

**DEFINING TERMS IN THE 1982 LAW OF THE SEA
CONVENTION III: THE INTERNATIONAL HYDROGRAPHIC
ORGANIZATION *ECDIS GLOSSARY***

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I. INTRODUCTION

This is the third submission of proposed meanings for terms,¹ not otherwise defined in the 1982 U.N. Convention on the Law of the Sea (UNCLOS),² discussed at the 2003 International Law Association (American Branch) (ABILA) annual meeting. Last year the ABILA Law of the Sea Committee considered definitions in the International Hydrographic Organization (IHO) *Glossary of ECDIS-Related Terms*, i.e., a dictionary of electronic chart display and information system-related (hence the ECDIS-Related acronym) terms,³ plus other suggested terms and proposed revisions of terms previously discussed, for a total of fifty-three terms.⁴

This project began before September 4, 2001, with an *Initial Draft* submitted for the 2001 annual meeting.⁵ Minor revisions were made, and *Revision 1* was published.⁶ A further proposed revision, *Tentative Draft No. 1* (September 4, 2002, revised again on February 10, 2003), based on suggested revisions and updated citations, was submitted to the ABILA Law of the Sea Committee (LOS Committee, or Committee) for the 2002 annual meeting.⁷ At this meeting the Chair also presented sixty more proposed definitions, based on the *Consolidated Glossary of Technical Terms Used in the United Nations Convention on the Law of the Sea*, published by the International Hydrographic Organization (IHO) Technical Aspects of the Law of the Sea Working Group.⁸ The *California Western International Law Journal* has also published this analysis with a commentary by John E. Noyes.⁹

1. The first and second submissions were published in George K. Walker & John E. Noyes, *Definitions for the 1982 Law of the Sea Convention*, 32 CAL. W. INT'L L.J. 343 (2002) [hereinafter Walker & Noyes, *Definitions I*]; George K. Walker & John E. Noyes, *Definitions for the 1982 Law of the Sea Convention—Part II*, 33 CAL. W. INT'L L.J. 191 (2003) [hereinafter Walker & Noyes, *Definitions II*].

2. U.N. Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 3, 397 (English language version) [hereinafter UNCLOS, or 1982 LOS Convention, LOS Convention or Convention]. The Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, July 28, 1994, 1836 U.N.T.S. 3 [hereinafter 1994 Agreement], modified UNCLOS in certain respects that are not relevant to this analysis.

3. See generally Int'l Hydrographic Org., *Glossary of ECDIS-Related Terms*, Spec. Pub. No. 52, App. 3 (3d ed., Dec. 1997) [hereinafter *ECDIS Glossary*], available at <http://www.iho.shom.fr/> (last visited Apr. 15, 2004). The *ECDIS Glossary* can also be found in *Specifications for Chart Content and Display Aspects of ECDIS*, Spec. Pub. No. 52 (5th ed., 1997) [hereinafter *Specifications*], available at <http://www.iho.shom.fr/> (last visited July 12, 2003). The *ECDIS Glossary* itself is available only on-line, not in print; it may be viewed by the general public on the IHO website. However, only subscribers may access *Specifications* in its entirety.

4. See *infra* Part II.B.2.

5. Int'l Law Ass'n (Am. Branch) Law of the Sea Comm., *Defining Terms in the 1982 Law of the Sea Convention*, 2001-02 PROC. AM. BRANCH INT'L L. ASS'N 154 (Sept. 4, 2001 Initial Draft) (Rev. 1, Jan. 22, 2002) (John E. Noyes ed., 2002).

6. See *id.*, reprinted in Walker & Noyes, *Definitions I*, *supra* note 1, at 347.

7. See Walker & Noyes, *Definitions II*, *supra* note 1, at 196-309.

8. *The Consolidated Glossary of Technical Terms Used in the United Nations Conven-*

For the 2003 annual meeting, the Chair researched *ECDIS Glossary* terms, other suggested words or phrases, and a redraft of three terms under consideration since 2001.¹⁰

Contemporaneous with the Fall 2003 ABILA meeting and the Committee's contribution to the program at that meeting, the U.S. Senate Foreign Relations Committee held hearings on the Convention.¹¹ Among the proposed recommended understandings for Senate advice and consent to ratification were several definitions. Other definitions may emerge in the Foreign Relations Committee report to the Senate, if that Committee recommends that the Senate give advice and consent to the treaty.¹² For this reason, and because other terms have been submitted for consideration, the definitions project will continue for at least another year.

The procedure that has been followed is that the ABILA LOS Committee Chair circulates *Initial Drafts* among Committee members and other interested persons (e.g., other ABILA members who are not LOS Committee members but who nonetheless wish to participate). The Committee Members and other interested persons comment on the *Initial Drafts* before each meet-

tion on the Law of the Sea can be found in Int'l Hydrographic Org. Technical Aspects of the Law of the Sea Working Group, *Consolidated Glossary of Technical Terms Used in the U.N. Convention on the Law of the Sea*, Spec. Pub. No. 51 (1989), available at <http://www.iho.shom.fr> (available to subscribers only) [hereinafter *Consolidated Glossary*]; U.N. Office for Ocean Affairs and the Law of the Sea, *Baselines: An Examination of the Relevant Provisions of the United Nations Convention on the Law of the Sea*, App. I, at 47-62 U.N. Sales No. E.88.v.5 (1989), available at <http://www.imli.org/docs/A4.DOC>, reprinted in ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS, Annex A1-5, at 51-77 (Naval War Coll. Int'l Law Studies Series, Vol. No. 73, A.R. Thomas & James C. Duncan eds., 1999) [latter hereinafter NWP 1-14M ANNOTATED]. In this article, *Consolidated Glossary* page numbers will refer to page numbers in NWP 1-14M ANNOTATED. The *Consolidated Glossary* has not been updated. E-mail from Steve Shipman, Vice-Chairman, International Hydrographic Bureau, to George K. Walker, Chair, ABILA (Mar. 5, 2004) (on file with Chair).

9. Walker & Noyes, *Definitions II*, *supra* note 1, at 310 (2003).

10. *See infra* Part II.A.2.

11. *The UN Convention on the Law of the Sea (T. Doc. 103-39): Hearings Before the U.S. Senate Comm. on Foreign Relations*, 108th Cong., 1st Session (Oct. 14 & 21, 2003) [hereinafter *Hearings*], <http://foreign.senate.gov/hearings/2003/hrg031014a.html> (Oct. 14 hearing), <http://foreign.senate.gov/hearings/2003/hrg031021a.html> (Oct. 21 hearing).

12. UNCLOS, *supra* note 2, art. 309, bars reservations or exceptions to the treaty unless UNCLOS expressly permits them. *Id.* art. 310, says that article 309 does not preclude a State from making declarations or statements with a view toward, *inter alia*, harmonizing their laws and regulations with UNCLOS, provided these declarations or statements do not purport to exclude or modify UNCLOS' legal effect in its application to that State. *See id.*; *see also* 5 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY ¶¶ 309.1-309.10, 310.1-310.6 (Myron H. Nordquist et al., eds., 1989) [hereinafter 5 COMMENTARY]. For partial texts of the Senate hearings, see *Hearings*, *supra* note 11. *Declarations*, 2 U.N., MULTILATERAL TREATIES DEPOSITED WITH THE SECRETARY-GENERAL: STATUS AS AT 31 DECEMBER 2002 at 232-59, 262-65, U.N. Doc. ST/LEG/Ser. E/21, U.N. Sales No. 03.V.4 (2003) [hereinafter MULTILATERAL TREATIES] publishes States' declarations to UNCLOS and its Final Act; 2 MULTILATERAL TREATIES, *supra* at 266-68, publishes States' declarations to the 1994 Agreement, *supra* note 2.

ing. Those Committee members attending the meeting will then consider an *Initial Draft* and any comments at a Committee meeting that falls during the annual meeting. If there are corrections or changes made, a revised *Initial Draft* may follow. The Committee Chair will then circulate a *Tentative Draft* among Committee members and other interested persons for further comments. In general, a *Tentative Draft*, once approved by the Committee, will not be subject to general discussion and wholesale revision until the end of the process, unless the Committee wishes to do so for a particular term. A resulting *Final Draft*, combining the work of several years, may be published in International Law Association (ILA) materials, for example, for consideration by the general ILA membership and others, with an invitation to submit more comments. If, at the end of this stage, the Committee wishes to revisit and discuss a term, it will be placed on the Committee agenda for the next ABILA annual meeting, or it may be considered through written correspondence.

As with all ILA projects, the *Final Draft* will not necessarily represent any State's or international organization's practice, views or policy, unless that State or international organization chooses to adopt it in whole or part.

Formats will follow English alphabetical order, e.g., "mile" ahead of "ocean space." New terms, i.e., those considered in 2003 and analyzed below in Part II.B., will be interspersed among terms formerly considered. For example, "adjacent coasts" and "aid to navigation," appeared under headings 1A. and 2A., respectively,¹³ ahead of "applicable and generally accepted" from the 2002 *Tentative Draft No. 1*,¹⁴ and "artificial island" appeared under heading A.1.¹⁵ After reciting a term for definition, a Discussion and Analysis will follow, including reference to UNCLOS provisions, other treaties (e.g., the 1958 Law of the Sea (LOS) Conventions),¹⁶ treatises, cases, articles, and other reference materials. Comments will summarize correspondence and those who propose terms to simplify correspondence. Conclusions will end each entry. This *Initial Draft* begins with a *Tentative Final Draft* for three terms first considered at the 2001 meeting that have received comments in Part II.A.: "genuine link," "other rules of international law," and "ship." These terms, as well as other terms that have not elicited discussion, will be blended into a *Final Draft*, along with terms considered at the 2003 Commit-

13. Walker & Noyes, *Definitions II*, *supra* note 1, at 223, 226.

14. Walker & Noyes, *Definitions I*, *supra* note 1, at 349.

15. Walker & Noyes, *Definitions II*, *supra* note 1, at 228.

16. Convention on the Continental Shelf (English language version), Apr. 29, 1958, 15 U.S.T. 471, 499 U.N.T.S. 311 [hereinafter Continental Shelf Convention]; Convention on Fishing and Conservation of the Living Resources of the High Seas (English language version), Apr. 29, 1958, 17 U.S.T. 138, 559 U.N.T.S. 285 [hereinafter Fishery Convention]; Convention on the High Seas (English language version), Apr. 29, 1958, 13 U.S.T. 2312, 450 U.N.T.S. 82 [hereinafter High Seas Convention]; Convention on the Territorial Sea and Contiguous Zone (English language version), Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205 [hereinafter Territorial Sea Convention]. These four Conventions are referred to collectively as the 1958 LOS Conventions.

tee meeting. Unless the Committee decides otherwise, the definitions project will end with consideration and possible approval of that *Final Draft*, perhaps at the 2004 annual meeting.

This method of analysis is similar to those methods employed by the ILA in drafting the *Helsinki Principles of Maritime Neutrality*,¹⁷ the American Law Institute in developing the *Restatements*,¹⁸ and the International Institute of Humanitarian Law in preparing the *San Remo Manual*.¹⁹

The project will not revisit terms UNCLOS defines.²⁰ Nor will it enter into debates on what are customary norms requiring no definition of terms²¹ or the wisdom of ratifying UNCLOS.²²

The Chair researched terms defined in the *ECDIS Glossary*, Appendix 3 to *Specifications for Chart Content and Display Aspects of ECDIS*, fifth edition, published by the IHO's International Hydrographic Bureau.²³ Head-

17. Int'l Law Ass'n Comm. on Maritime Neutrality, *Final Report: Helsinki Principles on the Law of Maritime Neutrality*, in INT'L LAW ASS'N, REPORT OF THE SIXTY-EIGHTH CONFERENCE HELD AT TAIPEI, TAIWAN, REPUBLIC OF CHINA 24-30 MAY 1998, at 496 (1998) [hereinafter *Helsinki Principles*].

18. *About the American Law Institute: Institute Projects*, at <http://www.ali.org/ali/thisali.htm> (last visited Apr. 10, 2004).

19. See generally INTERNATIONAL LAWYERS & NAVAL EXPERTS CONVENED BY THE INTERNATIONAL INSTITUTE OF HUMANITARIAN LAW, SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA (Louise Doswald-Beck, ed., 1995) [hereinafter *SAN REMO MANUAL*].

20. See *infra* notes 46-57 and accompanying text.

21. Take, for example, the now largely resolved debate on the customary maximum width of the territorial sea. See generally GEORGE K. WALKER, *THE TANKER WAR 1980-88: LAW AND POLICY* 260-68 (Naval War Coll. Int'l Law Studies Series, Vol. No. 71, 2000).

22. For a discussion of this issue, see *id.* at 305-06; see also *Hearings*, *supra* note 11 (showing that witnesses generally favored Senate advice and consent with understandings).

23. *ECDIS Glossary*, *supra* note 3, at 29 (listing thirteen references, including 1(1) INT'L HYDROGRAPHIC ORG., SPEC. PUB. NO. 32, HYDROGRAPHIC DICTIONARY (English trans.) (5th ed. 1994); INT'L HYDROGRAPHIC ORG., SPEC. PUB. NO. 57, IHO TRANSFER STANDARD FOR DIGITAL HYDROGRAPHIC DATA (ed. 3.0, 1996); INT'L MAR. ORG. SUBCOMM. ON SAFETY OF NAVIGATION, DRAFT RECOMMENDATION ON PERFORMANCE STANDARDS FOR A SHIPBORNE VOYAGE DATA RECORDER, NAV 42/WP.2 Annex 1 (1996); INT'L MAR. ORG. SUBCOMM. ON SAFETY OF NAVIGATION, REPORT TO THE MARITIME SAFETY COMMITTEE, NAV 42/23/Add. 1, Reg. 15(B), ¶ 1 (1996); NORWEGIAN TECH. STANDARDS INST. SECRETARIAT, WD-15046-4: GEOGRAPHIC INFORMATION - TERMINOLOGY (Second Working Draft: Guidelines for Terminology and Collection of Terms from ISO/TC211 Geographic Information/Geomatics ISO/TC211/WG 1 [1997-04-09]); 2 UNITED STATES DEPARTMENT OF DEFENSE MAPPING AGENCY HYDROGRAPHIC/TOPOGRAPHIC CENTER, *THE AMERICAN PRACTICAL NAVIGATOR* (1981 ed.) (often known by its original author, Nathaniel Bowditch) [hereinafter *AMERICAN PRACTICAL NAVIGATOR*]). The current version of the *Glossary*, titled *Glossary of Marine Navigation*, is on-line and is updated frequently. *Glossary of Marine Navigation*, in U.S. NAT'L IMAGERY AND MAPPING AGENCY, PUBLICATION NO. 9: *THE AMERICAN PRACTICAL NAVIGATOR: AN EPITOME OF NAVIGATION* (bicentennial ed., 2002), at http://pollux.nss.nima.mil/NAV_PUBS/APN/Gloss-1.pdf [hereinafter *Glossary of Marine Navigation*]. This version of the *Glossary* defines many terms in lay mariner language that may be useful to researchers; the definitions do not necessarily coincide with definitions under UNCLOS. Because *ECDIS Glossary*, *supra* note 3, represents consolidated thinking on definitions, this analysis does not cite these publications separately. Publications that *ECDIS Glossary*, *supra* at 3, cites but which refer to terms this analysis does not discuss are not cited here.

quartered in Monaco, the IHO is organized under the Convention on the International Hydrographic Organisation.²⁴ Its sixty-two member States, as of January 1, 2003, include many maritime countries, among them the United States.²⁵ Treaty succession principles for listed members China, the former USSR, and the former Yugoslavia may mean that even more countries are Convention parties.²⁶ However, certain States commonly considered open registry States, or flag of convenience countries (Panama, Liberia, and Honduras), do not belong to the IHO. The IHO, formerly the International Hydrographic Bureau, was organized in 1921 to make navigation easier and safer by improving nautical charts and documents. The IHO is an intergovernmental organization that is purely consultative and technical in nature. Its goals are to coordinate activities of national hydrographic offices, to achieve the greatest possible uniformity in nautical charts and documents, to adopt reliable and efficient methods of carrying out and exploiting hydrographic surveys, and to develop the sciences involved in hydrography and techniques used in descriptive oceanography. The IHO's Hydrographic Bureau has many diverse responsibilities. The International Hydrographic Bureau is charged with bringing about a close, permanent association among national hydrographic offices and furthering exchange of nautical charts and documents between member governments' hydrographic offices. The Bureau is also responsible for studying matters related to hydrography and its allied sciences and techniques, and collecting necessary papers and circulating appropriate documents. The Bureau also serves an advisory position by tendering requested guidance and advice to States engaged in establishing or expanding their hydrographic service; encouraging coordination of hydrographic surveys with relevant oceanographic activities; extending and facilitating application of oceanographic knowledge for the benefit of navigators; and cooperating with international organizations and scientific institutions with related objectives.²⁷

24. Convention on the International Hydrographic Organisation, May 3, 1967, 21 U.S.T. 1857, 751 U.N.T.S. 41, art. I [hereinafter IHO Convention].

25. U.S. DEP'T OF STATE, TREATIES IN FORCE: A LIST OF TREATIES AND OTHER INTERNATIONAL AGREEMENTS OF THE UNITED STATES IN FORCE ON JANUARY 1, 2003, at 395 (2003) [hereinafter TIF].

26. See generally *id.*; Symposium, *State Succession in the Former Soviet Union and in Eastern Europe*, 33 VA. J. INT'L L. 253 (1993) [hereinafter Symposium]; George K. Walker, *Integration and Disintegration in Europe: Reordering the Treaty Map of the Continent*, 6 TRANSNAT'L L. 1 (1993) (discussing treaty succession issues for China, Federal Republic of Germany, German Democratic Republic, former USSR, former Yugoslavia; Ukraine already a party).

27. IHO Convention, *supra* note 24, pmb., arts. 1-4, 8, 21 U.S.T. at 1859-61, 1863, 751 U.N.T.S. at 43-45, 47; see also R.R. CHURCHILL & A.V. LOWE, *THE LAW OF THE SEA* 415-16 (3d ed. 1999).

**DEFINING TERMS IN THE 1982 LAW OF THE SEA
CONVENTION III: ANALYSIS OF SELECTED IHO ECDIS
GLOSSARY AND OTHER TERMS
(DEC. 12, 2003 INITIAL DRAFT, REVISION 1)**

George K. Walker, Chair, International Law Association
(American Branch) Law of the Sea Committee

I. INTRODUCTION

This is the third submission of proposed meanings for terms not otherwise defined in the 1982 U.N. Convention on the Law of the Sea,²⁸ to be considered at the 2003 International Law Association (American Branch) (ABILA) annual meeting.

This project began in 2001 with a September 4, 2001 *Initial Draft* submitted for the 2001 annual meeting. Minor revisions were made, and *Revision 1* was published in 2002.²⁹ A further proposed revision, *Tentative Draft No. 1* (September 4, 2002, revised February 10, 2003), based on suggested revisions and updated citations, was submitted to the ABILA Law of the Sea Committee (LOS Committee, or Committee) for the 2002 annual meeting. At this meeting, the Chair also presented sixty more proposed definitions, based on the *Consolidated Glossary of Technical Terms Used in the United Nations Convention on the Law of the Sea*, published by the International Hydrographic Organization (IHO) Technical Aspects of the Law of the Sea Working Group.³⁰ This analysis has also been published in the *California Western International Law Journal*, with Professor John E. Noyes' commentary.³¹

For the 2003 annual meeting, the Chair researched definitions in the IHO's *Glossary of ECDIS-Related Terms*, such as a dictionary of electronic chart display and information system-related terms (hence the ECDIS-Related acronym),³² plus other suggested terms, for a total of fifty-three con-

28. UNCLOS, *supra* note 2. The 1994 Agreement, *supra* note 2, modified UNCLOS in certain respects not relevant to this analysis.

29. See Walker & Noyes, *Definitions I*, *supra* note 1.

30. *Consolidated Glossary*, *supra* note 8, at 47-62, reprinted as Annex A1-5 in NWP 1-14M ANNOTATED, *supra* note 8, at 51-77. In this article, *Consolidated Glossary* page numbers will refer to those in NWP 1-14M ANNOTATED. The *Consolidated Glossary* has not been updated. E-mail from Steve Shipman, *supra* note 8.

31. See Walker & Noyes, *Definitions II*, *supra* note 1.

32. See *ECDIS Glossary*, *supra* note 3.

sidered terms. Unlike the *Consolidated Glossary*,³³ the *ECDIS Glossary*, insofar as can be determined, is not in print but is available online.³⁴

Contemporaneous with the Fall 2003 ABILA meeting and the Committee's contribution to the program at that meeting, the U.S. Senate Foreign Relations Committee held several hearings on the Convention. Among the proposed recommended understandings for Senate advice and consent to ratification were several proposed definitions. Others may emerge in the Committee report to the Senate, if the Committee recommends that the Senate give advice and consent to the treaty.³⁵ For this reason, and because other terms have been submitted for consideration, the definitions project will continue for at least another year.

The procedure that has been followed is the Committee Chair's circulating *Initial Drafts* among ABILA LOS Committee members and perhaps other interested persons (e.g., other ABILA members not LOS Committee members wishing to participate) for comments before the meeting. ABILA LOS Committee member meeting attendees will consider an *Initial Draft* and these comments at a Committee meeting that occurs during the annual meeting. If there are corrections or changes, a revised *Initial Draft* may follow. The Committee Chair will then circulate a *Tentative Draft* among Committee members and perhaps other interested persons for further comments. In general, a *Tentative Draft*, once approved by the Committee, will not be subject to general discussion and wholesale revision until the end of the process, unless the Committee wishes to do so for a particular term. A resulting *Final Draft*, combining the work of several years, may be published in ILA materials, for consideration by the general ILA membership and others, with an invitation to submit more comments. If, at the end of this stage, the Committee wishes to revisit and discuss a term, it will be placed on the Committee agenda for the next ABILA annual meeting, or it may be considered in correspondence.

As with all ILA projects, the *Final Draft* will not necessarily represent any State's or international organization's practice, views or policy, unless that State or international organization chooses to adopt it in whole or part.

Formats will follow an English alphabetical order, e.g., "mile" ahead of "ocean space." New terms will be interspersed among terms formerly considered, e.g., "adjacent coasts" and "aid to navigation," appeared under head-

33. See *supra* note 8.

34. See *supra* note 3.

35. UNCLOS, *supra* note 2, art. 309, bars reservations or exceptions to the treaty unless UNCLOS expressly permits them. *Id.* art. 310, says that article 309 does not preclude a State from making declarations or statements with a view toward, *inter alia*, harmonizing their laws and regulations with UNCLOS, provided these declarations or statements do not purport to exclude or modify UNCLOS' legal effect in its application to that State. 5 COMMENTARY, *supra* note 12, ¶¶ 309.1-309.10, 310.1-310.6. For partial texts of the hearings, see *Hearings*, *supra* note 11. 2 MULTILATERAL TREATIES, *supra* note 12, publishes States' declarations to UNCLOS and its Final Act; *id.* at 266-68, publishes States' declarations to the 1994 Agreement, *supra* note 2.

ings 1A. and 2A., ahead of “applicable and generally accepted” from the 2002 *Tentative Draft No. 1*, and “artificial island” appeared under heading A.1. After reciting a term for definition, a Discussion and Analysis will follow, including reference to UNCLOS provisions, other treaties, e.g., the 1958 law of the sea (LOS) conventions,³⁶ treatises, cases, articles, etc. Comments will summarize correspondence, those who propose terms to simplify correspondence, etc. Conclusions will end each entry. This *Initial Draft* begins with a *Tentative Final Draft* for three terms first considered at the 2001 meeting that have received comments: “genuine link,” “other rules of international law” and “ship.”³⁷ These terms, and others that have not elicited discussion, will be blended into a *Final Draft*, along with terms the 2003 Committee meeting considers. Unless the Committee decides otherwise, the definitions project will end with consideration and possible approval of that *Final Draft*, perhaps at the 2004 annual meeting.

This method of analysis is similar to that the ILA employed in drafting the *Helsinki Principles of Maritime Neutrality*,³⁸ the American Law Institute in developing the *Restatements*, and the International Institute of Humanitarian Law in preparing the *San Remo Manual*.³⁹

The project will not revisit terms UNCLOS defines;⁴⁰ it will not enter debates on what are customary norms requiring no definition of terms⁴¹ or the wisdom of ratifying UNCLOS.⁴²

The chair researched terms defined in the *ECDIS Glossary*, Appendix 3 to *Specifications for Chart Content and Display Aspects of ECDIS*, fifth edition, published by the IHO’s International Hydrographic Bureau. *ECDIS Glossary* terms, and a few other terms suggested for definition, are the only ones to be considered for 2003 unless Committee members wish to submit other terms.⁴³

As was the case for the 2001 and 2002 *Drafts*,⁴⁴ terms the LOS Convention defines but are also listed and defined elsewhere will not be redefined in this analysis. These terms include:

“archipelagic sea lane”;⁴⁵

36. Continental Shelf Convention, *supra* note 16; Fishery Convention, *supra* note 16; High Seas Convention, *supra* note 16; Territorial Sea Convention, *supra* note 16. These four Conventions are referred to collectively as the 1958 LOS Conventions.

37. See *infra* Part II.A.

38. *Helsinki Principles*, *supra* note 17.

39. See generally SAN REMO MANUAL, *supra* note 19.

40. See *infra* notes 46-57 and accompanying text.

41. Take, for example, the now largely resolved debate on the customary maximum width of the territorial sea. See generally WALKER, *supra* note 21, at 260-68.

42. For a discussion of this issue, see *id.* at 305-06.

43. See *supra* note 23.

44. See Walker & Noyes, *Definitions I*, *supra* note 1; Walker & Noyes, *Definitions II*, *supra* note 1; see also *supra* notes 6, 8, and accompanying text.

45. Compare UNCLOS, *supra* note 2, art. 53, with *Consolidated Glossary*, *supra* note 8, at 53, and *Annex 1: Glossary of Technical Terms*, in PETER J. COOK & CHRIS M. CARLETON, CONTINENTAL SHELF LIMITS: THE SCIENTIFIC AND LEGAL INTERFACE 321 (2000) [hereinafter

“archipelagic state”;⁴⁶
 “Area”;⁴⁷
 “continental margin”;⁴⁸
 “continental shelf”;⁴⁹
 “enclosed sea”;⁵⁰
 “exclusive economic zone” (EEZ);⁵¹
 “internal waters”;⁵²
 “island”;⁵³
 “low-tide elevation”;⁵⁴
 “semi-enclosed sea”;⁵⁵
 “territorial sea.”⁵⁶

If *Consolidated Glossary*-defined terms may have a broader or different meaning that includes, e.g., a geographic definition in addition to rules UNCLOS supplies, e.g., “strait,” the 2002 *Tentative Draft* analysis included them. *Consolidated Glossary*-defined terms relevant to the law of the sea but not often appearing in the LOS Conventions, e.g., latitude and longitude,⁵⁷ that may be necessary or useful in understanding the law of the sea and the Conventions are also included. Most, if not all, *ECDIS Glossary* terms pro-

Annex I].

46. Compare UNCLOS, *supra* note 2, art. 46(a), with *Consolidated Glossary*, *supra* note 8, at 53, and *Annex 1*, *supra* note 45, at 321.

47. Compare UNCLOS, *supra* note 2, art. 1(1)(1), with *Consolidated Glossary*, *supra* note 8, at 53, and *Annex 1*, *supra* note 45, at 321. *ECDIS Glossary* defines “area” (not capitalized as in LOS Convention references) as “[t]he 2-dimensional geometric primitive of an object that specifies location.” *ECDIS Glossary*, *supra* note 3, at 1 (italics in original refer to other terms *ECDIS Glossary* defines); see also *infra* pp. 241-42.

48. Compare UNCLOS, *supra* note 2, art. 76(3), with *Consolidated Glossary*, *supra* note 8, at 57, and *Annex 1*, *supra* note 45, at 323. See generally Victor Prescott, *Resources of the Continental Margin and International Law*, in COOK & CARLETON, *supra* note 45, at 64; Philip A. Symonds et al., *Characteristics of Continental Margins*, in COOK & CARLETON, *supra* note 45, at 25.

49. Compare UNCLOS, *supra* note 2, art. 76(1), with *Consolidated Glossary*, *supra* note 8, at 58, and *Annex 1*, *supra* note 45, at 323. See generally Robert W. Smith & George Taft, *Legal Aspects of the Continental Shelf*, in COOK & CARLETON, *supra* note 45, at 17.

50. Compare UNCLOS, *supra* note 2, art. 122, with *Consolidated Glossary*, *supra* note 8, at 60, and *Annex 1*, *supra* note 45, at 323.

51. Compare UNCLOS, *supra* note 2, art. 55, with *Consolidated Glossary*, *supra* note 8, at 60, and *Annex 1*, *supra* note 45, at 324.

52. Compare UNCLOS, *supra* note 2, art. 8(1), with *Consolidated Glossary*, *supra* note 8, at 64.

53. Compare UNCLOS, *supra* note 2, art. 121(1), with *Consolidated Glossary*, *supra* note 8, at 64, and *Annex 1*, *supra* note 45, at 325.

54. Compare UNCLOS, *supra* note 2, art. 13(1), with *Consolidated Glossary*, *supra* note 8, at 65, and *Annex 1*, *supra* note 45, at 325.

55. Compare UNCLOS, *supra* note 2, art. 122, with *Consolidated Glossary*, *supra* note 4, at 72, and *Annex 1*, *supra* note 45, at 328.

56. Compare UNCLOS, *supra* note 2, arts. 2-16, with *Consolidated Glossary*, *supra* note 4, at 76, and *Annex 1*, *supra* note 45, at 329.

57. See Walker & Noyes, *Definitions II*, *supra* note 1, at 270-71, 273.

posed for definition fall into the latter category. *ECDIS Glossary* terms of a more technical nature have been selectively omitted. The 2003 *Tentative Draft*'s goal is to include terms of a more generic nature that seem useful to international lawyers and to exclude those that seem more technical, particularly those involving electronic emissions, since the latter may become rapidly superseded. Thus "area" as a generic word is included, and "AIS" as a technical term is omitted.⁵⁸ A few *ECDIS* terms that are also in the *Consolidated Glossary* proposals, e.g., "aid to navigation," will be referenced in the proposed *Consolidated Glossary*-based definitions.⁵⁹ Besides UNCLOS references, the ensuing analysis adds terms' usage in the 1958 LOS Conventions and a few secondary sources, following *Restatement* and similar models. The secondary source analysis is not intended to be exhaustive; Committee members' suggestions for other seminal sources are welcome, but the hope is that this project will not have overlong notations.

Committee members are encouraged to recommend adding or deleting terms besides recommending amendments.

Headquartered in Monaco, the IHO is organized under the Convention on the International Hydrographic Organization.⁶⁰ Its sixty-two member States as of January 1, 2003, include many maritime countries, among them the United States.⁶¹ Treaty succession principles for China, the former USSR and the former Yugoslavia, listed as members, may mean that even more countries are Convention parties.⁶² Certain States commonly considered open registry states—Panama, Liberia, Honduras—do not belong to the IHO, however. The IHO, formerly the International Hydrographic Bureau, organized in 1921 to make navigation easier and safer by improving nautical charts and documents, is an intergovernmental organization that is purely consultative and technical in nature. Its goals are to coordinate activities of national hydrographic offices, achieving the greatest possible uniformity in nautical charts and documents, adopting reliable and efficient methods of carrying out and exploiting hydrographic surveys, and developing the sciences involved in hydrography and techniques used in descriptive oceanography. Its Hydrographic Bureau is responsible for bringing about a close, permanent association among national hydrographic offices; studying matters related to hydrography and its allied sciences and techniques, and collecting necessary papers; furthering exchange of nautical charts and documents between member governments' hydrographic offices; circulating appropriate documents; tendering guidance and advice, if requested, to

58. See *ECDIS Glossary*, *supra* note 3, at 1; *supra* note 47 and accompanying text.

59. See *ECDIS Glossary*, *supra* note 3, at 1; Walker & Noyes, *Definitions II*, *supra* note 1, at 226-27.

60. IHO Convention, *supra* note 24, art. 1.

61. TIF, *supra* note 25, at 395.

62. See *generally id.*; Symposium, *supra* note 26; Walker, *supra* note 26 (discussing treaty succession issues for China, Federal Republic of Germany, German Democratic Republic, former USSR, former Yugoslavia; Ukraine already a party).

States engaged in establishing or expanding their hydrographic service; encouraging coordination of hydrographic surveys with relevant oceanographic activities; extending and facilitating application of oceanographic knowledge for the benefit of navigators; cooperating with international organizations and scientific institutions with related objectives.⁶³

II. PROPOSED DEFINITIONS

The format for proposed definitions follows that of prior drafts. After reciting, in quotations, a term proposed for definition in English alphabetical order,⁶⁴ a discussion and analysis follows. The discussion and analysis include the term as defined in other sources, references to the LOS Conventions, cross-references to other terms proposed for definition in this and prior Committee research, and references to other primary and secondary materials. The discussion and analysis of primary and secondary material references are not exhaustive; in the main, they follow the approach of the *Restatements* and similar publications.⁶⁵ A comment paragraph identifies the term's proponent and may recite administrative matters. The conclusion, which proposes the version to be adopted by the Committee, sometimes includes a summary of analysis or reasons why a proposed definition may differ from a glossary version. This format will carry over into later drafts. The *Final Draft* may reverse and revise the order of conclusion and discussion and analysis for each term, while dropping the comment paragraphs, to bring the format into one similar to the *Restatements* and similar publications.

Part II.A. is the *Proposed Final Draft* for three terms that have been the subject of comment and debate: "genuine link," "other rules of international law," and "ship" or "vessel." If there is no objection to this *Proposed Final Draft*, it will be included as part of a *Final Draft*. Part II.B. is the *Tentative Draft* for IHO *ECDIS Glossary* and other terms, submitted to the Committee for the first time. If there is no debate or comment on these terms, they too will be inserted in a *Final Draft* for future consideration.

63. IHO Convention, *supra* note 24, pmbl., arts. 1-4, 8, 21 U.S.T. at 1859-61, 1863, 751 U.N.T.S. at 43-45, 47; *see also* CHURCHILL & LOWE, *supra* note 27, at 415-16.

64. *See supra* p. 224.

65. *See supra* note 18 and accompanying text.

**A. DEFINING TERMS IN THE 1982 LAW
OF THE SEA CONVENTION
(PROPOSED FINAL DRAFT FOR TERMS D, G, I,
DECEMBER 12, 2003)**

1. INTRODUCTION

As noted in the Introduction, Part II.A proposes amendments for three definitions in prior drafts: D. "Genuine link"; G. "Other rules of international law"; and I. "Ship" or "Vessel." All other proposed definitions in prior drafts for the 2001 round of definitions remain the same.⁶⁶ Ellipses indicate gaps; renumbered notes conform to other 2003 proposals.

2. DEFINITIONS

D. "Genuine link."

1. *Discussion and Analysis.* "Genuine link" appears in UNCLOS, Article 91(1):

Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship.

UNCLOS Article 94(1), carrying over language from Article 5(1) of the High Seas Convention, declares: "Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag." Ensuing Article 94 provisions elaborate on these requirements.⁶⁷ Article 217 imposes environmental enforcement requirements

66. See *supra* notes 29-31 and accompanying text. Walker & Noyes, *Definitions II*, *supra* note 1, at 322-23, also suggests reviewing ongoing work of the International Law Association and other groups, particularly with respect to the continental shelf. The Chair agrees and proposes to include this type of review in the next draft of this project.

67. UNCLOS, *supra* note 2, arts. 91(1), 94(1), 94(3), 94(5); High Seas Convention, *supra* note 16, arts. 5(1), 94(1). *Id.* art. 10, was a source for UNCLOS, arts. 94(3), 94(5). For discussion of the similarities between High Seas Convention, art. 5(1), and UNCLOS, art. 94(1), and the development of each, see ROBIN R. CHURCHILL & CHRISTOPHER HEDLEY, THE MEANING OF THE "GENUINE LINK" REQUIREMENT IN RELATION TO THE NATIONALITY OF SHIPS 6, ¶ 3.3.2, at 19, ¶ 4.1, at 41, ¶ 4.6, at 55 (Oct. 2000), available at www.oceanlaw.net/hedley/pubs/ITF-Oct2000.pdf; 3 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY ¶¶ 91.9(c), 94.2 (Satya N. Nandan et al., eds., 1995) [hereinafter 3

on registry States.⁶⁸ The High Seas Convention, Article 5(1), has similar language:

Each State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must be a genuine link between the State and the ship; in particular, the State must effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.

Neither Convention defines “genuine link.” A principal difference between the Conventions is their scope; UNCLOS applies its Articles 91 and 94 terms in all ocean areas, while the High Seas Convention governs only on the high seas.⁶⁹ Both Conventions leave it to States to fix specific registry requirements in their discretion.⁷⁰

Among the High Seas Convention languages, translation of the Spanish text suggests the same meaning as “genuine link” in the English language version. The French language version translates to “substantial” or “significant” link, which suggests some difference of meaning. The same distinction appears true for UNCLOS, Article 91(1).⁷¹ The High Seas Convention’s preparatory works developed by the International Law Commission suggest that mere administrative formality, i.e., registry only or grant of a certificate of registry without submitting to registry state control, does not satisfy that Convention’s “genuine link” requirement. However, States would be free to establish their own conditions for registration.⁷² The 1958 United Nations Conference on the Law of the Sea added the “particularly” language, but

there was disagreement as to whether the requirement of effective exercise of jurisdiction and control by the flag State was an indispensable, if not necessarily the only, element of the genuine link (the view of the traditional maritime States), or whether the requirement was independent of the genuine link (the view of flag of convenience States).⁷³

Preparatory work leading to the 1982 Convention does not explain why the High Seas Convention Article 5(1) “particularly” language was dropped, to

COMMENTARY]; see also Alex G. Oude Elferink, *The Genuine Link Concept: Time for a Post Mortem?*, in I.F. DEKKER & H.H.G. POST, ON THE FOUNDATIONS AND SOURCES OF INTERNATIONAL LAW 43-44 (2003).

68. UNCLOS, *supra* note 2, art. 217; see also CHURCHILL & HEDLEY, *supra* note 67, ¶ 4.2, at 43; 4 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY ¶¶ 217.8(a)-217.8(j) (Myron H. Nordquist, et al., eds., 1991) [hereinafter 4 COMMENTARY].

69. UNCLOS, *supra* note 2, arts. 91, 94; High Seas Convention, *supra* note 16, art. 5(1); see also 3 COMMENTARY, *supra* note 67, ¶¶ 91.9(f), 94.8(l).

70. *Id.* ¶ 91.9(b).

71. UNCLOS, *supra* note 2, art. 91(1); CHURCHILL & HEDLEY, *supra* note 67, ¶ 3.2, at 11, ¶ 4.2, at 42 (confessing lack of ability in other official Convention languages).

72. CHURCHILL & HEDLEY, *supra* note 67, ¶ 3.3.1, at 19; 3 COMMENTARY, *supra* note 67, ¶¶ 91.9(b)-91.9(c); Oude Elferink, *supra* note 67, at 46-48.

73. CHURCHILL & HEDLEY, *supra* note 67, ¶ 3.3.2, at 20.

be reinserted in similar language in UNCLOS, Article 94(1). There is no explanation of how this shift affects the meaning of “genuine link.”⁷⁴

Nevertheless, one observation may be made and a possible conclusion drawn. It would not seem permissible to deduce from the difference between Art. 5 . . . and Art. 91 . . . that the effective exercise of flag State jurisdiction is no longer an element in the genuine link. It does not seem that the drafters of the 1982 Convention had any intention, when deleting the effective exercise of jurisdiction phrase, of affecting the meaning of . . . “genuine link.”⁷⁵

The negotiating history confirms this view. The transfer appears to have been a drafting decision, so that the same language would not appear in Article 91 and in Article 94(1).⁷⁶ The Ship Registration Convention would give substance to a definition of “genuine link,” but its low ratification rate suggests that it would not be appropriate to copy that Convention’s terms into a definition now.⁷⁷

Most, but not all, international court decisions considering the High Seas Convention, Article 5(1) appear to support a view that mere registry is not enough for a genuine link.⁷⁸ States and commentators also divide on the issue.⁷⁹

Whether more than *pro forma* registry is necessary to establish a “genuine link” under the 1982 UNCLOS is not free of doubt. However, the High Seas Convention, Article 5(1)’s “particularly” language was transferred from UNCLOS, Article 91 to UNCLOS, Article 94. Additionally, the requirements in UNCLOS Articles 94(2)-94(7), some of which were derived from the High Seas Convention, Article 10, have been elaborated upon. Combin-

74. CHURCHILL & HEDLEY, *supra* note 67, ¶ 4.3, at 46.

75. *Id.* ¶ 4.3, at 46-47.

76. 3 COMMENTARY, *supra* note 67, ¶¶ 91.9(c), 94.8(b).

77. See U.N. Convention on Conditions for Registration of Ships, Feb. 7, 1986, *reprinted in* 26 I.L.M. 1229 (1987) [hereinafter Ship Registration Convention] (not currently in force); see also CHURCHILL & HEDLEY, *supra* note 67, ¶ 5.1.1, at 61; CHURCHILL & LOWE, *supra* note 27, at 260; 3 COMMENTARY, *supra* note 67, ¶ 91.9(e); 4 COMMENTARY, *supra* note 68, ¶ 217.8(j) (citing and discussing Ship Registration Convention); Oude Elferink, *supra* note 67, at 48. Eleven States are parties to the Ship Registration Convention. MULTILATERAL TREATIES, *supra* note 12, at 41.

78. National court decisions were not considered in the analysis. CHURCHILL & HEDLEY, *supra* note 67, ¶¶ 3.4-3.4.2, at 21-33, ¶¶ 4.4-4.4.2, at 47-53; Oude Elferink, *supra* note 67, at 58-63; see also WALKER, *supra* note 21, at 293.

79. See CHURCHILL & LOWE, *supra* note 27, at 257-63; WALKER, *supra* note 21, at 293-95 (supporting the view that satisfying the genuine link requirement imposes more obligations on States than mere registry); Oude Elferink, *supra* note 67, at 41 (discussing cases and State practice, and stating that the concept is controversial); Alfred H.A. Soons, *Comments, in* DEKKER & POST, *supra* note 67, at 65 (same). Compare, e.g., RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE UNITED STATES §§ 501-02 (1987) (following High Seas Convention, UNCLOS formulae), with CHURCHILL & HEDLEY, *supra* note 67, ¶¶ 3.5-3.6, at 33-40, ¶¶ 4.5-4.6, at 53-67, ¶ 6, at 68-73 (explaining that genuine link requirement has same meaning as in High Seas Convention).

ing those two factors with what seems the weight of recent decisional and commentator authority, it would appear that a “genuine link” requires more than nominal registry. What is enough to satisfy the “genuine link” requirement must be considered on a case-by-case basis.

It has been argued, however, that “genuine link” should mean “ability to exercise jurisdiction and control” rather than “effective exercise of jurisdiction and control.”⁸⁰

2. *Comments.* A Committee member submitted this phrase for definition; the Chair researched the proposed definition. Professor John Noyes commented on the proposed definition in the 2002 and 2003 drafts, Alex Oude Elferink submitted a book chapter on the issue, and another Committee member, Todd Jack, offered comments.⁸¹ This revision attempts to meet these critiques and comments.

3. *Conclusions.* This further revised definition of “genuine link” is proposed:

“Genuine link” in the 1982 LOS Convention, Article 91, means more than mere registration of a ship with a State; “genuine link” requires, for example, connections between a flag State under whose laws a ship is registered such that the flag State has the ability to exercise effective jurisdiction and control over the ship when registration is granted; connections between the flag, i.e., registry, State and the ship’s crew; connections between the flag, i.e., registry, State and the ship’s officers; or connections between the flag, i.e., registry, State and the ship’s beneficial owners.

This revised definition attempts to recombine standards in the High Seas Convention, Article 5(1), as restated in UNCLOS, Articles 91 and 94(1). It leaves to practice pursuant to Article 94 of the Convention the decision of what is effective exercise and control of a ship’s administrative, technical and social matters, and it perhaps also leaves the decision on these matters to treaties as well.⁸² What is appropriate exercise and control is a matter of national laws, but in any case it must be effective exercise and control. Moreover, a State whose nationals comprise the entire crew, or the entire wardroom of ship’s officers, could not claim a “genuine link” if that State is not the flag, i.e., registry, State.

In LOAC (Law of Armed Conflict)-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the Charter supersedes the Convention, or if *jus cogens* norms apply.⁸³

80. Walker & Noyes, *Definitions I*, *supra* note 1, at 380-83 (Professor Noyes responding to Walker’s comments earlier in same article, *id.* at 355-57).

81. Walker & Noyes, *Definitions I*, *supra* note 1, at 380-83; Walker & Noyes, *Definitions II*, *supra* note 1, at 314-16; Oude Elferink, *supra* note 67; comments of Todd Jack on file with Chair.

82. See Walker & Noyes, *Definitions II*, *supra* note 1, at 316.

83. See *infra* notes 85-111 and accompanying text. For example, this proposed definition does not affect the LOAC rules that a merchant ship flying the flag of an enemy State is con-

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G. "Other rules of international law."

1. *Discussion and Analysis.* This phrase, sometimes stated slightly differently, appears throughout UNCLOS. For example, it appears in the Preamble and in Articles 2(3) (territorial sea); 19, 21, and 31 (territorial sea innocent passage); 34(2) (straits transit passage); 52(1) (archipelagic sea lanes passage); incorporation by reference of Articles 19, 21, and 31); 58(1) and 58(3) (exclusive economic zone); 78 (continental shelf; coastal State rights do not affect superjacent waters, i.e., territorial or high seas; coastal State cannot infringe or unjustifiably interfere with "navigation and other rights and freedoms of other States as provided in this Convention"); 87(1) (high seas); 138 (the Area); 293 (court or tribunal having jurisdiction for settling disputes must apply UNCLOS and "other rules of international law" not incompatible with the Convention); 303(4) (archeological, historical objects found at sea, "other international agreements and rules of international law regarding the protection of objects of an archeological and historical nature"); and Annex III, Article 21(1).

The phrase also appears in the High Seas Convention, Article 2, and the Territorial Sea Convention, Article 1. Although the phrase does not appear in other 1958 LOS Conventions, the Continental Shelf Convention, Articles 1 and 3, says the 1982 LOS Convention does not affect the status of waters listed above as high seas, and the Fishery Convention, Articles 1-8, declares that it does not affect other high seas rights. The implication from these two treaties is that, except as the Shelf or Fishery Conventions derogate from High Seas or Territorial Sea Convention rules, those treaties' terms must be read into the Shelf and Fishery Conventions.

The High Seas Convention⁸⁴ and UNCLOS' navigational articles,⁸⁵ i.e., those dealing with navigation through the territorial seas, high seas, etc., re-

clusive evidence of its enemy character, and that a merchant ship flying the flag of a neutral State is prima facie evidence of its neutral character. See *Helsinki Principles*, *supra* note 17, ¶¶ 5.1.1-6.1. See generally NWP 1-14M ANNOTATED, *supra* note 8, ¶¶ 7.4-7.10, at 380-97, 8.2.2-8.2.3, at 408-18, 8.3.1-8.3.2, at 419-21, 8.4.1, at 422; SAN REMO MANUAL, *supra* note 19, ¶¶ 112-24, 135-40, 146-52. These principles do not affect the law of the sea relating to piracy or the slave trade. A pirate ship or a slaver, although flying some State's flag, is not entitled to that State's protection. See 1982 LOS Convention, *supra* note 2, arts. 99-107, 110; High Seas Convention, *supra* note 16, arts. 13-22; C. JOHN COLOMBOS, THE INTERNATIONAL LAW OF THE SEA §§ 457-64, 473-80A (6th ed. 1967); 3 COMMENTARY, *supra* note 67, ¶¶ 99.1-107.7(b), 110.1-10.11(h); NWP 1-14M ANNOTATED, *supra* note 8, ¶¶ 3.4-3.6, at 221-26; 2 D.P. O'CONNELL, THE INTERNATIONAL LAW OF THE SEA 801-03, 966-83 (I.A. Shearer ed., 1984).

84. See, e.g., High Seas Convention, *supra* note 16, pmb1. (declaring it restates custom); U.S. DEP'T OF THE NAVY, ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS: NWP 9 (REV. A)/FMFM 1-10 ¶ 1.1, at 1-2 n.4 (1989); cf. 1 O'CONNELL, *supra* note 83, at 475-76.

85. RESTATEMENT (THIRD), *supra* note 79, pt. V, introductory note, at 3-5; NWP 1-14M ANNOTATED, *supra* note 8, ¶ 1.1; cf. John Norton Moore, *Introduction*, 1 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY xxviii (Myron H. Nordquist, ed., 1985); Bernard H. Oxman, *International Law and Naval and Air Operations at Sea*, in

state customary law. The increasing number of UNCLOS ratifications strengthens a view that its navigational articles restate custom.⁸⁶ The result is that these provisions bind States as custom, even if they are not parties to the 1958 LOS Conventions or UNCLOS. Those countries that are parties to either the 1958 LOS Conventions or UNCLOS⁸⁷ are bound by both treaty and customary norms.⁸⁸

Most authorities agree that the phrase, "other rules of international law," refers to the LOAC.⁸⁹ This being the case, the phrase means that the LOS is

THE LAW OF NAVAL OPERATIONS 19, 29 (Naval War Coll. Int'l Law Studies Series, Vol. No. 64, Horace B. Robertson, Jr. ed., 1991) [latter hereinafter Robertson].

86. MULTILATERAL TREATIES, *supra* note 12, at 230-32, lists 141 States as parties to UNCLOS. 111 States have ratified the 1994 Agreement, *supra* note 2, at 42-43 n.1; 120 have declared it provisionally applicable. MULTILATERAL TREATIES, *supra* note 12, at 266-68.

87. See TIF, *supra* note 25, at 385, 418-19 (listing sixty States party to Continental Shelf Convention, thirty-seven parties to Fishery Convention, sixty-four parties to High Seas Convention, fifty-three parties to Territorial Sea Convention); MULTILATERAL TREATIES, *supra* note 12, at 230-32 (141 parties to UNCLOS). Treaty succession principles may suggest that even more States are parties. See generally Symposium, *supra* note 26; Walker, *supra* note 26.

88. Statute of the International Court of Justice, 1978 I.C.J. Acts & Docs. art. 38(1) [hereinafter I.C.J. Statute]; see also RESTATEMENT (THIRD), *supra* note 79, §§ 102-103.

89. The phrase "other rules of international law" appears throughout UNCLOS. See *supra* text page 232. The following sources discuss the clause; most declare that "other rules of international law" means the LOAC: Report of the International Law Commission on the Work of Its Eighteenth Session, [1966] 2 Y.B. Int'l L. Comm'n 172, 267-68, U.N. Doc. A/6309/Rev.1; GEORG SCHWARZENBERGER, A MANUAL OF INTERNATIONAL LAW 199-200 (5th ed. 1967); WALKER, *supra* note 21, at 191-92; Boleslaw Boczek, *Peaceful Purposes Provisions of the United Nations Convention on the Law of the Sea*, 20 OCEAN DEVEL. & INT'L L. 359, 360 (1989); Herbert W. Briggs, *Unilateral Denunciation of Treaties: The Vienna Convention and the International Court of Justice*, 68 AM. J. INT'L L. 51 (1974); Carl Q. Christol & C.R. Davis, *Maritime Quarantine: The Naval Interdiction of Offensive Weapons and Associated Material to Cuba, 1962*, 56 AM. J. INT'L L. 525, 539-40 (1963); Scott Davidson, *United States Protection of Reflagged Kuwaiti Vessels in the Gulf War: The Legal Implications*, 4 INT'L J. ESTUARINE & COASTAL L. 173, 178 (1989); W.J. Fenrick, *Legal Aspects of Targeting in the Law of Naval Warfare*, 1991 CAN. Y.B. INT'L L. 238, 245-246; A.V. Lowe, *The Commander's Handbook on the Law of Naval Operations and the Contemporary Law of the Sea*, in Robertson, *supra* note 85, at 109, 132; Bernard H. Oxman, *The Regime of Warships Under the United Nations Convention on the Law of the Sea*, 24 VA. J. INT'L L. 809, 811 (1984); Natalino Ronzitti, *The Crisis of the Traditional Law Regulating International Armed Conflicts at Sea and the Need for Its Revision*, in THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES 1, 15 (N. Ronzitti ed., 1988); Francis V. Russo, *Neutrality at Sea in Transition: State Practice in the Gulf War as Emerging International Customary Law*, 19 OCEAN DEVEL. & INT'L L. 381, 384 (1988); A.G.Y. Thorpe, *Mine Warfare at Sea—Some Legal Aspects of the Future*, 18 OCEAN DEVEL. & INT'L L. 255, 257 (1987); Walker & Noyes, *Definitions I*, *supra* note 1, at 367-83 (Professor Noyes' comments); Rudiger Wolfrum, *Reflagging and Escort Operations in the Persian Gulf: An International Law Perspective*, 30 VA. J. INT'L L. 387, 396, 398 (1989). Dissenters may include CHURCHILL & LOWE, *supra* note 27, at 208, who mention use of force as an example, but say: "States may be bound by many other obligations deriving from general international law." See also *id.* at 421-32; 2 O'CONNELL, *supra* note 83, at 1112-13 (referring to 1 *id.*, at 747-69, in the context of merchant ships); Luan Low & David Hodgkinson, *Compensation for Wartime Environmental Damage: Challenges to International Law After the Gulf War*, 35 VA. J. INT'L L. 405, 421 (1995) (discussing environmental protections in the LOS

subject to the LOAC in situations where the latter applies. At the same time, as between neutrals engaged in merchant ship navigation far from an area of armed conflict on, over or under the sea, for example, the LOS continues in effect. UNCLOS, Article 88, which declares that the high seas are reserved for peaceful purposes, is not to the contrary. Like the 1958 LOS Conventions,

That provision does not preclude . . . use of the high seas by naval forces. Their use for aggressive purposes, which would . . . violat[e] . . . Art. 2(4) of the [U.N.] Charter . . . , is forbidden as well by Art. 88. See also [UNCLOS,] Art. 301, requiring parties, in exercising their rights and p[er]forming their duties under the Convention, to refrain from any threat or use of force in violation of the Charter.⁹⁰

(U.N. Charter Article 103 applies to UNCLOS, like any treaty; U.N. Security Council decisions⁹¹ or States' individual or collective self-defense responses can supersede inconsistent LOS treaty provisions.⁹² The same analysis applies to *jus cogens* norms, although there is a recurring debate on what principles, if any, have ascended to *jus cogens* status.⁹³)

context but saying nothing about the clauses, although they elliptically seem to recognize the principle); Margaret T. Okorodudu-Fubara, *Oil in the Persian Gulf War: Legal Appraisal of an Environmental Disaster*, 23 ST. MARY'S L.J. 123, 195-97 (1991).

90. RESTATEMENT (THIRD), *supra* note 79, § 521, cmt. b, (citing UNCLOS, *supra* note 2, arts. 88, 301; U.N. Charter art. 2(4)); and referring to RESTATEMENT (THIRD), *supra* note 79, § 905, cmt. g); *accord* Legality of the Threat or Use of Nuclear Weapons, 1996 I.C.J. 226, 244 (July 8) (advisory op.); 3 COMMENTARY, *supra* note 67, ¶¶ 87.9(i), 88.1-88.7(d); Frank Russo, Jr., *Targeting Theory in the Law of Naval Warfare*, 30 NAV. L. REV. 1, 8 (1992); *see also* CHURCHILL & LOWE, *supra* note 27, at 170-71, 207-08, 411, 430-31; *Helsinki Principles*, *supra* note 17, ¶ 1.2, at 499; Oxman, *supra* note 89, at 814; John E. Parkerson, Jr., *International Legal Implications of the Strategic Defense Initiative*, 116 MIL. L. REV. 67, 79-85 (1987). *See generally* Boczek, *supra* note 89. UNCLOS, *supra* note 2, arts. 19(2)(a), 39(1)(b), forbid activity during a foreign ship's innocent passage or straits transit passage that is a "threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State," *id.*, art. 19(2)(a), or "of States bordering the strait," *id.* art. 39(1)(b); *see also* U.N. CHARTER art. 2(4); LELAND M. GOODRICH ET AL., CHARTER OF THE UNITED NATIONS 43-55 (3d ed. 1969); 1 BRUNO SIMMA, THE CHARTER OF THE UNITED NATIONS 112-36 (2d ed. 2002) (giving an analysis of U.N. CHARTER art. 2(4)).

91. U.N. CHARTER arts. 25, 48, 103; *see also* GOODRICH ET AL., *supra* note 90, at 614-17; 2 SIMMA, *supra* note 90, at 1292-1302; George K. Walker, *Information Warfare and Neutrality*, 33 VAND. J. TRANSNAT'L L. 1079, 1128-29 (2000) (collecting sources).

92. U.N. CHARTER arts. 51, 103; *see also* sources cited in George K. Walker, *Anticipatory Collective Self-Defense in the Charter Era*, in THE LAW OF MILITARY OPERATIONS 365, 396-425 (Naval War Coll. Int'l Law Studies Series, Vol. No. 72, Michael J. Schmitt ed., 1998); George K. Walker, *Anticipatory Collective Self-Defense in the Charter Era: What the Treaties Have Said*, 31 CORNELL INT'L L.J. 321 (1998). For example, in a self-defense boarding situation under U.N. CHARTER arts. 51, 103, the law of self-defense trumps LOS Convention, *supra* note 2, art. 110, and High Seas Convention, *supra* note 16, art. 22, approach and visit rules. In LOAC-governed situations, visit, search and diversion principles apply. *See Helsinki Principles*, *supra* note 17, ¶ 5.2.1, at 509; NWP 1-14M ANNOTATED, *supra* note 8, ¶¶ 7-6-7.6.1, at 387-89; 2 O'CONNELL, *supra* note 83, at 801-09, 1114-15; SAN REMO MANUAL, *supra* note 19, ¶¶ 118-24; WALKER, *supra* note 21 at 357-62.

93. *See* Vienna Convention on the Law of Treaties, May 23, 1969, arts. 53, 64, 8 I.L.M.

It might be argued that UNCLOS, Article 293(1) and Annex III, Article 21(1), subordinate other rules of international law to UNCLOS. Those provisions read:

Article 293
Applicable Law

1. A court or tribunal having jurisdiction under this section [UNCLOS, Articles 286-96] shall apply this Convention and other rules of international law not incompatible with this Convention.

Article 21
Applicable Law

1. The contract shall be governed by the terms of the contract, the rules, regulations and procedures of the Authority, Part XI [UNCLOS, Articles 191-233] and other rules of international law not incompatible with this Convention.

The negotiating history is sparse on this point.⁹⁴ However, the part of the Convention to which these provisions refer is the part containing the other rules clauses. It seems, therefore, that the ultimate result is that a court, tribunal or other decision-maker must apply the LOAC as part of the law of the Convention incorporated by reference in appropriate situations through the other rules clauses.

An illustration of the difference between LOAC and LOS standards is the LOAC rule that the flag flown determines whether a merchant ship operates as a neutral or an enemy vessel.⁹⁵ UNCLOS, Articles 91 and 94, follow genuine link principles for determining a merchantman's nationality, following the High Seas Convention, Article 5(1), which today is a customary⁹⁶ LOS rule.⁹⁷

Professor Noyes advocates a broader potential definition of the phrase, particularly with reference to UNCLOS, Article 293, part of the dispute set-

679, 698-99, 703, 1155 U.N.T.S. 331, 344, 347; RESTATEMENT (THIRD), *supra* note 79, §§ 102 cmt. k, 331 cmt. e, 338(2), 338 cmt. c; IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 5, 488-90, 597-98 (6th ed. 2003) (pointing out uncertainty of *jus cogens*' content); T.O. ELIAS, THE MODERN LAW OF TREATIES 177-87 (1974); 1 OPPENHEIM'S INTERNATIONAL LAW § 2 (Robert Jennings & Arthur Watts eds., 1992); IAN SINCLAIR, THE VIENNA CONVENTION ON THE LAW OF TREATIES 17-18, 218-26 (2d ed. 1984) (discussing progressive development of Vienna Convention principles); Eduardo Jimenez de Arechaga, *International Law in the Past Third of a Century*, 159 RECUEIL DES COURS ACADEMIE DE DROIT INT'L 1, 64-67 (1978). See generally Mark Weisburd, *The Emptiness of the Concept of Jus Cogens, as Illustrated by the War in Bosnia-Herzegovina*, 17 MICH. J. INT'L L. 1 (1995).

94. UNCLOS, *supra* note 2, arts. 293(1), Annex III, art. 21(1). For some discussion, see 5 COMMENTARY, *supra* note 12, ¶¶ 293.1-293.5.

95. NWP 1-14M ANNOTATED, *supra* note 8, ¶ 7.5; SAN REMO MANUAL, *supra* note 19, ¶¶ 112-113.

96. See *supra* note 84 and accompanying text.

97. See *supra* notes 84-85 and accompanying text.

tlement provisions governing the International Tribunal for the Law of the Sea, and Article 303, protection of the underwater cultural heritage. He concludes that a broader definition “would not . . . preclude reference to the LOAC in matters relating to armed conflict.”⁹⁸

2. *Comments.* The Chair submitted the “other rules of international law” phrase for Committee consideration, based on prior research.⁹⁹ Professor Noyes has offered commentary, supporting the possibility of a more inclusive definition, particularly with respect to UNCLOS, Articles 293 and 303.¹⁰⁰

3. *Conclusions.* The Committee should adopt the prevailing view that the phrase, “other rules of international law,” traditionally and usually means the law of armed conflict (LOAC), but that, in view of recent trends, the phrase may have other meanings:

The traditional understanding is that “other rules of international law” and similar phrases in the 1982 LOS Convention restate a customary rule that the phrase means the law of armed conflict, including the law of naval warfare and the law of maritime neutrality as components of the law of armed conflict. In some instances, however, for example Convention Articles 293(1) and 303, “other rules of international law” and similar phrases in the Convention may include law other than the law of armed conflict.

Although the law of naval warfare and the law of neutrality are usually the only branches of the LOAC considered applicable to war at sea, other LOAC components may apply in some situations, for example, land-based aircraft engaged in combat or attacks over the sea, after which the aircraft return to bases on land. If the Charter supersedes the Convention, or if *jus cogens* norms apply, a different definition may apply.¹⁰¹

. . . .

I. “Ship” or “vessel.”

1. *Discussion and Analysis.* The UNCLOS English text uses “ship” or “vessel” interchangeably; the French, Russian and Spanish language versions use one word.¹⁰² “[A]s far as concerns [UNCLOS], there is no difference between the two English words.”¹⁰³ There is no consensus on the definition of “ship.”¹⁰⁴ Three treaties, one of them not in force, offer definitions

98. Walker & Noyes, *Definitions I*, *supra* note 1, at 374-79 (Noyes’ commentary); Walker & Noyes, *Definitions II*, *supra* note 1, at 311-14; *see also* 3 COMMENTARY, *supra* note 67, ¶ 87.9(b); *supra* notes 84-97 and accompanying text. A few recent commentators would agree with Professor Noyes while citing less authority. *See supra* note 89 and accompanying text.

99. *E.g.*, WALKER, *supra* note 21, at 191-92.

100. Walker & Noyes, *Definitions I*, *supra* note 1, at 374-79 (Noyes’ comments); Walker & Noyes, *Definitions II*, *supra* note 1, at 311-14 (Noyes’ comments).

101. *See supra* notes 91-93 and accompanying text.

102. *See* 2 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, ¶ 1.28 (Satya N. Nandan et al. eds., 1993) [hereinafter 2 COMMENTARY].

103. *Id.*

104. 2 O’CONNELL, *supra* note 83, at 747-50.

similar to each other. The 1962 amendments to the 1954 Oil Pollution Convention say a ship is “any sea-going vessel of any type whatsoever, including floating craft, whether self-propelled or towed by another vessel, making a sea voyage.”¹⁰⁵ The MARPOL 73/78 definition is similar: “a vessel of any type whatsoever operating in the marine environment . . . includ[ing] hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms.”¹⁰⁶ The Ship Registration Convention, not in force, defines a ship as “any self-propelled sea-going vessel used in international seaborne trade for the transport of goods, passengers, or both . . .”¹⁰⁷ National legislation occasionally supplies varying definitions, most of which are in accordance with the Registration Convention statement.¹⁰⁸ General as they are, the 1962 and MARPOL definitions are more inclusive; most seafaring States have accepted them, although MARPOL’s reference to platforms seems inappropriate to include in an UNCLOS definition,¹⁰⁹ given UNCLOS’ separate treatment of them.¹¹⁰

2. *Comments.* The Chair proposed this definition. Professor Noyes has suggested that a precise definition of “ship” or “vessel” may be impossible, but that the words “ship” and “vessel” have the same meaning.¹¹¹ He does not dissent from the prior proposed definition, which stated that if UNCLOS includes a specific definition, e.g., for “warship” in Article 29, that definition should apply.¹¹²

105. 1962 Amendments to the 1954 Convention for Prevention of Pollution of the Sea by Oil, Apr. 11, 1962, Annex, art. 1(1), 17 U.S.T. 1523, 1524, 600 U.N.T.S. 332, 334. International Regulations for Preventing Collisions at Sea, June 17, 1960, Rule 1(c)(1), 16 U.S.T. 794, 796, 536 U.N.T.S. 27, in force for a few States, similarly defines “ship.”

106. International Convention for Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), Feb. 17, 1978, art. 1, Annex I, T.I.A.S. No. I-22484, 1340 U.N.T.S. 61, 63, 66. By 1995, MARPOL 73/78 had been accepted by eighty-three countries, including the United States, representing ninety-two percent of world merchant fleets, measured in gross registered tons (GRT). M.J. BOWMAN & D.J. HARRIS, *MULTILATERAL TREATIES: INDEX AND CURRENT STATUS* 292-93 (11th Cum. Supp. 1995); TIF, *supra* note 25, at 415-16.

107. Ship Registration Convention, *supra* note 77, art. 2(4), 26 I.L.M. at 1237, excluding vessels under 500 GRT. *See also* RESTATEMENT (THIRD), *supra* note 79, § 501 Rep. n.1.

108. *See, e.g.*, 1 U.S.C. § 3 (2000) (defining “vessel” as including “every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water”); 16 U.S.C. § 916(e) (2000); 33 U.S.C. §§ 1471(5), 1502(19) (2000); 47 U.S.C. §153(39) (2000) (excluding aircraft); 2 O’CONNELL, *supra* note 83, at 747-50.

109. *See* WALKER, *supra* note 21, at 285-86.

110. *See* UNCLOS, *supra* note 2, arts. 1(1)(5)(a), 1(1)(5)(b)(i), 11, 56(1)(b)(i), 60, 79(4), 80, 87(1)(d), 208(1), 214, 246(5)(c).

111. Walker & Noyes, *Definitions II*, *supra* note 1, at 316-22 (Noyes’ comments).

112. *See* UNCLOS, *supra* note 2, art. 29; Walker & Noyes, *Definitions I*, *supra* note 1, at 366 (Walker’s comments); *see also* High Seas Convention, *supra* note 16, art. 8(2); Hague Convention (VII) Relative to Conversion of Merchant-Ships into War-Ships, Oct. 18, 1907, arts. 1-6, 205 Consol. T.S. 319, 325-26, *reprinted in* 8(2) AM. J. INT’L L. 133 (Supp. 1908); 2 COMMENTARY, *supra* note 102, ¶¶ 29.1-29.8(b) (showing that UNCLOS art. 29 definition is broader than Hague Convention definition, which serves as the basis for High Seas Convention definition); NWP 1-14M ANNOTATED, *supra* note 8, ¶ 2.1.1, at 109; SAN REMO MANUAL,

3. *Conclusions.* This revised definition of “ship” and “vessel” is proposed:

“Ship” or “vessel” has the same, interchangeable meaning in the English language version of the 1982 LOS Convention. “Ship” is defined as a human-made device, including submersible vessels, capable of traversing the sea. Where “ship” or “vessel” is modified by other words, prefixes or suffixes in the Convention, as in the Article 29 definition of “warship,” those particular definitions apply. A narrower definition of “ship” or “vessel,” otherwise unmodified, should be used if a particular rule’s context or purposes indicate a narrower definition is appropriate.

LOAC definitions would apply through the “other rules of law” provisions for armed conflict situations. The same may be the situation if the Charter supersedes the Convention, or if *jus cogens* norms apply.¹¹³

3. CONCLUSIONS

This analysis may meet commentary critiques on proposed definitions for “genuine link,” “other rules of international law” and “ship” or “vessel.” If it is agreeable with the Committee, and if no other comments are received, definitions for these terms, and others first proposed in 2001, should be ready for final draft treatment.

supra note 19, ¶ 13(g).

113. See *supra* notes 84-97 and accompanying text. Examples of this are the LOAC rules applying to “enemy merchant” ships and “neutral merchant” ships. See *supra* notes 95, 112.

B. DEFINING TERMS IN THE 1982 LOS CONVENTION III: THE *ECDIS GLOSSARY* AND A FEW OTHER TERMS (TENTATIVE DRAFT NO. 3, REVISION 1, DECEMBER 12, 2003)

1. INTRODUCTION

As noted in the general Introduction, each proposed definition begins with a Discussion and Analysis, followed by Comments disclosing the proponent of the definition, and Conclusions that propose a definition of the term, based on the *ECDIS Glossary*.¹¹⁴ Page numbers refer to the *ECDIS Glossary* on-line version (*Glossary*); italicized words are also defined in the *Glossary*. Paragraph symbols refer to the 2002 definitions proposals, except Paragraphs D. “genuine link”; G. “other rules of international law”; and I. “ship” or “vessel,” submitted for further consideration as part of this proposal.¹¹⁵

The Chair, perhaps arbitrarily, selected definitions that appear most closely linked to 1982 LOS Convention terms or provisions, for example, “Area” and “area,”¹¹⁶ as being more helpful to those who research or otherwise use the Convention. The Chair omitted those terms that are of a more technical nature, e.g., those relating to electronic chart display and information systems (ECDIS). The latter, particularly acronyms, seem a step removed from terms that appear to be helpful to those researching or otherwise using UNCLOS, although they are vital to those involved with ECDIS. Global Navigation Satellite System (GLONASS) and Global Positioning System (GPS), the Russian (former U.S.S.R.) and U.S.-operated space-based, radio-positioning navigation and time-transfer systems, respectively,¹¹⁷ and International Maritime Satellite Organization (INMARSAT)¹¹⁸

114. See *supra* notes 36-37 and accompanying text.

115. Walker & Noyes, *Definitions II, supra* note 1, publishes this. *But see* ¶¶ D, G and I, *supra* Part II.A.2., notes 67-113 and accompanying text, submitted for further consideration.

116. See *infra* notes 127-28 and accompanying text.

117. See *ECDIS Glossary, supra* note 3, at 11.

118. See Convention on International Maritime Satellite Organization (INMARSAT), Sept. 3, 1976, 31 U.S.T. 1, 1143 U.N.T.S. 105, implemented by Operating Agreement on International Maritime Satellite Organization (INMARSAT), Sept. 3, 1976, 31 U.S.T. 130, 1143 U.N.T.S. 213, established to manage maritime satellite services. In 1999 INMARSAT transitioned from an international governmental organization to a limited liability company under U.K. law. Today its service extends to land and air mobile communications as well as maritime services. LORI FISLER DAMROSCH ET AL., *INTERNATIONAL LAW: CASES AND MATERIALS* 1564 (4th ed. 2001). To that extent the definition of “INMARSAT” in *ECDIS*

are facts of navigational life today. Committee members may feel the proposed definitions should be expanded to cover terms involved with these systems. However, these terms may change with time. Terms related to the Convention, an example again being “Area” and “area,”¹¹⁹ appear to be more permanent in nature. The *ECDIS Glossary* italicizes cross-references to other *Glossary* definitions, which may lead to still more *Glossary* definitions.¹²⁰ The Chair, again perhaps arbitrarily, chose to limit the regression and to supply words from prior proposed definitions, e.g., in the proposed “Area” and “area” definitions.¹²¹ Although it may seem far-fetched to imagine situations where some terms might be involved in LOAC situations under the Convention’s “other rules of international law” clauses, or used in a U.N. Charter context, or be superseded by *jus cogens*, those caveats are added after each proposed definition. For example, a U.N. Security Council resolution might define a term differently from the meaning this analysis advances for the Convention.¹²²

Some *ECDIS Glossary* definitions, for example, “aid to navigation,” have been defined or covered in prior proposed definitions.¹²³ These will be included in a future draft of those proposals, perhaps with revisions *Glossary* material suggests.

2. PROPOSED DEFINITIONS FROM THE *ECDIS GLOSSARY*

....

A.1A. “Accuracy.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page one, defines “accuracy” as “[t]he extent to which a measured or enumerated value agrees with the assumed or accepted value.” For example, this project, in paragraph E. of the 2002 *Tentative Draft No. 1*, recommend a definition for “mile” or “nautical mile,” noting the critical problem of accuracy in measurement; and paragraph G.2.a. of this *Interim Draft* recommends a definition for “precision.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “accuracy” is proposed:

As used in analysis of the 1982 LOS Convention, “accuracy” means the extent to which a measured or enumerated value, such as “mile” or “nautical mile,” agrees with an assumed or accepted value.

Glossary, *supra* note 3, at 12, has been superseded.

119. See *infra* notes 127-28 and accompanying text.

120. See generally *ECDIS Glossary*, *supra* note 3, quotations refer to words *id.* defines; see, e.g., *infra* notes 127-28 and accompanying text (analyzing “area” and “Area”).

121. See *infra* notes 127-28 and accompanying text.

122. See *supra* notes 84-101 and accompanying text.

123. See *ECDIS Glossary*, *supra* note 3, at 1; Walker & Noyes, *Definitions II*, *supra* note 1, at 226-27 (Walker’s *IHO Glossary Analysis*); *supra* note 59 and accompanying text.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹²⁴

2A.1. “Alarm.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page one, defines “alarm” as “[a]n alarm or alarm system which announces by audible means, or audible and visual means, a condition requiring attention.” This project, within this *Interim Draft*, recommends a definitions in paragraph D.6.a., for “indicator”; and in paragraph I.10.d., for “warning.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “alarm” is proposed:

As used in analysis of the 1982 LOS Convention, “alarm” means an alarm, or alarm system, which announces by audible means, or audible and visual means, a condition requiring attention.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹²⁵

2A.2. “Area” and “area.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page one, defines “area” as “the 2-dimensional *geometric primitive* of an *object* that specifies location,” referring to Figure 4 of the *ECDIS Glossary*, at page twenty-seven. The *Glossary*, page eleven, defines “geometric primitive” as “[o]ne of the three basic geometric units of representation: *point*, *line* and *area*.” The *Glossary*, page sixteen, defines “object” as “[a]n identifiable set of information. An object may have *attributes* and may be related to other objects.” UNCLOS, Article 1(1)(1), defines “Area” as “the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.”¹²⁶ This project, in the 2003 *Tentative Draft No. 2*, recommends the following definitions in the following paragraphs: for “basepoint” or “point” in paragraph A.4.; for “deep ocean floor” in paragraph B.4.; for “foot of the continental shelf” in paragraph C.1.; for “line of delimitation” in paragraph D.10.; for “outer limit” in paragraph G.1.; for “straight line,” “straight baseline” and “straight archipelagic baseline” in paragraph I.2.; for “subsoil” in paragraph I.7.; for “superjacent waters” in paragraph I.8. This project, in this *Interim Draft*, proposes definitions, in paragraph D.3.a., for “geometric primitive”; in paragraph D.9.b., for “line”; and in paragraph E.8., for “object.” This pro-

124. See *supra* notes 84-101 and accompanying text.

125. See *id.*

126. UNCLOS, *supra* note 2, art. 1(1)(1); see also *supra* note 47 and accompanying text.

ject, in the 2002 *Tentative Draft No. 1*, paragraph F., recommends a definition for “ocean space” or “sea.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “area” is proposed:

As used in the 1982 LOS Convention, “Area” is defined in Article 1(1)(1) of that Convention. The word “area” is defined as the two-dimensional representation of a geographic space, specifying its location in ocean space covered by the 1982 LOS Convention.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹²⁷

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A.2.a. “Azimuth.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page two, defines “azimuth” as “[t]he bearing of a geographical position, measured clockwise from north through 360 degrees.” This project, in this *Interim Draft*, in paragraph A.4.a., recommends a definition for “bearing.” This project’s 2003 *Tentative Draft No. 2* recommends a definition in paragraph D.3., for “geographical coordinates” or “geographic coordinates”; in paragraph D.9., for “latitude”; and in paragraph D.11., for “longitude.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “azimuth” is proposed:

As used in analysis of the 1982 LOS Convention, “azimuth” means the bearing of a geographical position, measured clockwise from north through 360 degrees.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹²⁸

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A.4.a. “Bearing,” abbreviated BRG.

1. *Discussion and Analysis.* The *ECDIS Glossary*, page two, defines “bearing” as “[t]he direction from a reference station, usually from 000 degrees at the reference direction, clockwise through 360 degrees.” This project, in this *Interim Draft*, paragraph A.2.a., recommends a definition for “azimuth.” This project’s 2003 *Tentative Draft No. 2* recommends definitions in paragraph D.3., for “geographical coordinates” or “geographic coordinates.”

127. See *supra* notes 84-101 and accompanying text.

128. See *id.*

ordinates”; in paragraph D.9., for “latitude”; and in paragraph D.11., for “longitude.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “bearing” is proposed:

As used in analysis of the 1982 LOS Convention, “bearing,” abbreviated BRG, means the direction from a reference station, usually from 000 degrees at the reference direction, clockwise through 360 degrees.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹²⁹

.....
A.7.a. “Chart symbol.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page three, defines “chart symbol” as “[a] character, letter, line style, or similar graphic representation used on a *chart* to indicate some *object*, characteristic, etc.” This project, in this *Interim Draft*, paragraph A.6., recommends a definition for “chart”; and in the 2003 *Tentative Draft No. 2*, paragraph E.8, recommends a definition for “object.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “chart symbol” is proposed:

As used in analysis of the 1982 LOS Convention, “chart symbol” means a character, letter, line style, or similar graphic representation used on a chart to indicate some object, characteristic, etc.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³⁰

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B.A.1. “Coastal warning.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page three, defines “coastal warning” as “[a] *navigational warning* promulgated by a national co-ordinator covering a coastal region or a portion thereof.” This project, in the 2003 *Tentative Draft No. 2*, paragraph 1A., recommends a definition for “adjacent coasts”; in paragraph B.3., for “danger to navigation” and “danger to overflight”; in paragraph D.3., for “geographical coordinates” or “geographic coordinates”; and in paragraph F.3., for “opposite coasts.” This *In-*

129. *See id.*

130. *See id.*

terim Draft, paragraph E.5., recommends a definition for “navigational warning.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “coastal warning” is proposed:

As used in analysis of the 1982 LOS Convention, “coastal warning” means a navigational warning promulgated by a national coordinator covering a coastal region or a portion thereof.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³¹

B.A.2. “*Compilation.*”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page four, defines “compilation” as “[i]n cartography, the selection, assembly, and graphic presentation of all relevant information required for the preparation of a new map/chart or a new edition thereof. Such information may be derived from other maps/charts, aerial photographs, surveys, new data, and other sources.” This project, in 2003 *Tentative Draft No. 2*, recommends definitions, in paragraph A.6., for “chart”; in paragraph A.7., for “chart datum”; and in paragraph B.7., for “due notice,” “notice,” “appropriate publicity,” and “due publicity.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “compilation” is proposed:

As used in analysis of the 1982 LOS Convention, in cartography “compilation” means selection, assembly and graphic presentation of all relevant information required for preparation of a new map or chart or a new edition thereof. Such information may be derived from other maps or charts, aerial photographs, surveys, new data and other sources.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³²

....

B.2.a. “*Course.*”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page five, defines “course” as “[t]he horizontal direction in which a vessel is intended to be steered, expressed as an angular distance from north clockwise through 360 degrees.” This project, in this *Interim Draft*, paragraph B.2.b., recommends a

131. *See id.*

132. *See id.*

definition for “course made good”; and in paragraph B.2.c., for “course over ground.” This project, in 2002 *Tentative Draft No. 1*, recommends a definition in paragraph I. for “ship” or “vessel.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “course” is proposed:

As used in analysis of the 1982 LOS Convention, “course” means the horizontal direction in which a vessel is intended to be steered, expressed as an angular distance from north clockwise through 360 degrees.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³³

B.2.b. “Course made good,” abbreviated CMG.

1. *Discussion and Analysis.* The *ECDIS Glossary*, page five, defines “course made good” as “[t]he single resultant direction from a vessel’s point of departure to its point of arrival at any given time.” This project, in the 2003 *Tentative Draft No. 2*, paragraph A.4., recommends a definition for “basepoint” or “point.” This *Interim Draft*, in paragraph B.2.a., recommends a definition for “course”; and in paragraph B.2.c., for “course over ground.” This project, in 2002 *Tentative Draft No. 1*, paragraph I., recommends a definition for “ship” or “vessel.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “course made good” is proposed:

As used in analysis of the 1982 LOS Convention, “course made good,” abbreviated CMG, means the single resultant direction from a vessel’s point of departure to its point of arrival at any given time.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³⁴

B.2.c. “Course over ground,” abbreviated COG.

1. *Discussion and Analysis.* The *ECDIS Glossary*, page five, defines “course over ground,” abbreviated COG, as “[t]he direction of a vessel’s path actually followed, usually a somewhat irregular line.” This project, in this *Interim Draft*, paragraph B.2.a., recommends a definition for “course”; in paragraph B.2.b., for “course made good”; and in paragraph D.9.b., for “line.” This project, in 2003 *Tentative Draft No. 2*, paragraph D.10., recom-

133. *See id.*

134. *See id.*

mends a definition for “line of delimitation”; and in paragraph I.2., for “straight line,” “straight baseline” and “straight archipelagic baseline.” This project, in 2002 *Tentative Draft No. 1*, paragraph I., recommends a definition for “ship” or “vessel.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “course over ground” is proposed:

As used in analysis of the 1982 LOS Convention, “course over ground,” abbreviated COG, means the direction of a vessel’s path actually followed, usually a somewhat irregular line.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³⁵

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B.3.a. “Datum (vertical)” or “vertical datum.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page six, defines “datum (vertical)” as “[a]ny level surface (e.g. sea mean sea level) taken as a surface of reference from which to reckon elevations.” This project, in 2003 *Tentative Draft No. 2*, paragraph A.7., recommends a definition for “chart datum”; and in paragraph D.2., for “geodetic datum.” This project, 2002 *Tentative Draft No. 1*, paragraph F., recommends a definition for “ocean space” and “sea.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “datum (vertical)” or “vertical datum” is proposed:

As used in analysis of the 1982 LOS Convention, “datum (vertical)” or “vertical datum” means any level surface, e.g., sea mean sea level, taken as a surface of reference from which elevations may be reckoned.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³⁶

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B.7.a. “Entity.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page nine, defines “entity” as “[a]ny concrete or abstract thing of interest, including associations of things.” This project, in this *Interim Draft*, paragraph 2C., recom-

135. *See id.*

136. *See id.*

mends a definition for “feature object”; and in paragraph C.4., for “geo object.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “entity” is proposed:

As used in analysis of the 1982 LOS Convention, “entity” means any concrete or abstract thing of interest, including associations of things. In the latter situations, “entity” may appear in the plural.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³⁷

1C. “Feature.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page ten, defines “feature” as “[r]epresentation of a real world phenomenon,” giving as an example “a particular cardinal buoy represented through a symbol on a chart.” This project, in 2003 *Tentative Draft No. 2*, paragraph A.6., recommends a definition for “chart.”; and this *Interim Draft*, in paragraph 2C., recommends a definition for “feature object.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “feature” is proposed:

As used in analysis of the 1982 LOS Convention, “feature” means a representation of a real world phenomenon, e.g., a particular cardinal buoy represented through a symbol on a chart.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³⁸

2C. “Feature object.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page ten, defines “feature object” as “[a]n object which contains the non-locational information about real-world entities.” This project, in this *Interim Draft*, paragraph B.7.a., recommends a definition for “entity”; in paragraph 1C., for “feature”; and in paragraph E.8., for “object.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “feature object” is proposed:

137. *See id.*

138. *See id.*

As used in analysis of the 1982 LOS Convention, “feature object” means an object which contains non-locational information about real-world entities.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹³⁹

C.3. “Generalization.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page ten, defines “generalization” as “[t]he omission of less important detail when compiling a *chart*. Its purpose is to avoid overloading charts where space is limited.” This project, in 2003 *Tentative Draft No. 2*, paragraph A.6., recommends a definition for “chart.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “generalization” is proposed:

As used in analysis of the 1982 LOS Convention, “generalization” means the omission of less important detail when compiling a chart, to avoid overloading charts where chart space is limited.

Adding “chart” before “space” avoids confusion with terms such as “ocean space,” which is defined in paragraph F. of this project (2002 *Tentative Draft No. 1*). In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴⁰

C.4. “Geo object.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page ten, defines “geo object” as “[a] *feature object* which carries the descriptive characteristics of a real world *entity*[,]” noting that “positional information is provided through the *spatial object*.” This project, in this *Interim Draft*, paragraph B.7.a., recommends a definition for “entity”; in paragraph 2C., for “feature object”; in paragraph E.8., for “object”; and in paragraph I.A.1., for “spatial object.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “geo object” is proposed:

As used in analysis of the 1982 LOS Convention, “geo object” means a feature object carrying the real world entity’s descriptive characteristics.

139. *See id.*

140. *See id.*

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴¹

. . . .

D.3.a. “Geometric primitive.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page eleven, defines “geometric primitive” as “[o]ne of the three basic geometric units of representation: *point*, *line* and *area*.” This project recommends, in this *Interim Draft*, paragraph 2A.2., a definition for “area”; and in paragraph D.9.b., for “line.” This project, 2003 *Tentative Draft No. 2*, paragraph A.4., recommends a definition for “basepoint or point”; in paragraph D.10., for “line of delimitation”; and in paragraph I.2., for “straight line,” “straight baseline” and “straight archipelagic baseline.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “geometric primitive” is proposed:

As used in analysis of the 1982 LOS Convention, “geometric primitive” means one of the three basic geometric units of representation: area, line and point.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴²

. . . .

D.4.a. “Heading.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page eleven, defines “heading” as “[t]he direction in which a vessel is pointed, expressed as an angular distance from north clockwise through 360 degrees. A constantly changing value as a vessel yaws back and forth across the course due to the effects of sea, wind, etc.” This project, in this *Interim Draft*, paragraph B.2.a., recommends a definitions for “course” in paragraph B.2.b., for “course made good”; and in paragraph B.2.c., for “course over ground.” This project, 2002 *Tentative Draft No. 1*, paragraph F., recommends a definition for “ocean space” and “sea”; and in paragraph I., for “ship” or “vessel.” “[B]ack and forth” following “yaws” appears redundant and should be deleted from the definition.

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “heading” is proposed:

141. See *id.*

142. See *id.*

As used in analysis of the 1982 LOS Convention, “heading” means the direction in which a vessel is pointed, expressed as an angular distance from north clockwise through 360 degrees; it is a constantly changing value as a vessel yaws across the course due to the effects of sea, wind, etc.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴³

.....

D.6.a. “Indicator.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page twelve, defines “indicator” as “[v]isual indication giving information about the condition of a system or equipment.” This project, in this *Interim Draft*, paragraph 2A.1., recommends a definition for “alarm”; and in paragraph I.10.d., for “warning.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “indicator” is proposed:

As used in analysis of the 1982 LOS Convention, “indicator” means visual indication giving information about the condition of a system or equipment.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴⁴

.....

D.9.a. “Leg.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page thirteen, defines “leg” as “[a] line connecting two waypoints.” This project, in this *Interim Draft*, paragraph D.9.b., recommends a definition for “line;” and in paragraph I.11.a., for “waypoint.” This project, 2003 *Tentative Draft No. 2*, paragraph D.10., recommends a definition for “line of delimitation”; and in paragraph I.2., for “straight line,” “straight baseline” and “straight archipelagic baseline.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “leg” is proposed:

As used in analysis of the 1982 LOS Convention, “leg” means a line connecting two waypoints.

143. *See id.*

144. *See id.*

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴⁵

D.9.b. “Line.”

1. Discussion and Analysis. The *ECDIS Glossary*, page thirteen, defines “line” as “[t]he one-dimensional *geometric primitive* of an *object* that specifies location.” This project, in this *Interim Draft*, paragraph D.3.a., recommends a definition for “geometric primitive”; and in paragraph E.8., for “object.” This project, 2003 *Tentative Draft No. 2*, paragraph D.10., recommends a definition for “line of delimitation”; and in paragraph I.2., for “straight line,” “straight baseline” and “straight archipelagic baseline.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “line” is proposed:

As used in analysis of the 1982 LOS Convention, “line” means the one-dimensional geometric primitive of an object that specifies location.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴⁶

. . . .

D.10.a. “List of Lights” or “light list.”

1. Discussion and Analysis. The *ECDIS Glossary*, page thirteen, defines “List of Lights” or “light list” as “[a] publication tabulating navigational lights, with their locations, candle powers, characteristics, etc. to assist in their identification, and details of any accompanying fog signal. A list of lights may contain other information useful to a navigator,” noting its issuance by a marine administration. This project, in the 2003 *Tentative Draft No. 2*, paragraph 2A., recommends a definition for “aid to navigation” and “navigational aid.” This *Interim Draft* recommends a definition in paragraph D.10.b., for “List of Radio Signals.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “List of lights” or “light list” is proposed:

As used in analysis of the 1982 LOS Convention, “List of Lights” or “light list” means a publication, issued by a marine administration, that tabulates navigational lights, with their locations, candle powers, characteristics, etc. to assist in their identification, and details of any accompanying fog signal. A list of lights may contain other information useful to a navigator.

145. *See id.*

146. *See id.*

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴⁷

D.10.b. “List of Radio Signals.”

1. Discussion and Analysis. The *ECDIS Glossary*, page thirteen, defines “List of Radio Signals” as “[a] publication tabulating and combining particulars of: coast radio stations, port radio stations, radio direction finding systems, radiobeacons, etc., as well as other information on radio services useful to a navigator,” noting that “[t]his publication is issued under the authority of a marine administration.” UNCLOS, Article 39(3)(b), requires aircraft in straits transit passage to monitor the radio frequency assigned by the competent internationally designated air traffic control authority or the appropriate international distress radio frequency. UNCLOS, Article 94(3)(c), requires every State to take measures for vessels flying its flag to ensure safety at sea with regard to use of signals and maintenance of communications. UNCLOS, Article 94(4)(b), says these measures include those necessary to ensure “that each ship is in the charge of a master and officers who possess appropriate qualifications . . . in . . . communications . . . , and that the crew is appropriate in qualification and numbers for the . . . equipment of the ship.” UNCLOS, Article 94(4)(c), says these measures include those necessary to ensure “that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observed the applicable international regulations concerning . . . maintenance of communications by radio.”¹⁴⁸ This project, in this *Interim Draft*, paragraph D.10.a., recommends a definition for “List of Lights” or “light list.” This project, in 2003 *Tentative Draft No. 2*, paragraph G.2., recommends a definition for “port.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “List of Radio Signals” is proposed:

As used in analysis of the 1982 LOS Convention, “List of Radio Signals” means a publication, issued by a marine organization, that tabulates and combines particulars of coast radio stations, port radio stations, radio direction finding systems, radiobeacons, etc., as well as other information on radio services useful to a navigator.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁴⁹

147. *See id.*

148. UNCLOS, *supra* note 2, arts. 39(3)(b), 94(3)(c), 94(4)(b), 94(4)(c); *see also* 2 COMMENTARY, *supra* note 102, ¶ 39.3; 3 COMMENTARY, *supra* note 67, ¶¶ 94.2, 94.4.

149. *See supra* notes 84-101 and accompanying text.

. . . .

D.13. "Maritime Safety Information" abbreviated MSI.

1. *Discussion and Analysis.* The *ECDIS Glossary*, page fourteen, defines "Maritime Safety Information," abbreviated MSI, as "[n]avigational and meteorological warnings, meteorological forecasts, distress alerts and other urgent safety related messages broadcast to ships." This project, in the 2003 *Tentative Draft No. 2*, paragraph 2A., recommends a definition for "aid to navigation" and "navigational aid"; in paragraph B.7., for "due notice," "notice," appropriate publicity," and "due publicity"; and in paragraph G.2., for "port." This project, in the 2002 *Tentative Draft No. 1*, paragraph I., recommends a definition for "ship" or "vessel."

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of "Maritime Safety Information," abbreviated MSI, is proposed:

As used in analysis of the 1982 LOS Convention, "Maritime Safety Information," abbreviated MSI, means navigational and meteorological warnings, meteorological forecasts, distress alerts and other urgent safety-related messages broadcast to ships.

In LOAC-governed situations under the "other rules of international law" clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵⁰

. . . .

E.3. "Navarea."

1. *Discussion and Analysis.* The *ECDIS Glossary*, page fifteen, defines "Navarea" as "[a] geographical sea area established for the purpose of coordinating the transmission of radio *navigational warnings*." This project, in 2003 *Tentative Draft No. 2*, paragraph 2A., recommends a definition for "aid to navigation" or "navigational aid"; and in paragraph B.7., for "due notice," "notice," appropriate publicity," and "due publicity." This project, in this *Interim Draft*, paragraph 2A.2., recommends a definition for "area"; in paragraph D.10.b., for "List of Radio Signals"; in paragraph D.13., for "Maritime Safety Information," abbreviated MSI; in paragraph E.4., for "Navarea warning"; and in paragraph E.5., for "navigational warning." This project, in 2002 *Tentative Draft No. 1*, paragraph F., recommends a definition for "ocean space" and "sea."

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of "Navarea" is proposed:

As used in analysis of the 1982 LOS Convention, "Navarea" means a geographical sea area established for the purpose of coordinating the transmission of radio navigational warnings.

150. *See id.*

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵¹

E.4. “Navarea warning.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page fifteen, defines “Navarea warning” as “[a] navigational warning issued by the Navarea coordinator for the Navarea.” This project, in 2003 *Tentative Draft No. 2*, paragraph B.7., recommends a definition for “due notice,” “notice,” appropriate publicity,” and “due publicity.” This project, in this *Interim Draft*, paragraph E.3., recommends a definition for “Navarea”; and in paragraph E.5., for “navigational warning.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “Navarea warning” is proposed:

As used in analysis of the 1982 LOS Convention, “Navarea warning” means a navigational warning issued by the Navarea coordinator for the Navarea.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵²

E.5. “Navigational warning.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page fifteen, defines “navigational warning” as “[a] broadcast message containing urgent information relevant to safe navigation.” This project, in 2003 *Tentative Draft No. 2*, paragraph 2A., recommends a definition for “aid to navigation” or “navigational aid”; and in paragraph B.7., for “due notice,” “notice,” appropriate publicity,” and “due publicity.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “navigational aid” is proposed:

As used in analysis of the 1982 LOS Convention, “navigational warning” means a broadcast message containing urgent information relating to safe navigation.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵³

151. *See id.*

152. *See id.*

153. *See id.*

E.6. "Notice to airmen," abbreviated NOTAM.

1. *Discussion and Analysis.* The *ECDIS Glossary* does not define "notice to airmen." This project, in 2003 *Tentative Draft No. 2*, paragraph 2A., recommends a definition for "aid to navigation" and "navigational aid"; in paragraph A.6., for "chart"; in paragraph B.3., for "danger to navigation" and "danger to overflight"; and in paragraph B.7., for "due notice," "notice," "appropriate publicity" and "due publicity." This project, in this *Interim Draft*, paragraph D.10.a., recommends a definition for "List of Lights" or "light list"; and in paragraph E.7., for "notice to mariners."

2. *Comments.* The Chair researched the proposed definition, basing a recommendation on the *Glossary* definition of "notice to mariners."

3. *Conclusions.* Following the *ECDIS Glossary* definition of "notice to mariners," this definition of "notice to airmen" is proposed:

As used in analysis of the 1982 LOS Convention, "notice to airmen," abbreviated NOTAM, means a periodical notice issued by maritime administrations, or other competent authorities, regarding changes in aids to aerial navigation, dangers to aerial navigation, and, in general all such information as affects nautical charts, sailing directions, light lists and other nautical or aerial navigation publications.

In LOAC-governed situations under the "other rules of international law" clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵⁴

E.7. "Notice to Mariners," abbreviated NtM or NOTMAR.

1. *Discussion and Analysis.* The *ECDIS Glossary*, page sixteen, defines "Notice to Mariners," abbreviated NtM or NOTMAR, as "[a] periodical notice issued by maritime administrations, or other competent authorities, regarding changes in aids to navigation, dangers to navigation, important new soundings, and, in general, all such information as affects nautical charts, sailing directions, light lists and other nautical publications." This project, in 2003 *Tentative Draft No. 2*, paragraph 2A., recommends a definition for "aid to navigation" and "navigational aid"; in paragraph A.6., for "chart"; in paragraph B.3., for "danger to navigation" and "danger to overflight"; in paragraph B.7., for "due notice," "notice," "appropriate publicity" and "due publicity." This project, in this *Interim Draft*, paragraph D.10.a., recommends a definition for "List of Lights" or "light list"; in paragraph E.6., for "notice to airmen"; and in paragraph G.7.a., for "sailing directions."

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of "notice to mariners" is proposed:

As used in analysis of the 1982 LOS Convention, "notice to mariners," abbreviated NtM or NOTMAR, means a periodical notice issued by mari-

154. *See id.*

time administrations, or other competent authorities, regarding changes in aids to navigation, dangers to navigation, important new soundings, and, in general all such information as affects nautical charts, sailing directions, light lists and other nautical publications.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵⁵

E.8. “Object.”

1. Discussion and Analysis. The *ECDIS Glossary*, page sixteen, defines “object” as “[a]n identifiable set of information. An object may have *attributes* and may be related to other objects.” The *Glossary*, page one, defines an “attribute” as “[a] characteristic of an *object*.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “object,” is proposed:

As used in analysis of the 1982 LOS Convention, “object” means an identifiable set of information. An object may have characteristics and may be related to other objects.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵⁶

....

G.2.a. “Precision.”

1. Discussion and Analysis. The *ECDIS Glossary*, page eighteen, defines “precision” as “[t]he degree of refinement of a value. Not to be confused with *accuracy*.” This project, in this *Interim Draft*, paragraph A.1A., recommends a definition for “accuracy.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “precision” is proposed:

As used in analysis of the 1982 LOS Convention, “precision” means the degree of refinement of a value; precision is not to be confused with accuracy.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may

155. *See id.*

156. *See id.*

be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵⁷

G.2.b. "Presentation."

1. *Discussion and Analysis.* The *ECDIS Glossary*, page eighteen, defines "presentation" as "[c]artographic design including drawing, use of symbols, use of colours, use of conventional practices, etc." This project, in 2003 *Tentative Draft No. 2*, paragraph A.6, recommends a definition for "chart."

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of "presentation" is proposed:

As used in analysis of the 1982 LOS Convention, "presentation" means cartographic design including drawing; use of symbols, colors and conventional practices; etc.

In LOAC-governed situations under the "other rules of international law" clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵⁸

....

G.6.a. "Route."

1. *Discussion and Analysis.* The *ECDIS Glossary*, page eighteen, defines "route" as "[a] sequence of *waypoints* and *legs*." This project, in this *Interim Draft*, paragraph D.9.a., recommends a definition for "leg"; and in paragraph I.11.a., for "waypoint." This project, in 2003 *Tentative Draft No. 2*, paragraph G.7., recommends a definition for "routing system."

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of "route" is proposed:

As used in analysis of the 1982 LOS Convention, "route" means a sequence of waypoints and legs.

In LOAC-governed situations under the "other rules of international law" clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁵⁹

G.6.b. "Route planning."

157. *See id.*

158. *See id.*

159. *See id.*

1. *Discussion and Analysis.* The *ECDIS Glossary*, page nineteen, defines “route planning” as “[t]he pre-determination of *course*, speed, *waypoints* and radius in relation to the waters to be navigated, and in relation to other relevant information and conditions.” This project, in this *Interim Draft*, paragraph B.2.a., recommends a definition for “course”; in paragraph G.6.a., for “route”; and in paragraph I.11.a., for “waypoint.” This project, in 2003 *Tentative Draft No. 2*, paragraph G.7., recommends a definition for “routing system.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “route planning” is proposed:

As used in analysis of the 1982 LOS Convention, “route planning” means the predetermination of course, speed, waypoints and radius in relation to the waters to be navigated, and in relation to other relevant information and conditions.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁶⁰

. . . .

G.7.a. “Sailing directions,” “Coastal Pilots” or “Coast Pilot.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page nineteen, defines “sailing directions” as “[a] publication issued under the authority of a marine administration providing general coastal navigation information such as *aids to navigation*, harbour approaches and facilities, and other details necessary which it may not be feasible to show on the corresponding nautical *charts*,” noting that this publication sometimes is referred to as “Coastal Pilots” or “Coast Pilots.” This project, in 2003 *Tentative Draft No. 2*, paragraph 2A., recommends a definition for “aid to navigation” or “navigational aid”; in paragraph A.6., for “chart”; in paragraph B.3., for “danger to navigation” and “danger to aviation”; in paragraph B.6., for “drying reef”; in paragraph B.9., for “estuary”; in paragraph C.2., for “fringing reef”; in paragraph D.4., for “harbor works”; in paragraph E.1., for “mouth” of a bay; in paragraph E.2., for “mouth” of a river; in paragraph G.2., for “port”; in paragraph G.4., for “river”; in paragraph G.5., for “roadstead”; in paragraph G.6., for “rock”; in paragraph I.3., for “strait”; and in paragraph I.10., for “traffic separation scheme.” This project, in this *Interim Draft*, paragraph E.6., recommends a definition for “notice to airmen”; and in paragraph E.7., for “notice to mariners.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “sailing directions,” “Coastal Pilots” or “Coast Pilot” is proposed:

160. *See id.*

As used in analysis of the 1982 LOS Convention, “sailing directions,” sometimes referred to as “Coastal Pilots” or “Coast Pilot,” means a publication, issued under the authority of a marine administration, providing general coastal navigation information such as aids to navigation, harbor approaches and facilities and other necessary details for which it may not be feasible to show on corresponding nautical charts.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁶¹

. . . .

G.8.a. “Scale bar.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page nineteen, defines “scale bar” as “[a] vertical bar scale of 1 nautical mile divided into 1/10 ths., intended to convey an immediate sense of distance. Replaced at display scales smaller than 1/80,000 by a 5-mile latitude scale.” This project, in 2003 *Tentative Draft No. 2*, paragraph D.9., recommends a definition for “latitude”; and in paragraph G.8., for “scale.” This project, in 2002 *Tentative Draft No. 1*, paragraph E., recommends a definition for “mile” or “nautical mile.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “scale bar” is proposed:

As used in analysis of the 1982 LOS Convention, “scale bar” means a vertical bar scale of one nautical mile divided into tenths of a nautical mile, intended to convey an immediate sense of distance. It is replaced at display scales smaller than 1/80,000 by a five-mile latitude scale.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁶²

. . . .

H.1.a. “Serious” act of pollution.

1. *Discussion and Analysis.* UNCLOS, Article 230(2), declares that

Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels in the territorial sea, except in the case of a wilful and serious act of pollution in the territorial sea.

161. *See id.*

162. *See id.*

UNCLOS, Article 19(2)(h), reciting acts that are not innocent passage, declares that a foreign ship's territorial sea passage "shall be considered to be prejudicial to the peace, good order or security of the coastal State if in [that State's] territorial sea [that ship] engages in . . . any act of wilful and serious pollution contrary to this Convention." Commentary on Article 230(2) does not elucidate the phrase.¹⁶³ Commentary on Article 19(2)(h) says, *inter alia*, that "[t]he expression 'wilful and serious pollution' reflects a combination of intent ('wilful') and objective circumstances ('serious'). It introduces factors . . . not found explicitly in Part XII[,] which declare protections for the marine environment."¹⁶⁴ UNCLOS negotiators considered but rejected provisions for "wilful pollution," "reasonably be expected to result in major harmful consequences to the coastal State," "grave and imminent danger of pollution that which may reasonably be expected to result in major harmful consequences to the coastal State," before settling on the "wilful and serious" formula.¹⁶⁵ The conference did not adopt later proposals to amend Article 19(2)(h) to read "reasonably be expected to result in major consequences to the coastal State," and "[a]ny act of wilful pollution having harmful effects, contrary to the present Convention."¹⁶⁶ The International Law Association Committee on Coastal State Jurisdiction Relating to Marine Pollution's 1998 *Second Report* came to no specific conclusion about "serious" acts of pollution in the Article 230(2) context.¹⁶⁷

Citing Article 230(2), a U.S. District Court said that a wilful thirty-gallon oil dump was not a "serious act of pollution" and that "no immediate threat to the environment was posed by the 30-gallon spill."¹⁶⁸ From this authority it might be deduced that "serious" act of pollution means an act of pollution that is an immediate threat to the marine environment. On the other hand, the case involved a thirty-gallon spill; thirty gallons in one context might be "serious," but not so in another.

There is no definition in the *ECDIS Glossary* or the *IHO Glossary* for "serious" act of pollution as stated in Articles 19(2)(h) or 230(2).

2. *Comments.* The Chair researched the proposed definition, following correspondence from Professor Noyes.

163. UNCLOS, *supra* note 2, arts. 19(2)(h), 230(2); 4 COMMENTARY, *supra* note 68, ¶¶ 230.1-230.8, 230.9(b).

164. 2 COMMENTARY, *supra* note 102, ¶ 19.10(h); *see also id.* ¶¶ 19.1-19.10(b).

165. *Id.* ¶¶ 19.5-19.6.

166. *Id.* ¶ 19.8.

167. Comm. on Coastal State Jurisdiction Relating to Marine Pollution, *Second Report*, in INT'L LAW ASS'N, *supra* note 17, at 372, 388-99.

168. United States v. Royal Caribbean Cruises, Ltd., 24 F. Supp. 2d 155, 160 (D.P.R. 1997); *see also* David G. Dickman, *Recent Developments in the Criminal Enforcement of Maritime Environmental Laws*, 24 TUL. MAR. L.J. 1, 28-29 (1999) (discussing case without analysis of issue); Keith B. Letourneau & Wesley T. Welmaker, *The Oil Pollution Act of 1990: Federal Judicial Interpretation Through the End of the Millennium*, 12 U.S.F. MAR. L.J. 147, 216-18 (2000); Shaun Gean, Note, United States v. Royal Caribbean Cruises, Inc.: Use of Federal "False Statements Act" to Extend Jurisdiction over Polluting Incidents into Territorial Seas of Foreign States, 7 OCEAN & COASTAL L.J. 167, 172-73 (2001).

3. *Conclusions.* This definition of “serious” act of pollution is proposed:

As used in the 1982 LOS Convention, Articles 19(2)(h) and 230(2), “serious” act of pollution means an act of pollution, under circumstances prevailing at the time, that results in a major harmful effect or major harmful effects on the coastal State’s territorial sea marine environment as defined in the Convention.

To be sure, this borrows from language Convention negotiators rejected,¹⁶⁹ but it seems to flesh out what “serious” means in the Articles 19(2)(h) and 203(2) context. Both Articles refer to a coastal State’s territorial sea; the definition should be clear in focusing on that sea area and not the oceans generally. In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷⁰

.....

I.A.1. “Spatial object.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page twenty, defines “spatial object” as “[a]n *object* which contains locational information about real world *entities*,” noting examples of a buoy’s location or a caution area boundary. This project, in this *Interim Draft*, paragraph B.7.a., recommends a definition for “entity”; and in paragraph E.8., for “object.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “spatial object” is proposed:

As used in analysis of the 1982 LOS Convention, “spatial object” means an object containing locational information about real world entities, e.g., a buoy’s location or a caution area boundary.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷¹

I.A.2. “Speed.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page twenty, defines “speed” as “[i]n general, the rate of motion or distance per unit of time,” noting that speed could be “speed made good,” “speed of advance,” or “speed over ground.” This project, in this *Interim Draft*, paragraph I.A.3., recommends a definition for “speed made good”; in paragraph I.A.4., for “speed of advance”; and in paragraph I.A.5., for “speed over ground.”

2. *Comments.* The Chair researched the proposed definition.

169. See *supra* notes 167-68 and accompanying text.

170. See *supra* notes 84-101 and accompanying text.

171. See *id.*

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “speed” is proposed:

As used in analysis of the 1982 LOS Convention, “speed” in general means the rate of motion or distance per time.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷²

I.A.3. “Speed made good,” abbreviated SMG.

1. *Discussion and Analysis.* The *ECDIS Glossary*, page twenty, defines “speed made good,” abbreviated SMG, as “the speed along the *course made good*.” This project, in this *Interim Draft*, paragraph B.2.b., recommends a definition for “course made good”; in paragraph I.A.2., for “speed”; in paragraph I.A.4., for “speed of advance”; and in paragraph I.A.5., for “speed over ground.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “speed made good” is proposed:

As used in analysis of the 1982 LOS Convention, “speed made good,” abbreviated as “SMG,” means the speed along the course made good.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷³

I.A.4. “Speed of advance,” abbreviated SOA.

1. *Discussion and Analysis.* The *ECDIS Glossary*, page twenty, defines “speed of advance,” abbreviated SOA, as “speed intended to be made along the *track*.” This project, in this *Interim Draft*, paragraph I.A.2., recommends a definition for “speed”; in paragraph I.A.3., for “speed made good”; in paragraph I.A.5., for “speed over ground”; and in paragraph I.9.a., for “track.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “speed of advance” is proposed:

As used in analysis of the 1982 LOS Convention, “speed of advance,” abbreviated as “SOA,” means the speed intended to be made along the track.

172. *See id.*

173. *See id.*

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷⁴

I.A.5. “Speed over ground,” abbreviated SOG.

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty, defines “speed over ground,” abbreviated SOG, as “the speed along the path actually followed.” This project, in this *Interim Draft*, paragraph I.A.2., recommends a definition for “speed”; in paragraph I.A.3., for “speed made good”; and in I.A.4., for “speed of advance.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “speed over ground” is proposed:

As used in analysis of the 1982 LOS Convention, “speed over ground,” abbreviated SOG, means the speed along the path actually followed.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷⁵

I.8.a. “Supplementary information.”

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty, defines “supplementary information” as “[n]on-chart HO information, such as *sailing directions*, tide tables, *light list*.” The *ECDIS Glossary*, page eleven, defines “HO-information” as “[i]nformation content of the *SENC* originated by hydrographic offices. It consists of the *ENC* content and *updates* to it.” The *ECDIS Glossary*, page twenty, defines “System Electronic Navigational Chart (*SENC*)” as “[a] data base resulting from the transformation of the *ENC* by *ECDIS* for appropriate use, updates to the *ENC* by appropriate means and other data added by the mariner.” The *ECDIS Glossary*, page eight, defines “electronic chart” as a “[v]ery broad term to describe the data, the software, and the electronic system, capable of displaying *chart information*. An electronic chart may or may not be equivalent to the paper chart required by *SOLAS*.”¹⁷⁶ This project, in 2003 *Tentative Draft No. 2*, paragraph

174. *See id.*

175. *See id.*

176. *ECDIS Glossary*, *supra* note 3, at 8 (defining “electronic chart”), 11 (defining “HO-information”), 20 (defining “supplementary information”; “*SENC*”; and defining “*SOLAS*” as “International Convention for the Safety of Life at Sea developed by IMO [the International Maritime Organization]”). Because some States have not ratified the 1974 *SOLAS*, two *SOLAS* standards are in force: International Convention for the Safety of Life at Sea, 1974, Nov. 1, 1974, 32 U.S.T. 47, 1184 U.N.T.S. 2, modified by Proces-Verbal of Rectification to the Convention of Nov. 1, 1974, Dec. 22, 1982, 34 U.S.T. 4644, 1300 U.N.T.S. 391; International Convention for the Safety of Life at Sea, 1960, June 17, 1960, 16 U.S.T. 185, 536

A.6., recommends a definition for “chart.” This project, in this *Interim Draft*, paragraph D.10.a., recommends a definition for “List of Lights” or “light list”; and in paragraph G.7.a., for “sailing directions.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “supplementary information” is proposed:

As used in analysis of the 1982 LOS Convention, “supplementary information” means hydrographic information that is not on charts, e.g., sailing directions, tide tables, or list of lights.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷⁷

1.8.b. “Textual HO information.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page twenty-one, defines “textual HO information” as “[i]nformation presently contained in separate publications (e.g. *Sailing Directions*) which may be incorporated in the *ENC*, and also textual information contained in explanatory attributes of specific objects.” The *ECDIS Glossary*, page eleven, defines “HO information” as “[i]nformation content of the *SENC* originated by hydrographic offices. It consists of the *ENC* content and *updates* to it.” The *ECDIS Glossary*, page twenty, defines “SENC” as “[a] data base resulting from the transformation of the *ENC* by ECDIS for appropriate use, updates to the *ENC* by appropriate means and other data added by the mariner.” The *ECDIS Glossary*, page eight, defines “electronic chart” as a “[v]ery broad term to describe the data, the software, and the electronic system, capable of displaying *chart information*. An electronic chart may or may not be equivalent to the paper chart required by *SOLAS*.”¹⁷⁸ This project, in 2003 *Tentative Draft No. 2*, paragraph A.6., recommends a definition for “chart.” This project, in this *Interim Draft*, paragraph G.7.a., for “sailing directions”; and in paragraph E.8., for “object.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “textual HO information” is proposed:

As used in analysis of the 1982 LOS Convention, “textual HO information” means information presently contained in separate publications (e.g.,

U.N.T.S. 27, modified by Proces-Verbal of Rectification to Certain Annexes to the Convention of June 17, 1960, Feb. 15, 1966, 18 U.S.T. 1289. See TIF, *supra* note 25, at 422-24; CHRISTIAN L. WIKTOR, MULTILATERAL TREATY CALENDAR: 1648-1995, at 708, 1041-42 (1998). Treaty succession issues may also be present. See generally Symposium, *supra* note 26; Walker, *supra* note 26.

177. See *supra* notes 84-101 and accompanying text.

178. See also *supra* notes 58-59 and accompanying text.

Sailing Directions) that may be incorporated in electronic navigational charts, and textual information in explanatory attributes of specific objects.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁷⁹

.....

1.9.a. “Track.”

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty-one, defines “track” as “[t]he intended path and past path of a ship,” adding that “[w]hen used in conjunction with ECDIS, additional terminology related to track can include: planned route [or] planned track: [the] intended path [of a ship;] past track: [the] past path [of a ship;] [or] cross-track distance: [the] distance right or left of [an] intended path.” This project, in this *Interim Draft*, paragraph G.6.a., recommends a definition for “route”; and in paragraph I.9.b., for “track keeping.” This project, 2002 *Tentative Draft No. 1*, paragraph I., recommends a definition for “ship” or “vessel.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “track” is proposed:

As used in analysis of the 1982 LOS Convention, “track” means the intended path and past path of a ship.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸⁰

1.9.b. “Track keeping.”

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty-one, defines “track keeping” as “[s]ailing a ship in accordance with a predetermined route, and in relation to the waters.” “[T]he waters” appears ambiguous; “the seas” is a recommended substitute. This project, in this *Interim Draft*, paragraph G.6.a., recommends a definition for “route”; and in paragraph I.9.a., for “track.” This project, in 2002 *Tentative Draft No. 1*, paragraph F., recommends a definition for “ocean space” and “sea”; and in paragraph I., for “ship” or “vessel.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “track keeping” is proposed:

179. See *supra* notes 84-101 and accompanying text.

180. See *id.*

As used in analysis of the 1982 LOS Convention, “track keeping” means sailing a ship in accordance with a predetermined route, in relation to the seas.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸¹

I.9.c. “True distance.”

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty-one, defines “true distance” as “[d]istance on the earth’s surface, based on ellipsoid calculations.” This project, in 2002 *Tentative Draft No. 1*, paragraph E., recommends a definition for “mile.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “true distance” is proposed:

As used in analysis of the 1982 LOS Convention, “true distance” means distance on the Earth’s surface, based on ellipsoid calculations.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸²

....

I.10.a. “Vector.”

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty-two, defines “vector” as “[d]irect connection between two *points*, either given as two sets of coordinates (points), or by direction and distance from one given set of coordinates, or a point in a vector space defined by one set of coordinates relative to the origin of a coordinate system.” This project, in 2003 *Tentative Draft No. 2*, paragraph A.6., recommends a definition for “base-point” or “point.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “vector” is proposed:

As used in analysis of the 1982 LOS Convention, “vector” means direct connection between two points, either given as two sets of coordinates (points), or by direction and distance from one set of coordinates or a point in a vector space defined by one set of coordinates relative to the origin of a coordinate system.

181. *See id.*

182. *See id.*

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸³

I.10.b. “Voyage data recorder,” sometimes referred to as a “Black Box.”

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty-two, defines “voyage data recorder” as “[a] system that may be in the form of several separated but interconnected units, intended to maintain, in a secure and retrievable form, information concerning the position, movement, physical status, command and control of a vessel over a period leading up to, and following an incident,” noting that it is “[s]ometimes referred to as [a] Black Box.” This project, in 2002 *Tentative Draft No. 1*, paragraph I., recommends a definitions for “ship” or “vessel.” This project, in this *Interim Draft*, paragraph I.10.c., for “voyage plan.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “voyage data recorder” is proposed:

As used in analysis of the 1982 LOS Convention, “voyage data recorder,” sometimes referred to as a “Black Box,” means a system that may be in the form of several separate but interconnected units that are intended to maintain, in a secure and retrievable form, information concerning a vessel’s position, movement, physical status, command and control over a period leading up to and following an incident.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸⁴

I.10.c. “Voyage plan.”

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty-two, defines “voyage plan” as “[a] defined series of *waypoints, legs and routes.*” This project, in this *Interim Draft*, paragraph D.9.a., recommends a definition for “leg”; in paragraph G.6.a., for “route”; in paragraph G.6.b., for “route planning”; in paragraph I.10.b., for “voyage data recorder”; and in paragraph I.11.a., for “waypoint.” This project, in 2003 *Tentative Draft No. 2*, paragraph G.7., recommends a definition for “routing system.”

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of “voyage plan” is proposed:

As used in analysis of the 1982 LOS Convention, “voyage plan” means a defined series of waypoints, legs and routes.

183. *See id.*

184. *See id.*

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸⁵

1.10.d. “Warning.”

1. *Discussion and Analysis.* The *ECDIS Glossary*, page twenty-three, defines “warning” as “[a]n alarm or indicator.” “Warning” may have other meanings, e.g., in the context of notices to airmen or notices to mariners, proposed definitions for which are in this project’s *Interim Draft*, paragraphs E.6. and E.7. UNCLOS, Article 60(3) requires due notice of construction of artificial islands, installations or structures in the EEZ; “permanent means for giving warning of their presence must be maintained.” Article 147(2)(a) has a similar requirement for Area installations. Article 262 requires “internationally agreed warning signals” for marine scientific research installations or equipment “to ensure safety at sea and safety of air navigation.”¹⁸⁶ Safety of aerial navigation comes under the International Civil Aviation Organization; the International Maritime Organization’s (IMO’s) purview is safety at sea, and the International Telecommunication Union largely determines internationally agreed warning signals.¹⁸⁷ This project, in this *Interim Draft*, paragraph 2A.1., recommends a definition for “alarm”; in paragraph 2A.2., for “area”; and in paragraph D.6.a., for “indicator.” This project, in 2003 *Tentative Draft No. 2*, paragraph A.1., recommends a definition for “artificial island,” “offshore installation” and “installation (offshore)”; and in paragraph B.7., for “due notice,” “notice,” “appropriate publicity” and “due publicity.” This project, in 2002 *Tentative Draft No. 1*, paragraph F., recommends a definition for “ocean space” and “sea.”

2. *Comments.* The Chair researched the proposed definition.

3. *Conclusions.* Following the *ECDIS Glossary*, this definition of “warning” is proposed:

As used in analysis of the 1982 LOS Convention, “warning” may mean an alarm or indicator; however, in other contexts, for example, Articles 60(3), 147(2)(a) and 262, “warning” has other meanings; for example, in the case of notices to airmen or notices to mariners, it is a notice of presence or danger.

In LOAC-governed situations under the “other rules of international law” clauses in the Convention, a different definition may apply. The same may

185. *See id.*

186. UNCLOS, *supra* note 2, arts. 60(3), 147(2)(a), 262; *see also* 2 COMMENTARY, *supra* note 102, ¶¶ 60.1-60.15(c), 60.15(d)-60.15(e), 60.15(l)-60.15(m); 4 COMMENTARY, *supra* note 68, ¶¶ 262.1-262.5.

187. *See generally* 4 COMMENTARY, *supra* note 68, ¶ 262.5; *supra* note 179 and accompanying text.

be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸⁸

....

I.11.a. "Waypoint."

1. Discussion and Analysis. The *ECDIS Glossary*, page twenty-three, defines "waypoint" as "[i]n conjunction with *route planning*, a geographical location (e.g., latitude and longitude) indicating a significant event on a vessel's planned route (e.g., course alteration point, calling in point, etc.)." This project, in 2003 *Tentative Draft No. 2*, paragraph A.4., recommends a definition for "basepoint" or "point"; in paragraph D.9., for "latitude"; in paragraph D.11., for "longitude"; and in paragraph G.7., for "routing system." This project, in this *Interim Draft*, paragraph B.2.a., recommends a definition for "course"; in paragraph G.6.a., for "route"; and in paragraph G.6.b., for "route planning." This project, in 2002 *Tentative Draft No. 1*, paragraph I., recommends a definition for "ship" or "vessel."

2. Comments. The Chair researched the proposed definition.

3. Conclusions. Following the *ECDIS Glossary*, this definition of "waypoint" is proposed:

As used in analysis of the 1982 LOS Convention, "waypoint" means, in conjunction with *route planning*, a geographical location (e.g., latitude and longitude) indicating a significant event on a vessel's planned route (e.g., course alteration point, calling in point, etc.).

In LOAC-governed situations under the "other rules of international law" clauses in the Convention, a different definition may apply. The same may be the situation if the U.N. Charter supersedes the Convention, or if *jus cogens* norms apply.¹⁸⁹

3. CONCLUSIONS

These terms, for the most part selected from the *ECDIS Glossary*, were chosen with a view to assisting readers or researchers of the 1982 LOS Convention or LOS literature related to it. More technical terms, e.g., those related to electronic chart display and information systems, have been omitted.

III. CONCLUSIONS

The ABILA LOS Committee project has considered terms suggested by Committee members and others; terms commentators reported as not defined in the Convention; terms gleaned from two dictionaries, the *IHO* and *ECDIS Glossaries*, that the International Hydrographic Organization compiled from multinational sources, and other compilations. Research has been limited to

188. See *supra* notes 84-101 and accompanying text.

189. See *id.*

those terms, now numbering close to 150 when equivalents like “ship” and “vessel” and parallel acronyms or abbreviations are counted, that readers or researchers of the 1982 LOS Convention or LOS literature would likely encounter. The search could go more deeply into other compilations, e.g., those like Bowditch’s *American Practical Navigator*, now over two centuries old after many prior editions.¹⁹⁰ Dictionaries like the *Navigator* served as bases for multinational studies like the *IHO Glossary* and the *ECDIS Glossary*.¹⁹¹ To take this study to that step would involve researching the literature of many States and would repeat steps the IHO and others¹⁹² have undertaken.

Because a Committee member has proposed a few more terms for definition, and others may be forthcoming from members, and because the U.S. Senate Foreign Relations Committee or the Senate itself may include definitions among understandings appended to the Convention if and when it emerges from the Senate, this project should continue for another year. After that, if the Committee or others have no further suggestions of sources or terms to consider, it will be time to prepare a composite *Final Draft* for consideration at a future ABILA LOS Committee meeting, perhaps in 2005. The Committee welcomes additional suggestions as well as research sources that might be cited in the *Final Draft*.¹⁹³

GENERAL CONCLUSIONS ON THE THIRD ROUND OF PROPOSED DEFINITIONS

Pursuit of meanings for otherwise undefined words and phrases, particularly for a treaty as detailed and complex as the 1982 Law of the Sea Convention as amended in 1994,¹⁹⁴ 320 articles long before its nine Annex provisions are considered, can proceed indefinitely. Thus far the Committee has considered well over 100 terms. It would seem, from correspondence and discussions among Committee members and others, that the project is near completion.

What is the worth of the project? To the extent that this project has collected and considered terms other organizations have tried to define, but which sometimes have not appeared in print,¹⁹⁵ or are in scattered or rela-

190. See generally AMERICAN PRACTICAL NAVIGATOR, *supra* note 23; *Glossary of Marine Navigation*, *supra* note 23.

191. See *IHO Glossary*, at <http://www.iho.shom.fr/MISC/glossary.htm>; *ECDIS Glossary*, *supra* note 3.

192. E.g., COOK & CARLETON, *supra* note 45, who consulted *IHO Glossary*, *supra* note 191.

193. The literature on the law of the sea is immense; there must be a limit to citations analogous to limits on terms, or term limits for politicians for that matter, that must be considered.

194. See *supra* note 2 and accompanying text.

195. For example, *ECDIS Glossary*, *supra* note 3, apparently is only available on-line. To be sure, the day may not be far off when everyone will have readily available internet access. Until that time arrives, print (i.e., “hard”) copy will continue to have utility. Even among States that are fully “wired,” there may be occasions where print copy is the only copy, e.g., when the Internet is not working. A Murphy’s Law of the Web recites that when the Net is

tively obscure sources,¹⁹⁶ there is value in placing words and phrases “on the table” for discussion, debate and resolution for general use in a single published source. The analysis for each term, and sources cited, also may be useful to researchers.¹⁹⁷

Results of this research cannot become a primary source of law. It can, however, serve as a helpful secondary source, informing primary sources such as custom and general principles of law.¹⁹⁸ This is particularly so where final conclusions on definitions coincide with the work product of others in the field, or where its definitions coincide with declarations or understandings of the Convention.¹⁹⁹

If the United States becomes a party to the 1982 Convention and its 1994 protocol,²⁰⁰ a published compendium of fully considered definitions will assume even greater importance. The United States is the Earth’s pre-eminent naval and air power. U.S. beneficially-owned merchantmen ply the world’s oceans daily. The United States is a major importer and exporter of foreign cargoes. The U.S. cruise line business continues to grow, and U.S.-flag air carriers span the globe. The Convention, as amended and as subject to declarations and understandings, will be a primary source, along with custom and other sources of law,²⁰¹ of rules for these aspects of world ocean law, and more. Consensus definitions achieved by the ABILA LOS Committee may play a role in U.S. practice under the Convention.

The project is perhaps in its final phase. The Committee welcomes submission of additional terms, or comments on terms already under analysis, so that preparation of a Final Draft can come within the next year or so.

most needed, it will not be working. For diplomatic or military users, this might come during a crisis where an opponent has successfully disrupted the Web. There is also the handy nature of a book on the shelf, perhaps next to the LOS Convention text.

196. See *supra* note 23 (sources for *ECDIS Glossary*, *supra* note 3).

197. Analysis, discussion and debate on the meaning or meanings of the phrase, “other rules of international law,” is an example. See *supra* notes 84-101 and accompanying text.

198. I.C.J. Statute, *supra* note 88, art. 38(1)(d); RESTATEMENT (THIRD), *supra* note 79, §§ 102-103.

199. See *supra* note 12 and accompanying text.

200. See *supra* notes 2, 12 and accompanying text.

201. I.C.J. Statute, *supra* note 88, art. 38(1); RESTATEMENT (THIRD), *supra* note 79, §§ 102-103.

