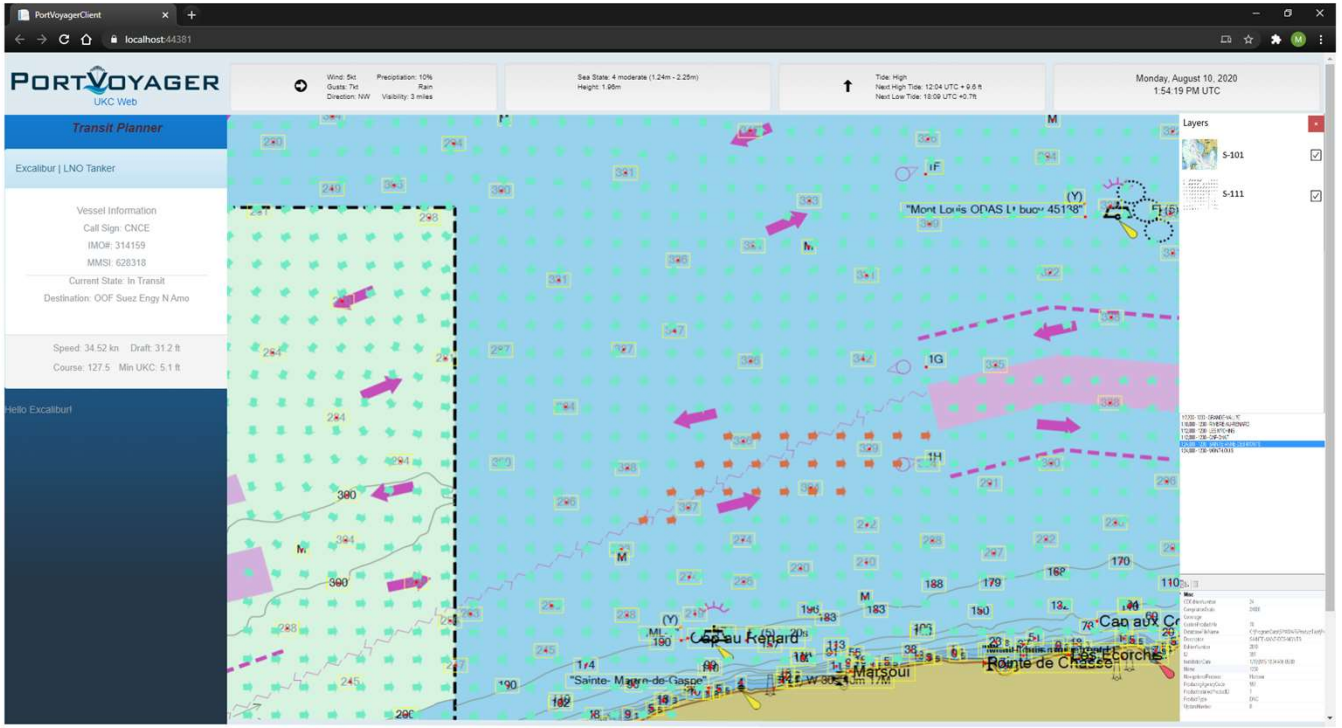
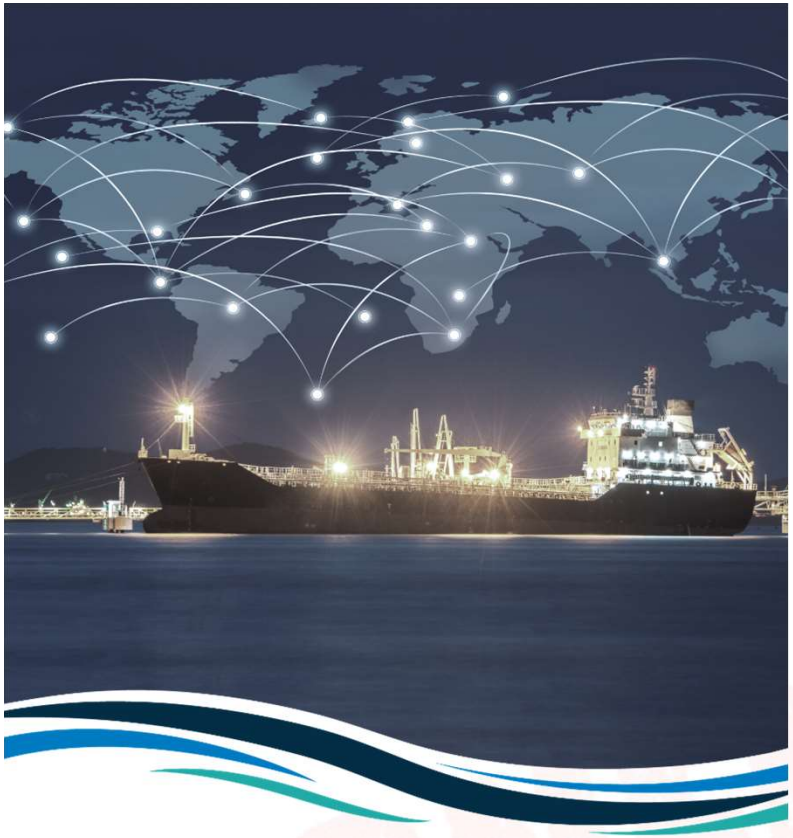
GeoNavigation Technologies

Trust and Safety Underway

Agenda

- Port Voyager NOAA AWS S-111 Implementation
  - Background
  - Technology
  - Process





PORTVOYAGER

The Port Voyager software is a maritime port traffic management support system. Its primary purpose is to develop and distribute S-129 Under Keel Clearance (UKC) route plans to transiting vessels to reduce the risk of grounding and optimize route plans based on port traffic. The software uses S-100 hydrographic information such as weather, tides, currents, vessel characteristics, and real-time data.

- Purpose is to develop and distribute S-129 Under Keel Clearance (UKC) exchange sets to transiting vessels to reduce the risk of grounding and optimize route plans based on port traffic
- Functionality
  - S-129 UKC exchange set generation and distribution
  - UKC and anti-grounding analysis
  - Port traffic management, monitoring, analysis, and optimization
  - Control Center Route planning and monitoring
  - Chart Display
  - Day, Night, Dusk, and custom presentation modes
- Cross platform
- Product Webpage
- Product Slick

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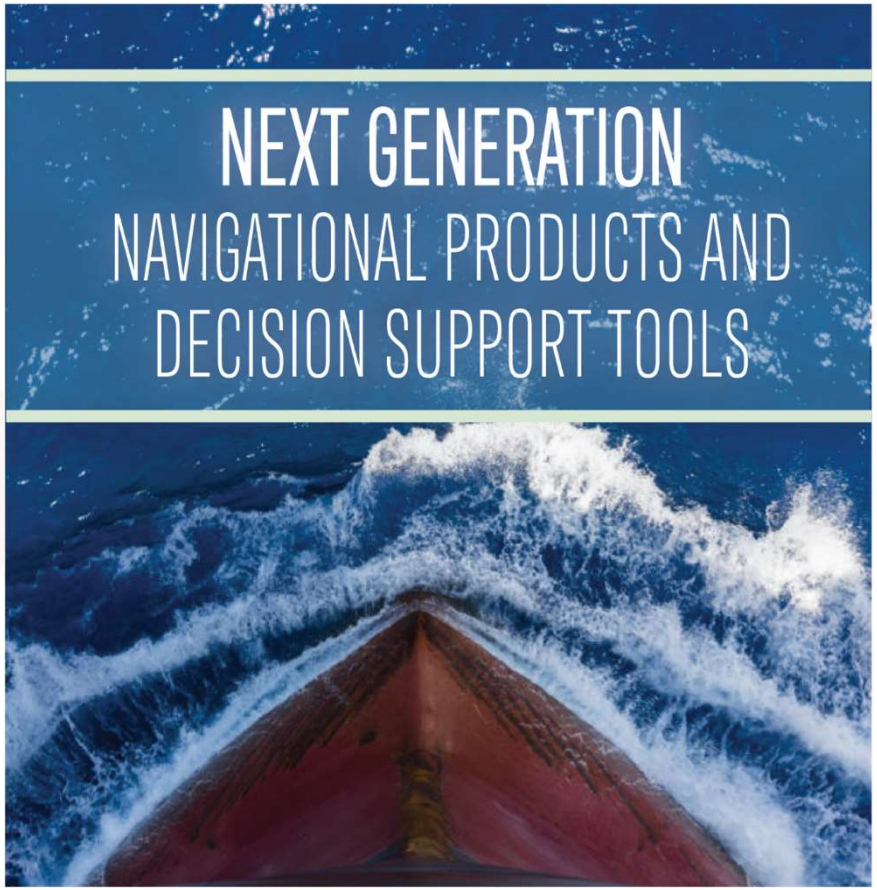
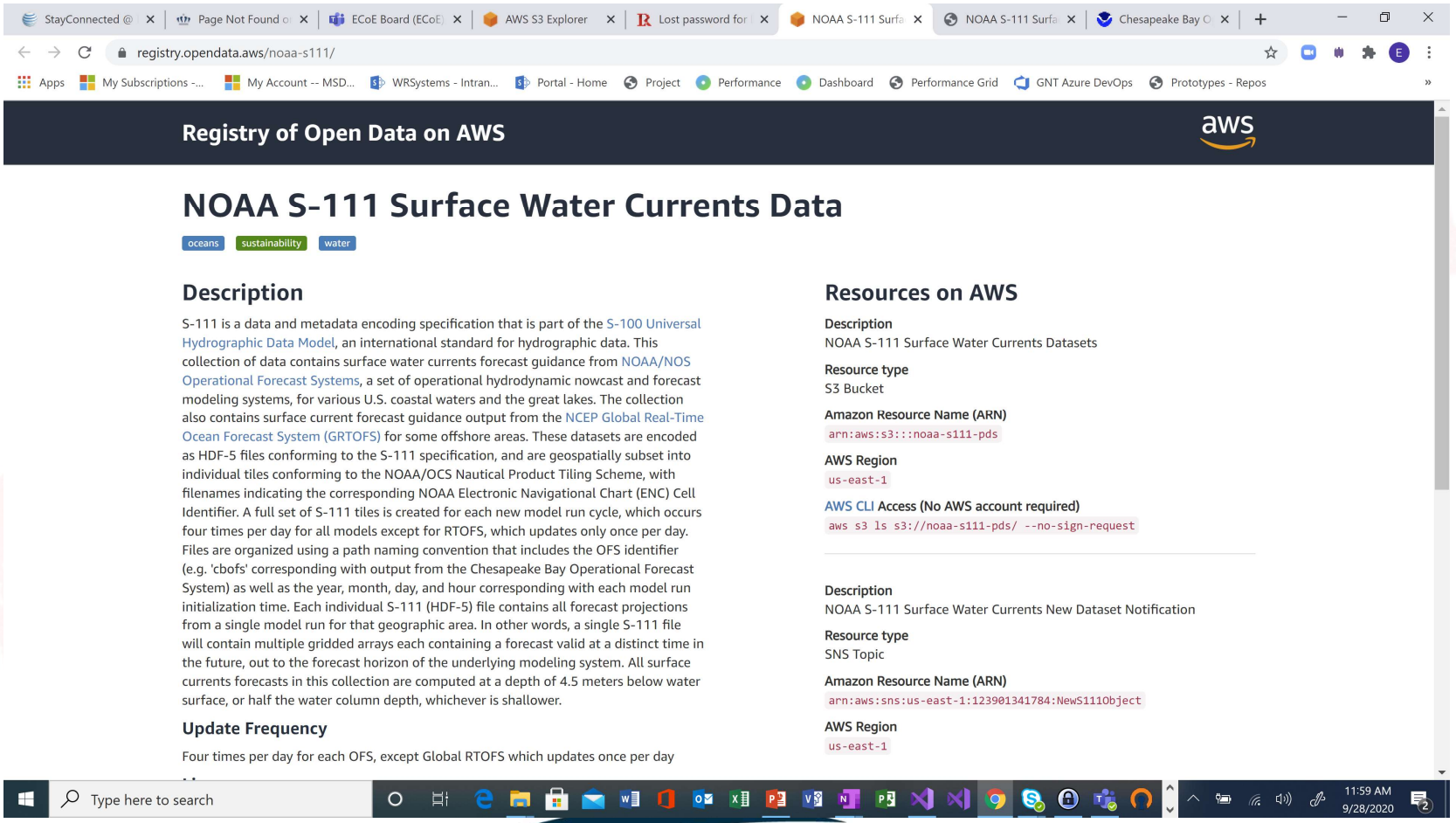
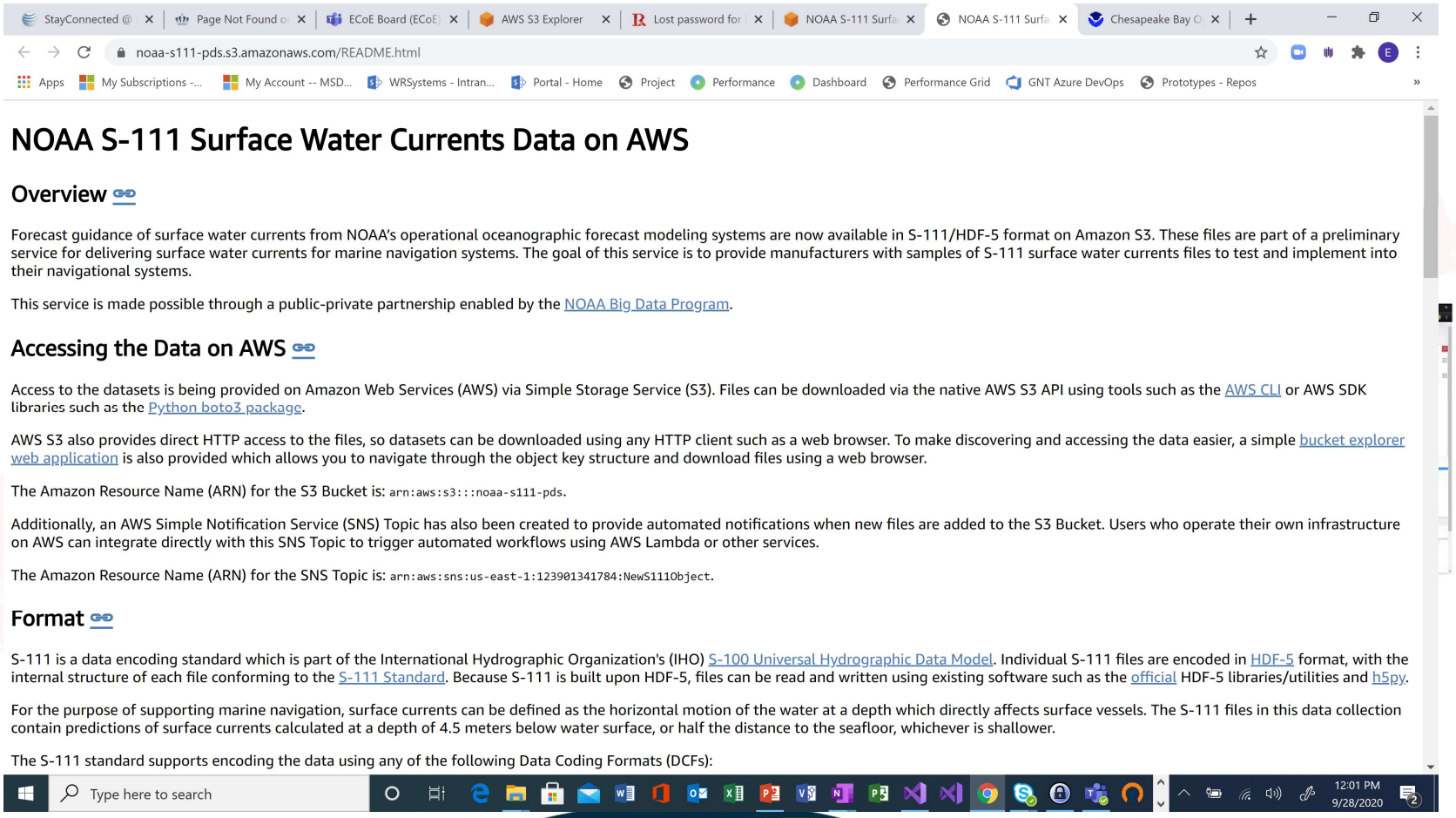
- Port Voyager Focus
  - New S-100 navigational products
  - With S-57 legacy support
- Port Voyager AWS Technology Stack
  - .NET Core
  - C#
    - using Amazon;
    - using Amazon.S3;



Process - Step 1: Reviewed Registry, https://registry.opendata.aws/noaa-s111/

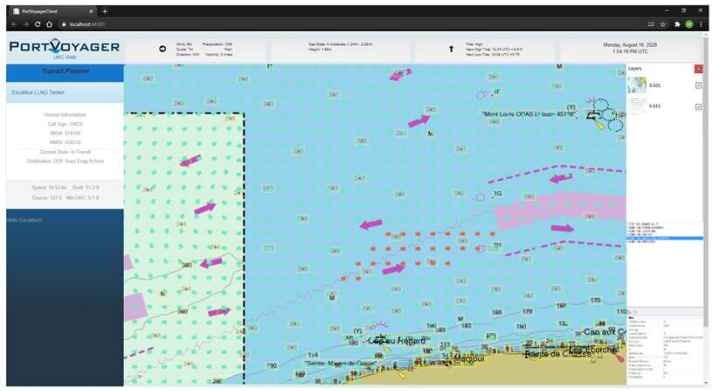


Process (Cont.) Step 2: Reviewed ReadMe information, https://noaa-s111-pds.s3.amazonaws.com/README.html



Process (Cont.)

- Process
  - Step 3: Need to use;
    - Amazon Resource Name (ARN)
      - arn:aws:S3:::**noaa-s111-pds**
    - AWS Region
      - us-east-1



  - Create the modelCatalogKey to get the S111 catalog.xml file to get the appropriate metadata
  - We used the objectKey to keep the same folder structure locally
  - Using FileStream methods, retrieved the requested dataset (.h file)
  - Used the S-100 Lua transformation process for product rendoring

- Step 3: Created a NOS

Questions?

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Contact:
Edward P Weaver, D.Eng. | PMP, CDSP
GeoNavigation Technologies, Director
2500 Almeda Avenue
Norfolk, VA 23513-2403
eweaver@geonavtech.com or
info@geonavtech.com
+1 757.502.8350

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