and execute a voyage not to mention the new bridge procedures that have to underpin it all, digital navigation IS different and transitioning safely and compliantly without impacting your commercial operations does take some thinking about. That's why a planned transition is crucial.

So, if you are still scratching your head about the best place to start or even if you are doing okay but feel there is always room for improvement, then these 7 easy-to-follow steps are for you.

	JULY 2009	JULY 2010	JULY 2011	JULY 2012	JULY 2013	JULY 2014	JULY 2015	JULY 2016	JULY 2017	JULY 2018
NEW PASSENGER SHIPS				>500gt						
NEW TANKERS				>3000gt						
NEW CARGO SHIPS					>10000gt					
NEW CARGO SHIPS						>5000gt				
EXISTING PASSENGER SHIPS						>500gt				
EXISTING TANKERS							>3000gt			
EXISTING CARGO								>50000gt		
EXISTING CARGO									>20000gt	
EXISTING CARGO										>10000gt

The deadline for switching to digital navigation is approaching

Captain Mike Bailey, Master, marine super and tanker fleet manager and, now, Head of Navigational Products at Global Navigation Solutions, the super Group formed from the merger of 5 of the world's leading Admiralty distributors, shares his formula for a successful transition.

Captain Mike Bailey, Head of Navigation Products, Global Navigation Solutions

Step 1: Conduct an audit

When it comes to switching to digital the best place to start is with a comprehensive review of the products and services in use across your fleet.

NAVIGATIONAL PRODUCTS AND SERVICES

Conduct a full audit of the navigational products and services in use. This will include the various combinations of paper charts and publications that are carried on board each vessel. Make sure you include the various ways that chart and publication updates are currently received.

Conduct a full audit of all products and services in use on board

One marine superintendent we recently helped to make the switch was certain that all his vessels were carrying a standard inventory. It turned out each vessel had a completely different portfolio of charts and publications on board despite being the same Class and operating in the same trading area.

Many vessels are also using some digital data so remember to check, especially for unofficial digital charts that will need to be replaced with ENCs to make your ships compliant.

HARDWARE

Conduct a full audit of the hardware (both ECDIS and PCs) that is installed on board across the fleet. Document all hardware set-ups on a per vessel basis including single, dual and triple ECDIS installations, availability of separate power supplies and ALL PC specifications. This will enable you to correctly identify any additional hardware investment you may have to make and/or your back up requirements. You'll also find this information is invaluable when it comes to selecting the right chart management software option for your fleet.

Remember to include how products are currently kept up to date in your audit

SOFTWARE

Also conduct a full audit of the software installed onboard across the fleet so that you can make sure that features and functionality available to each vessel are not reduced or lost during transition.

Step 2: Prepare carefully

Once you have conducted a detailed audit, it's time to look at what you will need to comply with the new ECDIS regulations. Time spent at this stage will save you many hours later.

Develop an optimised version of each standard inventory in use across the fleet. Make sure this includes:

- Mapping paper and digital publications across both trading area specific and non trading area books

- Identifying ENC folios that will be needed to replace paper chart outfits

- Agreeing any residual paper chart requirements you require onboard for 'get you home' and other safety and compliance requirements.

At Global Navigation Solutions we recommend agreeing a standard inventory for each vessel category within your fleet based on Flag, vessel type and trading area to simplify ongoing chart and publication management.

Identify the digital products you will need for each vessel to be compliant

Where the hardware on board is insufficient to support 'paperless' navigation now is the time to identify alternatives. These will range from single ECDIS with paper back up strategy through to fitting additional hardware to enable 'paperless' navigation.
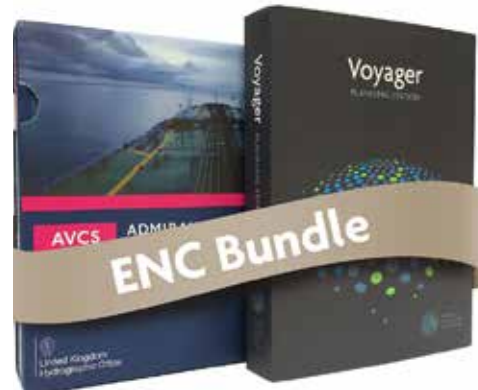
Draw up a plan with milestone dates for each vessel for their transition. Be sure to include time for any hardware procurement and installation. Also include any parallel running of paper and digital charts and target dates for removal of paper versions in your plan.

Voyager 7 Step Digital Transition Programme

STEP	Step	Details
7	Reduction in paper folios	GNS manage a gradually reduction in paper charts to the pre-agreed back up folio. As UKHO withdraws paper charts these are deleted from indexes.
6	Switch from paper to digital charts	Initial ENC (AVCS) chart inventory supplied to ships (AVCS media pack and activation codes). AVCS updates are activated in Voyager.
5	Switch from paper to digital publications	ADMIRALTY Digital Publications (List of Lights, Radio Signals & Tide Tables) supplied to ships (CD and activation codes). ADP updates are activated in Voyager.
4	Software roll out	Roll out of Voyager Software begins to ensure digital updating facilities are in place well in advance before activation of digital chart and publication services. / Voyager tutorials provided to enable crews to quickly become familiarised with key tasks. Voyager training is provided in locations to suit the customer.
3	Startup phase	Ship managers provided with a Welcome Pack providing all the information required to manage ongoing supply of products. A copy of the roll out plan is provided to each vessel. Changes of services (i.e. to digital products) are scheduled in close co-operation with both office and vessels. / Free copies of Voyager provided to your training academies.
2	Preparation	Optimised version of each standard inventory in use across the fleet prepared. We identify where hardware is insufficient to support 'paperless' navigation and submit alternatives for approval.
1	Product and services audit	We conduct a full audit of the navigational products and services in use across the fleet including how chart and publication updates are currently received.

month 0   month 1   month 2   month 3   month 4   month 5

Draw up your plan with key milestone dates for each vessel

Now is also the time to consider your purchasing options. There are number of different ways to buy digital and paper charts and publications and supporting software services designed to meet the differing needs of ship owners and operators worldwide.

GNS bundled purchasing options dramatically reduce the admin associated with digital products

Step 3: Communicate

This brings us on to the importance of good communication, which is a key element of your whole plan.

It's a good idea to give each vessel a copy of their roll-out plan. Its equally important that changes to digital services are scheduled in advance and in close co-operation with your vessels so they don't get any unnecessary surprises and can prepare for the switch in plenty of time.

Good communication with bridge teams is key to smooth roll out

Step 4: Start with your software roll out

Remember there are 15,000 ENCs compared to just 3,500 Admiralty paper charts and the majority of ENCs are bought on 3 month subscriptions.

With so many more transactions required to keep digital chart indexes up to date, safe and compliant, your vessels will need the help of chart management software to manage it all.

Begin by rolling out the software you will be using on board to help each vessel manage their digital charts and other digital data. Make sure your officers start using the chart management software as soon as possible so they are familiar with it by the time they have to start using it to manage their digital charts and other data on board.

Make sure any digital product updating services you are providing to your ships are in place well in advance of the activation of digital chart and publication services. Ideally, these will be provided by the same software the vessel will be using to manage their ENC indexes and ENC ordering to simplify back of bridge procedures.

Make sure any software you are planning to use is also part of your training programme at your own maritime academies if you have them and/or any training materials provided by your supplier are issued to your crews. Consider providing training films to enable bridge teams to get up to speed quickly with new software solutions.

GNS provides helpful tutorials for the key back of bridge functions

GNS provides free copies of Voyager Planning Station for training purposes. Voyager Planning Station tutorials are provided to all crews to enable them to quickly familiarise themselves with how to use it to perform key tasks. In addition, training can be provided in locations to suit you.

Also make sure your crews are equipped with email and telephone support contact details from your supplier. We strongly recommend that support is available to your crews 24/7 especially during the start up phase while they are still getting to grips with the new technology.

Make sure your navigational product supplier offers good technical support

Make sure all relevant base and update CDs for digital services are dispatched to your vessels in plenty of time. Close co-operation with your navigation supplier at this stage should help to minimise delivery times and carriage costs.

And of course, stick to the plan! To avoid mistakes, make sure your roll out is managed according to the agreed roll out schedule.
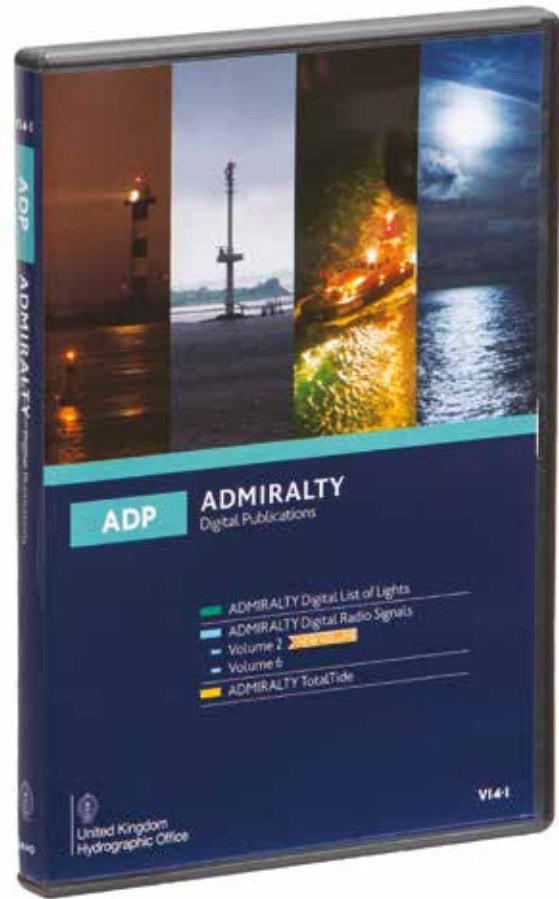
Step 5: Start the switch with publications

Some ADMIRALTY Publications (List of Lights, Radio Signals & Tide Tables) are now available on CD as part of what the UKHO calls the Admiralty Digital Publications (ADP) series.

If time allows, switch to ADMIRALTY digital publications first. They will enable your bridge teams to get used to using digital alternatives and provide lots of benefits in terms of simplifying onboard management and compliance.

Consider adding ADMIRALTY eNPs to your vessel's digital publications library. eNPs are carriage compliant e-Reader versions of ADMIRALTY Sailing Directions and other miscellaneous ADMIRALTY books. Having at least one eNP title active as a subscription on board ensures your vessels always have fast and easy access to ADMIRALTY publications and can respond to short notice changes to trading areas and avoid high costs associated with emergency orders.

To learn more about the range of Digital Publications available to you and how they work download our Ultimate Guide to Digital Publications on our web site at www.gnsworldwide.com

Digital versions are now available for a number of nautical publications

Step 6: Switch from paper to digital charts

This brings us to the switch to digital charts.

First, make sure that new bridge procedures that support and inform the use of ECDIS and ENCs onboard are in place on each vessel. Then make sure initial ENC chart inventories have been supplied and have arrived safely on board. This should include hard media (CD, DVD or USB holding the charts), the 'media pack' that will contain important installation and user guides and the activation codes (also known as permits) for the charts. If you haven't already done so, now is the time to also activate ENC updates in your chosen chart management software.

GNS helps customers prepare new bridge procedures to support digital navigation

Step 7: Reduce paper chart folios

You are now ready to start to reduce down paper chart indexes to your pre-agreed back up folio.

We recommend deleting charts from indexes gradually as Hydrographic Offices withdraw and replace them. We offer this as a free of charge managed service to our customers.

To ensure a smooth transition we recommend running existing paper and new digital chart and publication services in parallel for at least 8 weeks before beginning the transition to an optimised inventory.

GNS provides shore based managers with free online tools to manage charts and publication inventories

You will now have completed your transition to digital navigation. You now need to start to maintain all software and data licences on board the vessel, obtain new chart permits as and when required. Using a web-based tool will help you keep track of your software and data subscriptions and save you considerable time and make it easier to stay safe and compliant.

To find out more about our GNS Digital Transition Programme contact GNS offices worldwide.

About Global Navigation Solutions

The Global Navigation Solutions (GNS) Group is the leading distributor of charts, publications and digital products.

We are uniquely placed as the only provider of navigational products that can provide a truly worldwide navigation solution. Through our global network, strategically located in major shipping hubs, we provide same day delivery of charts and publications to 60 major ports in 25 countries and next day delivery to all major ports in 55 countries worldwide. A single point of contact and a single invoice makes it incredibly easy for you to get charts and publications - however and wherever you need them.

As well as providing fast and efficient purchasing of digital products and services and the best digital support in the market, we also offer assistance with making the transition to navigating with ENCs and ECDIS and rationalising ENC and paper chart inventories. Our digital services are available both independently or combined with our paper chart services to deliver greater efficiencies and better value for money.

Our paper and digital services are underpinned by our Voyager web and software solutions, which are designed by a passionate team of experienced mariners and fleet managers to make onboard and office-based navigation-related tasks simpler and more efficient.

Contact us

GNS ASIA PACIFIC
e-mail: sales@dpmsingapore.com.sg
T: +65 (0)6270 4060

GNS GERMANY
e-mail: info@hansenautic.de
T: +49 (0)40 374 811-0

GNS GREECE
e-mail: info@polythomasgunn.gr
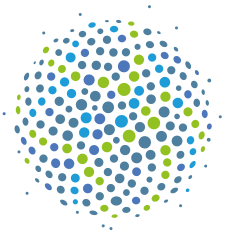T: +30 (0)210 4060 000

GNS TURKEY
e-mail: info@thomasgunnyasden.com.tr
T: +90 (0)216 493 74 01

GNS UK
e-mail: enquiries@gnsworldwide.com
T: +44 (0)191 257 2217

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www.gnsworldwide.com