# INTERNATIONAL HYDROGRAPHIC ORGANIZATION



# ORGANISATION HYDROGRAPHIQUE INTERNATIONALE

# CHART STANDARDIZATION & PAPER CHART WORKING GROUP (CSPCWG)

[A Working Group of the Committee on Hydrographic Requirements for Information Systems – CHRIS]

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**To CSPCWG Members** Date 3 July 2007

Dear Colleagues,

#### Subject: Draft revision M-4 Section B-440 to B-449, round 2

We are grateful to 14 WG members who responded to CSPCWG Letter 03/2007, covering the first draft for revising M-4 section B-440. Annex A shows how the members responded to the specific questions which were included as a response form. (Note: For many of these, the answers were unanimous, or close to unanimous, and require no further comment). Additionally, some members supplied further comments, via track changes to the actual draft. These have been available for you to examine via the 'reply to all' email system.

Andrew and I have worked our way through all the responses, reviewing all the comments. This has proved a time consuming activity, with some suggestions not easy to reconcile, but we believe it has resulted in a significantly improved draft, at Annex B, for your further consideration.

As usual we have included in blue:

- original changes which did not receive adverse comments and
- suggested changes of a minor and non-controversial nature

While you are welcome to study all these, we suggest you focus on the remaining red (underlined) insertions. Some suggested changes require debate within the group, and we have tried to make these explicit in the marginal comments and invite you to respond using the form at Annex C.

Note: Deletions without replacement have been retained for the moment, as these will be needed to help the translators. Marginal comments prefaced 'DID' are for UKHO to deal with when a PDF version is prepared.

1. 440c: AU suggests that the splitting of descriptions of various boundaries/limits in B440 from the symbols in B440.1 onwards could be confusing if a compiler were searching for instruction. AU

suggests it would be better to re-organize the section to get all the information for a specific feature in one place. So far we have kept the existing layout, ie general comments followed by specific details (which is a layout used in some other parts of M4, including most of this section) and concentrated on getting the detail agreed. However, it would be possible, with some work by the secretary, to produce a more unified layout.

- 2. 440e: There was a clear preference for magenta being the usual colour for maritime boundaries, but with other colours remaining optional, especially if this would help clarity in complex areas.
- 3. 440.9: There was no consensus on an intuitive symbol for a continental shelf boundary, and good reasons given for not using the suggested 'V' symbol. Therefore, for what we believe will be a comparatively rare feature, the best solution seems to be to label a standard maritime boundary line (ie a continuous magenta line).
- 4. 441.8: Brazil suggested simplifying the symbol for an individual mine or explosive by using a 'mine' symbol within a circle of T shaped dashes. This would actually be a new symbol, as the 'mine' symbol currently only exists as part of an area symbol (N32). Possibly this could be added to INT1 as a small area at N23.1, or be allocated its own unique INT1 number.
- 5. 445: Various oil/gas exploitation features are known by abbreviations within the industry. They may be charted by these abbreviations and possibly considered as 'INT' abbreviations. Possible examples are listed in Annex C.
- 6. 445: DK suggested the whole section on oil/gas exploitation is too detailed. Our opinion is the extra detail is helpful for compilers, especially from areas with little experience of such developments (we have been asked to consider Capacity Building).
- 7. 445.1: A majority considered that the L21.3 symbol is not required as an INT symbol. It should therefore be included in versions of INT 1 only as a national symbol.
- 8. Old 445.1 (new 445.1b & 445.6): The existing specifications stated that 'it is considered impracticable to show safety zones' around wellheads. DK challenged this statement. Such safety zones are now permitted under UNCLOS, so whether they are charted (or stated in a note) depends on scale and cartographic judgement. Wording has been amended accordingly.
- 9. 445.12: NO suggested a special symbol for showing moorings associated with Marine Farms. However, we already make use of such a symbol for mooring trots (Q42) and other installations have similar ground tackle. It is suggested therefore that a generic symbol is created and placed at L18 in INT 1.
- 10. 446 & 446.4: Dredging areas have always been shown in magenta, as the reason for showing them is the likelihood of encountering specialist vessels working in the areas. DK show them in black (and uses the term 'extraction areas') because they regard them as associated with depth changes, including the possibility of depths being shallower than charted. While this is possible, we suggest generally depths will be deeper than charted, with a possibility of small ridges of aggregate being formed by the dredger, but unlikely to present a danger to shipping. The term 'extraction area' is perhaps more accurate and certainly less likely to be confused with 'dredged areas' (B-414 refers).
- 11. 447 & 447.7: We have added information about 'Fish aggregating devices', partly from information supplied by FR and AU, but also from research into the different types in use.
- 12. 447.2: AU suggests the 'fish trap' symbol (K44.2) is poor, not intuitive and too large for a point symbol.
- 13. 447.5: AU has questioned the application of 'Maximum authorized draught' in the context of depths over fish havens. The existing M4 uses the term 'minimum depth or minimum authorized depth'. It is not clear what 'minimum authorized depth' means, but we assumed the meaning was the same as the 'maximum authorized draught' which we discussed previously in the context of

recommended tracks and fairways. We believe that in some parts of the world, large areas may contain fish havens, and that there may be a draught limitation in force through such areas; it seemed logical to use the same symbology we had already agreed. It is possible that this principle could also be extended to other aquaculture areas such as shellfish beds.

- 14. 447.5: The specifications at present state that 'the tint may be omitted to draw attention to the areas (as for unsurveyed areas, see B-418.1)'. AU and DK have suggested that it is inappropriate to omit blue tint in areas which may be shallow, as this implies the area is deeper than the surrounding water. The principle of using this method to highlight inadequately surveyed or unsurveyed areas has been long established (B418.1 refers and example at I25 in the FR INT 1, which is stated by AU to be a good graphic). We believe that it is clear that such areas are not deeper, and the addition of the fish haven symbol (or legend 'Spoil Ground', see B446.1) makes it clear that such areas are not to be considered deeper than surrounding depths. However, we can see both sides of the argument.
- 15. 449.6: AU suggested that seaplanes are more likely to moor than to anchor. This is probably true, so we have added mooring to the text. However, the agreed symbol still shows an anchor, and replaces the existing seaplane anchorage (N14), so we do not think there is any need to change the reference in B-431.3.

I would be grateful if you would now examine Annex B, paying particular attention to the track changes and comment boxes and the changes listed above. I will assume that any changes which are not commented on can be incorporated into the draft revision without further WG consultation. There are also some specific questions arising from the above; these are briefly stated in the response form at Annex C. Please send me your responses and any suggestions for improvements by 31 July 2007.

Yours sincerely,

Peter G.B. Jones,

Chairman

Annex A: Summary of Responses to CSPCWG Letter 03/2007

Annex B: Draft Revision of M-4 Part B-440 to B449 (separate document).

Annex C: Response form

#### Annex A to CSPCWG Letter 09/2007

### Summary of Responses to CSPCWG Letter 03/2007

Para	Specificatio n	Question	YES	NO
2	B-440e	Should we amend the specifications to make magenta the preferred (or only) option for international boundaries and territorial limits? Clearly indicate which: PREFERRED/ONLY	P: AU*, BR, DE, DK, FI, NL, NO O: ES, FR, IT, ZA, UK U: GR, JP	P: CA*

#### **Comments:**

**AU** suggests the following amended wording (*italic* is new) to emphasise that magenta is the norm, however other colours may be required occasionally:

"On charts where boundaries or limits have to be superimposed on magenta detail such as routeing measures, *magenta* should be used if clarity of the features can be maintained. However exceptionally, it may be necessary to use a colour other than magenta to clarify boundaries in complex or congested areas" - it is preferable to use a colour other than magenta.

**CA:** We recommend using the wording preferred as it will give HO's ability to adjust there products to IHO spec's. Here in Canada the practice has been to have the international boundary in "Black". All our products have this limit as black. To change all of them would be very time consuming and tedious.

3a	B-440.8	a. Do you agree with the proposed symbol for a continental shelf limit,	CA, DK, FI, GR, NL, NO	AU*, BR, DE, ES, FR, IT*, JP*, UK, ZA
3b		b. propose something different (please indicate details below)	AU, DE*, ES*, FR*, ZA	BR*, CA, FI, GR, JP
3c		c. or consider that no symbol is needed?	ES*, FR	AU, CA, DE, FI, GR, JP, ZA

Para	n n	Question	YES	NO
	**		1	

#### **Comments:**

AU suggests that the proposed symbol is not intuitive and that consideration should be given to a continuous linestyle which is more consistent with other major limits in this section of INT1. It is suggested that instead of the 'V' symbol, 'CS' abbreviation for Continental Shelf be inserted into the line symbol and be suggested as an approved INT abbreviation for INT1 and be referred to CSMWG for comment. Please advise if there is any known convention for paper charts as to when a limit should be continuous or dashed? AU has a requirement to chart these at certain scales and needs a symbol ASAP. A suggestion is included in the specifications using track changes.

BR already uses a symbol for the limits of its continental shelf on its pledge. The symbol is included below (in magenta):



We do not agree with the proposed symbol for, if the 'V' stands for break of slope, it is not a suitable symbol to represent our continental shelf. The outer limits of our continental shelf exceed the break of slope. Therefore, we do not consider adequate to narrow the meaning of such a symbol, as that may be a valid concept for other state members as well.

**DE:** Preferably a continuous line like the EEZ limit with the top of the "v" pointing to the slope.

**DK:** Generally I prefer the use of symbols instead of texts. I support the symbol provided that the top is pointing down the slope/steep and not into the area. In my opinion it is more evident to interpret this than the other way around. However I can also support the new and (international?) abbreviation CS as proposed by AU

ES: Instead a symbol an abbreviation "CS or equivalent". Also I think that the proposed symbol has relationship with the geological meaning of the continental shelf and that can not be in common with LOS concept. Besides, the application of the proposed symbol in neighbouring countries entails the problem of towards what country should point the vertex.( Example delimitation if Continental shelf between France and Spain in Bay of Biscay).

**FR:** A continuous line seems more in accordance with N43, N44, N45 a, N47. Such continuous lines permit to distinguish national limits from the very used magenta broken line. The "V" symbol is not enough intuitive, a legend seems better.

**IT:** I support the abbreviation proposed by AU.

JP: Regarding the proposed symbol, could you please inform me of the reason for adopting the V sign?

ZA: Recommend to keep the symbol consistent with N 43 and N 44 ie three crosses (+ + +) with a solid line. These symbols when charted together, will be difficult to distinguish without a legend or Key Reference on the chart. To add a legend may be optional.

4	B-441.5	Is it still valid to state that submarine exercise	AU*, BR,	FR, JP,
l '	B 111.5		CA, DE*,	NO*
		areas and transit lanes should not generally be	DK, ES, FI,	
		charted?	GR, IT, JP,	
		chartea:	NL, UK, ZA	

#### **Comments:**

**AU:** although AU does not show submarine exercise areas, we are considering showing surface exercise areas (the outer limit) on national series charts.

**DE:** The paragraph about submarine exercise areas should be shortened as follows (after consultation with our submariners):

Submarine exercise areas and transit lanes should not generally be charted because submarines exercise over wide areas which it would not be practicable to chart, and over which cautions (to keep a good look out for them) are unlikely to be effective. They may, however, be charted if considered useful to do so where they occur in or near major shipping lanes or port approaches. The symbol for the limits must be dashed magenta lines with a submarine shape or appropriate legend within the area.

NO: We do not have any opinion on this question, but we think it should be possible to chart these lanes and areas.

ZA: Not on general navigational charts. In South Africa we publish special purpose naval exercise area (PEXA) charts. Some inshore charts have the exercise areas overprinted on the general navigational information.

5	B-441.8	Do you agree that a small circle of line style N2.1	CA*, DE*,	AU*, BR*,
	B 111.0	, , ,	DK, ES, FI,	DE
		is appropriate for charting individual sunken	FR, GR, IT,	
		mines?	NL, NO, UK,	
		mines:	ZA	

Para	Specificatio	Question	VES	NO
1 ara	n	Question	1 Lb	110

#### **Comments:**

**AU:** in consideration of Andrew's comments, what would be wrong with a danger circle K1 or an obstruction circle K50, with text adjoining such as 'mine'. AU does not feel that a restricted area limit is strong enough for such a hazard (danger) to navigation.

**BR:** There is a similar symbol to the suggested one, historic wrecks, N26. That could mislead the mariners, as the N26 has a fixed position and is not a great danger for the mariner. We suggest that besides the line and the abbreviation, it should include a small symbol for a single mine inside the line, as the symbol in N32. That way, the hazardous nature of the feature would be reinforced.

CA: We agree, if there it is clear that the mine location is stable.

**DE:** The paragraph about individual mines should be shortened as follows (after consultation with our mine specialists): Individual mines. Drifting mines cannot be charted. All mines or explosives could still constitute a hazard for vessels anchoring, fishing or engaged in submarine or seabed operations. If it is required, exceptionally, to chart them, this should be by a small circle of magenta T-shaped dashes (N2.1 – see B439.2) with the legend Mine, Explos, or equivalent, alongside.

6	B-442.5	Does any other nation have a similar practice to France of designating small dumping grounds for explosives which are to be made safe in due course? If so, please explain below.		AU, BR, CA, DE, DK, ES, FI, GR, IT, JP, NL, NO, UK, ZA
		Is an INT number and specification necessary for a possible unique national practice?		AU, BR, CA, DE, DK, ES, FI, GR, IT, JP, NL, NO, UK, ZA
8a	B-445.1	a. Is there a requirement for the symbol INT 1 L21.3, which has never been approved by IHO?	AU*, DE, GR, IT, JP	BR, CA, DK*, ES, FI, FR*, NO, UK, ZA*

#### **Comments:**

AU: it is considered that consistency with S-57 should be encouraged. S-57 has an attribute VERLEN which can be used to indicate the height a feature sits above the seabed. This information may be useful to some mariners, especially for huge underwater oil field structures. A point of detail is whether the height should be upright or italic (as it is in the water, always submerged). Italic is probably more consistent. It needs to be at least cross referenced in B-422.9 which is consistent with S-57 CATOBS which includes features such as snags, wellheads, diffusers, and cribs. It also fits nicely with B-445.1a and it is suggested a graphic example of a wellhead protruding above high water with an explanation and possibly an intertidal wellhead, similar to all the wreck examples, also needs to be added to this section, so we cover all examples of wellheads. If agreed, there needs to be corresponding INT1 diagrams and references probably in L21. There is a real interest in the AML world to encode the heights of various objects and targets above the seabed. In the interest of interoperability, AU supports the addition of this symbology and encoding for paper charts, but only as an optional 'may' be used symbol.

**DK:** Not in use in Danish waters. The information is not (or very rarely) known to us. However it is my opinion that HOs shall give the navigator the best and most accurate information available in order for the navigator himself to decide the best and most safe voyage for his vessel.

**FR:** Not used on French charts, but could be interesting in certain cases, if be generalized with all types of obstructions. Sometimes we use a note to describe the height of some obstructions (as artificial obstruction to prevent trawling fishing). But the use of the symbol would remain very rare and it would be difficult to the navigator to easily catch the significance of it.

ZA: Just creates some confusion

8b	b. Is there a requirement for the abbreviation Prod	AU, ZA	BR, CA,
	<u> </u>		DE*, DK,
	Well?		ES, FI,
			FR*, GR,
			IT, JP, NL,
			NO, UK

#### **Comments:**

**DE:** It is desirable, but not required.

FR: If there is no requirement for Prod Well, then, it seems that there is also no requirements for Injection well (B445.1 d).

	Specificatio n	Question	YES	NO
8c		c. Do you agree to the abbreviation SWOPS?	BR, CA, DK, FI, FR, GR, NL, NO, UK	AU*, DE* ES, IT, JP, ZA
Commo	ents:			
technol	ogy develops further	we accept SWOPS, there will be more and more such abbreviations that. AU would prefer a generic term or abbreviation to cover these under Such details would be encoded in INFORM for ENCs if considered or	erwater structur	res, rather
DE: I a	gree to look for an a	bbreviation to cover more than one special underwater structure (see	AU comments)	
9	B-445.5c	Do you agree with the proposed symbol for a moored storage tanker, L17?	AU, BR, CA, DE, DK, ES, FI, FR, GR, IT, JP, NL, NO, UK, ZA	
11	B-448	Do you agree with the abbreviation 'DG' for degaussing?	AU, BR, CA, DK*, ES, FI, GR, JP, NO, UK, ZA	DE*, FR*, IT, NL
Commo	ents:			
DE: see	e DK comments			
<b>DK:</b> M favour.		hat is was an abbreviation for Degree. So if there is a risk for misinter	pretation I am	not in
FR: Th	e abbreviation DG i	s not so intuitive to be universally understood.		
12	B-449	Do you have any suggestions of a better title for this section? If YES, please state below.	AU*, BR*, DE*, FI*	CA, DK, ES, FR, GR, IT, JF NL, NO*, ZA
Commo	ents:			
have ru		me limits and areas. Each of these sub-sections probably warrant the 3-450 for obvious reasons. The term 'limits' is more accurate and will features.		
BR: 'V	ARIOUS MARITI	ME AREAS AND LIMITS' There are also lines represented (as in id	ce limits, B-449	9.1).
<b>DE:</b> In cover it		hort and concise "Various limits" for this section (page 55). "Other ma	aritime limits"	also will
FI: VA	RIOUS MARITIME	E AREAS/LIMITS		
NO: Th	ne title 'Various Mar	ritime Areas' seems to be OK		
14a	B-449.2	Do you agree to extend the specification for log ponds to include other physical barriers (as listed)?	AU*, BR, CA, DE, DK,	

AU: S-57 also includes CATOBS = 8 ice boom, which AU would like adopted to provide better interoperability between

Do you consider that the ZA shark net symbol should be adopted as an INT symbol?

DK, FI\*, GR, IT, JP, NL, AU\*, BR, CA, DE, ES\*, FR\*, NO\*, UK

**Comments:** 

14b

these charting standards.

Para	Specificatio	Question	YES	NO
	n	Question	1 Lb	110

#### **Comments:**

AU also use these shark nets but they are linear in nature (plan view), not areas and the proposed symbol does little to portray a long length of shark netting. There is also an issue about these nets. In South Africa they set them close to the surface, whereas in AU off Sydney they set them on buoys, but close to the seabed. In the AU case, smaller vessels can navigate over the nets without danger so there is no one clear case that fits al situations. AU does NOT support this proposed symbol and in many cases these nets are seasonal and get moved around quite a lot, from beach to beach.

**DK:** Depends on how many other nations have similar arrangements. Otherwise it should only be regarded as a national symbol.

ES: For various reasons I don't consider appropriate. i.e is an area symbol for a line obstruction.

FI: If affected countries need.

**FR:** With the new extend of B-449.2, it seems that a new INT symbol of shark net is unuseful. The symbol is also complicated and too much large.

NO: Norway is not in a strong need of a shark symbol

**ZA:** South Africa intended making a submission on this symbol, in fact we have already done so years ago under CSC. Shark nets are relevant in South African waters and possibly Australia. They are hazardous to small craft operating close offshore in 15 – 20m of water and of course swimmers. The point symbol is accompanied by a note (see Note) describing the hazard in more detail. Colour magenta. Recommend in INT 1 as K 49.

15	B-449.3	Are you aware of any requirement to retain the specification for incineration areas?		AU, BR, CA, DE, DK, ES, FI, FR, GR, IT, JP, NL, NO, UK, ZA
		Do you agree to cancel IHO Technical Resolution B2.35?	AU, BR, CA, DE, DK, ES, FI, FR, GR, IT, JP, NL, NO, UK, ZA*	

#### **Comments:**

**ZA:** This could be classified as a special purpose chart eg South Africa published a 'Maritime Zones' chart indicating our own maritime delimitations.

#### Other comments:

**AU:** It is suggested that all the new abbreviations that are not approved INT, could be added to a list of questions for Round 2 for adoption, or rejection.

Minor format issue. As some new sections have been cut and pasted, the point size varies occasionally. Please check the whole document.

AU also supplied comments in a marked up copy of the draft and comments on NO's suggestion about ground tackle and FR's suggestion about FADs.

**DK** also supplied comments in a marked up copy of the draft.

#### FR:

#### **B-440 INTERNATIONAL BOUNDARIES AND NATIONAL LIMITS**

The United Nations Convention on the Law of the Sea, 1982 (UNCLOS) came into force on 16 November 1994. UNCLOS contains navigational provisions as well as provisions for determining the limits of various maritime zones. These provisions are binding to all states that have ratified the Convention. For technical aspects of UNCLOS cartographers must refer to IHO publication S-51.

IHO Member States should show, on selected series of their charts, their own baseline and maritime limits in accordance with UNCLOS. (Former IHO Technical Resolution B2.35)

In this section (B-440), the term 'boundary' is used for any delimitation between adjacent states or those which face each other across channels or seas (known as 'opposite states'). The term 'limit' is used for the line marking the seaward extent of a maritime zone in any other case.

В440 с.

#### Limits associated with territorial seas

The term 'Baseline' refers to the line from which the breadth of the Territorial Sea, the outer limits of the Contiguous Zone, the Exclusive Economic Zone and, in some cases, the Continental Shelf are measured. It is also the dividing line between internal waters and territorial seas.

The normal baseline is the low water line of the mainland, islands, or low tide elevations, as depicted on large scale charts officially recognised by the coastal state. Closing lines, up to a maximum of 24 nautical miles, are used to enclose bays and estuaries, provided they satisfy the provisions of UNCLOS. River closing lines are used to enclose rivers that flow directly into the sea. Provided provisions of UNCLOS are satisfied, straight baselines may be used to connect appropriate points.

Features which dry at low tide (eg rocks, reefs, banks) may be used as baseline provided they lie wholly or partly within a distance not exceeding the breadth of the territorial sea. Artificial structures carry no territorial rights (but may have 500m safety zones, see B-445.6).

'Normal' baselines correspond to the low water line (which is not defined any more precisely by UNCLOS), including the coasts of islands, marked on the large-scale charts officially recognised by the coastal state; they therefore do not require any special symbol.

Special cases are:

- (i) Coral reefs. Usually, areas of reef plateau are charted as a single area of drying coral since it is impossible to chart all the individual lumps and heads, and the area is for practical purposes unnavigable. The symbol for drying coral is used to illustrate the extent of this feature on a chart, and it is the edge of this symbol that is taken as the "... seaward low-water line of the reef, as shown by the appropriate symbol ...".
- (ii) **Unstable coasts**. Where, because of the presence of a **delta** or other natural conditions, the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal state in accordance with UNCLOS.

**Straight baselines**, or the limits derived from baselines, should be shown on official charts of a scale or scales adequate for determining them. Many coastal states interpret this position as permitting depiction on special charts, not on the standard navigational series.

**B-440.3 International maritime boundaries** should be charted, where navigationally significant and agreed by the states concerned, by alternating crosses and dashes, in colour. State names should be shown at appropriate intervals in sloping matching coloured text, the form in accordance with B- 552.4. Disputed boundaries must not be charted. [already stated in B440 as a general principle]

UNITED KINGDOM

NORWAY

#### B-441.7 Temporary practice and exercise areas must not be charted.

Does it comprise temporary activated areas which are permanently defined? B-441.7 (and B441.3) is not so clear. It seems useful that such areas be charted (for example to reduce the size of the Temporary Notices to Mariners).

**B-441.8** Minefields laid and maintained for defence purposes must be charted by the general symbol for the limits of restricted areas (T-shaped dashed lines) in magenta, with a cautionary note giving the precautions to be taken by mariners. In cluttered areas, [to be in accordance with B-439-d. N34 isn't too much visible in regard to the danger. The use of the tint band will be useful to emphasize ] A magenta tint band may be added inside the limit, for emphasis, see B-439.6d.

M

**B-444.1 Oil, chemical, gas and water supply pipelines.** The exact route of individual pipelines must be charted where possible to give the chart user full information, using the pipeline symbol L40.1 in magenta. Where pipelines are very close together, only one need be charted. The position of the dot in relation to the dash has no significance but, for consistency, the dot should be placed at the forward end of the direction of flow in a pipeline, if known.

Oil Pipelines should be labelled 'Oil', or equivalent.

Chemical pipelines should be labelled 'Chem', or equivalent.

Gas pipelines should be labelled 'Gas', or equivalent.

Water pipelines should be labelled 'Water', or equivalent.

#### IL40.1

The origin and destination names and/or name of a major pipeline may be inserted adjacent to the pipeline, in sloping magenta text, where these are not obvious, eg: *Ekofisk to Emden (Norpipe)*.

Oil, chemical and gas pipelines present a greater danger to ships damaging them and a cautionary note may be charted (on the larger scales) similar to the following (modified as necessary depending on the types of pipelines charted):

#### **GAS PIPELINES**

Mariners risk prosecution if they anchor or trawl near a pipeline and so damage it. Gas from a damaged pipeline could cause fire or loss of a vessel's buoyancy.

Where several pipelines converge to land at the same point the symbols may be terminated before they reach the coast or inshore waters,

on small scale charts, to avoid obscuring more important detail.

[this general advice to mariners is at a better place in general nautical publications]

**B-444.5 Pipes of all types, buried** so deep that they are not vulnerable to damage from anchoring, should not be charted (so that mariners are not unnecessarily inhibited from anchoring or fishing). In marginal cases they may be charted in magenta with a note stating the nominal depth to which they are buried.

#### 1.42

#### Could this principle be applied to cables?

**B-445.9** Wind farms may be shown by groups of wind turbines in their actual positions (if scale and available information permits), or by a maritime limit with the centred symbol: The symbol N 1.1 (black maritime limit implying permanent physical obstructions) should normally be used for the limit of a wind farm:

#### L 5.2

However, this should be replaced by N 2.1 or 2.2 as appropriate, where restrictions on navigation apply, eg:

#### L 5.2

[Not in accordance with B-439-d and then make confusion. Remove or recommend such representation:



**B-445.11 Current Farm (or Turbine Field).** Where groups of underwater turbines exist they should preferably be charted individually. Where scale or available information does not permit this, then the symbol N 1.1 (black maritime limit implying permanent physical obstructions) should normally be used for the limit of a current farm:

However, this should be replaced by N 2.1 or 2.2 as appropriate, where restrictions on navigation apply, eg:

[Not in accordance with B-439-d and then make confusion. Remove or recommend such representation:



See also exchange of correspondence with AU regarding Fish Aggregating devices.

**GR:** The arrowheads in Symbol N42 of Paragraph B440.4 should be corrected so as to point towards the coast and match the symbol's text description. In INT1 symbol's N42 representation, the arrowheads are also pointing towards the coast, and the sea area does not have a blue tint.

**IT:** I suggest to insert, for symbols K46.1, K46.2, K48.1. some more additional information about bathymetry and deep, in particolar if we must insert that elements in side the area. In Italy we general insert deep and bathymetry with symbol K48.1 while with symbol K46.1 we chart a white area. When the fishing farm are removed we chart, if we haven't a new survey, the symbol K40.

NL supplied comments in a marked up copy of the draft.

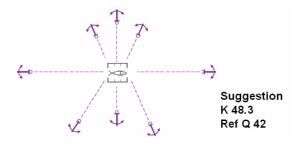
NO: supplied comments in a marked up copy of the draft and the following suggestion for ground tackle.

#### Suggested amendment to B-447.6

Aquaculture is a huge industry in Norway, and we are in the need of a new symbol for depicting reported ground tackle securing marine farms. The large amount of anchor chains to a marine farm may extend to a length of more than one nautical mile each. What we need is a version of symbol Q42 (B-431.6)

We suggest an additional line at the end of B-447.6, and a symbol something like the sketch below:

B-447.6 On large scale charts, the actual alignment of ground tackle securing a marine farm may be shown by fine lines in magenta



## **QUESTIONS ARISING FROM DRAFT REVISION OF B-440 TO B-449**

## Response form

(please return to CSPCWG Secretary by 31 July 2007) andrew.coleman@ukho.gov.uk

Lette	Specificatio	Question	YES	NO
r Para	n	· ·	TES	110
1	440c	Should the layout of 440-440.9 be reorganized to co-locate all the information on a specific feature?		
4	441.8	Do you agree with Brazil's suggestion for the use of a 'mine' symbol?		
		If yes, where should it be located in INT1? (please indicate in 'YES' column).		
5		Should the following, which are well-known within the oil/gas industry, be accepted as INT abbreviations?		
	a. 444.8 & 445.1f	PLEM (note, the two entries at 444.8 and 445.1f are currently contradictory and will be resolved on the outcome of this vote, ie just use term 'Manifold' if PLEM is rejected).		
	b. 445.1d	SWOPS  (although some expressed a view that a more generic abbreviation to cover underwater installations would be betterand for most underwater installations 'Well' is sufficient- in this case its particular configuration has above-water significance to the mariner).		
	c. 445.1f	UMC		
	d. 445.5c	FSO, FSU, FPSO		
6	445	Is this sub-section too detailed? If 'Yes', please advise how it should be simplified.		
9	445.12	Do you agree with the proposed specification and symbol for ground tackle?  Do you agree with the proposed position in M4 (445.12)?		
10	446 & 446.4	Do you agree with the proposed INT1 number (L18)?  Do you agree that 'dredging areas' should remain in magenta as existing symbol N63?  Should the preferred term be changed to 'extraction area'?		
12	447.2	Do you use the existing 'fish trap' symbol?  Should we leave it unchanged?  If to be changed, can you suggest a better symbol?		
13	447.5	Do you agree to use the term 'maximum authorized draught' and the associated symbol in the context of fish haven areas?		
14	447.5	Is the practice of omitting tint to highlight unsurveyed areas, including spoil grounds and fish haven areas, acceptable? (If not, we will need to change B418.1 and the depiction in INT 1).		

Comments: .....

Name	 	
Member State	 	