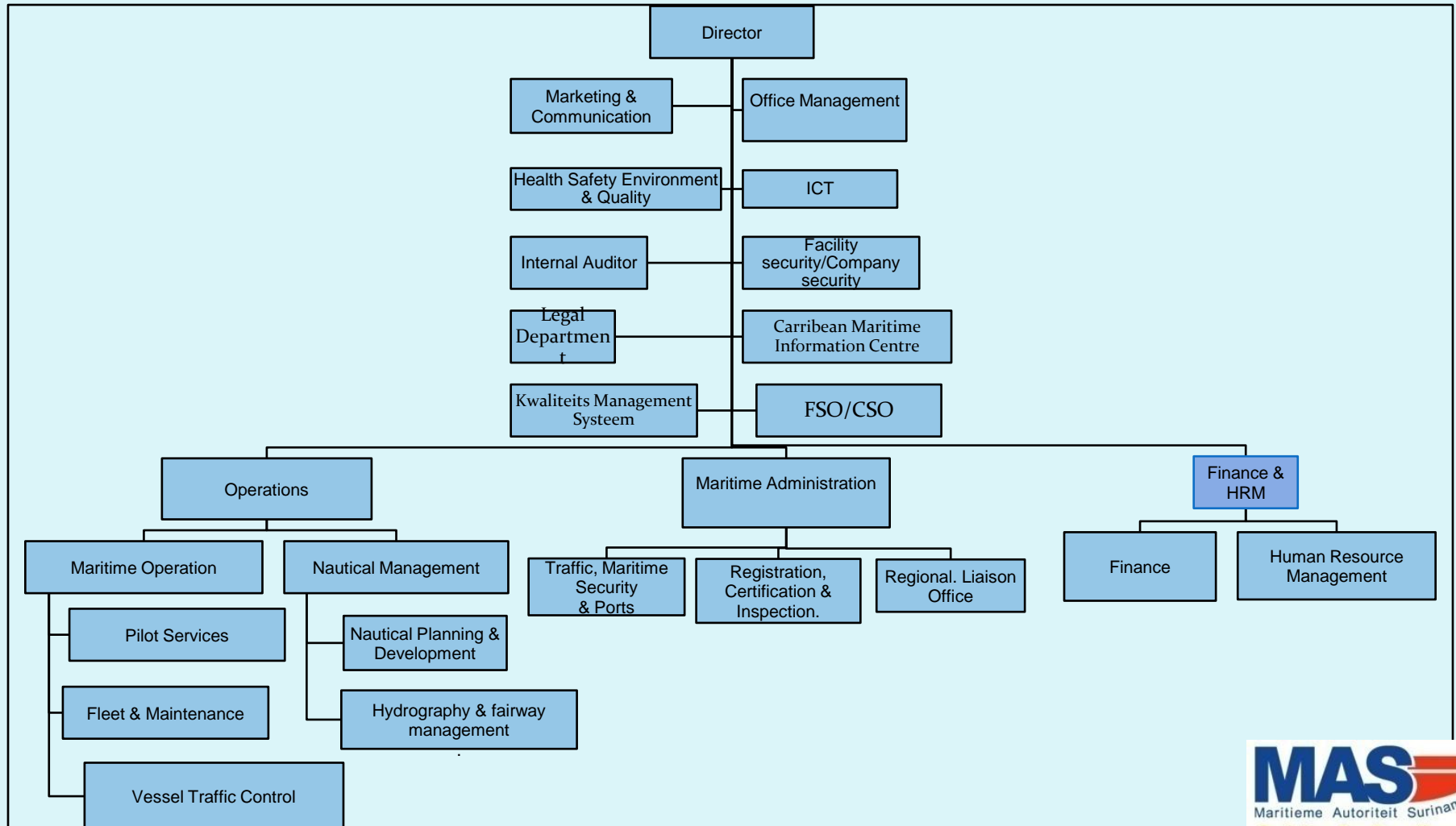




# The organizational structure of MAS



# Hydrographic activities

- depth measurements in the coastal area and internal waters.
- topographic survey
- tidal measurement
- planning and maintenance of aids to navigation
- obstacle determination
- notice to mariners
- bottom sampling
- environmental monitoring
- safety training to State locals
- object detection

# C- 55 update

## Status of hydrographic surveys

	A	B	C
Offshore passage /Small	100	40	0
Landfall Coastal passage/Medium	100	60	0
Approaches Ports/Large	100	80	0

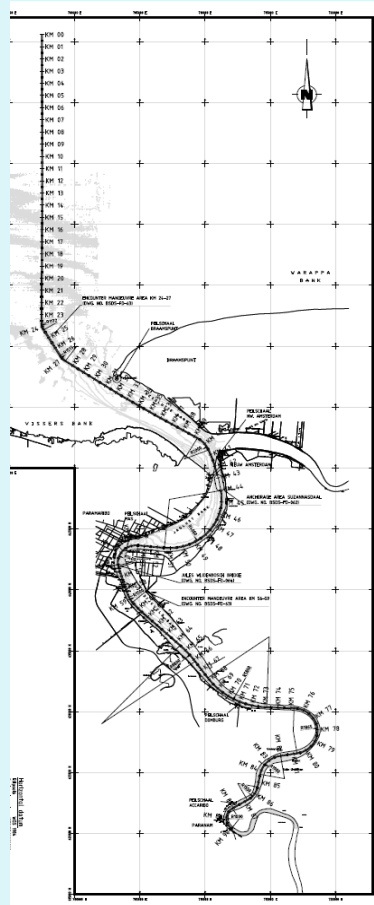
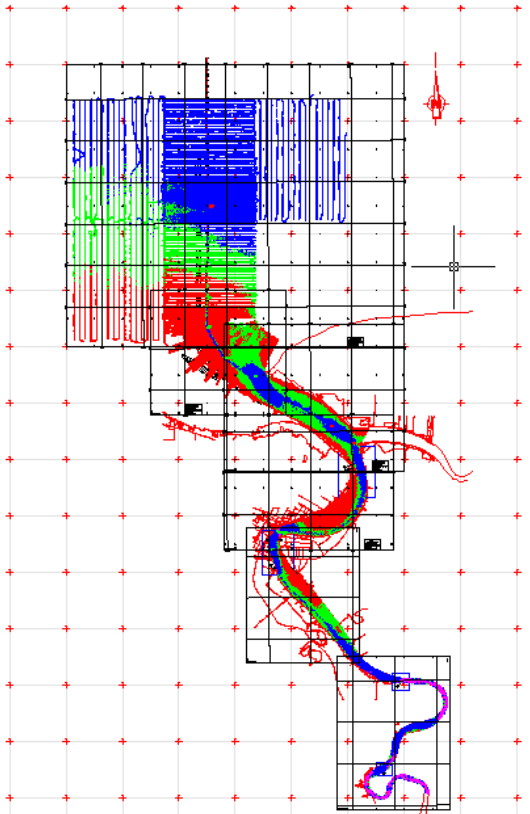
A = percentage which is adequately surveyed.

B = percentage which requires re-survey at larger scale or to modern standards.

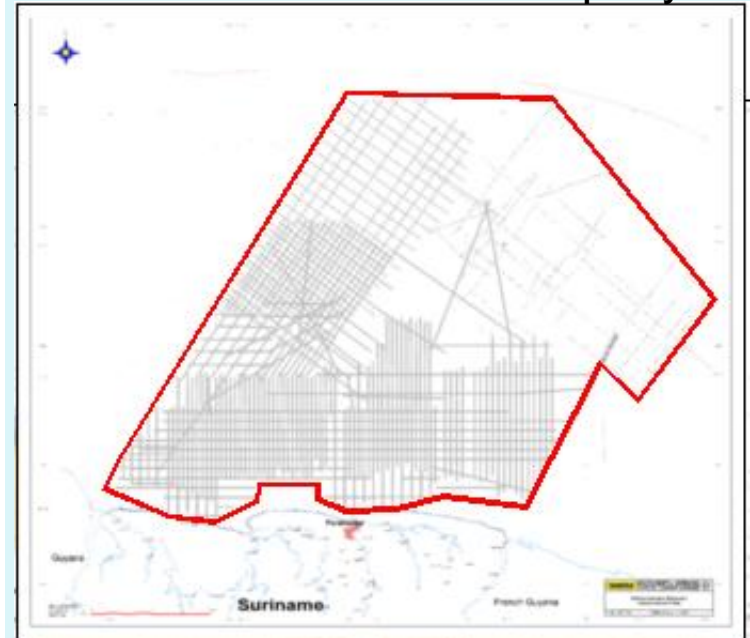
C = percentage which has never been systematically surveyed.

# C- 55 update

Suriname river 2011



Data from State oil company



Channel to be dredged: 63 km

# C- 55 update

## Status of Nautical Charting

	A	B	C
Offshore passage/Small	100	0	0
LandfallCoastal passage/Medium	60	0	0
Approaches Ports/Large	100	0	0

A = percentage covered by INT series, or a paper chart series meeting the standards in M-4.

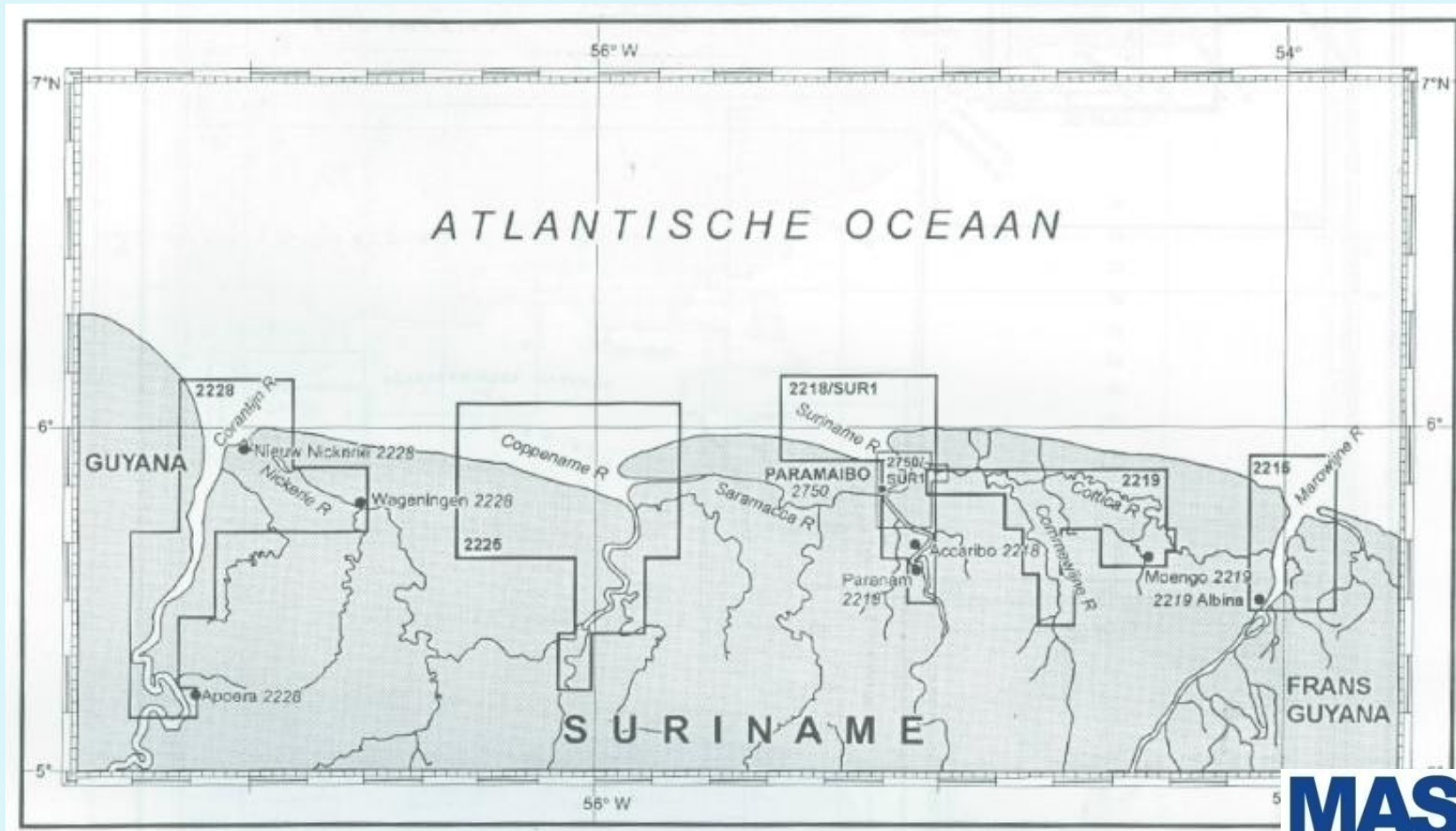
B = percentage covered by Raster Navigational Charts (RNCs) meeting the standards in S-61.

C = percentage covered by ENC's meeting the standards in S-57.

# National charts

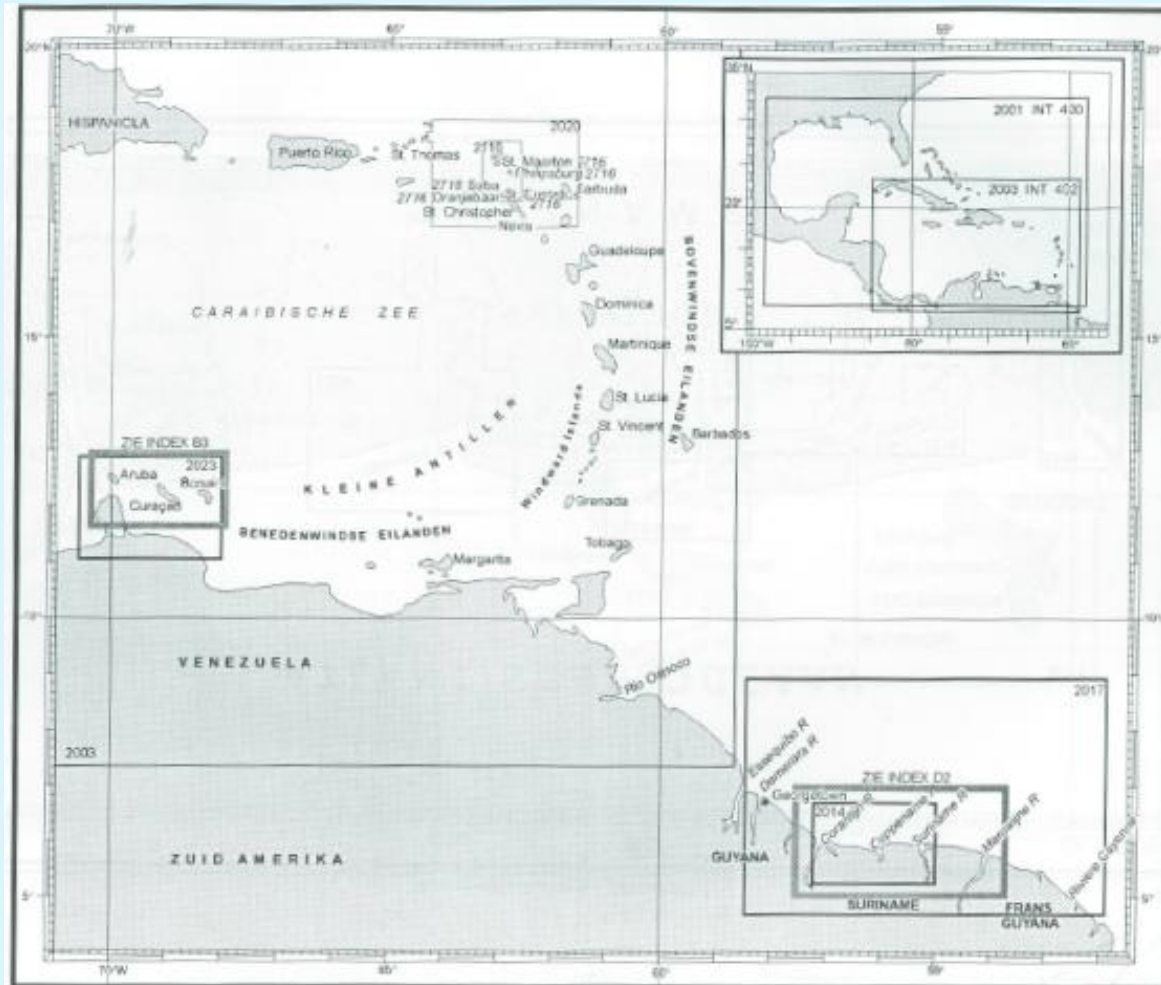
No	Area	Scale
NL2218 and ENC	Suriname river	1:75,000
NL2017	Demerara to Cayene	1:750,000
NL2219	Commewijne river	1:50,000
NL2215	Marowijne river	1:75,000
NL2228	Corantijn river	1:75,000
NL2225	Coppename river	1:75,000
NL2014 and ENC	Corantijn to Suriname river	1:250,000

# National charts





# National charts



# National Charts update

Paper Chart	ENC	scale	date
NL2014	ENC NL302014, North Coast of Suriname	(1:180.000)	2012
NL2218	ENC NL402218, Suriname River	(1:45.000)	2012

# National Charts update

Chart No 2014 :Suriname North Coast

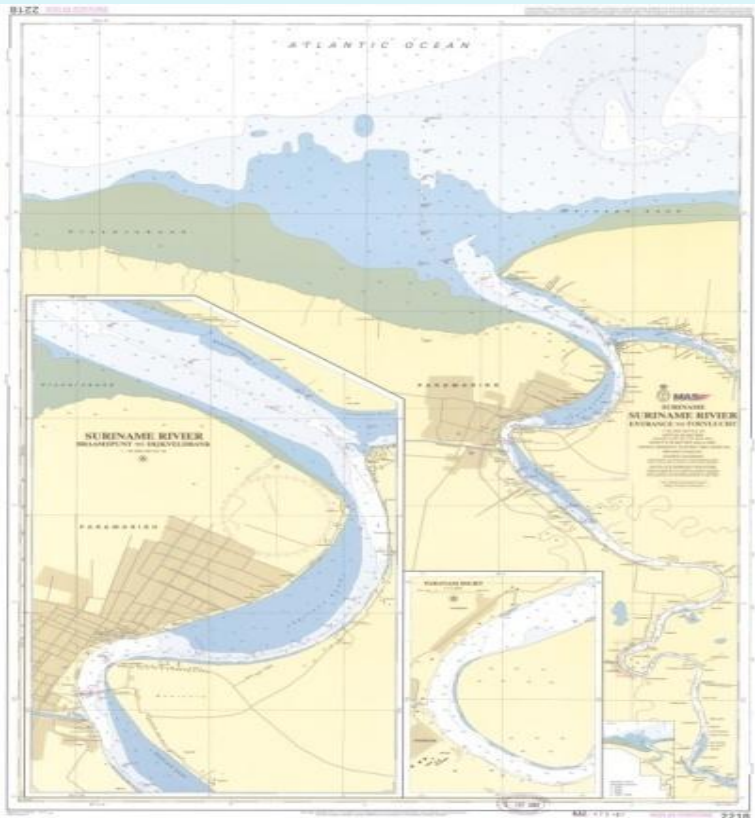
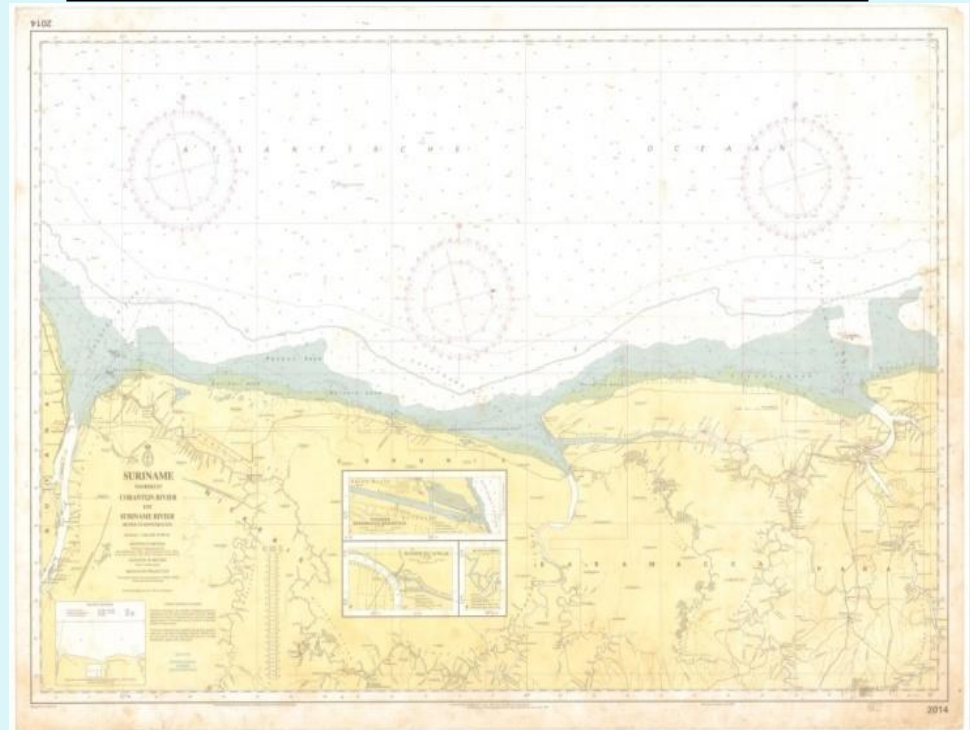


Chart no 2218: Suriname River



# Maritime Safety Information

SERVICE	Yes	No	Partial	NOTES
LOCAL WARNINGS	X(NtM)			
COASTAL WARNINGS			X(NtM)	
NAVAREA WARNINGS	X			NtM send to NAVAREA coordinator
INFORMATION ON PORTS AND HARBOURS			X	Through shipping agencies, nautical publications and on request

# Capacity Building

The MAS employees have participated in the courses listed below:

- MSI course held in Brazil presented by IHO, in April 2011.
- Basic Marine Cartography in the UK presented by IHO, in March 2011.
- Basic Hydrography course in Suriname, presented by Brazilian Hydrographic Service, in April 2011.
- Basic Side Scan Sonar course held in the USA, in October 2011.
- A course in Dredging Technologies in Antwerp, in May 2011.

# Capacity Building

- Required training;
- Nautical Cartography Level A and B
- Hydrography level A and B
  
- Required Intern ship;
- Tidal analysis
- Side Scan Sonar operation and image interpretation
- Paper Chart and ENC production

# Status of recent audits and ratification of protocol

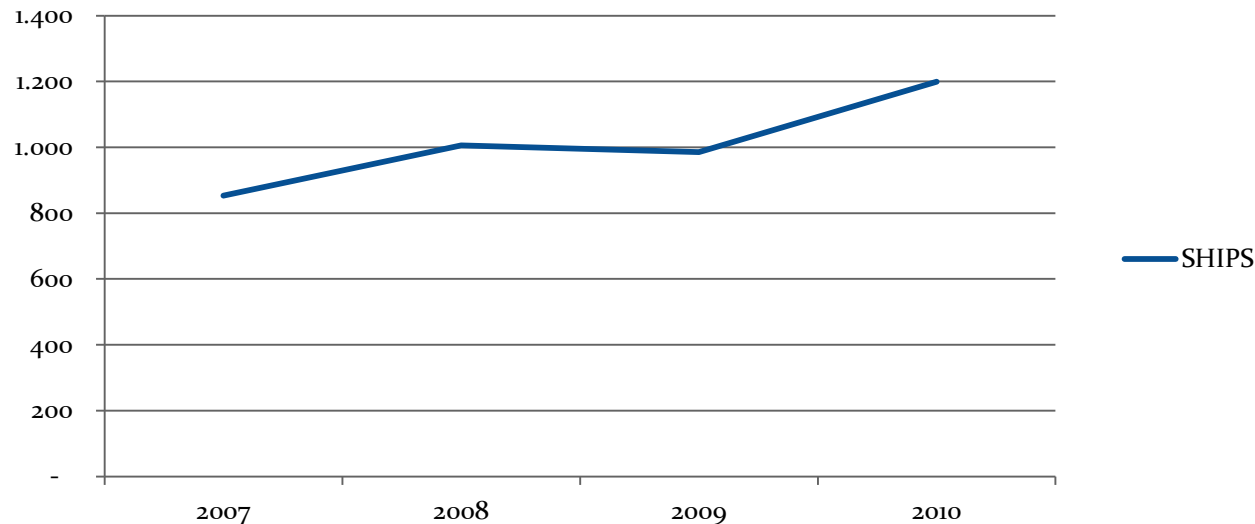
- The MAS certifies vessels and port facilities in accordance with SOLAS regulations, by annual audits. Port facilities that accommodate vessels of 500 GRT are required to be ISPS certified. Vessels that are ISPS certified are not permitted to moor at port facilities that are not ISPS certified.
- Suriname is the process of ratifying the Amendments of IHO protocol
- Suriname is preparing for the VIMSAS pre-audit. The regulation will be incorporated in Quality management system of the MAS.

# Shipping statistics

## Long-term overview

2010 increase 40 % and 2011 estimated increase of 64%

	2007	2008	2009	2010	2011
					Jan - June
SHIPS	853	1,006	985	1,199	712





# Current problems / restrictions

## Restriction in Capacity

No data infrastructure and experienced personal for nautical chart production

## Restriction in Equipment and vessels

MAS dispose of two survey vessels, one for internal water survey and the other for coastal surveys up to 60 nautical miles.

## Restriction in Finance

Surveys are planned by priority and are often limited due to lack of resources

# Three things that keep us awake at night

- How to increase the data quality and make data available to the mariner as soon as possible?
- Future plans that need to be implemented such as nautical chart production, maritime disaster action plan, etc.
- How to cover all the survey area of Suriname?

# Hydrography in non- navigational context.

- Determination of the limits of fishing grounds in cooperation with the department of fisheries.
- Surveys for construction and monitoring of dikes, dams and bridges in cooperation with the department of civil works.

# Other activities

- acquire a data infrastructure for nautical charts production for the sea area and inland waterways,
- extension of tidal station in coastal area,
- establishing a Marine Safety Information System,
- collaboration with several institutions national and international,
- development of inland waterways,
- dredging of the Suriname river from a minimum depth of 4.5m to 5.5m over a distance of sixty-three (63) kilometers.
- acquire equipment for adequate surveys,
- development of a Maritime Disaster Plan,
- continue hosting the Caribbean Maritime Information Center.

# Conclusion

- Production of the first ENC 's of Suriname
- Dredging of the Suriname river from a minimum depth of 4.5m to 5.5m over a distance of sixty-three (63) kilometers.
- Purchase of new equipment such as a Side Scan Sonar.
- Preparation for the VIMSAS pre- audit.
- Revision of the MoU with NLHO for the production of ENC.

# Thank You

