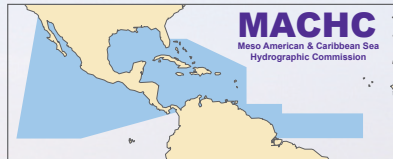


Report of the
Meso American and Caribbean Sea Hydrographic Commission (MACHC)
Integrated Chart Committee

INT Chart and ENC Coverage for the MACHC Region



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Report of the MACHC INTEGRATED CHART COMMITTEE

INT CHART AND ENC COVERAGE FOR THE MACHC REGION

DECEMBER 2013

INTRODUCTION

The purpose of the Meso American and Caribbean Sea Hydrographic Commission's (MACHC) Integrated Chart Committee (MICC¹) is to provide consistency in the development and maintenance of regional charting schemes, and the monitoring of INT charts and ENC production, in order to improve standardization in International Hydrographic Organization (IHO) charting activities. This work has been on-going independently in the past by the INT Chart Committee and the Electronic Chart Committee. The MICC was officially inaugurated at the 13th MACHC in 2012 in Guatemala and joins together the activities of the former INT Chart Committee and the former Electronic Chart Committee of the MACHC.

This Report outlines the activities of the two former committees in one comprehensive report. The Report consists of the introduction plus 3 parts as follows:

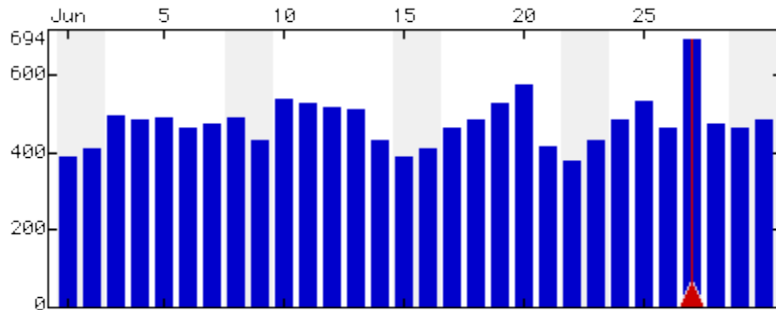
1. Section 1-INT Charts
2. Section 2-ENCs
3. Section 3- Recommendations

BACKGROUND

Previous to the 13th MACHC, the INT Chart Committee and the Electronic Chart Committee operated independently as separate bodies within the Commission. For ENC planning, especially at the smaller scales were often based on the paper INT charts, a great deal of interaction and communication was necessary. Additionally, since a significant number of representatives were common to both committees, they often met together to properly coordinate activities. As a result, the initial determination for the development of ENC scheme was based on the INT Chart scheme "footprint" within the MACHC. In order to proceed with both INT and Electronic Chart activities, it is considered beneficial to produce both the INT chart and the ENC either concurrently or at least within as close a time frame as possible. As a number of States use automated methods to produce the paper INT chart, producing the corresponding ENC is a relatively simple task in these instances, especially when compiling small-scale charts.

¹ The MICC was formally established in December 2012 at the 13th MACHC in Guatemala. Prior to this time, all ENC activities were conducted by the Electronic Chart Committee/Working Group 2 (ECC/WG2).

The joining of the two former committees also provided the opportunity to resolve the apparent confusion which has lingered for some time about the differences between the two MACHC websites; the one maintained by the IHO, and the other by U.S. NOAA. In order to clarify the distinctions between the IHO MACHC and NOAA MACHC websites and to eliminate redundancies, the U.S. (NOAA) issued a proposal (Action 13.2.28) to make appropriate adjustments to its website to reflect a focus solely on the work of the MACHC Committees; the MACHC Integrated Charting Committee--MICC; the Marine Economic Infrastructure Program—MEIP; and Capacity Building Committee. The NOAA maintained site will now serve as a document repository for the working Committees of the MACHC. Further, the NOAA site will no longer duplicate MACHC documents which are available on the IHO website, such as Commission meeting and related documents, Circular Letters and Statutes. The NOAA MACHC site will provide links as appropriate to the IHO MACHC site and vice versa. This proposal was accepted at the May 22, 2013 MICC Conference Call and the appropriate adjustments are now in place. The revised MACHC Committees website is at: <http://www.iho-machc.org/> and is receiving approximately 500 hits per day as shown in the graphic.



This is a representative graphic of the website's activity for June 2013.

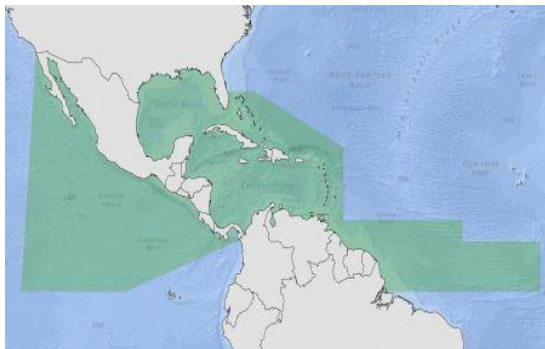
SECTION 1-INT Charts

INTRODUCTION – INT CHARTS

The INT Chart concept is based on the potential enormous economies which can be realized if several Hydrographic Offices publishing charts of a particular region or port were to come to an understanding as to the reproduction of these charts on a common basis. The aim of this concept is to facilitate the provision of minimum sets of charts suitable for the navigational requirements of international (foreign-going) shipping. Such internationally-conceived charts will also enable those IHO Member States who provide, or wish to provide, charts outside their own national waters, to print by facsimile reproduction with only superficial modifications, selected modern charts under the terms of a bilateral arrangement between the affected Member States.

BACKGROUND

The idea of a common, worldwide chart series (INT Charts) produced to a single set of agreed specifications and standards was adopted by the IHO in 1971. Under this arrangement, Member States wishing to print their own versions of another Members' INT Charts may do so by obtaining (via mutual agreement) copies of the necessary reproducible material and printing their own copies and making them available through their normal distribution channels.



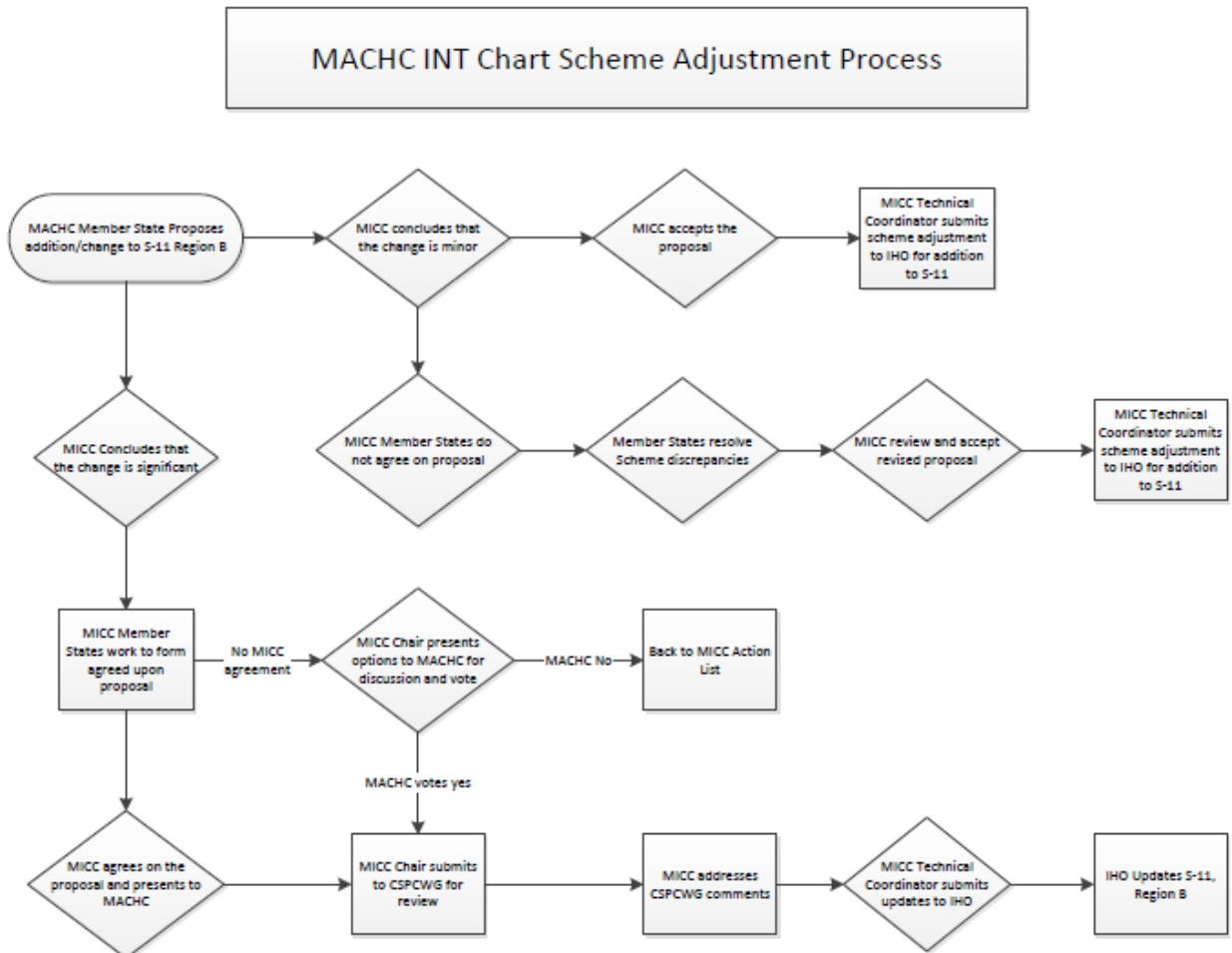
The IHO programme for small scale (1/10 000 000 and 1/3 500 000) INT charts, has been completed and many of the charts at medium and larger scales are in the developmental stages. The Meso American-Caribbean Sea Hydrographic Commission is responsible for the area identified with the green shading on the map at the left. One major task at hand is to complete the identification of those countries who have agreed to produce or distribute charts.

The INT Chart Committee has always worked very closely with the Electronic Chart Committee, and now that the two entities have united, the tasks at hand will be handled more efficiently. Identification of “Producer” States, the first goal, is almost complete.

The MACHC INT Committee considers small and medium-scale INT charts a priority, in parallel with the Electronic Chart Committee approaches their goal of producing ENC’s of this scale range in a similar fashion. Since these tasks are so closely linked, it is imperative that all potential INT Chart “Producer” States be identified in order to develop a coordinated compilation/production schedule.

WORK PROCESSES/METHODOLOGIES

The INT Chart concept requires Member States, Hydrographic Offices to work together with one another, with the primary objective to avoid duplicative work for chart coverage of targeted areas of common interest. The rules and regulations are extensively detailed in IHO Publication S-4, “Regulations of the IHO International (INT) Charts and Charts Specifications of the IHO”. The MICC closely follows the methodology specified in S-4, but has developed a more detailed methodology for handling proposed additions and/or changes within the MACHC. See diagram below.

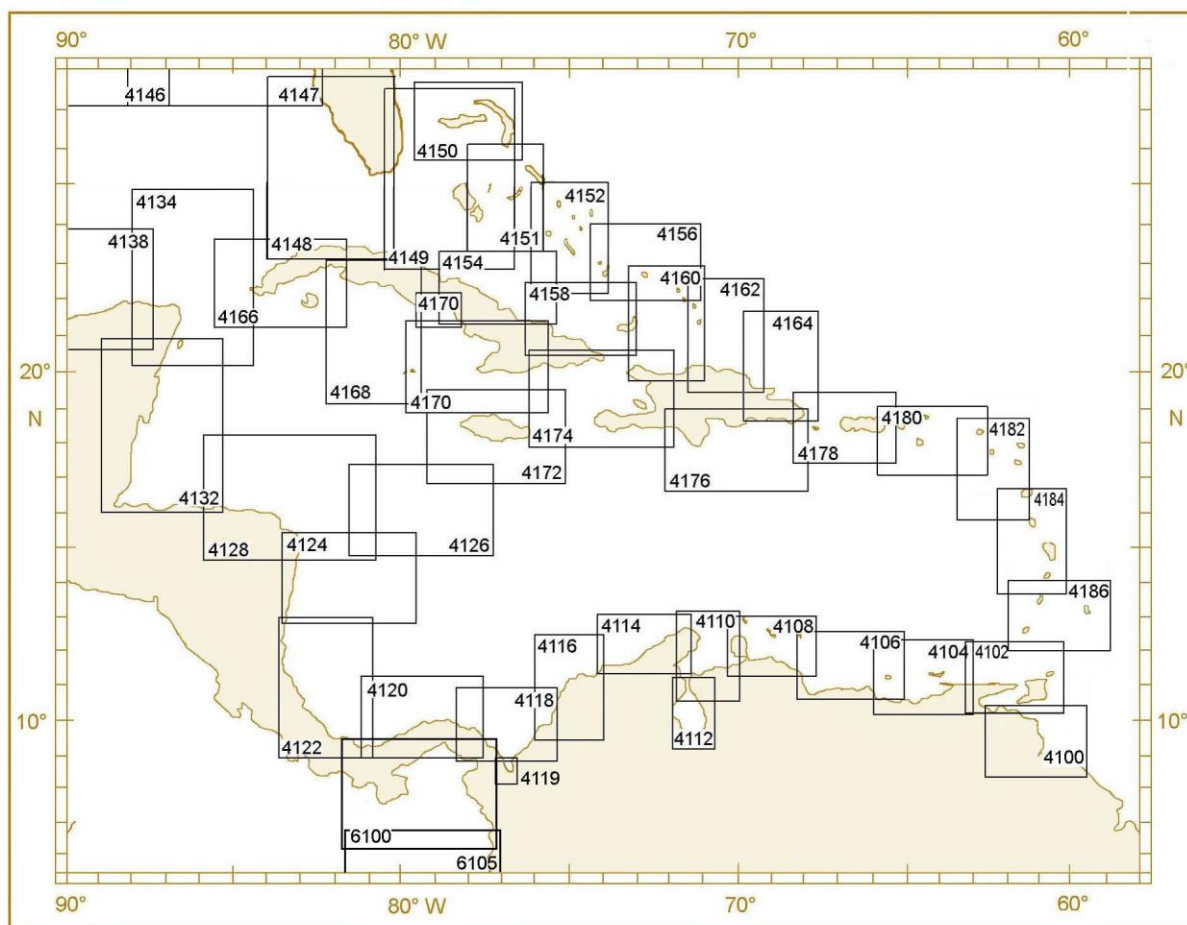


CONCLUSION

The MICC, as the combined INT Chart and Electronic Chart Committees, will continue to utilize the efficiencies gained by the joining of the two former committees. The MICC's first goal, the identification of "Producer" States, is almost complete.

The Committee considers small and medium-scale INT charts a priority as well, and will work to achieve a coordinated schedule for a parallel compilation/production of both INT Charts and ENCs. While the ENC production schedule is available in Annex A of this report, much of the INT Chart production is available in Edition 2.0.4 of Region B of S-11, dated November 2013, posted to the IHO website at: http://www.iho.int/iho_pubs/standard/S-11/S-11_PartB_RegionB_e2.0.4.pdf.

A sample diagram is shown in the figure below.



SECTION 2-ENCs

INTRODUCTION – ENC

The second and complimentary purpose of the Meso American and Caribbean Sea Hydrographic Commission's (MACHC) Integrated Chart Committee (MICC)¹ is to facilitate the production and promote the availability of official electronic chart data for safe, efficient, and environmentally sensitive maritime navigation within the MACHC Region.

In order to ensure that adequate regional ENC coverage will be available to meet International Maritime Organization (IMO) Electronic Chart Display and Information System (ECDIS) carriage requirements in a timely manner, the MICC was tasked at the 10th MACHC Conference (November 2009, Barbados) to assess ENC coverage. The MICC was additionally tasked to develop an ENC scheme to ensure adequate ENC coverage by the first deadline (July 2012) set by the International Maritime Organization (IMO). The MACHC endorsed the group's initial goal:

“Achieve adequate regional ENC coverage by December 31, 2010 (using the medium scale INT Chart Scheme as the baseline for adequate medium scale ENC coverage--usage bands 2/3).”

ENCs are required to enable safe port-to-port navigation for international shipping, and they must correspond to the paper chart coverage for the routes between the ports, as well as the port areas themselves.² For assessment purposes, adequate ENC coverage is attained when these ENCs are produced and available.

The former MICC submitted their report, *ENC Coverage of the MACHC Region* to the 11th MACHC Conference in Suriname, in November 2010. The Report was endorsed by the full MACHC and copies were made available to IHO and other interested parties. Further, at this meeting, the original goal was expanded to include adequate ENC coverage for Usage Bands 4-6 for the Atlantic side of the MACHC and for all Usage Bands (Bands 1-6) for the Pacific side of MACHC Member States.

A similar Report was prepared for the 12th MACHC in St. Kitts. This Report was a continuation of the first Report and essentially served as a progress report.

This report provides further progress and expanded information on the status of ENCs. The Report's annexes: 1) summarize the status of ENC coverage for the entire MACHC region; 2) depict a regional ENC scheme (Annex A) agreed to by the MACHC Member States in a format similar to that of the paper INT Chart Scheme found in Ed. 2.003 of S-11; and 3) contain recommendations for near-term actions to resolve specific identified issues.

² This definition was adopted in October 2007 at an extraordinary meeting of the IHO WEND Committee to specifically consider matters arising from IMO/NAV53. It was subsequently communicated at NAV54 in April 2008.

BACKGROUND

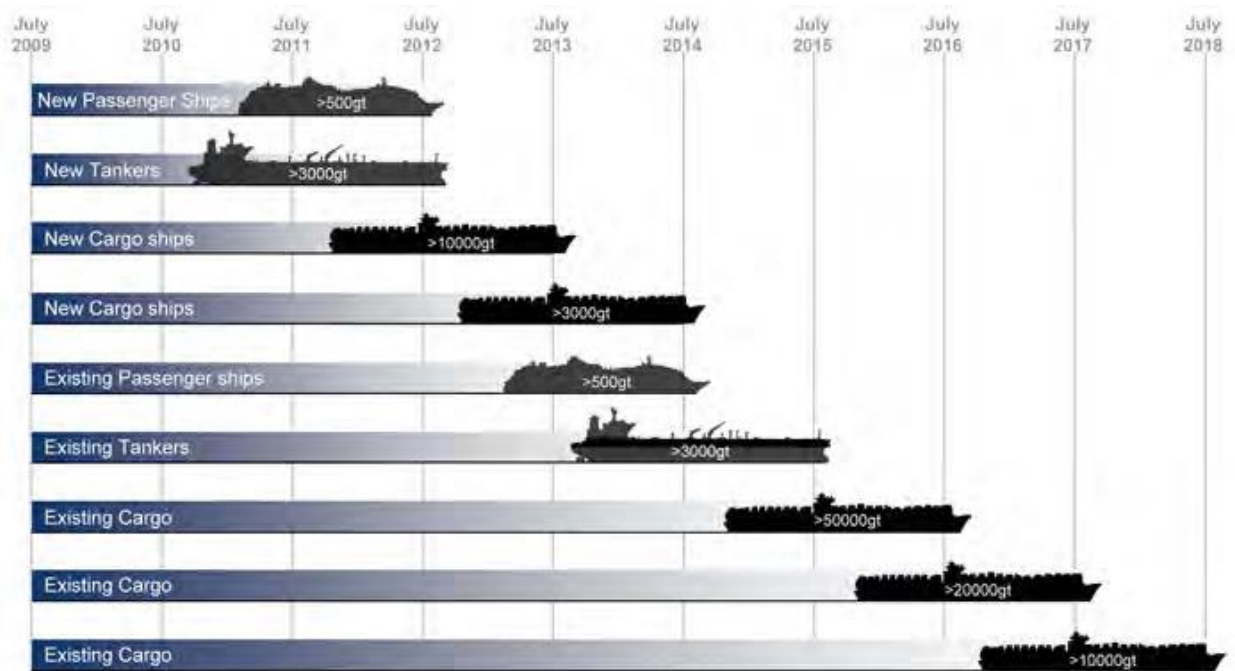
Several drivers have heightened the need for the successful completion of the MICC work program.

INTERNATIONAL MARITIME ORGANIZATION CARRIAGE REQUIREMENTS

In December 2006, the 82nd session of IMO's Marine Safety Committee agreed to amendments to the High Speed Craft (HSC) Code with regard to ECDIS, which requires that High-Speed craft shall be fitted with an ECDIS:

New vessels	Existing vessels
craft constructed on or after 1 July 2008	craft constructed before 1 July 2008, not later than 1 July 2010

Further, in 2009 the International Maritime Organization announced the six-year timeframe for implementing ECDIS as a carriage requirement for large passenger, tanker, and cargo ships:



Courtesy of UKHO

As the 2014 deadline for implementing ECDIS as a carriage requirement for Existing Passenger Ships approaches, the Cruise Industry has become more engaged in the deliberations of the MICC. Since Passenger Vessels will be required to have ECDIS on board, the importance of making ENCs available for the specific Cruise Lines destinations will be essential. Several Cruise Lines have indicated their desire

for ENC's for their specific ports of call within the MACHC area and the MICC is making every effort to have the ENC's in place by the IMO July 2014 deadline.

IHO CONFERENCE DECISIONS

At its 17th International Hydrographic Conference in May 2007, the IHO adopted two resolutions:

IHO Member States should adhere and comply with the IHO's Worldwide Electronic Navigational Database (WEND) principles, which provide technical details and procedures, in order to achieve adequate coverage, availability, consistency and quality of ENC's by 2010.

The IHO strongly supports the efforts by IMO to introduce mandatory carriage requirements for ECDIS, emphasizing that a significant coverage of ENC's is already in place and will be further improved by 2010, as indicated in the Det Norske Veritas report (NAV 53/INF.3) and supported by IHO assessments.

IHO WEND PRINCIPLES

The purpose of WEND is to ensure that high quality, updated, official ENC's are provided through integrated services that support chart carriage requirements of SOLAS Chapter V². According to the IMO performance standards for ECDIS:

- Member States will strive to ensure that mariners, anywhere in the world, can obtain fully updated ENC's for all shipping routes and ports across the world.
- Member States will strive to ensure that their ENC data are available to users through integrated services, each accessible to any ECDIS user (i.e., providing data in S-57 form), in addition to any national distribution or system-specific SENC delivery.
- Member States are encouraged to distribute their ENC's through an RENC in order to share a common experience and reduce expenditure, and to ensure the greatest possible standardization, consistency, reliability, and availability of ENC's.
- ENC duplication should be avoided; only a single country should produce an ENC for any given area. Normally, a Member State produces ENC's within their national waters; however, they can delegate responsibility for the production of ENC's, completely or in part, to another country. The designated country then becomes the producing country in the considered area.

In response to these drivers, the MICC recognized the need to improve regional ENC coverage in the short- to medium-term, and encouraged national hydrographic offices to produce and distribute ENC's that will improve maritime operations and environmental safety. In 2010, the MICC focused efforts on medium-scale (Usage Bands 2 and 3) ENC's, based on the equivalent medium scale (1:300,000, 1:400,000, 1:500,000- scale) INT Chart Schemes in the Atlantic side of the region.³ In 2011, the MICC continued efforts in the development of include large-scale ENC's (Usage Bands 4-6) on the Atlantic side

² SOLAS Chapter V, Regulation 9, requires Contracting Governments to ensure that hydrographic data are available in a suitable manner in order to satisfy the needs of safe navigation. Once the carriage of ECDIS becomes mandatory, there will be a consequential requirement to ensure that such data, as agreed by IMO, are available in a form suitable for use in ECDIS.

³ Information on Usage Band 1 is included in Annex A for reference purposes.

of the MACHC and all ENC (Usage Bands 1-6) on the Pacific side. This effort has continued throughout 2012 and 2013.

WORK PLANS AND PROCESS

The work plan for 2010 assessed the adequacy of MACHC Region ENC (UB1-3) coverage, based on the INT Chart “footprint” which was used for the initial December 2010 assessment. The report was presented to the 2010 MACHC meeting in Suriname. For 2011, the group expanded on the previous work plan to:

- utilize the concept of “priority ports” to guide Usage Bands 4-6 ENC construction/coverage of the MACHC Region-Atlantic side;
- assess coverage of priority ports to guide ENC construction/coverage of the MACHC Region-Pacific side;
- coordinate action plans for addressing gaps and overlaps in ENC coverage between countries; and
- continue the communication strategy used in the 2010 assessment to track progress and resolve issues.

Although a great deal of work has been completed, especially on the Atlantic side, the above efforts continue until transition to a “maintenance” stage is achieved. The work plans for the past years are found in Annex C. This past year, the MICC held three conference calls (March 13, May 22, and October 23) and one face-to-face meeting are planned for December 9, 2013 just prior to the MACHC Conference.

Between calls and meetings, participants communicated primarily via e-mail and the new revised MACHC Committees website.

DATA ANALYSIS METHODOLOGIES

2010 for the Atlantic Side: Usage Bands 1-3

To successfully and accurately report on regional ENC coverage, and to appropriately plan to address regional ENC deficiencies, the UKHO and the MICC technical coordinator produced a baseline assessment of regional ENC coverage by breaking this assessment into two components: officially distributed data; and data not yet distributed. During the first year (2010), the UKHO first assessed regional Usage Bands 1, 2, and 3 ENC coverage for ENCs currently distributed through the Regional Electronic Navigational Chart Coordinating Center (RENC) and compared it to the data footprint of the small to medium scale INT Charts for the MACHC Region. Then the UKHO analyzed Usage Bands 1, 2, and 3 ENC coverage for ENCs produced, but *not* currently distributed through the RENC, and compared that to the data footprint of the small to medium scale INT Charts for the MACHC Region.

In the baseline assessment, the UKHO adhered to a pre-defined set of guidelines (Annex D) for ENC analysis. The guidelines required the identification and documentation of ENC deficiencies, such as:

- gaps in planned ENC coverage;
- overlapping ENCs within the same Usage Band between MACHC Member States;
- overlapping same Usage Band ENCs within national suites; and

- other data anomalies that could affect the use of ENC's in ECDIS.

The UKHO documented this information and, in conjunction with the MICC technical coordinator, delivered this report to representatives of MICC Member States.

*2011 Analysis Methodology for the Atlantic Side: Usage Bands 4-6 and
Pacific Side: Usage Bands 1-6*

The methodology for assessing adequate coverage for Usage Bands 4-6 was different due to the absence of an INT Chart Scheme for these scale bands. Thus in 2011, the MICC used existing national paper chart coverage of these areas as a guide for determining adequate ENC coverage. The MICC also used a list of "priority ports" as the baseline for assessing adequate coverage of major harbors and approaches to appropriately plan to address any coverage deficiencies. The UKHO initially derived this regional list of priority ports from the *Lloyd's Ports Listing*. UKHO entered the data into a GIS tool that produced a preliminary assessment of the number of ports with adequate coverage at Usage Bands 4-6. UKHO passed this information to the MICC technical coordinator, who produced national listings that were then circulated to all Member States for review and further refinement. The updated master list (Annex E) was an important tool for assessing whether these priority regional ports have adequate ENC coverage. This approach was also used on the Pacific side because no INT Chart Scheme is currently available for this part of the MACHC region.

CONCLUSIONS

ATLANTIC SIDE

For the Atlantic side, the MICC continued to make significant progress towards its goal of ensuring adequate regional ENC coverage (Usage Bands 1-6) by the various IMO dates announced in the six-year timeframe for implementing ECDIS as a carriage requirement (see page 6 above). The MICC established a regional scheme (see Annex A) that shows ENC coverage along with a tabulation of ENC cells and status, based on the format of the paper INT Chart scheme found in Ed. 2.003 of S-11. The tables in Annex A identify ENCs that are currently distributed, as well as the anticipated distribution dates of those not yet available for use by the mariner.

The tables below show the total number of ENC cells, as required, by Usage Bands to achieve adequate coverage as per the WEND Principles. Although this number will achieve adequate coverage within the Region, it should be noted that several Member States either already have or are planning additional cells to supplement their existing suite of ENCs to improve coverage beyond the “adequate” requirement of the WEND Principles. These additional cells are included in the listing of ENCs at Annex A to this report.

ADEQUATE ENC COVERAGE OF THE ATLANTIC SIDE OF THE REGION BY USAGE BANDS

Usage Band	Total cells	Cells currently available	Cells available by Dec 2013	Cells available by July 2014
Usage Band 1	7	6	6	7
		86%	86%	100%
Usage Band 2	22	17	17	19
		77%	77%	86%
Usage Band 3	106	77	79	90
		73%	75%	85%
Usage Band 4	188	148	154	170
		79%	82%	90%
Usage Band 5	286	232	242	269
		81%	85%	94%
Usage Band 6	13	12	12	13
		92%	92%	100%
All Usage Bands	622	492	510	568
		79%	82%	91%

PACIFIC SIDE

For the Pacific side of the MACHC Region, the MICC developed a similar regional scheme (see Annex A) that shows ENC coverage of the Pacific side along with a tabulation of ENC cells and status, based on the coverage of existing paper charts and the identified priority ports. The tables in Annex A identify ENCs that are currently distributed, as well as the anticipated distribution dates of those not yet available for use by the mariner.

ADEQUATE ENC COVERAGE OF THE PACIFIC SIDE FOR THE REGION BY USAGE BANDS

Usage Band	Total cells	Cells currently available	Cells available by Dec 2013	Cells available by July 2014
Usage Band 1	7	5	5	7
		71%	71%	100%
Usage Band 2	14	14	14	14
		100%	100%	100%
Usage Band 3	11	10	11	11
		91%	100%	100%
Usage Band 4	25	25	25	25
		100%	100%	100%
Usage Band 5	38	34	38	38
		89%	100%	100%
Usage Band 6	4	3	3	4
		75%	75%	100%
All Usage Bands	99	91	96	99
		92%	97%	100%

When all of the ENCs identified in the scheme are officially distributed, the region will technically meet the definition of “adequate” coverage, i.e., where there is a paper chart, (as identified in the INT Chart footprint) there is a corresponding ENC and all “priority ports” are covered by an ENC. The MICC also examined ENC schemes in adjacent Regional Hydrographic Commissions (Southeast Pacific Hydrographic Commission, Southwest Atlantic Hydrographic Commission, and U.S.-Canada Hydrographic Commission) and ensured that all MACHC ENC cells fit seamlessly with the adjacent schemes.

The MICC further acknowledges that some Member States may encounter circumstances, despite their best intentions, which may preclude them from completing their planned ENC coverage by the due dates as indicated in the Background Section on page 6. These circumstances may include technical issues, geo-politics, resource constraints, or capacity-building setbacks. Should this situation occur, the MICC developed options to provide potential ENC coverage as a temporary solution at the December 2011 St. Kitts meeting. They are further elaborated in recommendation seven.

SECTION 3-Recommendations

RECOMMENDATIONS

The MICC makes the following recommendations for 2014:

1. MICC continue to monitor and update the Region B, both for the Atlantic and Pacific side, ENC scheme for all Usage Bands, per the timetables indicated in Annex A.
2. As a permanent task, MICC invites all MACHC Member States to provide the MICC with updates to their ENC production plans taking into account:
 - a. IMO requirements for mandatory carriage and priority regional ports;
 - b. the availability of adequate survey data for ENC production (keeping in mind that, in some areas, hydrographic offices may not produce ENCs if data are out-of-date or not compliant with S-44 standards); and
 - c. the need to address national overlaps and consistency for all Usage Bands.
3. In order to create the IHO worldwide ENC database, the MICC encourages all ENC producers to make their ENCs available through Regional Electronic Navigational Chart Coordinating Centers, even if they are also distributed by different channels.
4. If Member States are unable to complete their ENC coverage in the designated timeframes, the MACHC, in partnership with appropriate authorities, should pursue options to address this situation, in accordance with the IMO ECDIS Requirements and the WEND principles, including:
 - a. ***Utilize the WEND Principles and Implementation Guidance:*** *Partnering with another Hydrographic Office to provide coverage on a temporary basis to provide ENCs of specific areas until the affected Coastal State can provide their own.*
 - b. ***Capacity Building Assistance.*** *Request that the MACHC Capacity Building Committee provide support via technical training or other targeted assistance for a Coastal State to reach its ENC coverage goals.*
 - c. ***Re-evaluate Priority Ports:*** *Although the first IMO deadline for ECDIS requirements has passed, it affected only a limited number of vessels. However, the July 2014 deadline imposes the ECDIS Carriage Requirement on new cargo vessels greater than 3,000gt and on all passenger vessels greater than 500gt. This, in effect, calls for ENCs to be available for the ports of call for vessels in this category. An analysis of such ports and the vessels calling on them in conjunction with the staggered IMO carriage requirement deadlines will help determine appropriate priorities for outstanding priority port ENC coverage and construction.*
 - d. ***Use of Raster Charts.*** *Only after all other options have been exhausted, use raster charts as an interim measure to fill an ENC gap. While there is concern that not all raster chart coverage can be read or displayed in an ECDIS, this option can serve as a*

last resort measure until ENC's are available from the HO or via one of the other means noted above

5. If MACHC Member States are unwilling either to distribute ENC's or to have another country produce ENC's for them, the MACHC Chair will inform the IRCC and request that IRCC will take appropriate action with the WEND Working Group, the IHB, and IMO.
6. MICC continue to monitor and update the Region B, Atlantic side, INT Chart scheme for all scales.
7. MICC to develop an INT Chart scheme for all scales for the Pacific side of Region B.
8. As a permanent task, MICC invites all MACHC Member States to provide the MICC with updates to their INT Chart schemes and production plans.
9. MICC encourages Member States to synchronize the release of new (and updated editions) "INT Charts" and "ENC's" as best as possible.
10. MACHC Chair is invited to provide this report to the International Hydrographic Bureau (IHB) as the region's contribution to global (ENC and INT) chart coverage so that it may be conveyed as appropriate to the IMO.

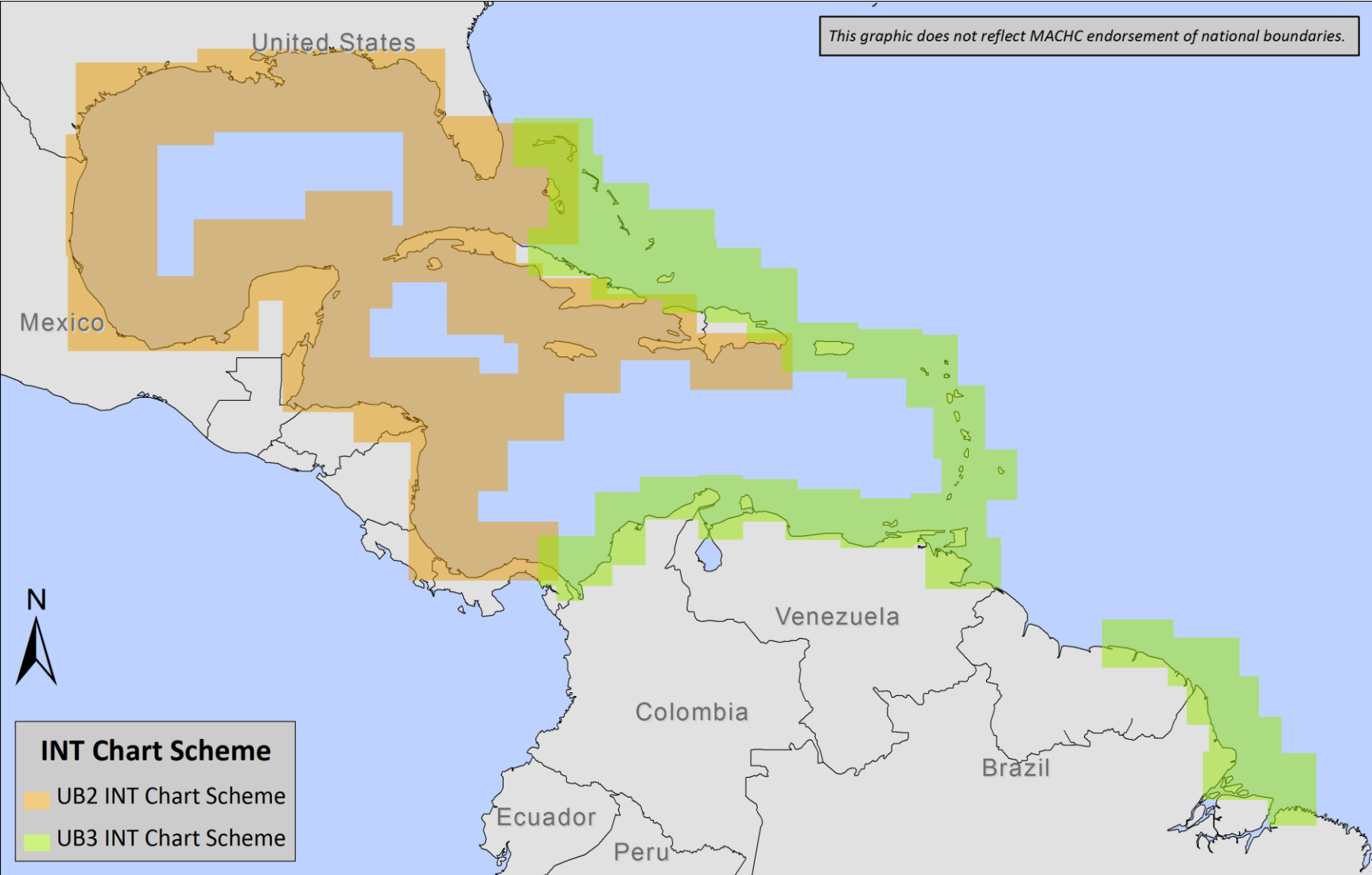
ACTIONS REQUIRED OF THE MACHC

The MICC invites MACHC Member States to note and endorse this report and its recommendations. The MICC also requests that the MACHC Chair then transmit the report to the IHB for final communications as appropriate to the IMO.

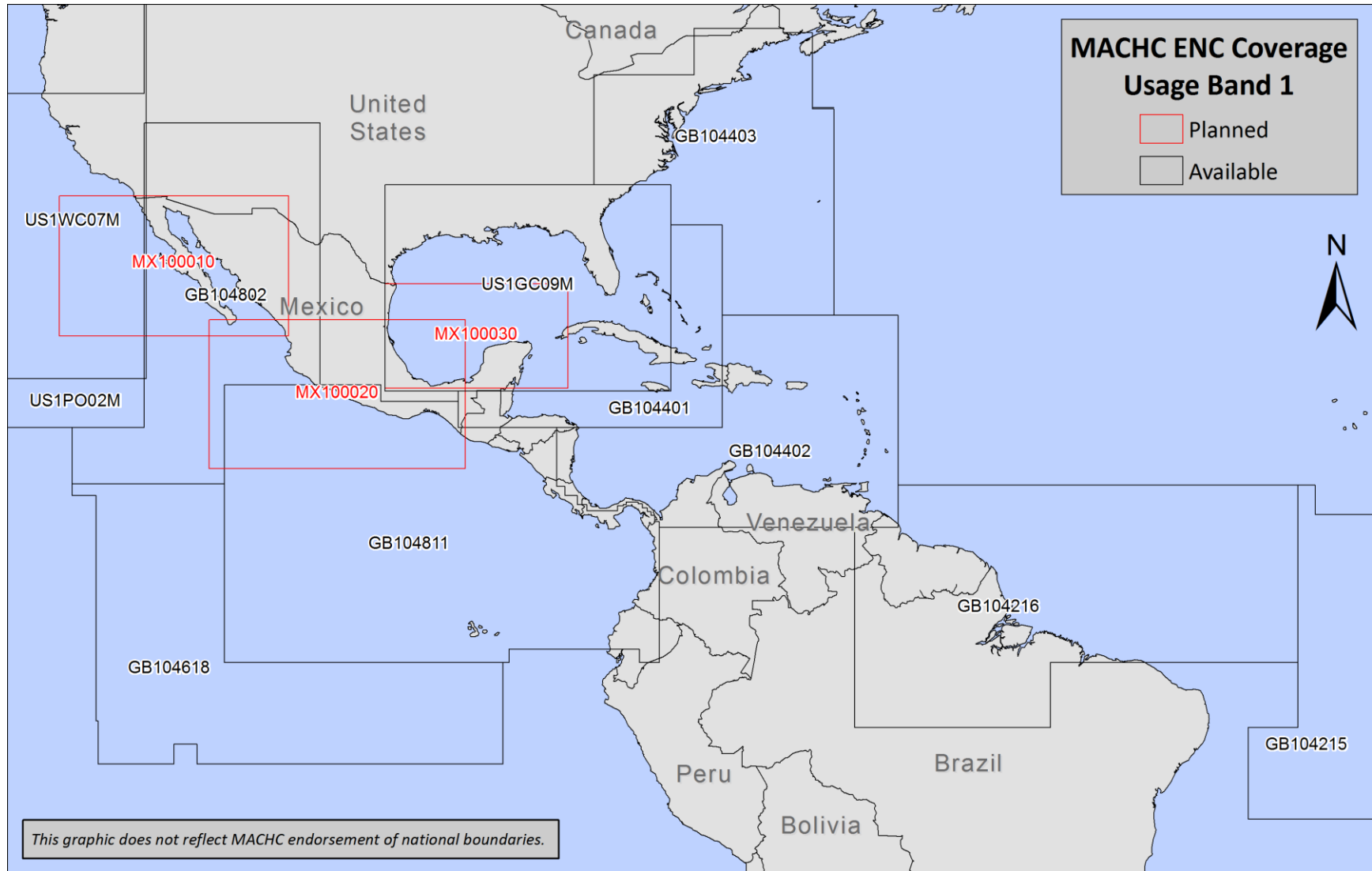
ANNEXES

- A. MACHC ENC Scheme for the Atlantic and Pacific
- B. Member States Actions Addressing Scheme Gaps/Overlaps
- C. Work Plan Milestones
 - Work Plan, 2013
 - Work Plan, 2012
 - Work Plan, 2011
 - Work Plan, 2010
- D. Analysis Guidelines, 2010
- E. Priority Ports List
- F. List of MICC Participants

ANNEX A – INT CHART FOOTPRINT



ANNEX A – USAGE BAND 1 MAP

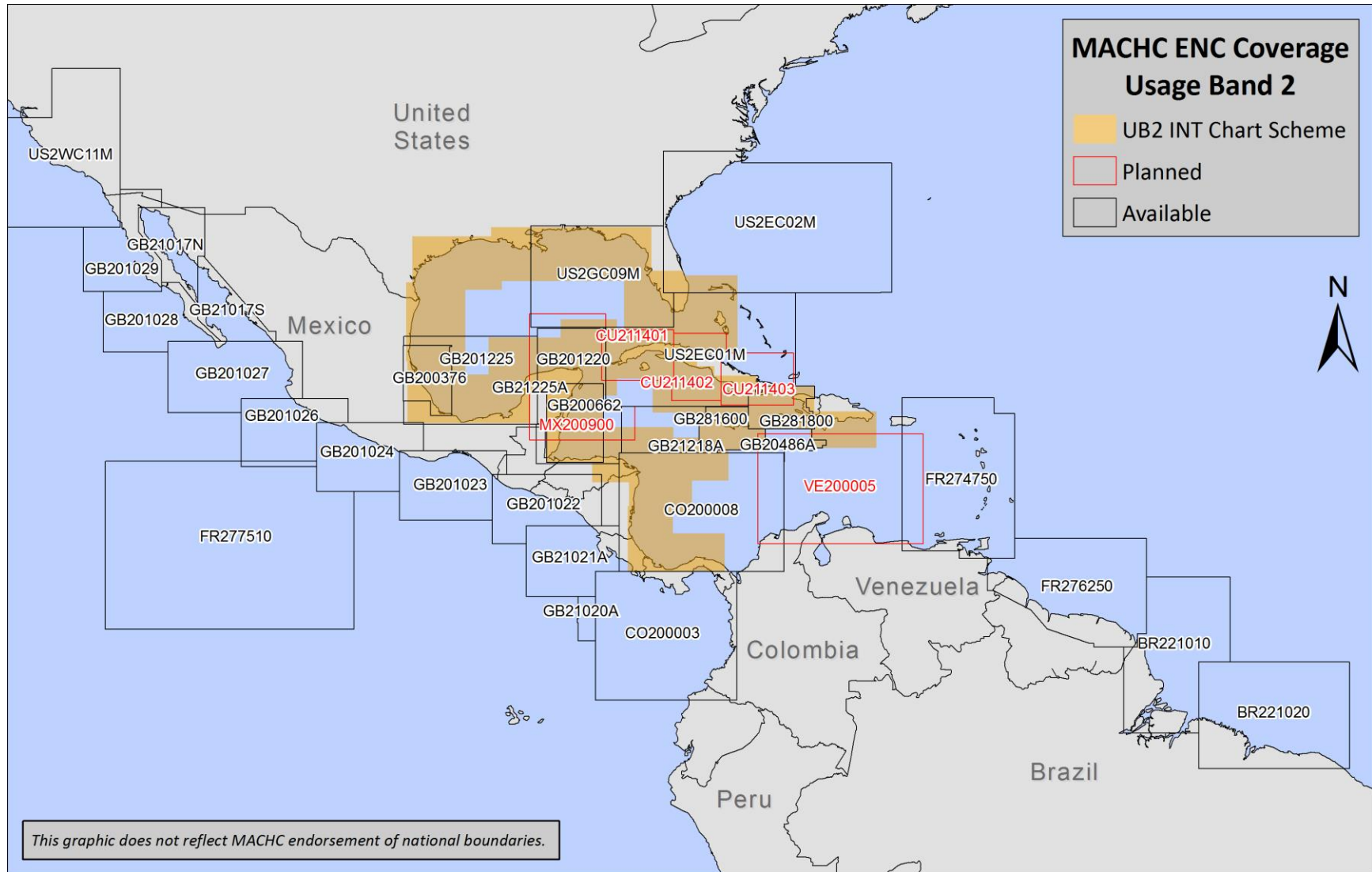


ANNEX A – ENC CELLS USAGE BAND 1 TABLE

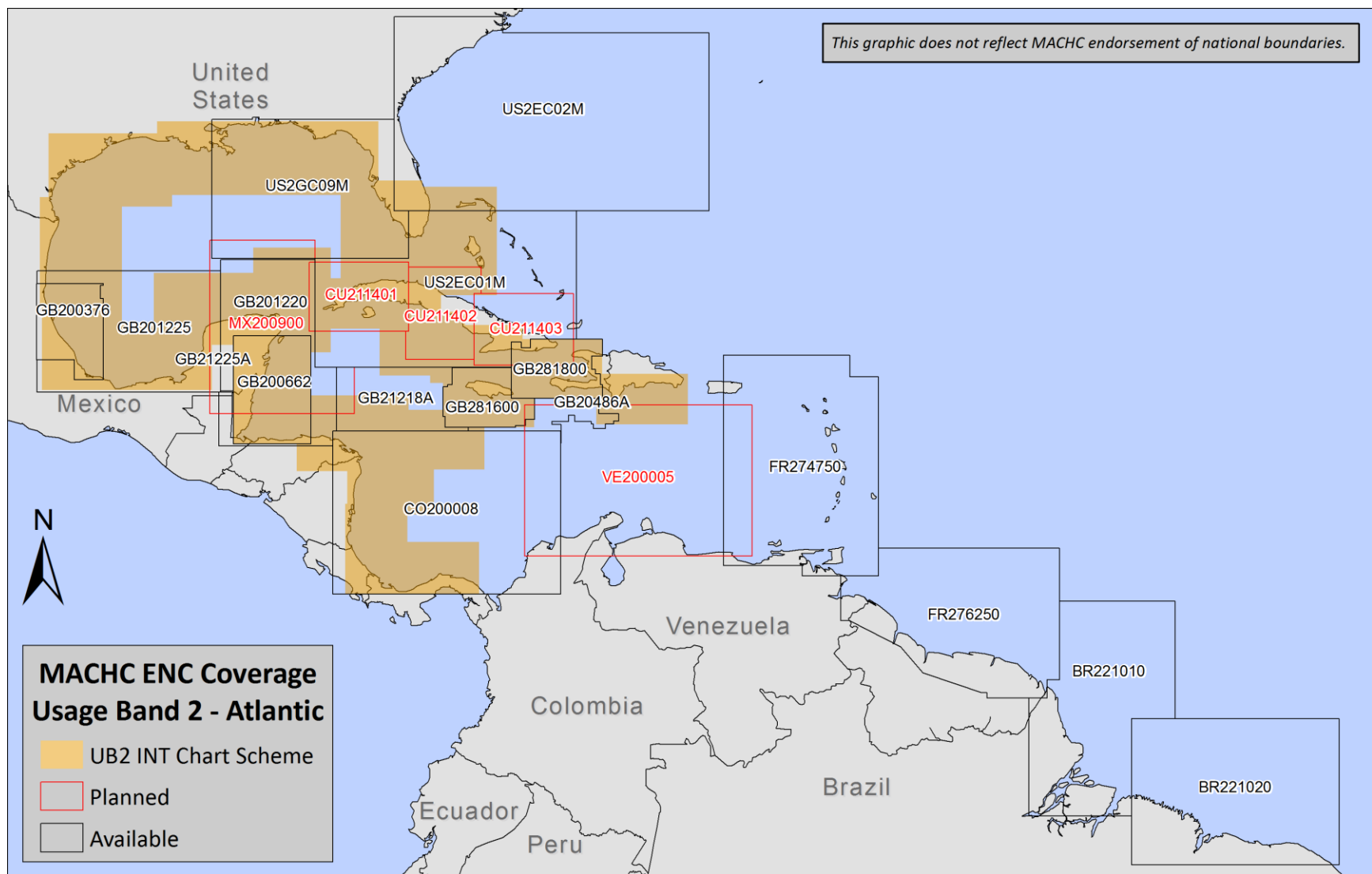
Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB104215	UKHO	Atlantic Ocean - Gambia Basin to Brazil Basin	3500000	Available	EUSP ⁴	Atlantic
GB104216	UKHO	Atlantic Ocean - North East Coast of South America	3500000	Available	IC-ENC	Atlantic
GB104401	UKHO	North Atlantic Ocean - Gulf of Mexico	2750000	Available	IC-ENC	Atlantic
GB104402	UKHO	North Atlantic Ocean – Caribbean Sea	1500000	Available	IC-ENC	Atlantic
GB104403	UKHO	North Atlantic Ocean - SE Coast of North America - Brunswick to Philadelphia inc Bermuda	3500000	Available	IC-ENC	Atlantic
GB104618	UKHO	Clipperton Fracture Zone to Bauer Basin	3500000	Available	IC-ENC	Pacific
GB104802	UKHO	North Pacific Ocean - West Coast of Mexico - Cabo San Quintin to Punta San Telmo	3500000	Available	IC-ENC	Pacific
GB104811	UKHO	Pacific Ocean - Central America - Mexico to Ecuador	3500000	Available	IC-ENC	Pacific
MX100010	SEMAR	Ensenada a Mazatlan Incluyendo Golfo de California	500000	July 2014	IC-ENC	Pacific
MX100020	SEMAR	Mazatlan a Puerto Chiapas	500000	July 2014	IC-ENC	Pacific
MX100030	SEMAR	Rio Bravo a Bahia de Chetumal	500000	July 2014	IC-ENC	Atlantic
US1GC09M	NOAA	Gulf of Mexico	2160000	Available	NOAA	Atlantic
US1PO02M	NOAA	North Pacific Ocean (e. part) Bering Sea Cont B	10000000	Available	NOAA	Pacific
US1WC07M	NOAA	San Diego to Aleutian Islands and Hawaiian Islands	4860700	Available	NOAA	Pacific

⁴ End User Service Provider

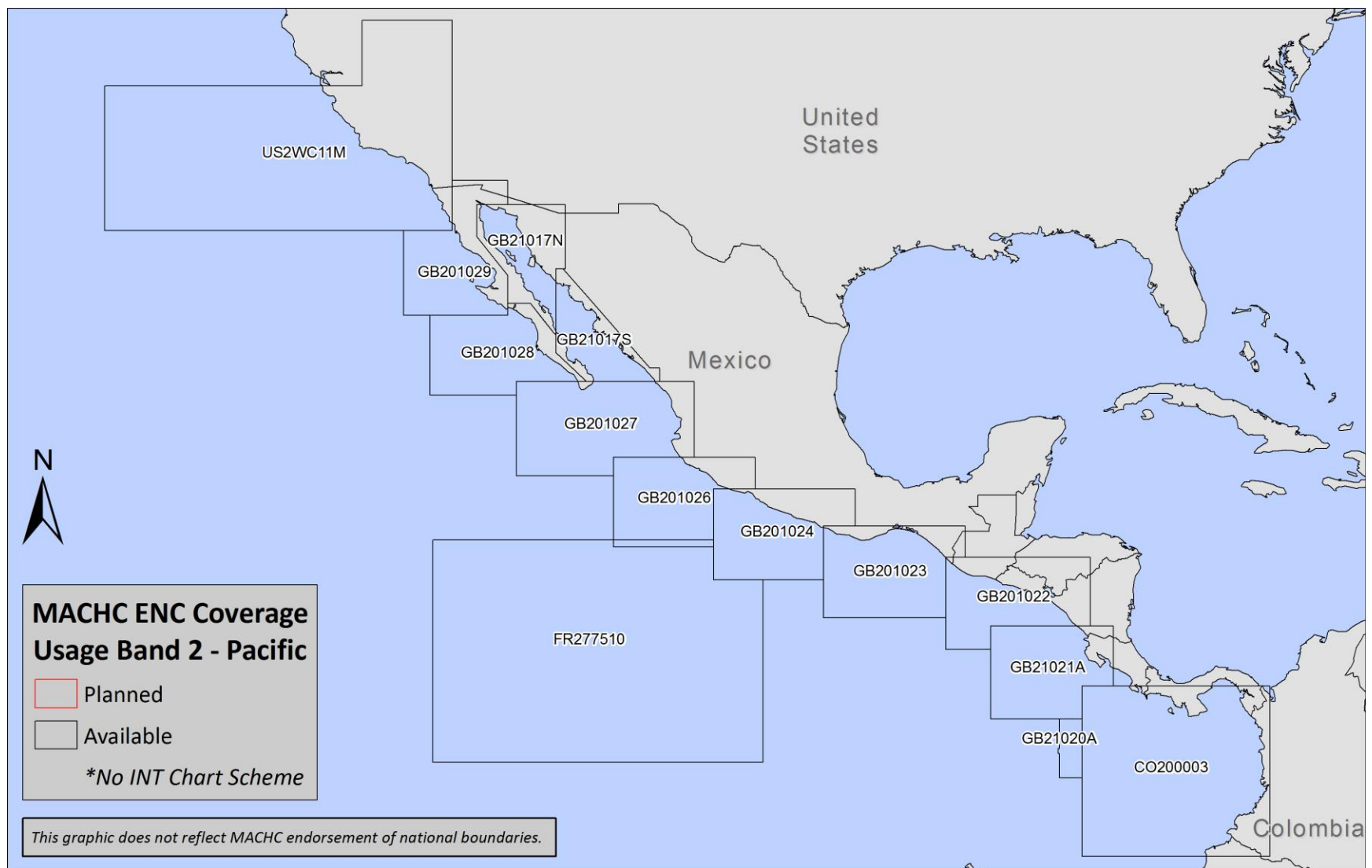
ANNEX A – USAGE BAND 2 MAPS



ANNEX A – USAGE BAND ATLANTIC



ANNEX A – USAGE BAND 2 PACIFIC

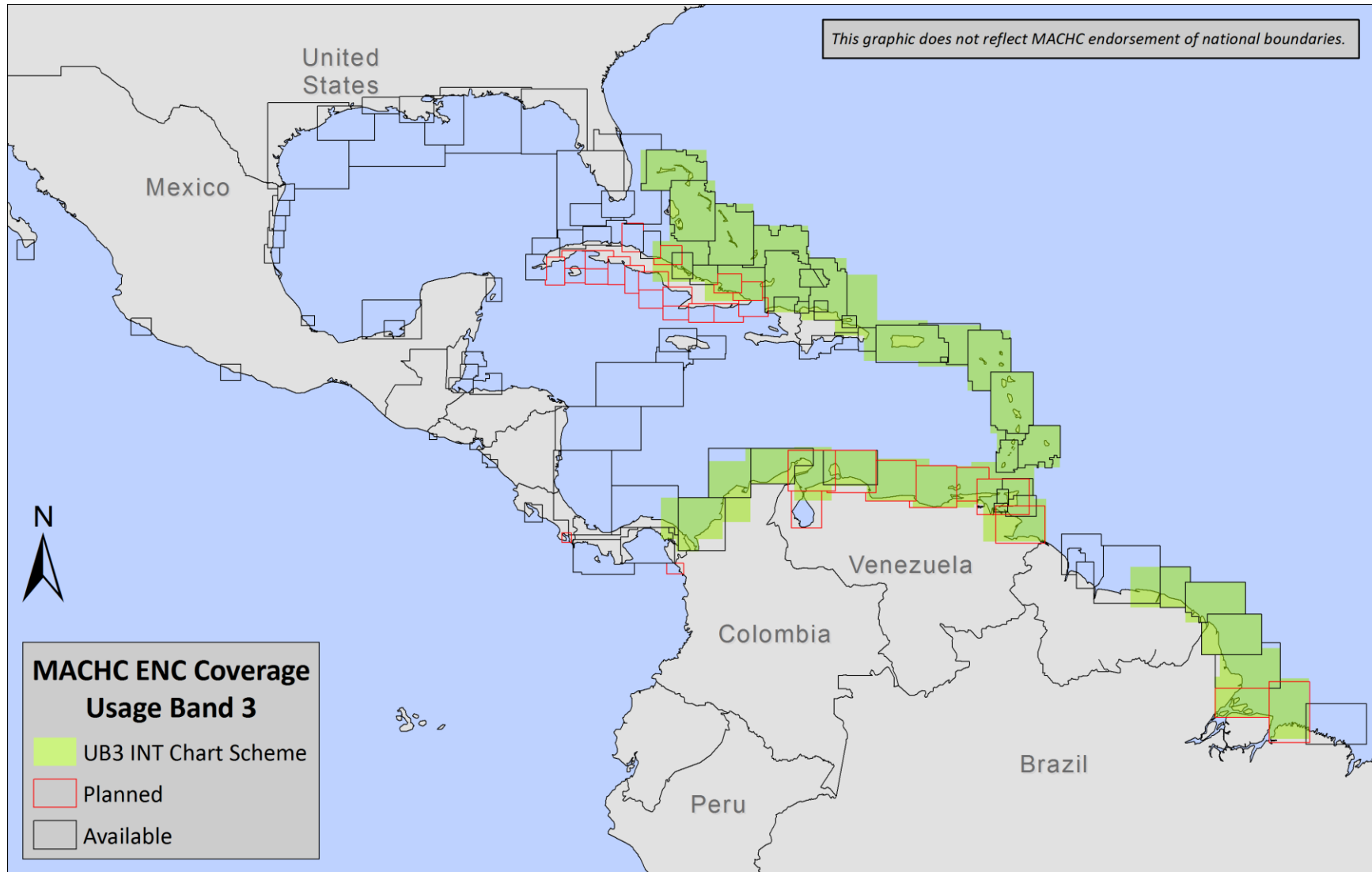


ANNEX A – ENC CELLS USAGE BAND 2 TABLE

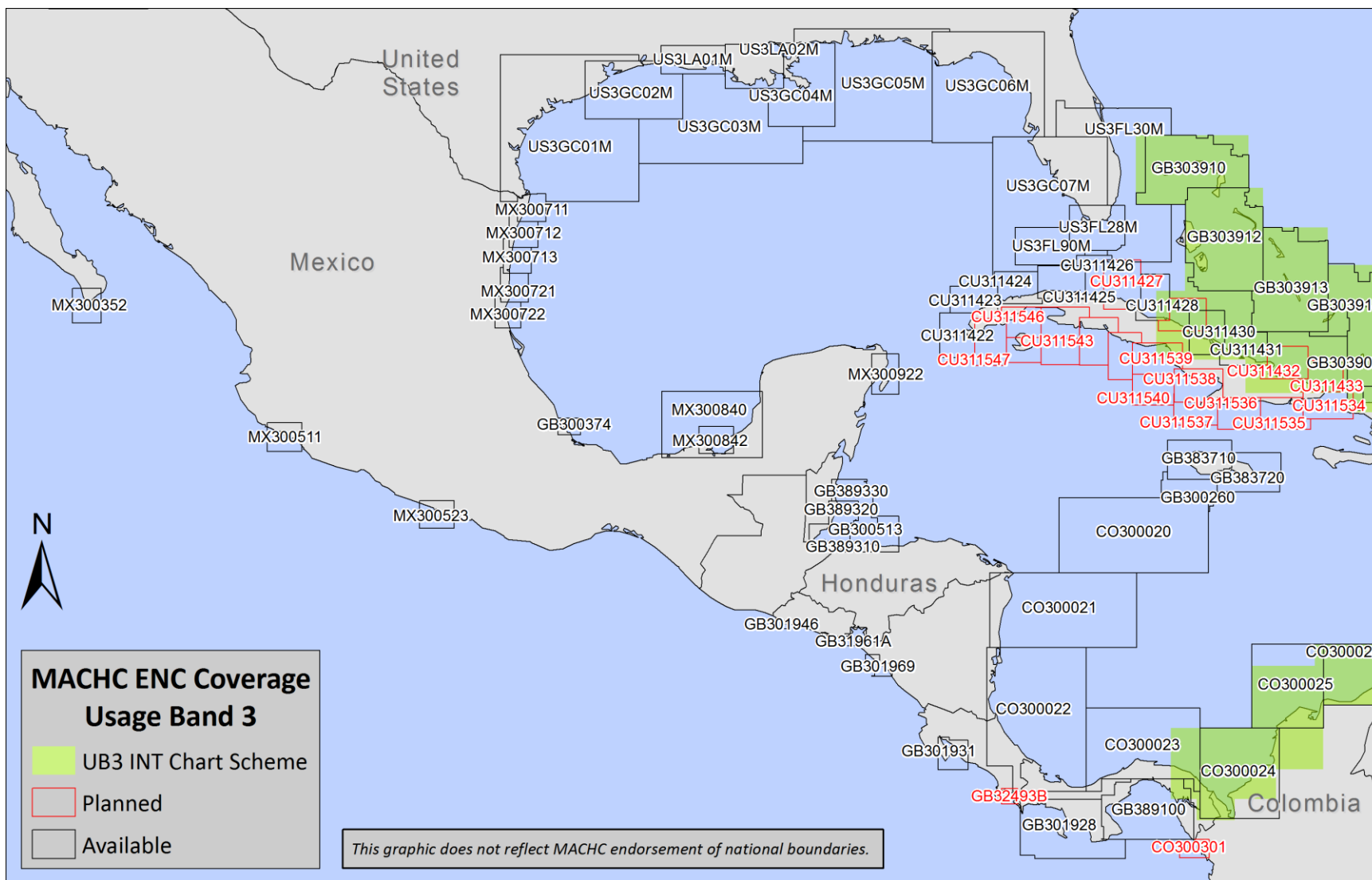
Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
BR221010	DHN (BR)	Do Cabo Orange à Ilha de Cajutuba	700000	Available	IC-ENC/PRIMAR	Atlantic
BR221020	DHN (BR)	De Salinópolis a Fortaleza	700000	Available	IC-ENC/PRIMAR	Atlantic
CO200003	CIOH	Costa Oeste de Colombia	700000	Available	IC-ENC	Pacific
CO200008	CIOH	Cabo Gracias a Dios a Santa Marta	700000	Available	IC-ENC	Atlantic
CU211401	SHGC	Océano Atlantico Parte Occidental de Cuba	350000	2015	IC-ENC	Atlantic
CU211402	SHGC	Océano Atlantico Parte Central de Cuba	350000	2015	IC-ENC	Atlantic
CU211403	SHGC	Océano Atlantico Parte Oriental de Cuba	350000	2015	IC-ENC	Atlantic
FR274750	SHOM	Puerto Rico to Trinidad	700000	Available	PRIMAR	Atlantic
FR276250	SHOM	Delta Del Orinoco to Cayenne	700000	Available	PRIMAR	Atlantic
FR277510	SHOM	Clipperton Island	1570000	Available	PRIMAR	Pacific
GB200376	UKHO	Mexico - East Coast - Veracruz to Altamira	350000	Available	IC-ENC	Atlantic
GB200662	UKHO	Central America - East Coast - Isla de Guanaja to Isla Cozumel including The Gulf of Honduras	350000	Available	EUSP	Atlantic
GB201022	UKHO	Puerto Masachapa to Chanperico	700000	Available	IC-ENC	Pacific
GB201023	UKHO	Barra de San Jose to Punta Galerla	700000	Available	IC-ENC	Pacific
GB201024	UKHO	Punta Maldonado to Punta Mangrove	700000	Available	IC-ENC	Pacific
GB201026	UKHO	Punta Mangrove to Punta Farallón	700000	Available	IC-ENC	Pacific
GB201027	UKHO	Mexico - Pacific Coast - Outer Approaches to Golfo de California	700000	Available	IC-ENC	Pacific
GB201028	UKHO	Mexico - Pacific Ocean Coast Punta Pescadero to Punta Bronaugh	700000	Available	IC-ENC	Pacific
GB201029	UKHO	Punta Abreojos to Cabo San Quintin	700000	Available	IC-ENC	Pacific
GB201220	UKHO	Gulf of Honduras	700000	Available	IC-ENC	Atlantic
GB201225	UKHO	Gulf of Campeche	700000	Available	EUSP	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB20486A	UKHO	West Indies - Bajo Nuevo to South of Haiti	700000	Available	IC-ENC	Atlantic
GB21017N	UKHO	Mexico - Pacific Coast - Golfo de California - San Felipe to Isla Carmen	700000	Available	IC-ENC	Pacific
GB21017S	UKHO	Mexico - Pacific Coast - Golfo de California - Guaymas to Mazatlan	700000	Available	IC-ENC	Pacific
GB21020A	UKHO	Pacific Ocean - Isla Del Coco	700000	Available	IC-ENC	Pacific
GB21021A	UKHO	Costa Rica and Nicaragua - Pacific Ocean Coast - Golfo De Nicoya to Cabo Santa Elena	700000	Available	IC-ENC	Pacific
GB21218A	UKHO	Caribbean Sea - Cuba to Miskito Bank	700000	Available	IC-ENC	Atlantic
GB21225A	UKHO	Gulf of Mexico Campeche	1000000	Available	EUSP	Atlantic
GB281600	UKHO	Approaches to Jamaica	350000	Available	IC-ENC	Atlantic
GB281800	UKHO	Windward Passage and Southern Approaches	350000	Available	EUSP	Atlantic
MX200900	SEMAR	Canal de Yucatan y Proximidades	700000	July 2014	IC-ENC	Atlantic
US2EC01M	NOAA	Straits of Florida and Approaches	1200000	Available	NOAA	Atlantic
US2EC02M	NOAA	Cape Hatteras to Straits of Florida	1200000	Available	NOAA	Atlantic
US2GC09M	NOAA	Gulf Coast - Key West to Mississippi River	875000	Available	NOAA	Atlantic
US2WC11M	NOAA	San Diego To Cape Mendocino	1444000	Available	NOAA	Pacific
VE200005	DHN	Cabo Codera a Punta Canoas e Isl Adyacentes	700000	July 2014	IC-ENC	Atlantic
BR221010	DHN (BR)	Do Cabo Orange à Ilha de Cajutuba	700000	Available	IC-ENC/PRIMAR	Atlantic
BR221020	DHN (BR)	De Salinópolis a Fortaleza	700000	Available	IC-ENC/PRIMAR	Atlantic
CO200003	CIOH	Costa Oeste de Colombia	700000	Available	IC-ENC	Pacific
CO200008	CIOH	Cabo Gracias a Dios a Santa Marta	700000	Available	IC-ENC	Atlantic
CU211401	SHGC	Océano Atlantico Parte Occidental de Cuba	350000	2015	IC-ENC	Atlantic

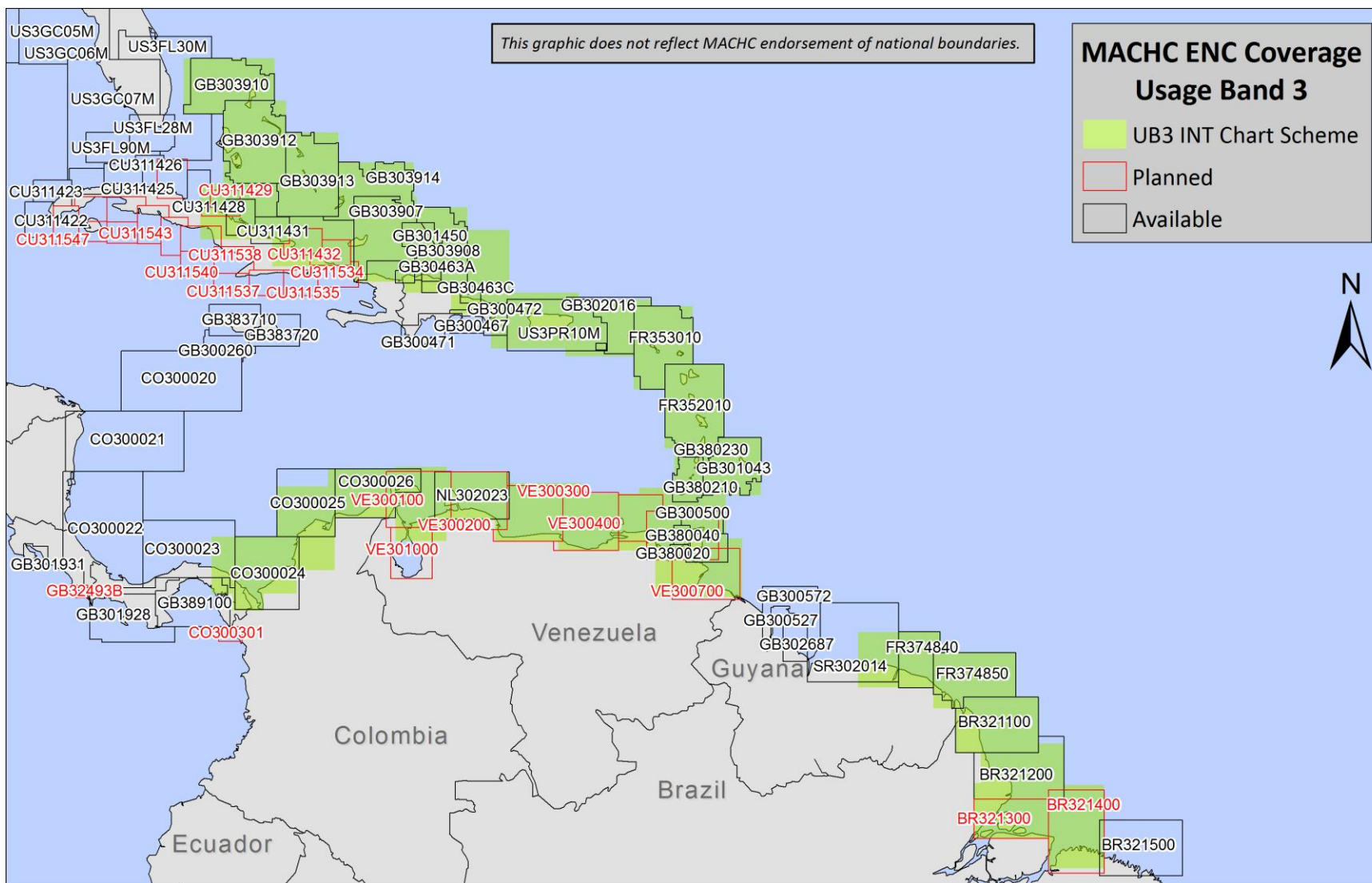
ANNEX A – USAGE BAND 3 MAPS



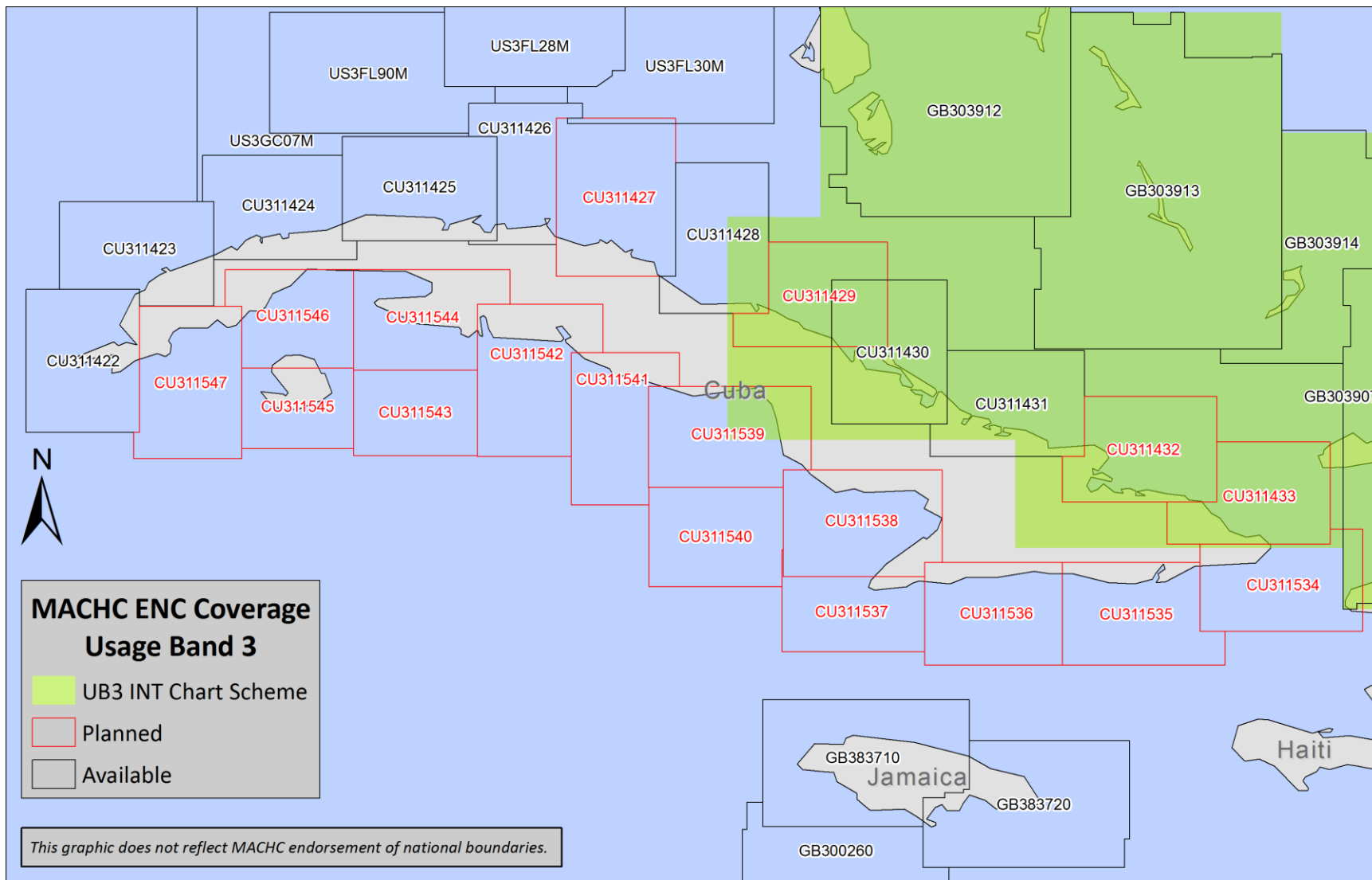
ANNEX A



ANNEX A



ANNEX A



ANNEX A – ENC CELLS USAGE BAND 3 TABLE

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
BR321100	DHN (BR)	Do Cabo Orange a Ponta Cambu	180000	Available	IC-ENC/PRIMAR	Atlantic
BR321200	DHN (BR)	Do Rio Calçoene a Ilha Sipioca	180000	Available	IC-ENC/PRIMAR	Atlantic
BR321300	DHN (BR)	Do Rio Araguari a Ilha das Flechas	180000	June 2014	IC-ENC/PRIMAR	Atlantic
BR321400	DHN (BR)	Do Machadinho a Ponta Quatipuru	180000	June 2014	IC-ENC/PRIMAR	Atlantic
BR321500	DHN (BR)	Da Ponta Boiuçucanga a Ilha Urumarú	180000	Available	IC-ENC/PRIMAR	Atlantic
CO300020	CIOH	Pedro Bank a Gorda Bank	180000	Available	IC-ENC	Atlantic
CO300021	CIOH	Cabo Gracias a Dios a Isla de Providencia	180000	Available	IC-ENC	Atlantic
CO300022	CIOH	Isla de San Andrés a Golfo de los Mosquitos	180000	Available	IC-ENC	Atlantic
CO300023	CIOH	Golfo de los Mosquitos a Punta Mosquito	180000	Available	IC-ENC	Atlantic
CO300024	CIOH	Cabo Tiburón a Bahía de Cartagena	180000	Available	IC-ENC	Atlantic
CO300025	CIOH	Punta Canoas a Santa Marta	180000	Available	IC-ENC	Atlantic
CO300026	CIOH	Punta Chengue a Castilletes Gallinas	180000	Available	IC-ENC	Atlantic
CO300301	CIOH	Punta Ardita a Bahía Octavia	90000	December 2013	IC-ENC	Pacific
CU311422	SHGC	De Cabo Corrientes a Cayos de Buenavista	90000	Available	IC-ENC	Atlantic
CU311423	SHGC	De Cayos de Buenavista a Cayo Arenas	90000	Available	IC-ENC	Atlantic
CU311424	SHGC	De Cayo Arenas a la Bahía de La Habana	90000	Available	IC-ENC	Atlantic
CU311425	SHGC	De la Bahía de La Habana a la Bahía de Cardenas	90000	Available	IC-ENC	Atlantic
CU311426	SHGC	De Bahía de Cárdenas a Cayo Bahía de Cádiz	90000	Available	IC-ENC	Atlantic
CU311427	SHGC	De Cayos de Cádiz a Cayo Fragoso	90000	December 2013	IC-ENC	Atlantic
CU311428	SHGC	De Cayos Fragoso a Cayo Guillermo	90000	Available	IC-ENC	Atlantic
CU311429	SHGC	De Cayería Los Caimanes a Cayo Verde	90000	December 2013	IC-ENC	Atlantic
CU311430	SHGC	De Cayos Cruz a la Bahía de Nuevitas	90000	Available	IC-ENC	Atlantic
CU311431	SHGC	De la Bahía de Nuevitas a la Bahía de Naranjos	90000	Available	IC-ENC	Atlantic
CU311432	SHGC	De la Bahía de Vitas a Bahía de Cayo Moa	90000	2014	IC-ENC	Atlantic
CU311433	SHGC	De Bahía de Cayo Moa a Maisí	90000	2014	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
CU311534	SHGC	De Maisí a Punta Imías Paso de los vientos	90000	2014	IC-ENC	Atlantic
CU311535	SHGC	De punta Imías a la Bahía de Santiago de Cuba	90000	2014	IC-ENC	Atlantic
CU311536	SHGC	De la Bahía de Santiago de Cuba a la Ensenada Marea del Portillo	90000	2014	IC-ENC	Atlantic
CU311537	SHGC	De la Ensenada Marea del Portillo al Canal de Madrona	90000	2014	IC-ENC	Atlantic
CU311538	SHGC	Golfo de Guacanayabo	90000	2014	IC-ENC	Atlantic
CU311539	SHGC	Del Canal del Pingüe a Tunas de Zaza	90000	2014	IC-ENC	Atlantic
CU311540	SHGC	De punta Cabeza del Este a Cayo Anclitas	90000	2014	IC-ENC	Atlantic
CU311541	SHGC	De Cayo Bretón a Punta San Juan	90000	2014	IC-ENC	Atlantic
CU311542	SHGC	De Yaguanabo a Bahía de Cochinos	90000	2014	IC-ENC	Atlantic
CU311543	SHGC	De Cayo Guano del Este a Cayo Ávalos	90000	2014	IC-ENC	Atlantic
CU311544	SHGC	De la Bahía de Cochinos a Surgidero de Batabanó	90000	2014	IC-ENC	Atlantic
CU311545	SHGC	De Cayo Ávalos a los Cayos de San Felipe	90000	2014	IC-ENC	Atlantic
CU311546	SHGC	Golfo de Batabanó	90000	2014	IC-ENC	Atlantic
CU311547	SHGC	De Cayos de San Felipe a Cabo Francés	90000	2014	IC-ENC	Atlantic
FR352010	SHOM	Montserrat to Saint Lucia	304405	Available	PRIMAR	Atlantic
FR353010	SHOM	Anguilla to Montserrat	301202	Available	PRIMAR	Atlantic
FR374840	SHOM	Paramaribo à Sinnamary	180000	Available	PRIMAR	Atlantic
FR374850	SHOM	Iles du Salut à la Baie de l'Oyapok	180000	Available	PRIMAR	Atlantic
GB300260	UKHO	West Indies - Pedro Bank to the South Coast of Jamaica	180000	Available	IC-ENC	Atlantic
GB300374	UKHO	Mexico - East Coast - Punta El Coyol to Punta Zempoala	90000	Available	EUSP	Atlantic
GB300467	UKHO	West Indies - Dominican Republic - Isla Catalina to Boca Chica	180000	Available	EUSP	Atlantic
GB300471	UKHO	Dominican Republic - South Coast - Cabo Caucedo to Isla Alto Velo	180000	Available	EUSP	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB300472	UKHO	Dominican Republic and Puerto Rico - Mona Passage	180000	Available	EUSP	Atlantic
GB300500	UKHO	West Indies - North East Approaches to Trinidad	90000	Available	EUSP	Atlantic
GB300501	UKHO	West Indies - South East Approaches to Trinidad	90000	Available	EUSP	Atlantic
GB300513	UKHO	Central America - East Coast - Honduras - Isla de Roatan to Punta Ulua	180000	Available	EUSP	Atlantic
GB300527	UKHO	Approaches to Demerara and Essequibo Rivers	90000	Available	IC-ENC	Atlantic
GB300572	UKHO	South America - North-East Coast - Essequibo River to Corentyn River	350000	Available	IC-ENC	Atlantic
GB301043	UKHO	Barbados	180000	Available	IC-ENC	Atlantic
GB301450	UKHO	Turks Island Passage and Mouchoir Passage	90000	Available	IC-ENC	Atlantic
GB301928	UKHO	Central America South Coast - Morro Puercos to Punta Burica	350100	Available	IC-ENC	Pacific
GB301931	UKHO	Central America - Costa Rica - West Coast - Golfo de Nicoya	300100	Available	IC-ENC	Pacific
GB301946	UKHO	Central America - Pacific Coast El Salvador Approaches to Acajutla	90000	Available	IC-ENC	Pacific
GB301969	UKHO	Nicaragua - Pacific Ocean Coast - Approaches to Corinto and Puerto Sandino	90000	Available	IC-ENC	Pacific
GB302016	UKHO	West Indies - British Virgin Islands	180000	Available	IC-ENC	Atlantic
GB302687	UKHO	South America - Guyana - Approaches to the Berbice River	90000	Available	IC-ENC	Atlantic
GB303907	UKHO	Passages Between Mayaguana Island & Turks & Caicos Islands	180000	Available	IC-ENC	Atlantic
GB303908	UKHO	West Indies - Passages Between Turks & Caicos Islands & Dominican Republic	180000	Available	IC-ENC	Atlantic
GB303910	UKHO	Bahamas - Little Bahama Bank Including North West Providence Channel	180000	Available	IC-ENC	Atlantic
GB303912	UKHO	Bahamas - North East Providence Channel & Tongue of the Ocean	180000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB303913	UKHO	Bahamas - Crooked Island Passage & Exuma Sound	180000	Available	IC-ENC	Atlantic
GB303914	UKHO	Bahamas - North East Approaches to Acklins Island & Samana Cay	180000	Available	IC-ENC	Atlantic
GB30463A	UKHO	West Indies - Dominican Republic - North Coast - Punta Cabarete to Punta Brimball	180000	Available	IC-ENC	Atlantic
GB30463B	UKHO	West Indies - Dominican Republic - North Coast - Punta Mangle to Pointe Yaguezi	350100	Available	IC-ENC	Atlantic
GB30463C	UKHO	Plans on the North Coast of the Dominican Republic - Bahia de Samana and Approaches	180000	Available	EUSP	Atlantic
GB31961A	UKHO	Golfo de Fonseca	90000	Available	IC-ENC	Pacific
GB32493B	UKHO	Golfo Dulce	100000	January 2014	IC-ENC	Atlantic
GB380020	UKHO	Trinidad and Venezuela - Serpent's Mouth	90000	Available	EUSP	Atlantic
GB380040	UKHO	Trinidad and Venezuela - Gulf of Paria	90000	Available	EUSP	Atlantic
GB380210	UKHO	Saint Vincent to Grenada	90000	Available	IC-ENC	Atlantic
GB380230	UKHO	Southern St Lucia to Northern St Lucia	90000	Available	IC-ENC	Atlantic
GB383710	UKHO	West Indies - Western Approaches to Jamaica	180000	Available	IC-ENC	Atlantic
GB383720	UKHO	West Indies - Eastern Approaches to Jamaica	180000	Available	IC-ENC	Atlantic
GB389100	UKHO	Gulf of Panama	180000	Available	IC-ENC	Pacific
GB389310	UKHO	Gulf of Honduras	180000	Available	IC-ENC	Atlantic
GB389320	UKHO	Belize - Monkey River to Colson Point	90000	Available	IC-ENC	Atlantic
GB389330	UKHO	Belize - Colson Point to Belize City	90000	Available	IC-ENC	Atlantic
MX300352	SEMAR	Banco Golden Gate a San José del Cabo	90000	Available	IC-ENC	Pacific
MX300511	SEMAR	Barra de Navidad a Boca de Apiza	90000	Available	IC-ENC	Pacific
MX300523	SEMAR	Cayaco a San Marcos	90000	Available	IC-ENC	Pacific
MX300711	SEMAR	Brazo Santiago a El Mezquital	90000	Available	IC-ENC	Atlantic
MX300712	SEMAR	El Mezquital a Boca Jesús Maria	90000	Available	IC-ENC	Atlantic
MX300713	SEMAR	Boca Jesús Maria a la Pesca	90000	Available	IC-ENC	Atlantic
MX300721	SEMAR	La Pesca a Punta Jerez	90000	Available	IC-ENC	Atlantic

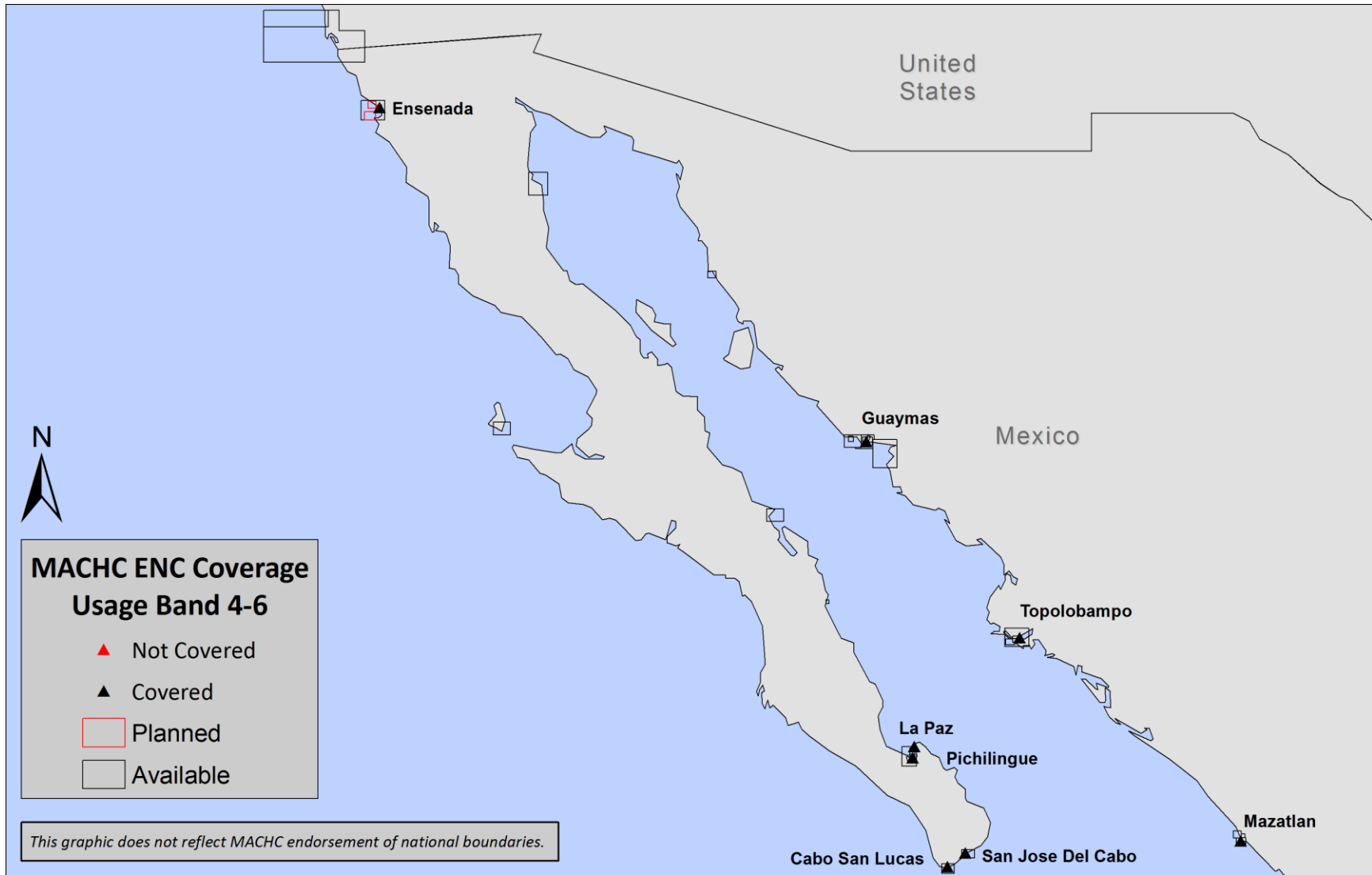
Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
MX300722	SEMAR	Punta Jerez a Tampico	90000	Available	IC-ENC	Atlantic
MX300840	SEMAR	Bahia de Campeche	180000	Available	IC-ENC	Atlantic
MX300842	SEMAR	Laguna Pom a Santa Cruz	90000	Available	IC-ENC	Atlantic
MX300922	SEMAR	Isla Mujeres a Isla Cozumel	90000	Available	IC-ENC	Atlantic
NL302023	NLHO	Carib Sea, Venezuela to Aruba, Curaçao and Bonaire	180000	Available	IC-ENC	Atlantic
SR302014	NLHO	Suriname	180000	Available	IC-ENC	Atlantic
US3CA70M	NOAA	San Diego to Santa Rosa Island	234270	Available	NOAA	Pacific
US3FL28M	NOAA	Fowey Rocks to American Shoal	180000	Available	NOAA	Atlantic
US3FL30M	NOAA	Cape Canaveral to Key West	466940	Available	NOAA	Atlantic
US3FL90M	NOAA	Florida Keys Sombrero Key to Dry Tortugas	180000	Available	NOAA	Atlantic
US3GC01M	NOAA	Galveston to Rio Grande	460732	Available	NOAA	Atlantic
US3GC02M	NOAA	Mermentau River to Freeport	250000	Available	NOAA	Atlantic
US3GC03M	NOAA	Mississippi River to Galveston	458596	Available	NOAA	Atlantic
US3GC04M	NOAA	Approaches to Mississippi River	250000	Available	NOAA	Atlantic
US3GC05M	NOAA	Cape St. George to Mississippi Passes	456394	Available	NOAA	Atlantic
US3GC06M	NOAA	Tampa Bay to Cape San Blas	456394	Available	NOAA	Atlantic
US3GC07M	NOAA	Havan to Tampa Bay	470940	Available	NOAA	Atlantic
US3LA01M	NOAA	IWW New Orleans to Calcasieu West	175000	Available	NOAA	Atlantic
US3LA02M	NOAA	IWW New Orleans to Calcasieu East	175000	Available	NOAA	Atlantic
US3PR10M	NOAA	Puerto Rico And Virgin Islands	326856	Available	NOAA	Atlantic
VE300100	DHN	Golfo de Venezuela	80000	July 2014	IC-ENC	Atlantic
VE300200	DHN	Punta Cardon a Tucacas	80000	July 2014	IC-ENC	Atlantic
VE300300	DHN	Punta San Juan a Cabo Codera	80000	July 2014	IC-ENC	Atlantic
VE300400	DHN	Cabo Codera a Cumana	80000	July 2014	IC-ENC	Atlantic
VE300500	DHN	Cumana a Cabo Tres Puntas	80000	July 2014	IC-ENC	Atlantic
VE300600	DHN	Cabo Tres Puntas a Golfo de Paria	180000	July 2014	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
VE300700	DHN	Delta del Orinoco	180000	July 2014	IC-ENC	Atlantic
VE301000	DHN	Lago de Maracaibo	180000	July 2014	IC-ENC	Atlantic

ANNEX A – MACHC PRIORITY PORTS



ANNEX A – USAGE BANDS 4-6 MAPS



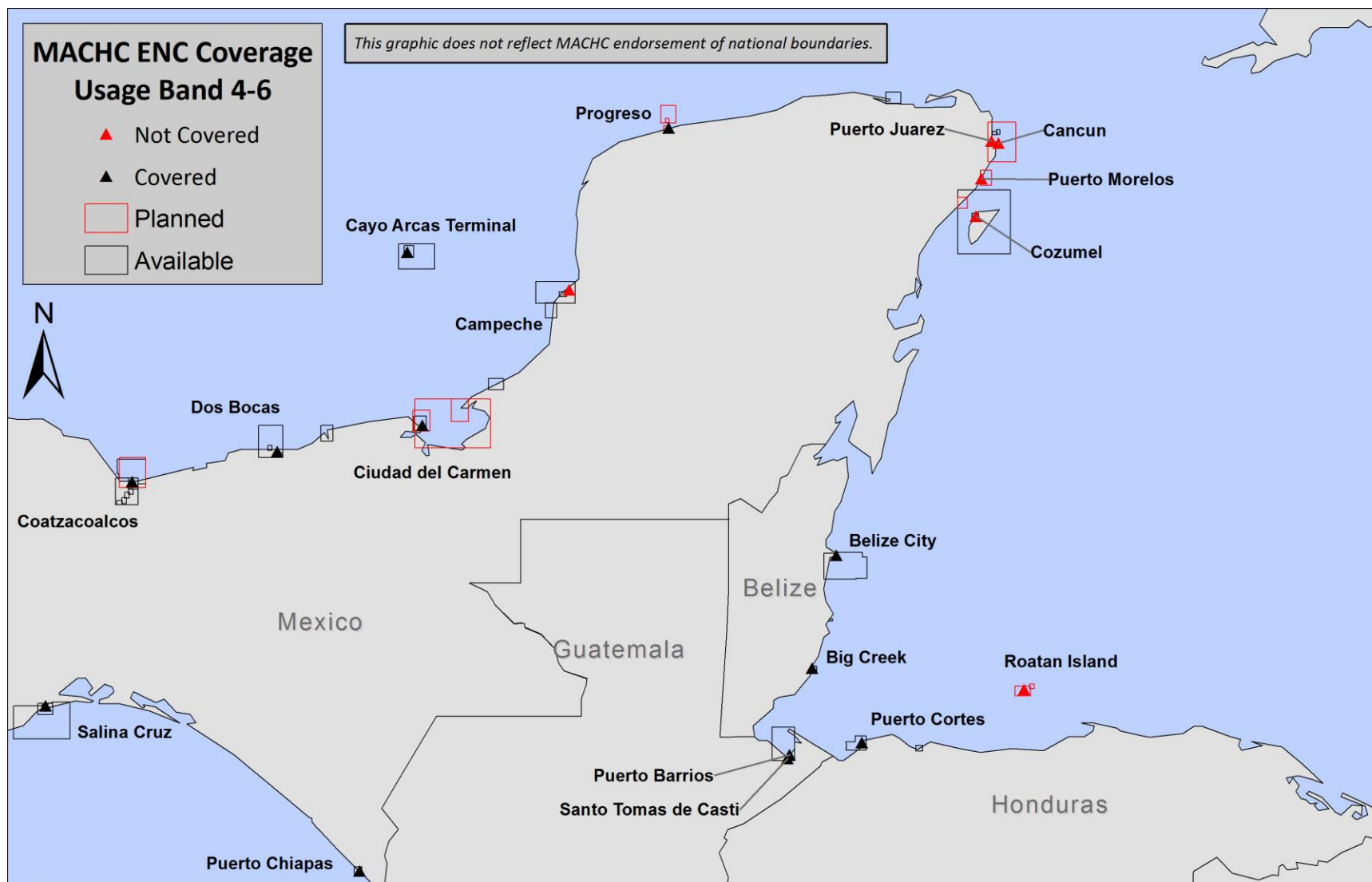
ANNEX A



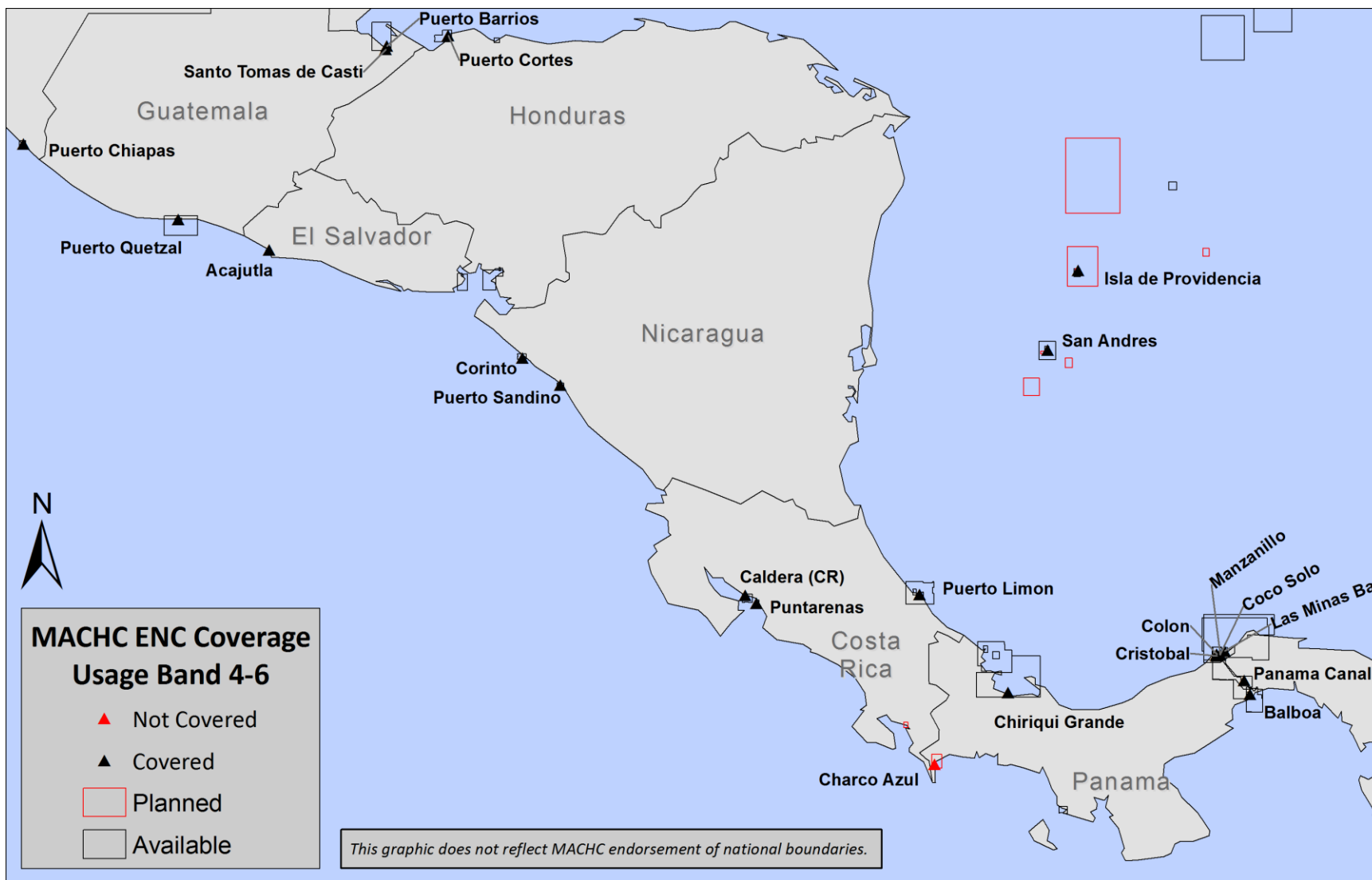
ANNEX A



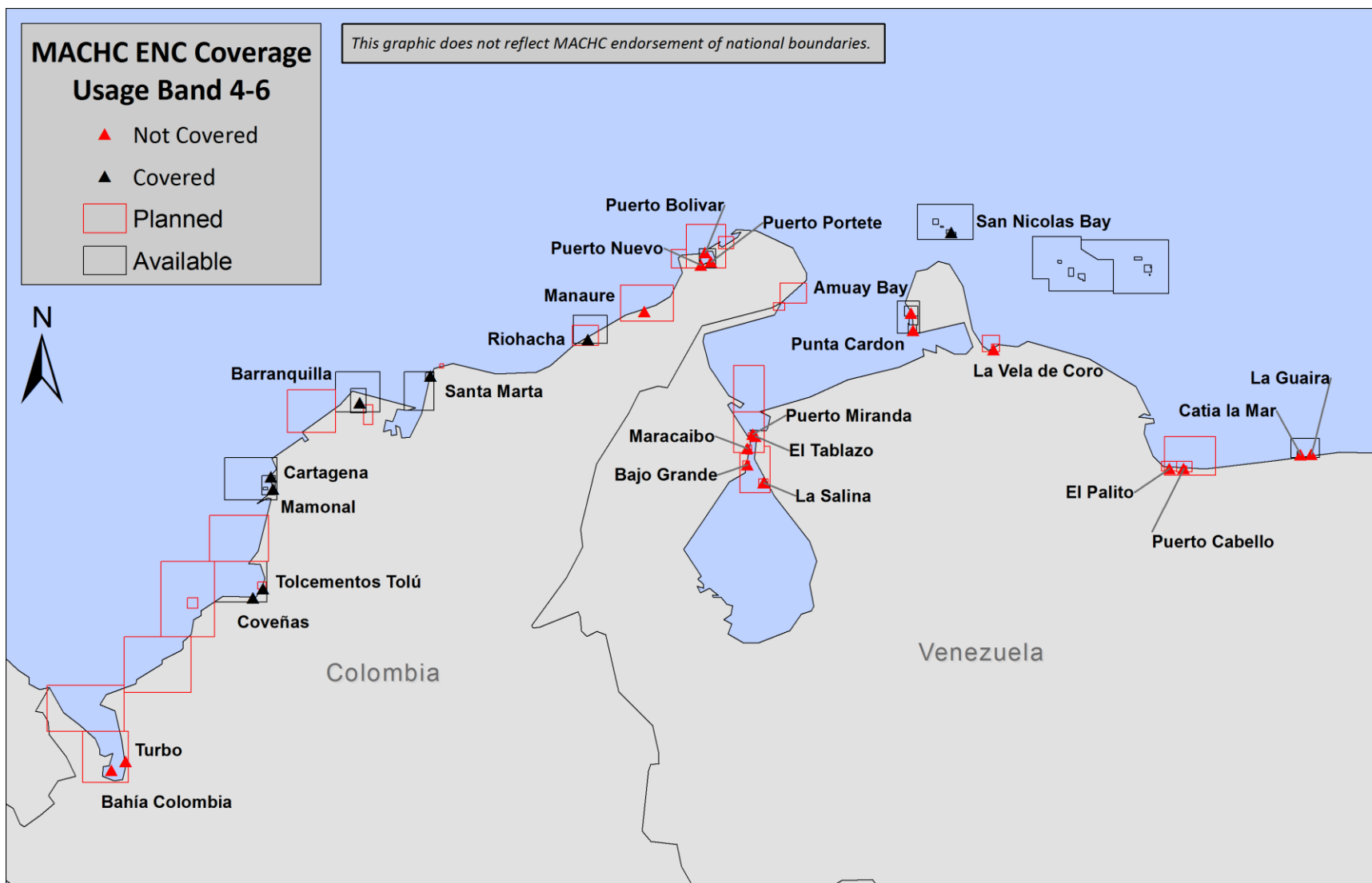
ANNEX A



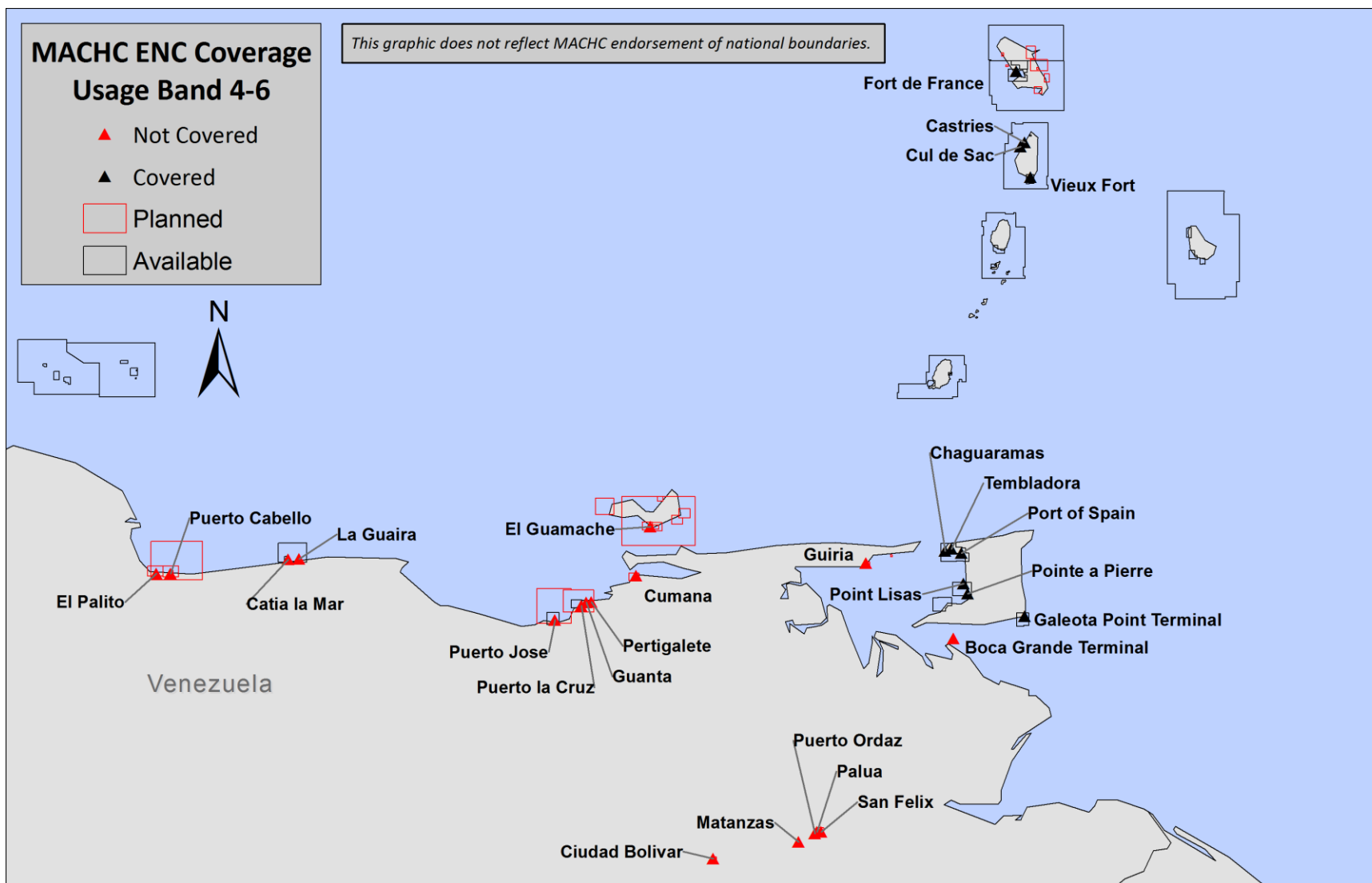
ANNEX A



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ANNEX A

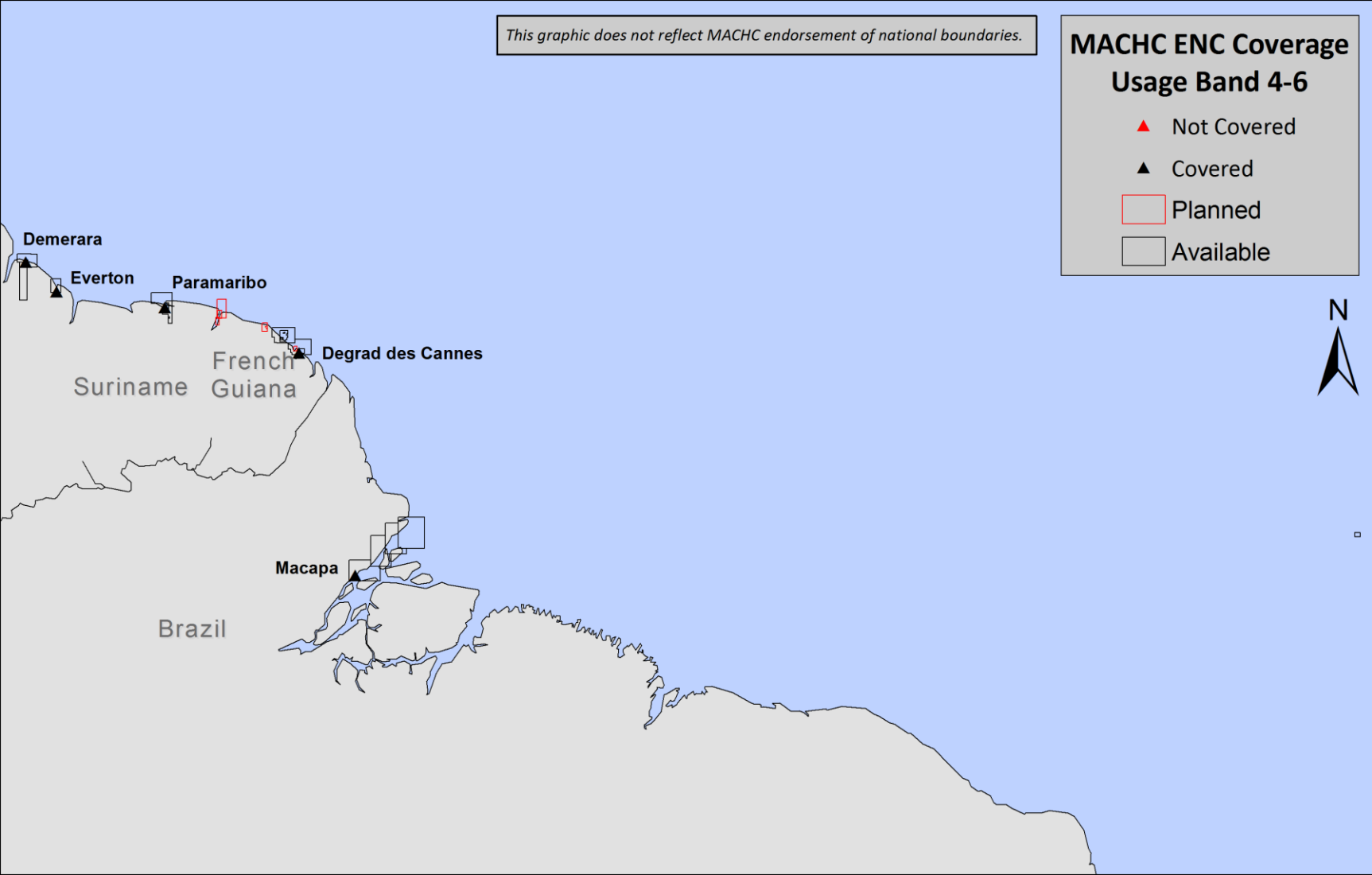


ANNEX A

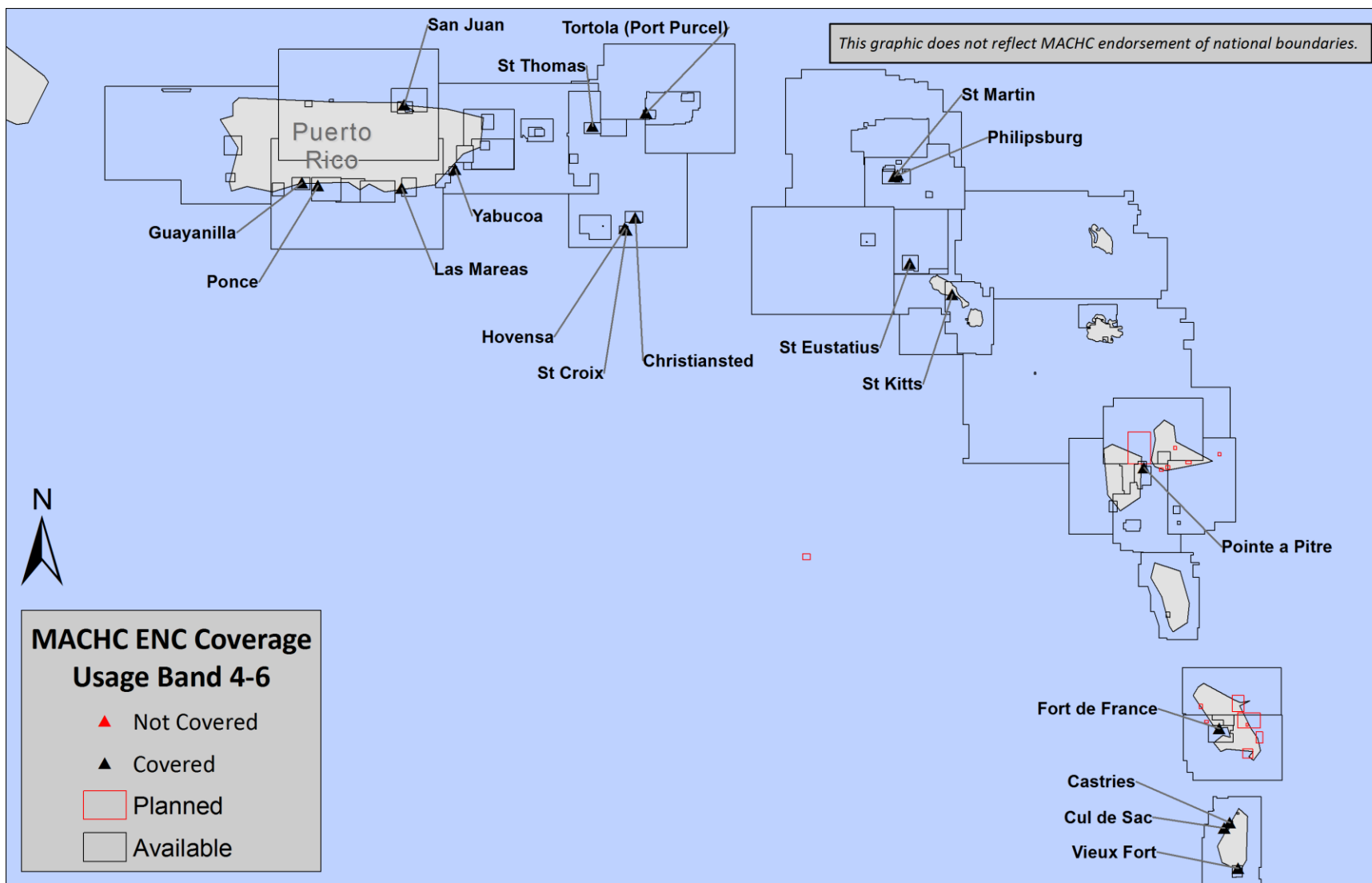
This graphic does not reflect MACHC endorsement of national boundaries.

**MACHC ENC Coverage
Usage Band 4-6**

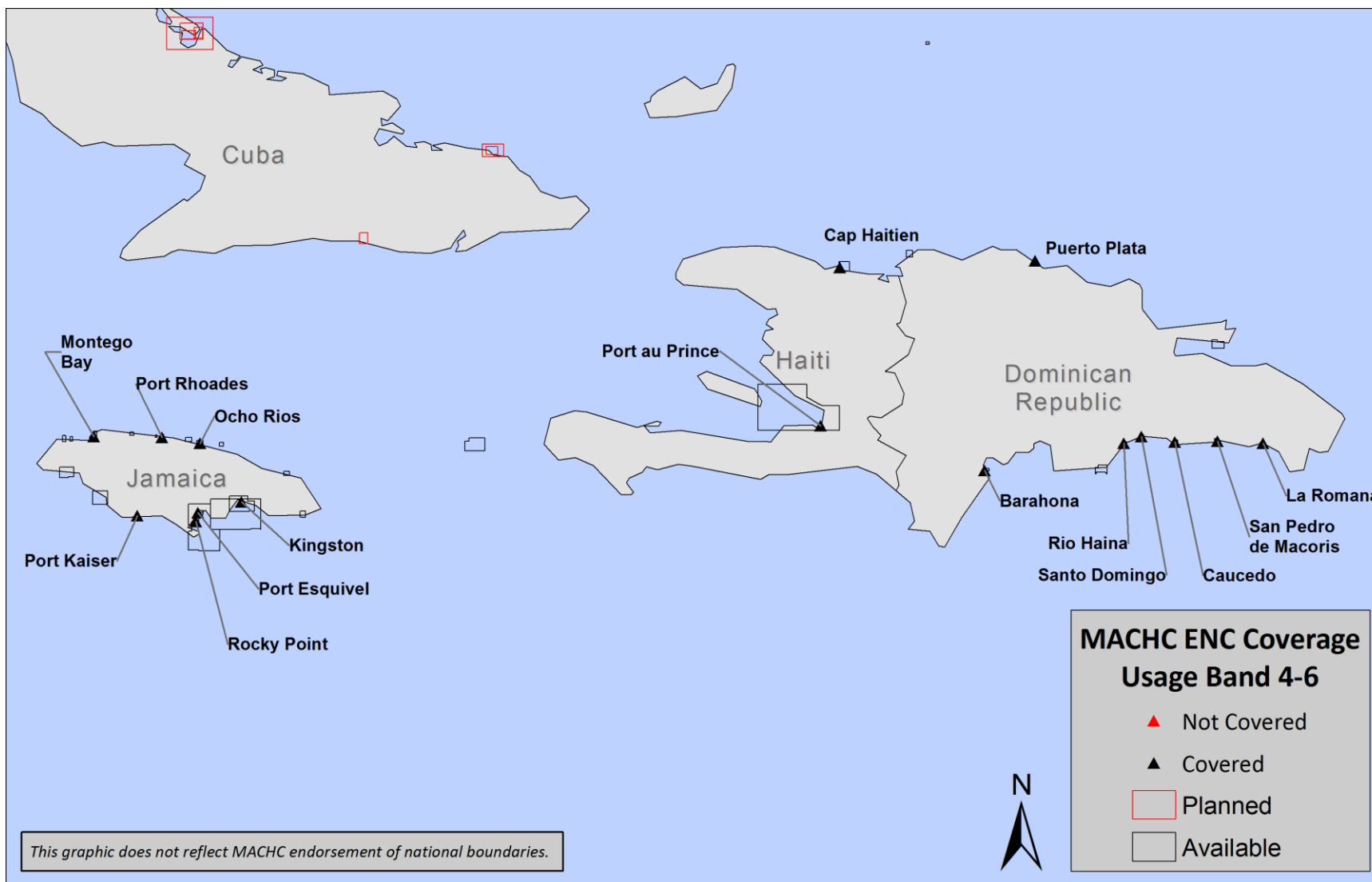
- ▲ Not Covered
- ▲ Covered
- Planned
- Available



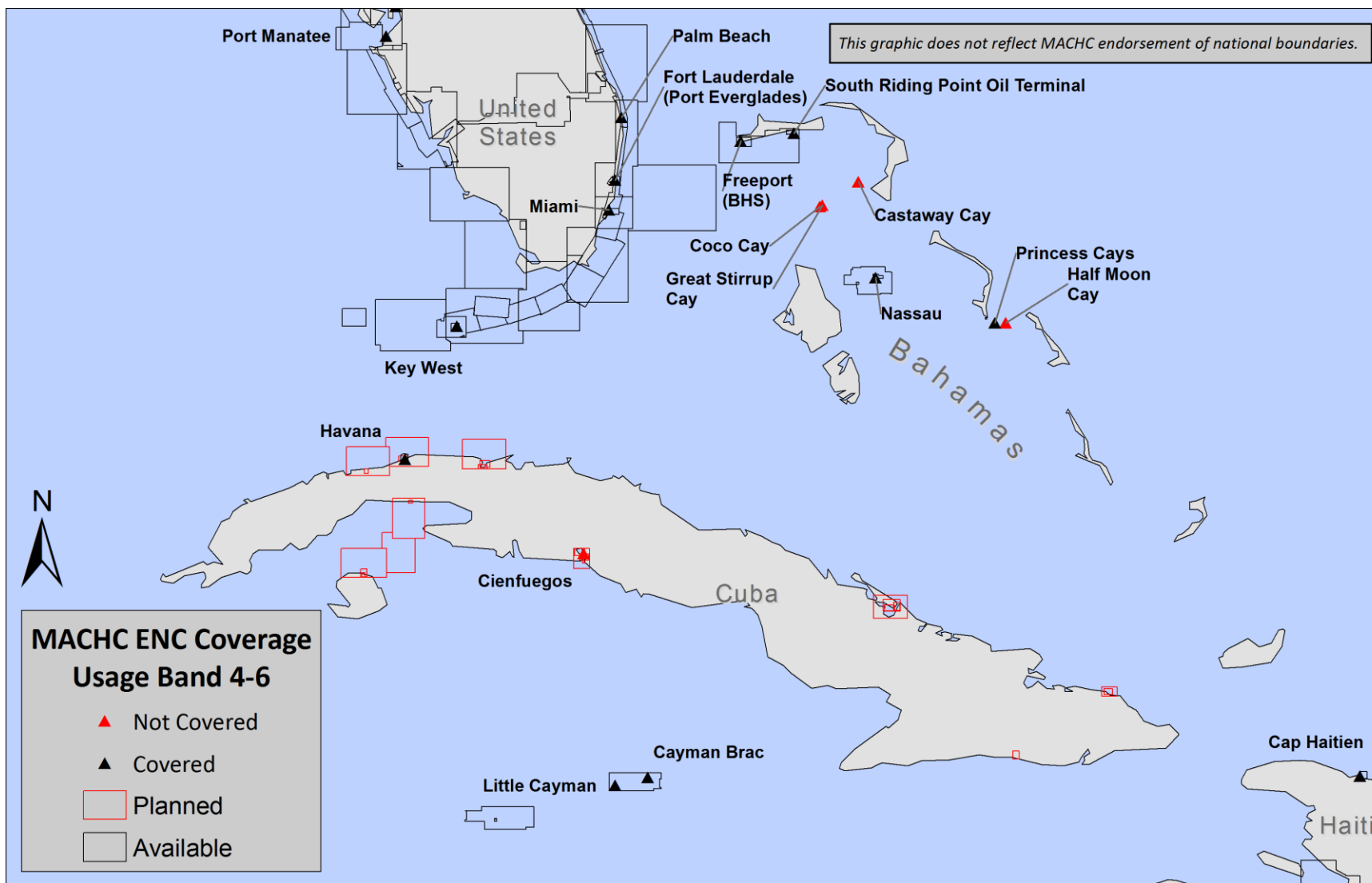
ANNEX A



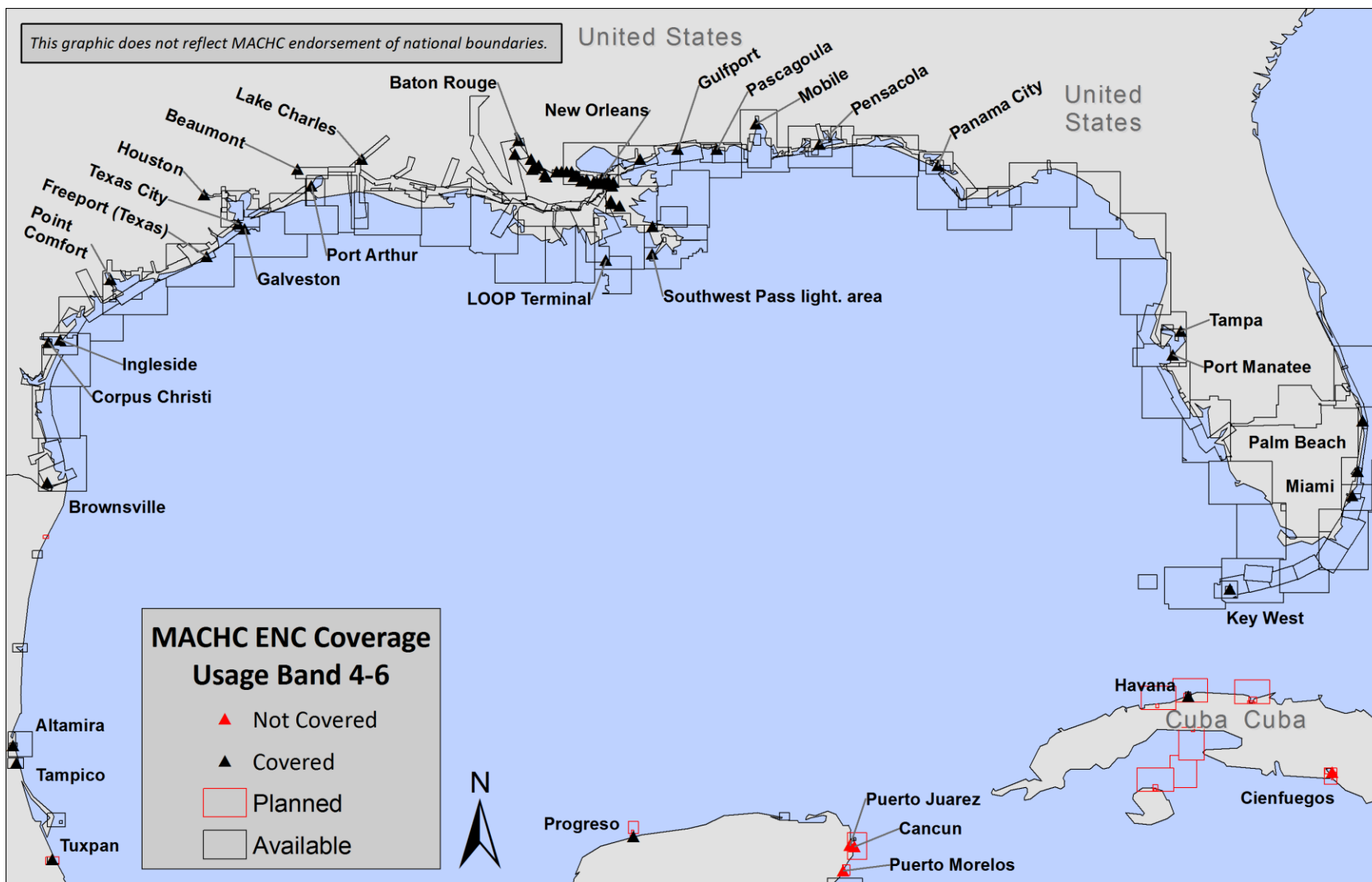
ANNEX A



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ANNEX A – ENC CELLS USAGE BAND 4 TABLE

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
BR400011	DHN (BR)	Arquipélago de São Pedro e São Paulo	22000	Available	IC-ENC/PRIMAR	Atlantic
BR400201	DHN (BR)	Barra Norte do Rio Amazonas	45000	Available	IC-ENC/PRIMAR	Atlantic
BR400202	DHN (BR)	Da Ilha Bailique a Ponta do Capinal	45000	Available	IC-ENC/PRIMAR	Atlantic
BR400203	DHN (BR)	Da Ponta do Capinal às Ilhas Pedreira	45000	Available	IC-ENC/PRIMAR	Atlantic
BR400204	DHN (BR)	Das Ilhas Pedreira à Ilha de Santana	45000	Available	IC-ENC/PRIMAR	Atlantic
CO400201	CIOH	Isla de San Andrés	22000	June 2012	IC-ENC	Atlantic
CO400222	CIOH	Aproximación a Puerto López	22000	December 2014	IC-ENC	Atlantic
CO400231	CIOH	Cabo de la Vela	22000	December 2014	IC-ENC	Atlantic
CO400244	CIOH	Bahía de Taganga A Ciénaga	22000	Available	IC-ENC	Atlantic
CO400603	CIOH	Aproximación a Bahía Portete	45000	December 2012	IC-ENC	Atlantic
CO400605	CIOH	Aproximación a Manaure	45000	December 2014	IC-ENC	Atlantic
CO400606	CIOH	Aproximación a Riohacha	45000	Available	IC-ENC	Atlantic
CO400612	CIOH	Aproximación a Barranquilla	45000	Available	IC-ENC	Atlantic
CO400613	CIOH	Galerazamba A Punta Morro Hermoso	45000	December 2013	IC-ENC	Atlantic
CO400615	CIOH	Punta Barbaças A Punta Canoas	45000	Available	IC-ENC	Atlantic
CO400617	CIOH	Punta de Piedra A Punta Comisario	45000	December 2013	IC-ENC	Atlantic
CO400618	CIOH	Golfo de Morrosquillo	45000	Available	IC-ENC	Atlantic
CO400619	CIOH	Punta de la Cruz A Punta de Piedra	45000	December 2013	IC-ENC	Atlantic
CO400620	CIOH	Punta Gigantón A Punta Santa Barbara	45000	December 2014	IC-ENC	Atlantic
CO400623	CIOH	Cabo Tiburón A Punta Caribana	45000	December 2014	IC-ENC	Atlantic
CO400625	CIOH	Bahía Colombia	22000	June 2013	IC-ENC	Atlantic
CO400631	CIOH	Banco Quitasueño	45000	June 2014	IC-ENC	Atlantic
CO400654	CIOH	Aproximación a Providencia	45000	June 2014	IC-ENC	Atlantic
CO400660	CIOH	Aproximación a Cayos de Serranilla	45000	Available	IC-ENC	Atlantic
CO400662	CIOH	Bajo Alicia	45000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
CU411608	SHGC	De Punta Moruro a Playa Santa Fe	45000	2013	IC-ENC	Atlantic
CU411609	SHGC	De Playa de Santa Fe a Playa Guanabo	45000	2013	IC-ENC	Atlantic
CU411611	SHGC	De Enseña Puerto Escondido a Playa Kawama	45000	2014	IC-ENC	Atlantic
CU411611	SHGC	Bahía de Matanzas	22000	2014	IC-ENC	Atlantic
CU411771	SHGC	De Punta Gorda al Surgidero de Batabanó	45000	2014	IC-ENC	Atlantic
CU411788	SHGC	Parte Central del Golfo de Batabanó - Al sur del Canal de Moterrey	45000	2014	IC-ENC	Atlantic
CU411789	SHGC	Accesos al Puerto de Nueva Gerona	45000	2015	IC-ENC	Atlantic
CU411861	SHGC	Bahía Nuevitas y sus Accesos	22000	2015	IC-ENC	Atlantic
CU411886	SHGC	Bahía de Cayo Moa	22000	2014	IC-ENC	Atlantic
CU411940	SHGC	Bahía de Cienfuegos y sus Accesos	22000	2013	IC-ENC	Atlantic
FR452020	SHOM	La Martinique - Northern part	59923	Available	PRIMAR	Atlantic
FR453010	SHOM	Approaches to Pointe-à-Pitre - Les Saintes	60055	Available	PRIMAR	Atlantic
FR453020	SHOM	Guadeloupe Marie-Galante to La Désirade	60016	Available	PRIMAR	Atlantic
FR458840	SHOM	Rivière de Sinnamary	30000	2015-2019	PRIMAR	Atlantic
FR467380	SHOM	La Martinique - Southern Part	60002	Available	PRIMAR	Atlantic
FR473020	SHOM	Guadeloupe Pointe des Châteaux to Ilet à Kahouanne	59913	Available	PRIMAR	Atlantic
FR473760	SHOM	Embouchure du fleuve Maroni	60000	2015-2019	PRIMAR	Atlantic
FR473790	SHOM	Approaches to Cayenne	45000	Available	PRIMAR	Atlantic
FR473800	SHOM	Outer approaches to Kourou	49999	Available	PRIMAR	Atlantic
FR474710	SHOM	Petites Antilles - Saint-Martin to Saint-Barthélemy	45000	Available	PRIMAR	Atlantic
FR474820	SHOM	Guadeloupe - Pointe Gros Morne to Basse-Terre	45000	Available	PRIMAR	Atlantic
GB40042A	UKHO	Guaymas	22000	Available	IC-ENC	Pacific
GB400457	UKHO	Jamaica - South Coast - Portland Bight	22000	Available	IC-ENC	Atlantic
GB400466	UKHO	Port-au-Prince and Approaches	45000	Available	IC-ENC	Atlantic
GB400489	UKHO	Approaches to Nevis	45000	Available	IC-ENC	Atlantic
GB400513	UKHO	Central America - East Coast - Honduras - Tela	22000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB400519	UKHO	Demerara River - Georgetown to Linden	45000	Available	IC-ENC	Atlantic
GB400522	UKHO	Central America - East Coast - Belize - Belize City and Approaches	22000	Available	IC-ENC	Atlantic
GB400533	UKHO	Georgetown and Mouths of Demerara and Essequibo Rivers	45000	Available	IC-ENC	Atlantic
GB400584	UKHO	West Indies - Saint Christopher to Barbuda	90000	Available	IC-ENC	Atlantic
GB400585	UKHO	Montserrat and Antigua	90000	Available	IC-ENC	Atlantic
GB400791	UKHO	Saint Vincent to Bequia	45000	Available	IC-ENC	Atlantic
GB400797	UKHO	West Indies - Grenada	45000	Available	IC-ENC	Atlantic
GB401273	UKHO	West Indies - Saint Lucia	45000	Available	IC-ENC	Atlantic
GB401798	UKHO	Central America - East Coast - Costa Rica - Approaches to Puerto Limon and Bahia de Moin	45000	Available	IC-ENC	Atlantic
GB401928	UKHO	Central America - South Coast - Panama - Bahia Honda	45000	Available	IC-ENC	Pacific
GB401931	UKHO	Central America - Costa Rica - West Coast - Puntarenas	22000	Available	IC-ENC	Pacific
GB401938	UKHO	Bahia de Todos Santos	45000	Available	IC-ENC	Pacific
GB401940	UKHO	Outer Approaches to Salina Cruz	45000	Available	IC-ENC	Pacific
GB401946	UKHO	Central America - Pacific Coast - Guatemala - Approaches to Quetzal	45000	Available	IC-ENC	Pacific
GB401969	UKHO	Puerto Sandino	22000	Available	IC-ENC	Pacific
GB401979	UKHO	Approaches to Manzanilo	22000	Available	IC-ENC	Pacific
GB402006	UKHO	West Indies - Virgin Islands - Anegada to Hans Lolik Island	90000	Available	IC-ENC	Atlantic
GB402019	UKHO	North Sound to Road Harbour	22000	Available	IC-ENC	Atlantic
GB402047	UKHO	Approaches to Anguilla	45000	Available	IC-ENC	Atlantic
GB402485	UKHO	West Indies - Windward Islands - Approaches to Barbados	90000	Available	IC-ENC	Atlantic
GB40258A	UKHO	West Indies - Jamaica - Black River Anchorage	45000	Available	IC-ENC	Atlantic
GB40258B	UKHO	West Indies - Jamaica - Savanna La Mar	22000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB402784	UKHO	Entrance to the Berbice River including New Amsterdam Harbour	45000	Available	IC-ENC	Atlantic
GB40372A	UKHO	Mexico - East Coast - Gulf of Campeche - Tuxpan	25000	Available	IC-ENC	Atlantic
GB40372B	UKHO	Mexico - East Coast - Ciudad del Carmen	45000	Available	IC-ENC	Atlantic
GB40372C	UKHO	Mexico - East Coast - Approaches to Coatzacoalcos and Pajaritos	45000	Available	IC-ENC	Atlantic
GB40372E	UKHO	Mexico - East Coast - Progreso (Terminal Remota)	22000	Available	IC-ENC	Atlantic
GB40462A	UKHO	Lesser Caymans	45000	Available	IC-ENC	Atlantic
GB40462B	UKHO	West Indies - Grand Cayman	45000	Available	IC-ENC	Atlantic
GB40463A	UKHO	West Indies - Dominican Republic - Bahia de Monte Cristi	22000	Available	IC-ENC	Atlantic
GB40463B	UKHO	West Indies - Dominican	22000	Available	IC-ENC	Atlantic
GB40465A	UKHO	Haiti - Port de Cap-Haitien	22000	Available	IC-ENC	Atlantic
GB40471B	UKHO	West Indies - Dominican Republic - South Coast - Puerto Palenque	45000	Available	IC-ENC	Atlantic
GB40475A	UKHO	Lisas Point to Pointe-a-Pierre	22000	Available	IC-ENC	Atlantic
GB40475B	UKHO	Approaches to Port Fortin and Brighton	22000	Available	IC-ENC	Atlantic
GB40501A	UKHO	West Indies - Trinidad - Galeota Point	22000	Available	IC-ENC	Atlantic
GB40583A	UKHO	West Indies - Sombrero Island to Saint Christopher (Saint Kitts)	90000	Available	IC-ENC	Atlantic
GB41961B	UKHO	El Salvador - Approaches to La Union	22000	Available	IC-ENC	Pacific
GB41961D	UKHO	Honduras - Golfo de Fonseca - Approaches to Henecan	45000	Available	IC-ENC	Pacific
GB42988A	UKHO	Guatemala East Coast Approaches To Puerto Barrios And Santo Tomas De Castilla	45000	Available	IC-ENC	Atlantic
GB42988C	UKHO	Honduras - North Coast Approaches to Puerto Cortes	22000	Available	IC-ENC	Atlantic
GB48004A	UKHO	Port of Spain and Approaches	22000	Available	IC-ENC	Atlantic
GB48044A	UKHO	Dominica	45000	Available	IC-ENC	Atlantic
GB48102A	UKHO	West Indies - Jamaica - South Coast - Approaches to Kingston Harbour	22000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB48301B	UKHO	Approaches to Freeport	45000	Available	IC-ENC	Atlantic
GB48302A	UKHO	New Providence Island	45000	Available	IC-ENC	Atlantic
GB489100	UKHO	Bahia Almirante	45000	Available	IC-ENC	Atlantic
GB489101	UKHO	Laguna de ChiriQui	45000	Available	IC-ENC	Atlantic
GB489110	UKHO	Outer Approaches to Puerto Cristobal	45000	Available	IC-ENC	Atlantic
GB489120	UKHO	Panama Canal	22000	Available	IC-ENC	Atlantic
GB489130	UKHO	Southern Approaches to the Panama Canal	22000	Available	IC-ENC	Pacific
MX402321	SEMAR	Bahía Santa Ines	22000	Available	IC-ENC	Pacific
MX402331	SEMAR	Bacochibampo Son	22000	Available	IC-ENC	Pacific
MX402333	SEMAR	Guaymas y Proximidades	22000	June 2012	IC-ENC	Pacific
MX403231	SEMAR	La Paz y Proximidades	22000	Available	IC-ENC	Pacific
MX403331	SEMAR	Bahía de Topolobampo y Proximidades	22000	Available	IC-ENC	Pacific
MX403521	SEMAR	Bahia San Lucas, BC.S.	22000	May 2012	IC-ENC	Pacific
MX403522	SEMAR	San José del Cabo	22000	May 2012	IC-ENC	Pacific
MX404032	SEMAR	Isla Socorro	22000	Available	IC-ENC	Pacific
MX405112	SEMAR	Bahias de Manzanillo y Santiago	22000	May 2012	IC-ENC	Pacific
MX405212	SEMAR	Ixtapa-Zihuatanejo	22000	Available	IC-ENC	Pacific
MX405232	SEMAR	Acapulco y Proximidades	22000	Available	IC-ENC	Pacific
MX406124	SEMAR	Corralero, Oaxaca	22000	Available	IC-ENC	Pacific
MX406222	SEMAR	Bahias de Huatulco y Proximidades	12000	Available	IC-ENC	Pacific
MX407131	SEMAR	La Pesca Tamaulipas	22000	May 2012	IC-ENC	Atlantic
MX407221	SEMAR	Altamira y Proximidades	45000	Available	IC-ENC	Atlantic
MX407223	SEMAR	Rio Panuco - Puerto Madero	22000	Available	IC-ENC	Atlantic
MX408112	SEMAR	Cabo Rojo	22000	June 2012	IC-ENC	Atlantic
MX408212	SEMAR	Veracruz a Puerto de Alvarado	45000	Available	IC-ENC	Atlantic
MX408213	SEMAR	Veracruz y Proximidades	22000	Available	IC-ENC	Atlantic
MX408215	SEMAR	Fondeadero Anton Lizardo	22000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
MX408323	SEMAR	Dos Bocas Y Proximidades	22000	Available	IC-ENC	Atlantic
MX408421	SEMAR	Laguna de Terminos	45000	June 2012	IC-ENC	Atlantic
MX408422	SEMAR	Laguna de Terminos Entrada Oeste	22000	June 2012	IC-ENC	Atlantic
MX408423	SEMAR	Laguna de Terminos Entrada Este	22000	June 2012	IC-ENC	Atlantic
MX408522	SEMAR	Cayo Arcas y Proximidades	22000	Available	IC-ENC	Atlantic
MX408532	SEMAR	Lerma-Campeche	22000	December 2012	IC-ENC	Atlantic
MX409221	SEMAR	Isla Mujeres, Cancun y Proximidades	22000	December 2012	IC-ENC	Atlantic
MX409224	SEMAR	Isla Cozumel, Q. Roo.	45000	December 2012	IC-ENC	Atlantic
NL402020	NLHO	Sababank	90000	Available	IC-ENC	Atlantic
NL402110	NLHO	Sint Eustatius Approach	90000	Available	IC-ENC	Atlantic
NL402211	NLHO	Aruba	45000	Available	IC-ENC	Atlantic
NL402212	NLHO	Bonaire	45000	Available	IC-ENC	Atlantic
NL402213	NLHO	Curacao	45000	Available	IC-ENC	Atlantic
SR402218	NLHO	Suriname Rivier	45000	Available	IC-ENC	Atlantic
US4AL11M	NOAA	Mobile Bay	80000	Available	NOAA	Atlantic
US4CA74M	NOAA	Approaches to San Diego Bay	100000	Available	NOAA	Pacific
US4FL10M	NOAA	Tampa Bay and St. Joseph Sound	80000	Available	NOAA	Atlantic
US4FL12M	NOAA	Safety Harbor	80000	Available	NOAA	Atlantic
US4FL13M	NOAA	Anclote Keys To Crystal River	80000	Available	NOAA	Atlantic
US4FL14M	NOAA	Crystal River to Horseshoe Point	80000	Available	NOAA	Atlantic
US4FL15M	NOAA	Horseshoe Point to Rock Islands	80000	Available	NOAA	Atlantic
US4FL18M	NOAA	Lemon Bay to Passage Key Inlet	80000	Available	NOAA	Atlantic
US4FL20M	NOAA	Fowey Rocks to Alligator Reef	80000	Available	NOAA	Atlantic
US4FL23M	NOAA	Straits of Fl Fowey Rcks, Hillsboro to Bimini	100000	Available	NOAA	Atlantic
US4FL26M	NOAA	ICWW Alligator Reef to Sombrero Key	80000	Available	NOAA	Atlantic
US4FL27M	NOAA	Miami to Marathon and Florida Bay	80000	Available	NOAA	Atlantic
US4FL31M	NOAA	Jupiter Inlet to Golden Beach;Lake Worth Inlet	80000	Available	NOAA	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US4FL34M	NOAA	Golden Beach to Fowey Rocks	80000	Available	NOAA	Atlantic
US4FL40M	NOAA	Estero Bay to Lemon Bay	80000	Available	NOAA	Atlantic
US4FL43M	NOAA	Lake Okeechobee	80000	Available	NOAA	Atlantic
US4FL44M	NOAA	Chatham River to Clam Pass	80000	Available	NOAA	Atlantic
US4FL46M	NOAA	East Cape to Mormon Key	80000	Available	NOAA	Atlantic
US4FL60M	NOAA	St Joseph and St Andrew Bays	80000	Available	NOAA	Atlantic
US4FL68M	NOAA	Apalachicola Bay to Cape San Blas	80000	Available	NOAA	Atlantic
US4FL69M	NOAA	Apalachee Bay	80000	Available	NOAA	Atlantic
US4FL71M	NOAA	Pensacola Bay And Approaches	80000	Available	NOAA	Atlantic
US4FL74M	NOAA	Choctawhatchee Bay	80000	Available	NOAA	Atlantic
US4FL89M	NOAA	Bethel Shoal to Jupiter Inlet	80000	Available	NOAA	Atlantic
US4FL92M	NOAA	Sand Key to Rebecca Shoal	80000	Available	NOAA	Atlantic
US4FL97M	NOAA	Florida Keys Sombrero Key to Sand Key	80000	Available	NOAA	Atlantic
US4LA10M	NOAA	Calcasieu Pass to Sabine Pass	80000	Available	NOAA	Atlantic
US4LA12M	NOAA	Grand Lake - Forked Island to Ellender	80000	Available	NOAA	Atlantic
US4LA13M	NOAA	Wax Lake Outlet to Forked Island	80000	Available	NOAA	Atlantic
US4LA14M	NOAA	Rollover Bayou to Calcasieu Pass	80000	Available	NOAA	Atlantic
US4LA15M	NOAA	Vermilion Bay and approaches	80000	Available	NOAA	Atlantic
US4LA20M	NOAA	Morgan City To Port Allen	80000	Available	NOAA	Atlantic
US4LA21M	NOAA	Point Au Fer To Marsh Island	80000	Available	NOAA	Atlantic
US4LA22M	NOAA	Morgan City To Port Allen	80000	Available	NOAA	Atlantic
US4LA25M	NOAA	Isles Dernieres to Point au Fer	80000	Available	NOAA	Atlantic
US4LA29M	NOAA	Timbalier And Terrebonne Bays	80000	Available	NOAA	Atlantic
US4LA30M	NOAA	Mississippi River Delta	80000	Available	NOAA	Atlantic
US4LA31M	NOAA	Timbalier And Terrebonne Bays	80000	Available	NOAA	Atlantic
US4LA32M	NOAA	Barataria Bay And Approaches	80000	Available	NOAA	Atlantic
US4LA33M	NOAA	Mississippi River Delta	80000	Available	NOAA	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US4LA34M	NOAA	Chandeleur And Breton Sounds	80000	Available	NOAA	Atlantic
US4LA35M	NOAA	Mississippi River Venice To New Orleans	80000	Available	NOAA	Atlantic
US4LA39M	NOAA	Lakes Pontchartrain and Maurepas	80000	Available	NOAA	Atlantic
US4MS10M	NOAA	Lake Borgne and Approaches	80000	Available	NOAA	Atlantic
US4MS12M	NOAA	Mississippi Sound and Approaches	80000	Available	NOAA	Atlantic
US4PR11M	NOAA	Virgin Islands V Gorda to St Thomas and Croix	100000	Available	NOAA	Atlantic
US4PR30M	NOAA	Virgin Passage and Sonda de Vieques	100000	Available	NOAA	Atlantic
US4PR31M	NOAA	Punta Penon To Punta Vacia Talega	100000	Available	NOAA	Atlantic
US4PR41M	NOAA	Guanica Light To Punta Tuna Light	100000	Available	NOAA	Atlantic
US4PR60M	NOAA	West Coast of Puerto Rico	100000	Available	NOAA	Atlantic
US4TX11M	NOAA	Southern Part Of Laguna Madre	80000	Available	NOAA	Atlantic
US4TX15M	NOAA	Northern part of Laguna Madre	80000	Available	NOAA	Atlantic
US4TX21M	NOAA	Aransas Pass To Baffin Bay	80000	Available	NOAA	Atlantic
US4TX28M	NOAA	Matagorda Light to Aransas Pass	80000	Available	NOAA	Atlantic
US4TX31M	NOAA	Matagorda Bay And Approaches	80000	Available	NOAA	Atlantic
US4TX41M	NOAA	San Luis Pass to East Matagorda Bay	80000	Available	NOAA	Atlantic
US4TX52M	NOAA	Approaches To Galveston Bay	80000	Available	NOAA	Atlantic
US4TX58M	NOAA	Galveston Bay	80000	Available	NOAA	Atlantic
US4TX71M	NOAA	Sabine Bank	80000	Available	NOAA	Atlantic
VE400102	DHN	Aproximacion a Bahia de Las Piedras	22000	July 2012	IC-ENC	Atlantic
VE400201	DHN	Aproximacion Al Muaco	22000	July 2012	IC-ENC	Atlantic
VE400303	DHN	Aproximacion a Puerto Cabello	16000	October 2012	IC-ENC	Atlantic
VE400304	DHN	Punta Moron a Ensenada de Cata	50000	October 2012	IC-ENC	Atlantic
VE400305	DHN	Aproximacion a la Guaira	25000	July 2012	IC-ENC	Atlantic
VE400402	DHN	Robledal	25000	October 2012	IC-ENC	Atlantic
VE400408	DHN	Aproximacion a Puerto la Cruz	22000	July 2012	IC-ENC	Atlantic
VE400410	DHN	Aproximacion al Criojenico de Jose	22000	July 2012	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
VE400505	DHN	Canal de Margarita	80000	October 2012	IC-ENC	Atlantic
VE400512	DHN	Aproximacion Planta de Distribucion el Guamache	12500	October 2012	IC-ENC	Atlantic
VE401002	DHN	EM to Isla Zapara	50000	July 2012	IC-ENC	Atlantic
VE401003	DHN	Isla Zapara to Maracaibo	22000	July 2012	IC-ENC	Atlantic
VE401004	DHN	Maracaibo to La Salina	50000	July 2012	IC-ENC	Atlantic

ANNEX A – ENC CELLS USAGE BAND 5 TABLE

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
CO500200	CIOH	Puerto de San Andrés	4000	Available	IC-ENC	Atlantic
CO500202	CIOH	Rada El Cove	4000	December 2013	IC-ENC	Atlantic
CO500203	CIOH	Albuquerque	12000	December 2013	IC-ENC	Atlantic
CO500204	CIOH	Cayos del Este Sudeste (Courtown Cays)	12000	December 2013	IC-ENC	Atlantic
CO500211	CIOH	Roncador (Cayo Roncador)	12000	December 2013	IC-ENC	Atlantic
CO500213	CIOH	Serrana (Cayo Serrana)	12000	Available	IC-ENC	Atlantic
CO500218	CIOH	Isla de Providencia	12000	Available	IC-ENC	Atlantic
CO500227	CIOH	Bahía Honda	12000	December 2013	IC-ENC	Atlantic
CO500229	CIOH	Bahía Portete	12000	Available	IC-ENC	Atlantic
CO500237	CIOH	Riohacha	12000	December 2013	IC-ENC	Atlantic
CO500242	CIOH	Isla Aguja A Punta Cinto	8000	December 2016	IC-ENC	Atlantic
CO500253	CIOH	Río Magdalena (Bocas de Ceniza – Puente Laureano)	12000	Available	IC-ENC	Atlantic
CO500254	CIOH	Río Magdalena (Puente Laureano – Puerto Pimsa)	12000	December 2013	IC-ENC	Atlantic
CO500261	CIOH	Bahía de Cartagena	12000	Available	IC-ENC	Atlantic
CO500267	CIOH	Isla Fuerte	12000	December 2014	IC-ENC	Atlantic
CO500804	CIOH	Bahía de Santa Marta	8000	Available	IC-ENC	Atlantic
CO500848	CIOH	Santiago de Tolú	8000	December 2013	IC-ENC	Atlantic
CU511825	SHGC	Bahía del Mariel	4000	2014	IC-ENC	Atlantic
CU511830	SHGC	Bahía de La Habana y sus Accesos	8000	2014	IC-ENC	Atlantic
CU511830	SHGC	Puerto de La Habana	4000	2014	IC-ENC	Atlantic
CU511835	SHGC	Bahía de Matanzas	8000	2014	IC-ENC	Atlantic
CU511860	SHGC	Puerto de Nuevitas y sus Accesos	12000	2015	IC-ENC	Atlantic
CU511860	SHGC	Puerto de Nuevitas	8000	2015	IC-ENC	Atlantic
CU511860	SHGC	Canal de Entrada a la Bahía de Nuevitas	8000	2015	IC-ENC	Atlantic
CU511885	SHGC	Bahía de Cayo Moa	8000	2014	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
CU511905	SHGC	Bahía de Santiago de Cuba	8000	2014	IC-ENC	Atlantic
CU511938	SHGC	Zona Sur de la Bahía de Cienfuegos	8000	2014	IC-ENC	Atlantic
CU511938	SHGC	Zona Norte de la Bahía de Cienfuegos - De Jagua	8000	2014	IC-ENC	Atlantic
CU511938	SHGC	Canal de Entrada a la Bahía de Cienfuegos	8000	2014	IC-ENC	Atlantic
CU511955	SHGC	Surgidero de Batabanó	4000	2014	IC-ENC	Atlantic
CU511967	SHGC	Puerto de Nueva Gerona y sus Accesos	8000	2015	IC-ENC	Atlantic
CU511967	SHGC	Puerto de Nueva Gerona Rio las Casas	4000	2015	IC-ENC	Atlantic
FR531270	SHOM	Approaches to Basse-Terre	12404	Available	PRIMAR	Atlantic
FR553010	SHOM	Guadeloupe Abords de Pointe-à-Pitre	15000	Available	PRIMAR	Atlantic
FR55884A	SHOM	Rivière de Sinnamary - De l'îlot Brigandin à la roche Petite Pauline	12500	2015-2019	PRIMAR	Atlantic
FR55884B	SHOM	Rivière de Sinnamary - De la roche Severs au bourg de Sinnamary	12500	2015-2019	PRIMAR	Atlantic
FR568920	SHOM	Baie de Fort-de-France	15000	Available	PRIMAR	Atlantic
FR56948A	SHOM	Marie-Galante - Baie de Saint-Louis	19999	Available	PRIMAR	Atlantic
FR570870	SHOM	Havre de la Trinité et Baie du Galion	15000	2015-2019	PRIMAR	Atlantic
FR570880	SHOM	Havre du Robert et Baie du François	20000	2015-2019	PRIMAR	Atlantic
FR57089A	SHOM	Saint-Pierre	15000	2015-2019	PRIMAR	Atlantic
FR57089B	SHOM	Case-Pilote	15000	2015-2019	PRIMAR	Atlantic
FR57089C	SHOM	Cul-de-Sac du Marin	15000	2015-2019	PRIMAR	Atlantic
FR57089D	SHOM	Baie du Vauclin	15000	2015-2019	PRIMAR	Atlantic
FR571010	SHOM	Les Saintes	15000	Available	PRIMAR	Atlantic
FR57102A	SHOM	Le Moule	10000	2015-2019	PRIMAR	Atlantic
FR57102B	SHOM	Petit Havre	10000	2015-2019	PRIMAR	Atlantic
FR57102C	SHOM	Sainte-Anne et anse Accul	10000	2015-2019	PRIMAR	Atlantic
FR57102D	SHOM	Saint-François	10000	2015-2019	PRIMAR	Atlantic
FR57102E	SHOM	Grande Anse	10000	2015-2019	PRIMAR	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
FR57102F	SHOM	Marie-Galante - Grand-Bourg	10000	Available	PRIMAR	Atlantic
FR573240	SHOM	Grand Cul-de-Sac Marin - De la Baie du Lamentin à Port-Louis	20000	2015-2019	PRIMAR	Atlantic
FR57376A	SHOM	A - Fleuve Maroni de l'embouchure aux îles Arouaba	25000	2015-2019	PRIMAR	Atlantic
FR57376B	SHOM	B - Fleuve Maroni des îles Arouaba à Saint-Laurent-du-Maroni	25000	2015-2019	PRIMAR	Atlantic
FR573770	SHOM	Ports du Larivot et de Cayenne	10000	2015-2019	PRIMAR	Atlantic
FR573780	SHOM	Approaches to Dégrad des Cannes	15000	Available	PRIMAR	Atlantic
FR57472E	SHOM	Petites Antilles - Saint-Barthélemy: Gustavia harbour	12000	Available	PRIMAR	Atlantic
FR574810	SHOM	Approaches to Kourou	25000	Available	PRIMAR	Atlantic
GB500042	UKHO	Mexico - West Coast - Gulf of California - Mazatlan	12000	Available	IC-ENC	Pacific
GB500197	UKHO	Rodney Bay Lagoon	4000	Available	IC-ENC	Atlantic
GB500258	UKHO	Port Kaiser	12000	Available	IC-ENC	Atlantic
GB500398	UKHO	Freeport Roads and Harbour	22000	Available	IC-ENC	Atlantic
GB500414	UKHO	West Indies - Cuba - Puerto de la Habana	12000	Available	IC-ENC	Atlantic
GB500462	UKHO	Grand Cayman - George Town	8000	Available	IC-ENC	Atlantic
GB500463	UKHO	West Indies - Dominican Republic - North Coast - Puerto Plata	12000	Available	IC-ENC	Atlantic
GB500519	UKHO	Georgetown	12000	Available	IC-ENC	Atlantic
GB500797	UKHO	West Indies - Grenada - Grenville Harbour	12000	Available	IC-ENC	Atlantic
GB501450	UKHO	Turks and Caicos Islands - South Caicos - Cockburn Harbour	12000	Available	IC-ENC	Atlantic
GB501452	UKHO	New Providence Island - Nassau	4000	Available	IC-ENC	Atlantic
GB501931	UKHO	Central America - Costa Rica - Puerto Caldera	12000	Available	IC-ENC	Pacific
GB501938	UKHO	Ensenada	8000	Available	IC-ENC	Pacific
GB501969	UKHO	Nicaragua - Pacific Ocean Coast - Corinto	12000	Available	IC-ENC	Pacific
GB502065	UKHO	West Indies - Northern Antigua Including Saint John's Harbour	22000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB50257A	UKHO	Port Esquivel	12000	Available	IC-ENC	Atlantic
GB50257B	UKHO	Port Morant	12000	Available	IC-ENC	Atlantic
GB50257C	UKHO	Salt River Anchorage	12000	Available	IC-ENC	Atlantic
GB502988	UKHO	Central America - Honduras - North Coast - Puerto Cortes	12000	Available	IC-ENC	Atlantic
GB50390A	UKHO	South Riding Point Oil Terminal	22000	Available	IC-ENC	Atlantic
GB503912	UKHO	Anchorage off Bannerman Town	4000	Available	IC-ENC	Atlantic
GB50417A	UKHO	Dominican Republic - South Coast - Puerto de Haina	8000	Available	IC-ENC	Atlantic
GB50459A	UKHO	Mosquito Cove	12000	Available	IC-ENC	Atlantic
GB50459B	UKHO	West Indies - Jamaica - North Coast - Saint Ann's Bay	12000	Available	IC-ENC	Atlantic
GB50459C	UKHO	West Indies - Jamaica - North Coast - Lucea Harbour	12000	Available	IC-ENC	Atlantic
GB50459D	UKHO	North Coast - Rio Bueno	12000	Available	IC-ENC	Atlantic
GB50459E	UKHO	West Indies - Jamaica - North Coast - Oracabessa Bay	12000	Available	IC-ENC	Atlantic
GB50459F	UKHO	West Indies - Jamaica - North Coast - Falmouth Harbour	8000	Available	IC-ENC	Atlantic
GB50459G	UKHO	Discovery Bay	4000	Available	IC-ENC	Atlantic
GB50467A	UKHO	West Indies - Dominican Republic - San Pedro de Macoris	12000	Available	IC-ENC	Atlantic
GB50467B	UKHO	West Indies - Dominican Republic - Bahia de Andres	12000	Available	IC-ENC	Atlantic
GB50467C	UKHO	West Indies - Dominican Republic - Puerto de Santo Domingo	12000	Available	IC-ENC	Atlantic
GB50467D	UKHO	West Indies - Dominican Republic - Puerto La Romana	12000	Available	IC-ENC	Atlantic
GB50471C	UKHO	Dominican Republic - South Coast - Puerto de Barahona	12000	Available	IC-ENC	Atlantic
GB50489A	UKHO	West Indies - Leeward Islands - Nevis - Charlestown	8000	Available	IC-ENC	Atlantic
GB50489B	UKHO	West Indies - Leeward Islands - Nevis - Long Point Harbour	8000	Available	IC-ENC	Atlantic
GB50499A	UKHO	Port Castries	4000	Available	IC-ENC	Atlantic
GB50499B	UKHO	Vieux Fort	12000	Available	IC-ENC	Atlantic
GB50499C	UKHO	Windward Islands - Grand Cul de Sac Bay	8000	Available	IC-ENC	Atlantic
GB50499D	UKHO	Windward Islands - Saint Lucia - Marigot Harbour	4000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB50503A	UKHO	Roatan Island	15000	December 2013	IC-ENC	Atlantic
GB50503B	UKHO	Roatan Island	15000	December 2013	IC-ENC	Atlantic
GB50697B	UKHO	Woodbridge Bay and Roseau Roads	12000	Available	IC-ENC	Atlantic
GB50799A	UKHO	Admiralty Bay	12000	Available	IC-ENC	Atlantic
GB50799B	UKHO	Kingstown Harbour and Approaches	12000	Available	IC-ENC	Atlantic
GB50799C	UKHO	Grenada - Saint George's Harbour and Approaches	8000	Available	IC-ENC	Atlantic
GB51489A	UKHO	Bahamas - New Providence Island - Clifton Pier	8000	Available	IC-ENC	Atlantic
GB51798A	UKHO	Central America - Caribbean Coast of Costa Rica - Puerto Limon	12000	Available	IC-ENC	Atlantic
GB51798B	UKHO	Costa Rica - Bahia de Moin	12000	Available	IC-ENC	Atlantic
GB51946B	UKHO	Guatemala - Quetzal	12000	Available	IC-ENC	Pacific
GB51946C	UKHO	El Salvador - Acajutla	12000	Available	IC-ENC	Pacific
GB51961C	UKHO	Cutuco	12000	Available	IC-ENC	Pacific
GB51961E	UKHO	Puerto de Henecan	12000	Available	IC-ENC	Pacific
GB52020A	UKHO	West Indies - British Virgin Islands - Virgin Gorda - North Sound and Approaches	12000	Available	IC-ENC	Atlantic
GB52020B	UKHO	West Indies - British Virgin Islands - Tortola - Road Harbour and Approaches	12000	Available	IC-ENC	Atlantic
GB52064A	UKHO	West Indies - Antigua - Falmouth Harbour and English Harbour	12000	Available	IC-ENC	Atlantic
GB52064B	UKHO	West Indies - Antigua - Mamora Bay	8000	Available	IC-ENC	Atlantic
GB58004B	UKHO	Trinidad and Tobago - Port of Spain - Grier Basin	12000	Available	IC-ENC	Atlantic
GB58022A	UKHO	Speightstown including Arawak Jetty	12000	Available	IC-ENC	Atlantic
GB58022B	UKHO	Bridgetown Harbour and Approaches	12000	Available	IC-ENC	Atlantic
GB58022C	UKHO	Oistins Bay	12000	Available	IC-ENC	Atlantic
GB58062A	UKHO	Little Bay	4000	Available	IC-ENC	Atlantic
GB58102A	UKHO	West Indies - Jamaica - North Coast - Ocho Rios Bay	8000	Available	IC-ENC	Atlantic
GB58102B	UKHO	West Indies - Jamaica - South Coast - Kingston Harbour	12000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB58102C	UKHO	Port Antonio	4000	Available	IC-ENC	Atlantic
GB58122A	UKHO	West Indies - Jamaica - North Coast - Montego Bay	12000	Available	IC-ENC	Atlantic
GB58910A	UKHO	Bocas Del Toro	12000	Available	IC-ENC	Atlantic
GB58910B	UKHO	Boca Del Drago	12000	Available	IC-ENC	Atlantic
GB58910C	UKHO	Chiriqui Grande	12000	Available	IC-ENC	Atlantic
GB58911A	UKHO	Panama - Puerto de La Bahia de Las Minas	12000	Available	IC-ENC	Atlantic
GB58911B	UKHO	Atlantic Entrance to Panama Canal Incuding Adjacent Ports	12000	Available	IC-ENC	Atlantic
GB58913A	UKHO	Panama - Puerto Balboa	8000	Available	IC-ENC	Pacific
GB58932A	UKHO	Commerce Bight	12000	Available	IC-ENC	Atlantic
GB58932B	UKHO	Big Creek and Approaches	12000	Available	IC-ENC	Atlantic
MX501114	SEMAR	El Sauzal	8000	December 2013	IC-ENC	Pacific
MX501116	SEMAR	Ensenada	8000	December 2013	IC-ENC	Pacific
MX501118	SEMAR	Costa Azul	8000	December 2013	IC-ENC	Pacific
MX502161	SEMAR	Puerto Libertad Son	12000	Available	IC-ENC	Pacific
MX502332	SEMAR	San Carlos, Son.	8000	Available	IC-ENC	Pacific
MX502334	SEMAR	Guaymas, Son.	12000	Available	IC-ENC	Pacific
MX503217	SEMAR	Portulano del Loreto	4000	Available	IC-ENC	Pacific
MX503232	SEMAR	Bahía Pichilingue	8000	Available	IC-ENC	Pacific
MX503233	SEMAR	La Paz	8000	Available	IC-ENC	Pacific
MX503332	SEMAR	Acceso al Puerto do Topolobampo - Sin. Canal Exter	12000	Available	IC-ENC	Pacific
MX503333	SEMAR	Acceso al Puerto de Topolobampo - Sin. Canal Inter	12000	Available	IC-ENC	Pacific
MX503632	SEMAR	Puerto El Sábalo - Sin.	8000	Available	IC-ENC	Pacific
MX503633	SEMAR	Mazatlán - Sin y Proximidades	12000	Available	IC-ENC	Pacific
MX503634	SEMAR	Mazatlán - Sin	8000	Available	IC-ENC	Pacific
MX504031	SEMAR	Bahía Vargas Lozano	4000	Available	IC-ENC	Pacific
MX504121	SEMAR	Boca Teacapan	8000	Available	IC-ENC	Pacific

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
MX504214	SEMAR	Puerto Vallarta	8000	December 2013	IC-ENC	Pacific
MX504233	SEMAR	Barra de Navidad	12000	Available	IC-ENC	Pacific
MX505113	SEMAR	Manzanillo	4000	Available	IC-ENC	Pacific
MX505133	SEMAR	Lazaro Cardenas	8000	Available	IC-ENC	Pacific
MX505134	SEMAR	Caleta de Campos	8000	Available	IC-ENC	Pacific
MX505213	SEMAR	Bahia de Isla Grande (Ixtapa)	8000	Available	IC-ENC	Pacific
MX505214	SEMAR	Bahía de Zihuatanejo	8000	Available	IC-ENC	Pacific
MX505233	SEMAR	Portulano de Acapulco	8000	Available	IC-ENC	Pacific
MX505234	SEMAR	Puerto Marquez	4000	Available	IC-ENC	Pacific
MX506233	SEMAR	Salina Cruz y Proximidades	12000	Available	IC-ENC	Pacific
MX506341	SEMAR	Puerto Chiapas	8000	Available	IC-ENC	Pacific
MX507113	SEMAR	Puerto El Mezquital	8000	February 2014	IC-ENC	Atlantic
MX507121	SEMAR	Boca Sta. Maria a Boca Sandoval	12000	Available	IC-ENC	Atlantic
MX507222	SEMAR	Puerto de Altamira	8000	Available	IC-ENC	Atlantic
MX508113	SEMAR	Isla Lobos	4000	Available	IC-ENC	Atlantic
MX508122	SEMAR	Tuxpan	12000	February 2014	IC-ENC	Atlantic
MX508133	SEMAR	Laguna Verde	12000	Available	IC-ENC	Atlantic
MX508214	SEMAR	Veracruz	8000	Available	IC-ENC	Atlantic
MX508221	SEMAR	Puerto de Alvarado	12000	Available	IC-ENC	Atlantic
MX508313	SEMAR	Coatzacoalcos-Pajaritos	8000	Available	IC-ENC	Atlantic
MX508315	SEMAR	Nanchital	4000	Available	IC-ENC	Atlantic
MX508316	SEMAR	San Francisco-Tierra Nueva	4000	Available	IC-ENC	Atlantic
MX508317	SEMAR	El Ileguero a Boca del Uxpanapa (Rio Coatz.)	4000	Available	IC-ENC	Atlantic
MX508318	SEMAR	Minatitlan	4000	Available	IC-ENC	Atlantic
MX508324	SEMAR	Dos Bocas, Tabasco	4000	Available	IC-ENC	Atlantic
MX508413	SEMAR	Frontera y Proximidades	12000	Available	IC-ENC	Atlantic
MX508431	SEMAR	Sabancuy	12000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
MX508523	SEMAR	Cayo Arcas y Proximidades	12000	Available	IC-ENC	Atlantic
MX508531	SEMAR	Seybaplaya	12000	Available	IC-ENC	Atlantic
MX508533	SEMAR	Lerma	8000	Available	IC-ENC	Atlantic
MX509123	SEMAR	Portulano Yukalpeten, Yuc.	3500	March 2014	IC-ENC	Atlantic
MX509125	SEMAR	Terminal Remota de Progreso	4000	Available	IC-ENC	Atlantic
MX509142	SEMAR	El Cuyo	12000	Available	IC-ENC	Atlantic
MX509223	SEMAR	Puerto Morelos, Q. Roo.	12000	April 2014	IC-ENC	Atlantic
MX509225	SEMAR	San Miguel de Cozumel	12000	Available	IC-ENC	Atlantic
MX509226	SEMAR	Playa del Carmen	8000	February 2014	IC-ENC	Atlantic
MX59222A	SEMAR	Isla Mujeres	4000	Available	IC-ENC	Atlantic
MX59222B	SEMAR	Punta Sam	4000	Available	IC-ENC	Atlantic
NL502714	NLHO	Willemstad	4000	Available	IC-ENC	Atlantic
NL52211A	NLHO	Paardenbaai	8000	Available	IC-ENC	Atlantic
NL52212A	NLHO	Kralendijk	22000	Available	IC-ENC	Atlantic
NL52212B	NLHO	Oilterminal Goto	12000	Available	IC-ENC	Atlantic
NL52212C	NLHO	Saltjetty	4000	Available	IC-ENC	Atlantic
NL52213A	NLHO	Bullenbaai	8000	Available	IC-ENC	Atlantic
NL52715A	NLHO	Sint Nicolaasbaai	8000	Available	IC-ENC	Atlantic
NL52715B	NLHO	Haven Barcadera	8000	Available	IC-ENC	Atlantic
NL52715C	NLHO	Commandeursbaai	8000	Available	IC-ENC	Atlantic
NL52715D	NLHO	Caracasbaai - Fuikbaai - Spaanse Water	8000	Available	IC-ENC	Atlantic
NL52716D	NLHO	Saba	22000	Available	IC-ENC	Atlantic
NL52716E	NLHO	Sint Maarten	22000	Available	IC-ENC	Atlantic
NL52716G	NLHO	Sint Eustatius	22000	Available	IC-ENC	Atlantic
SR52218A	NLHO	Paramaribo	22000	Available	IC-ENC	Atlantic
SR52218B	NLHO	Paranam Bight	12000	Available	IC-ENC	Atlantic
US509860	NGA	Panama Canal Northern End	15000	Available	NOAA	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US515390	NGA	Panama Canal	30000	Available	NOAA	Atlantic
US515410	NGA	Panama Canal Southern End	25000	Available	NOAA	Pacific
US5AL11M	NOAA	Mobile Ship Channel	25000	Available	NOAA	Atlantic
US5AL12M	NOAA	Santa Rosa Sound To Wolf Bay	40000	Available	NOAA	Atlantic
US5AL13M	NOAA	Mobile Bay Approaches and Lower Half	40000	Available	NOAA	Atlantic
US5AL14M	NOAA	Mobile Bay E Fowl R to Deer River Pt	20000	Available	NOAA	Atlantic
US5CA74M	NOAA	Mission Bay	20000	Available	NOAA	Pacific
US5FL09M	NOAA	Tampa and St Petersburg	20000	Available	NOAA	Atlantic
US5FL11M	NOAA	Tampa Bay and Approaches	40000	Available	NOAA	Atlantic
US5FL12M	NOAA	Tampa Bay	40000	Available	NOAA	Atlantic
US5FL15M	NOAA	Horseshoe Beach	20000	Available	NOAA	Atlantic
US5FL16M	NOAA	St.Marks River and approaches	15000	Available	NOAA	Atlantic
US5FL17M	NOAA	Intracoastal Waterway Tampa Bay to Port Richey	40000	Available	NOAA	Atlantic
US5FL19M	NOAA	ICWW Charlotte Harbor to Tampa Bay	40000	Available	NOAA	Atlantic
US5FL21M	NOAA	Intracoastal Waterway Miami To Elliott Key	40000	Available	NOAA	Atlantic
US5FL22M	NOAA	Miami Harbor	10000	Available	NOAA	Atlantic
US5FL24M	NOAA	Sands Key to Blackwater Sound	40000	Available	NOAA	Atlantic
US5FL25M	NOAA	Blackwater Sound To Matecumbe	40000	Available	NOAA	Atlantic
US5FL29M	NOAA	Matecumbe to Grassy Key	40000	Available	NOAA	Atlantic
US5FL32M	NOAA	Fort Lauderdale Port Everglades	10000	Available	NOAA	Atlantic
US5FL33M	NOAA	Intracoastal Waterway West Palm Beach to Miami	40000	Available	NOAA	Atlantic
US5FL34M	NOAA	Lake Worth Inlet	10000	Available	NOAA	Atlantic
US5FL40M	NOAA	Palm Shores To West Palm Beach B	40000	Available	NOAA	Atlantic
US5FL41M	NOAA	IWW Fort Pierce Inlet to West Palm Beach	40000	Available	NOAA	Atlantic
US5FL42M	NOAA	ICWW Fort Myers to Charlotte Harbor	40000	Available	NOAA	Atlantic
US5FL43M	NOAA	St Lucie Inlet to Ft Myers;L Okeechobee	40000	Available	NOAA	Atlantic
US5FL61M	NOAA	East Bay to West Bay	40000	Available	NOAA	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US5FL62M	NOAA	West Bay to Santa Rosa Sound	40000	Available	NOAA	Atlantic
US5FL63M	NOAA	Lake Wimico To East Bay	40000	Available	NOAA	Atlantic
US5FL64M	NOAA	Apalachicola Bay to Lake Wimico	40000	Available	NOAA	Atlantic
US5FL65M	NOAA	Carrabelle to Apalachicola Bay	40000	Available	NOAA	Atlantic
US5FL66M	NOAA	St. Andrew Bay	25000	Available	NOAA	Atlantic
US5FL67M	NOAA	St. Andrew Bay - Bear Point to Sulpher Point	5000	Available	NOAA	Atlantic
US5FL72M	NOAA	Pensacola Bay	30000	Available	NOAA	Atlantic
US5FL73M	NOAA	Pensacola Bay Entrance	10000	Available	NOAA	Atlantic
US5FL88M	NOAA	Fort Pierce Harbor	10000	Available	NOAA	Atlantic
US5FL91M	NOAA	Dry Tortugas	30000	Available	NOAA	Atlantic
US5FL93M	NOAA	KEY WEST HARBOR AND APPROACHES	30000	Available	NOAA	Atlantic
US5FL94M	NOAA	Key West Harbor	10000	Available	NOAA	Atlantic
US5FL95M	NOAA	Bahia Honda Key to Sugarloaf Key	40000	Available	NOAA	Atlantic
US5FL96M	NOAA	Big Spanish Channel to Johnston Key	40000	Available	NOAA	Atlantic
US5FL98M	NOAA	Grassy Key to Bahia Honda Key	40000	Available	NOAA	Atlantic
US5FL99M	NOAA	Sugarloaf Key To Key West	40000	Available	NOAA	Atlantic
US5LA11M	NOAA	Calcasieu River And Lake	50000	Available	NOAA	Atlantic
US5LA12M	NOAA	Grand Lake - Forked Island to Ellender	40000	Available	NOAA	Atlantic
US5LA13M	NOAA	Wax Lake Outlet to Forked Island	40000	Available	NOAA	Atlantic
US5LA16M	NOAA	Calcasieu River and Approaches	50000	Available	NOAA	Atlantic
US5LA23M	NOAA	Catahoula Bay to Wax Lake Outlet	40000	Available	NOAA	Atlantic
US5LA24M	NOAA	Baptiste Collette Bayou to Miss River Gulf Outlet	40000	Available	NOAA	Atlantic
US5LA26M	NOAA	Port Fourchon and Approaches	40000	Available	NOAA	Atlantic
US5LA27M	NOAA	Catahoula Bay to Wax Lake	40000	Available	NOAA	Atlantic
US5LA33M	NOAA	Miss River Delta;SW Pass to Head of Passes	40000	Available	NOAA	Atlantic
US5LA36M	NOAA	Intracoastal Waterway Waveland to Catahoula Bay	40000	Available	NOAA	Atlantic
US5LA37M	NOAA	New Orleans Harbor Chalmette Slip To Southport	15000	Available	NOAA	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US5LA38M	NOAA	Barataria and Bayou Lafourche Waterways	40000	Available	NOAA	Atlantic
US5LA41M	NOAA	Loop Deepwater Port Louisiana Offshore Oil Port	50000	Available	NOAA	Atlantic
US5LA51M	NOAA	Mississippi River New Orleans To Remy	40000	Available	NOAA	Atlantic
US5LA52M	NOAA	New Orleans to Vacherie,LA	40000	Available	NOAA	Atlantic
US5MS11M	NOAA	Dog Keys Pass to Waveland	40000	Available	NOAA	Atlantic
US5MS21M	NOAA	Dauphin Island Ala To Horn Island Miss	40000	Available	NOAA	Atlantic
US5MS22M	NOAA	Pascagoula Harbor Mississippi	20000	Available	NOAA	Atlantic
US5PR11M	NOAA	Virgin Islands Virgin Gorda To St Thomas And St Cr	20000	Available	NOAA	Atlantic
US5PR12M	NOAA	Christiansted Harbor	10000	Available	NOAA	Atlantic
US5PR13M	NOAA	Frederiksted Road	20000	Available	NOAA	Atlantic
US5PR16M	NOAA	Pillsbury Sound	15000	Available	NOAA	Atlantic
US5PR21M	NOAA	St Thomas Harbor	10000	Available	NOAA	Atlantic
US5PR31M	NOAA	Puerto Arecibo and Puerto Palmas Altas	20000	Available	NOAA	Atlantic
US5PR32M	NOAA	Bahia De San Juan	10000	Available	NOAA	Atlantic
US5PR33M	NOAA	Approaches to San Juan Harbor	20000	Available	NOAA	Atlantic
US5PR42M	NOAA	Bahia De Ponce And Approaches	20000	Available	NOAA	Atlantic
US5PR43M	NOAA	Puerto Maunabo	20000	Available	NOAA	Atlantic
US5PR44M	NOAA	Bahia De Guayanilla And Bahia De Tallaboa	10000	Available	NOAA	Atlantic
US5PR45M	NOAA	Punta Petrona to Isla Caja de Muertos	20000	Available	NOAA	Atlantic
US5PR46M	NOAA	Bahia de Jobos and Bahia de Rincon	20000	Available	NOAA	Atlantic
US5PR47M	NOAA	Puerto Arroyo	20000	Available	NOAA	Atlantic
US5PR50M	NOAA	Navassa Island	15000	Available	NOAA	Atlantic
US5PR51M	NOAA	Isla de Culebra and Approaches	20000	Available	NOAA	Atlantic
US5PR52M	NOAA	Ensenada Honda	6500	Available	NOAA	Atlantic
US5PR53M	NOAA	Ensenada Honda to Canal de Luis Pena	10000	Available	NOAA	Atlantic
US5PR54M	NOAA	Puerto Yabucoa	10000	Available	NOAA	Atlantic
US5PR55M	NOAA	Pasaje de San Juan to Puerto de Humacao	40000	Available	NOAA	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US5PR56M	NOAA	Pasaje de Vieques and Radas Roosevelt	25000	Available	NOAA	Atlantic
US5PR57M	NOAA	Punta Lima to Cayo Batata	20000	Available	NOAA	Atlantic
US5PR58M	NOAA	Ensenada Honda	10000	Available	NOAA	Atlantic
US5PR59M	NOAA	Bahia de Fajardo and Approaches	10000	Available	NOAA	Atlantic
US5PR61M	NOAA	Bahia de Mayaguez and Approaches	15000	Available	NOAA	Atlantic
US5PR62M	NOAA	Bahia de Boqueron	10000	Available	NOAA	Atlantic
US5PR63M	NOAA	Bahia de Guanica	10000	Available	NOAA	Atlantic
US5TX12M	NOAA	Stover Point To Port Brownsville	40000	Available	NOAA	Atlantic
US5TX13M	NOAA	Laguna Madre - Chubby Island to Stover Point	40000	Available	NOAA	Atlantic
US5TX14M	NOAA	IWW Laguna Madre Middle to Chubby Island	40000	Available	NOAA	Atlantic
US5TX22M	NOAA	Corpus Christi Bay	20000	Available	NOAA	Atlantic
US5TX24M	NOAA	Redfish Bay to Middle Ground	40000	Available	NOAA	Atlantic
US5TX25M	NOAA	ICWW Carlos Bay to Redfish Bay, inc Copano Bay	40000	Available	NOAA	Atlantic
US5TX26M	NOAA	Espiritu Santo Bay to Carlos Bay	40000	Available	NOAA	Atlantic
US5TX27M	NOAA	Corpus Christi Bay - Port Aransas to P Ingleside	20000	Available	NOAA	Atlantic
US5TX32M	NOAA	Matagorda Bay	50000	Available	NOAA	Atlantic
US5TX33M	NOAA	Cedar Lakes to Espiritu Santo Bay	40000	Available	NOAA	Atlantic
US5TX51M	NOAA	Drum Bay To Galveston Bay	40000	Available	NOAA	Atlantic
US5TX53M	NOAA	Galv Bay Ent Galveston and Texas City Hrbrs	25000	Available	NOAA	Atlantic
US5TX54M	NOAA	Upper Galveston Bay	25000	Available	NOAA	Atlantic
US5TX55M	NOAA	Houston Ship Channel	10000	Available	NOAA	Atlantic
US5TX56M	NOAA	Houston Ship Channel Alexander I to Carpenter B	10000	Available	NOAA	Atlantic
US5TX57M	NOAA	Houston Ship Ch Carpenter Bayou to Houston	10000	Available	NOAA	Atlantic
US5TX58M	NOAA	Galveston Bay	25000	Available	NOAA	Atlantic
US5TX61M	NOAA	Ellender to Galveston	40000	Available	NOAA	Atlantic
US5TX72M	NOAA	Sabine Pass And Lake	40000	Available	NOAA	Atlantic
US5TX73M	NOAA	Sabine And Neches Rivers	40000	Available	NOAA	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
VE500103	DHN	Castillete a Punta Perret	12000	July 2014	IC-ENC	Atlantic
VE500104	DHN	Portulano de Amuay	12000	Available	IC-ENC	Atlantic
VE500105	DHN	Portulano de las Piedras	12000	Available	IC-ENC	Atlantic
VE500106	DHN	Portulano de Punta Cardon	12000	Available	IC-ENC	Atlantic
VE500202	DHN	Portulano de Muaco	12000	July 2014	IC-ENC	Atlantic
VE500302	DHN	Isla de Aves	12000	July 2014	IC-ENC	Atlantic
VE500308	DHN	Puerto de la Guaira	12000	Available	IC-ENC	Atlantic
VE500313	DHN	Portulano de Puerto Cabello	5000	July 2014	IC-ENC	Atlantic
VE500315	DHN	Portulano de Catia La Mar	12000	Available	IC-ENC	Atlantic
VE500316	DHN	Puerto de Borburata y Areas Adyacentes	4000	July 2014	IC-ENC	Atlantic
VE500319	DHN	Portulano El Palito	15000	July 2014	IC-ENC	Atlantic
VE500404	DHN	Puerto de Guanta	3000	July 2014	IC-ENC	Atlantic
VE500405	DHN	Bahia de Pozuelos	12000	Available	IC-ENC	Atlantic
VE500406	DHN	Bahia de Bergantin	12000	Available	IC-ENC	Atlantic
VE500407	DHN	Bahia Pertigalete	12000	Available	IC-ENC	Atlantic
VE500411	DHN	Portulano de Jose	12000	Available	IC-ENC	Atlantic
VE500501	DHN	Pampatar	12000	July 2014	IC-ENC	Atlantic
VE500502	DHN	Bahia de Porlamar	12000	July 2014	IC-ENC	Atlantic
VE500503	DHN	Portulano Puerto de Cumana	10000	July 2014	IC-ENC	Atlantic
VE500504	DHN	Portulano de Guamache	12000	July 2014	IC-ENC	Atlantic
VE500511	DHN	Portulano de Juan Griego	12000	July 2014	IC-ENC	Atlantic
VE500513	DHN	Portulano Planta de Distribucion El Guamache	5000	July 2014	IC-ENC	Atlantic
VE500601	DHN	Portulano de Puerto Hierro	4000	July 2014	IC-ENC	Atlantic
VE500603	DHN	Portulano Guiria	12000	July 2014	IC-ENC	Atlantic
VE501301	DHN	Maracaibo	12000	July 2014	IC-ENC	Atlantic
VE501302	DHN	Puerto Miranda	12000	July 2014	IC-ENC	Atlantic
VE501401	DHN	Bajo Grande	12000	July 2014	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
VE501402	DHN	La Salina	12000	July 2014	IC-ENC	Atlantic
VE509311	DHN	Ciudad Bolivar	10000	July 2014	IC-ENC	Atlantic
VE509601	DHN	Puerto San Félix A Palúa	10000	July 2014	IC-ENC	Atlantic
VE509701	DHN	Puerto Ferrominera	10000	July 2014	IC-ENC	Atlantic

ANNEX A – ENC CELLS USAGE BAND 6 TABLE

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
CO600843	CIOH	Bahía de Cartagena (Canales de Acceso)	4000	Available	IC-ENC	Atlantic
CO600891	CIOH	Bahía de Santa Catalina	4000	June 2014	IC-ENC	Atlantic
FR67088A	SHOM	Baie du François	8000	2015-2019	PRIMAR	Atlantic
FR67472A	SHOM	Petites Antilles - Saint-Martin: Baie de Marigot	12000	Available	PRIMAR	Atlantic
FR67472B	SHOM	Petites Antilles - Saint-Martin: Baie de Grand-Case and Anse Marcel	12000	Available	PRIMAR	Atlantic
FR674800	SHOM	Entrance to Kourou river - Pariacabo harbour	10004	Available	PRIMAR	Atlantic
FR67481A	SHOM	Côte de Guyane - Iles du Salut	12000	Available	PRIMAR	Atlantic
MX606225	SEMAR	Santa Cruz Huatulco	3000	Available	IC-ENC	Pacific
MX606234	SEMAR	Salina Cruz, Oaxaca	3500	Available	IC-ENC	Pacific
MX606342	SEMAR	Canal de Acceso a Puerto Chiapas	3500	March 2014	IC-ENC	Pacific
MX63521A	SEMAR	Cabo San Lucas, Baja California Sur	3000	Available	IC-ENC	Pacific
NL62212D	NLHO	Jetties Kralendijk	4000	Available	IC-ENC	Atlantic
NL62716A	NLHO	Oranjebaai	12000	Available	IC-ENC	Atlantic
NL62716B	NLHO	Saba Fort Baai	2500	Available	IC-ENC	Atlantic
NL62716C	NLHO	Philipsburg	12000	Available	IC-ENC	Atlantic
NL62716F	NLHO	Oysterpond	8000	Available	IC-ENC	Atlantic
US6LA36M	NOAA	ICWW: Jean Lafitte to Bayou Black	8000	Available	NOAA	Atlantic
US6PR13M	NOAA	Frederiksted Pier	2500	Available	NOAA	Atlantic

ANNEX B.1 – MEMBER STATES’ ACTIONS ADDRESSING GAPS

Responsible Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells	Status	Status Statement	Completion Date
UB2 Gaps						
Brazil (UB2)		Gap (area between FR 250010 and BR 221020)	BR221010	Resolved	Already covered by Brazilian Cell BR221010.	Jun-10
			FR 250010, FR276250	Resolved	The new French cell is available. FR 250010 was withdrawn and replaced by FR276250 and clipped at BR boundaries.	Jun-10
UB3 Gaps						
Venezuela	Guyana		Charts INT 4102 and INT 4100	Resolved	<p>INT Charts INT 4102 and 4100 to be produced by VE. This means that equivalent cells should logically be produced by VE. ECC/MACHC Chair to propose to VE to produce equivalent ENCs clipped at the FR374840.</p> <p><i>Update 8/23/10: After conferring with France and Venezuela, there is no need to determine where to clip the cells, as they do not touch.</i></p> <p><i>VE to provide ENC cell limits (equivalents of INT Charts INT 4102 and 4100) to Chair ECC.</i></p>	Jun-10
Suriname Fr Guyana	Brazil	Gap (southward from Guyana, including Suriname, Fr Guyana to Brazil)	FR374840 and FR374850. BR321200; BR321300; BR321400 and BR321500	Pending	Covered by FR 374840 and FR374850. Cells will be clipped at the southern boundary of Brazil Cell BR 321100, which is available. France noted that there is an agreement between Brazil and France to address this issue on French Guyana’s Coast. No border gap between French and Brazil.	FR cells released in Oct 2010. BR321300 (June 2014) and BR321400 (June 2014) cells to be released. BR321500 (Available)

Responsible Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells	Status	Status Statement	Completion Date
Colombia		Gap (UB3)	CO200008	Resolved	This cell will cover the gap; no need for a UB 3 cell in that area.	Dec-10
US	Mexico	Gap	US1GC09	Resolved	Covered at scale band 1.	Jun-10
			MX300711	Resolved	Coastal area covered at band 3 by Mexico.	Jun-10
			MX300712	Resolved	Coastal area covered at band 3 by Mexico.	Jun-10
			MX300713	Resolved	Coastal area covered at band 3 by Mexico.	Jun-10
			MX300721	Resolved	Coastal area covered at band 3 by Mexico.	Jun-10
				Resolved	MX will assess if UB1 (US1GC09) would be enough for this gap.	Nov-10
Cuba				Pending	MICC Chair and UKHO representative continue efforts to engage Cuba, including requesting support from MACHC Chair, if necessary. Final solution still pending. 8 new UB3 cells released in 2013. The UK has had some recent contact with Cuba and may be able to meet with Cuba in near future.	Dec-14
UK		Gap Honduran coast		Resolved	Covered by GB201220; GB300513 will cover northwest side of Honduran coast for adequate usage band 3 coverage.	Nov-10
UK		Gap for Haiti		Resolved	Covered by GB281800.	Nov-10
UB4-6 Gaps						
UK/US	Bahamas	Castaway Cay		Pending	Priority Port (Private) used by Disney Cruises	Mar-14
UK/US	Bahamas	Coco Cay (Little Stirrup Cay)		Pending	Priority Port (Private) used by Royal Caribbean Cruises	Mar-14
UK/US	Bahamas	Great Stirrup Cay		Pending	Priority Port (Private) used by Norwegian Cruise Lines	Mar-14
UK/US	Bahamas	Half Moon Cay		Pending	Priority Port (Private) used by Holland American	Mar-14

Responsible Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells	Status	Status Statement	Completion Date
UK	Bahamas	Princess Cay	GB503912	Resolved	Priority Port (Private) used by Princess Cruises Lines. Planned cell to be released October 2011.	Nov-11
UK	Honduras	Roatan Island	GB50503A	Pending	Location of Coast Guard Station/Cruise Ship Port-of-Call	Dec-13
UK	Honduras	Roatan Island	GB50503B	Pending	Location of Coast Guard Station/Cruise Ship Port-of-Call	Dec-13
UK	Costa Rica	Golfito	GB32493A	Pending	Cargo Port	Jan-14
UK	Costa Rica	Golfito	GB42493B	Pending	Cargo Port	Jan-14
UK	Panama	Charco Azul	GB42493A	Pending	Tanker Port	Jan-14
Venezuela		Boca Grande Terminal	NONE	Pending	Floating iron ore transfer station (largest in the world). Plans for future surveys in conjunction with national oil company.	Jul-14
Venezuela		Matanzas	NONE	Pending	Ocean freight exchange. New survey in early 2012.	Jul-14
Venezuela		Puerto Ordaz	VE509701	Pending	San Felix and Puerto Ordaz are very close to one another, located at the confluence of the Caroni and Orinoco Rivers handling steel and aluminum.	Jul-14
Venezuela		Palua	VE509601/VE509701	Pending	VE509601/VE509701 to be produced	Jul-14
Venezuela		Ciudad Bolivar	VE509311	Pending	VE509311 to be produced	Jul-14
Venezuela		San Felix	VE509601	Pending	San Felix and Puerto Ordaz are very close to one another, located at the confluence of the Caroni and Orinoco Rivers handling steel and aluminum.	Jul-14

ANNEX B.2 – MEMBER STATES’ ACTIONS ADDRESSING OVERLAPS

Affected Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells		Status	Status Statement	Completion Date
Brazil	France	Overlap	BR221010	FR276250	Resolved	FR 250010 withdrawn and replaced by FR276250 and clipped at BR boundaries; BR221010 available.	Sep-11
Colombia	Venezuela	Overlap	CO3000026	VE300100	Resolved	<p>CO and VE exchanged proposals on suggested ENC boundary limits. At the MACHC XI meeting, a bi-national technical working group was established to address unresolved technical issues and to develop a recommendation for resolution that can be submitted to the higher authorities in each country.</p> <p>Venezuela has suggested that the Technical Group communicate weekly to enable technical progress.</p> <p>Meeting (June) between Colombian and Venezuelan technical experts occurred at MACHC XII meeting. Meeting supposed to occur in March to sign a MOU between two countries.</p>	Jun-12
Mexico	US	Overlap	MX300711	US3GC01M	Resolved	Mexico sent M_Covr limits to US; US made cut to US3GC01M with respect to MX300711 limits and released US3GC01M reflecting new limits.	May 25 2011
UK US Mexico	Cuba	Overlap	Various Cuba cells	Various US, UK, and Mexico cells	Pending	<p>US, UK, and Mexico will propose solution that ECC Chair can send to Cuba for consideration. Once approved and cells are available, solution will be implemented.</p> <p>This is “pending” until discussions with Cuba.</p>	12/2011 See detailed items below

Affected Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells		Status	Status Statement	Completion Date
Mexico	US	Overlap	MX200900	US2GC12M	Resolved	Mexico sent their proposal to US; US responded with amended proposal. US made the agreed cuts to the new boundaries of the Mexico cell. US2GC12M released, but awaiting release of MX200900. MX cell pending release until further notice of missing Cuba data.	Aug 2011 - US Dec 2011 - MX
UK	US	Overlap	GB281800	US2EC01M	Pending	US provided geographic positions to UK; UK has cut GB cell. US needs to cut US cell to GB limits.	Mar-12
UK	US	Overlap	GB283000	US2EC02M	Resolved	GB283000 cancelled and rebanded as Usage Band 3.	Jan-11
UK	France	Overlap	GB283800	FR250020	Resolved	GB283800 cancelled. FR250020 replaced by FR274750.	May-10
US	UK	Overlap	US2EC01M	GB283000	Resolved	GB283000 cancelled and rebanded as Usage Band 3.	Jan-11
UK	US	Overlap	GB302006	US3PR10M	Resolved	GB302006 cancelled and rebanded as Usage Band 4.	Jan-11
UK	US	Overlap	GB302016	US3PR10M	Resolved	US3PR10M will be clipped to existing limits of GB302016	Mar-12
US	UK	Overlap	GB300472	US3PR10M	Resolved	GB300472 will be clipped to existing limit of US3PR10M.	Mar-12
UK	US	Overlap	GB303910	US3FL30M	Resolved	US3FL30M and GB303910 will be clipped to agreed limit along the axis of longitude 79°20'00"W and latitude 26°00'00"N.	Mar-12
UK	France	Overlap	GB380230	FR352010	Resolved	Overlap is <5m on the ground and so is within tolerance. No further action is required.	Jun-10
UK	US	Overlap	GB402006	US4PR11M	Resolved	US to clip US4PR11M to existing limits of GB402006.	Mar-12
Colombia	UK	Overlap	CO200008	GB200486	Resolved	Colombia produced and released CO200008, UK issued GB200486 to replace GB200486 at the northern border of CO200008.	Spring 2011

Affected Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells		Status	Status Statement	Completion Date
Colombia	UK	Overlap	CO200008	GB200396	Resolved	Colombia produced and released CO20008, and GB200396 was cancelled.	Spring 2011
US	Mexico	Overlap	US1WC07M	MX100010	Pending	MX and US still negotiating how to cut ENCs.	Jul-14
US	Mexico	Overlap	US1GC09M	MX100030	Pending	US would be willing to cut to MX cell limits.	Jul-14
UK	Mexico	Overlap	GB104802 GB104811	MX100020	Pending	When MX released, GB will be cut back.	Jul-14
MX	Cuba	Overlap	MX200900	CU211401	Resolved	MX and Cuba to cut along 85°W, resolving overlap.	May-12
US	Cuba	Overlap	US2EC01M	CU211401 CU211402 CU211403	Pending	Pending talks between US and Cuba to attempt to resolve prior to release of CU cell.	TBD
Cuba	GB	Overlap	CU211403	GB281800	Pending	TBD	TBD
US	Cuba	Overlap	US3GC07M	CU311423 CU311424 CU311425 CU311426	Resolved	Upon Cuban release, US cut ENCs.	Dec-13
US	Cuba	Overlap	US3FL90M US3FL30M	CU311426	Resolved	Upon Cuban release, US cut ENCs.	Dec-13
US	Cuba	Overlap	US3FL30M	CU311427	Pending	Pending talks between US and Cuba to attempt to resolve prior to release of CU cell.	TBD
UK	Cuba	Overlap	GB303907	CU311534	Pending	TBD	TBD

ANNEX C – WORK PLAN MILESTONES 2013

DELIVERY DATE (2013)	ACTIONS	
	Electronic Chart Activities	INT Chart Activities
January 31	Member States to provide plans to address gaps in ENC coverage within their area.	Member States to provide INT Chart metadata (as noted in S-11) for existing (available) INT Charts for use in GIS
March 6	Member States to provide updates to: <ul style="list-style-type: none"> the list in Annex A of the Report of available ENCs resolution of any gaps/overlaps identified in Annex B of the Report. 	Member States to forward INT Chart metadata and shapefiles for “planned” INT Charts
March 13	Hold quarterly conference call to assess status and next steps	
March 27	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call. Develop plan for coordinated Electronic Chart and INT Chart Report.	
April 5		Member States to propose additional coverage/adjustments for S-11, section B
May 3	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call	
May 10	Member States to provide updates to: <ul style="list-style-type: none"> the list in Annex A of the Report of available ENCs resolution of any gaps/overlaps identified in Annex B of the Report. 	Member States to provide S-11, section B update to MICC
May 22	Hold quarterly conference call to assess status and prepare information as needed for subsequent communication to IRCC and IHB.	
May 29	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call	
July 1	Develop format for report, reflecting the recently combined INT Chart and Electronic Chart Committees.	
July 5		Add catalog links on the MACHC Committees website
August 1	Member States to review revised WEND Principles and amplifying Annex (Action Item 29)	
August 1	Complete preliminary ‘Draft’ Report	
September 30	Member States to provide updates to: <ul style="list-style-type: none"> the list in Annex A of the Report of available ENCs resolution of any gaps/overlaps identified in Annex B of the Report. 	
October 23	Hold quarterly follow-up conference call to update/review and discuss MS input in preparation of 14th MACHC	
November 8	Provide all updates to Leland (for the Annexes of the Report)	

DELIVERY DATE (2013)	ACTIONS	
	Electronic Chart Activities	INT Chart Activities
November 15	All Members provide final comments on the Report to MICC Chair	
November 22	Submit Final Report to MACHC	
Nov/Dec 2013	Seek approval of Final Report at 14th MACHC Meeting	
December 31	MACHC Chair to distribute Final Report of the Status of ENC Coverage for the MACHC Region to the IRCC and IHB	

ANNEX C – WORK PLAN MILESTONES 2012

DELIVERY DATE (2012)	ACTIONS For all UB 1-6 Band Cells for both Atlantic and Pacific side of MACHC
January 31	Member States with gaps in coverage to analyze their ENC coverage of Priority Ports based on the IMO Carriage Requirements and associated deadlines for vessel size and traffic.
February 6	Update MCOVR and dates of availability for MACHC Member States (MS) from the RENC/MS for both Atlantic and Pacific side ENC Coverage.
February 13	MS Points of Contact (POC) provide MCOVR data when not available from the RENC
February 17	Distribute updated results (for discussion during Conference Call)
February 29	Explore options for providing a mechanism to depict ENC schemes on a webpage in an interoperable manner
March 21	Hold quarterly conference call, 10:00 EDT (US) to assess status and next steps
March 30	ECC/WG2 Members provide final updates to Annex A and B. (These are updates which could not be 100% confirmed at the March 21 Conference Call)
April 6	Chair, ECC integrates final ECC WG comments into Report
April 12	Chair, ECC sends final draft Report MACHC Chair (for distribution to MACHC Member States)
April 13	MACHC Chair distributes Report to MACHC Member States
April 27	Final Comments on Report due to ECC Chair
May 1	Finalize Report for distribution
May 10	Provide Final Report to MACHC Chair
May 11	MACHC Chair provides Report to IHB
July 1- September 1	Continue communications with WG participants for updates on ENC cells and availability
September 12	Hold quarterly follow-up conference call to review and discuss MS responses to draft of updated Report
October 14	Distribute WG2 Report to MACHC Chair; copy to MACHC National Hydrographers for review and endorsement.
November 2	Comments back to ECC Chair; copy MACHC Chair
November 12	Submit Final Report to MACHC Meeting
December 3-7	Seek approval of Final Report at 13th MACHC Meeting
December 31	MACHC Chair to distribute Final Report of the Status of ENC Coverage for the MACHC Region to the IRCC and IHB

ANNEX C – WORK PLAN MILESTONES 2011

DELIVERY DATE (2011)	ACTIONS	
	For UB 1-3 Band Cells for Pacific side	For UB 4-6 Band Cells for Atlantic side
January 31	Acquire MCOVR for MACHC Member States (MS) from the RENC for Pacific side to develop base polygons representing adequate ENC coverage for Pacific side (Colombia, Mexico, UK, US)	Acquire MCOVR for MACHC Member States (MS) from the RENC for Atlantic side Acquire Priority Ports and Routes from WEND ENC WG
January 31	Start data analysis of available M_Covr information	
February 4	MS points of contact (POC) provide MCOVR data when not available from the RENC	
February 15	Distribute results of data analysis (for discussion during conference call)	
February 25	Hold quarterly conference call, 10:00 EST (US) to assess status and next steps	
April 8	Complete the follow-up data analysis	
April 14	Hold quarterly conference call, tentative time 9:00 EDT (US) to assess status and next steps	
May 22	Produce draft Annex to ECC/WG2 ENC coverage report for Pacific ENCs	Produce draft expanded Annex A to ECC/WG2 ENC coverage report for Atlantic ENCs
May 25	Face-to-face meeting (in Niteroi, Brazil, in conjunction with the 9 th CBSC and IRCC-3 meetings) for MS POCs to review, discuss and finalize draft WG2 report on the status of adequate ENC coverage and address any outstanding issues	
June 29	Hold quarterly conference call, tentative time 10:00 EDT (US) to assess status and next steps	
August 26	Expanded draft report sections of addendum to report forwarded to WG members for comment	
September 8	Comments on addendum, and specific comments on annexes, back to Chair and communications coordinator	
September 28	Hold quarterly follow-up conference call to review and discuss MS responses to draft of expanded report	
October 14	Distribute WG2 Report to MACHC Chair; copy to MACHC National Hydrographers for review and endorsement.	
November 4	Comments back to ECC Chair; copy MACHC Chair	
November 16	Submit final report to MACHC	
December 5-9	Seek approval of final report at 12 th MACHC meeting	
December 16	MACHC Chair to distribute final report of the <i>Status of ENC Coverage for the MACHC Region</i> to the IHB	

ANNEX C – WORK PLAN MILESTONES 2010

DELIVERY DATE (2010)	ACTIONS
January 31	Develop base polygons representing adequate ENC coverage derived from medium scale INT scheme.
January 31	Acquire MCOVR for MACHC Member States (MS) from the RENC.
January 31	MS points of contact (POC) provide MCOVR data when not available from the RENC.
February 24	Hold quarterly conference call, tentative time 10AM EST, to discuss current coverage, gaps, next steps.
March 12	Forward omitted MCOVR information so that the graphic properly reflects existing and planned ENC coverage.
April 9	Complete the follow-up data analysis to include the new information.
April 16	Countries receive data analysis results, including targeted guidance on areas of primary focus and action.
May 21	Produce draft of final report. (Start now and supplement with new data analysis as appropriate.)
May 26	Hold quarterly conference call to review WG2 MACHC ENC coverage report outline, tentative time 10 AM EST.
May 28	All countries look at data analysis (provided by UK) and forward any omissions and/or updates to Paul Bradley.
June 1	U.S. populates template, based on UK data analysis, and distributes to countries for consideration.
June 9	Countries respond to data analysis via "reporting template."
June 16	Face-to-face meeting for MS POCs to review, discuss and finalize draft WG2 report on the status of adequate ENC coverage. Address any outstanding issues.
July 2	Draft sections of report sent to Chair.
August 25	Expanded draft report sent to WG members for comment.
September 8	Comments on report, and specific comments on the annexes, back to technical coordinator and communications coordinator.
September 14	Hold quarterly follow-up conference call to review and discuss MS response to the WG2 Report.
September 20	Distribute WG2 Report to MACHC Chair; copy to MACHC National Hydrographers for review and endorsement.
October 8	Comments back to ECC Chair; copy to MACHC Chair.
October 18	Submit final report to MACHC.
November 8-12	Seek approval of final report at MACHC meeting in Suriname.
December 15	MACHC Chair to distribute final <i>ENC Coverage for the MACHC Region</i> to the IHB.

ANNEX D – GUIDELINES FOR ANALYZING M-COVR IN THE MACHC REGION

1. Assess deficiencies in ENC Coverage for Navigation Purpose 1, 2, and 3 Electronic Navigational Charts (ENC).
 - a. Collect polygon/polygons representing areas lacking Navigation Purpose 1 coverage as defined by the small scale INT Scheme.
 - b. Note any other ENC coverage by other navigation purposes of any Navigation Purpose 1 deficient areas.
 - c. Collect polygon/polygons representing areas lacking Navigation Purpose 2 coverage as defined by the medium scale INT Scheme.
 - d. Note any other ENC coverage by other navigation purposes of any Navigation Purpose 2 deficient areas.
 - e. Collect polygon/polygons representing areas lacking Navigation Purpose 3 coverage as defined by the medium scale INT Scheme.
 - f. Note any other ENC coverage by other navigation purposes of any Navigation Purpose 3 deficient areas.
2. Assess deficiencies in coverage within National ENC suites.
 - a. Identify small gaps or slivers existing between same navigation purpose ENC cells within the same national suite.
 - b. Identify small gaps or slivers existing between same navigation purpose ENC cells that junction with ENCs of other national suites.
3. Identify overlapping areas of same navigation purpose ENC Cells
 - a. Collect polygons representing areas of overlap.
 - b. List affected overlapping cells.
4. Identify any other data anomalies, such as navigation purposes that are inconsistent with the scale of the ENC cell.
5. Prepare a report of all identified data deficiencies for the MACHC region.
 - a. Report all data gaps.
 - b. Report all data overlaps.
 - c. Report all data anomalies.
 - d. Propose recommendations to fix data deficiencies.

ANNEX E – PRIORITY PORTS LIST

Charting Auth (Member State)	PORT	COUNTRY
Brazil	Macapa	Brazil
Colombia	Cartagena	Colombia
	Mamonal	Colombia
	Turbo	Colombia
	Coveñas	Colombia
	San Andres	Colombia
	Barranquilla	Colombia
	Santa Marta	Colombia
	Puerto Bolivar	Colombia
	Isla de Providencia	Colombia
	Riohacha	Colombia
	Manaure	Colombia
	Bahía Colombia	Colombia
	Tolcementos Tolú	Colombia
	Puerto Portete	Colombia
	Puerto Nuevo	Colombia
France	Degrad des Cannes	French Guiana
	Pointe a Pitre	Guadeloupe
	St Martin	Guadeloupe
	Fort de France	Martinique
Mexico	Coatzacoalcos	Mexico
	Veracruz	Mexico
	Altamira	Mexico
	Tampico	Mexico
	Salina Cruz	Mexico
	Tuxpan	Mexico
	Topolobampo	Mexico
	Acapulco	Mexico
	La Paz	Mexico
	Zihuatanejo	Mexico
	Cabo San Lucas	Mexico
	Pichilingue	Mexico
	Bahias de Huatulco	Mexico
	Puerto Chiapas	Mexico
	Cozumel	Mexico
Progreso	Mexico	

Charting Auth (Member State)	PORT	COUNTRY
	Manzanillo	Mexico
	Lazaro Cardenas	Mexico
	Mazatlan	Mexico
	Guaymas	Mexico
	Ensenada	Mexico
	Cancun	Mexico
	Puerto Morelos	Mexico
	Ciudad del Carmen	Mexico
	Puerto Vallarta	Mexico
	Cayo Arcas Terminal	Mexico
	Dos Bocas	Mexico
	Campeche	Mexico
	San Jose Del Cabo	Mexico
	Puerto Juarez	Mexico
Netherlands	San Nicolas Bay	Aruba
	St Eustatius	Caribbean Netherlands
	Philipsburg	St Maarten
	Paramaribo	Suriname
United Kingdom	Freeport (BHS)	Bahamas
	Nassau	Bahamas
	South Riding Point Oil Terminal	Bahamas
	Great Stirrup Cay	Bahamas
	Coco Cay	Bahamas
	Half Moon Cay	Bahamas
	Princess Cays	Bahamas
	Castaway Cay	Bahamas
	Belize City	Belize
	Big Creek	Belize
	Tortola (Port Purcel)	British Virgin Islands
	Cayman Brac	Cayman Islands
	Little Cayman	Cayman Islands
	Puerto Limon	Costa Rica
	Caldera (CR)	Costa Rica
	Puntarenas	Costa Rica
	Havana	Cuba
	Cienfuegos	Cuba
Rio Haina	Dominican Republic	

Charting Auth (Member State)	PORT	COUNTRY
	Caucedo	Dominican Republic
	La Romana	Dominican Republic
	Santo Domingo	Dominican Republic
	San Pedro de Macoris	Dominican Republic
	Barahona	Dominican Republic
	Puerto Plata	Dominican Republic
	Acajutla	El Salvador
	Puerto Quetzal	Guatemala
	Santo Tomas de Casti	Guatemala
	Puerto Barrios	Guatemala
	Demerara	Guyana
	Everton	Guyana
	Port au Prince	Haiti
	Cap Haitien	Haiti
	Puerto Cortes	Honduras
	Kingston	Jamaica
	Ocho Rios	Jamaica
	Port Esquivel	Jamaica
	Port Kaiser	Jamaica
	Port Rhoades	Jamaica
	Montego Bay	Jamaica
	Rocky Point	Jamaica
	Corinto	Nicaragua
	Puerto Sandino	Nicaragua
	Panama Canal	Panama
	Manzanillo	Panama
	Balboa	Panama
	Colon	Panama
	Cristobal	Panama
	Chiriqui Grande	Panama
	Las Minas Bay	Panama
	Coco Solo	Panama
	St Kitts	St. Kitts-Nevis
	Castries	St. Lucia
	Cul de Sac	St. Lucia
	Vieux Fort	St. Lucia
	Port of Spain	Trinidad & Tobago
	Point Lisas	Trinidad & Tobago

Charting Auth (Member State)	PORT	COUNTRY
	Pointe a Pierre	Trinidad & Tobago
	Galeota Point Terminal	Trinidad & Tobago
	Tembladora	Trinidad & Tobago
	Chaguaramas	Trinidad & Tobago
United States	Hovensa	American Virgin Islands
	St Thomas	American Virgin Islands
	Christiansted	American Virgin Islands
	St Croix	American Virgin Islands
	Roatan Island	Honduras
	Charco Azul	Panama
	San Juan	Puerto Rico
	Guayanilla	Puerto Rico
	Yabucoa	Puerto Rico
	Ponce	Puerto Rico
	Las Mareas	Puerto Rico
	Houston	United States of America
	Port Arthur	United States of America
	LOOP Terminal	United States of America
	New Orleans	United States of America
	Texas City	United States of America
	Corpus Christi	United States of America
	Fort Lauderdale (Port Everglades)	United States of America
	Miami	United States of America
	Mobile	United States of America
	Freeport (Texas)	United States of America
	Lake Charles	United States of America
	Tampa	United States of America
	Galveston	United States of America
	Pascagoula	United States of America
	Ama Anchorage	United States of America
	Reserve	United States of America
	Baton Rouge	United States of America
	Point Comfort	United States of America
	Davant	United States of America
	St Rose	United States of America
	St James	United States of America
Ingleside	United States of America	

Charting Auth (Member State)	PORT	COUNTRY
	Chalmette	United States of America
	Brownsville	United States of America
	Port Manatee	United States of America
	Burnside	United States of America
	Garyville	United States of America
	Darrow	United States of America
	Key West	United States of America
	Beaumont	United States of America
	Myrtle Grove	United States of America
	Convent	United States of America
	Gramercy	United States of America
	Palm Beach	United States of America
	Norco	United States of America
	Braithwaite	United States of America
	Waggaman	United States of America
	Good Hope	United States of America
	Taft	United States of America
	Harvey	United States of America
	Westwego	United States of America
	Boothville	United States of America
	Plaquemines	United States of America
	Meraux	United States of America
	Geismar	United States of America
	Gretna	United States of America
	Alliance	United States of America
	Destrehan	United States of America
	Donaldsonville	United States of America
	Pensacola	United States of America
	Gulfport	United States of America
	La Place	United States of America
Avondale	United States of America	
Panama City	United States of America	
Bienville	United States of America	
Southwest Pass light. area	United States of America	
Venezuela	Bajo Grande	Venezuela
	Pertigalete	Venezuela
	El Guamache	Venezuela
	Boca Grande Terminal	Venezuela

Charting Auth (Member State)	PORT	COUNTRY
	El Palito	Venezuela
	Matanzas	Venezuela
	Puerto Ordaz	Venezuela
	Catia la Mar	Venezuela
	Puerto Jose	Venezuela
	Maracaibo	Venezuela
	El Tablazo	Venezuela
	La Guaira	Venezuela
	Palua	Venezuela
	Amuay Bay	Venezuela
	Guanta	Venezuela
	La Salina	Venezuela
	Puerto Miranda	Venezuela
	Punta Cardon	Venezuela
	Puerto Cabello	Venezuela
	Puerto la Cruz	Venezuela
	La Vela de Coro	Venezuela
	Cumana	Venezuela
	Guiria	Venezuela
	San Felix	Venezuela

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