



THIS CIRCULAR LETTER REQUIRES YOU TO VOTE

IHB File No. S3/7050

CIRCULAR LETTER 75/2010
12 November 2010

HYDROGRAPHIC DICTIONARY (S-32)

Dear Hydrographer,

1 The Hydrographic Dictionary Working Group (HDWG) has prepared new definitions for a total of 51 terms and 1 acronym for inclusion in S-32 - *Hydrographic Dictionary*:

- 18 Terms based on recommendations from CSPCWG;
- 26 Terms to ensure alignment with definitions in IHO Publication B-6 *Undersea Feature Terminology*;
- 7 Terms based on proposals from the Chair of the former S-44 WG; and
- The inclusion of the term *SOLAS* in the list of acronyms.

These definitions were submitted to the second meeting of HSSC (HSSC2) which was held in Rostock, Germany from 26 - 29 October 2010.

2 HSSC2 endorsed the work of the HDWG and invited the IHB to circulate the 51 definitions to Member States for adoption. The definitions are included at Annex A.

3. You are invited to complete the voting form at Annex B and return it to the IHB by 31 January 2011.

On behalf of the Directing Committee
Yours sincerely,



Robert WARD
Director

Annex A: Definitions for adoption and inclusion in S-32
Annex B: Voting Form

Definitions for adoption and inclusion in S-32

Note: Capitalised terms are also defined in S-32

Proposals from CSPCWG

Traffic Separation Scheme: A ROUTEING measure aimed at the separation of opposing streams of traffic by appropriate means and by the establishment of TRAFFIC LANES.

Roundabout: A ROUTEING measure comprising a separation point or circular SEPARATION ZONE and a circular TRAFFIC LANE within defined limits. Traffic within the roundabout is separated by moving in a counter-clockwise direction around the separation point or zone.

Inshore Traffic Zone: A ROUTEING measure comprising a designated area between the landward boundary of a TRAFFIC SEPARATION SCHEME and the adjacent COAST, to be used in accordance with the provisions of rule 10(d), as amended, of the International Regulations for Preventing Collisions at sea , 1972 (Collision Regulations).

Recommended Track: A route which has been specially examined to ensure so far as possible that it is free of dangers and along which ships are advised to navigate.

Mandatory routeing system: A ROUTEING SYSTEM adopted by the INTERNATIONAL MARITIME ORGANIZATION, in accordance with the requirements of regulation V/10 of the 1974 SOLAS convention, for mandatory use by all ships, certain categories of ships or ships carrying certain cargoes.

No anchoring area: A ROUTEING measure comprising an area within defined limits where anchoring is hazardous or could result in unacceptable damage to the marine environment. Anchoring in a no anchoring area should be avoided by all ships or certain classes of ships, except in case of immediate danger to the ship or the persons on board.

Unsurveyed area: An area where HYDROGRAPHIC SURVEY data is non-existent or very poor.

Foul ground: An area over which it is safe to navigate but which should be avoided for anchoring, taking the GROUND or GROUND fishing.

Sea floor: The BOTTOM of the OCEAN when there is a generally smooth gentle GRADIENT. Also referred to as sea bed (sometimes seabed or sea-bed), sea bottom.

Seabed: See SEA FLOOR

Sea-bed: See SEA FLOOR.

Phase of a navigational light: Each element of the sequence of changing CHARACTERISTICS, including intervals of light and darkness (e.g. a flash, an ECLIPSE) or changes of colour.

Environmentally Sensitive Sea Area (ESSA): A generic term which is used to describe a wide range of areas, considered sensitive for a variety of environmental reasons.

Particularly Sensitive Sea Area (PSSA): An area which needs special protection through action by the IMO because of its significance for recognised ecological or socio-economic or scientific reasons and which may be vulnerable to damage by maritime activities. A PSSA is a type of ENVIRONMENTALLY SENSITIVE SEA AREA (ESSA).

Wind Turbine: A tower and associated equipment that generates electrical power from WIND. They can be sited OFFSHORE.

Wind Farm: A collection of WIND TURBINES that are collocated and are organised as a single power generation unit.

International Voyage: A voyage from a country to which the 1974 SOLAS convention applies to a port outside that country or conversely (SOLAS Chapter 1, Regulation 2d).

International Shipping: Shipping engaged on INTERNATIONAL VOYAGES.

Alignment with terms in IHO Publication B-6 – Undersea Feature Terminology

Archipelagic Apron: A gentle SLOPE with a generally smooth surface of the SEA FLOOR, characteristically found around groups of ISLANDS or SEAMOUNTS.

Bank: An ELEVATION of the SEA FLOOR over which the DEPTH of water is relatively shallow but sufficient for safe SURFACE NAVIGATION.

Basin: A DEPRESSION of the SEA FLOOR more or less equidimensional in plan and of variable extent.

Borderland: A region adjacent to a CONTINENT, normally occupied by or bordering a SHELF and sometimes emerging as islands, that is irregular or blocky in plan or profile, with DEPTHS well in excess of those typical of a SHELF.

Continental Margin: The zone, generally consisting of SHELF, SLOPE and CONTINENTAL RISE, separating the CONTINENT from the ABYSSAL PLAIN or DEEP SEA FLOOR.

Continental Rise: A gentle slope rising from the oceanic depths towards the foot of a CONTINENTAL SLOPE.

Escarpment: An elongated, characteristically linear, steep SLOPE, separating horizontal or gently sloping sectors of the SEA FLOOR in non-SHELF areas. Also abbreviated to SCARP.

Fan: A relatively smooth, fan-like depositional feature normally sloping away from the outer termination of a CANYON or canyon system. Also called CONE.

Fracture Zone: An extensive linear zone of irregular topography, mountainous or faulted, characterized by steep-sided or asymmetrical RIDGES, clefts, TROUGHs, or ESCARPMENTS.

Gap: A narrow break in a RIDGE or RISE.

Knoll: A relatively small isolated ELEVATION of a rounded shape.

On the SEA FLOOR, an ELEVATION somewhat smaller than a SEAMOUNT and of rounded profile characteristically isolated or as a cluster. Also called HILL.

Levee: A depositional natural EMBANKMENT bordering a CANYON, VALLEY or SEA CHANNEL on the ocean floor.

Moat (or sea moat): An annular DEPRESSION that may not be continuous, located at the base of many SEAMOUNTS, oceanic islands and other isolated ELEVATIONS.

Plateau: A flat or nearly flat ELEVATION of considerable areal extent, dropping off abruptly on one or more sides; a TABLELAND.

Ridge: The linked major mid-oceanic mountain systems of global extent. Also called mid-OCEANIC RIDGE.

Rise: A broad ELEVATION that rises gently and generally smoothly from the SEA FLOOR.

Saddle: A broad PASS or COL, resembling in shape a riding saddle in a RIDGE or between contiguous ELEVATIONS.

Sea Channel: A continuously sloping elongated discrete DEPRESSION commonly found in FANS or ABYSSAL PLAINS and customarily bordered by LEVEES on one or both sides.

Shelf Edge (or shelf break). The line along which there is a marked increase of SLOPE at the seaward margin of a CONTINENTAL (or ISLAND) SHELF.

Shoal: An offshore hazard to surface NAVIGATION with substantially less clearance than the surrounding area and composed of unconsolidated material.

Sill: A SEA FLOOR barrier of relatively shallow DEPTH restricting water movement between BASINS.

Slope: The deepening SEA FLOOR out from the SHELF EDGE to the upper limit of the CONTINENTAL RISE, or the point where there is a general decrease in steepness.

Terrace: A relatively flat horizontal or gently inclined surface, sometimes long and narrow, which is bounded by a steeper ascending SLOPE on one side and by a steeper descending SLOPE on the opposite side.

Trench: A long narrow, characteristically very deep and asymmetrical DEPRESSION of the SEA FLOOR with relatively steep sides.

Trough: A long DEPRESSION of the SEA FLOOR characteristically flat bottomed and steep sided and normally shallower than a TRENCH.

Valley: submarine. A relatively shallow wide DEPRESSION, the bottom of which usually has a continuous GRADIENT. This term is generally not used for features that have CANYON-like characteristics for a significant portion of their extent.

Terms based on proposals from the Chair of the former S-44 WG

Lidar. An instrument that measures distance to a reflecting object by emitting timed pulses of LASER light and measuring the time between emission and reception of reflected pulses. The measured time interval is converted to distance. In survey use the lidar system usually scans the light PULSES across the TRACK of the SURVEY platform (usually an aircraft) so that successive PULSES cover a SWATH(E) either side of the platform's track. Infra-red LASERS will reflect off land and water, and are normally used for TOPOGRAPHIC lidar SURVEYS. Blue-green LASERS will penetrate water and are used in HYDROGRAPHIC lidar SURVEYS.

Survey vessel (ship) or platform. A vessel or platform (e.g. aircraft) specially equipped for carrying out TOPOGRAPHIC, HYDROGRAPHIC and/or OCEANOGRAPHIC SURVEY.

Systems of sounding lines: The predetermined lines that the SURVEY platform is to follow for the best development of the DEPTH CONTOURS in an area.

Swath(e). The strip or lane on the ground or SEA FLOOR scanned by the SWATH(E) SOUNDING SYSTEM when the SURVEY platform proceeds along its COURSE.

Swath(e) system. Any of a number of systems which are capable of obtaining a strip or lane of ELEVATIONS or SOUNDINGS from a single SURVEY PLATFORMS' TRACK. In HYDROGRAPHY, systems that fall into this category are MULTI BEAM ECHO SOUNDERS (MBES), INTERFEROMETRIC ECHO SOUNDERS and LIDAR.

Multi Beam Echo Sounder (MBES). A type of SWATH(E) SOUNDING SYSTEM in which the equipment emits a timed PULSE of sound that is narrow in the fore-aft direction and wide in the

across track direction. The reflected sound is received by several RECEIVERS arranged as an ARRAY. By use of SIGNAL processing of the SIGNAL received at combinations of the RECEIVERS a much larger number, potentially many hundreds, of ACOUSTIC receive BEAM angles are formed. For each receive BEAM the time interval between emission and reception of the reflected sound is converted into a RANGE. Geometry is then used to convert each RANGE and receive BEAM angle to DEPTHS and also to position these DEPTHS within the SWATH(E) on the SEA FLOOR. MBES systems may also be referred to as beam-formers.

Interferometric Echo Sounder. A type of SWATH(E) SOUNDING SYSTEM in which the equipment emits a timed PULSE of sound that is narrow in the fore-aft direction and wide in the across-track direction. The system samples the reflected sound hundreds or even thousands of times for each emission and for each sample the PHASE difference of the reflected sound arriving at two (or more) RECEIVERS located a known distance apart is measured and used to compute the ACOUSTIC angle of arrival. Also, the time difference between the emission and reception for each sample is converted to a RANGE. Geometry is then used to convert each RANGE and angle to DEPTHS and also to position these DEPTHS within the SWATH(E) on the SEA FLOOR.

Acronym

SOLAS: International convention on "Safety Of Life At Sea"

VOTING FORM

*(to be returned to the IHB by 31 January 2011
E-mail: info@ihb.mc - Fax: +377 93 10 81 40)*

Member State			
Point of Contact:		E-mail:	

ADOPTION OF DEFINITIONS IN S-32

1. I agree in general to the inclusion of the terms and acronym in S-32:

Yes or No:

2. If there are any definitions which you do not support please indicate them in the table below together with your reasons:

Comments (if required)

Name/Signature:Date: