CHS Priorities Planning Model

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Purpose of this presentation


- Receive comments and feedbacks.
CHS Priority Planning Model (CPPM)

• The CPPM supports CHS’ survey and charting priorities identification, planning, monitoring and reporting functions.
• It provides CHS management and employees, and soon partners and clients, with a single window to CHS plans and priorities over a 1 to 5 year horizon.
• The CPPM is an aid to the decision-making part of the CHS planning process.
• It also helps interfacing with senior management and our partners such as the Canadian Coast Guard, Navy and other hydrographic organisations.
• It contributes maximising resources, equipment and time at sea, and complements regional knowledge.
• Developed on a Geographic Information System (GIS) platform, the CPPM includes and takes into account Government of Canada priorities.
• Client input is not yet modeled as part of the analysis matrix, but it is needed, essential and is part of the decision process.
The CHS CPPM is based on a GIS that takes into account CHS existing bathymetric and charting information as well other sources, to which a weight is attributed.

- Traffic Pattern, derived from AIS information
- Water Depth, CHS and GEBCO
- Survey Equipment rating,
- Existing Surveys, quality of existing data and chart are assessed
- Port Tonnage
- Risk of grounding, Arctic only
- Anchorage Areas
- Type of ships (draft)
- Seafloor Complexity
- Chart age, reliability (Wellness), nbr of Notices, ...
- Sales
- Meteorological Data (Ice and Wind), secondary attribute no weight attributed
- Tidal Windows- if necessary or not
CHS Priority Planning Model - Visuals of the Results Case

Corridors - Surveys (BDB)
AIS - Water Depths
Seafloor Complexity - Survey Requirements

Result

5

High Priority
Medium priority
Low priority
CHS Priority Planning Tool - Output
CPP Model - GIS Model and Matrix

GIS
- Seafloor Complexity
- Corridors
- Water Depths
- Survey Requirements
- Anchorage Areas
- Tidal Windows
- Anchorage Areas
- Tidal Windows
- Wind Data
- Ice Concentration

Geographic Area
- Model Output Priority Areas Geographical Areas
- Priority Areas overlap with Charts - Choose top 100 Charts

Chart Based

Matrix
- AIS Trip Counts
- Tonnage Per Port on Chart
- Chart Daum and Depth Units
- Risk of Grounding (CCG Matrix)
- Sales from 2014-2015 Fiscal Year
- CHSDF Risk Level for Chart
- Chart Wellness
- Language (Bilingual)
- Release Date

Top 100 Charts
- Future Factors to Implement into Modeling

Future Factors to Implement into Modeling
- SAR Incident Reports
- Yearly AIS Data
- Accurate Depth Data
- Improving Shorelines
- Improving Port Location
- Client Feedback
AIS & Vessel finder

**M T BEECH GALAXY**

- Last report: Aug 16, 2015 02:38 UTC
- Ship type: Chemical/Oil Products Tanker
- Flag: Hong Kong
- Destination: XIAMEN
- ETA: Aug 20, 22:09
- Lat/Lon: 122°08.9' N/103°39.59'E
- Course/Speed: 66.5° / 10.8 kn.
- Current draught: 9.9 m
- Callsign: VRCL5
- IMO / MMSI: 9400411 / 477653200

**STOLT SAPPHIRE**

- Ship type: Chemical/Oil Products Tanker
- Flag: Liberia
- Destination: DURBAN
- ETA: Sep 01, 18:00
- Lat/Lon: 5°45.96' N/100°34.627'E
- Course/Speed: 345.7° / 10.7 kn.
- Current draught: 9.8 m
- Callsign: ELEG2
- IMO / MMSI: 9309531 / 636007679
Additional usage for the CPPM

Regional results – Belledune priorities
Aligned on marine traffic
CPPM – Priority Zones

- Labrador Coast priority areas
- Charts in cyan are “touching” the priority areas
- Selection criteria; Shallow water, corridors…