



SMART SEAS TOOLKIT TRAINING WORKSHOP

DAY 1

*Under the ITU/CTU/TATT Smart Seas Toolkit
for Disaster Resilience Project*

**"Boat found but four
Mayaro fishermen still
missing"**

**"Hope fades for
four missing
fishermen"**

Presented by the Smart Seas
Team

12 Apr 2023

Say hi in the chat while we wait for the
session to begin!

Welcome Remarks



**Mr. Cleveland
Thomas**

Area Office Representative
for the Caribbean Region,
International
Telecommunication Union (ITU)



**Mr. Nigel
Cassimire**

Deputy Sec-General & Head of
Regional Policy Development,
Caribbean Telecommunications
Union (CTU)



**Mrs. Cynthia
Reddock-Downes**

Chief Executive Officer,
Telecommunications Authority
of Trinidad and Tobago
(TATT)

Group Photo



Turn on your
cameras &
smile!

Day 1 Overview

Day 1

- Toolkit Presentation
- Training: All Agencies
- Q&A
- Training: MRCC & Coast Stations
- Q&A
- Day 1 Closure

Day 2

- Training: Spectrum Mgmt Agencies
- Q&A
- Day 2 Closure

Day 3

- Training: All Other Agencies
- Q&A
- Workshop Closure: All Agencies

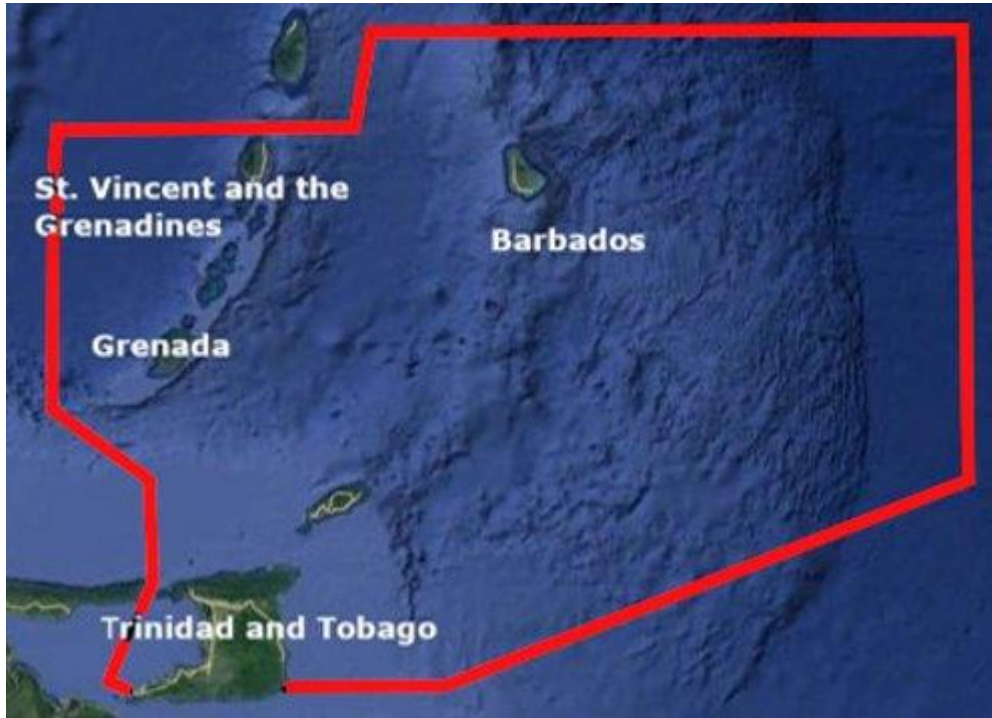
Recap of the Smart Seas Project

- Joint initiative of the International Telecommunication Union (ITU), Caribbean Telecommunications Union (CTU) & Telecommunications Authority of Trinidad & Tobago (TATT), supported by the Government of the Republic of Trinidad and Tobago (GoRTT)
- Aims to increase the resilience & preserve the lives of small-scale fishers (SSF) through information & communications technologies (ICTs) with emphasis on the **enabling environment**¹

¹ the set of actors, policies, regulations, frameworks, capacity, operations and associated engagements among actors and agencies which facilitate maritime communications to increase the resilience of small-scale fishers

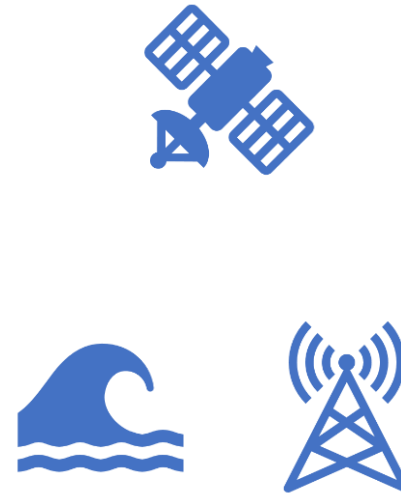
Project Scope

Geographic



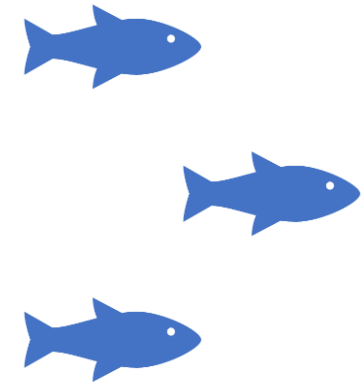
Trinidad and Tobago's MRCC

Problem Space



Maritime Comms

Beneficiary Sector



Fisheries

Project Dimensions



Policy &
Regulation



Operations



Capacity

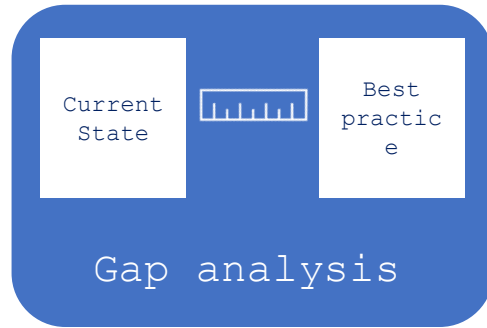


Technology

Transferable: other sectors & marginalized communities | **Extensible**: Caribbean & world-wide

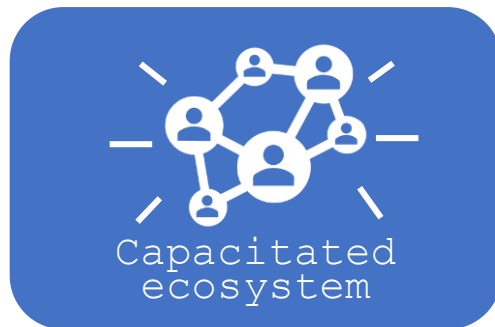
Outputs, Outcomes & Impacts

OUTPUTS



Policy & Regulation | Operations | Capacity | Technology

OUTCOMES



IMPACT



Gap Analysis Dimensions

Vis-a- Vis Project Dimensions



Policy &
Regulation



Operations



Capacity



Technology

Gap Analysis Shows Gaps in, & Need For

Compliance with UN Convs & Recs

- Fulfilling notification reqs
- Signing key UN conv & recs & joining UN agencies (WMO)

Ecosystem

- More direct interactions between agencies & fisherfolk

Policy Environment

- Current policy-related artefacts

Regulatory Environment

- Official documentation on monitoring measures
- SSF-specific comms regulation

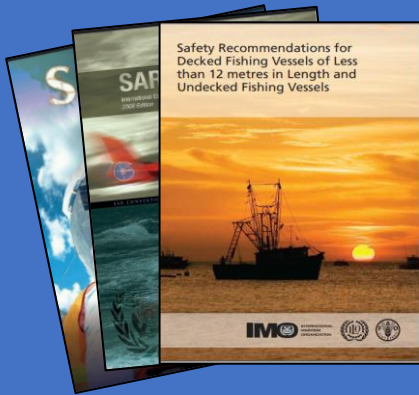
Operations

- Publicly available data on operations within the sector

Capacity

- Localized curricula and certification schemes for Caribbean SSF & ltd. coast stations

Toolkit Objectives – Resources to:



Support & monitor
compliance with
UN regs & recs



Strengthen
operations within
the ecosystem



Strengthen **VHF**
radio capacity

Toolkit Artefacts

Informational Resources

Checklists

Guidelines

Templates

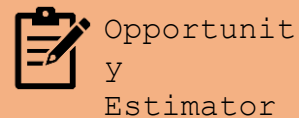
Guidelines & Templates

Data Collection Resources

REGULATION

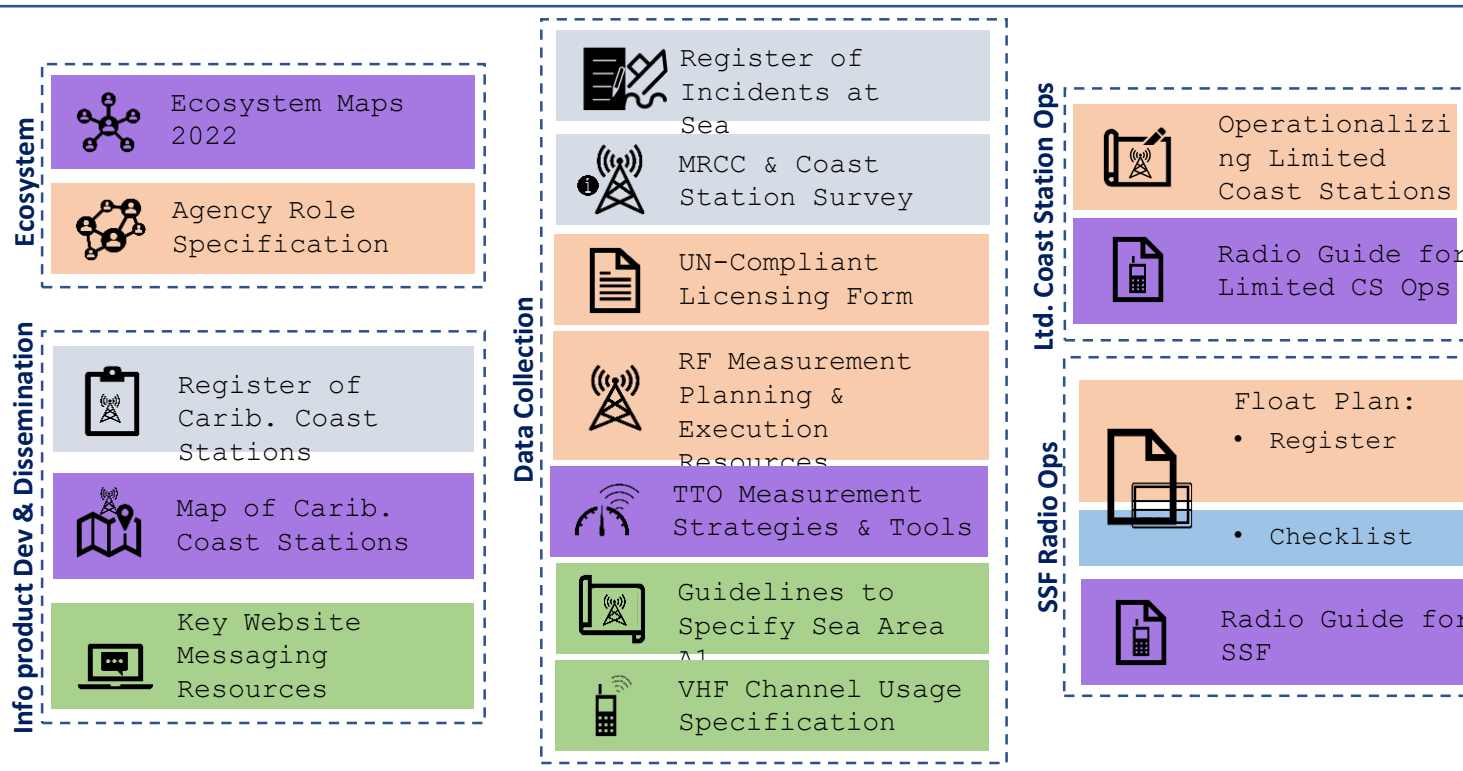
Compliance Tracking

UN Compliance:



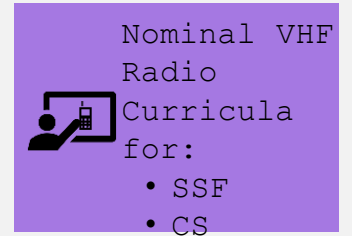
OPERATIONS

Strengthening the Ecosystem



CAPACITY

Knowledge, Skills & Resources



Training: All Agencies

4 Cases

1. Compliance with UN regs & recs
2. Data collection
3. Information product development & dissemination
4. Capacitating the ecosystem

Smart Seas Tools



Ecosystem
Maps



Roles &
Responsibilities



Compliance
Opportunity
Estimator



Register of
Incidents at Sea



MRCC & Coast
Station Survey



Register of Carib.
Coast Stations



Map of Carib. Coast
Stations



VHF Channel Usage
Specification



VHF Curricula for
SSF & Ltd. Coast
Stations

Breaking News!

The Trini Times

10th April 2023

In a harrowing turn of events, **3 fishermen**, Mitchell Robinson (35), Kumar Mangroo (33) & Donald Richards (29), have been reported **missing at sea** in **Trinidad and Tobago's waters**. The fishers set out on their **pirogue**, the **Morning Star**, at **Galera Point, Toco** **early Saturday morning**. After they **failed to return home** as scheduled on Saturday evening, concerned relatives attempted to contact them, but were unsuccessful. This prompted **relatives** to **contact** Trinidad and Tobago **Coast Guard** to initiate a search and rescue operation for the missing fishers.

After **16 hours of searching**, **one** of the fishers, Donald Richards, was **found alive off the coast of Grenada** by local fishermen. Richards was reportedly found clinging to a piece of debris and was suffering from dehydration and exhaustion. He was taken to the Grenada General Hospital where he is currently receiving medical treatment. According to Richards, their **pirogue encountered rough seas** and **strong winds** on their return, causing their boat to capsize. Richards has no knowledge of what happened to his fellow fishers.

The Coast Guard has been coordinating search and rescue operations with the Point Toco Radio Station, a limited coast station in Trinidad, a limited

coast station in Trinidad, as well as a group of local fishers, who have volunteered to aid in searching for their missing brethren.

The families of the missing fishermen are understandably distraught, as they wait anxiously for any news of their loved ones. Speaking to local media, one family member said, "*We praying and hoping for the best yes. We just want them come back home safe.*"

The incident has once again highlighted the **dangers faced by fishers** when they set out to sea. The waters around Trinidad and Tobago can be **treacherous**, and fishermen often face challenges such as **inclement weather, rough seas, and navigation issues**. In recent years, there have been several incidents of fishermen going missing or facing other difficulties at sea.

The **search for the missing fishermen continues**, with the **Coast Guard and other agencies continuing to scour the waters in the hope of finding them**. The incident serves as a stark reminder of the risks involved in fishing and the **need for safety measures**.

Disclaimer: this article is fictitious in nature, but representative of the many disasters faced often by SSF

Case #1: Compliance with UN Regs & Recs

Case

Compliance with obligations under UN regs & recs in signed UN artefacts

Agencies

- Spectrum mgmt agencies
- Coast stations
- MRCCs
- Met agencies
- Maritime admins

Smart Seas Tools



Trigger

For use:

- On prescribed schedule by UN
- On prompt from UN (in notifications)

For update:

- On changes to UN conv & recs

Case #1: Compliance with UN Regs & Recs

Activity



Scenario

The recent cases of missing fishers have motivated agencies to place higher focus on maritime comms, with emphasis on SSF. They have decided to use Smart Seas':

Tool	Purpose
TTO MRCC Jurisdiction Ecosystem Maps (2022)	to identify their existing communications-related interactions
Agency Role & Responsibility Specification Guidelines	to determine roles & responsibilities to support compliance
Compliance Opportunity Estimator	to identify areas of opportunity for full compliance

Case #1: Compliance with UN Regs & Recs

Activity

Agency interaction mapping



Roles & responsibilities specification



Compliance assessment

Choice	Extract	Source
(a)	<p>Article 52, No. 52.254 In the band 156-174 MHz administrations shall, where practicable, assign frequencies to coast and ship stations in accordance with the Table of transmitting frequencies given in Appendix 18 for such international services as administrations consider necessary</p>	RR, Edition of 2020
(b)	<p>Regulation IV/17.1 A record shall be kept to the satisfaction of the Administration and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea</p>	SOLAS Convention
(c)	<p>Article 32, No. 32.26 Coast stations and the appropriate coast earth stations in receipt of distress alerts or distress calls shall ensure that they are routed as soon as possible to a rescue coordination centre. In addition, receipt of a distress alert or a distress call is to be acknowledged as soon as possible by a coast station, or by a rescue coordination centre via a coast station or an appropriate coast earth station...</p>	RR, Edition of 2020
(d)	<p>Part IV, 1.1.3 Members with Marine Meteorological Services shall provide, to the extent possible, maritime users with the meteorological and related oceanographic information (warnings, forecasts, charts, expert advice</p>	WMO-No. 49

Case #1: Compliance with UN Regs & Recs

Activity



Extract

"Administrations shall take all appropriate measures to **notify the Radiocommunication Bureau** immediately of any **changes in the operational information** contained in **Lists IV** and V, in view of the importance of this information, particularly with regard to safety. In the case of the data published in List V, which is also made available online through MARS, administrations shall communicate those changes at least once a month. In the case of other publications, administrations shall communicate the changes in the information contained in them as soon as possible" - **No. 20.16 of the RR**

SMA Status on

List IV (Coast Stations & Special Service Stations) notifs

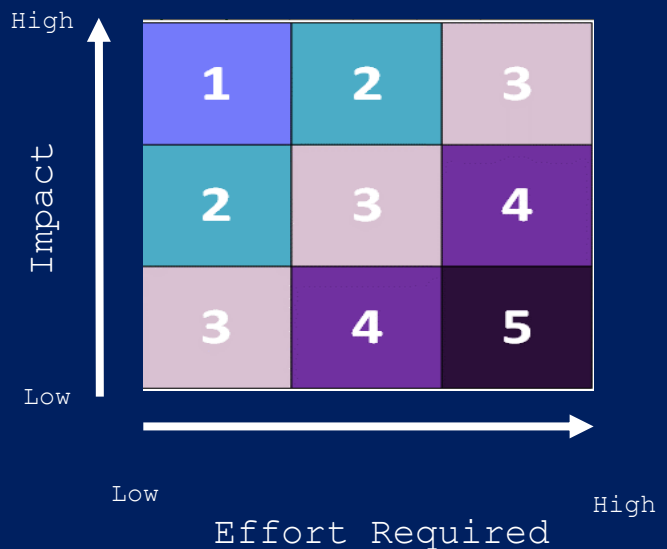
The national SMA has not been notifying on List IV although notification responsibilities are listed in

Impact:

What impact does this have on SSF safety & enabling environment?

Effort required:

- Agency responsible?
- Stated in national law/policy?
- Used in actual practice?



Case #2: Data Collection

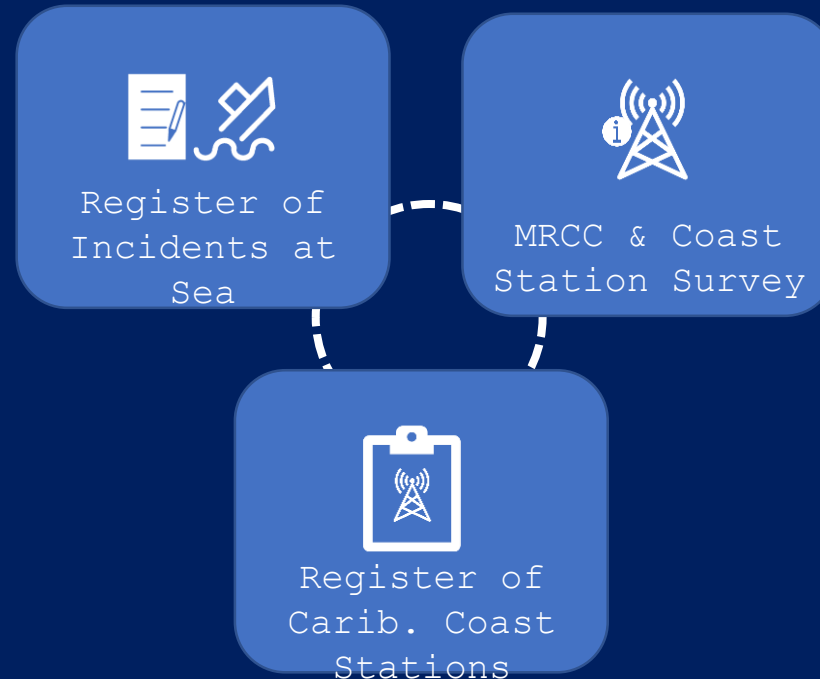
Case

Collection of data to improve operations as well as fulfilling notification obligations

Agencies

- Spectrum mgmt agencies
- Coast stations
- MRCCs
- Met agencies
- Maritime admins
- Fisheries

Smart Seas Tools



Trigger

- On prescribed schedule
- In the event of incidents at sea
- Day-to-day operations

Reminder of the Recent Incident:

The Trini Times

10th April 2023

In a harrowing turn of events, **3 fishermen**, Mitchell Robinson (35), Kumar Mangroo (33) & Donald Richards (29), have been reported missing at sea in **Trinidad and Tobago's waters**. The fishers set out on their pirogue, the **Morning Star**, at **Galera Point, Toco** early Saturday morning. After they failed to return home as scheduled on Saturday evening, concerned relatives attempted to contact them, but were unsuccessful. This prompted relatives to contact Trinidad and Tobago Coast Guard to initiate a search and rescue operation for the missing fishers.

After a day of searching, **one** of the fishers, Donald Richards, was found alive off the **coast of Grenada** by local fishermen. Richards was reportedly found clinging to a piece of debris and was suffering from dehydration and exhaustion. He was taken to the Grenada General Hospital where he is currently receiving medical treatment. According to Richards, their pirogue **encountered rough seas and strong winds** on their return, causing their boat to capsize. Richards has no knowledge of what happened to his fellow fishers.

The Coast Guard has been coordinating search and rescue operations with the Point Toco Radio Station, a limited coast station in Trinidad, a limited

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The families of the missing fishermen are understandably distraught, as they wait anxiously for any news of their loved ones. Speaking to local media, one family member said, "*We praying and hoping for the best yes. We just want them come back home safe.*"

The incident has once again highlighted the **dangers faced by fishers** when they set out to sea. The waters around Trinidad and Tobago can be **treacherous**, and fishermen often face challenges such as **inclement weather, rough seas, and navigation issues**. In recent years, there have been several incidents of fishermen going missing or facing other difficulties at sea.

The **search for the missing fishermen continues**, with the **Coast Guard and other agencies continuing to scour the waters in the hope of finding them**. The incident serves as a stark reminder of the risks involved in fishing and the **need for safety measures**.

Disclaimer: this article is fictitious in nature, but representative of the many disasters faced often by SSF

Case #2: Data Collection

Activity

Follow walkthrough of "Register of Incidents at Sea"



Read scenario provided



Record key info in register

Date	Country	Incident	Type	Status	# Deaths	Additional Information	Supporting Articles
5 Feb 2023	TTO	Missing fishermen's boat found sunk at sea	Missing fishers	Still missing	TBC	4 Guayaguayare fishers missing since 31 Jan 2023. Capzised vessel recovered in Cedros, and a single body was found in Venezuela - to be identified by fishers' families	https://guardian.co.tt/news/boat-found-but-four-mayaro-fishermen-still-missing-6.2.1626674.55d89c3d59 https://www.guardian.co.tt/news/hope-fades-for-four-missing-fishermen-6.2.1632617.1142b0edfb https://guardian.co.tt/news/relatives-to-leave-for-venezuela-to-id-decomposing-body-of-fisherman-6.2.1633324.97fec8eb47 https://trinidadexpress.com/news/local/fisherman-s-family-ask-for-govt-help-to-retrieve-body/article_cffe4b04-ac03-11ed-b2af-8f49ad7eea1b.html

Case #2: Data Collection

Activity


Follow walkthrough of "Register of Incidents at Sea"

Read scenario provided

Record key info in register


1

Start of Incident

-  **Phone call to Coast Guard 1AM on 9 Apr from relatives**
- **3 missing fishermen off Galera Point, Toco:** Mitchell Robinson (35), Kumar Mangroo (33) & Donald Richards (29), supposed to **return 10PM on 8 Apr 2023** - have not returned and unable to contact them


2

During Incident

-  **Phone call to Coast Guard from Grenada Coast Guard at 10AM on 9 Apr**
- Hello this is the Grenada Coast Guard. A **fisherman from T&T, Donald Richards, was found off the coast of Hardy Bay this morning** and was taken to the hospital to receive medical treatment

3

After Incident

-  **News article posted on the Trini Times Newspaper Website on 10 Apr**
- Search ongoing for **16 hours** - only **1 fisherman found**
- Vessel encountered rough seas and strong winds on their return journey
- Coast Guard has deployed multiple boats and aircraft; Point Toco Radio Station has been providing support communications; local fishermen and members of the community have also joined in the search

Case #2: Data Collection

Activity

Walk through Smart Seas MRCC Survey



Complete Survey using info provided



Record key info in register using data in MRCC Survey

Scenario

The National Spectrum Management Agency (SMA) has never notified ITU's MARS List IV (Coast Stations and Special Service Stations) on Point Toco Radio Station, a ltd. VHF coast station. They have decided to use the Smart Seas':

Tool	Purpose
MRCC and Coast Station Emergency Telecommunications Survey	to gather the required data
Register of Caribbean Coast Stations	to keep track of the stations within the region

Case #2: Data Collection

Activity

Walk through Smart Seas MRCC Survey



Complete Survey using info provided



Record key info in register using data in MRCC Survey

Station Information:

Name	Point Toco Radio Station
Type	Ltd. Coast Station
Agency	Toco Fisherfolk Agency
Languages	English
Operations	NAV, DSC-WATCH, METEO
Callsign	9YR22 (NINER YANKEE ROMEO TOO TOO)
MMSI	003624444

Personnel:

- 6 x radio operators, each rotate for 8-hour shifts
- shift supervisor; works 8 hours (8:00 AM - 4:00 PM)

Operations:

- Transmits marine weather info, received by national MET office on CH 12 daily, at 3:00 PM (AST) @ full power
- Maintains continuous watch over CHs 16, 70

Transceiver & Antenna

Lat	10°49'55.12" N
Long	60°55'4.07" W
Elevation	100 m (above sea)
TX Make	Std. Horizon
TX Model	GX1850
Power	Generator (12h)
Ant Make	TP Radio
Ant Model	AN025/X
Polariz.	Omni-dirxnal

Case #2: Data Collection

Activity

Walk through Smart Seas MRCC Survey



Complete Survey using info provided



Record key info in register using data in MRCC Survey

Standard Horizon GX1850 Specs

General	
Channels	All International, USA and Canadian (Depending on the version)
Channel Spacing	25kHz
Frequency Stability	±3ppm -4°F to +140°F (-20°C to +60°C)
Emission Type	16K0G3E, 16K0G2B
Antenna Impedance	50 Ohms
Supply Voltage	13.8VDC ± 20%
Current Consumption	0.8A (Receive), 0.45A (Standby) TX: 5.0A / 1.0A (TX: 25W / 1W)
Operating Temperature	-4°F to +140°F (-20°C to +60°C)
Waterproof rating	IPX8 (5ft/1.5m for 30 minutes)
Dimensions (W×H×D)	5.9"×3.4"×3.3" (150×85×82mm)
Flush Mount Dimensions (W×H×D)	5.43"×2.87"×3.74" (138×73×95mm)
Weight (Approx.)	2.1 lbs (940g)

Transmitter	
Frequency Range (MHz)	Marine Band 156.025MHz – 157.425MHz (USA) 156.025MHz – 161.600MHz (International)
RF Output Power	25W / 1W
Maximum Deviation	±5.0kHz
Spurious Emission	-80dBc / -66dBc (TX: 25W / 1W)
Receiver	
Frequency Range (MHz)	Marine Band 156.050MHz – 163.275MHz
Circuit Type	Double-Conversion Superheterodyne
Sensitivity (12dB SINAD)	0.25µV
Spurious and Image Rejection	75dB for Voice (75dB for DSC)
Intermodulation	75dB for Voice (70dB for DSC)
AF Output	4.5W



Photo by Standard Horizon

Case #2: Data Collection

Activity

Walk through Smart Seas MRCC Survey



Complete Survey using info provided



Record key info in register using data in MRCC Survey

	A	B	C	D	E	F	G	H	I	J	K
1	Station Name	Station Type	Agency Responsible	Countries of Responsibility	Sea Area Coverage	Station Contact Details					Address
2						Call Sign	MMSI	Phone	Email	Website	
3	Coast Guard Control	MRCC	TTCG	Barbados, St. Vincent & The Grenadines, Trinidad & Tobago, Grenada	A1, A2, A3	9YA		1(868)634-8824			
4	North Post Radio	Coast Station	TSTT	St. Vincent & The Grenadines, Barbados, Trinidad & Tobago, Grenada		9YL	3621001				
5	Angostura Platform	Limited Coast Station		Trinidad & Tobago							
6	N/A	Limited Coast Station	BHP	Trinidad & Tobago	A1						
7	N/A	Limited Coast Station	OLDENDORFF CARRIERS Trinidad & Tobago Ltd.	Trinidad & Tobago		DSIX5	636017	1(868)224-8506			
8	North Post Radio Station	Coast Station	Telecommunications Services of Trinidad and Tobago (TSTT)	Trinidad & Tobago	A1, A2, A3	9YL	362100	1(868)637-4474			
9											
10											
11											
12											
13											
14											
15											

Case #3: Info Product Dev & Dissemination

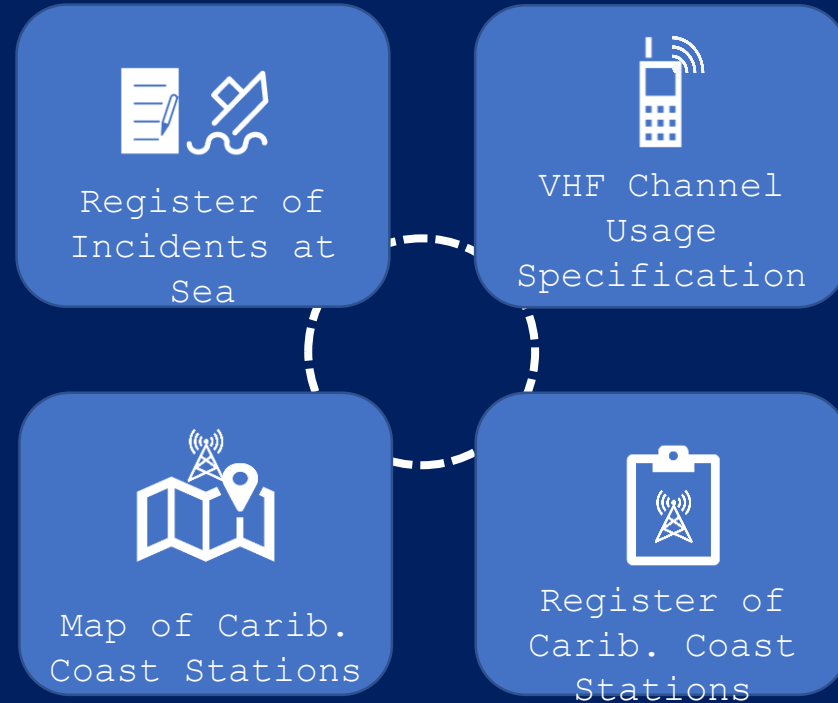
Case

Co-development & sharing of **data products** to support the ecosystem

Agencies

- Spectrum mgmt agencies
- Maritime admins
- Coast stations
- MRCCs
- Met agencies

Smart Seas Tools



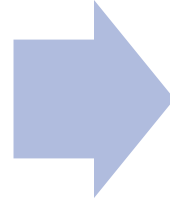
Trigger

- Day-to-day operations
- Updating maritime comms-related pages on agencies' websites

Case #3: Info Product Dev & Dissemination

Activity

Follow walkthrough of Guidelines to Specify National Maritime Band VHF Channel Usage



Populate template using information provided

Scenario #1

Seafarers have complained that there is no published national maritime band VHF-DSC channel usage guide or recommended band plan. The national SMA will use Smart Seas tools to address the gaps and publish to their website.



Documentation

The 2012 National Yachting Handbook (published by National Yachting Association) states that Fren's Yacht Club uses CH 69 for its yachting operations, and maintains watch over CHs 16 and 70



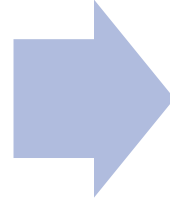
Consultation

- Point Toco Radio Station maintains 24/7 watch over VHF-DSC CHs 16 and 70; and transmits marine weather info, received by national MET office on CH 12 daily, at 3:00 PM (AST)
- Southwestern Fishing Association of Tobago uses CH 14 for its fishing, navigational and routine comms, and maintains watch over CH 16. Their radios do not have DSC features.

Case #3: Info Product Dev & Dissemination

Activity

Follow walkthrough of Register & Map of Coast Stations in the Caribbean

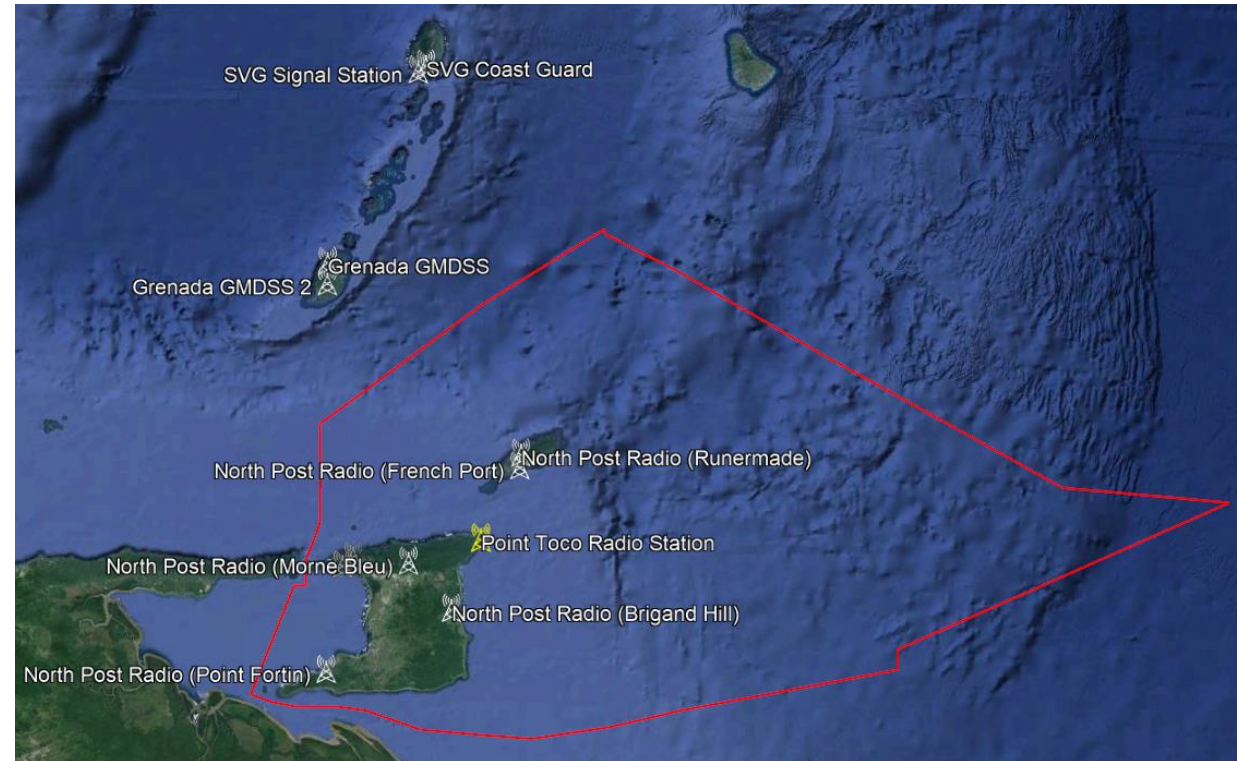


Identify any missing info

Scenario #2

The National Maritime Authority would like to include information on Caribbean coast stations on their website. They have decided

Tool	Purpose
Register of Coast Stations in the Caribbean	to identify the stations within their jurisdiction
Map of Coast Stations in the Caribbean	to add information to, and display graphically



Case #4: Capacitating the Ecosystem

Case

Support for **strengthening capacity** for radio use

Agencies

- Maritime admins
- Training Institutions
- Coast Stations
- MRCCs

Smart Seas Tools



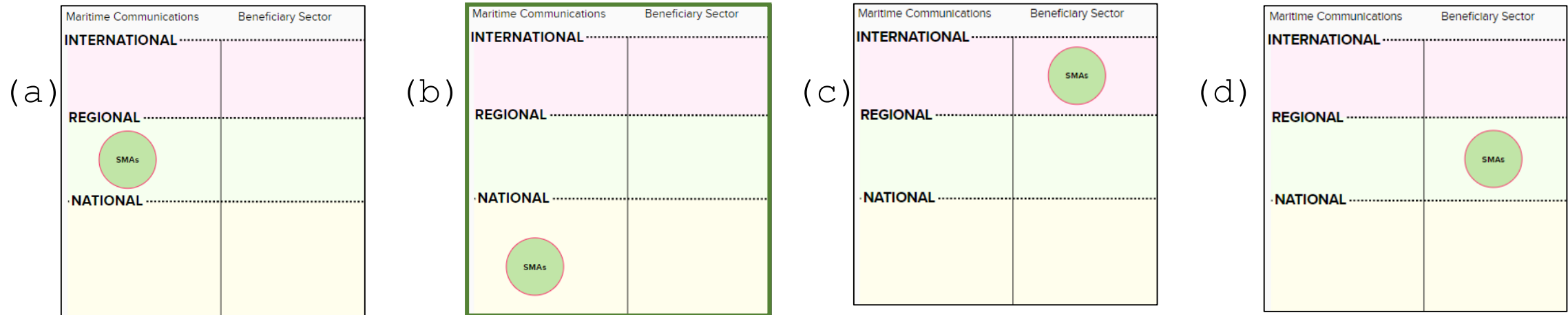
VHF Curricula for
SSF & Ltd. Coast
Stations

Trigger

- Review of existing curricula & certification schemes
- Establishment and approval of training institutions

Let's Recap

Question 1: Where would Spectrum Mgmt Agencies be placed in the maritime communications ecosystem?



Let's Recap:

Question 2: Which of the following methods can be used for mapping national maritime band channel usage?

(a) Consultations with radio users

(b) Desk research

(c) MRCC & Coast Station Emergency Telecommunications Survey

(d) All of the above

Let's Recap:

Question 3: What is the best way to share the geographical locations of coast stations with other agencies ?

(a) Register

(b) Table

(c) Interactive map

(d) Essay

Let's Recap:

Question 4: What key information is recommended in structuring a UN-compliant curriculum breakdown?

(a) Activity

(b) Priority

(c) UN source documents

(d) All of the above

Questions?

(Please raise your hand & we will call on you)

Session

feedback.1y/3KE

[OwkL](#)



Break

When we return: Training for MRCCs & Coast Stations

Resumes at 1:00 PM (AST)

Training: MRCCs & Coast Stations

2 Cases

1. Operationalizing ltd. coast stations
2. Meeting UN requirements & measuring coverage

Smart Seas Tools



Compliance Checklist



Operationalizing Ltd. Coast Stations



Radio Guide for Ltd. CS Operators



Guidelines to Specify Sea Area A1



Campaign Planning Template

Case #1: Operationalizing Ltd. Coast Stations

Case

Operationalization of limited coast stations

Smart Seas Tools



Trigger

- UN-related audits
- Implementation of new limited coast stations or upgrading existing stations

Case #1: Operationalizing Ltd. Coast Stations

Activity

Compliance assessment



Operationalization strategy development & implementation



Identification of key radio guidelines

Scenario

The Point Toco Radio Station, operated by volunteer fishers, is currently upgrading their operations and decided to use Smart Seas Tools

Compliance Checklist

Use of identification signals

Identification signals (call sign & MMSI) are used in station's communications according to its official operating policy

Use of CH 70 for VHF-DSC communications

The station has a VHF-DSC radio. However, it does not maintain active watch on, or use CH 70

Case #1: Operationalizing Ltd. Coast Stations

Activity

Compliance
assessment



Operationalization
strategy development
& implementation



Identification of
key radio guidelines

Operationalization Information

Station Details:

- 24 hr. operation
- Watch on VHF CHs 12, 16 & 70
- Broadcast of marine met information once daily at 9 am on CH 12
- Response to radio checks on CH 12
- Backup power availability for 12 hrs.

Case #2: Knowing Your Coverage

Case

Measuring coverage
to support operations

&

Support notification compliance

Smart Seas Tools



Guidelines to Specify Sea Area A1



Campaign Planning Template

Trigger

- Notification on sea area A1 by the maritime administration
- Planning of measurement campaigns

Case #2: Knowing Your Coverage

Activity

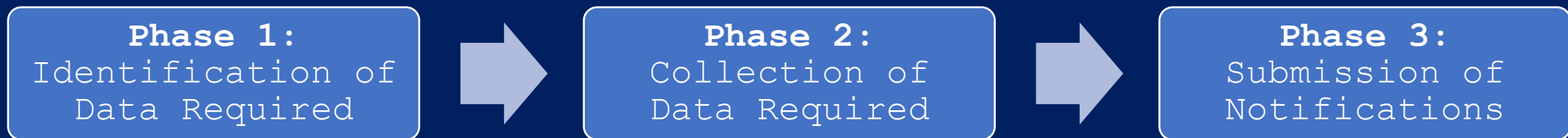


Scenario

The National Maritime Authority has approached Point Toco Radio Station seeking assistance in notifying the IMO on the station's coverage. The station has decided to

Tool	Purpose
Guidelines to Specify National GMDSS Sea Area A1	to identify the steps for specifying sea area A1
RF Maritime Measurement Campaign Planning Template	to identify their roles in the planning conduct of campaigns

Sea Area A1 Specification Process



Case #2: Knowing Your Coverage

Activity

Follow walkthrough

Identify different methods for sea area A1 specification

Identify key campaign planning steps and considerations

Application of IMO's Calculations

$$A = 2.5(\sqrt{H} + \sqrt{h})$$

Where:

- A = coverage radius (in nm)
- H = height of coast station VHF tx antenna (in m)
- h = height of ship station's VHF tx antenna (in m)

Station	Height (m)
Coast Station	100
Ship Station	1

$$A = 2.5 (\sqrt{H} + \sqrt{h}) = 2.5 (\sqrt{100} + \sqrt{1})$$

$$A = 2.5 (10 + 1)$$

$$A = 27.5 \approx 28 \text{ nm}$$

Case #2: Knowing Your Coverage

Activity

Follow walkthrough



Identify different methods for sea area A1 specification

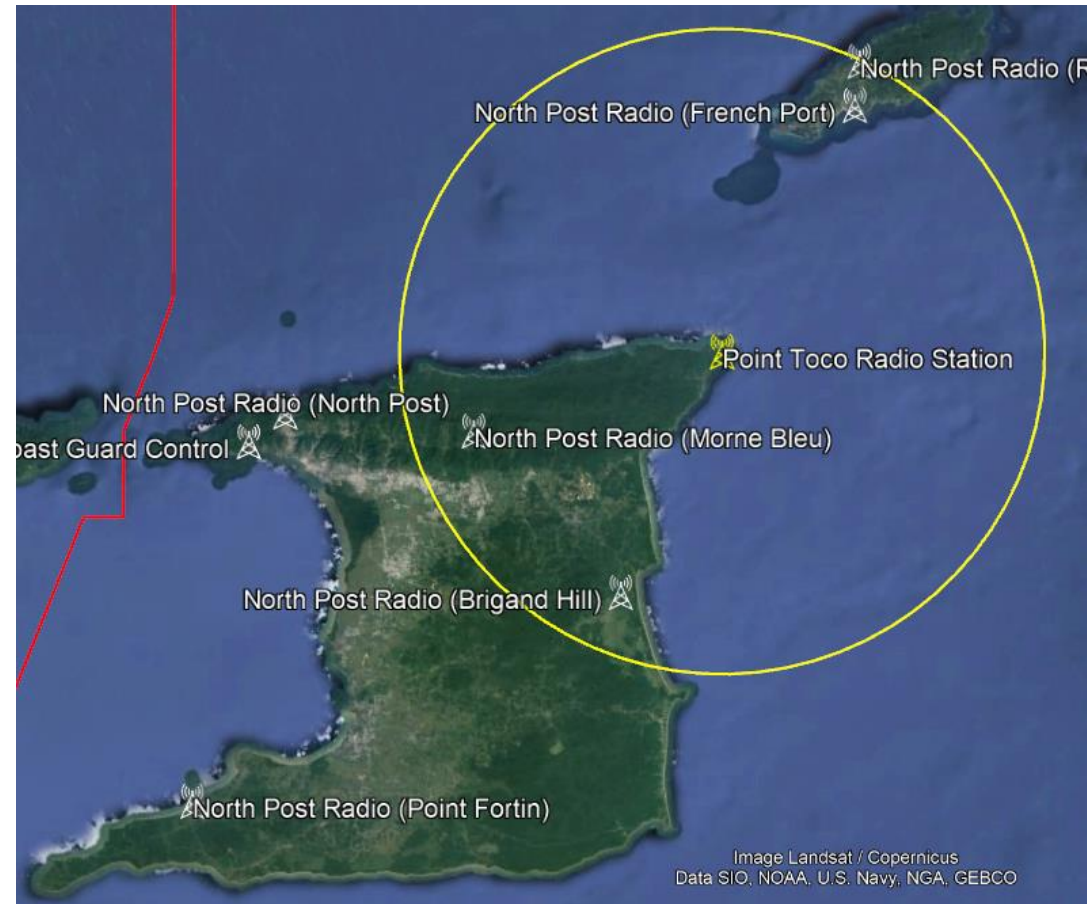


Identify key campaign planning steps and considerations

Point Toco Coverage

Station	Height (m)
Coast Station	100
Ship Station	1

- Is this really the case?
- (very unlikely because of LoS radio propagation and the topography)
- Confirm with field measurements!



Let's Recap:

Question 1: The Point Toco Radio Station owns a VHF-DSC radio and indicated in List IV, that it will maintain watch over VHF CH70, but does not. How would you assess its compliance with the following extract from the ITU's RRs?

(a) Compliant

(b) Non-compliant

(c) Partially compliant

(d) Not Applicable

ITU RR's Article 31, No. 31.13

"Those coast stations assuming a watch-keeping responsibility in the GMDSS shall maintain an automatic digital selective calling watch on frequencies and for periods of time as indicated in the information published in the List of Coast Stations and Special Service Stations (List IV)"

Let's Recap:

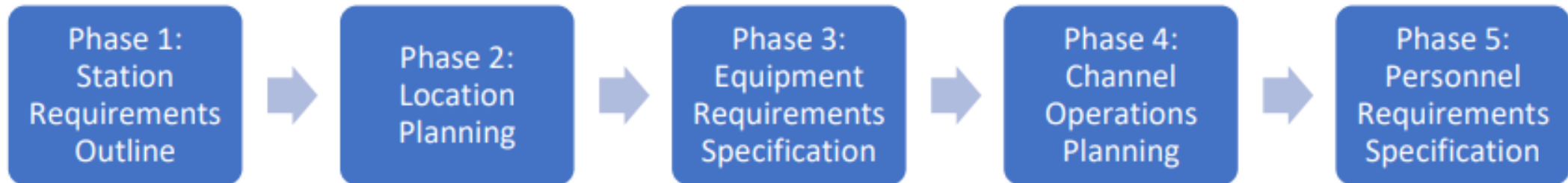
Question 2: What are the phases of operationalizing a ltd. coast station?

(a) Procurement, installation, staffing, training

(b) Functional requirements outline, location planning, equipment specification, channel planning, personnel specification

(c) Location planning, equipment requirements specification, training, installation

(d) Functional requirements outline, location planning, training, installation



Let's Recap:

Question 3: Which agency typically specifies national Sea Area A1?

(a) MRCCs

(b) Spectrum Management Agencies

(c) Maritime Administrations

(d) Coast Stations

Maritime administrations are typically the agency responsible for notifying the IMO of GMDSS Sea Area A1. This is usually done through the IMO's GISIS portal

Let's Recap:

Question 4: Which of the following method(s) can be used to estimate Sea Area A1?

(a) RF Field Measurements

(b) Estimation using IMO's equations

(c) Coverage simulations

(d) Coast Stations

(Hint: select all that are true)

Questions?

(Please raise your hand & we will call on you)

Session

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Day 1 Recap

Day 1

- Toolkit Presentation
- Training: Plenary
- Q&A: Plenary
- Training: MRCC & Coast Stations
- Q&A: MRCC & Coast Stations
- Day 1 Closing

Day 2

- Training: Spectrum Mgmt Agencies
- Q&A: Spectrum Mgmt Agencies
- Day 2 Closing

Day 3

- Training: All Other Agencies
- Q&A: All Other Agencies
- Workshop Closing

Thank You

Tomorrow: Workshop Day 2
(Spectrum Mgmt Agencies)