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NEW GENERALISATION POLICY FOR UK WATERS.

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The Issues.

Small scale

Chart 2182A	92 NMs
Chart 1406	95 NMs
Chart 1183	48 NMs

Large scale

Chart 1534	4 NMs
Chart 2693	11 NMs
Chart 1543	9 NMs

TOO MANY NMS

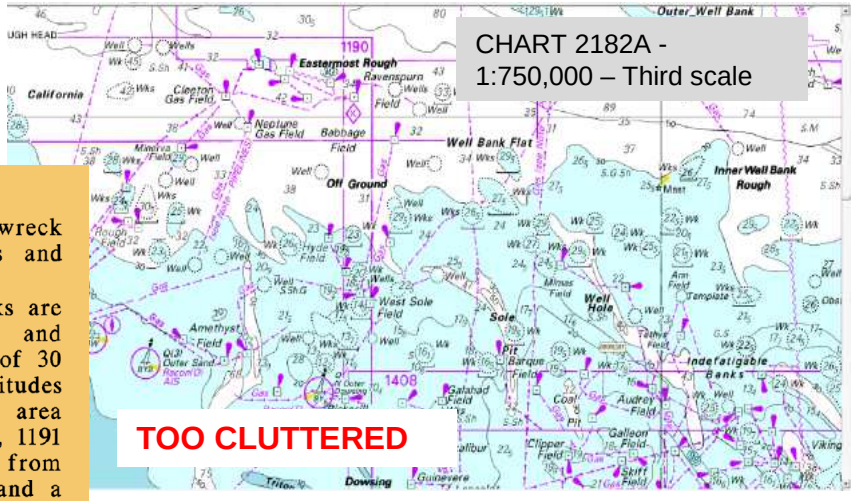


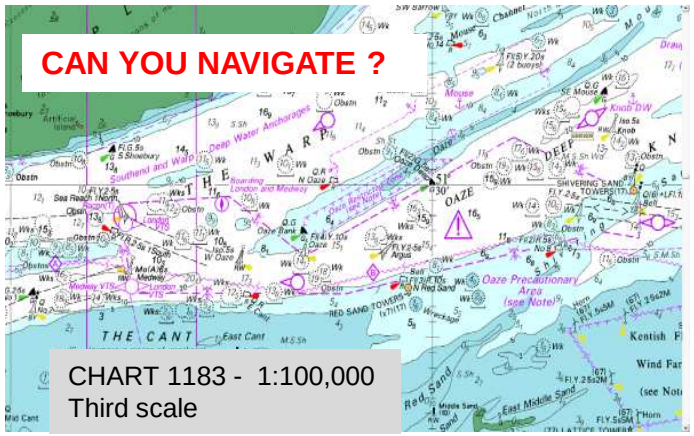
CHART 2182A - 1:750,000 – Third scale

TOO CLUTTERED

WRECKS

To improve clarity on this chart, wreck information is reduced southwards and approaching the coast.
South of latitude 52°05′N no wrecks are shown. Between latitudes 52°05′N and 53°30′N only wrecks with a depth of 30 metres or less are shown. Between latitudes 53°30′N and 54°35′N and in the area covered by larger scale charts 1190, 1191 and 1192, all wrecks are shown apart from those with depths over 30 metres and a height above the seabed of less than 5 metres. Additionally no wrecks inshore of the 30 metre contour are shown unless they are more than 30 miles from the coast.
For detailed wreck information, see larger scale charts.

TOO CONFUSING



CAN YOU NAVIGATE ?

CHART 1183 - 1:100,000 Third scale

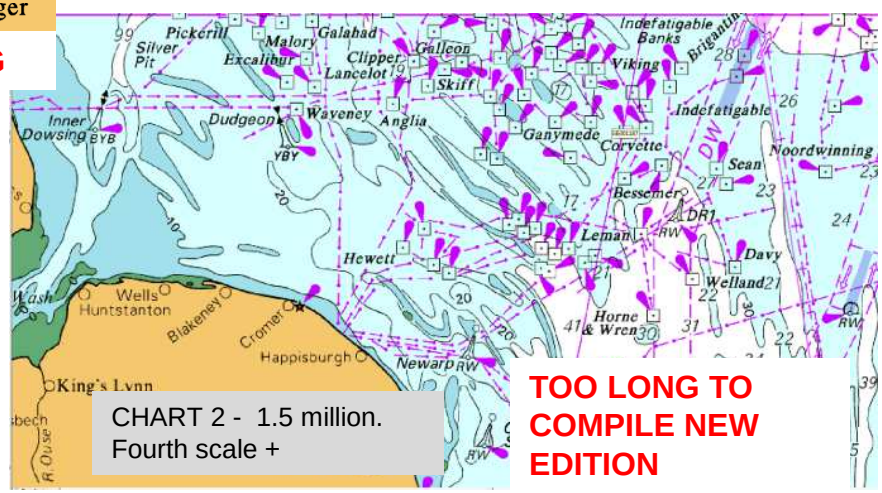


CHART 2 - 1.5 million. Fourth scale +

TOO LONG TO COMPILE NEW EDITION

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AIMS

- Significantly reduce the amount of detail shown on smaller scales and hence the maintenance effort.
- Rules based - simple and easily understood by chart maintainers and chart users alike.
- Applied systematically.
- Establish, once and for all, where a chart can be navigated on and where it cannot.

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Terminology

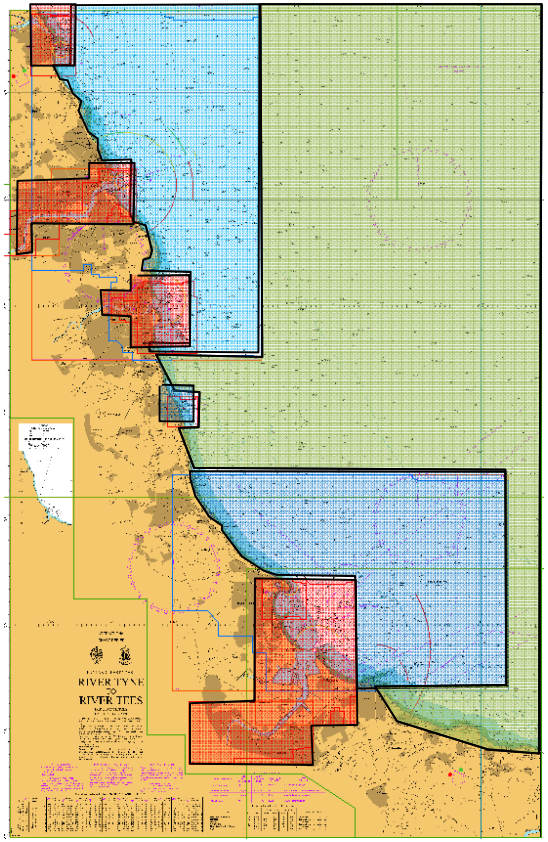

CHART 152 – 1:75,000

Area where 152 is largest scale

Areas where 152 is second scale ie in areas covered by 1935 and 2567 (1:30,000) and 1624 -4 (1:12,500)

Area where 152 is third scale ie where larger scale charts and plans exist of Blyth, Tyne, Tees etc in the area of 1:30,000 coverage

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1. DEFINE PURPOSE OF CHART AT DIFFERENT SCALES.

Largest scale - **enough detail to ensure safe navigation** for various vessel types (this is a primary charting area) and meet navigation and stakeholder requirements - subject to clarity of display at the scale of the chart.

Second scale – **sufficient detail to navigate on**, in all but the most complicated areas. Non critical features generalised.

Third Scale – **Planning and situational awareness** only. Not enough detail to navigate on. Larger scales to be used for safe navigation.

Fourth Scale (plus) – **Planning purposes only**.

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2. STANDARDISED RULES

FEATURE TYPE.	WHERE LARGEST SCALE	WHERE SECOND SCALE	WHERE THIRD SCALE	WHERE FOURTH SCALE AND SMALLER
DEPTHS/ CONTOURS	Full hydrograply to allow for safe navigation apart from areas where scale of chart will not allow ie too small a scale or where highly changeable areas where local guidelines may apply.	Sufficient hydrography to navigate – attention to critical depths, main channels and anchorages. In open waters - contours generalised - small offlying shoals encompassed.	Purposely not enough depths to navigate on. **Contours and colour tints** used to describe underlying hydrography, no qualifying depths needed. Blued out completely in enclosed waters. Generally no depths shown apart from offshore anchorage areas or, in rare cases, critical or controlling depths in main channels. Latter subject to local factors. Note: Contours to be shown as displayed on the associated HDB NAV band ie no further generalisation required.	Same model as third scale display across but greater use of Blued out areas behind certain contours along coast as well as enclosed waters. Where issues of chart integrity and value are present a generally sparse scattering of depths is to be considered but not of sufficient density to allow for navigation.
WRECKS/ OBSTRUCTIONS/ FOULS	All shown dependent on INT 1	Wherever possible Foul/ Obstruction Areas and Wreck areas shown with least depth. NDW with no depth over not shown ? Remove fouls wherever possible	None shown unless of critical importance.	None shown
PIPELINES/ CABLES	All shown as per IHO-S4.	All - but consider inserting cable/ pipeline areas. Disused cables and disused pipelines not to be shown ?	None - pipelines and cables to be cut off on the OOD line.	None
OIL AND GAS/ WINDFARM	All shown, designations of platforms	All - but grouped together wherever possible - ie platforms grouped, even oilfields grouped where small scale - no designations of platforms	Shown as Maritime limit and Oilfield/ Windfarm name . Where oilfields are small and numerous cover by general maritime limit. Note: where Fields extend into second scale depict the feature as if it were second scale.	Maritime limit and Oilfield/ Windfarm name . Grouped together wherever necessary with legend 'Oilfields'

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Rules - continued

FEATURE TYPE.	WHERE LARGEST SCALE	WHERE SECOND SCALE	WHERE THIRD SCALE	WHERE FOURTH SCALE
LIGHTS/ BUOYS	All - names, all details, full light descriptions	Most buoys and lights shown and named dependent on scale. Certain minor buoys away from main shipping channels not shown eg mooring buoys, special buoys, 2xFR. Abbreviated wherever possible.	Only major lights (>10M) or lights whose range extends beyond OOD area and are significant shown. All lights included are to be named and abbreviated light description given. Only major buoys eg cardinal marks close to shipping lanes.	Certain major aids to navigation shown with names and abbreviated descriptions.
Source Diagram/ M_SREL	Show graphical extents of surveys - combining where possible.	Show graphical extents of surveys - combining where possible.	On the SD insert legend 'Refer to larger scales'	Dependent on scale - if larger than 1:500,000 insert legend Refer to larger scales.
NAMES	All appropriate names shown dependent on scale of the chart as per IHO S-4	All appropriate names shown dependent on scale of chart as per IHO S_4	All appropriate names shown for planning purposes eg Major banks, headlands, bays, channels, ports oil and gas fields, lights, buoys, anchorages etc	Names limited to geographical features eg Headlands, channels, banks, ports and major features such as TSS schemes, anchorages etc.
AIS	Shown	Shown	Shown	Consider showing if significant
Pilot pick up point	Shown and named	Shown and named	Shown and named if significant	Consider showing if significant
Radio Reporting	Shown and named	Shown and named	Shown and named if significant	Consider showing if significant
Anchorage Area (No anchorage areas)	Shown and named	Shown and named	Shown and named if significant	Consider showing if significant
Port Limits/ Pilotage area	Shown	Shown	Shown if significant	Consider showing if significant
TSS/ ATBAs/ Rec Routes	Shown	Shown	Shown	Consider showing if significant
Precautionary Areas	Shown	Shown	Shown	Consider showing if significant
EXTRACTION AREAS	Shown	Not shown ?	Not shown	Not shown
Firing Practice Areas	Shown and named	Shown	Shown if significant	Not shown
Tidal Diamonds/ Tidal stream	Shown	Shown	Limited number shown	Limited number shown

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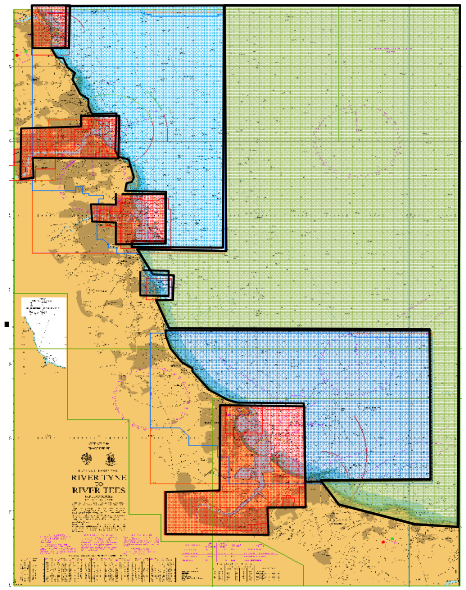
3. The Display



Omission of Detail line - chart becomes third scale *

Features filtered out behind the line based on Standardised rules.

In – TSS, Major lights, Anchorages, Names etc
Out – Depths, Minor Lights, Pipelines, Cables, wrecks etc

Insert note :

OMISSION OF DETAIL

In the area between the limit marked and the coastline, this chart should only be used for planning purposes as features such as depths, platforms, wrecks, pipelines, minor Aids to Navigation and cables have been omitted. Larger scale Admiralty charts are available for mariners intending to navigate in this area.

The geographic Manager will define the position of this line.

** There will be various exceptions to this rule based on local factors.*

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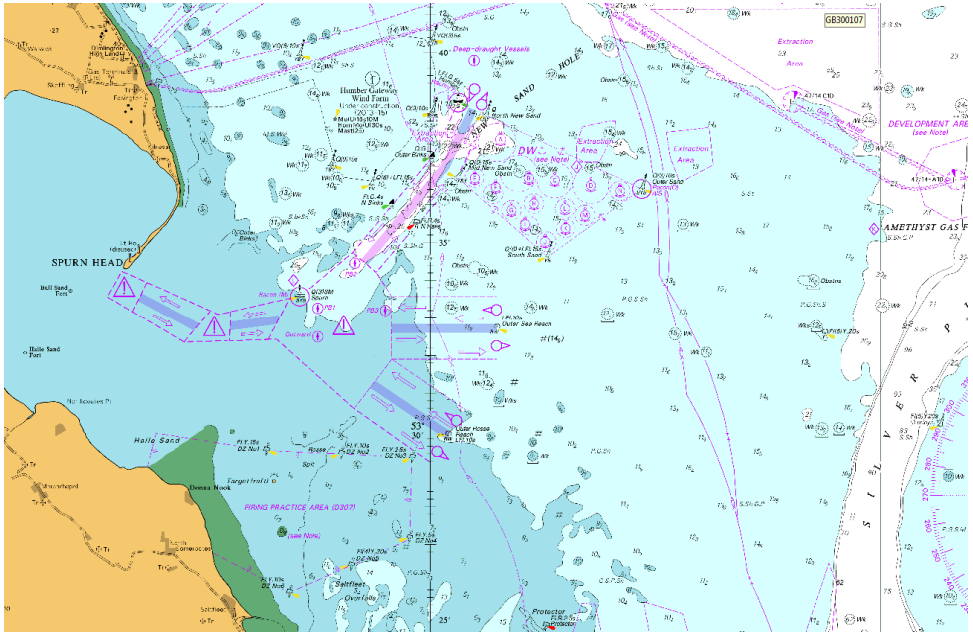
Chart 1190

BEFORE



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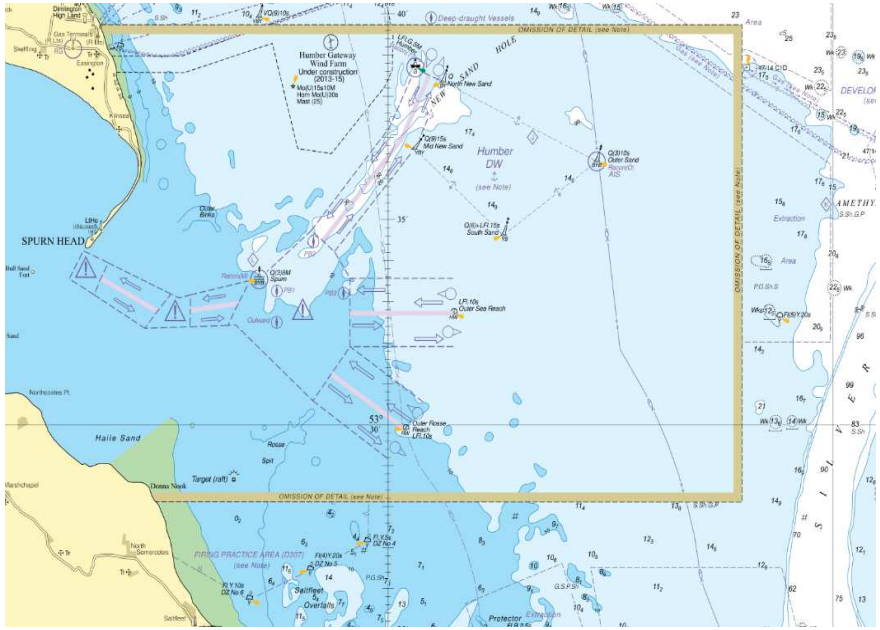

- Clear and unambiguous display.
- Detail will ‘open up’ on approaching coast.
- Chart user knows exactly where a chart can be used for navigation and where not.

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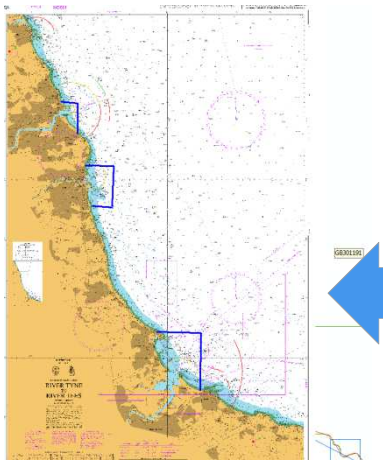
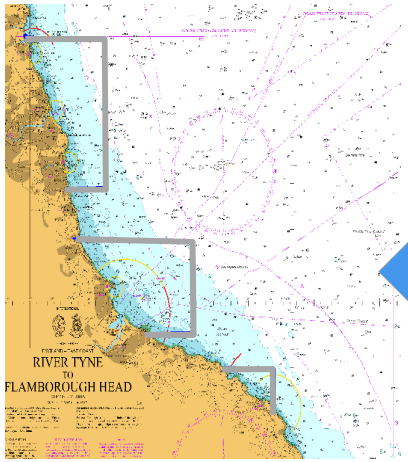
Policy: Tees and Tyne

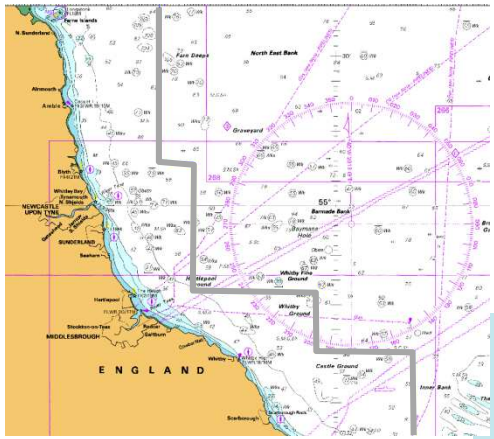
1934	1:12,500
2566	1:20,000
1935/ 2567	1:30,000
152	1: 75,000
1191	1:200,000
2182A	1:750,000



1:75,000



1:200,000



1:750,000

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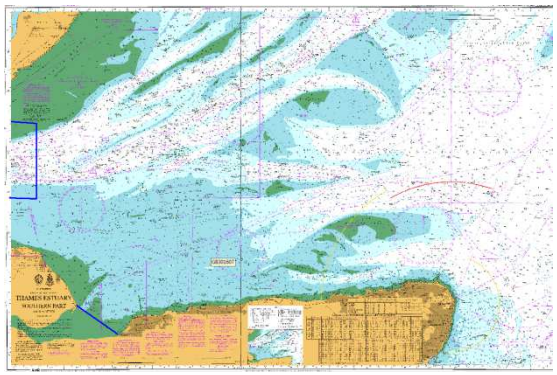
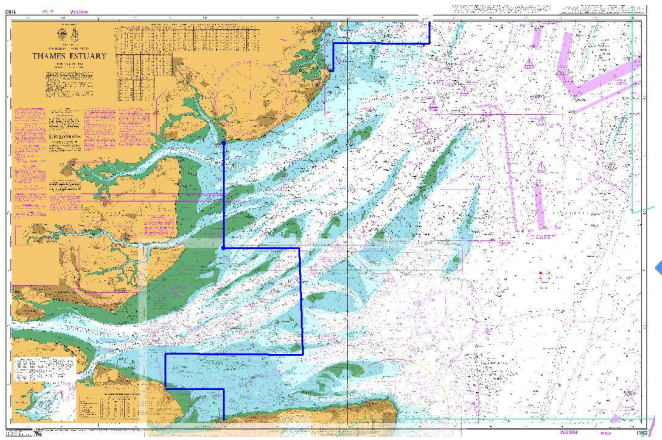
Policy: Thames Estuary

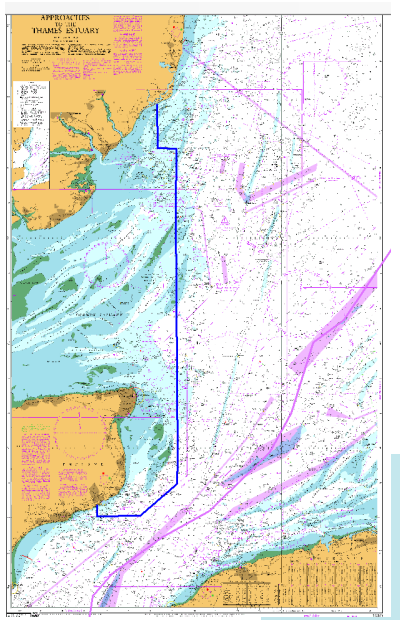
1186	1:12,500
1185	1:25,000
1607	1:50,000
1183	1:100,000
1610	1:150,000



1:50,000



1:100,000



1:150,000

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Exceptions.

OOD Line position needs very careful consideration.

Generally third scale coverage but exceptions and needs flexibility:

- Only **larger** areas to be encompassed.
- Avoid crossing major **offshore traffic routes** - AIS
- OOD line to **move offshore** as transfer to smaller scale.
- Where result is too complicated – it is to be **simplified.**
- Avoid clashing with **major offshore features** – TSS, Windfarms
- Chart **integrity** and value – Smaller scales become 100% planning tool
- Careful consideration needs to be applied to the **INT Scheme**.
- **Buffer zone** to be created – transfer from 3rd to 1st scale chart – INT scheme
- **Local Safety Factors** – over ride everything

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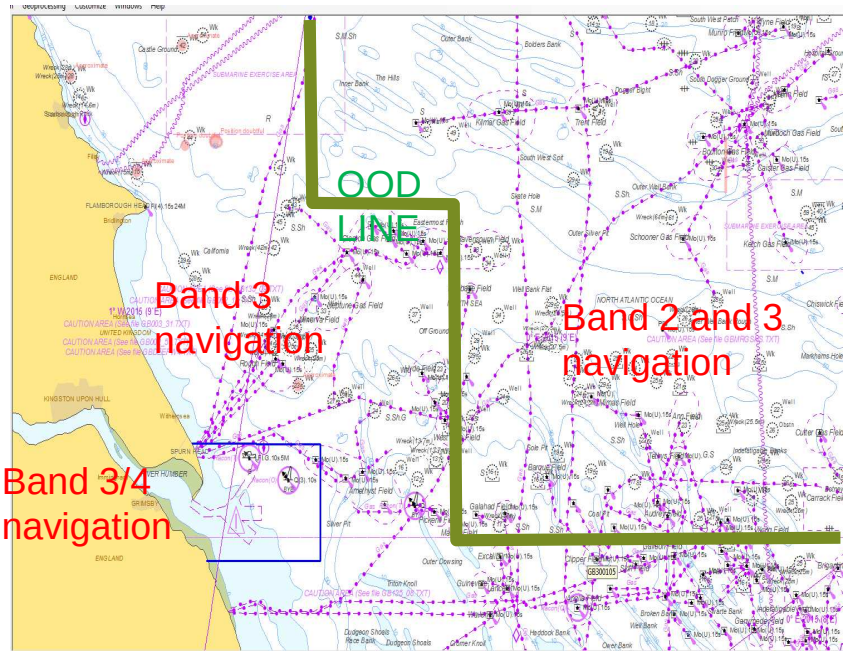
Affects on ENC

Only likely effects - inshore waters when zoomed out to inappropriate scale ENC



Humber Approaches
Band 2 cell – GB2A2182 – 1:750,000
Band 3 cells - complete coverage
Band 4 cell – mouth of river
OOD line shown.

When zoomed out between OOD line and Band 4 cell – a 'filtered' Band 2 cell will appear.

If CTNARE inserted on Band 2 then alarm and and warning messages will be triggered.

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Benefits

- Significantly reduce chart maintenance – small scales will not be affected by so many NMs
- Compilation NEs and database updating quicker.
- Rules based. Simpler and easy to understand.
- Remove chart clutter and provide clarity .
- Clarify, once and for all, where an SNC cannot be used for navigation.
- ‘Encourage’ chart users onto an appropriate scale chart.

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QUESTIONS ?

PLEASE PUT YOUR HAND UP !

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ANCILLIARY INFORMATION

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OTHER QUESTIONS RAISED.

Ship diverts to another port ?

Majority of ports Pilot Station lies outside OOD line
Emergency ENC permit generator - AVCS
Possible to navigate behind OOD line

INT Chart scheme ?

Needs Careful consideration - check the INT scheme.
GB waters - Plymouth – 3rd scale national = 1st INT
No major impact on INT scheme provided port is adequately charted - Major ports and routes ok
Amend OOD line if necessary.

Mariner reaction ?

Induce them onto a more appropriate scale chart
May not be too popular but will be safer
Should not be navigating on third scale.
Clearly state where they can use a chart for navigation

IHO S-4 B-402.1 The purpose of generalization is primarily to avoid over-crowding charts where space is very limited. It also serves to reduce the maintenance needed and to induce navigators, at least of deeper draught vessels, to use larger scale charts.

MCA Guidance The charts or ECDIS referred to in Regulation SOLAS 19.2.1.4 must be of such a scale and contain sufficient detail as clearly to show;

i) all navigational marks which may be used by a ship when navigating the waters which are covered by the chart;
ii) all known dangers affecting those waters; and
iii) information concerning any ships' routeing and ship reporting measures applicable to those waters.

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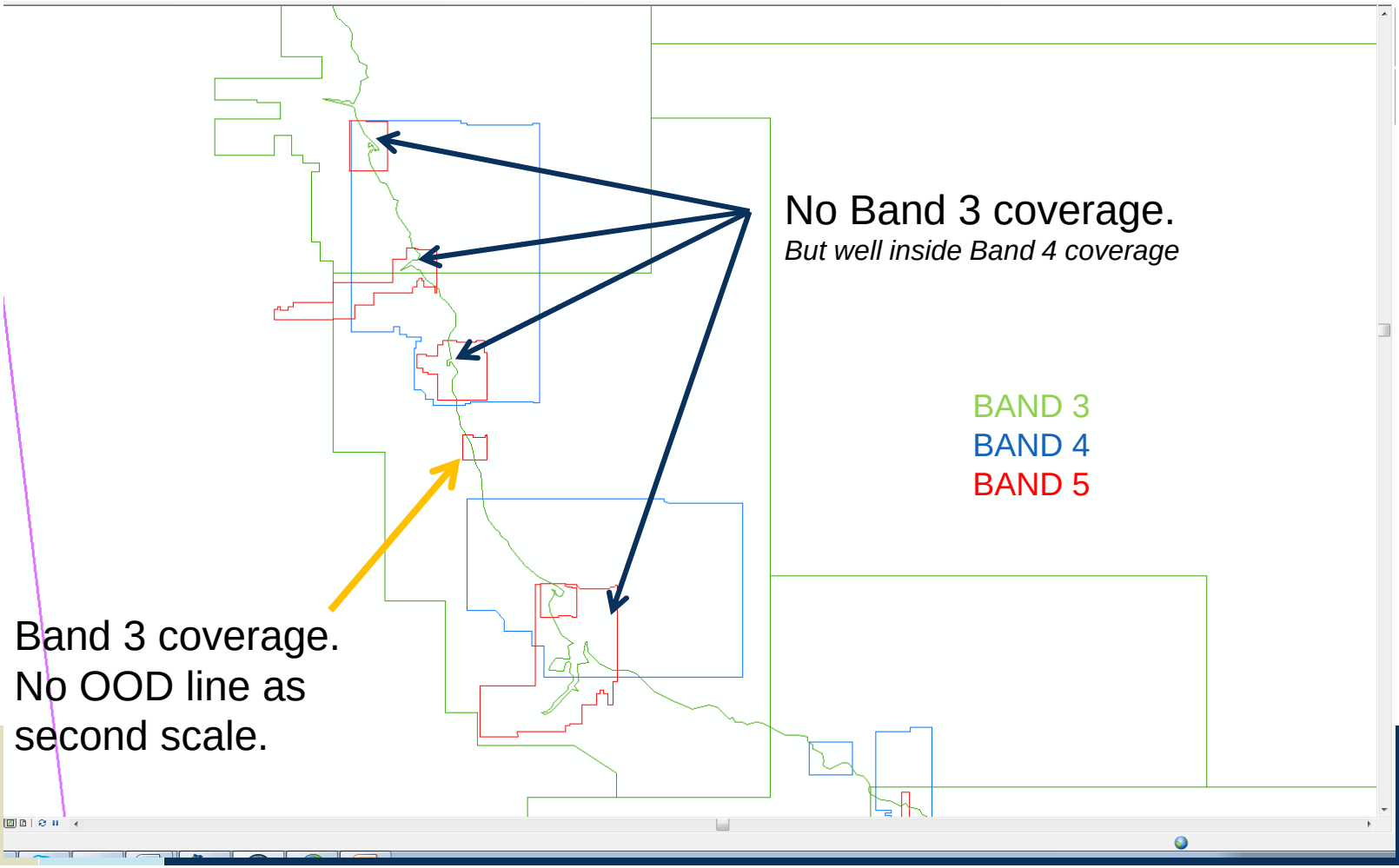
ENC MATTERS: CONTINUED



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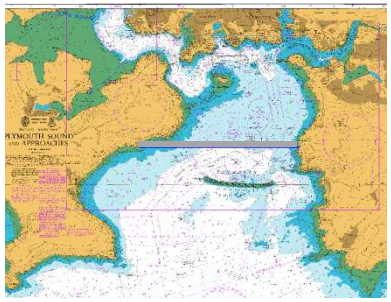
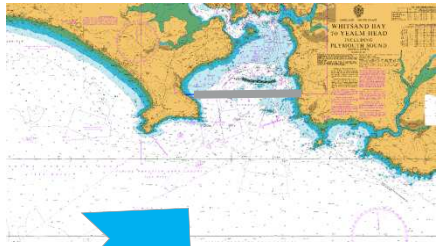
Policy applied to approach into Plymouth

1901	1: 5,000
1967	1: 7,500
30	1: 12,500
1900	1: 25,000
1613	1: 75,000
442	1:150,000

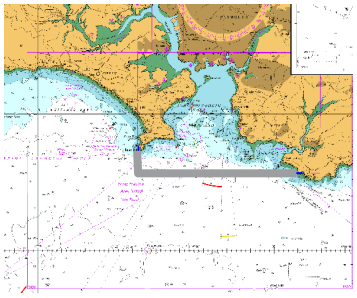
30



1900



1613



442

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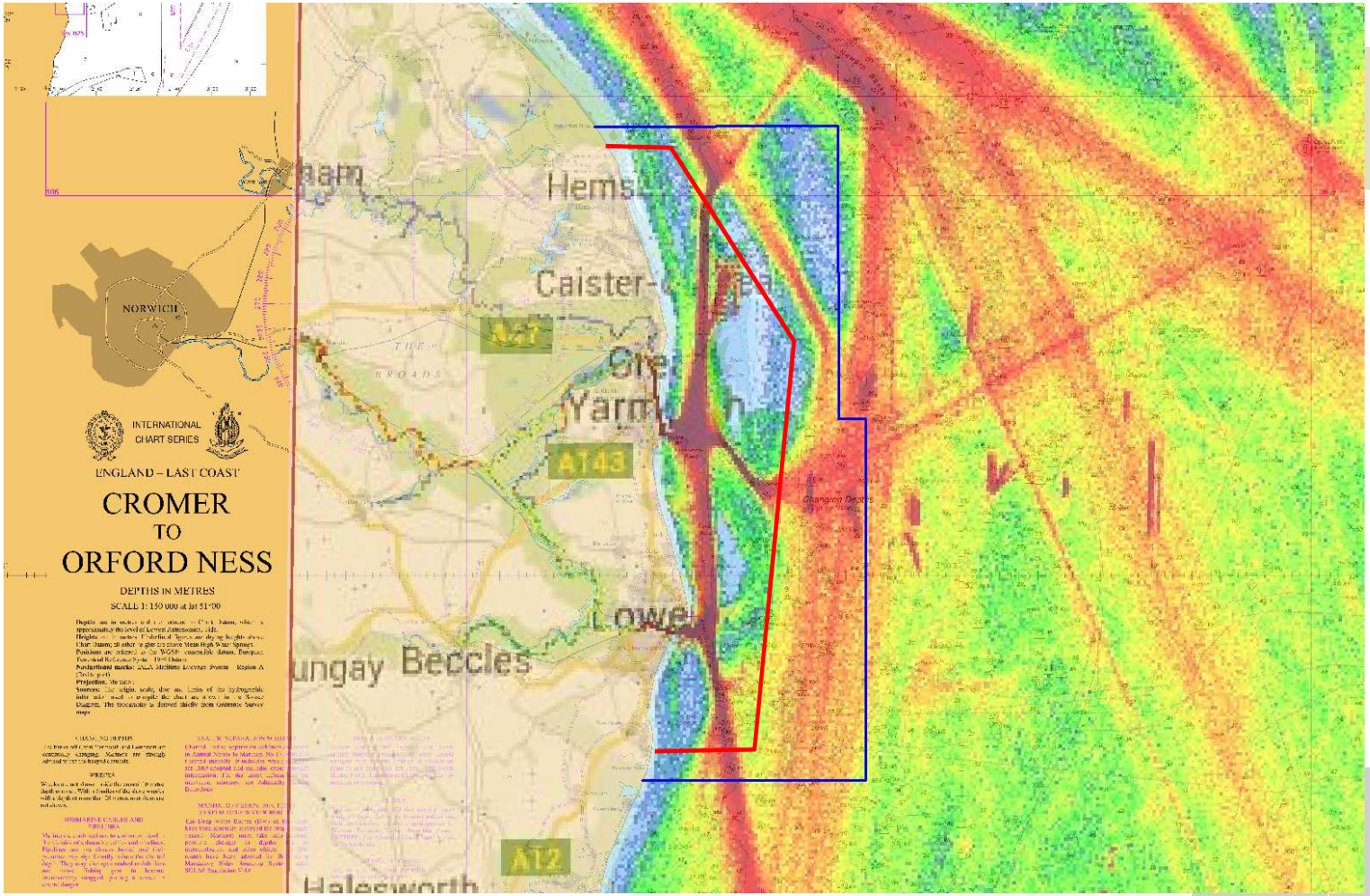
EXCEPTION 2 : Avoid coastal traffic.
Chart 1504



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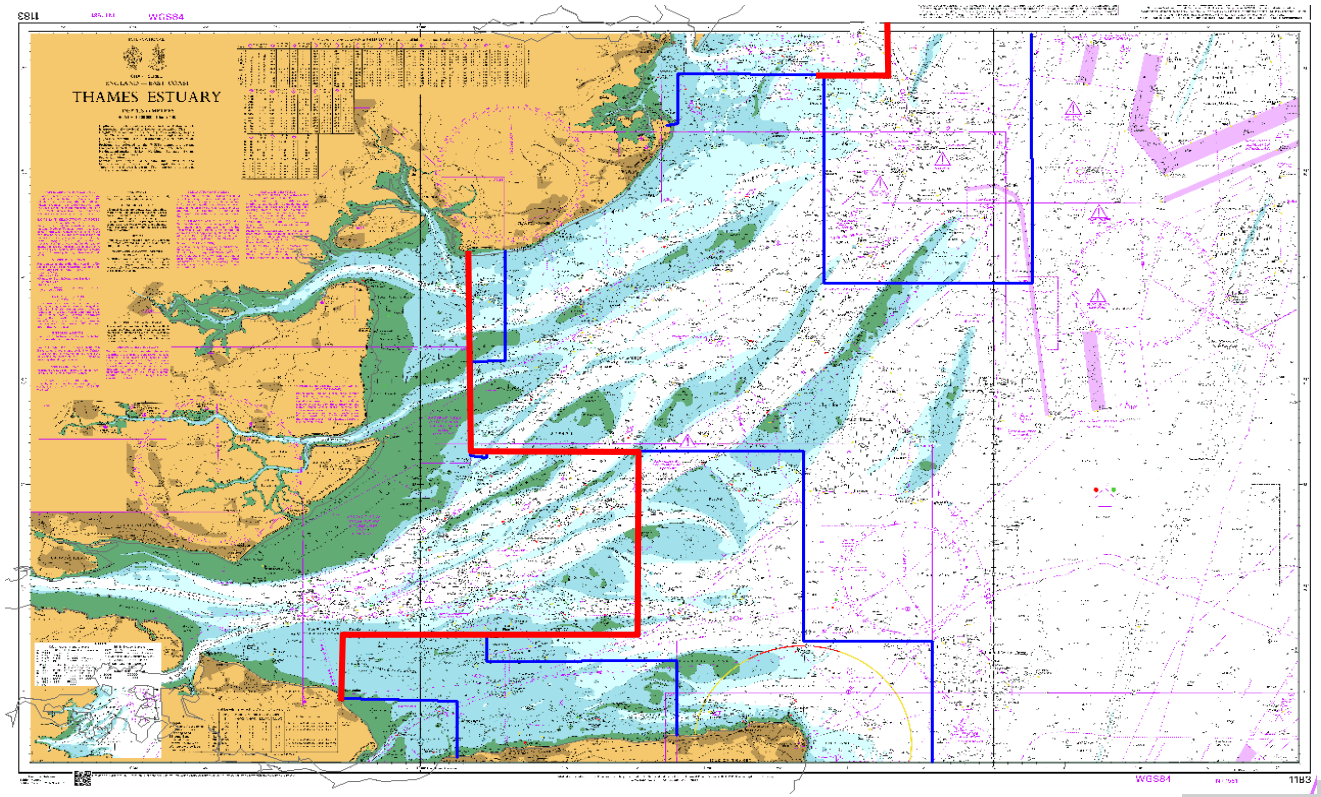
EXCEPTION 3: Complicated
Chart 1183 – 1:100,000



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Exception 4: Chart Integrity
Chart 1406. 1:250,000