IHO Committee on the Hydrographic Dictionary
8th Meeting, 14-15 May 2001, NOAA, Silver Spring, MD, USA

Minutes of the Meeting

1. Welcome and administrative arrangements

The delegates were welcome by Capt. MacFARLAND, Director Coast Survey, NOAA, wishing them a successful meeting. Mr. E. FREY explained several administrative arrangements.

A membership and attendance list can be found at Annex 1. Apologies were sent by the Committee members of Argentina and Croatia, who could not attend.

2. Adoption of the agenda

The draft agenda was adopted without changes; it can be found at Annex 2.

3. Reports on status of S-32 in languages other than English

French: The 5th edition of the French volume was published in 1998 after an in-depth revision by a language sub-group consisting of former Hydrographers of SHOM. The language sub-group can be reactivated if necessary.

Spanish: The Spanish volume (corresponding to the 5th edition) was published in 1996. The language sub-group for Spanish is composed as follows: Argentina, Chile, Cuba, Peru, Spain, and the IHB. An in-depth revision of the Spanish volume is being undertaken by this sub-group.

Chinese: The Chinese volume, corresponding to the 4th edition, was printed several years ago. China intends to prepare a new translation and to post a bi-lingual version on the WEB.

Japanese: The Japanese HO informed the Committee that the initial translation had been completed. At present, the Japanese text is being checked and refined by experts in the various domains covered by S-32. Progress is slow.

German: Slightly more than 20% have been translated. Progress is very slow, as no project funds are available; only one retired BSH staff member has volunteered for this work.

4. WEB Version of S-32

The project to develop a WEB version of S-32 was completed in May 2000. It is recalled that the EU provided considerable project funds. Data and software were transferred to a server operated by EPSHOM in Brest. Numerous teething problems had to be sorted out subsequently, before consultation and updating of the data via the Internet worked satisfactorily. At present, there is still a major problem related to updating, i.e. the synchronisation between the "temporary" and the "validated" databases is not yet functional.

Provided that this problem is solved by autumn, updating of S-32 via the Internet will commence immediately afterwards; else, the Committee will revert to the updating procedures employed previously.

A short demonstration of the consultation tool and an in-depth demonstration of the updating tools was provided.

Having gained some experience in using the tools, the Committee will develop a list of modifications for the consultation tool and the updating tools. These modifications should be implemented under contract.

The procedure for updating S-32 via the Internet will be organized as follows:

- The Committee adopts a list of terms to be added or modified or deleted; in English. The language sub-groups then prepare corresponding lists in their language asap and inform the Chairman when these lists are ready.
- The Chairman informs the leaders of the language sub-groups which of the terms in the list are to be updated (usually a subset of all the terms contained in the list)
- English updates and then informs F
- French updates and then informs S
- Spanish updates and then informs Chairman
- Chairman checks, makes final administrator validation (activates changes)

5. Committee Report for the XVIth IHC

The Committee discussed the draft prepared by the Chairman. The final draft version is at Annex 3.

The Committee also discussed the difficulties of its members to attend meetings, caused by budget cuts. It was decided to cancel future meetings if less than 4 members can attend. This problem will be brought to the attention of MS in the Report.

6. Coordination with B-6

Immediately after its 6th meeting in 1996, the Committee had prepared a proposal on the coordination of terms between the Hydrographic Dictionary and IHO Publication B-6 (Undersea Feature Names). As no feedback had been received from the GEBCO groups involved prior to the 7th meeting in 1999, the Committee decided that no action had to be taken.

As a new edition of B-6 is now ready to be published, the Committee decided to review the new B-6, to compare it with S-32 and to prepare a new list of S-32 terms to be added or modified. The delegate from France volunteered to prepare a draft (by 15 June) which will be circulated to all Committee members for comments and decision.

7. Acting as caretaker of the ECDIS Glossary

This matter was discussed during the 7th meeting. The Committee decided at that meeting that it could integrate terms from the ECDIS Glossary into S-32 (a proposal was prepared by E. FREY), but that it would not be able to maintain the ECDIS Glossary as a separate publication. The CHRIS Chairman was informed accordingly.

Information has now been received from the CHRIS Chairman saying that the Glossary must be maintained as a separate publication as it figures in the IMO Performance Standards for ECDIS. Therefore, the options are that the Glossary will be maintained by CHRIS or by a sub-group of the S-32 Committee. This issue will be discussed during the next CHRIS meeting.

The Committee decided to wait for the outcome of the next CHRIS meeting.

8. Discuss new terms, terms to be modified and/or deleted

The draft list of proposed revisions was discussed and amended. The resulting Revision Document can be found at Annex 4. Committee members are to peruse this Document carefully as it contains numerous comments and action items.

9. Date and venue of the next (9th) meeting

It was proposed that the next meeting should be held during spring-autumn 2003 in conjunction with other meetings, if feasible, to maximize attendance. The venue will therefore probably depend on these other meetings. Final decision to be taken by autumn 2002.

10. Any other business

Before closing the meeting, the Chairman thanked NOAA for hosting the meeting.

Annex 1

IHO COMMITTEE ON THE HYDROGRAPHIC DICTIONARY
Membership / Attendance 8th Meeting
Silver Spring, MD, USA, 14-15 May 2001

Title, Name	Address		Tel., Fax, e-mail	Comment
Ing. en chef Michel LEGOUIC	SHOM 3 avenue Octave Gréard Paris 7e France	Postal address BP 5 00307 ARMEES France	Tel: +33 1 44 38 41 54 Fax: +33 1 40 65 99 98 e-mail: mlegouic@shom.fr	WG Member Attended (Yes)
Mr. Erich FREY	Office of Coast Survey National Ocean Service, NOAA 1315 East-West Highway Silver Spring, Maryland 20910-3285 USA		Tel: +1 301 713 2780 Ext. 144 Fax: +1 301 713 4019 e-mail: erich.frey@noaa.gov	WG Member Attended (Yes)
Ing. Federico MAYER	Servicio de Hidrografia Naval Avenida Montes de Oca 2124 1271 Buenos Aires Argentina		Tel: +54 11 4301 0061/68 Fax: +54 11 4301 3883 e-mail: fedmayer@hidro.gov.ar	WG Member Attended (No)
Mr. Nenad LEDER	Hrvatski hidrografski institut Zrinsko-Frankopanska 161 21000 SPLIT Croatia		Tel: +385 21 361-840 Fax: +385 21 47-045 e-mail: nenad.leder@dhi.tel.hr	WG Member Attended (No)
Mr. XU Binsheng	Maritime Safety Agency of P.R.C. 11 Jianguomennei Ave. Beijing, 100736 People's Republic of China		Tel: +86 10 652 928 92 Fax: +86 10 652 928 93 e-mail: tjhjjhzx@public.bta.net.cn	WG Member Attended (Yes)
Capt. Hans-Peter ROHDE	International Hydrographic Bureau BP 445 4, quai Antoine Ier MC 98011 Monaco Cedex		Tel: +377 93 10 81 06 Fax: +377 93 10 81 40 e-mail: pah@ihb.mc	Chairman Attended (Yes)

Annex 2

IHO Committee on the Hydrographic Dictionary
8th Meeting
14-15 May 2001
Draft Agenda

1. Welcome and administrative arrangements

2. Adoption of the agenda

3. Reports on status of S-32 in languages other than English (France, Argentina, China, Japan, Germany)

4. Project DHYDRO (WEB version of S-32)
   - Project Status
   - Demonstrations of project results
   - Discussion of results
   - Discussion of future work procedures of the Committee

5. Committee report for the XVIth IHC

6. Coordination with B-6

7. Acting as caretaker of the ECDIS Glossary (S-52, Appendix 3)

8. Discuss new terms, terms to be modified and/or to be deleted

9. Date and venue of next (9th) meeting

10. Any other business

Annex 3

REPORT ON THE WORK OF THE IHO COMMITTEE ON THE HYDROGRAPHIC DICTIONARY (S-32)
by the Chairman: Captain Hans-Peter ROHDE (IHB)

Note: The Conference is invited to adopt the Report. By adopting the Report, the recommendations made in the Report and the attached Terms of Reference will be considered approved.

1. BACKGROUND

The Hydrographic Dictionary (S-32) is known to be extensively referenced within as well as outside the IHO. It became apparent in the beginning of the 1980's that the 3rd edition, published in 1974, was no longer adequate to meet the requirements of the hydrographic community. Consequently Member States were asked by CL 45/1984 whether they considered it necessary to establish a Working Group to update the dictionary. As the majority of responding Member States agreed, the Working Group on the Hydrographic Dictionary was formed as announced by CL 26/1985. Since then, the 4th and 5th edition have been published. After the XVth IHC, the "Working Group" was renamed "Committee" to be in line with the definitions contained in Decision No.1.

2. COMPOSITION OF THE COMMITTEE

The composition of the Committee has changed several times since it was initially formed. At present, the Committee is composed of representatives from the following Member States: Argentina, China, Croatia, France, USA (NOAA).

3. OPERATIONAL STATUS OF THE COMMITTEE

To minimize travel expenses, the Committee works mainly by correspondence and holds face-to-face meetings only at intervals of 2-3 years. In spite of this, representatives find it more and more difficult to attend meetings because of budget cuts. The Committee is afraid that this tendency might lead to a situation where it becomes impossible to hold meetings, thus rendering the Committee non-operational.

Member States are requested to support the Committee so that it can fulfil its obligations laid down in the Terms of Reference.

4. MEETINGS

The Committee met twice, once in May 1999 (7th meeting) at the IHB, Monaco, and again in May 2001 (8th meeting) at the Office of Coast Survey (NOAA), USA.

5. MAIN ACTIVITIES

5.1 The French Volume of the 5th Edition was completed and distributed to Member States in 1998.

5.2 A Spanish language sub-group was established in 1999. This group works by correspondence only.

5.3 The on-going revision of the 5th edition started in 1999. The main objectives of this revision are:

- to correct errors and inconsistencies in the 5th edition,
- to introduce new terms reflecting technological development in relevant domains, and
- to improve consistency with terminology used in other IHO publications.

5.4 DHYDRO Project

5.4.1 To explore the options for providing a digital version of S-32, the French Hydrographic and Oceanographic Service (SHOM) contracted a French research institute to conduct a feasibility study. The main recommendations resulting from this study were that the existing text of S-32 should be converted to a format called eXtended Markup Language (XML) and that tools should be developed to allow updating and consultation of S-32 via the Internet (WEB).

5.4.2 Subsequently a project document was submitted to the Commission of the European Community (EC) to obtain funds for the development work outlined under 4.4.1 as part of the EC Multilingual Information Society (MLIS) Programme. After acceptance by the EC in November 1998, the project (called DHYDRO) started in December 1998 and was completed around mid-2000.

5.4.3 Having transferred all data to a server computer operated by SHOM during the second half of 2000, the Committee commenced tests in early 2001. These tests revealed that a vital function of the updating tools was not operational.

5.4.4 Provided the bug in the updating tools can be fixed by the end of 2001, the Committee will start maintaining the Hydrographic Dictionary via the Internet in early 2002. Else the Committee will revert to the maintenance procedure used prior to the DHYDRO project.

6. RECOMMENDATIONS FOR FUTURE WORK

It is recommended that the Committee continue its work with emphasis on the following objectives:

- Keep the IHO Publication S-32 up to date on a continuous basis,
- Monitor the development of the Internet version of S-32, and
- Help to facilitate the development of S-32 in other languages.

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IHO COMMITTEE ON THE HYDROGRAPHIC DICTIONARY

TERMS OF REFERENCE

Membership

Membership of the IHO Committee on the Hydrographic Dictionary is open to all Member States wishing to participate. Representatives are nominated by IHO Member States. The Committee may invite observers to participate in its deliberations during and between meetings.

Organization

The Committee consists of a Chairperson who will conduct the business of the Committee, and the representatives nominated by IHO Member States. The Committee will conduct its business mainly by correspondence. Meetings will be held, if necessary, at intervals of about 2-3 years. The functioning of the Committee will be regulated by an internal document, the "Terms of Procedure".

The language sub-groups for English, French, and Spanish should work by correspondence only. Their activities are coordinated by the Committee representative for the respective language.

Objectives

1. Review and update the Hydrographic Dictionary (IHO Publication S-32) on a continuous basis.

2. Liaise with other IHO bodies developing publications containing glossaries to ensure consistency.

3. Liaise with bodies of other organizations developing dictionaries and/or glossaries.

Annex 4

IHO COMMITTE ON S-32

REVISION OF PART I VOLUME I
5TH EDITION

Date: 30 July 2001

NOTE:

Modifications resulting from discussions during the 8th meeting and subsequent comments have been incorporated.

Please do peruse this revision document carefully and send your comments by 15 September**. No comments by 15 September means that you agree.**

Please note that I am not in the office from 1 August to about 10 September (leave and travel), but for 2 days.

Hans

1. ADDITIONS

accuracy: draughting. Deviation of the drawing or parts thereof from its true position. See ACCURACY.

basin: tidal. A basin open to the sea with the water level affected by the tide.

Geoid map. A map depicting the undulations of the GEOID, i.e. height differences between the geoid and the reference ellipsoid.

geostatistics. The field of statistics which deals with estimating the confidence of values derived from measurements of geo-referenced data.

metadata. Data about the characteristics of data as for example quality, location, condition.

Raster Chart Display Sytem (RCDS). Computer-based marine navigation systems that use raster nautical charts (RNC) and electronic positioning to provide an integrated navigation aid.

Raster Nautical Chart (RNC). A georeferenced, digital picture of a paper chart which can be used in a raster chart display system.

Note: The implementation of the terms RCDS and RNC has to be deferred till a response from CHRIS has been received

topology. The set of properties of geometric forms (such as connectivity, neighbourhood) which is defined with the data model remaining invariant when subject to a continuous transformation.

2. DELETIONS

718 **chart: datum.**

1229 **datum for sounding.**

1230 **datum for sounding reduction.**

2624 **lagging of the tide(s).**

3167 **mean water level.**

5443 **tide: half.**

5487 **tide predicting machine.**

5464 **tide: single day.**

3. MODIFICATIONS

21 **accuracy.** The extent to which measured values agree with the true value or the value accepted to be true. Accuracy is affected by systematic and random errors. It differs from PRECISION which relates to the method of measurement and random errors only.

120 **amplitude.** In ASTRONOMY, the arc of the HORIZON, between a CELESTIAL BODY at rising or setting and true east or west point. In tidal terminology, the semi-range of the HARMONIC CONSTITUENT. In physics, the maximum departure of a WAVE or other periodic PHENOMENON from the average or zero position.

404 **basin: non-tidal.** A BASIN affected by tidal forces in which water can be kept at a desired LEVEL by means of a gate.

512 **bore.** A high breaking WAVE of water, advancing rapidly up an ESTUARY. Bores can occur at the MOUTHS of shallow RIVERS if the TIDAL RANGE at the MOUTH is large. They can also be generated in a RIVER when TSUNAMIS enter shallow coastal water and propagate up the RIVER. Also called *eagre* (*eager), mascaret,* or *tidal bore.*

711 **chart.** A special purpose MAP or a digital database created to meet particular requirements. See CHART:NAUTICAL, PAPER, ELECTRONIC CHART.

712 **chart: aeronautical.** A chart specifically designed to meet the requirements of AIR NAVIGATION.

735 **chart: nautical.** A CHART specifically designed to meet the requirements of MARINE NAVIGATION.

865 **cotidal current line.** A line through places having the same tidal current hour.

998 **continental (or island) shelf.** A zone adjacent to a CONTINENT (or around an ISLAND), extending from the LOW WATER LINE to the DEPTH at which there is usually a marked increase of SLOPE to greater DEPTH. See CONTINENTAL SHELF LIMIT, SHELF.

1064 **co-range line.** A line through all points of equal TIDAL RANGE.

1173 **current cycle.** The time history of tidal current conditions, as those occurring during a tidal day, lunar month, or Metonic cycle.

1222 **datum: chart.** A permanently established surface from which SOUNDINGS or tidal heights are referenced, usually linked to a low water level. Also called DATUM, *datum level,* DATUM PLANE, *hydrographic datum, reference level, reference plane.* See DATUM: TIDAL.

1233 **datum of tidal predictions.** The LEVEL from which the HEIGHTS OF TIDE are referenced in the TIDE TABLES. See also DATUM: CHART.

1307 **depth.** The vertical distance from a water level to the bottom or to an object either suspended above or on the sea floor.

1308 **depth: charted.** The vertical distance from the CHART DATUM to the BOTTOM or to an object either suspended above or on the BOTTOM.

1526 **ebb interval.** The interval between the transit of the moon over the meridian of a place and the time of the following strength of ebb.

1566 **Ekman current meter.** A current meter designed for use from a ship or boat at anchor when the FLOW does not attain a rate of more than 3 to 3 1/2 KNOTS.

1712 **estuary.** That portion of a RIVER influenced by the TIDE of the body of water into which it flows. Partially enclosed area where fresh water from rivers mixes with marine salt water.

1857 **flood stream.** The horizontal movement of water associated with the RISING TIDE. Flood streams set in the direction of the progression of the tide, usually toward the SHORE. Also called FLOOD, *flood current* or *ingoing stream*.

1984 **gauge: tide.** A device for measuring the water level. A graduated staff in a sheltered area where visual observations can be made; or it may consist of an elaborate recording instrument making a continuous graphic and/or digital record of water level against time.

2030 **geomatics.** The science and technology of geospatial information management, including the acquisition, storage, analysis and processing, display and dissemination of geo-referenced information.

2173 **half tide.** The level of the tide midway between a HIGH WATER and the preceding or following LOW WATER. Also the time at which this level occurs.

2174 **half tide level.** See MEAN TIDE LEVEL.

3140-3165: Will be discussed during meeting of Tidal Committee in October

3140 **mean higher high water (MHHW).** The average HEIGHT of all HIGHER HIGH WATERS at a place over a 19-year period.

3156 **mean sea level.** The average level of the sea surface over 18.6 years, or the average level that would exist in the absence of tides.

3165 **mean tide level.** The average over a period of 18.6 years of all high waters and low waters or the mean of MHWS, MHWN, MLWN and MLWS.

3460 **nonharmonic method.** In TIDE PREDICTION, a method based on the principle that 'the TIDE follows the MOON'. It makes use of the close relationship that exists between the TIME of TIDE at most places and the MOON's MERIDIAN TRANSIT. This method can only be used if the tides are predominantly semi-diurnal.

3478 **Notice to Mariners.** A periodical notice issued by maritime administrations, or other competent authorities, regarding all information as affects NAUTICAL CHARTS, SAILING DIRECTIONS, LIGHT LISTS and other nautical publications, in particular, changes in AIDS TO NAVIGATION, dangers to NAVIGATION, and important new SOUNDINGS,

3497 **observation(s): tidal.** A series of measurements taken in order to provide the data required for TIDAL ANALYSIS and investigation, and for the REDUCTION OF SOUNDINGS.

3631 **overfalls.** Turbulence associated with the flow of strong tidal currents over abrupt changes of seabed topography, or with the meeting of tidal currents flowing from different directions. See TIDE-RIP(S).

3766 **phase lag.** Angular retardation of the maximum of a constituent of the observed TIDE behind the corresponding maximum of the same constituent of the hypothetical EQUILIBRIUM TIDE at a particular place or TIDE STATION. Also called *tidal epoch.*

3843 **pilot.** 1. A person who has extensive knowledge of channels, aids to navigation, dangers to navigation, etc., in a particular area and is licensed for that area., and who assists in navigating vessels in that area.

2. SAILING DIRECTIONS.

3987 **precision.** A statistical measure of repeatability usually expressed as variance or standard deviation of repeated measurements of the same quantity. Precision should only be affected by random errors. See ACCURACY.

4225 **range of tide.** The difference in HEIGHT between consecutive HIGH and LOW TIDES at a place. Also called *tidal range.*

4486 **sailing directions.** A publication issued under the authority of a maritime administration describing coasts, waters, channels, harbour facilities, etc., and other navigation information useful to navigators which can not be conveniently shown on the corresponding chart. Also called *pilot* or *coastal pilot*.

4567 **sea level.** The height of the sea surface uninfluenced by wind waves and swell, which is frequently measured relative to a fixed reference level. Observations of the sea level over a certain period are often evaluated to render minimum, maximum, and mean sea level.

4611 **seiche.** A STANDING WAVE oscillation of a water body in an enclosed or semi-enclosed basin that persists after the cessation of the originating force, which may have been either seismic, atmospheric, or wave induced.

4936 **spring.** A natural issue of water or other substances from the EARTH. One on the BOTTOM of the SEA is called a *submarine spring.*

5005 **station: tidal reference.** A place where tidal and/or tidal current constants have been determined from OBSERVATIONS, and which is used as a STANDARD for the comparison of simultaneous OBSERVATIONS at a SUBORDINATE STATION. It is also a place for which independent daily predictions are given in the tide or tidal current tables, from which corresponding predictions are obtained for other locations by means of differences or factors. Also called *standard station* and *standard port* (British terminology).

5009 **station: subordinate.** One of the places for which tidal and/or tidal current predictions are determined by applying a CORRECTION to the predictions of a REFERENCE STATION.

A tidal or tidal current station at which a short series of OBSERVATIONS was made and reduced by comparison with simultaneous OBSERVATIONS at a REFERENCE STATION.

Called *secondary port* in British terminology. See STATION: TIDAL.

5013 **station: tidal.** A place where TIDAL OBSERVATIONS are obtained. It is a *primary tide station* when continuous OBSERVATIONS are available for a sufficient number of years to determine the characteristic tide features for the locality. A *secondary tide station* is operated during a short period of time to obtain DATA for a specific purpose.

5432 **tide: astronomical.** TIDE due to the attraction of the SUN and MOON, in contrast to a METEOROLOGICAL TIDE, caused by meterological conditions.

5434 **tide: diurnal.** A TIDE in which the TIDAL CYCLE consists of one HIGH WATER and one LOW WATER each TIDAL DAY.

5492 **tidal reduction.** The CORRECTION that must be applied to a recorded SOUNDING for the height of the water level above or below the DATUM of reference at the TIME of SOUNDING.

5499 **tide tables.** Tables in paper or digital form providing predictions of the times and heights of the tide or data required to compute these predictions for selected locations. See TIDE PREDICTION.

4. TIDE RELATED ABBREVIATIONS

The following concerns ONLY the English language volume of the Dictionary.

Most tide related abbreviations contain “dots”, e.g. M.H.H.W. It was proposed to remove these dots as it is an old-fashioned notation method. This has been confirmed by the UK HO.

The following (probably incomplete) list just contains the item nos where dots have to be removed.

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5. Meteorological Terms (reviewed by Fritz and Nenad)

Note: I have added this section here to facilitate the discussion of these terms; once finalized they will be added to 3. Modifications.

38 **adiabatic temperature change.** Rise or fall of temperature due to compression or expansion without transfer of heat or mass across the boundary of the systems.

74 **air mass.** An extensive body of the atmosphere whose physical properties, particularly temperature and humidity, exhibit only small and continuous differences in the horizontal.

136 **anemograph.** An instrument which records WIND speed and direction continuously.

460 **belt.** A long area of pack ice from a few kilometres to more than 100 kilometres in width.

1956 **frost smoke.** Fog-like clouds due to contact of cold air with relatively warm water, which can appear over openings in the ice, or leeward of the ICE EDGE, and which may persist while ice is forming.

3110 **maritime meteorology.** 1. Provision of weather services for maritime activities.
2. That branch of the METEOROLOGY which studies the interaction between the SEA and the ATMOSPHERE.

4934 **spout.** A violent rotating storm of small diameter occurring in very severe thunderstorms and appearing as a funnel cloud extending from the base of cumulonimbus to the ground.

5560 **tornado.** In North America, the name for an intense rotating storm of large diameter.

5663 **tropical cyclone.** General term for a non – frontal, synoptic scale CYCLONE originating over tropical or subtropical waters with organized convection and definite cyclonic surface wind circulation. It is characterized by violent WIND and torrential RAIN, sometimes accompanied by a THUNDERSTORM.

6. Miscellaneous

Note: I have added this section here to facilitate the discussion of these items; once finalized they will be added to 3. Modifications, if applicable.

4551 **sea.** 1. The great body of salt water in general, as opposed to LAND; OCEAN.
2. One of the smaller divisions of the OCEANS.
3. The state of the surface of the ocean or sea as a result of the effect of waves, swell or other climatic conditions. See CROSS SEA, HEAD SEA, BEAM SEA, FOLLOWING SEA, QUARTERING SEA, SUGAR LOAF SEA.

- New def. of "hydrography": Agreed on the following new def.

2335 hydrography. That branch of applied sciences which deals with the measurement and description of the features of the seas and coastal areas for the primary purpose of navigation and all other marine purposes and activities, including –inter alia- offshore activities, research, protection of the environment, and prediction services.

Michel: The text you sent me is too vague; I need a concrete proposal