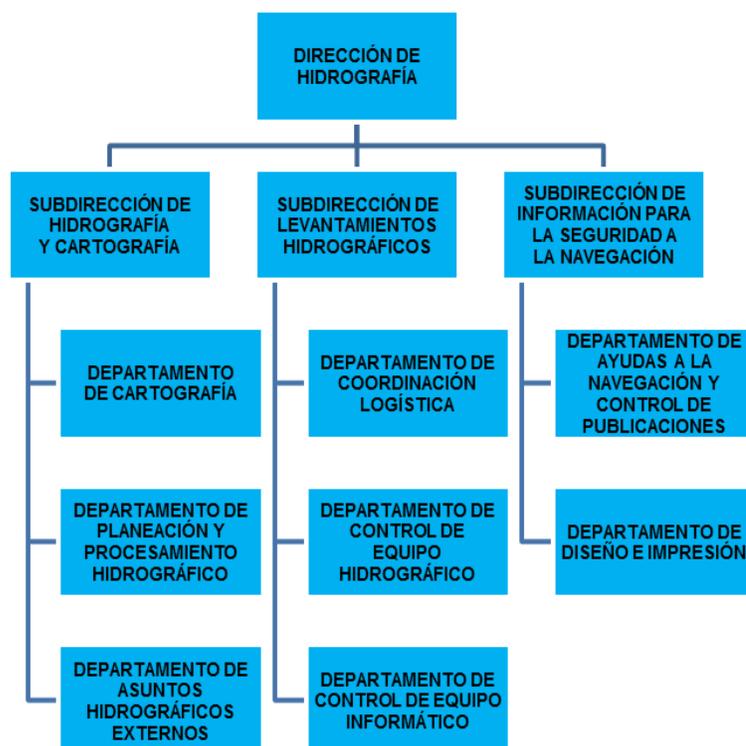


## National Reports to Regional Hydrographic Commissions

### 1. Hydrographic Office/Service

#### 1.1 Direction Adjunct General Oceanography, Hydrography and Meteorology

The Hydrography, belonging to the General Office of Oceanography, Hydrography and Meteorology which is part of Adjusts DGs the Navy (SEMAR) is the only national authority for the preparation and publication of nautical charts, as part of its international responsibilities this address provides information for maritime safety (MSI) in NAVAREA XII region comprising the Gulf of Mexico, Caribbean Sea and the Pacific Ocean, with a modern fleet of oceanographic and hydrographic vessels equipped with multibeam and single beam.



### 2. Surveys

In accordance with Article 30, Section XI. Organic Law of the Federal Public Administration to the Navy shall implement the hydrographic work of the coasts, islands, ports and waterways, as well as organizing the database of nautical charts.

## 2.1 During this period the following hydrographic surveys were conducted:

- Hydrographic Campaign "Tecolutla, Ver." to build the first edition of the nautical chart SM-812.4 Tecolutla, Ver., Esc. 1:15,000.
- Hydrographic Campaign "Manzanillo, Col." to update the nautical chart SM-511.3 Manzanillo, Col., Esc. 1:5,000.
- Hydrographic Campaign "Altamira, Tamps." to update the nautical chart SM-722.2 Altamira, Tamaulipas, Esc. 1:10,000.
- Hydrographic Campaign "Dos Bocas, Tabasco." to update the nautical chart SM-832.4 Dos Bocas, Tabasco, Esc. 1:5,000.
- Hydrographic Campaign "Veracruz, Ver." to update the nautical chart SM-821.4 Veracruz, Ver, Esc. 1:7,500.
- Hydrographic Campaign "San Marcos Island, BC" and "Terminal San Marcos BC" to build the first editions of nautical charts SM-231.4 Isla San Marcos B.C. and SM-231.5 Terminal San Marcos B.C., Esc. 1:20,000 and 1:5,000 respectively.
- Hydrographic Campaign "Chuburna, Yucatan." to build the first edition of the nautical chart SM-912.6, Chuburna, Yuc., Esc. 1:5,000.
- Hydrographic Campaign "Canal de Zaragoza, Q. Roo." to update the nautical chart SM-933.3 Xcalak, Quintana Roo, Esc. 1:20,000.





## **2.2 New Technologies or equipment:**

During this period, no equipment was acquired.

## **2.3 New Platforms:**

During this period, new platforms were not acquired.

## **2.4 Troubles:**

During this period the hydrographic research vessel "ARM. Tuxpan "BI-12 which is one of the main platforms of Mexico Hydrographic Survey was found down for major maintenance required (overhaul).

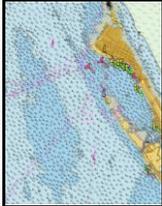
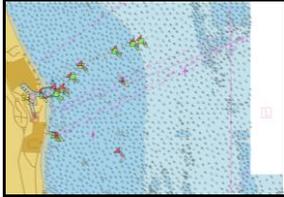
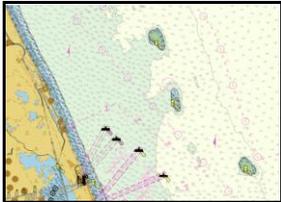
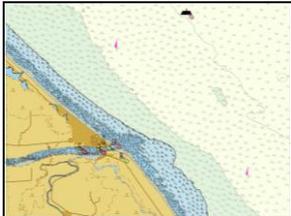
## **3. New charts and Updates**

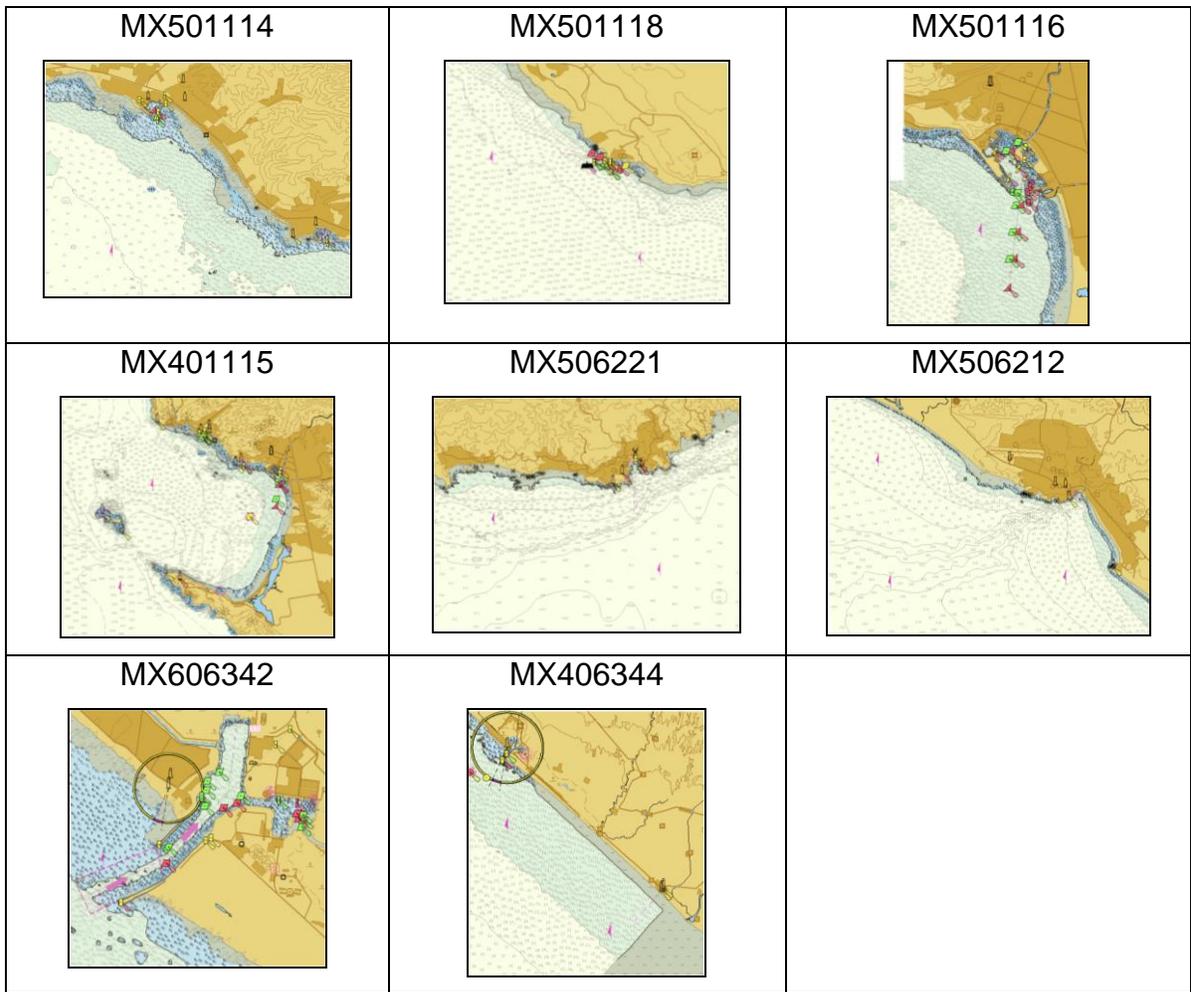
### **3.1 ENC's**

The production of nautical charts Electronics Mexican S-57 was favored from the implementation of Hydrographic Data Base (HPD) and this is reflected in the 17 new cards (9 Gulf of Mexico and Mexican Pacific 8) and 3 new editions that have been built as far this year.

## New Charts

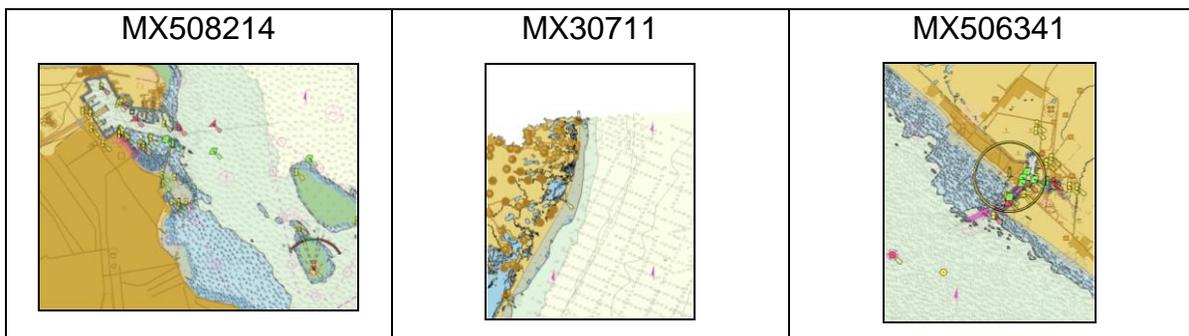
No.	Code	Edition	Name of Chart	Scale ENC
1	MX69222A.000	1ra. Ed.	Isla Mujeres, Q. Roo	4000
2	MX69222B.000	1ra. Ed.	Punta Sam, Q. Roo	4000
3	MX501501.000	1ra. Ed.	Valle de Bravo, Edo. Mex.	8000
4	MX408121.000	1ra. Ed.	Barra de Galindo, Ver	22000
5	MX508122.000	1ra. Ed.	Tuxpan, Ver.	12000
6	MX608125.000	1ra. Ed.	Laguna de Tampamachoco, Ver.	8000
7	MX508124.000	1ra. Ed.	Tecolutla, ver.	12000
8	MX509211.000	1ra. Ed.	Isla Holbox, Q. Roo	12000
9	MX507113.000	1ra. Ed.	Puerto de Matamoros	8000
10	MX501114.000	1ra. Ed.	El Sauzal, B.C.	8000
11	MX501118.000	1ra. Ed.	Costa Azul, B.C.	8000
12	MX501116.000	1ra. Ed.	Ensenada, B.C.	8000
13	MX401115.000	1ra. Ed.	Bahía de Todos Santos, B.C.	45000
14	MX506221.000	1ra. Ed.	Puerto Ángel, Oax.	8000
15	MX506212.000	1ra. Ed.	Puerto Escondido, Oax.	12000
16	MX606342.000	1ra. Ed.	Canal de Acceso a Puerto Chiapas	3500
17	MX406344.000	1ra. Ed.	Puerto Chiapas a Boca del Rio Suchiate.	22000

<p>MX69222A</p> 	<p>MX69222B</p> 	<p>MX501501</p> 
<p>MX408121</p> 	<p>MX508122</p> 	<p>MX608125</p> 
<p>MX508124</p> 	<p>MX509211</p> 	<p>MX507113</p> 



### Charts from New Editions

No.	Code	Edition	Name of Chart	Scale ENC
1	MX508214.000	2da. Ed.	Veracruz, Ver.	8000
2	MX300711.000	3ra.Ed.	Brazos Santiago a Puerto de Matamoros	90000
3	MX506341.000	4ta. Ed.	Puerto Chiapas, Chis.	8000



Likewise have generated a total of 25 updates for both paper charts and ENC's.

No.	Code	Edition	Name of Chart	Scale ENC	Scale Papel
1	MX508221,001	1ra. Ed.	Puerto de Alvarado	12000	15000
2	MX408213.002	1ra. Ed.	Veracruz y Proximidades	22000	25000
3	MX508523.001	1ra. Ed.	Cayo arcas, Camp.	12000	12500
4	MX408522.001	1ra. Ed.	Cayo Arcas y Proximidades	22000	30000
5	MX300922.004	2da. Ed.	Isla Mujeres a Isla Cozumel	90000	100000
6	MX408215.001	3ra. Ed.	Fondeadero Antón Lizardo	22000	25000
7	MX308212.001	2da. Ed.	Veracruz a Puerto de Alvarado	45000	60000
8	MX300721.003	3ra. Ed.	La Pesca a Punta Jerez	90000	100000
9	MX300713.002	2da. Ed.	Boca Jesús María a La Pesca	90000	100000
10	MX300712.001	2da. Ed.	Puerto de Matamoros a Boca J. María	90000	100000
11	MX505115.000	1ra. Ed.	Laguna de Cuyutlan, Col.	8000	10000
12	MX506233,001	1ra. Ed.	Salina Cruz y Proximidades	12000	15000
13	MX405213,001	3ra. Ed.	Bahía de Isla Grande	8000	10000
14	MX405213,002	3ra. Ed.	Bahía de Isla Grande	8000	10000
15	MX405212.002	3ra. Ed.	Ixtapa-Zihuatanejo	22000	25000
16	MX504031,001	1ra. Ed.	Bahía Vargas Lozano	4000	5000
17	MX403231,002	1ra. Ed.	La Paz y Proximidades	22000	25000
18	MX402321,001	1ra. Ed.	Bahía Santa Inés	22000	20000
19	MX606234.001	3ra. Ed.	Salina Cruz, Oax.	3500	5000
20	MX505234.004	3ra. Ed.	Puerto Marques	4000	5000
21	MX505233.003	2da. Ed.	Acapulco	8000	10000
22	MX300523.004	2da. Ed.	Cayaco a San Marcos	90000	100000
23	MX404032.001	2da. Ed.	Isla Socorro	22000	30000
24	MX503233.001	2da. Ed.	La Paz	8000	10000
25	MX503232.005	2da. Ed.	Bahía Pichilingue	8000	10000

### 3.2 Method of Distribution of ENC:

Mexican Electronic Charts are distributed globally through the International Electronic Chart Centre (IC-ENC), through the VARS.

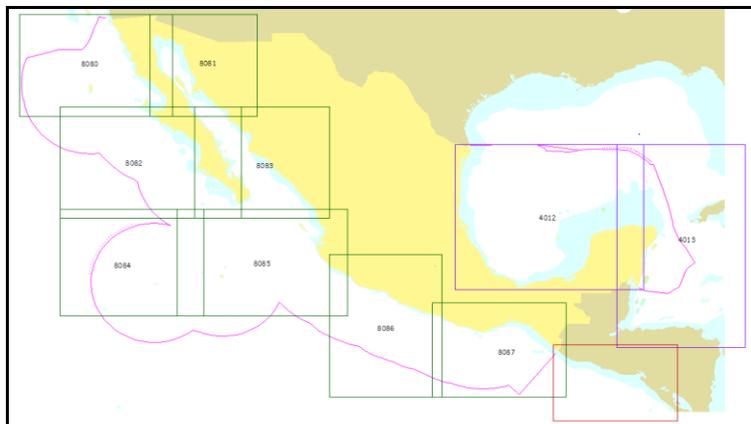
### 3.3 Charts Internationals

Among the goals set for this year, was the construction of 08 new cards, both paper and electronic that fall within the Proposed International Chart Scheme

of Mexico, which correspond to the Pacific and are in band or Use two.

No.	Code	Edition	Name of Chart	Scale ENC	Scale Papel
1	8080	1ra Ed.	Ensenada a Punta Eugenia, B.C.	700000	900000
2	8081	1ra Ed.	Golfo de California (Norte)	700000	900000
3	8082	1ra Ed.	Punta Eugenia a Cabo Lázaro, B.C.S	700000	1000000
4	8083	1ra Ed.	Golfo de California (Sur)	700000	900000
5	8084	1ra Ed.	Isla Clarión	700000	900000
6	8085	1ra Ed.	Isla Isabela a Manzanillo, Col.	700000	1000000
7	8086	1ra Ed.	Manzanillo a Punta Maldonado, Gro.	700000	1000000
8	8087	1ra Ed.	Punta Maldonado a Puerto Chiapas	700000	900000

### International Chart Scheme proposed by México.

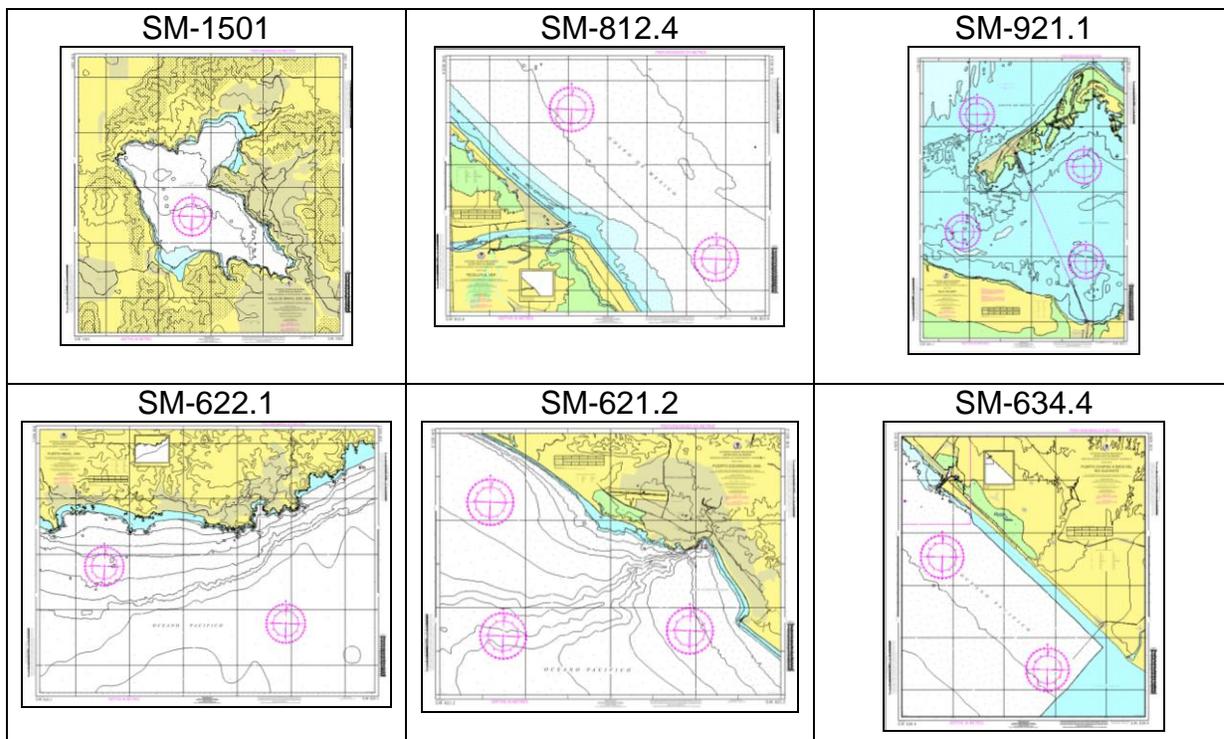


### 3.4 National Paper Charts

Regarding paper charts have been developed 6 new cards and 5 new editions, which are part of the National Plan of Nautical Cartography.

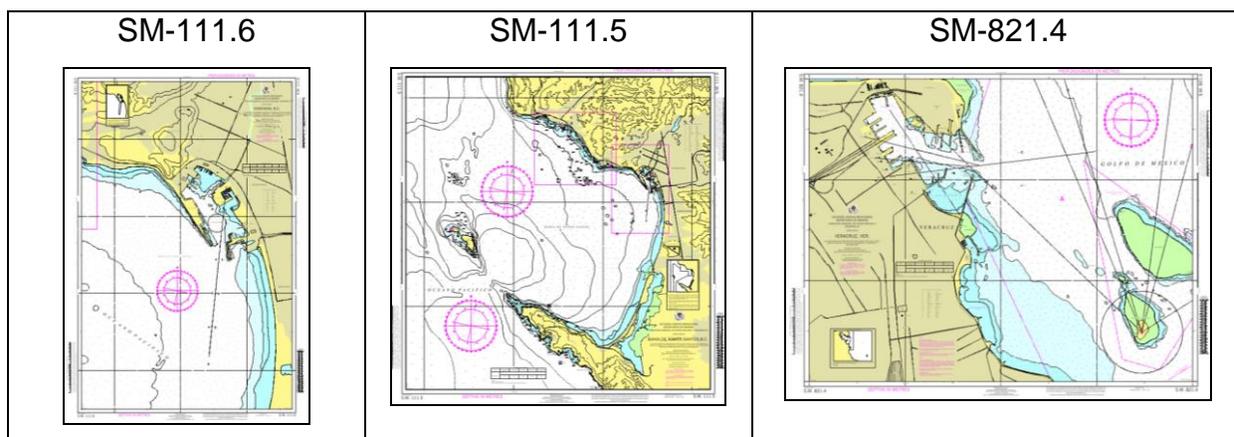
#### New Charts

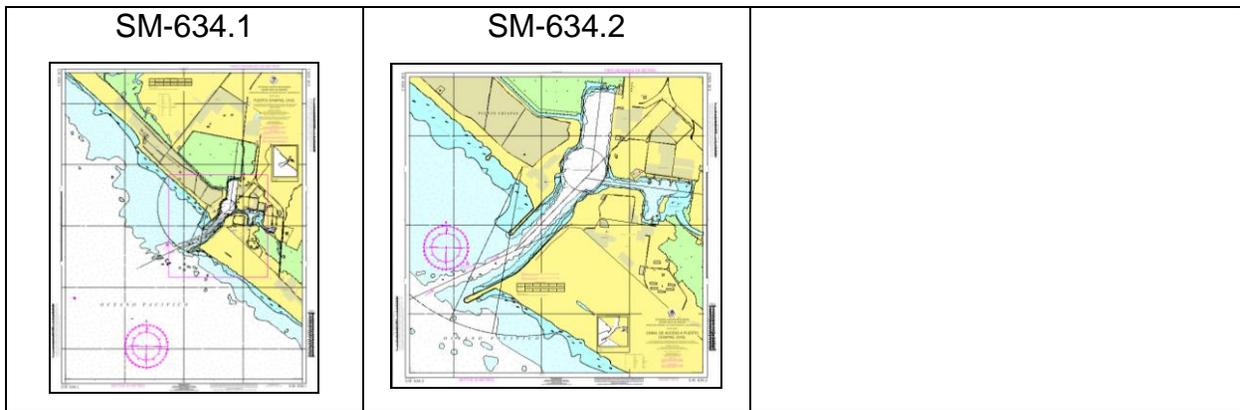
No.	Code	Edition	Name of Chart	Scale Paper
1	SM-1501	1ra. Ed.	Valle de Bravo, Edo. Mex.	10000
2	SM-812.4	1ra. Ed	Tecolutla, ver.	15000
3	SM-921.1	1ra. Ed	Isla Holbox, Q. Roo	15000
4	SM-622.1	1ra. Ed	Puerto Ángel, Oax.	10000
5	SM-621.2	1ra. Ed	Puerto Escondido, Oax.	15000
6	SM-634.4	1ra. Ed	Puerto Chiapas a Boca del Rio Suchiate	30000



**New Charts Edition**

No.	Code	Edition	Name of Chart	Scale Paper
1	SM-111.6	6ta. Ed.	Ensenada, B.C.	7500
2	SM-111.5	4ta. Ed.	Bahía de Todos Santos, B.C.	35000
3	SM-821.4	5ta. Ed.	Veracruz, Ver.	8000
4	SM-634.1	5ta. Ed.	Puerto Chiapas, Chis.	10000
5	SM-634.2	4ta. Ed.	Canal de Acceso a Puerto Chiapas, Chis.	3500





Also have been corrected by Notices to Mariners a total of 9 paper charts, where 7 of the Gulf of Mexico and Caribbean Sea and Pacific Ocean 2, being intended to keep the mapping of the country.

No.	Code	Edition	Name of Chart	Scale Paper
1	SM-711	3ra.Ed.	Brazos Santiago a Puerto de Matamoros	100000
2	SM-711.3	1ra. Ed	Puerto de Matamoros	7500
3	SM-812.1	1ra. Ed	Barra de Galindo, Ver	22000
4	SM-812.2	1ra. Ed	Tuxpan, Ver.	15000
5	SM-812.5	1ra. Ed	Laguna de Tampamachoco, Ver.	7000
6	SM-922.2A	1ra. Ed.	Isla Mujeres, Q.Roo	4000
7	SM-922.2B	1ra. Ed.	Punta Sam, Q. Roo	4000
8	SM-111.4	1ra. Ed.	El Sauzal, B.C.	10000
9	SM-111.8	1ra. Ed.	Costa Azul, B.C.	10000

### 3.5 Issues in the Proposed Scheme Charts International Proposed by Mexico

#### Problemática

The INT chart scheme proposed by the Mexican state has undergone revision of MICC, observations, recommendations and the changes that has taken such a scheme are summarized in the following points:

#### **Dimensions and scales INT charts**

By some members of the MICC there is concern that the scheme cannot meet the specifications of the S-11, especially in relation to the size paper (A0), mid-latitude and scale issues.

## 4. New Publications and Updates.

### 4.1 New Publications.

#### Paper Publications.

The Mexican Navy (SEMAR) through the Deputy General of Oceanography, Hydrography and Meteorology (DIGAOHM) produces various paper publications that are available for mariners worldwide. In this period new editions 2014 of nautical almanac, tide calendar graphic and numerical tide prediction tables were generated and various miscellaneous publications. The availability of these publications is through different outlets in the DIGAOHM main office and the Oceanographic Institutes and Stations of the country, just as are available tide prediction data for the current month on the website <http://oceanografia.semar.gob.mx/index.html>



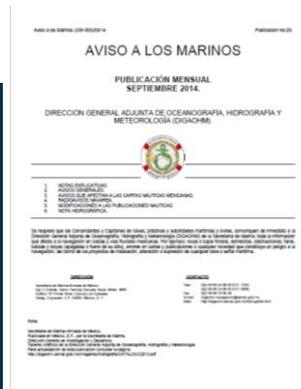
#### Digital publications.

Among the new digital publications include: Digital Sailing Directions of the Pacific Ocean Coast and the Gulf of Mexico and Caribbean Sea, available for its consult and download from the link <http://digaohm.semar.gob.mx/hidrografiaportal.html>.

### 4.2 Publications updated.

Among the publications updated are The Catalog of Charts and Nautical Publications 2014, which contains the list of charts and publications of recent issue. Also the monthly update of the digital file "Notices to Mariners" containing

security information for navigation on national coasts, both publications available on internet in the site <http://digaohm.semar.gob.mx/hidrografia.html>.



#### **4.3 Problems encountered.**

None.

#### **5. Safety Information to Navigation.**

The SEMAR through DIGAOHM provides safety information to navigation in order to meet the information needs of urgent interest to all ships sailing in the Mexican marine zones.

Mexico is located in NAVAREAS IV and XII, where the SEMAR through the DIGAOHM operates as a national coordinator responsible for providing information to the NAVAREA regional coordinator of the National Geospatial Intelligence Agency (NGA), who transmits the information via INMARSAT and other available means.

#### **6. C-55**

The Mexican state is complying with the C-55 (States of Hydrographic Surveying and Nautical Charting in the world) standard, since regularly performed bathymetric surveys of different ports, bays, etc., of the country, also continued with the construction of (new and updates) nautical charts and publication of notices to Mariners

## 7. Capacity Building

### Offer of and/or demand for Capacity Building

The Oceanographic Institute of the Gulf and Caribbean Sea is an integral part of the DIGAOHM where takes place the academic training of Hydrographic conducting hydrographic surveys on the Mexican coast, the specialty of this institute is Hydrography and Cartography, intended both military (foreign and belonging to the SEMAR) and civilian personnel, this specialty is recognized by the International Hydrographic Organization and its formation is classified as class B. Hydrographic

<b>Class</b>	<b>Course</b>	<b>Duration</b>
B	Hydrography and cartography specialty	48 weeks

### Training provided by other countries

Currently within the collaboration agreements with the Hydrographic Service of Chile (SHOA) offers 1 scholarship each year to military personnel who want to increase their knowledge in the catchment area, the course is a specialist in Hydrography and Oceanography lasts 2 years and classification is as Surveyor Class A.

<b>Class</b>	<b>Course</b>	<b>Duration</b>
A	Hydrography and Oceanography specialty	96 weeks

## 8. Oceanographic Activities

The oceanographic information found on nautical charts, it is provided by the Department of Oceanography through its Institutes and Oceanographic stations that are in the different ports.

## 9. Other Activities

In Mexico it was held the 1st. Mexican Convention Hydrography in the Port of Veracruz, where conferences, workshops and demonstration Hydrographic equipment were presented, also 23 exhibit booths of products, services and programs hydrographic computing, ridden by sectors were established; governmental, private and academic.



Was carried out 2nd. Mexican Hydrography Convention, which took place as headquarters at the Port of Manzanillo, Colima, where the participation of a large number of speakers was recorded as well as the presence of a major business and academia. As the Fifteenth Meeting of the Mesoamerican and Caribbean Hydrographic Commission

