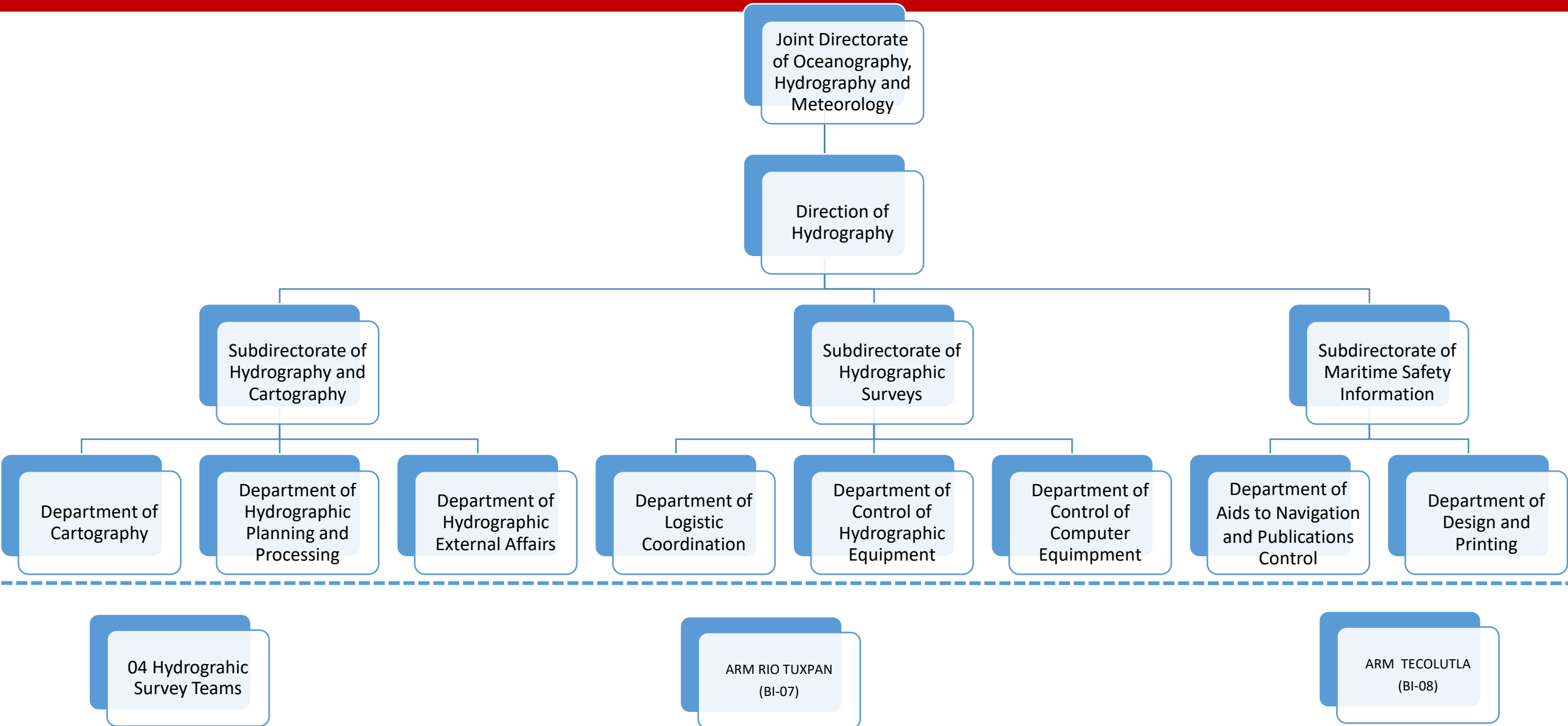




## DIRECCIÓN GENERAL ADJUNTA DE OCEANOGRAFÍA, HIDROGRAFÍA Y METEOROLOGÍA

Diciembre de 2017.

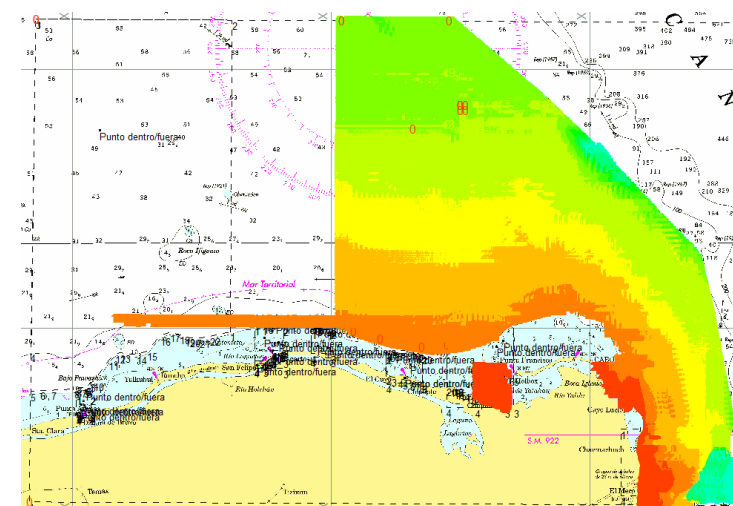
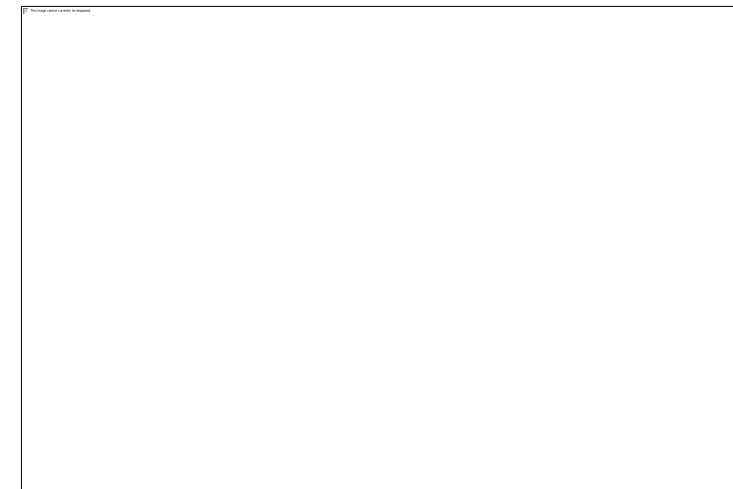
- I. Organization of the Joint Directorate of Oceanography, Hydrography and Meteorology (DIGAOHM).
- II. Hydrographic Surveys.
- III. New charts and updates.
- IV. New publications and updates.
- V. Maritime safety information (MSI).
- VI. Status of C-55
- VII. Capacity building.
- VIII. Oceanographic Activities.
- IX. Other Activities.
- X. Conclusions



## II. Hydrographic Surveys.

### A. Hydrographic Campaign “G-YUC-2017-9200” on the Yucatan Peninsula

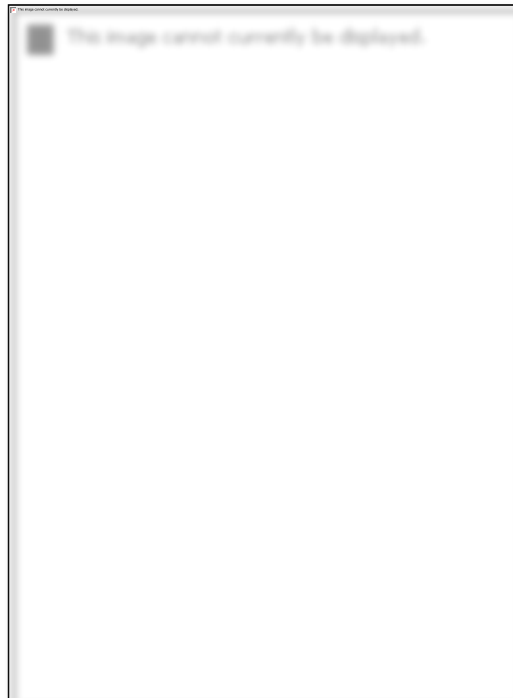
No.	Chart	Description	Scale
<b>Updates</b>			
1	MX 92110	Chiquila (Isla Holbox), Q. Roo	1:15,000
2	MX 92201	Isla Mujeres, Q. Roo	1:4,000
3	MX 92202	Punta Sam, Q. Roo	1:4,000
<b>New</b>			
1	MX 92200	Isla Mujeres, Cancun, Q. Roo y Prox.	1:35,000
2	MX 92202	Puerto Juárez, Q. Roo	1:4,000
3	MX 92020	San Felipe, Yuc. (Rio Lagartos)	1:15,000
4	MX 92021	Fondeadero San Felipe, Yuc.	1:3,000
5	MX 92022	Fondeadero Rio Lagartos, Yuc.	1:4,000



## II. Hydrographic Surveys.

### A. Hydrographic Campaign “G-VER-2017-82112” on Veracruz

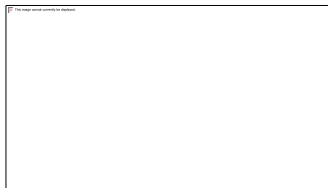
No.	Chart	Description	Scale
New			
1	MX 82101	Antón Lizardo ,Ver.	1:5,000
2	MX 82112	Veracruz Sur, Ver.	1:3,000



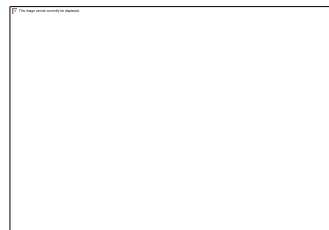
## II. Hydrographic Surveys.

### B. Hydrographic Campaign undergoing “G-YUC-2017-9200” on the Yucatan Peninsula.

No	Chart	Description	Scale
<b>Update</b>			
1	MX 92040	El Cuyo, Yuc.	1:15,000
<b>New</b>			
1	MX 9200	Dzilam de Bravo a Cancún	1:250,000
2	MX 92010	Dzilam de Bravo	1:7,500
3	MX 92030	Las Coloradas	1:10,000
4	MX 92100	Holbox, Yucatán y Proximidades	1:35,000



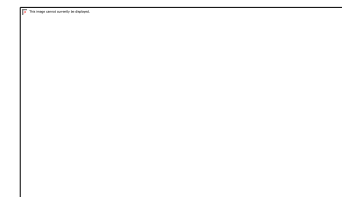
ARM Onjuku BI-02  
Singlebeam



ARM Antares BI-04  
Singlebeam



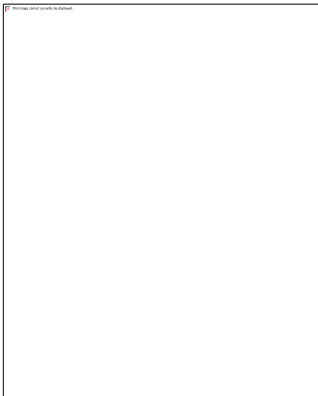
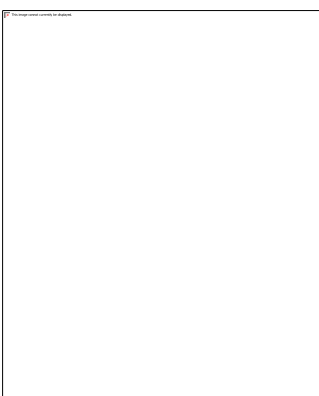
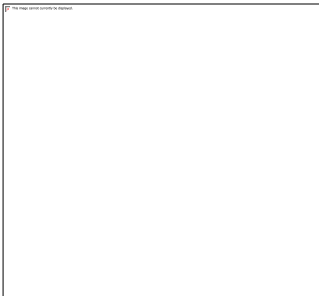

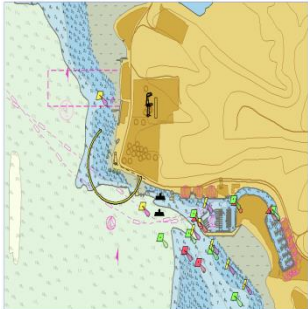
02 MIMSA  
Multibeam



01 IMEMSA  
Multibeam

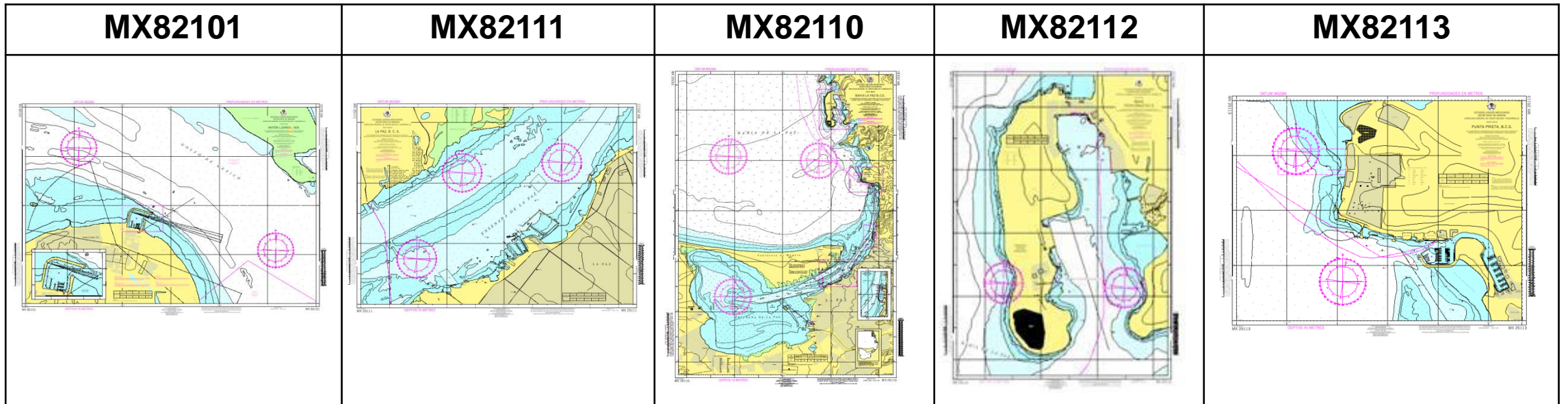
#### A. New Electronic Nautical Charts (ENC).

No.	Code	Edition	Description	Scale
1	MX582101	1ra. Ed.	Antón Lizardo, Ver.	4,000
2	MX425110	1ra. Ed.	Bahía La Paz, B.C.S.	22,000
3	MX625111	1ra. Ed.	La Paz, B.C. S.	3,000
4	MX625112	1ra. Ed.	Bahía Pichilingue, B.C.S.	3,000
5	MX625113	1ra. Ed.	Punta Prieta, B.C.S.	3,000

MX582101	MX425110	MX625111	MX625112	MX625113
				

#### B. New printed Charts.

No.	Code	Edition	Description	Scale
1	MX82101	1ra. Ed.	Antón Lizardo, Ver.	5,000
2	MX82111	1ra. Ed.	La Paz, B.C.S.	3,000
3	MX82110	1ra. Ed.	Bahía la Paz, B.C.S.	20,000
4	MX82112	1ra. Ed.	Bahía Pichilingue, B.C.S.	3,000
5	MX82113	1ra. Ed.	Punta Prieta, B.C.S.	3,000





#### C. Electronic Nautical Charts (ENC) Updates.

No.	Code	Edition	Cell Description	Scale	Update
1	MX403331	4ta.	BAHIA DE TOPOLOBAMPO, SIN. Y PROXIMIDADES	22,000	
2	MX503332	1ra.	ACCESO AL PUERTO DE TOPOLOBAMPO, SIN. (CANAL EXTERIOR).	12,000	
3	MX408323	3ra.	DOS BOCAS, TAB.	22,000	
4	MX408522	1ra.	CAYO ARCAS Y PROXIMIDADES	22,000	
5	MX506233	1ra.	SALINA CRUZ, OAX. Y PROXIMIDADES	12,000	
6	MX300840	2da.	BAHIA DE CAMPECHE	180,000	
7	MX406344	1ra.	PUERTO CHIAPAS A BOCA DEL RIO SUCHIATE	22,000	
8	MX506341	4ta.	PUERTO CHIAPAS, CHIS.	8,000	
9	MX408323	3ra.	DOS BOCAS, TAB.	22,000	2da.
10	MX508413	1ra.	FRONTERA, TAB. Y PROXIMIDADES	12,000	

#### C. Electronic Nautical Charts (ENC) updates.

No.	Code	Edition	Cell Description	Scale	Update
11	MX300842	1ra.	LAGUNA POM A SANTA CRUZ	90,000	
12	MX408532	1ra.	LERMA-CAMPECHE, CAMP.	22,000	
13	MX508431	1ra.	SABANCUY, CAMP.	12,000	
14	MX508533	1ra.	PORTULANO DE LERMA, CAMP.	8,000	
15	MX508531	1ra.	SEYBAPLAYA	12,000	
16	MX300352	1ra.	BANCO GOLDEN GATE A BAHIA SAN JOSE DEL CABO	90,000	
17	MX403521	1ra.	BAHIA DE SAN LUCAS, B.C.S.	22,000	
18	MX406344	1ra.	PUERTO CHIAPAS A BOCA DEL RIO SUCHIATE	22,000	2da.
19	MX506341	1ra.	PUERTO CHIAPAS, CHIS.	8,000	2da.
20	MX606342	1ra.	CANAL DE ACCESO A PUERTO CHIAPAS, CHIS.	3,500	

#### C. Electronic Nautical Charts (ENC) updates.

No.	Code	Edition	Cell Description	Scale	Update
21	MX300840	1ra.	BAHIA DE CAMPECHE	180,000	2da.
22	MX504121	1ra.	BOCA TEACAPAN, SIN.	8,000	
23	MX408323	1ra.	DOS BOCAS, TAB.	22,000	3ra.
24	MX508122	1ra.	TUXPAN, VER.	12,000	
25	MX608125	1ra.	LAGUNA DE TAMPAMACHOCO, VER	3,500	

#### D. Printed Nautical Charts Updates.

No.	Code	Edition	Cell Description	Scale
1	SM-333.1	4ta.	BAHÍA DE TOPOLOBAMPO, SIN. Y PROXIMIDADES	1:30 000
2	SM-333.2	4ta.	ACCESO AL PUERTO DE TOPOLOBAMPO, SIN. (CANAL EXTERIOR)	1:15 000
3	SM-352	2da.	BANCO GOLDEN A BAHÍA SAN JOSE DEL CABO, B.C.S.	1:100 000
4	SM-513.3	2da.	LÁZARO CÁRDENAS, MICH.	1:10 000
5	SM-513.4	1ra.	CALETA DE CAMPOS, MICH.	1:10 000
6	SM-634.1	5ta.	PUERTO CHIAPAS, CHIS.	1:10 000
7	SM-634.2	5ta.	CANAL DE ACCESO A PUERTO CHIAPAS, CHIS.	1:3 500
8	SM-634.4	1ra.	PUERTO CHIAPAS A BOCA DE RIO SUCHIATE	1:30 000
9	SM-841.3	4ta.	FRONTERA, TAB. Y PROXIMIDADES	1:15 000
10	SM-843.1	1ra.	SABANCUY, CAMP.	1:15 000
11	SM-853.1	1ra.	SEYBAPLAYA, CAMP.	1:15 000
12	SM-853.2	2da.	LERMA - CAMPECHE, CAMP.	1:35 000
13	SM-853.3	3ra.	PORTULANO DE LERMA, CAMP.	1:7 500

## IV. New Publications and Updates.

### A. Printed

- A. Numeric Tide Prediction Tables
- B. Tide Prediction Graphic Calendar

### B. Digital.

- A. Chart and Publications Catalog
- B. Notice to Mariners
- C. Mexican Coast Pilot
- D. Chart No. 1
- E. Third Hydrographic Convention Magazine



# V. Maritime Safety Information (MSI).

- A. Maritime Safety Information of Mexican Waters is disseminated through monthly Notice to Mariners and through regional NAVAREA coordinator of zones IV and XII (U.S.A).
- B. During 2017 11 monthly Notice to Mariners publications were emitted and, 86 Navigational Warnings on the Gulf of México and 94 on the Pacific coast through the regional NAVAREA coordinator.
- C. From 1<sup>st</sup> January 2018, the Maritime Safety Information will be emitted as following:
  - Mexico Notice to Mariners publications through the webpage: <http://digaohm.semar.gob.mx/hidrografia/avisosalosmarinos.html>
  - Mexico “Navigational Warnings” through the webpage : <https://www.gob.mx/semar/digecapam>
  - México Whether Forecast through the webpage : <http://meteorologia.semar.gob.mx/>


79/17	TUXPAN, VERACRUZ. SM-812.2 NGA-28321 1.-SAFE WATER BUOY 20-59.38N 097-15.95W UNLIT. 2.-PROVISIONAL LIGHT FL 10 SECONDS 2.3 METRES 5 M ESTABLISHED
80/17	TUXPAN, VERACRUZ. SM-812.2 NGA-28321 SAFE WATER BUOY 20-59.38N 097-15.95W RACON INOPERATIVE.
81/17	DOS BOCAS, TABASCO. SM-832.4 NGA-28260 No. 3 BUOY 18 27.03N 093 12.19W UNLIT

Publicación 12

### AVISOS A LOS MARINOS

PUBLICACIÓN MENSUAL  
OCTUBRE 2017.

DIRECCIÓN GENERAL ADJUNTA DE OCEANOGRAFÍA, HIDROGRAFÍA Y METEOROLOGÍA (DIGAOHM).



CONTENIDO

1. NOTAS EXPLICATIVAS.
2. AVISOS GENERALES.
3. AVISOS QUE AFECTAN A LAS CARTAS NAÚTICAS MEXICANAS.
4. RADIOAVISOS NAVAREA.
5. MODIFICACIONES A LAS PUBLICACIONES NAÚTICAS.
6. NOTA HIDROGRÁFICA.

Se requiere que los Comandantes y Capitanes de navíos, privados, autoridades marítimas y civiles, comunicaran de inmediato a la Dirección General Adjunta de Oceanografía, Hidrografía y Meteorología (DIGAOHM) de la Secretaría de Marina, toda la información que afecte a la navegación en costas y vías fluviales mexicanas. Por ejemplo: rocas o bajos fondos, derrumbos, obstrucciones, faros, balizas y boyas (perpetuas o fuera de su sitio), errores en cartas y publicaciones o cualquier novedad que constituya un peligro a la navegación, así como de los proyectos de instalación, alteración o supresión de cualquier obra o señal marítima.

<p><b>DIRECCIÓN</b></p> <p>Secretaría de Marina-Avda. de México Estrada Nacional Toluca-México Edificio "F" Primer Nivel, Colonia Los Caballeros, Cuernavaca, C.P. 04833, Ciudad de México.</p>	<p><b>CONTACTO</b></p> <p>Tel. (52 55 56 24 65 00 EXT. 7233). (52 55 56 24 65 00 EXT. 8100) 1443 E-mail: <a href="mailto:digaohm.navapad@semar.gob.mx">digaohm.navapad@semar.gob.mx</a> <a href="mailto:digaohm.navapad@semar.gob.mx">digaohm.navapad@semar.gob.mx</a> Web: <a href="http://digaohm.semar.gob.mx/hidrografia.html">http://digaohm.semar.gob.mx/hidrografia.html</a></p>
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Edici6n: Secretaríaa de Marina-Avda. de México. Publicado en la Ciudad de México por la Secretaríaa de Marina. Direcci6n General de Investigaci6n y Oceanografíaa. Direcci6n General Adjunta de Oceanografíaa, Hidrografíaa y Meteorologíaa. Para actualizaci6n de esta publicaci6n consultar a digeohm. <http://digaohm.semar.gob.mx/hidrografia/hidrografia.html>

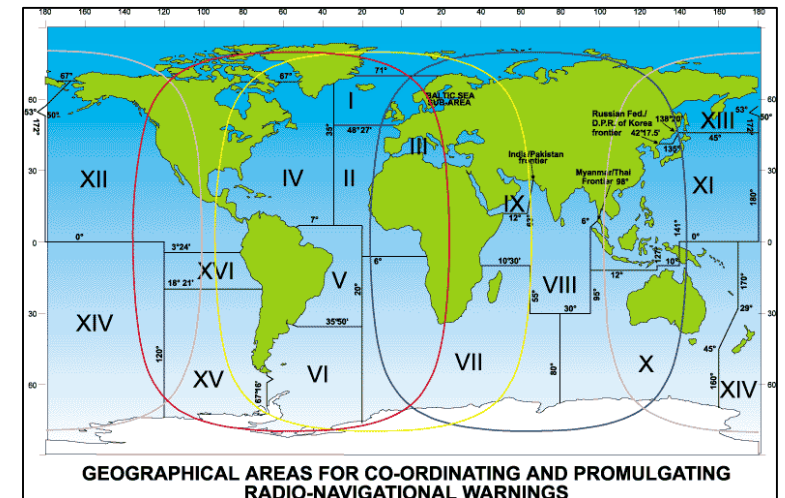


Chart coverage	Passage (%)	Coastal (%)	Port (%)
INT	100	37	79
RNC	100	37	79
ENC	0	26	60
<b>Status of Paper Charts</b>			
Paper charts with depths in meters (%)			100
Paper charts referenced to a satellite datum (%)			100
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)
0-200m	25	65	10
> 200m	15	85	0

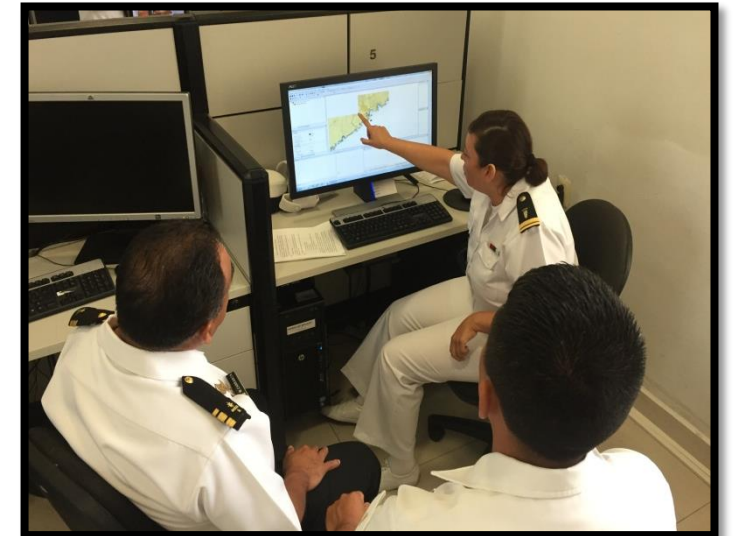
## VII. Capacity Building.

- A. The Secretary of the Navy provides the Specialty of Hydrography and Cartography with a duration of one year at the Oceanographic Institute of the Gulf and the Caribbean Sea. Currently studying the specialty 03 officers of the Ministry of the Navy and 06 foreign scholars
- B. Within the framework of the Project to Strengthen Hydrographic Capacities in Mesoamerica and the Caribbean Sea (FOCAHIMECA), the Specialization in Hydrography and Cartography is taught to 06 representatives of the countries of Guatemala, Honduras, El Salvador, Nicaragua, Panama and the Dominican Republic.





- C. From 04 to 08 September was provided an "internship in the area of orthorectification of satellite images for the delimitation of the coast line" was given to 02 elements of the navy of Peru, in the direction of Hydrography in Veracruz.
- D. From November 6th to 10th was provided an "internship in the area of paper and electronic nautical charts production" to 02 elements of the navy of Peru, in the direction of Hydrography in Veracruz.

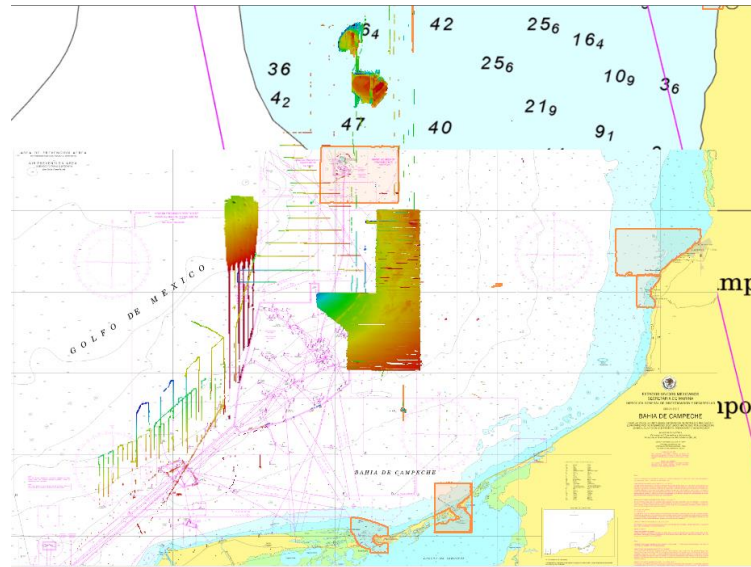


## VII. Capacity Building.

Personal	Description	Place
Tte. Corb. SIA I. Top. Cecilia Cortina Guzmán	GEBCO Postgraduate Course on Ocean Mapping	New Hampshire, USA.
Cap. Corb. CG. EHC. Simitrio Morales López	Training on Hydrographic Survey and Ocean Observation (Application on ENC)	(KHOA) Busan, South Korea
Tte. Frag. CG. EHC. Carlos David Loyo Illescas	Workshop on Bathymetry using RTK y RTG Technologies	Río de Janeiro, Brazil.
Cap. Corb. CG. EHC. Francisco J. Cabrera Alonso	Data Management Workshop	Montevideo, Uruguay.
Tte. Nav. SIA I. Top. Cesar Cruz Hernández	Digital Photogrammetry with Satellite Images	Buenos Aires, Argentina.
Tte. Nav. SIA I. Geog. Eliot Ramírez Hernández	Technical Conference on the production of electronic nautical charts (IC-ENC)	Copenhagen, Denmark



- A. The National Program of Nautical Cartography was updated with a scheme containing 254 nautical charts at different scales that will serve as a master program for the planning of hydrographic surveys and nautical cartography
- B. Since July 2017, the Ministry of the Navy, assumed the National Maritime Authority of the Mexico.
- C. From February to November 2017 people from the Secretary of the Navy has participated in seven research campaigns in the Campeche Bay, on board the Fishing and Oceanographic Research Vessel (BIPO) belonging to the National Fishing Institute (INAPESCA), which despite not being properly designed for use in nautical cartography, the extension of the same and the quality of the data will allow to update the cartography of this area.



The Mexican State through the Secretariat of the Navy carries out Oceanographic, Hydrographic and Meteorological, in order to support Naval Operations; contributing to the National Maritime Development, the safeguarding of human life at sea, safety to navigation and the protection of the marine and coastal environment, as well as the integration of the National Oceanographic Information Archive.





## DIRECCIÓN GENERAL ADJUNTA DE OCEANOGRAFÍA, HIDROGRAFÍA Y METEOROLOGÍA

Diciembre de 2017.