



ENC COVERAGE FOR THE MACHC REGION

MACHC ELECTRONIC CHART COMMITTEE
WORKING GROUP 2



REVISED
OCTOBER 2011

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REPORT OF THE MACHC ELECTRONIC CHART COMMITTEE WORKING GROUP 2

ENC Coverage for the MACHC Region
Submitted to the XIIth MACHC Meeting
December 2011, ST. KITTS

INTRODUCTION

The purpose of the Meso American and Caribbean Sea Hydrographic Commission's (MACHC) Electronic Chart Committee Working Group 2 (ECC/WG2) 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 MACHC ECC was tasked at the 10th MACHC Conference (November 2009, Barbados) to assess ENC coverage. The ECC was additionally tasked to develop an ENC scheme to ensure adequate ENC coverage by the 2012 deadline 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.¹ In the ECC assessment, adequate ENC coverage is attained when these ENCs are produced and available.

The ECC submitted their report, *ENC Coverage of the MACHC Region* to the 11th MACHC Conference in Suriname, in November 2010. At the meeting, the original goal was expanded. By July 2012, the MACHC was 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.

This report and its 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.

¹This 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 ECC/WG2 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:

- new passenger ships above 500GT, from July 1, 2012
- new tankers above 3,000GT, from July 1, 2012
- new cargo ships above 10,000GT, from July 1, 2013
- new cargo ships above 3,000GT, from July 1, 2014

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 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 ENCs 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 ENCs 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 ENCs.
- ENC duplication should be avoided; only a single country should produce an ENC for any given area. Normally, a Member State produces ENCs within their national waters; however, they can delegate responsibility for the production of ENCs, 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 ECC recognized the need to improve regional ENC coverage in the short- to medium-term, and encouraged national hydrographic offices to produce and distribute ENCs that will improve maritime and environmental safety. In 2010, the ECC focused efforts on medium-scale (Usage Bands 2 and 3) ENCs, 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 This year, the ECC expanded efforts to include large-scale ENCs (Usage Bands 4-6) on the Atlantic side of the MACHC and all ENCs (Usage Bands 1-6) on the Pacific side.

WORK PLANS AND PROCESS

The ECC/WG2 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 ECC/WG2 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;

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.

- 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.

The work plans for both years are in Annex C. In 2011, the ECC/WG2 held three conference calls (February 25, April 14, and September 28) and one face-to-face meeting on May 25 in Niteroi, Brazil. Between calls and meetings, participants used e-mail and a web-based MACHC collaboration site, where all ECC/WG2 documents were posted for review and discussion.

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 ECC/WG2's 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 ENCs in ECDIS.

The UKHO documented this information and, in conjunction with the ECC's technical coordinator, delivered this report to representatives of ECC 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 ECC/WG2 used existing national paper chart coverage of these areas as a guide for determining adequate ENC coverage. The ECC/WG2 also

used a list of “priority ports” as the baseline for assessing adequate coverage of major harbors and approaches, and 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 ECC/WG2’s 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 ECC/WG2 made significant progress towards its goal of ensuring adequate regional ENC coverage (Usage Bands 1-6) in 2010-11. The ECC/WG2 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 December 2011	Cells available by July/Dec 2012
Usage Band 1	7	6	6	7
		86%	86%	100%
Usage Band 2	27	22	25	28
		81%	93%	100%
Usage Band 3	102	62	97	102
		61%	95%	100%
Usage Band 4	174	137	153	162
		79%	88%	93%
Usage Band 5	238	184	218	227
		77%	92%	95%
Usage Band 6	13	11	11	12
		85%	85%	92%
All Usage Bands	561	422	510	537
		75%	92%	96%

PACIFIC SIDE

For the Pacific side of the MACHC Region, the ECC/WG2 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 December 2011	Cells available by July/Dec 2012
Usage Band 1	6	4	4	6
		67%	67%	100%
Usage Band 2	14	13	13	13
		93%	93%	93%
Usage Band 3	9	7	7	9
		78%	78%	100%
Usage Band 4	22	20	20	22
		91%	91%	100%
Usage Band 5	26	20	20	23
		77%	77%	88%
Usage Band 6	4	3	3	4
		75%	75%	100%
All Usage Bands	81	67	67	77
		83%	83%	95%

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 ECC also examined ENC schemes in adjacent Regional Hydrographic Commissions (Southeast Pacific Hydrographic Commission, Southwest Atlantic Hydrographic Commission, U.S.-Canada Hydrographic Commission) and ensured that all MACHC ENC cells fit seamlessly with the adjacent schemes.

The ECC/WG2 further acknowledges that some Member States may encounter circumstances, despite their best intentions, which may preclude them from completing their planned ENC coverage. These circumstances may include technical issues, resource constraints, or capacity-building setbacks.

RECOMMENDATIONS

The ECC/WG2 makes the following recommendations for 2012:

1. MACHC ECC monitors and updates the Region B, Atlantic side, ENC scheme for all Usage Bands, per the timetables indicated in Annex A.
2. MACHC ECC monitors and updates the Region B, Pacific Ocean side, ENC scheme for all Usage Bands, per the timetables indicated in Annex A.
3. MACHC ECC explores options for providing a means to depict ENC schemes on a webpage, as a pilot project. The display should be interoperable and appropriate for GIS applications. Additionally, MACHC Member States should find it easy to update their ENC coverage.
4. As a permanent task, MACHC Member States are invited to provide the ECC with updates to their ENC production plans taking into account:
 - IMO requirements for mandatory carriage and priority regional ports;
 - 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
 - the need to address national overlaps and consistency for all Usage Bands.
5. MACHC Chair is invited to provide this report to the International Hydrographic Bureau (IHB) as the region's contribution to global ENC coverage so that it may be conveyed accordingly to the IMO.
6. In order to create the IHO worldwide ENC database, all ENC producers are encouraged to make their ENCs available to the Regional Electronic Navigational Chart Coordinating Centers, even if they are distributed by different channels.
7. If Member States are unable to complete their ENC coverage, the MACHC, in partnership with appropriate authorities, should consider options to address this situation, in accordance with the IMO ECDIS Requirements and the WEND principles.
8. If MACHC Member States are unwilling either to distribute ENCs or to have another country produce ENCs for them, the MACHC Chair will inform the IRCC. The IRCC will take appropriate action with the WEND Working Group, the IHB, and IMO.

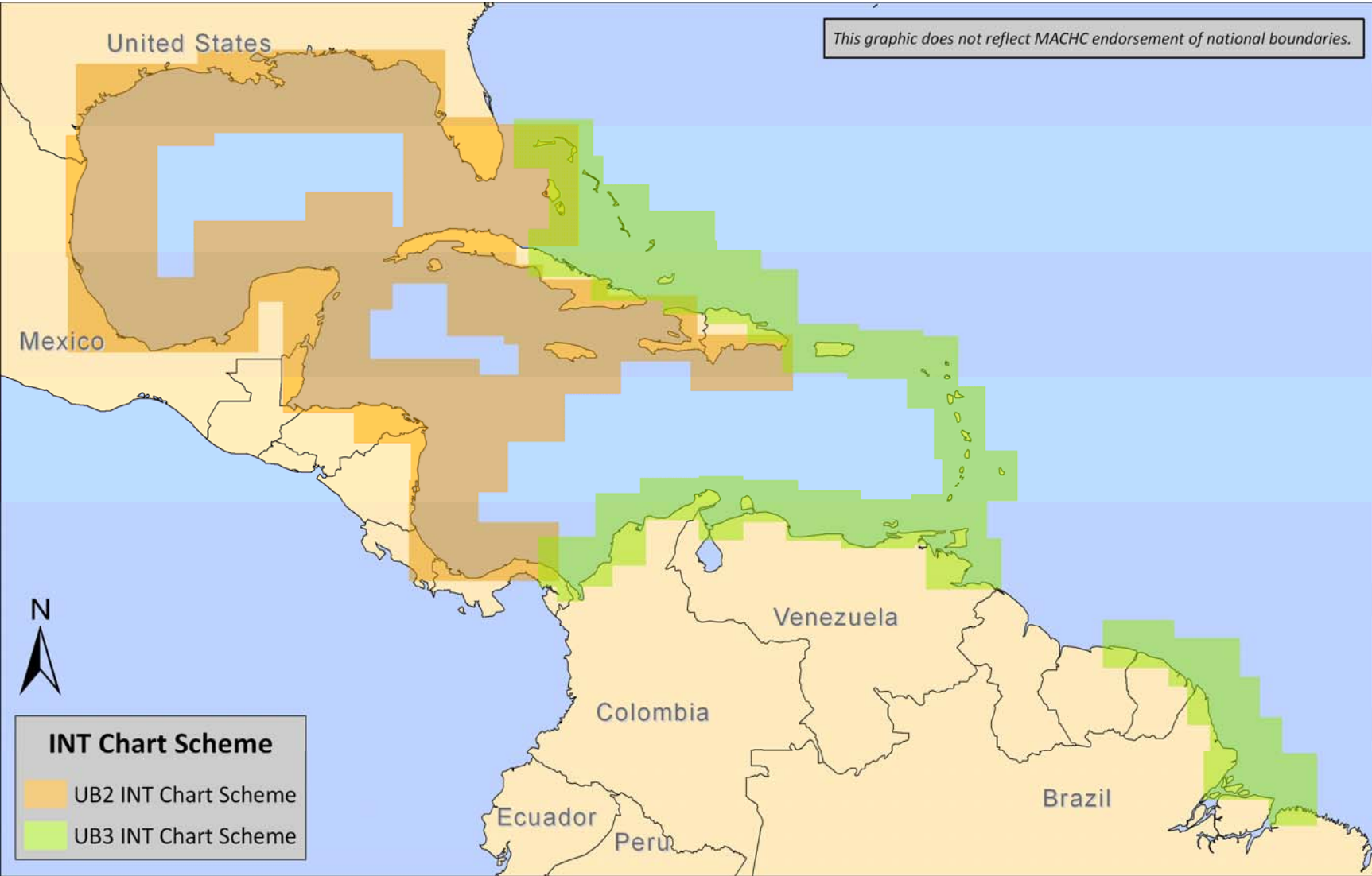
ACTIONS REQUIRED OF THE MACHC

MACHC Member States are invited to note and endorse this report and its recommendations. We request that the MACHC Chair then transmit the report to the IHB no later than December 31, 2011, for final communication 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, 2011
 - Work Plan, 2010
- D. Analysis Guidelines, 2010
- E. Priority Ports List
- F. List of ECC/WG2 Participants

ANNEX A – INT CHART FOOTPRINT



ANNEX A – USAGE BAND 1 MAP

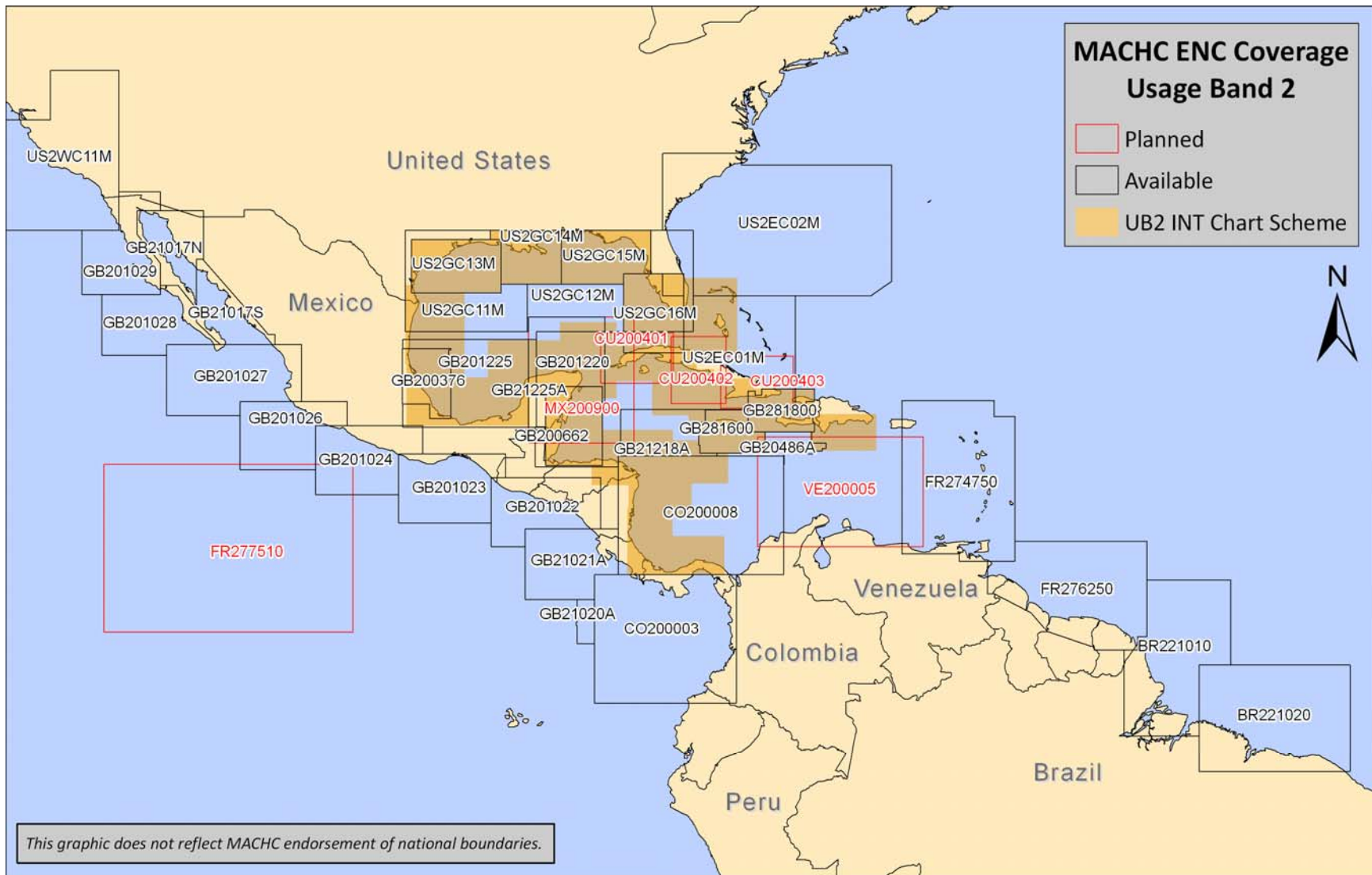


ANNEX A – ENC CELLS USAGE BAND 1 TABLE

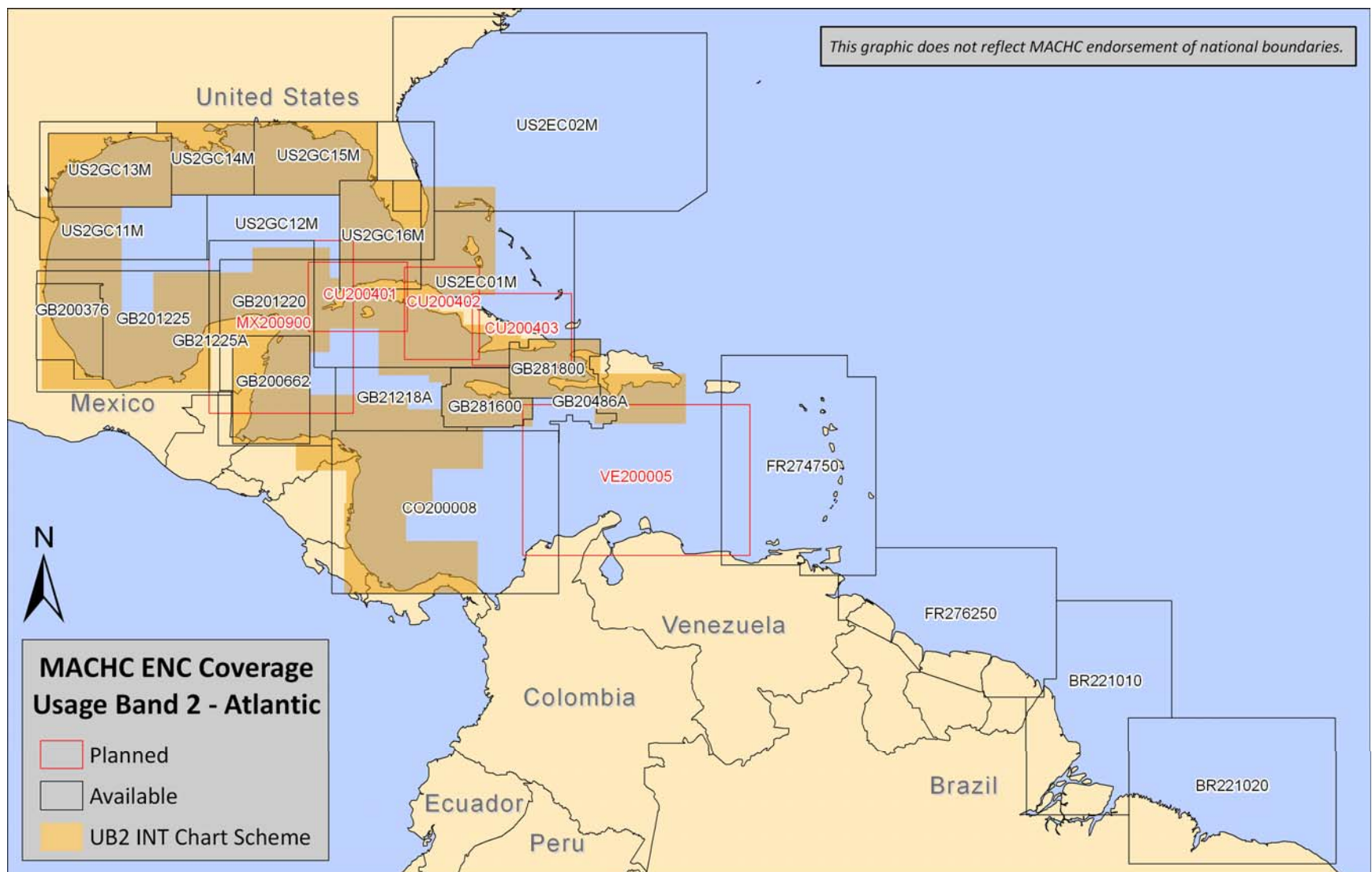
Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
GB104215	UKHO	Atlantic Ocean - Gambia Basin to Brazil Basin	3500000	Available	EUSP [§]	Atlantic
GB104216	UKHO	Atlantic Ocean - North East Coast of South America	3500000	Available	IC-ENC	Atlantic
GB104401	UKHO	North Atlantic Ocean - Gulf 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	March 2012	IC-ENC	Pacific
MX100020	SEMAR	Mazatlan a Puerto Chiapas	500000	March 2012	IC-ENC	Pacific
MX100030	SEMAR	Rio Bravo a Bahia de Chetumal	500000	September 2012	IC-ENC	Atlantic
US1GC09M	NOAA	Gulf of Mexico	2160000	Available	NOAA	Atlantic
US1WC07M	NOAA	San Diego to Aleutian Islands and Hawaiian Islands	4860700	Available	NOAA	Pacific

[§] End User Service Provider

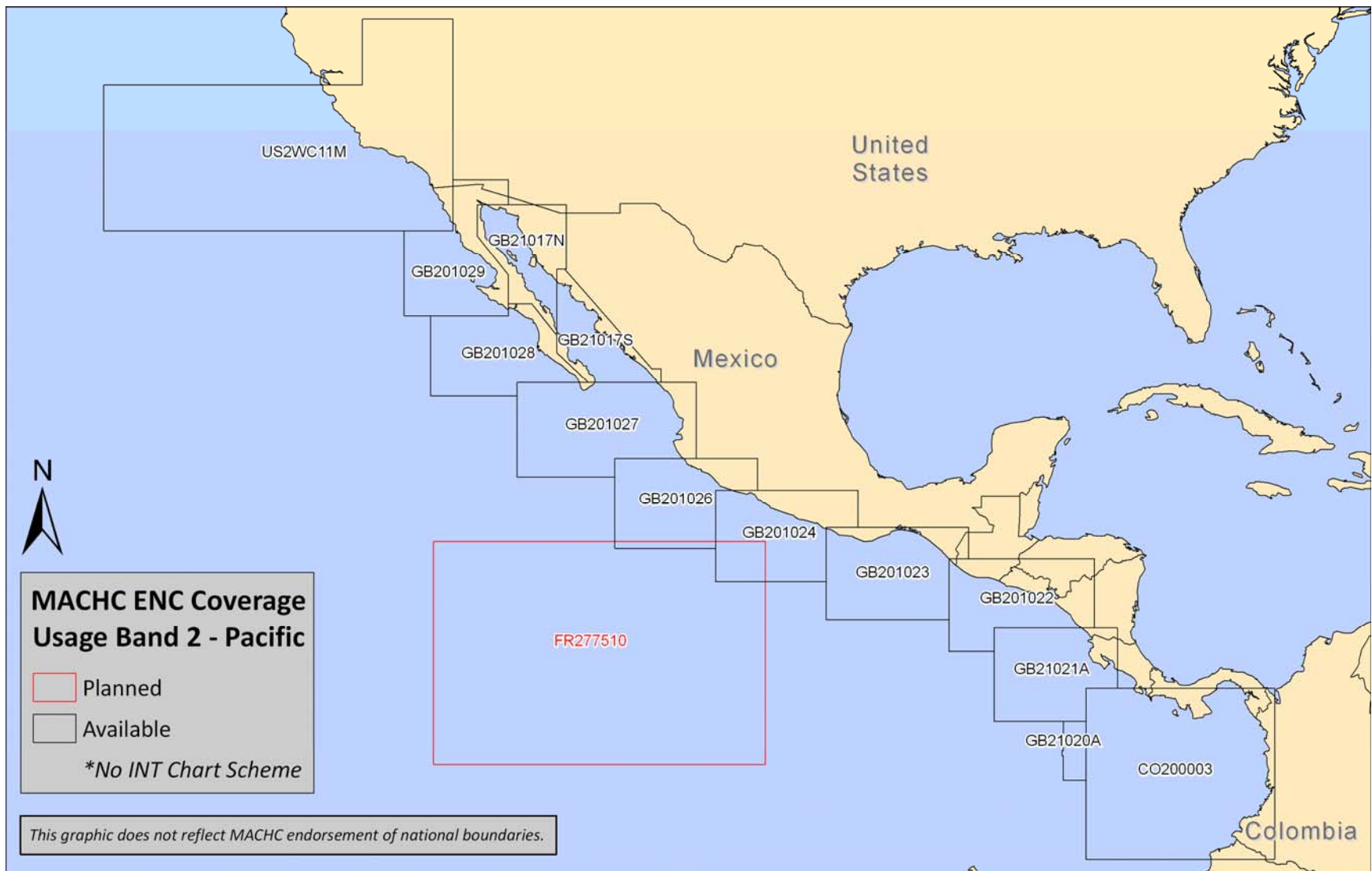
ANNEX A – USAGE BAND 2 MAPS



ANNEX A – USAGE BAND ATLANTIC



ANNEX A – USAGE BAND 2 PACIFIC

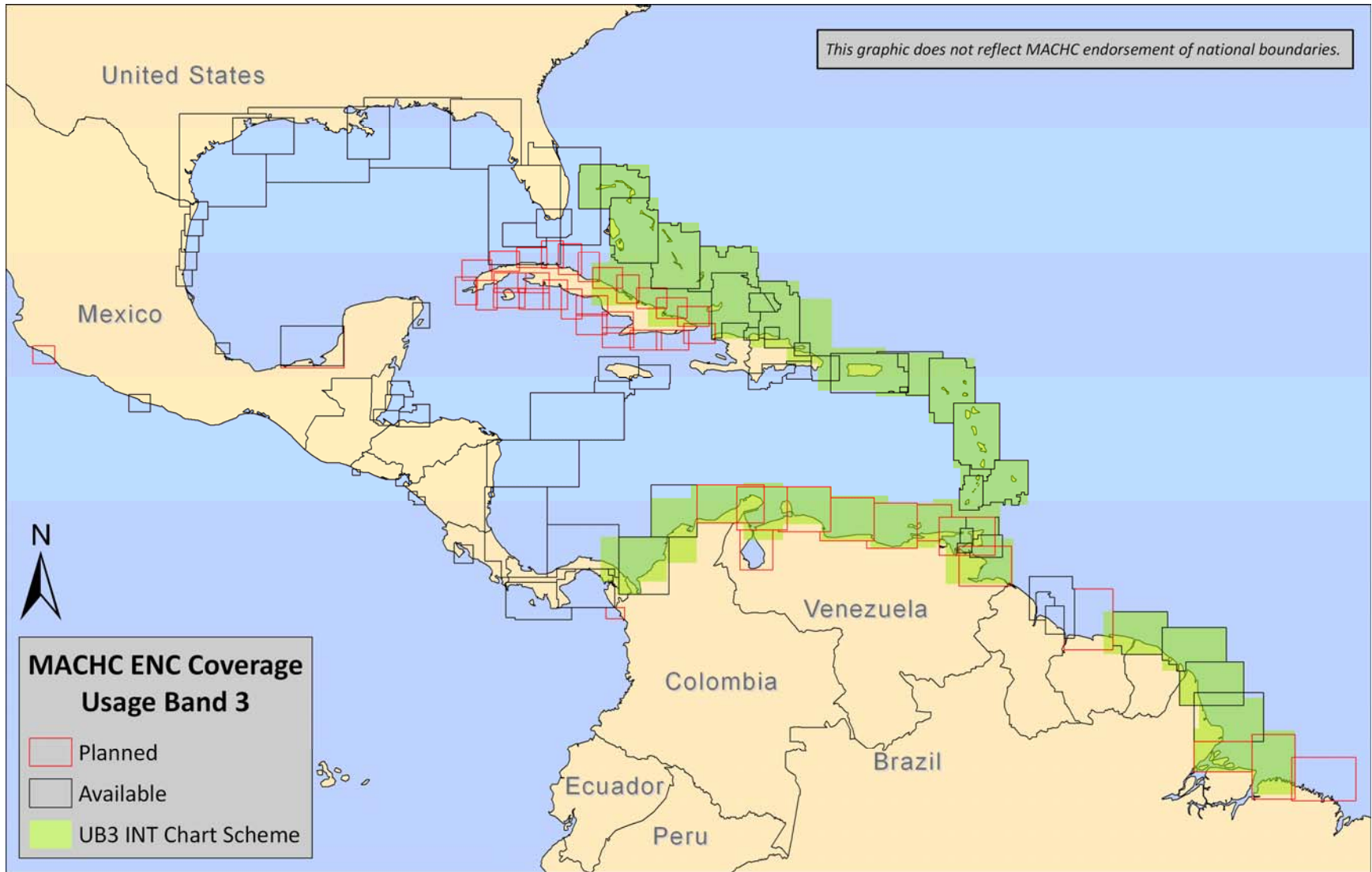


ANNEX A – ENC CELLS USAGE BAND 2 TABLE

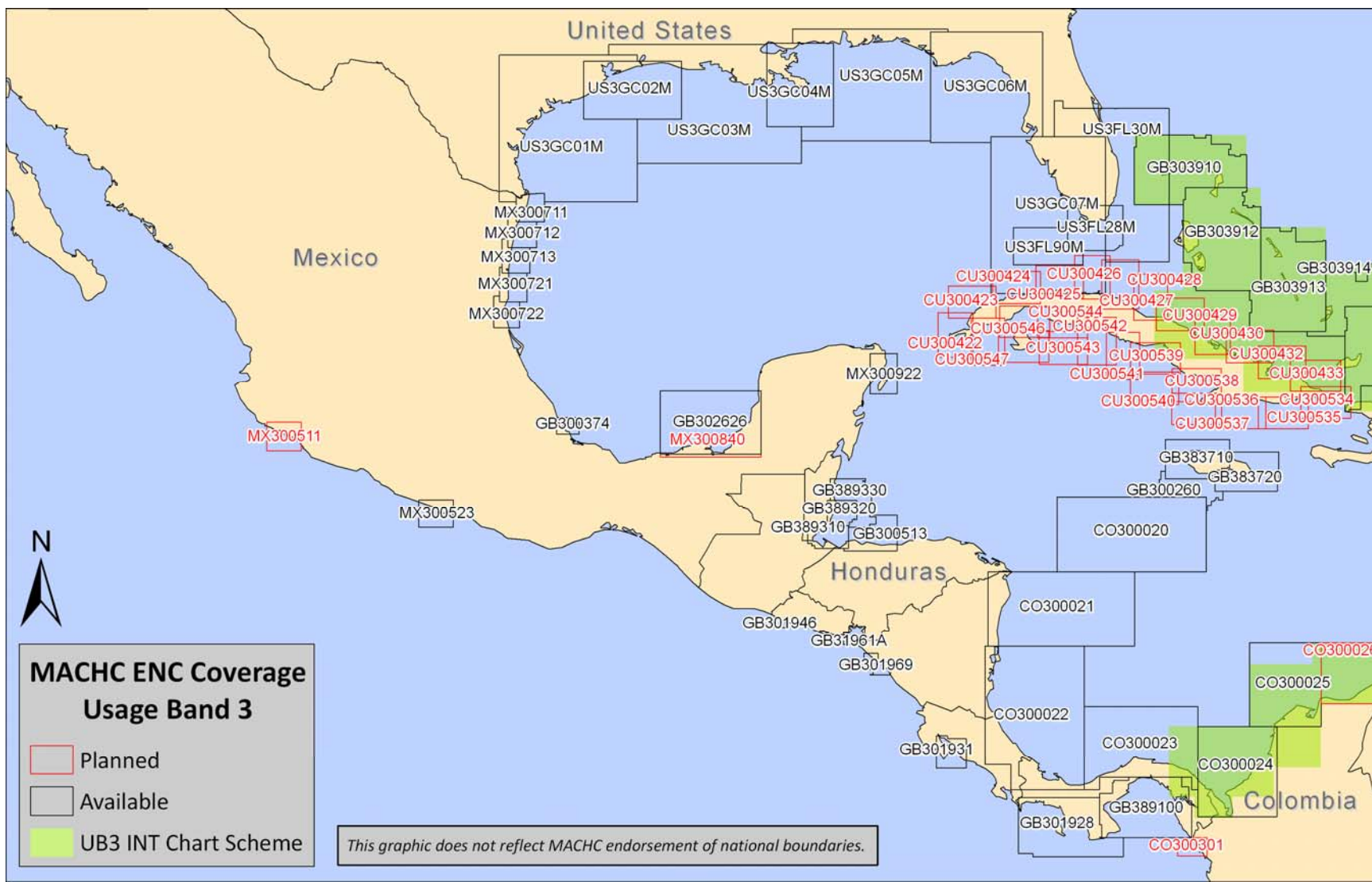
Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
BR221010	DHN	Do Cabo Orange à Ilha de Cajutuba	700000	Available	IC-ENC/PRIMAR	Atlantic
BR221020	DHN	De Salinópolis a Fortaleza	700000	Available	IC-ENC/PRIMAR	Atlantic
CO200003	CIOH	Costa Oeste de Colombia	700000	Available	IC-ENC	Pacific
CO200008	CIOH	Cabo Gracias a Dios a Santa Marta	700000	Available	IC-ENC	Atlantic
CU200401	ONHG	Parte Occidental de Cuba	350000	November 2011	IC-ENC	Atlantic
CU200402	ONHG	Parte Central de Cuba	350000	November 2011	IC-ENC	Atlantic
CU200403	ONHG	Parte Oriental de Cuba	350000	November 2011	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	1580000	2015-2019	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
GB20486A	UKHO	West Indies - Bajo Nuevo to South of Haiti	700000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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	May 2012	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
US2GC11M	NOAA	Mobile Bay to Mexico	1000000	Available	NOAA	Atlantic
US2GC12M	NOAA	Eastern Gulf of Mexico to Jacksonville Florida	1000000	Available	NOAA	Atlantic
US2GC13M	NOAA	Vermilion Bay to Corpus Christi	500000	Available	NOAA	Atlantic
US2GC14M	NOAA	Louisiana	500000	Available	NOAA	Atlantic
US2GC15M	NOAA	Tampa Bay to Mobile	500000	Available	NOAA	Atlantic
US2GC16M	NOAA	Tampa Bay to Cuba	500000	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	March 2012	IC-ENC	Atlantic

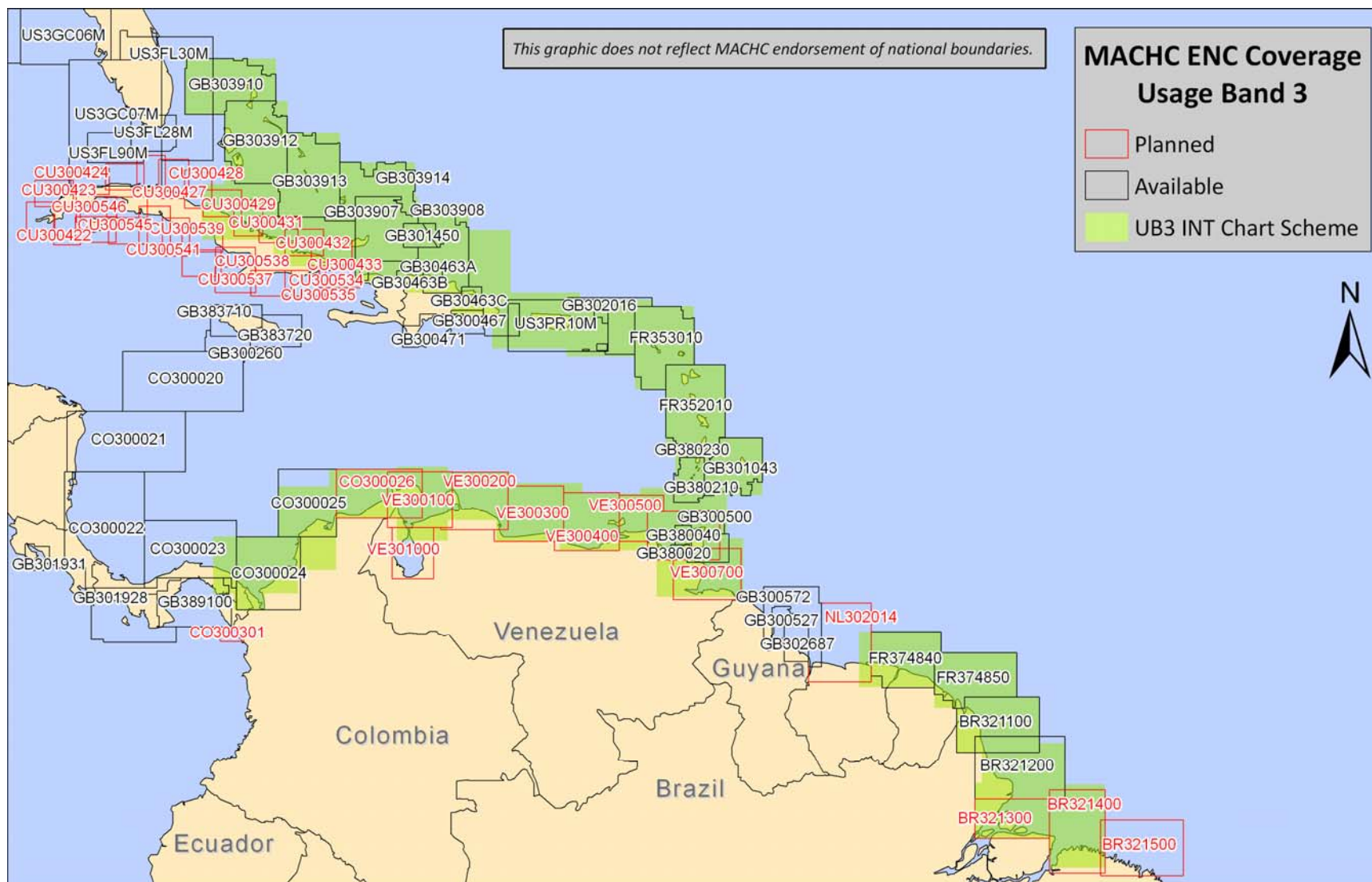
ANNEX A – USAGE BAND 3 MAPS



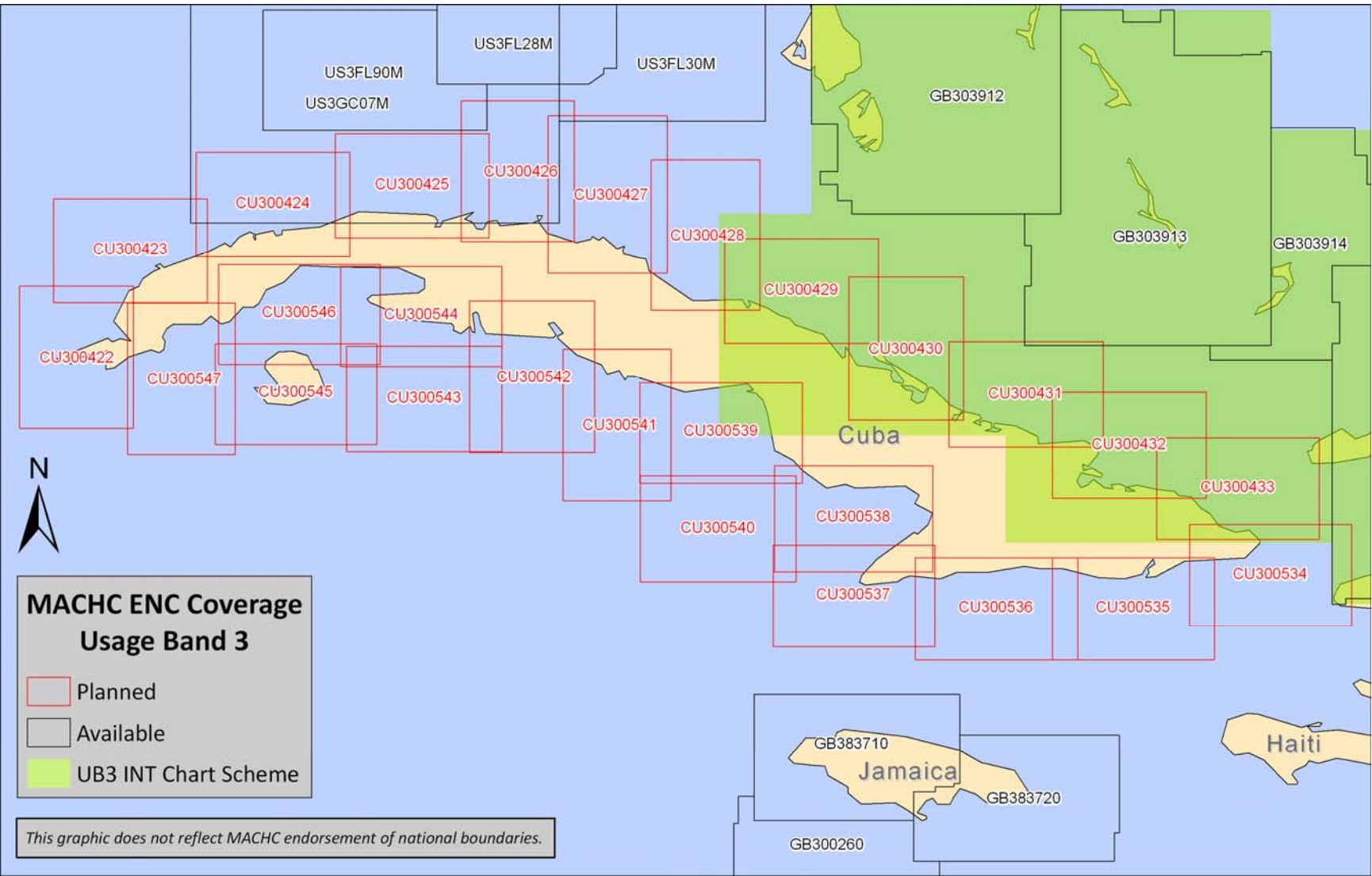
ANNEX A



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	Do Cabo Orange a Ponta Cambu	180000	Available	IC-ENC/PRIMAR	Atlantic
BR321200	DHN	Do Rio Calçoene a Ilha Sipioca	180000	Available	IC-ENC/PRIMAR	Atlantic
BR321300	DHN	Do Rio Araguari a Ilha das Flechas	180000	April 2012	IC-ENC/PRIMAR	Atlantic
BR321400	DHN	Do Machadinho a Ponta Quatipuru	180000	April 2012	IC-ENC/PRIMAR	Atlantic
BR321500	DHN	Da Ponta Boiuçucanga a Ponta do Zumbi	180000	February 2012	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	December 2011	IC-ENC	Atlantic
CO300301	CIOH	Punta Ardita a Bahía Octavia	90000	June 2012	IC-ENC	Pacific
CU300422	ONHG	De Cabo Corrientes a Cayo Buenavista	90000	November 2011	IC_ENC	Atlantic
CU300423	ONHG	De Cayo Buenavista a Cayo Arenas	90000	November 2011	IC_ENC	Atlantic
CU300424	ONHG	De Cayo Arenas a la Bahía de La Habana	90000	November 2011	IC_ENC	Atlantic
CU300425	ONHG	Bahía de La Habana a la Bahía de Cárdenas	90000	November 2011	IC_ENC	Atlantic
CU300426	ONHG	De la Bahía de Cárdenas a Cayo Bahía de Cádiz	90000	November 2011	IC_ENC	Atlantic
CU300427	ONHG	De Cayo Bahía de Cádiz a Cayo Fragoso	90000	November 2011	IC_ENC	Atlantic
CU300428	ONHG	De Cayo Fragoso a Cayo Guillermo	90000	November 2011	IC_ENC	Atlantic
CU300429	ONHG	De Cayería Los Caimanes a Cayo Verde	90000	November 2011	IC_ENC	Atlantic
CU300430	ONHG	De Cayo Confities a la Bahía de Manatí	90000	November 2011	IC_ENC	Atlantic
CU300431	ONHG	De la Bahía de Manatí a Punta Lucrecia	90000	November 2011	IC_ENC	Atlantic
CU300432	ONHG	De la Bahía de Vita a Bahía de Cayo Moa	90000	November 2011	IC_ENC	Atlantic
CU300433	ONHG	De Bahía de Cayo Moa a Maisí	90000	November 2011	IC_ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
CU300534	ONHG	De Maisí a Punta Imías. Paso de los Vientos	90000	November 2011	IC_ENC	Atlantic
CU300535	ONHG	De Punta Imías a la Bahía de Santiago de Cuba	90000	November 2011	IC_ENC	Atlantic
CU300536	ONHG	De la Bahía de Santiago de Cuba a Marea del Portillo	90000	November 2011	IC_ENC	Atlantic
CU300537	ONHG	De Marea del Portillo al Canal de Madrona	90000	November 2011	IC_ENC	Atlantic
CU300538	ONHG	Golfo de Guacanayabo	90000	November 2011	IC_ENC	Atlantic
CU300539	ONHG	De Canal del Pingüe a Tunas de Zaza	90000	November 2011	IC_ENC	Atlantic
CU300540	ONHG	De Punta Cabeza del Este a Cayo Anclitas	90000	November 2011	IC_ENC	Atlantic
CU300541	ONHG	De Cayo Bretón a Punta San Juan	90000	November 2011	IC_ENC	Atlantic
CU300542	ONHG	De Yaguanabo a Bahía de Cochinos	90000	November 2011	IC_ENC	Atlantic
CU300543	ONHG	De Cayo Guano del Este a Cayo Ávalos	90000	November 2011	IC_ENC	Atlantic
CU300544	ONHG	De la Bahía de Cochinos al Surgidero de Batabanó	90000	November 2011	IC_ENC	Atlantic
CU300545	ONHG	De Cayo Avalos a los Cayos de San Felipe (Incluyendo Isla de la Juventud)	90000	November 2011	IC_ENC	Atlantic
CU300546	ONHG	Golfo de Batabanó	90000	November 2011	IC_ENC	Atlantic
CU300547	ONHG	De Cayos de San Felipe a Cabo Frances	90000	November 2011	IC_ENC	Atlantic
FR352010	SHOM	Monserrat to Saint Lucia	304405	Available	PRIMAR	Atlantic
FR353010	SHOM	Anguilla to Monserrat	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
GB302626	UKHO	Bay of Campeche	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 &	180000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
Tongue of the Ocean						
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
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
MX300511	SEMAR	Bahia de Navidad a Boca de Apiza	90000	April 2012	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
MX300722	SEMAR	Punta Jerez a Tampico	90000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
MX300840	SEMAR	Bahia de Campeche	180000	July 2012	IC-ENC	Atlantic
MX300922	SEMAR	Isla Mujeres a Isla Cozumel	90000	Available	IC-ENC	Atlantic
NL302014	NLHO	Suriname	180000	November 2011	IC-ENC	Atlantic
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
US3PR10M	NOAA	Puerto Rico And Virgin Islands	326856	Available	NOAA	Atlantic
VE300100	DHN	Golfo de Venezuela	80000	December 2011	IC-ENC	Atlantic
VE300200	DHN	Punta Cardon a Tucacas	80000	December 2011	IC-ENC	Atlantic
VE300300	DHN	Punta San Juan a Cabo Codera	80000	December 2011	IC-ENC	Atlantic
VE300400	DHN	Cabo Codera a Cumana	80000	December 2011	IC-ENC	Atlantic
VE300500	DHN	Cumana a Cabo Tres Puntas	80000	December 2011	IC-ENC	Atlantic
VE300600	DHN	Cabo Tres Puntas a Golfo de Paria	180000	December 2011	IC-ENC	Atlantic
VE300700	DHN	Delta del Orinoco	180000	June 2012	IC-ENC	Atlantic
VE301000	DHN	Lago de Maracaibo	180000	December 2011	IC-ENC	Atlantic

ANNEX A – MACHC PRIORITY PORTS



ANNEX A – USAGE BANDS 4-6 MAPS



ANNEX A



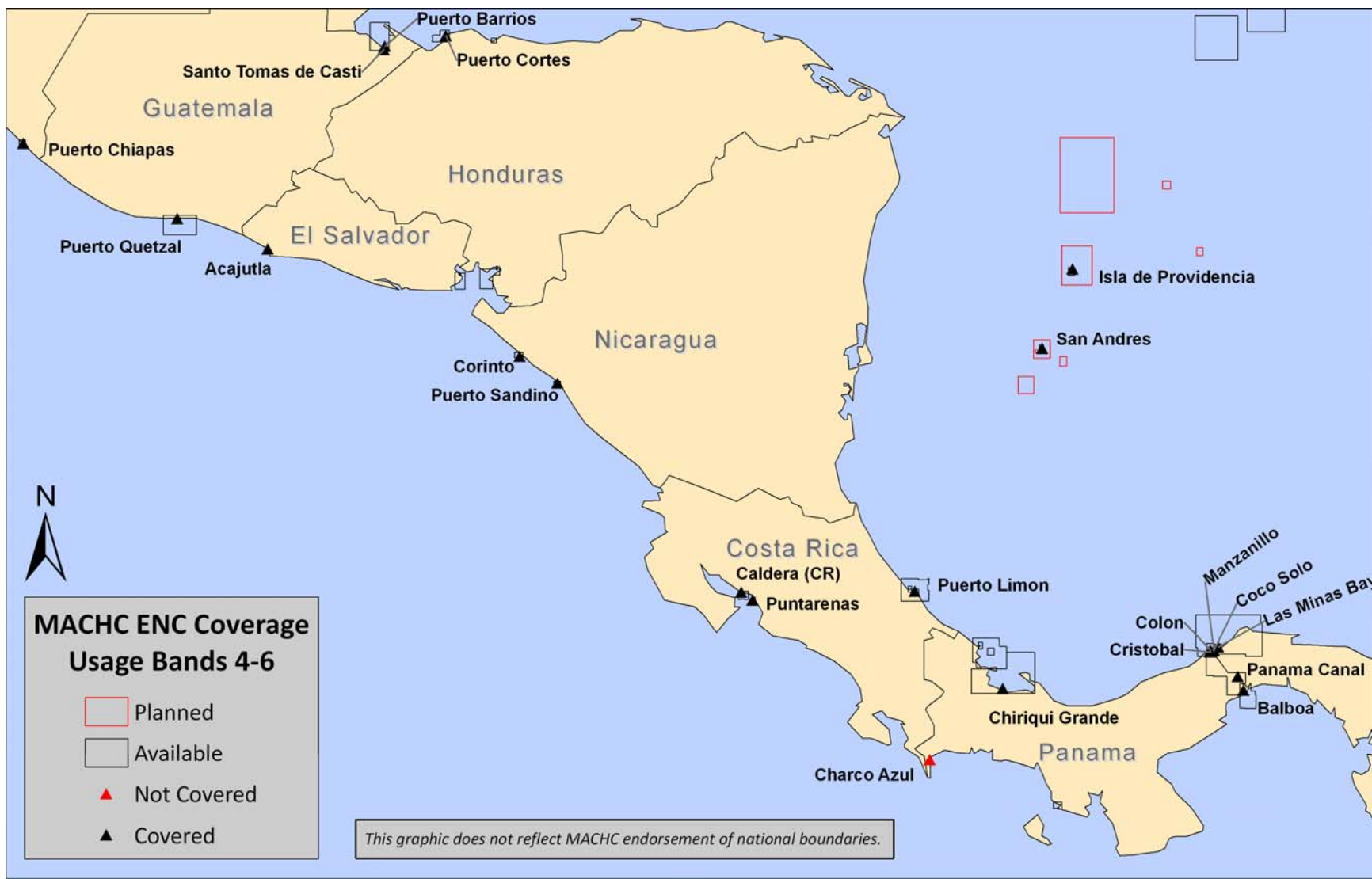
ANNEX A



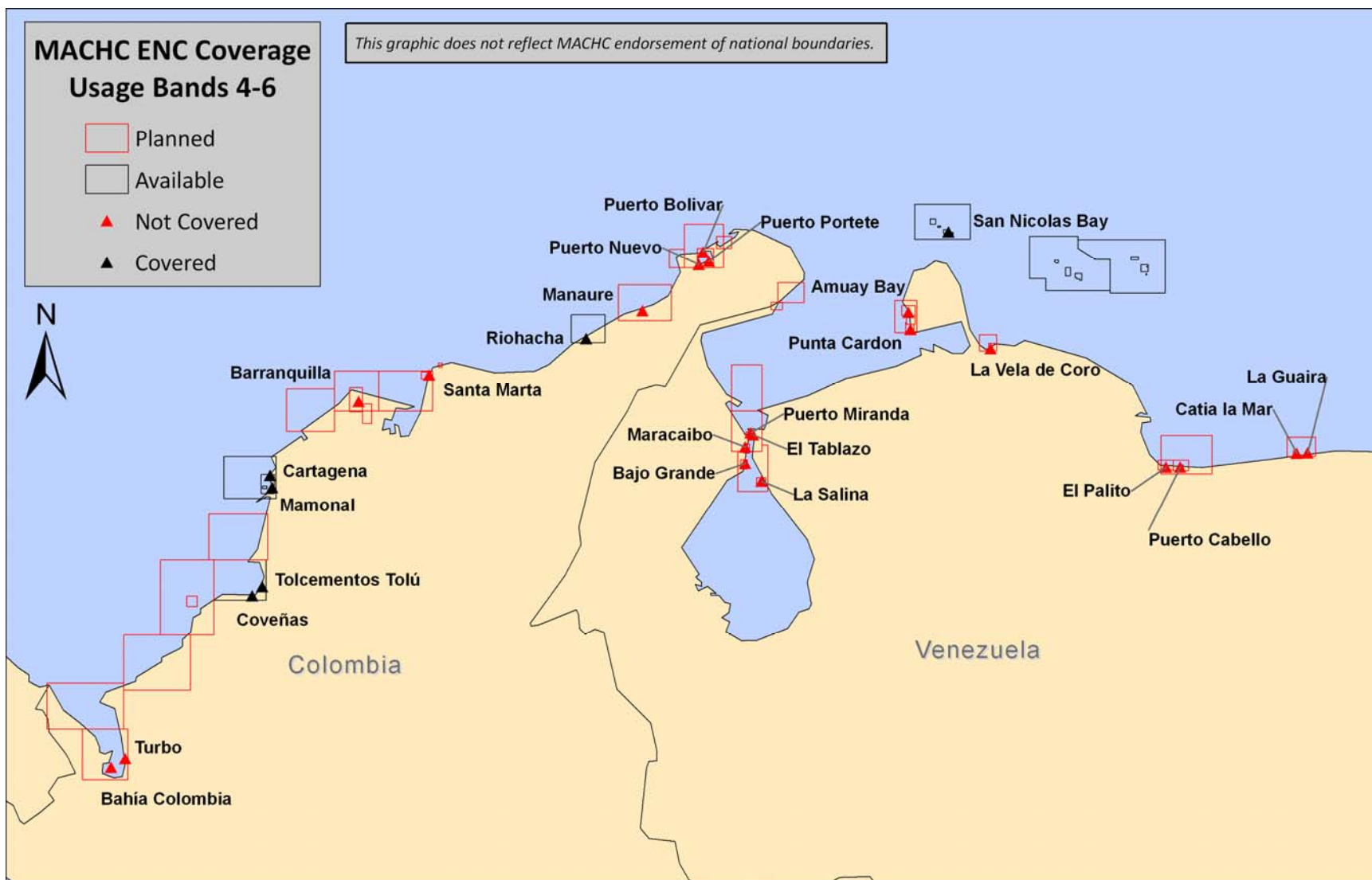
ANNEX A



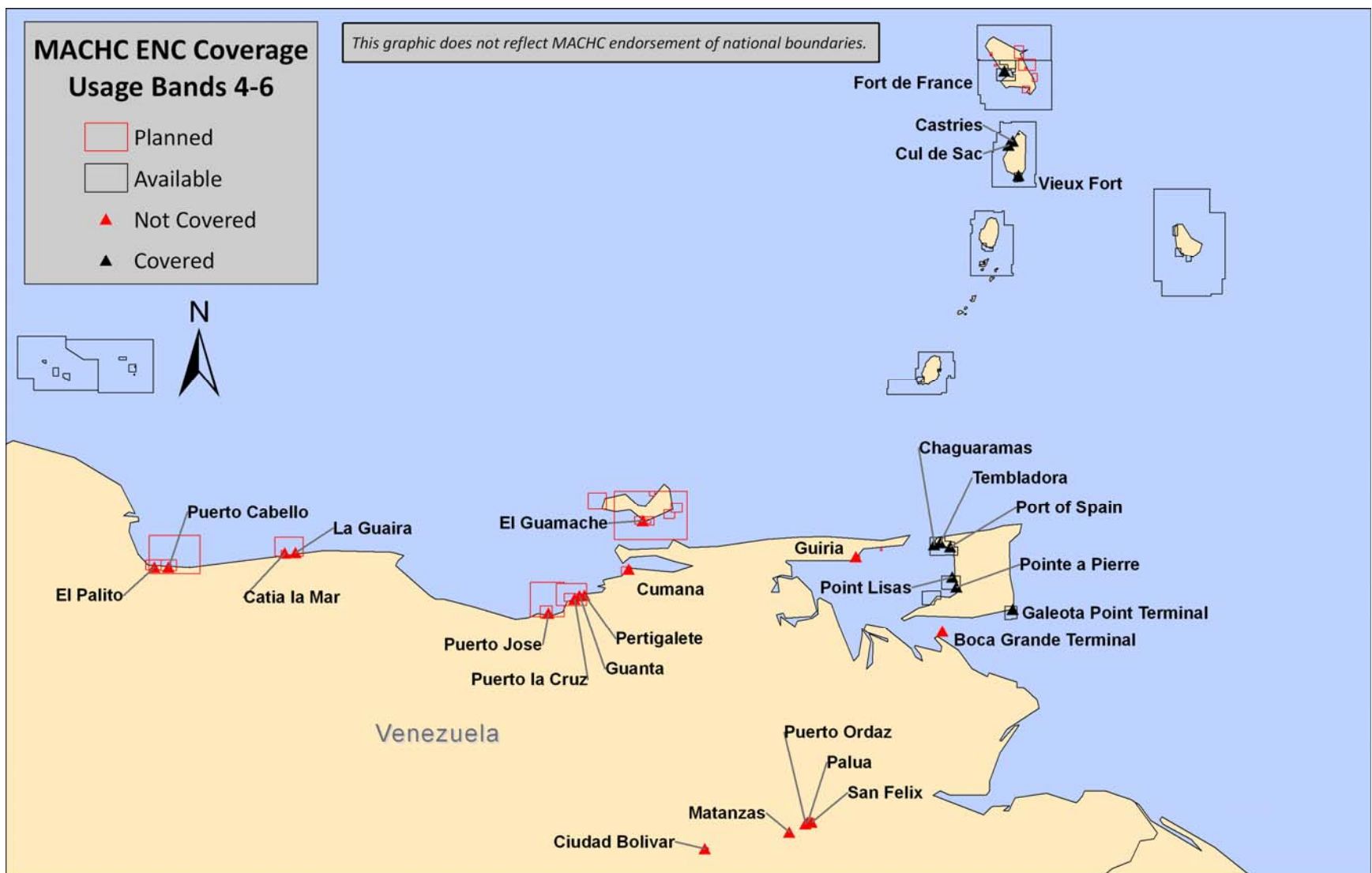
ANNEX A



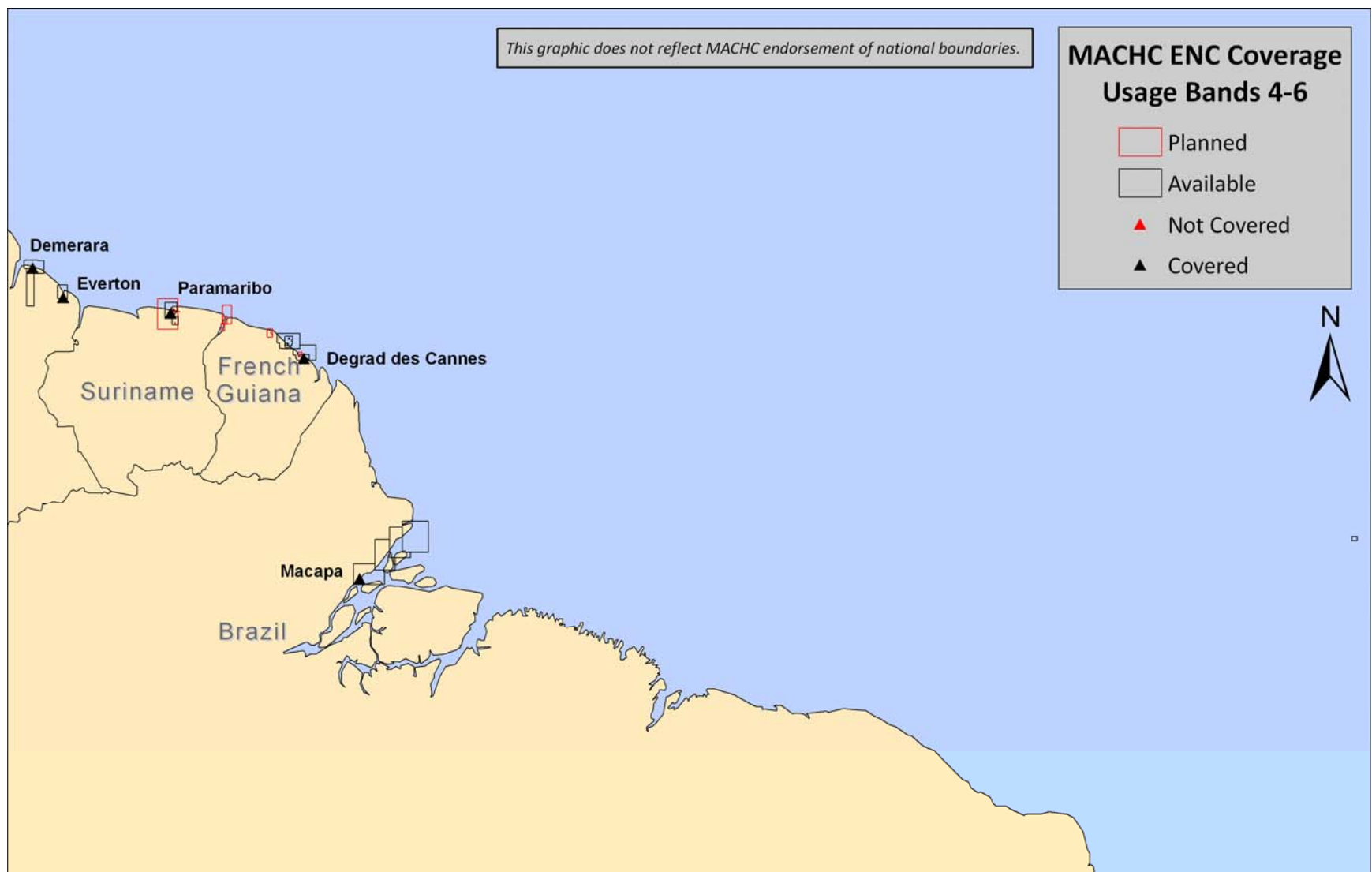
ANNEX A



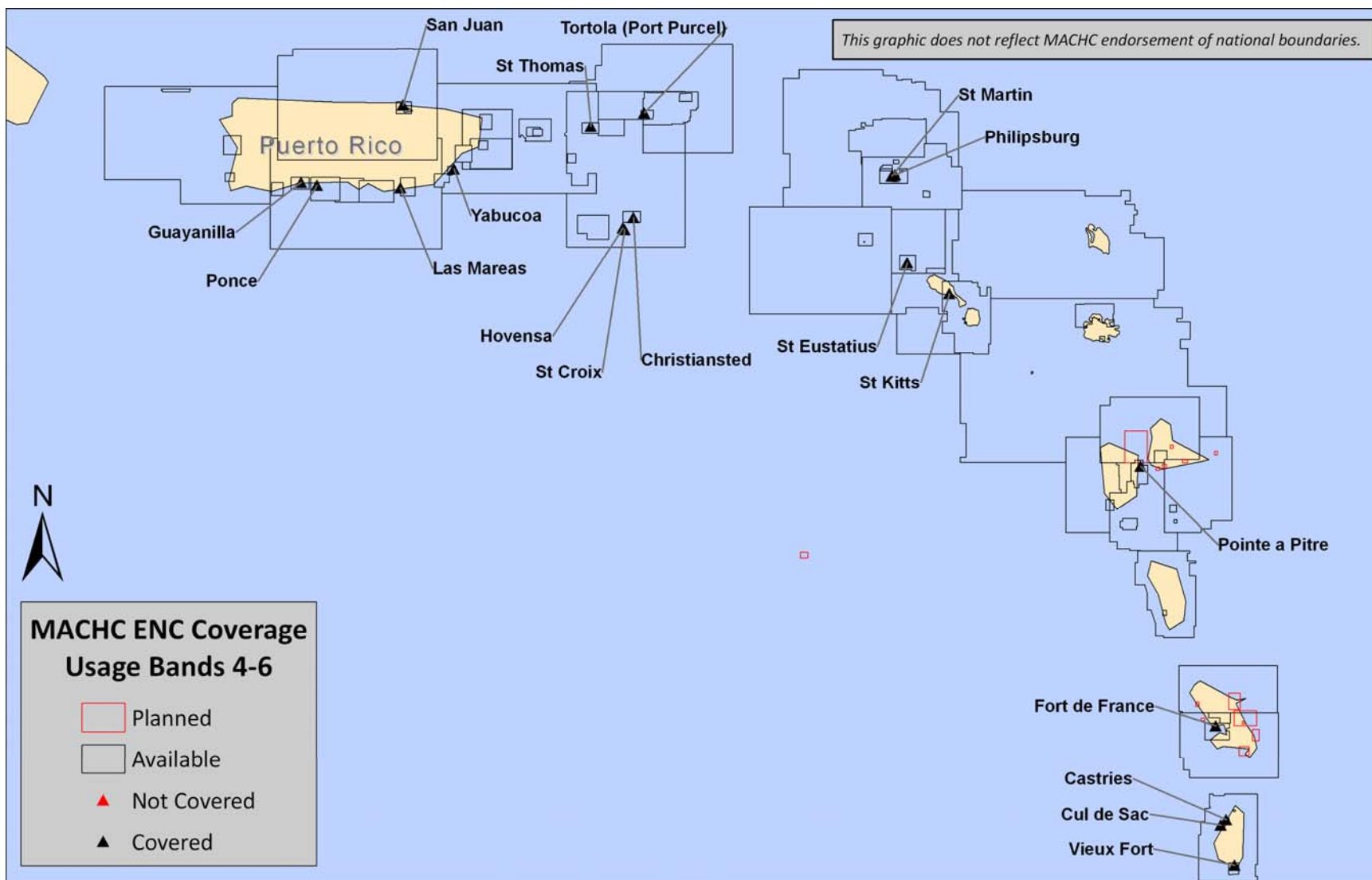
ANNEX A



ANNEX A



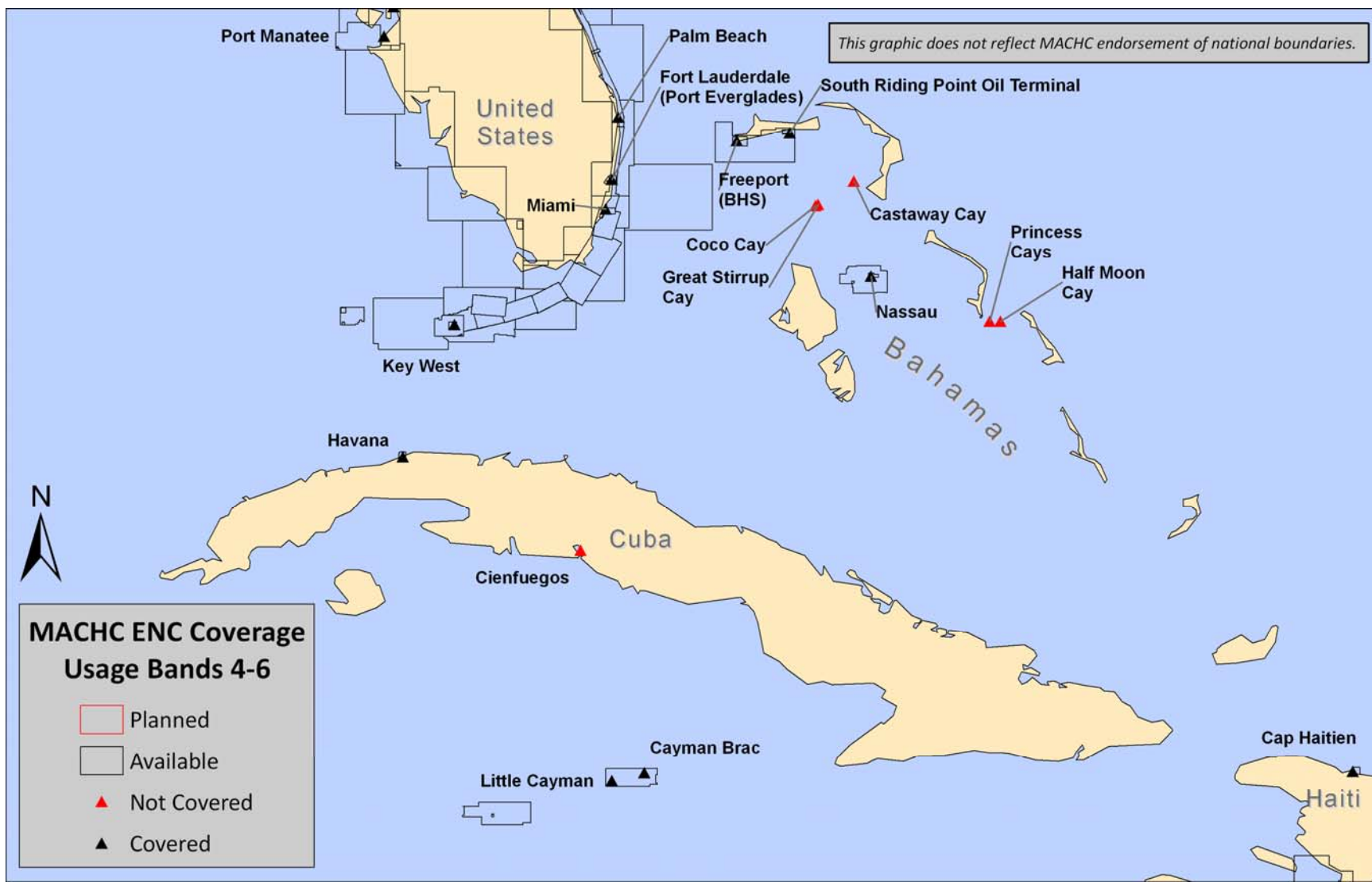
ANNEX A



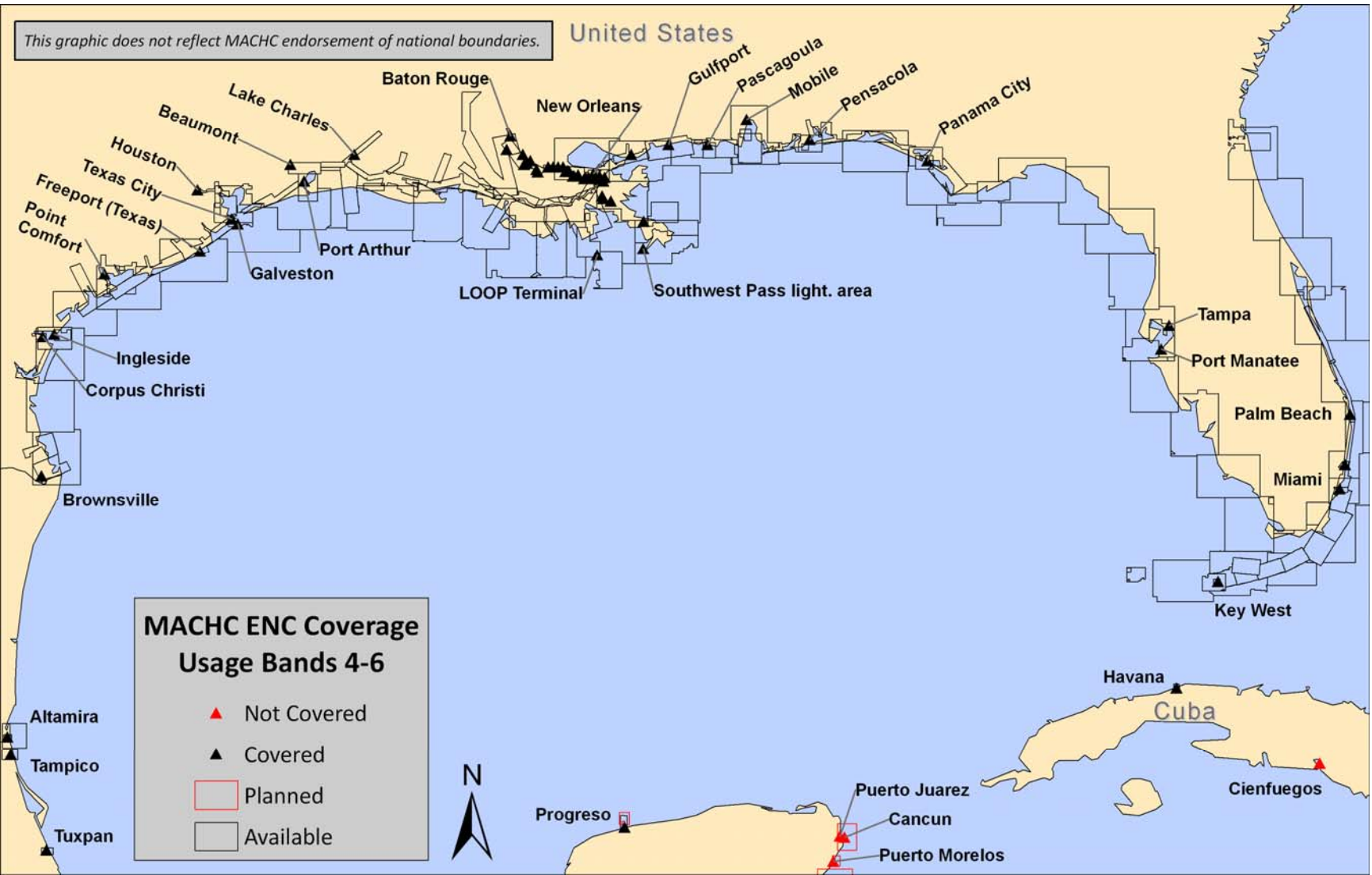
ANNEX A



ANNEX A



ANNEX A



ANNEX A – ENC CELLS USAGE BAND 4 TABLE

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
BR400011	DHN	Arquipélago de São Pedro e São Paulo	22000	Available	IC-ENC/PRIMAR	Atlantic
BR400201	DHN	Barra Norte do Rio Amazonas	45000	Available	IC-ENC/PRIMAR	Atlantic
BR400202	DHN	Da Ilha Bailique a Ponta do Capinal	45000	Available	IC-ENC/PRIMAR	Atlantic
BR400203	DHN	Da Ponta do Capinal às Ilhas Pedreira	45000	Available	IC-ENC/PRIMAR	Atlantic
BR400204	DHN	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	Dec 2014	IC-ENC	Atlantic
CO400231	CIOH	Cabo de la Vela	22000	Dec 2014	IC-ENC	Atlantic
CO400244	CIOH	Bahía de Taganga a Ciénaga	22000	Dec 2011	IC-ENC	Atlantic
CO400603	CIOH	Aproximación a Bahía Portete	45000	Dec 2012	IC-ENC	Atlantic
CO400605	CIOH	Aproximación a Manaure	45000	Dec 2014	IC-ENC	Atlantic
CO400606	CIOH	Aproximación a Riohacha	45000	Available	IC-ENC	Atlantic
CO400612	CIOH	Aproximación a Barranquilla	45000	Dec 2011	IC-ENC	Atlantic
CO400613	CIOH	Galerazamba A Punta Morro Hermoso	45000	Dec 2013	IC-ENC	Atlantic
CO400615	CIOH	Punta Barboas A Punta Canoas	45000	Available	IC-ENC	Atlantic
CO400617	CIOH	Punta de Piedra A Punta Comisario	45000	Dec 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	Dec 2013	IC-ENC	Atlantic
CO400620	CIOH	Punta Gigantón A Punta Santa Barbara	45000	Dec 2014	IC-ENC	Atlantic
CO400623	CIOH	Cabo Tiburón A Punta Caribana	45000	Dec 2014	IC-ENC	Atlantic
CO400625	CIOH	Bahía Colombia	22000	June 2012	IC-ENC	Atlantic
CO400631	CIOH	Banco Quitasueño	45000	June 2014	IC-ENC	Atlantic
CO400654	CIOH	Aproximación a Providencia	45000	June 2013	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
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
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
GB40099D	UKHO	South America - North Coast - Suriname - Suriname Rivier	45000	Available	IC-ENC	Atlantic
GB401273	UKHO	West Indies - Saint Lucia	45000	Available	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
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	May 2012	IC-ENC	Pacific
MX403231	SEMAR	La Paz y Proximidades	22000	Available	IC-ENC	Pacific

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
MX403331	SEMAR	Bahía de Topolobampo y Proximidades	22000	Available	IC-ENC	Pacific
MX403522	SEMAR	San José del Cabo	22000	Dec 2011	IC-ENC	Pacific
MX404032	SEMAR	Isla Socorro	22000	Available	IC-ENC	Pacific
MX405212	SEMAR	Ixtapa-Zihuatanejo	22000	Available	IC-ENC	Pacific
MX405232	SEMAR	Acapulco y Proximidades	22000	Available	IC-ENC	Pacific
MX406222	SEMAR	Bahias de Huatulco y Proximidades	12000	Available	IC-ENC	Pacific
MX407221	SEMAR	Altamira y Proximidades	45000	Available	IC-ENC	Atlantic
MX407223	SEMAR	Rio Panuco – Puerto Madero	22000	Available	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
MX408323	SEMAR	Dos Bocas Y Proximidades	22000	Available	IC-ENC	Atlantic
MX408421	SEMAR	Laguna de Terminos	45000	Nov 2011	IC-ENC	Atlantic
MX408422	SEMAR	Laguna de Terminos Entrada Oeste	22000	Nov 2011	IC-ENC	Atlantic
MX408423	SEMAR	Laguna de Terminos Entrada Este	22000	Sept 2011	IC-ENC	Atlantic
MX408522	SEMAR	Cayo Arcas y Proximidades	22000	Dec 2011	IC-ENC	Atlantic
MX408532	SEMAR	Lerma-Campeche	22000	Dec 2012	IC-ENC	Atlantic
MX409221	SEMAR	Isla Mujeres, Cancun y Proximidades	22000	Dec 2012	IC-ENC	Atlantic
MX409224	SEMAR	Isla Cozumel, Q. Roo.	45000	Dec 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
NL402218	NLHO	Suriname River	45000	Dec 2011	IC-ENC	Atlantic
US4AL11M	NOAA	Mobile Bay	80000	Available	NOAA	Atlantic
US4CA74M	NOAA	Approaches to San Diego Bay	100000	Available	NOAA	Pacific

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US4FL10M	NOAA	Tampa Bay and St. Joseph Sound	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 Rocks, 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 Fowey Rocks B	80000	Available	NOAA	Atlantic
US4FL34M	NOAA	Jupiter Inlet To Fowey Rocks A	80000	Available	NOAA	Atlantic
US4FL40M	NOAA	Estero Bay to Lemon Bay	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
US4FL50M	NOAA	Amelia Island to St. Augustine	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
US4FL80M	NOAA	Ponce de Leon Inlet to Cape Canaveral	80000	Available	NOAA	Atlantic
US4FL85M	NOAA	St. Augustine Light to Ponce de Leon Inlet	80000	Available	NOAA	Atlantic
US4FL87M	NOAA	Cape Canaveral to Bethel Shoal	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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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	Dec 2011	IC-ENC	Atlantic
VE400201	DHN	Aproximacion Al Muco	22000	Dec 2011	IC-ENC	Atlantic
VE400303	DHN	Aproximacion a Puerto Cabello	16000	Dec 2011	IC-ENC	Atlantic
VE400304	DHN	Punta Moron a Ensenada de Cata	50000	Dec 2011	IC-ENC	Atlantic
VE400305	DHN	Aproximacion a la Guaira	25000	Dec 2011	IC-ENC	Atlantic
VE400402	DHN	Robledal	25000	Dec 2011	IC-ENC	Atlantic
VE400408	DHN	Aproximacion a Puerto la Cruz	22000	Dec 2011	IC-ENC	Atlantic
VE400410	DHN	Aproximacion al Criojenico de Jose	22000	Dec 2011	IC-ENC	Atlantic
VE400505	DHN	Canal de Margarita	80000	Dec 2011	IC-ENC	Atlantic
VE400512	DHN	Aproximacion Planta de Distribucion el Guamache	12500	Dec 2011	IC-ENC	Atlantic
VE401002	DHN	EM to Isla Zapara	50000	Dec 2011	IC-ENC	Atlantic
VE401003	DHN	Isla Zapara to Maracaibo	22000	Dec 2011	IC-ENC	Atlantic
VE401004	DHN	Maracaibo to La Salina	50000	Dec 2011	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	Dec 2013	IC-ENC	Atlantic
CO500203	CIOH	Albuquerque	12000	Dec 2013	IC-ENC	Atlantic
CO500204	CIOH	Cayos del Este Sudeste (Courtown Cays)	12000	Dec 2013	IC-ENC	Atlantic
CO500211	CIOH	Roncador (Cayo Roncador)	12000	Dec 2013	IC-ENC	Atlantic
CO500213	CIOH	Serrana (Cayo Serrana)	12000	Dec 2012	IC-ENC	Atlantic
CO500218	CIOH	Isla de Providencia	12000	Available	IC-ENC	Atlantic
CO500227	CIOH	Bahía Honda	12000	Dec 2013	IC-ENC	Atlantic
CO500229	CIOH	Bahía Portete	12000	Dec 2012	IC-ENC	Atlantic
CO500242	CIOH	Isla Aguja A Punta Cinto	8000	Dec 2014	IC-ENC	Atlantic
CO500253	CIOH	Río Magdalena (Bocas de Ceniza – Puente Laureano)	12000	Dec 2011	IC-ENC	Atlantic
CO500254	CIOH	Río Magdalena	12000	Dec 2014	IC-ENC	Atlantic
CO500261	CIOH	Bahía de Cartagena	12000	Available	IC-ENC	Atlantic
CO500267	CIOH	Isla Fuerte	12000	Dec 2012	IC-ENC	Atlantic
CO500804	CIOH	Bahía de Santa Marta	8000	Dec 2011	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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
GB501944	UKHO	Puerto Lazaro Cardenas and Approaches	12000	Available	IC-ENC	Pacific
GB501969	UKHO	Nicaragua - Pacific Ocean Coast - Corinto	12000	Available	IC-ENC	Pacific
GB501979	UKHO	Manzanillo	8000	Available	IC-ENC	Pacific
GB502065	UKHO	West Indies - Northern Antigua including Saint John's Harbour	22000	Available	IC-ENC	Atlantic
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
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 including 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	2013	IC-ENC	Pacific
MX501116	SEMAR	Ensenada	8000	2013	IC-ENC	Pacific
MX501117	SEMAR	Costa Azul	8000	2013	IC-ENC	Pacific
MX502332	SEMAR	San Carlos, Son.	8000	July 2012	IC-ENC	Pacific
MX502334	SEMAR	Guaymas	12000	July 2012	IC-ENC	Pacific
MX503232	SEMAR	Bahía Pichilingue	8000	Available	IC-ENC	Pacific

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
MX503233	SEMAR	La Paz	8000	Available	IC-ENC	Pacific
MX504031	SEMAR	Bahía Vargas Lozano	4000	Available	IC-ENC	Pacific
MX504214	SEMAR	Puerto Vallarta	8000	Dec 2011	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
MX507222	SEMAR	Puerto de Altamira	8000	Available	IC-ENC	Atlantic
MX508214	SEMAR	Veracruz	8000	Available	IC-ENC	Atlantic
MX508221	SEMAR	Puerto de Alvarado	12000	Available	IC-ENC	Atlantic
MX508324	SEMAR	Dos Bocas, Tabasco	4000	Available	IC-ENC	Atlantic
MX508431	SEMAR	Sabancuy	12000	Feb 2012	IC-ENC	Atlantic
MX508523	SEMAR	Cayo Arcas y Proximidades	12000	Dec 2011	IC-ENC	Atlantic
MX508533	SEMAR	Lerma	8000	Dec 2012	IC-ENC	Atlantic
MX509124	SEMAR	Terminal Remota a Progreso	12000	2013	IC-ENC	Atlantic
MX509223	SEMAR	Puerto Morelos, Q. Roo.	12000	Dec 2012	IC-ENC	Atlantic
MX509225	SEMAR	San Miguel de Cozumel	12000	Dec 2012	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
NL52218A	NLHO	Braamspunt to Dijkveldbank	22000	Nov 2011	IC-ENC	Atlantic
NL52218B	NLHO	Paranam Bight	12000	Nov 2011	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
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
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
US5FL11M	NOAA	Tampa Bay and Approaches	40000	Available	NOAA	Atlantic
US5FL12M	NOAA	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	Palm Shores To West Palm Beach A	40000	Available	NOAA	Atlantic
US5FL61M	NOAA	East Bay to West Bay	40000	Available	NOAA	Atlantic
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US5FL66M	NOAA	St. Andrew Bay	25000	Available	NOAA	Atlantic
US5FL67M	NOAA	St. Andrew Bay - Bear Point to Sulphur 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
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
US5LA36M	NOAA	Waveland to Catahoula Bay	40000	Available	NOAA	Atlantic
US5LA37M	NOAA	New Orleans Harbor Chalmette Slip to Southport	15000	Available	NOAA	Atlantic
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US5MS22M	NOAA	Pascagoula Harbor Mississippi	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
US5PR32M	NOAA	Bahia De San Juan	10000	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
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

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
US5TX22M	NOAA	Corpus Christi Bay	20000	Available	NOAA	Atlantic
US5TX23M	NOAA	Corpus Christi Harbor	10000	Available	NOAA	Atlantic
US5TX24M	NOAA	Redfish Bay to Middle Ground	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
VE500103	DHN	Castillete a Punta Perret	12000	Dec 2011	IC-ENC	Atlantic
VE500104	DHN	Portulano de Amuay	12000	Nov 2011	IC-ENC	Atlantic
VE500105	DHN	Portulano de las Piedras	12000	Nov 2011	IC-ENC	Atlantic
VE500106	DHN	Portulano de Punta Cardon	12000	Nov 2011	IC-ENC	Atlantic
VE500202	DHN	Portulano de Muaco	12000	Nov 2011	IC-ENC	Atlantic
VE500302	DHN	Isla de Aves	12000	Nov 2011	IC-ENC	Atlantic
VE500308	DHN	Puerto de la Guaira	12000	Nov 2011	IC-ENC	Atlantic
VE500308	DHN	Puerto de la Guaira	4000	Nov 2011	IC-ENC	Atlantic
VE500313	DHN	Portulano de Puerto Cabella	5000	Nov 2011	IC-ENC	Atlantic
VE500315	DHN	Portulano de Catia La Mar	12000	Nov 2011	IC-ENC	Atlantic

Cell Name	Producing Auth	Title	Scale 1:	Status	Distributed by	Coast
VE500316	DHN	Puerto de Borburata y Areas Adyacentes	4000	Nov 2011	IC-ENC	Atlantic
VE500319	DHN	Portulano El Palito	15000	Nov 2011	IC-ENC	Atlantic
VE500405	DHN	Bahia de Pozuelos	12000	Nov 2011	IC-ENC	Atlantic
VE500406	DHN	Bahia de Bergantin	12000	Nov 2011	IC-ENC	Atlantic
VE500407	DHN	Bahia Pertigalete	12000	Nov 2011	IC-ENC	Atlantic
VE500411	DHN	Portulano de Jose	12000	Nov 2011	IC-ENC	Atlantic
VE500501	DHN	Pampatar	12000	Nov 2011	IC-ENC	Atlantic
VE500502	DHN	Bahia de Porlamar	12000	Nov 2011	IC-ENC	Atlantic
VE500503	DHN	Portulano Puerto de Cumana	10000	Nov 2011	IC-ENC	Atlantic
VE500504	DHN	Portulano de Guamache	12000	Nov 2011	IC-ENC	Atlantic
VE500511	DHN	Portulano de Juan Griego	12000	Nov 2011	IC-ENC	Atlantic
VE500513	DHN	Portulano Planta de Distribucion El Guamache	5000	Nov 2011	IC-ENC	Atlantic
VE500601	DHN	Portulano de Puerto Hierro	4000	Nov 2011	IC-ENC	Atlantic
VE500603	DHN	Portulano Guiria	12000	Dec 2012	IC-ENC	Atlantic
VE501301	DHN	Maracaibo	12000	Nov 2011	IC-ENC	Atlantic
VE501302	DHN	Puerto Miranda	12000	Nov 2011	IC-ENC	Atlantic
VE501401	DHN	Bajo Grande	12000	Nov 2011	IC-ENC	Atlantic
VE501402	DHN	La Salina	12000	Nov 2011	IC-ENC	Atlantic
VE509311	DHN	Ciudad Bolivar	10000	Dec 2011	IC-ENC	Atlantic
VE509601	DHN	Puerto San Félix a Palúa	10000	Dec 2011	IC-ENC	Atlantic
VE509701	DHN	Puerto Ferrominera	10000	Dec 2011	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 2013	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	Nov 2012	IC-ENC	Pacific
MX609125	SEMAR	Canal de Acceso a Terminal Remota	4000	Nov 2012	IC-ENC	Atlantic
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	Waveland to Catahoula Bay	8000	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.	Completed
		FR 250010, FR276250	Resolved	The new French cell is available. FR 250010 was withdrawn and replaced by FR276250 and clipped at BR boundaries.	Completed
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>	Completed
Suriname Fr Guyana	Brazil	Gap (southward from Guyana, including Suriname, Fr Guyana to Brazil)	FR374840 and FR374850. BR321200; BR321300; BR321400 and BR321500	Pending	<p>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.</p> <p>FR cells released in Oct 2010. BR321300 (April 2012), BR321400 (April 2012) and BR321500 (Feb 2012) cells to be released.</p>

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 2010
US	Mexico	Gap	US1GC09	Resolved	Covered at scale band 1.	June 2010
			MX300711	Resolved	Coastal area covered at band 3 by Mexico.	June 2010
			MX300712	Resolved	Coastal area covered at band 3 by Mexico.	June 2010
			MX300713	Resolved	Coastal area covered at band 3 by Mexico.	June 2010
			MX300721	Resolved	Coastal area covered at band 3 by Mexico.	June 2010
				Resolved	MX will assess if UB1 (US1GC09) would be enough for this gap.	Nov 2010
Cuba				Pending	ECC Chair and UKHO representative continue efforts to engage Cuba, including requesting support from MACHC Chair, if necessary. Final solution still pending. Nothing new to report. The UK has had some recent contact with Cuba and may be able to meet with Cuba in near future.	Dec 2011
UK		Gap Honduran coast		Resolved	Covered by GB201220; GB300513 will cover northwest side of Honduran coast for adequate usage band 3 coverage.	Nov 2010
		Gap for Haiti		Resolved	Covered by GB281800.	Nov 2010
UB4-6 Gaps						
UK/US	Bahamas	Castaway Cay		Pending	Priority Port (Private) used by Disney Cruises	Dec 2012
UK/US	Bahamas	Coco Cay (Little Stirrup Cay)		Pending	Priority Port (Private) used by Royal Caribbean Cruises	Dec 2012
UK/US	Bahamas	Great Stirrup Cay		Pending	Priority Port (Private) used by Norwegian Cruise Lines	Dec 2012

Responsible Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells	Status	Status Statement	Completion Date
UK/US	Bahamas	Half Moon Cay		Pending	Priority Port (Private) used by Holland American	Dec 2012
UK	Bahamas	Princess Cay	GB503912	Pending	Priority Port (Private) used by Princess Cruises Lines. Planned cell to be released October 2011.	Oct 2011
US	Honduras	Roatan Island		Pending	Location of Coast Guard Station/ Cruise Ship Port-of-Call	??
US	Panama	Charco Azul		Pending	Tanker Port	??
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.	Dec 2012
Venezuela		Matanzas	NONE	Pending	Ocean freight exchange. New survey in early 2012.	Dec 2012
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.	Dec 2011
Venezuela		Palua	VE509601/VE509701	Pending	VE509601/VE509701 to be produced	Dec 2011
Venezuela		Ciudad Bolivar	VE509311	Pending	VE509311 to be produced	Dec 2011
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.	Dec 2011

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.	Sept 2011
Colombia	Venezuela	Overlap	CO3000026	VE300100	Pending	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. Venezuela has suggested that the Technical Group communicate weekly to enable technical progress. Meeting between Colombian and Venezuelan technical experts proposed for mid-September. This meeting did not happen, due to travel issues. Meeting mid-Nov.	Nov 2011
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	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. This is “pending” until discussions with Cuba.	Dec 2011
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

Affected Member States		Data Discrepancy/ Usage Band/ Datum Issues	Affected Cells		Status	Status Statement	Completion Date
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.	Jan 2011 – GB Oct 2011 – US
UK	US	Overlap	GB283000	US2EC02M	Resolved	GB283000 cancelled and rebanded as Usage Band 3.	January 2011
UK	France	Overlap	GB283800	FR250020	Resolved	GB283800 cancelled. FR250020 replaced by FR274750.	May 2010
US	UK	Overlap	US2EC01M	GB283000	Resolved	GB283000 cancelled and rebanded as Usage Band 3.	January 2011
UK	US	Overlap	GB302006	US3PR10M	Resolved	GB302006 cancelled and rebanded as Usage Band 4.	January 2011
UK	US	Overlap	GB30216	US3PR10M	Pending	US3PR10M will be clipped to existing limits of GB302016	Nov 2011
UK	US	Overlap	GB303910	US3FL30M	Pending	US to clip US3FL30M to existing limits of GB303910	Nov 2011
UK	France	Overlap	GB380230	FR352010	Resolved	Overlap is <5m on the ground and so is within tolerance. No further action is required.	June 2010
US	UK	Overlap	US3PR10M	GB300472	Pending	US and UK negotiating about overlap.	Nov 2011
UK	US	Overlap	GB402006	US4PR11M	Pending	US to clip US4PR11M to existing limits of GB402006.	Nov 2011
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
Colombia	UK	Overlap	CO200008	GB200396	Resolved	Colombia produced and released CO200008, and GB200396 was cancelled.	Spring 2011

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
	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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