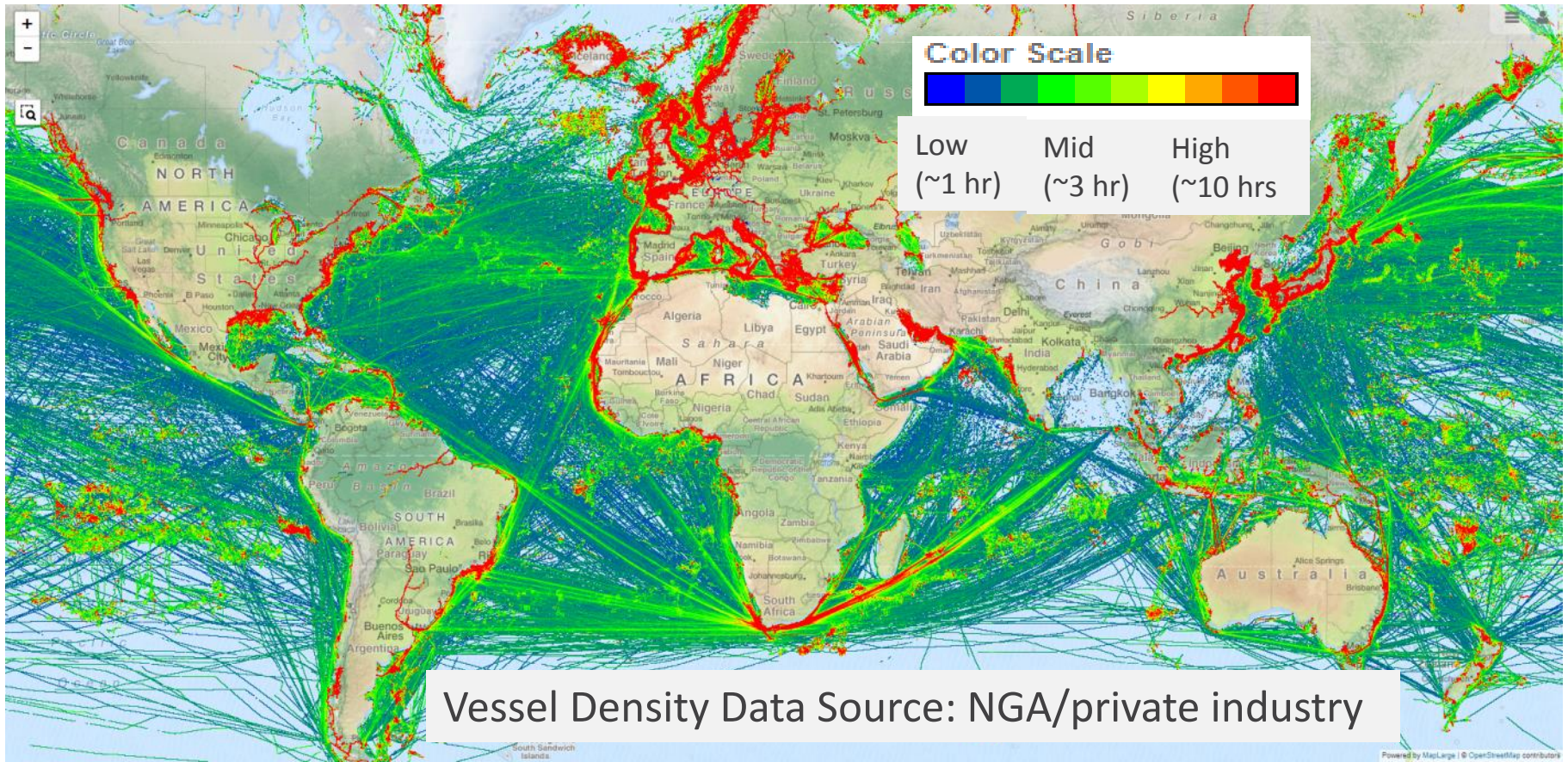




# Global Maritime Traffic Density Service (GMTDS): Leveraging Automatic Identification Systems to map global maritime vessel traffic

Approved for public release, 21-304

# Global monthly vessel traffic grids at 1-km scale for October 2020



*The Project Analyzes **Years** of AIS Historical Data + Ongoing Live Feeds  
**Billions** of Historical Records + **Millions** of New Records Added Every Month*

NATIONAL GEOSPATIAL **NGA** INTELLIGENCE AGENCY

# Methods

## Goal 1: Global AIS Product

- Produce historical global maritime traffic density maps leveraging S-AIS

## Goal 2 Co-design -

Proactively engage mission partner users in the development process

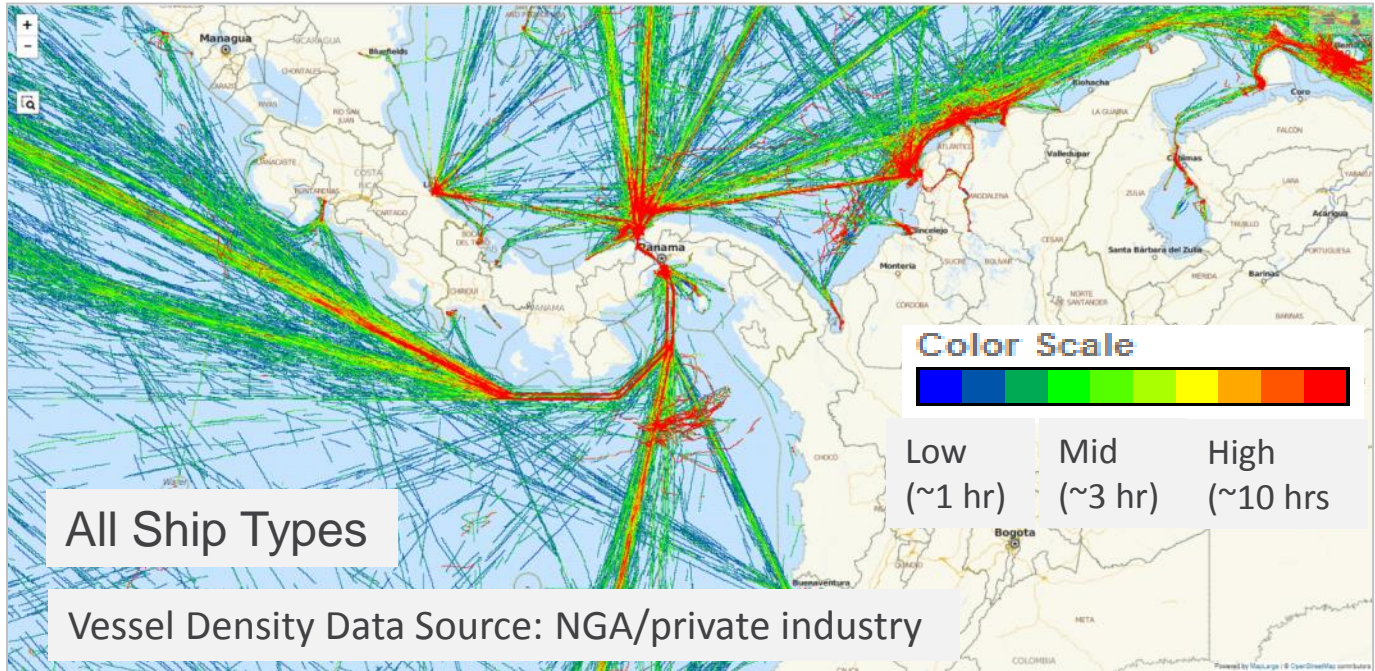
## Goal 3 Wide

**dissemination** - Develop, stand-up, and maintain public facing OGC Services (i.e. WMS)

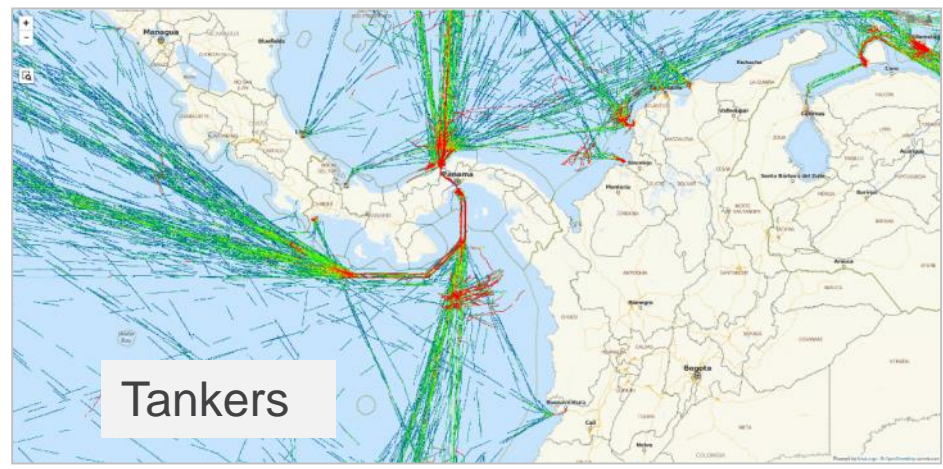
*Adapted from the Published **EMODNet AIS Density Methodology** generating a **GLOBAL** 1km Grid Squares containing calculations of Ship Hours per Month*



# Panama Canal Traffic in October 2020

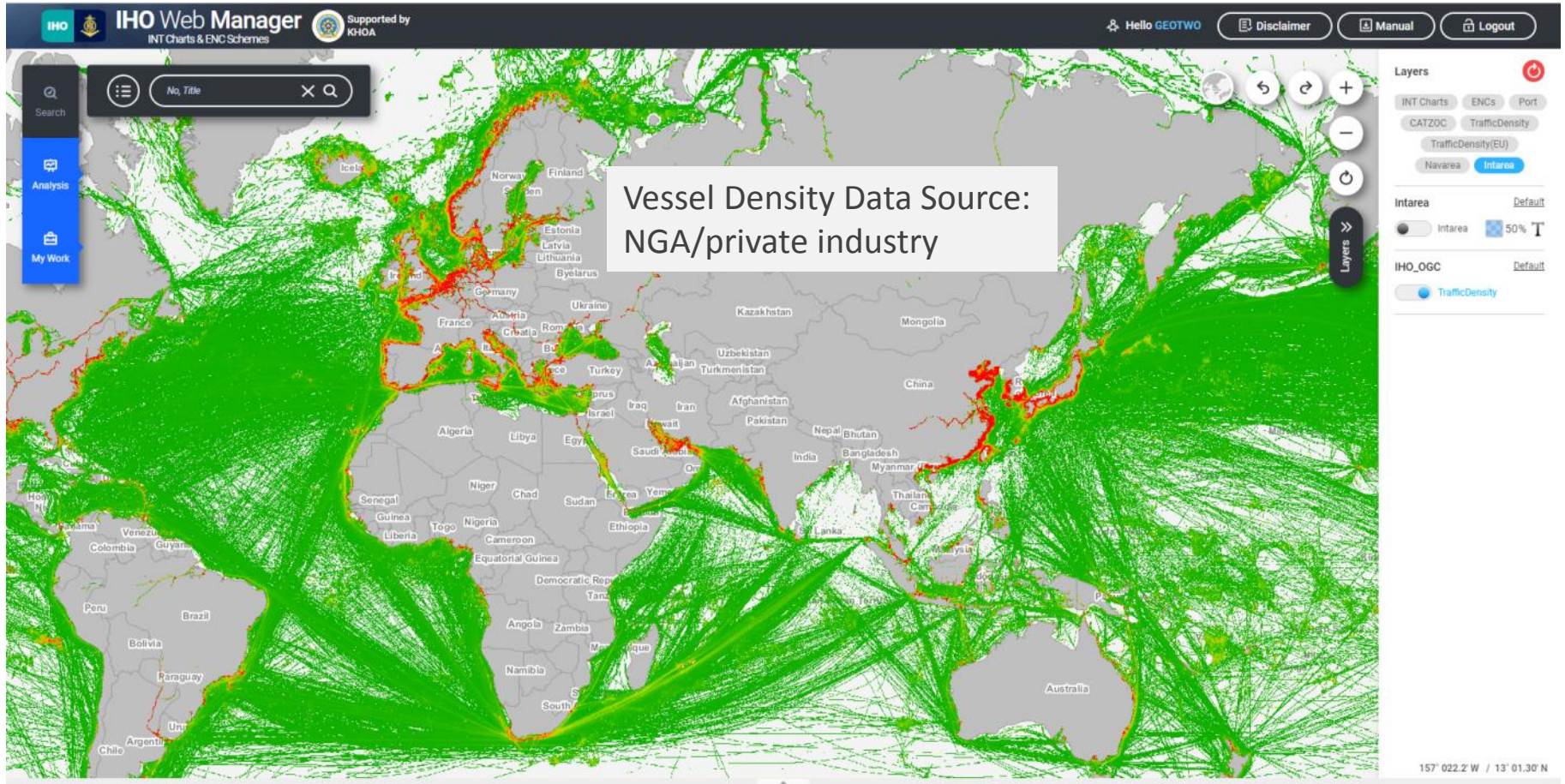


- E.g. Types:
- Cargo
  - High-Speed
  - Other
  - Passenger
  - Pleasure Craft
  - Sailing
  - Service
  - Tanker
  - Tug & Towing
  - Unknown





# Dissemination



*Screenshot of International Hydrographic Organization (IHO) INToGIS showing October 2020 traffic data*

# Mission Stakeholder Engagement

## OTHER MARITIME & MISSION STAKEHOLDERS

### ***CMTS***

Leverage GMTDS products for promoting Maritime Safety

### ***Navy, Coast Guard, etc.***

Understand how GMTDS fits into existing toolsets and data sources available for maximum mission benefit

### ***Other Fed. Orgs***

NOAA, US-HPC, and other Maritime relevant orgs

## IHO STAKEHOLDERS

### ***INT to GIS Team***

Falls under KHO & Data Centre for Digital Bathymetry. Providing Technical support for INT to GIS integration.

### ***RHCs***

Engagement with Regionally focused groups with specific interest on maritime traffic in various global areas

### ***Conferences & WGs***

Understand how GMTDS may be briefed and received by various conference & working groups within the IHO

## NGA STAKEHOLDERS

### ***GMTDS PMO***

Responsible for overall program execution and requirement prioritization for future missions

### ***SFH Mission Users***

Engage Analysts and Leads for NGA Maritime Safety Office organizations for product creation

### ***Other Mission Users***

Engagement with Analysis and Technology stakeholders promoting NGA internal & external engagement

## Updated progress and outlook (8-JUN-2021)

- Current Beta Testing engagement has yielded rich feedback from various community stakeholders, including Regional Hydrographic Commission members
- Beta Testers are submitting results via survey form created by MapLarge and through one-on-one interviews with NGA/MapLarge
- Dissemination: Goal is to provide open and easy access to the widest spectrum of users possible with few barriers to accessibility
- Initially this will focus on IHO INTToGIS Web Manager, but we anticipate utilizing other suitable platforms to broaden access
- We anticipate community availability by the end of 2021

