



# Regional Maritime Picture (RMP) Challenges

## Lesson 2.1

09/24/2020

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## Lesson 2.1 Learning Objectives

Upon successful completion of this lesson, the student will be able to:

- Identify safety and security concerns within their RMP
- Demonstrate the knowledge to interpret data to monitor, control, and survey their RMP
- Utilize SeaVision tools and resources to gather information, make recommendations, and create situational awareness of their RMP



## Safety and Security Concerns Within an RMP

- Some of the most common safety and security concerns of an RMP are listed below:
  - Illegal, Unreported, and Unregulated (IUU) Fishing
  - Illegal Dumping
  - Smuggling
    - Drugs, slavery, consumable goods, oil, etc.
  - Piracy
  - Exclusive Economic Zone (EEZ) Disputes

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- This list does not contain every possible RMP concern
- What safety and security concerns do you have regarding your RMP?
- Do you have an example of something that happened within your RMP in the last 90 days we can assist with?
  - This can be looked at by the instructors to see how SeaVision could have been useful
- Next, we will discuss the responsibilities of an analyst and the questioning attitude they need to have



## Analyst Questioning Attitude

- An analyst is principally responsible for interpreting data, formulating reports, and making recommendations based upon the research findings
  - An analyst must have a questioning attitude
  - Information gathering starts by asking six simple questions:
    - Who?
    - What?
    - Why?
    - When?
    - Where?
    - How?

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- These questions are in no particular order and can be arranged to best benefit the user and the information they are trying to gather
- These questions can be applied at any level when looking at the raw data within SeaVision or when looking at the data taken from SeaVision and presented in reports



## Example Questions

- **Who** is the country of economic benefit?
- **What** does their history track look like?
- **Why** did they have a five-hour Automatic Identification System (AIS) gap?
- **When** did they depart their last port of call?
- **Where** was their last inspection?
- **How** long did it take for them to arrive?

- Next, we will get into a scenario to get you thinking about that questioning attitude



## Scenario

- Your agency received a phone call
  - A local fishing vessel captain reports seeing a cargo vessel conducting suspicious activity near position 07-11'10" N/112-09'48" E around 13:25 UTC on 30 April
  - The captain can make out part of the name "Pride" on the vessel
  - He says it has a red and blue hull with a yellow superstructure and is about 150-200 meters long, heading west
  - Your agency wants to identify and locate the vessel

- What information do you feel is important in this scenario that will assist you in monitoring the RMP?



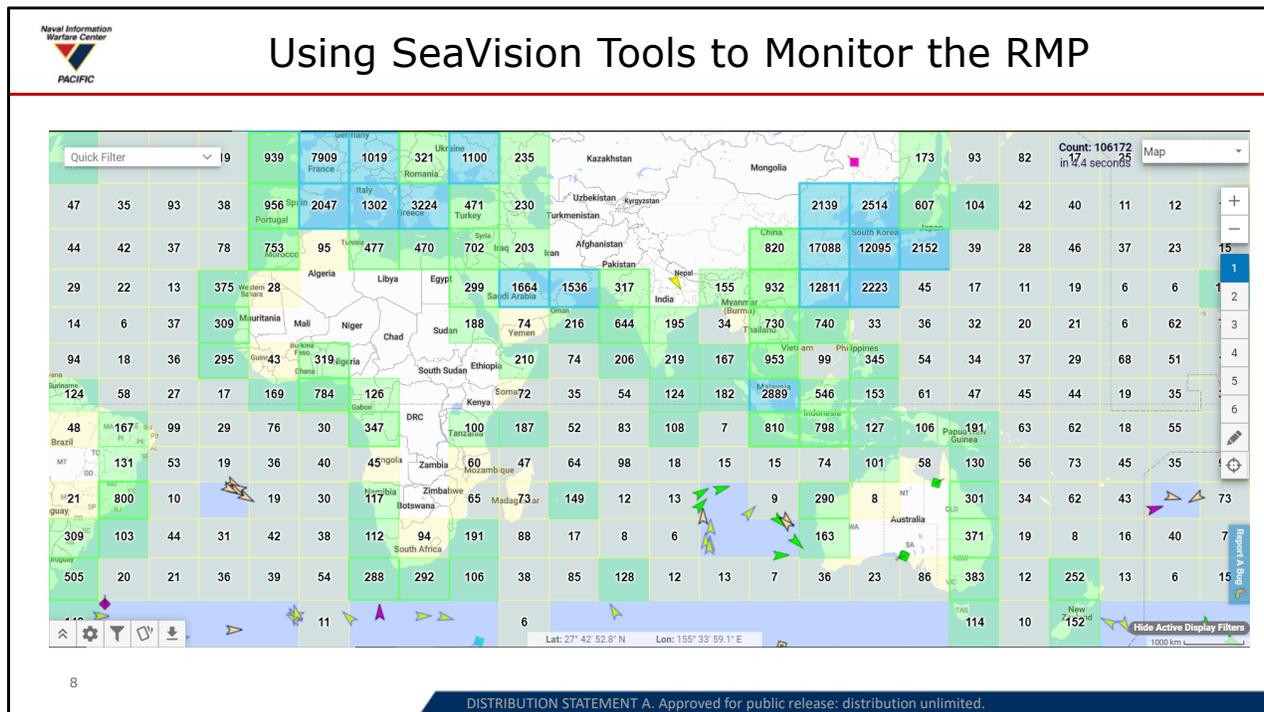
## What Is Important?

- Your agency received a phone call
  - A local fishing vessel captain reports seeing a cargo vessel conducting suspicious activity near position 07-11'10" N/112-09'48" E around 13:25 UTC on 30 April
  - The captain can make out part of the name "Pride" on the vessel
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- Approaching this report analytically, what are some questions you can begin asking yourself about the scenario?
  1. Who provided this information?
  2. What happened?
  3. Why is this of any concern?
  4. When did it happen?
  5. Where did it happen?
  6. How are you going to use SeaVision to locate, identify, and report your findings?



- There are many features and resources within SeaVision (SV) to utilize while monitoring your RMP
- There is no wrong way to begin or conduct this process
- As an analyst, you will determine what method, functions, and features work best to suit you
  - What information and what SV feature would you use to begin to locate and identify the vessel?
- The scenario above was conducted in real-time; therefore, Search can be used to assist in locating this vessel. (Remember, using Search will only apply to the most recent position reports. An alternative is to use History Search options)



Utilizing Map Filters in SeaVision

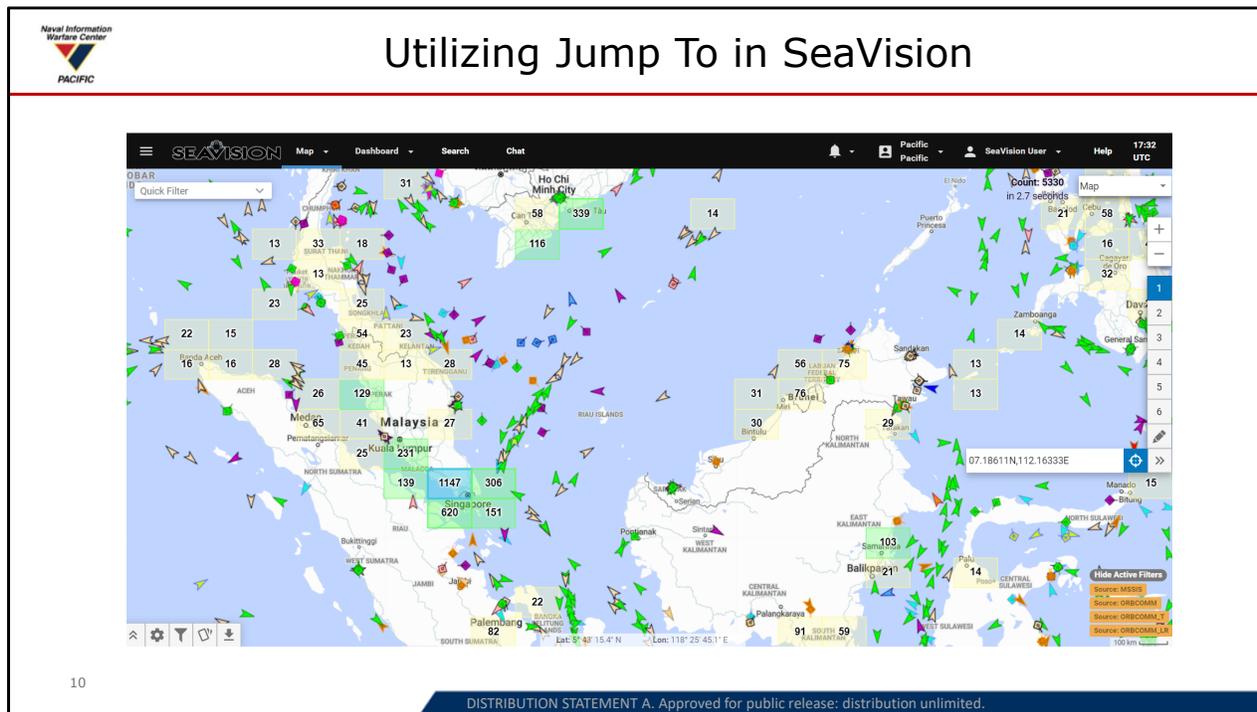
Count: 125002 in 4.4 seconds

Map Filters

VESSEL TYPE: DATA SOURCES 11, EXTENDED 77, VESSEL AGE 68, AIS 17, SHIP REGISTRY 20, 39, 110, 26, 70, 116, 87, 15, 11, 8, 20, 305

Legend: Cargo, Tanker, Passenger, Sailing, Unknown, Military, Fishing, Pilot, Towing, Big Tow, Tug, Dredge, Pleasure Craft, Search & Rescue, Law Enforcement, All Other

- What type of ship are you looking for?
  - Cargo (select cargo under VESSEL TYPE)
- What was the date of the incident?
  - April 30 (adjust VESSEL AGE if necessary)
    - You can set the vessel age to include the day of the event (up to 90 days) but SeaVision will always display the last position report. Therefore, if another position report was received after April 30, most likely, other historical tools will be needed to display what happened in the area on April 30



- Where was the vessel when the captain reported the incident?
  - $07^{\circ}11'10''N$   $112^{\circ}09'48''E$  (\*\*minutes and seconds will need to be converted to decimals)
  - \*\*The Jump To tool only accepts inputs of coordinate pairs in decimal degree format. Latitude and longitude values should be separated with either a comma or space when entered in the Jump To tool
  - Latitude:  $07^{\circ}11'10''N$ 
    - minutes:  $11/60 = 0.18333$
    - seconds:  $10/3600 = 0.00277$
    - $07 + 0.18333 + 0.00277 = 07.18611$
    - $07.18611N =$  Latitude
  - Longitude:  $112^{\circ}09'48''E$ 
    - minutes:  $09/60 = 0.15$
    - seconds:  $48/3600 = 0.01333$
    - $112 + 0.15 + 0.01333 = 112.16333$
    - $112.16333E =$  Longitude
  - Example:  **$07.18611N,112.16333E$**  or  **$07.18611N$   $112.16333E$**

## Utilizing STATIC LAYERS for Exclusive Economic Zones (EEZ) in SeaVision

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- Whose Exclusive Economic Zone (EEZ) does that position fall in?
  - Vietnam (Have students turn on EEZs in the STATIC LAYERS)
- What was part of the name of the vessel the captain reported?
  - "Pride" (This information will be used on the next slide)



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## Utilizing Search in SeaVision

Manage ▾

Choose How To Evaluate Your Conditions

Vessels must meet all conditions  
 Vessels can meet any condition

Set Up Your Conditions

Name ▾ contains ▾ pride X

AND

Vessel Type ▾ is ▾ 7X - Cargo X

AND

Location by EEZ ▾ is inside ▾ Viet Nam X

ADD CONDITION



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- What information provided from the captain can be entered in a Search?
  - Name, Vessel Type, Length, Latitude/Longitude
- What information were you able to obtain on your own?
  - Exclusive Economic Zone (EEZ)(Vietnam)
    - All of this information can be entered to help narrow your Search
      - Have the students enter Name, Vessel Type, and EEZ as search criteria
- Good idea to change your Time Period To Evaluate to No Maximum
- Remember, using Search will only apply to the most recent position reports. Alternative is to use History Search options



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## Analyzing Search Results

SEARCH

Search Results (4 total vessels)

EXPORT - SAVE AS LIST MAP RESULTS

FLAG	VESSEL ...	REGISTE...	CALL SI...	↑ MMSI	IMO NU...	VESSEL ...	DESTIN...	ETA	NAVIGA...	LATITUDE	LONGIT...	AGE	TIME OF...	
1	Cyprus	Cymona...	—	5BDH4	212237...	9694488	7-Cargo	Vnvut	3161710	5-Moored	10.5302...	106.996...	393d18h	2019 Ap...
2	Panama	Pacific P...	Grand M...	3FCL4	373587...	9605736	7-Cargo	Vnphu	5020200	0-Under...	7.186115	112.163...	11h16m	2020 Ap...
3	Hong Ko...	Ansac P...	Jade Bul...	VRMF9	477188...	9619737	7-Cargo	Zhangjia...	5051500	0-Under...	18.1476...	106.643...	19h57m	2020 Ap...
4	Marshall...	Hyundai ...	Leader S...	V7FO4	538005...	9637260	7-Cargo	Cnytn>v...	4302330	0-Under...	10.4663...	106.995...	8m20s	2020 Ma...

4 RESULTS

GO TO PAGE 1 ROWS 25

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- What piece of information did the captain provide that will help you identify the right vessel?
  - LATITUDE/LONGITUDE
- Which vessel has matching LATITUDE and LONGITUDE?
  - Vessel number 2 (click on vessel number 2)



### Utilizing Vessel Card in SeaVision

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#### Vessel Card

MMSI	IMO Number	FIND
373587000	9605736	

Summary Details EEZ History Port History Rules Alerts Warnings Lists Notes Recently Viewed

History Trail [MAP VESSEL](#)



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- Does the description match the one provided by the captain?
  - Yes (Red and blue hull with a yellow superstructure)
- From this page, how can you find the vessel in SeaVision?
  - MAP VESSEL (click MAP VESSEL)

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## Utilizing Baseball Card (Vessel Data Card) in SeaVision

Quick Filter

Count: 40  
in 0.7 seconds

Map

Pacific Pride

Source: SATELLITE AIS  
Time: 2020 Apr 30 13:25:47 UTC  
Age: 11h 36m 50s ago  
Position: 7° 11' 10" N, 112° 9' 48" E  
Speed: 11.7 kts  
Heading: 270°  
Course: 268°  
MMSI: 373587000  
IMO Number: 9605736  
Flag: Panama  
Call Sign: 3FCL4  
Ship Type: 7-Cargo  
Length: 200 m  
Beam: 32 m  
Draft: 13 m  
Navigation Status: 0- Underway(Engine)  
Destination: Vnphu  
ETA: 05/02 @ 02:00 UTC

History Trail

DR Vector

Vessel Details

Add Vessel to List

Hide Active Display Filters

Source: MSSIS  
Source: SIMULATOR  
Source: SIM\_TER  
Source: SIM\_SAT  
Source: SIM\_RGN\_2  
Source: SIM\_RGN\_1  
Source: DRBCOMM  
Source: DRBCOMM\_2  
Source: DRBCOMM\_1  
Type: Cargo

Lat: 5° 31' 12.11" N Lon: 112° 55' 10.8" E

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- Does the Position on the Baseball Card (Vessel Data Card) correlate with the position given by the captain?
  - Yes (07.18611N/112.16333E)
- Does the Automatic Identification System (AIS) Static Data on the Baseball Card (Vessel Data Card) match what was provided by the captain?
  - Yes (Length 200m)
- What Dynamic Data listed on the Baseball Card (Vessel Data Card) did the captain provide?
  - Time, Position, and Heading
- Have you located the vessel you were looking for?
  - Yes (Pacific Pride)

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## Utilizing Vessel Details in SeaVision

**Pacific Pride**

Source: TERRESTRIAL AIS  
Time: 2020 Sep 22 01:30:45 UTC  
Age: 58h 48m 44s ago  
Position: 10° 27' 9" N, 102° 14' 45" E  
Speed: 12.9 kts  
Heading: 148°  
Course: 146.4°  
MMSI: 373587000  
IMO Number: 9605736  
Flag: Panama  
Call Sign: 3FCL4  
Ship Type: 7-Cargo  
Length: 200 m  
Beam: 32 m  
Draft: 12.6 m  
Navigation Status: 0-Underway(Engine)  
Destination: Cnzos  
ETA: 09/28 @ 14:00 UTC

History Trail  
DR Vector  
Vessel Details  
Add Vessel to List

**Pacific Pride**

MMSI: 373587000  
IMO Number: 9605736  
FIND

Summary **Details** EEZ History Port History Rules

Year Due Or Delivered	2012
Sub Status	In Service/commission
Builder	Hyundai-Vinashin Shipyard Co
Port Of Registry	Panama
Official Number	44167128
Sat Com Ansbk Code	-
Sat Com	-
Fishing Number	-
P And I Club	Britannia Steam Ship
Country Of Economicbenefit	Korea (South)
Registered Owner	Cosmic Melody SA

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- Where would you find information regarding the country of economic benefit?
  - Vessel Details under REGISTRATION (click on Vessel Details)
- What is the Nationality of the crew?
  - Korean
- How many Exclusive Economic Zones (EEZs) have they crossed in the past week?
  - Three
- When was the last Port of Call?
  - 16 April



### Utilizing Warning Details in SeaVision

The screenshot displays the SeaVision interface for the vessel 'Pacific Pride'. On the left, a map shows the vessel's position and movement. The central panel provides detailed information about the vessel, including its source, time, age, position, speed, heading, course, MMSI, IMO number, flag, call sign, ship type, length, beam, draft, navigation status, destination, and ETA. A 'Vessel Details' button is highlighted. On the right, a 'Warnings' tab is selected, showing a 'SAFETY' chart with a bar for 'Non-detainable inspection defects' at a value of 19. Other categories in the chart include Flag State - Safety, Ship Management, Classification Society, PSC Inspection History, PSC Detention History, Age & Type of Vessel, and Changes in Owner/Operator/Manager/Flag.

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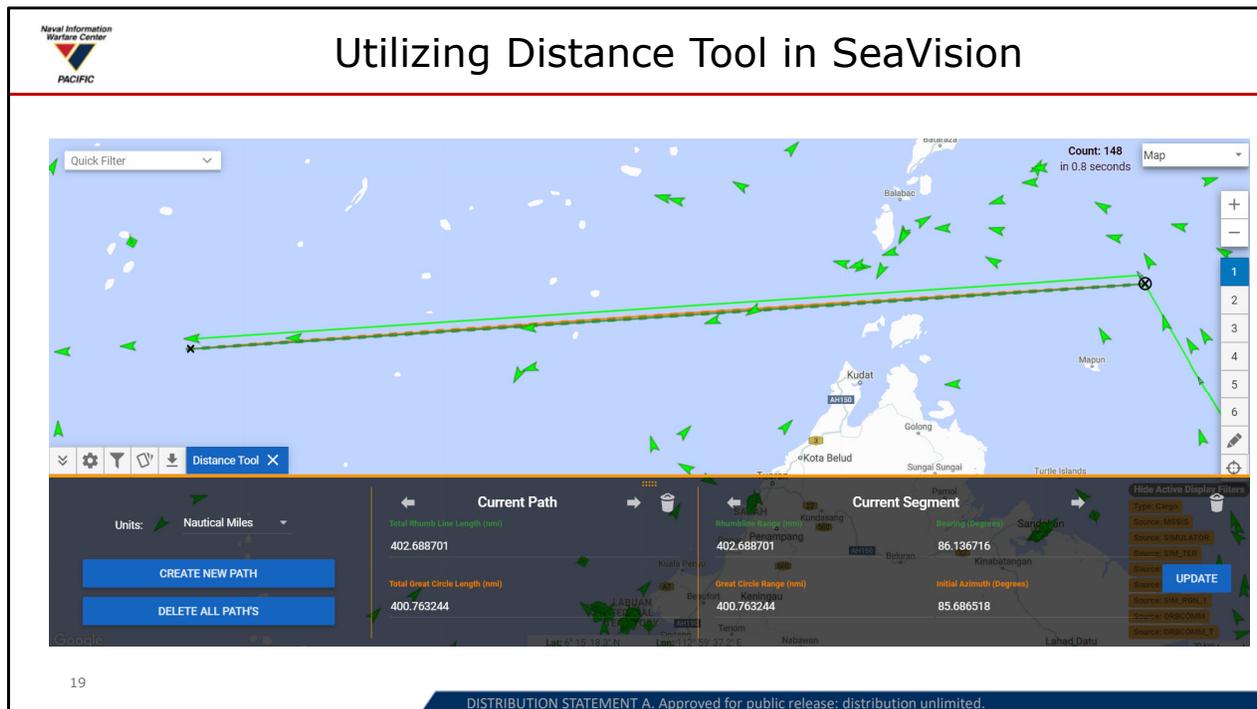
- What Warning Details are associated with this vessel?
  - 19 Non-detainable inspection defects
- Is the Security Score and Rating on this vessel high or low?
  - Low

### Utilizing History Trail in SeaVision

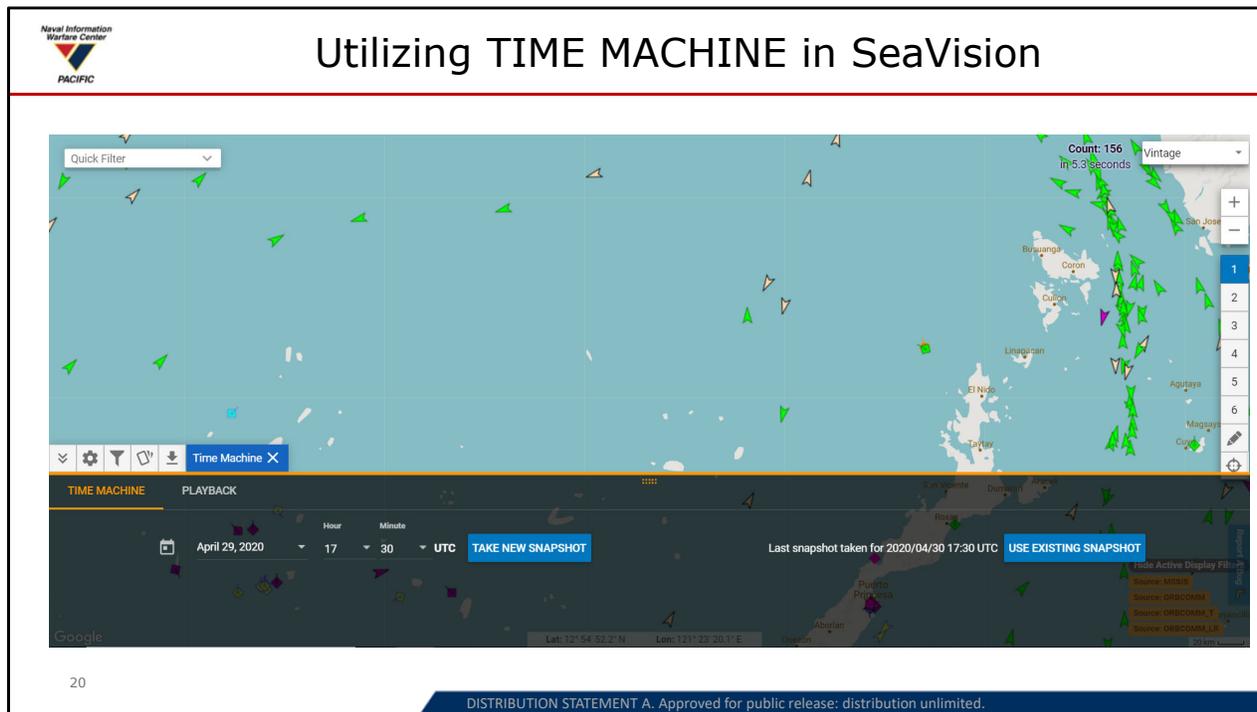
The screenshot displays the SeaVision interface with the following elements:

- Top Left:** Naval Information Warfare Center PACIFIC logo.
- Top Center:** Title "Utilizing History Trail in SeaVision".
- Left Panel (Vessel Details for Pacific Pride):**
  - Source: SATELLITE AIS
  - Time: 2020 Apr 30 13:25:47 UTC
  - Age: 12h 27m 46s ago
  - Position: 7° 11' 10" N, 112° 9' 45" E
  - Speed: 11.7 kts
  - Heading: 270°
  - Course: 268°
  - MMSI: 373587000
  - IMO Number: 9605736
  - Flag: Panama
  - Call Sign: 3FCL4
  - Ship Type: 7-Cargo
  - Length: 200 m
  - Beam: 32 m
  - Draft: 13 m
  - Navigation Status: 0- Underway (Engine)
  - Destination: Vnphu
  - ETA: 05/02 @ 02:00 UTC
- Map:** Shows the Pacific region with a green history trail for the vessel 'Pacific Pride' and other AIS tracks. The trail shows a path from the east coast of the Philippines towards the south.
- Right Panel (Filters):**
  - Count: 1177
  - Map
  - Hide Active Display Filters
  - Type: Cargo
  - Source: MSSD
  - Source: SIMULATOR
  - Source: SIM\_TER
  - Source: SIM\_SAT
  - Source: SIM\_RGN\_2
  - Source: SIM\_RGN\_1
  - Source: ORBCOMM
  - Source: ORBCOMM\_1
- Bottom:** Coordinates (Lat: 3° 44' 56.4" N, Lon: 113° 28' 57.2" E) and a distribution statement: "DISTRIBUTION STATEMENT A. Approved for public release: distribution unlimited."

- By observing the History Trail, can you determine if the Automatic Identification System (AIS) gaps support suspicious behavior?
  - Yes (time, speed, and distance from last AIS stamp)



- Distance Tool – 402.7 Nautical Miles
- Current Time – 30 Apr 13:25/Last Automatic Identification System (AIS) Time Stamp – 29 Apr 01:35 = 35 hours and 50 minutes or 35.8 hours
- Current Speed – 11.7 knots/Speed at Last Time Stamp – 11.4 knots
- Distance Divided by Time = Speed ( $402.7/35.8 = 11.2$  knots)
  - Confirms vessel did not slow or stop



- What are some of the advantages of using TIME MACHINE?
  - It takes a snapshot (picture) of a specific area and moment in time of the user's choosing
  - It is based on the time the user chooses, plus the previous four hours



### Utilizing PLAYBACK in SeaVision

The screenshot displays the SeaVision interface. At the top left is the Naval Information Warfare Center PACIFIC logo. The main map shows San Diego Bay with numerous colored markers representing vessel tracks. A 'Count: 108' and 'Vintage' dropdown are visible in the top right. Below the map is a 'Time Machine' control bar with a 'PLAYBACK' tab selected. The playback timeline shows a range from April 22, 2020, 16:14 to April 23, 2020, 16:14. Playback controls (play, stop, back, forward) and a 'Show history trails' checkbox are present. A '21' is shown in the bottom left corner, and a distribution statement is at the bottom.

- How could PLAYBACK be useful in helping identify an incident at sea?
  - The user can reanimate the track history of a vessel(s) to observe the maneuvering of a vessel
    - The vessel requires Automatic Identification System (AIS)



## Regional Maritime Picture Challenges Summary

- Identified safety and security concerns within an RMP
- Demonstrated the knowledge to interpret data to monitor, control, and survey an RMP
- Utilized SeaVision tools and resources to gather information, make recommendations, and create situational awareness of an RMP



Questions?

