

11th CSPCWG-1st NCWG MEETING
Rostock, Germany 27-30 April 2015

Paper for Consideration by NCWG
Offshore Support/Accommodation Vessels

Submitted by:	UK
Executive Summary:	How should a modern offshore support/accommodation vessel be depicted?
Related Documents:	S-4 B-330, B-445.2 and B-445.5
Related Projects:	None

Introduction / Background.

Source: *Dong Energy NM:*

Westermost Rough Wind Farm – Floating Hotel

The MTV Strill Server, will be used as a Floating Hotel at this location

Commencing on the 30th September 2014, the MTV Strill Call Sign LARP7 Server will be anchored at Position: 53°48.034'N 000°14.758'E

UK NM

4832(T)/14 ENGLAND - East Coast - Westermost Rough Wind Farm E - Hulk.

Source: Dong Energy

1. A floating hotel, MTV Stril Server, is anchored in position 53° 48'·03N., 0° 14'·76E. (ETRS89 Datum).
2. Mariners are advised to navigate with caution in the area, and not within 500m (0.27M) of MTV Stril Server.



UKHO issued NM 4832(T)/14 to insert the offshore accommodation vessel 'Stril Server' (pictured above) on the chart. Although a temporary NM, it is still necessary to describe the appropriate chart symbol. In this example, the symbol for a HULK (F34) was implied (by the title of the UK NM). However, UKHO received the following comment:

I expressed my concern at the use of the term and an apparent lack of nautical terminology/awareness used in the compilation of this UKHO TNM. It would appear

to be caused by using a 'Rules Based System' rather than careful consideration of the information provided. From the attached images MTV Stril Server is obviously not a **hulk** but is definitely a very modern offshore support vessel. The term hulk implies a permanently moored vessel or body of a dismantled ship, neither of which are applicable in this case. MTV Stril Server is temporarily anchored (albeit for a considerable period) and is completely capable of manoeuvring under her own power should the need arise.

It is stated that the floating hotel was correctly encoded in **S57**, but **NP5011 F34 Ports** depicts a *Hulk*. This is clearly not a state of the art vessel on station in the exposed waters of the North Sea.

It would appear that Hydrographic Offices are lagging behind and failing to rapidly adapt to developments within the industry, perhaps due to IHO constraints. Urgent agreement needs to be reached to produce a symbol similar to **L17 Offshore Installations**, *Moored storage tanker including FSU and FPSO* but modified to depict some form of an *Offshore accommodation vessel* or in the terminology used by Damen in the links below, a *W2W vessel*.

Analysis / Discussion.

Definitions of possible symbols (from S-4):

B-330: **Vessels may be built for**, or converted to, some use which does not require them to move, for example: a museum ship; houseboat; **floating hotel**; conference centre; storage hulk; breakwater. Permanently fixed vessels should normally be charted as a true to scale and orientation outline, filled with land tint, for example:

Hulk

If scale does not allow, the symbol should be used:

Hulk **F34**

The legend 'Hulk' in upright text should be placed adjacent to the outline or symbol, to distinguish it from a wreck. If useful, the vessel's name or **the present function of the hulk may be shown in addition to or in place of the legend**. A hulk may be defined as the hull of an old vessel from which fittings and superstructure may have been removed. It may be abandoned or put to some non-navigable use. For moored offshore production vessels, see B-445.5.

B-445.2: Platforms (including production platforms). . . . Platforms may serve a number of purposes. They may carry any of the following equipment: drilling and production equipment, oil and gas separation and treatment plants, pump-line stations and electricity generators. They may be fitted with cranes, a helicopter landing deck, **and accommodation for up to 350 people**. Platforms may stand singly or in groups connected by pipelines. Some stand close together in a complex, with bridges and underwater cables connecting them. Unwanted gas or oil is sometimes burnt from a flaring boom extending from the platform or from a nearby flare stack.

B-445.5: Moored offshore production vessels.

- a. Floating Storage Unit (FSU). A simple hulk providing storage for fully-processed oil awaiting export, usually through a SBM or similar. They will normally be un-manned.
- b. Floating Storage and Offloading (FSO). A vessel which stores fully-processed oil and provides facilities for loading export tankers. It will normally be moored in such a way as to allow it to swing to wind or stream. It is always manned.
- c. Floating Production, Storage and Offloading (FPSO). FPSO are used to produce oil and gas from fields which are located in water that is too deep for fixed production platforms.

These are highly specialized vessels which are part ship, part oil and gas processing plant, and part storage unit. The finished product is exported to shore by pipeline or tanker. Older versions of FPSO (usually converted tankers) may be moored to SPM or SBM. Modern versions incorporate a turret, through which pipelines connect to the sub surface facilities. The turret is anchored to the sea floor and incorporates a swivel which allows the vessels to rotate through 360° under the influence of wind and tidal stream. For safety zones around FPSO, see B-445.6.

FSU, FSO and FPSO should be charted by the symbol for a moored storage tanker, L17:



An appropriate legend or abbreviation, for example: ‘Storage Tanker’; ‘FSU’; ‘FSO’; ‘FPSO’ (or equivalent) may be added adjacent to the symbol. If the vessel is moored to a SPM or SBM, and the paper chart scale does not permit charting the mooring and the vessel, the legend should be placed adjacent to the symbol L12 or L16, as appropriate, and the symbol L17 omitted.

A platform symbol L10/12 (from B-445.2) would be misleading (but see note from Chairman CSPCWG below).

The correspondent suggests L17 ‘but modified to depict some form of an *Offshore accommodation vessel* or in the terminology used by Damen..., a *W2W vessel*.’ It is agreed that this symbol is more ‘boat-like’ than L10, but it has always been used for some sort of storage and/or production tanker. However, it could be suitable, if an ‘appropriate legend’, such as ‘*Support vessel*’ is attached.

The symbol at F34 seems suitable for a moored vessel, provided it is not described as a ‘hulk’, which it is agreed is inappropriate for a modern vessel capable of moving under its own power. The guidance at B-330 allows the vessel’s name or the present function of the hulk may be shown in addition to or in place of the legend. In the case of the Stril Server, therefore, a better legend than ‘Hulk’ would be ‘*Accommodation vessel*’ (or possibly ‘W2W’ in the future, if that abbreviation becomes widely accepted). The name of the vessel could also be included if required. Against this, the word ‘Hulk’ is specified in upright text, because a hulk is not (usually) floating. Obviously, an accommodation vessel would be floating, so the legend should be in sloping text – but this does not fit well with the land tint on the actual symbol.

As such a vessel would only be charted if it is to be moored for a long period (suggest in excess of 6 months, otherwise just subject of (T)NM), then it is safe to refer to it as ‘permanently moored’ (as in B-330), at least for the duration of the time it is charted. However, if it is agreed that F34 is the most suitable symbol, the guidance at B-330 could be clarified, for example:

B-330: MOORED AND FIXED VESSELS, HULKS

Vessels may be built for, or converted to, some use which usually does not require them to move, for example: a museum ship; houseboat; floating hotel; offshore accommodation; conference centre; storage hulk; breakwater. Permanently fixed vessels should normally be charted as a true to scale and orientation outline, filled with land tint, for example:

Hulk

If scale does not allow, the symbol should be used:

Hulk **F34**

The legend ‘Hulk’ in upright text should be placed adjacent to the outline or symbol, to distinguish it from a wreck. If useful, the vessel’s name or the present function of the hulk may be shown in addition to or in place of the legend. For a floating vessel, the legend should be in sloping text. A hulk may be defined as the hull of an old vessel from which fittings and superstructure may have been removed. It may be abandoned or put to some

non-navigable use. For moored offshore production vessels, see B-445.5. [If it is decided that L17 is the more suitable symbol, add 'and support' after 'production']

Possibly examples of the symbol with other legends should be included in S-4 (and perhaps in INT1, where the description should also be changed to 'Moored and fixed vessels; hulks').

Chairman CSPCWG advises:

From an ENC perspective, I would think this vessel, while temporarily anchored at a specific location, would be encoded as an offshore platform object (OFSPLF) with attribute category of offshore platform (CATOFP) = 9 (accommodation platform) and the name of the vessel populated in object name (OBJNAM), in order to apply the (T) Update to the ENC. The resultant ECDIS symbol will be a generic platform symbol, similar to L10 (without light flare) and the name (contents of OBJNAM) displayed next to the symbol.

I agree that this instance does not fit with "hulk", particularly as the vessel is not intended to be permanently moored at the location (assumption on my part due to (T)NM). If it was a permanently moored vessel, it could then be encoded for ENC as a hulk object (HULKES) with category of hulk (CATHLK) = 4 (accommodation).

It would be best if the same object and attribute categories are used for ENC as for paper charts. A platform is misleading on paper charts (and arguably on ENC). If F34 is approved for paper charts, then the ENC equivalent would be hulk object (HULKES) with category of hulk (CATHLK) = 4 (accommodation). If L17 is chosen for paper charts, then there is no true ENC equivalent: offshore platform object (OFSPLF) with attribute category of offshore platform (CATOFP) = 9 (accommodation platform) is misleading. Attribute 8 (floating production, storage and off-loading vessel) does not have an associated accommodation attribute. In fact, attributes 8 and 10 are both floating (a vessel and a buoy) which seem odd associated with a fixed structure such as a platform.

Conclusions.

The term 'hulk' used in the title of the UKHO (T)NM was misleading (and possibly insulting to the owners). However, the use of symbol F34 seemed most nearly appropriate based on current S-4 guidance for the particular example for paper charts. An alternative would be to use L17 and widen the scope of that symbol, by use of additional legend(s). For ENC, the attribute 'accommodation' is obviously appropriate, but what suitable feature object can it be attached to?

Recommendations.

NCWG should clarify how long term moored support/accommodation vessels should be charted, on paper and ENC.

Justification and Impacts.

For the avoidance of confusion amongst compilers, as none of the current guidance exactly covers this situation.

Action required of NCWG.

The NCWG is invited to:

Advise how support/accommodation vessels should be charted consistently on paper and ENC.