Royal Netherlands Navy

Disaster response to IRMA

Hydrographic mission Sint Maarten 2017

Relief activities

Multinational Carribean Coordination Cell (MNCCC) Curaçao

- NL, FR, UK
- Air and sea transport
- 900.000 Kg goods

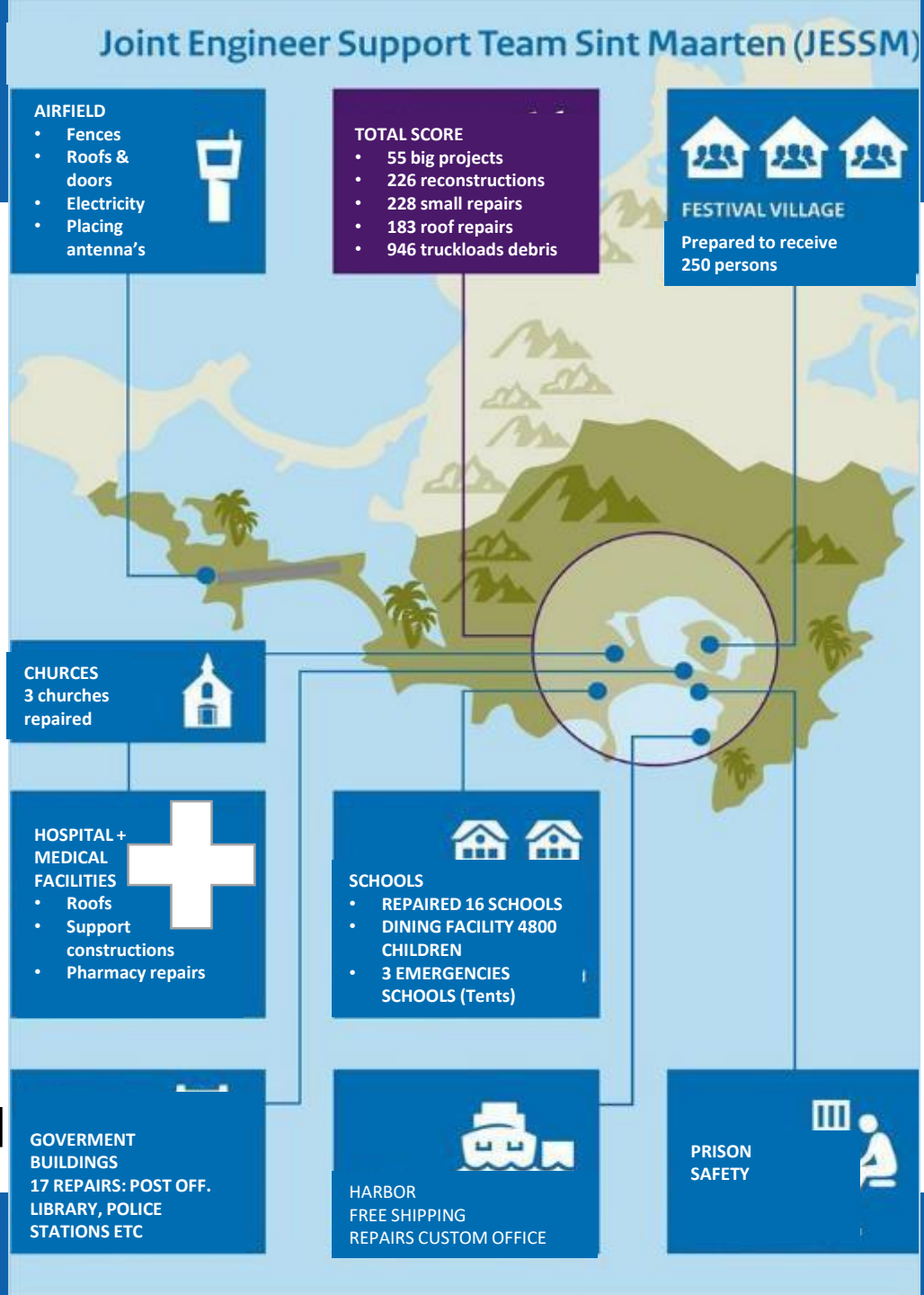
HNLMS Karel Doorman, Zeeland and Pelikaan

- 1.000.000 Kg materiel

NH90 Helikopter

- 48 patients Dominica

1000 Servicemen deployed



Hydrographic mission Sint Maarten 2017

Survey operations in support of humanitarian relief operations after hurricane Irma.

Main objective: accessibility of port of Philipsburg Sint Maarten,

- but….. as required

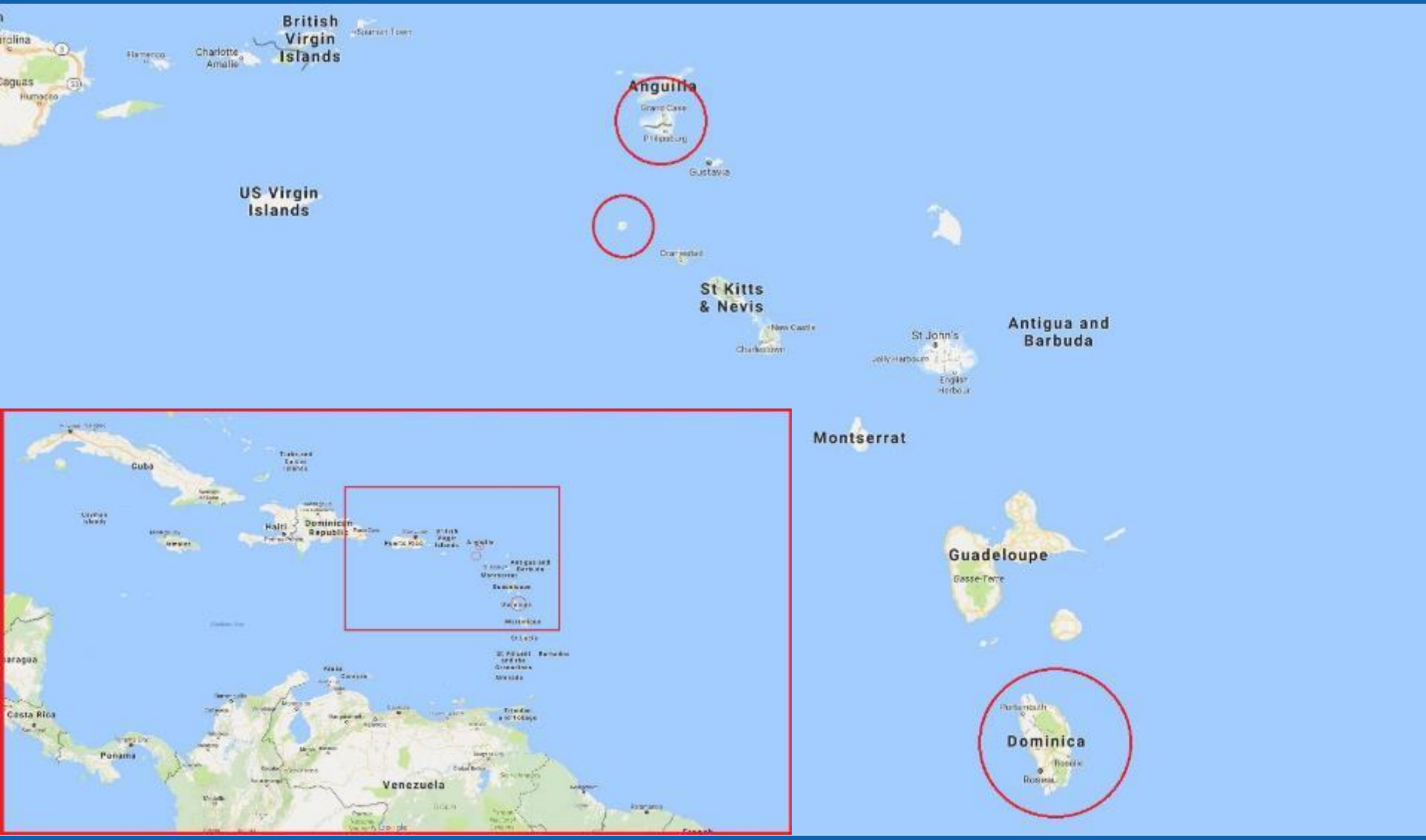
Hydrographic capacity:

- Two qualified hydrographic officers (driver/operator)
- RHIB equipped with integrated multi beam system, SSS, SV profiler. Use of Ellipsoid Referenced Surveying (ERS)

Platforms:

HNLMS Karel Doorman
&
RHIB2000

Surveys Leeward Islands



1) Sint Maarten

2) Saba

1) Groot baai & Simpson Bay

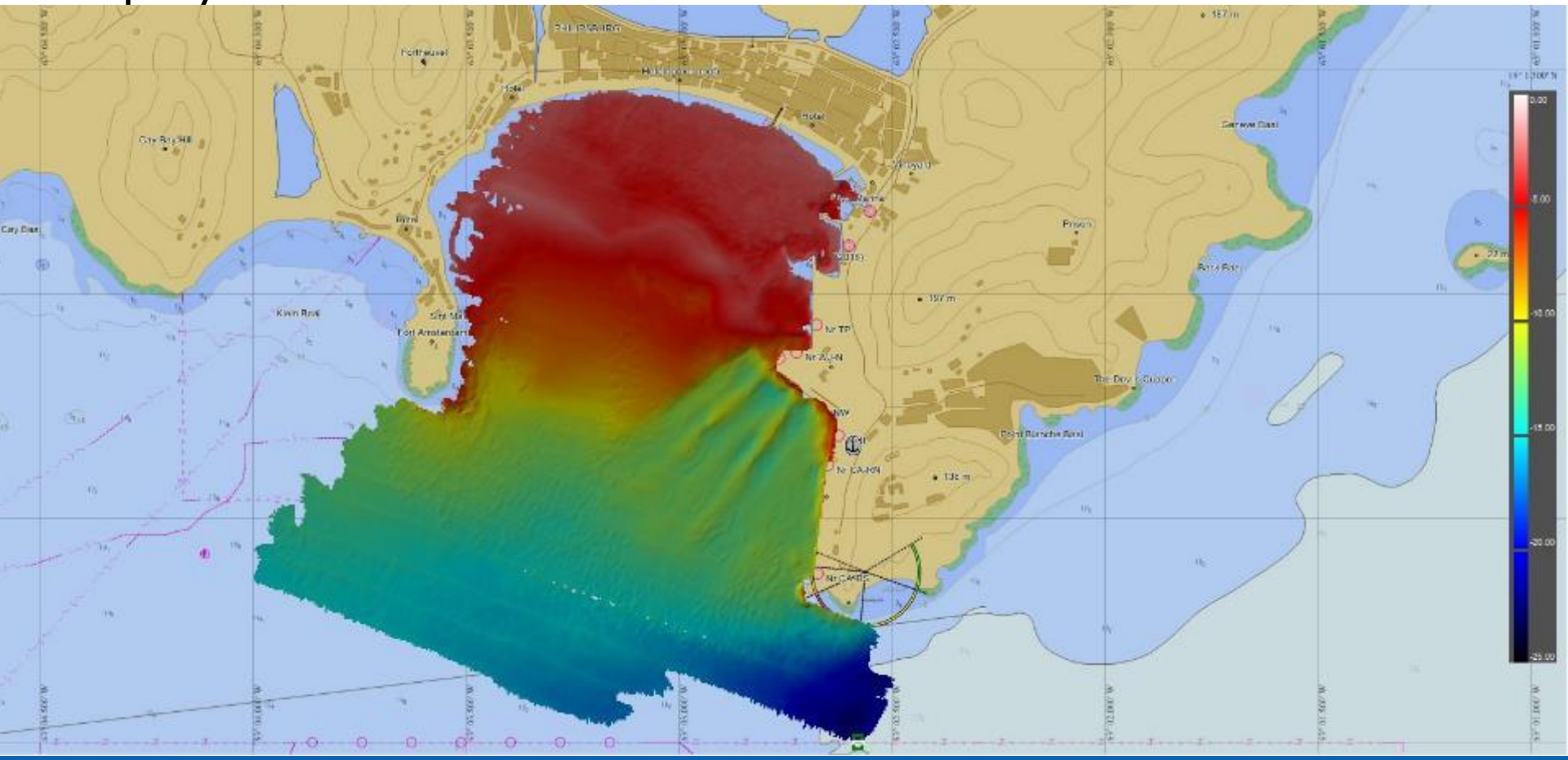
2) Fort Baai

3) Roseau

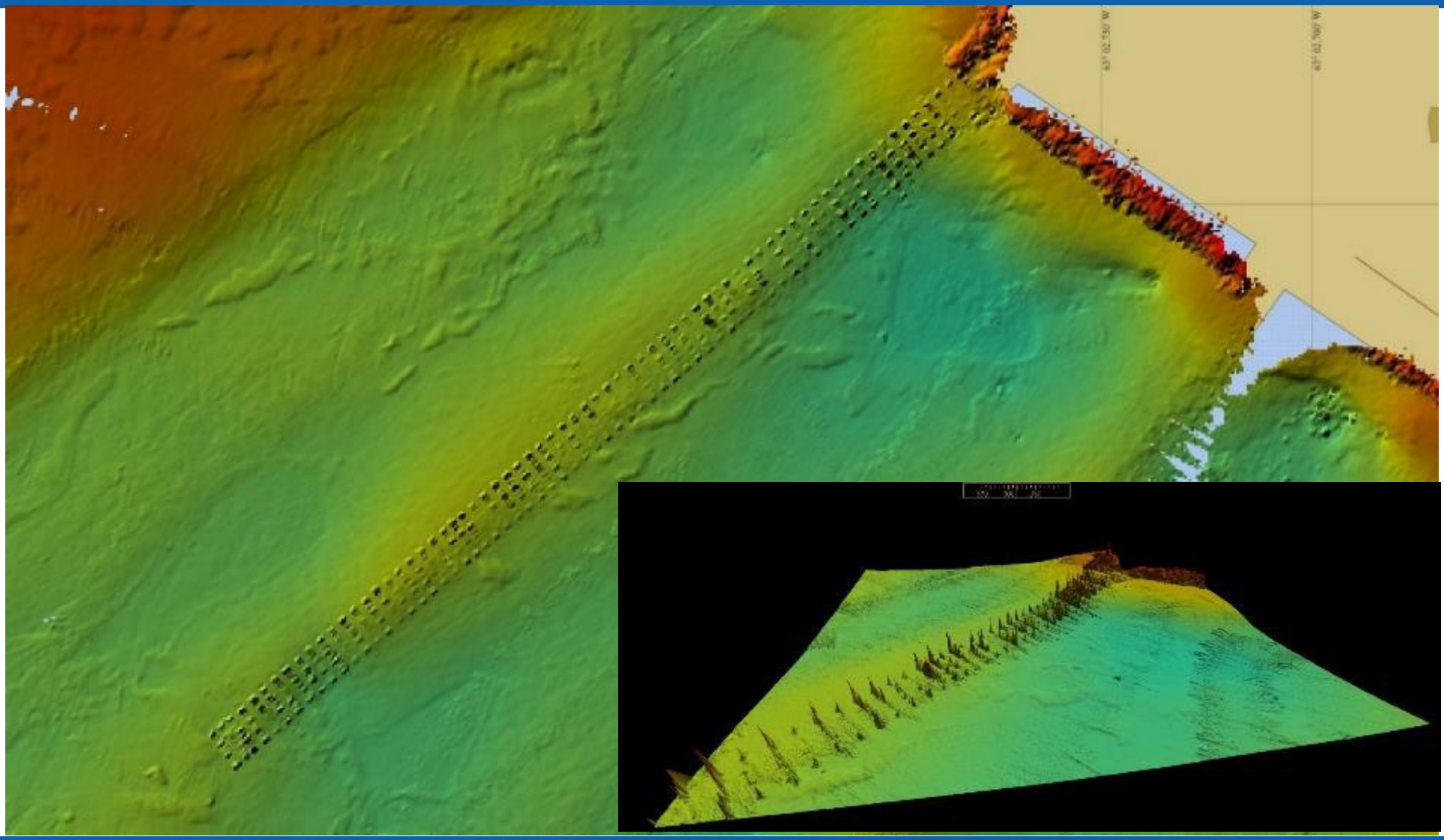
3) Dominica

Sint Maarten Surveys

Groot Baai, Philipsburg approach, anchorage and quayside



Jetty Surveys

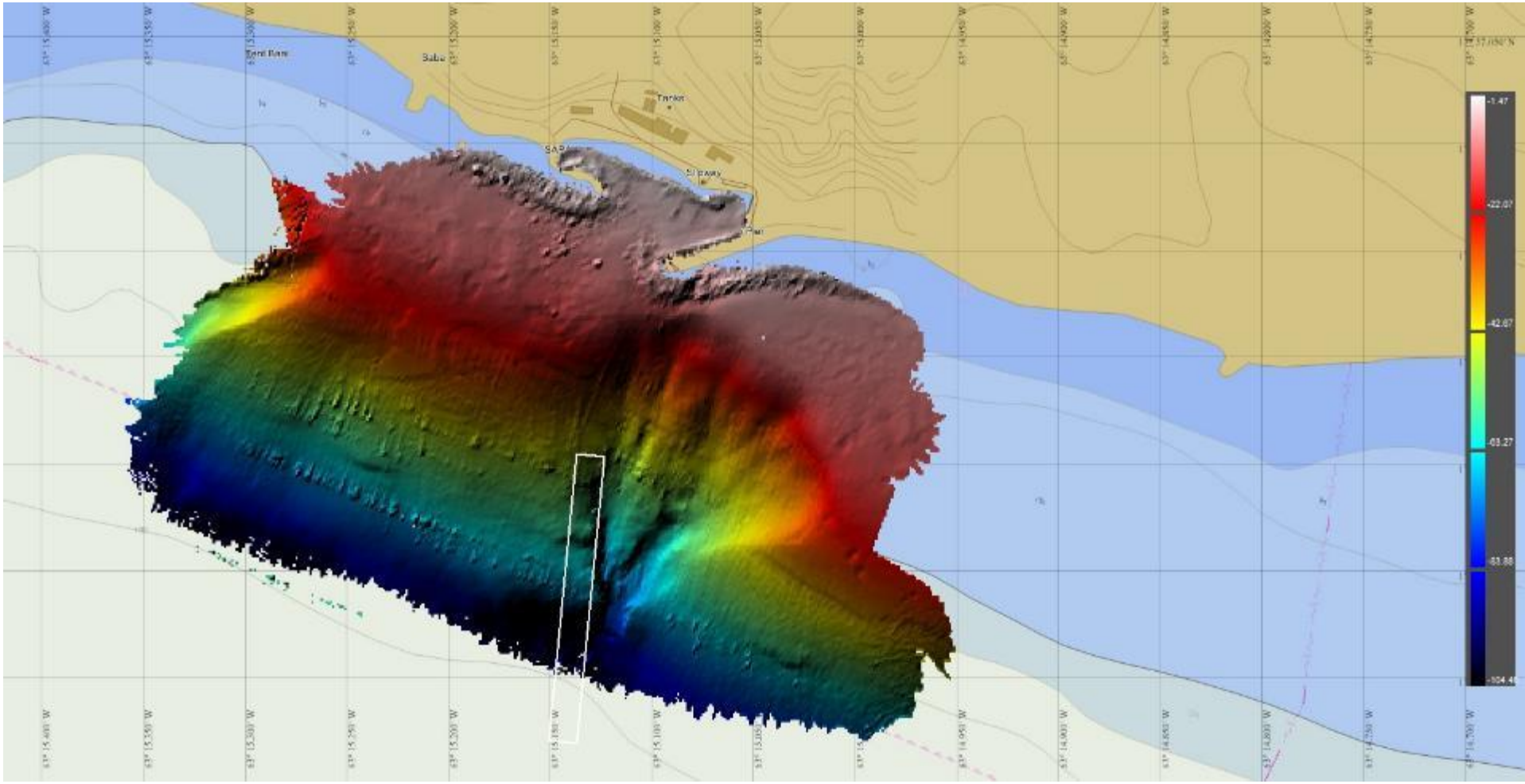


Sint Maarten Surveys

Simpson Bay, Philipsburg approach, anchorage and quayside

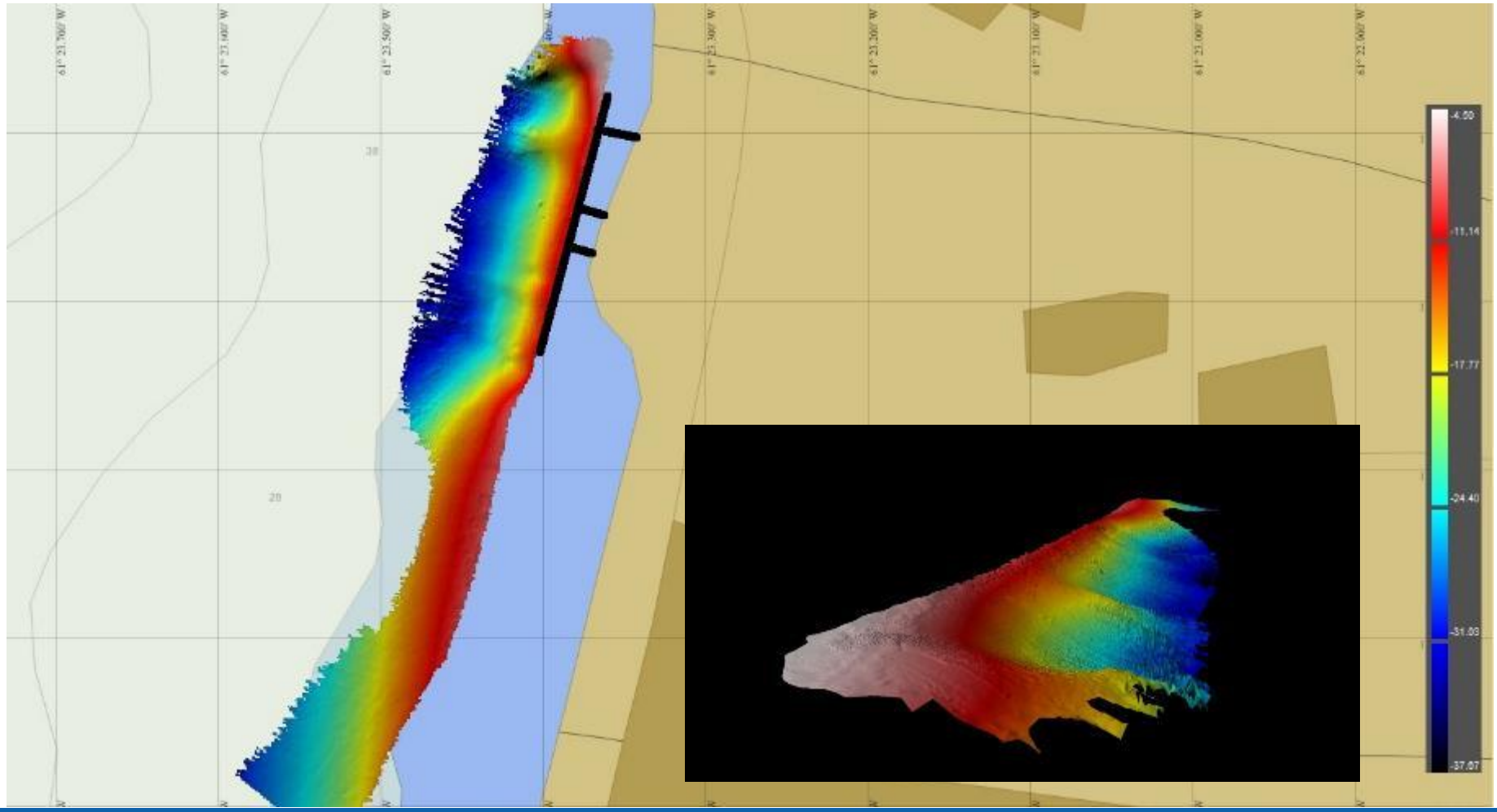
Saba Survey

Fort Baai (raw data) , approach, anchorage and quayside



Dominica Survey

Roseau, quayside



Survey results

- Most frequently used system MBES.
- SSS less used due to the expeditionary character.
- ERS provided a stable height reference.
- Coupling of ERS reference to chart datum via predicted tide
- Good SV profile is vital for small vertical uncertainty
- Bathymetry within special order standard

MACHC Statutes

ARTICLE 3 b) : OF THE AIMS

- The Commission has a **limited capacity** for disaster response (IHO resolutions 1/2005).
- The role of the Chair of the MACHC is that of a **broker** of hydrographic demand (from the affected countries) and supply (by countries offering assets).
- The Chair **cannot absorb** Member States responsibilities for Diplomatic clearance needed to deploy those hydrographic assets.

CONCLUSION:
FROM NL PERSPECTIVE NO ADDITIONAL ISSUES

Strategic Framework on Geospatial Information and services for Disasters

- Goal: informed decision making for DRM
- Means: Geospatial information and services
- Regional level: collaboration, plan and train, share data, regional geoportals, resource sharing, etc, etc.

Interesting: "*To optimize the use of geospatial information products for the development of common operational pictures of disaster events…*"

Relation with MACHC ENC viewer

- Task MEIP Coordinator to investigate further use of viewer for DRM?