# HARVESTER COMINT Suite

Version 2.0

Traffic Analysis Workbench User's Manual





**SIGINT Systems** 

Signals Intelligence Collection Software

# **Document Version Control**

Version	Description	Date
1.0	Initial Draft	10-Aug-2022
1.1	Minor Corrections	13-Sep-2023
1.2	Case File amendments	27-Jun-2024
1.3	Minor Corrections to TEXTA Database	14-Sept-2024
2.0	Amendments, corrections and Log Analysis Added	16-Jan-2025

# **1. LOGGING INTO TRAFFIC ANALYSIS** WORKBENCH

When you run any of the HARVESTER COMINT Suite applications, you will first be presented with the standard login screen. The screen will display the name and version of the application being run. It may also display user security warnings and caveats. These notifications are maintained by your system administrator.

The screen will ask you to enter your username and password and once entered, you should click the Login button to proceed with the login process.

🦪 User Logir	1	×
Traffic A Version 1.1	nalysis Workbench	SIGINT Systems Copyright © 2022
		^
		~
Username	ALPHA	Login
Password	*****	Cancel

If both username and password are correct, the application will open as normal. However if either or both credentials cannot be authenticated, the following warning message will be displayed:

User Login	×
Invalid username or password.	
ОК	

Ensure that both your username and password have been entered correctly and try logging in again. If you are still denied access, contact your system administrator.

If your credentials are correct and authenticated by the system but you do not have user permissions to run the application, then the login process will be halted and you will be presented with the following warning:



Applications may also be disabled by system administrators for maintenance or other operational reasons. If the application you are trying to log into has been disabled, you will see the following warning:



If the HARVESTER COMINT Suite database has recently been upgraded by a System Update and you have not yet deployed updated applications, logging into an application may result in the following warning being displayed:



If the application is started and no PKI security file is present, then following warning message will be displayed. Contact your system administrator and request the *harvester.pki* file to be added to your local installation.



The Traffic Analysis Workbench is a module based application that currently provides access to four separate modules: Case Files, TEXTA Database, Order of Battle and Log Analysis.

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Traffic	Analysis V	Norkbench	Logge	ed in as	Alpha
File	Tools	Modules			Help
		Case Files			
		TEXTA Database (TDB)			
		OOB (PENDRAGON)			
		Log Analysis (TANGERINE)			

Click on the Modules menu and select an option to open a module.

# **2.** CASE FILES

The Case File module is an extremely useful repository for the recording of all the details associated with the operation and behaviours of individual communications nets and networks.



Each Case File record is divided into twelve sections, each dealing with a specific function or behaviour of the network or net being described. These sections are:

- General
- Callsigns
- Frequencies
- Schedules
- Operating Procedures
- Traffic
- Cryptographic Systems
- COMINT Entities
- Locations
- Identities
- TEXTA
- Log

Select the country of interest in the Country Menu list then click the New Temporary Case File button in the toolbar to create a Case File record. The selected country will be automatically populated in the new window.

#### 2.1 General

The General section allows you to record details about the identify and purpose of the network being analysed such as the country of origin, the national service responsible for the network and the types of transmissions that the network uses.

S HARVESTER COMINT SUITE - Traffic Analysis Workbench		- 🗆 X
Traffic Analysis Workbench		Logged in as ALPHA
File Tools Modules		Help
🚳 Case Files		
Country Manu		
		•
🗧 🦉 🚺 Case Files	No Name>	
Papua New Guinea Paracel Islands Paraguay Persian Guif General Callsigns	Frequencies Schedules Operating Procedures Traffic Cryptographic Systems COMINT Entities Locations Identit	ies TEXTA Log
Philippipes Country	Russia 🗸	
Pitcairn Islands Service	Unknown	
	Sikilowi *	
Portugal Transmission Syst	m Unknown 🗸	
Case Type		
Reunion		
Romania 💿 Temporar	Block 000 V	
	Sequence [Pending]	
San Marino 🔷 Net	Network	
Sao Tome and Principe	Nathumbar	
Saudi Arabia	Net Monipel	
Serbia O Link	Link End Source 🗸	
	Link End Dadiables	
Singapore		
Slovak Republic		
Solomon Islands		
South Africa	Herdeffered and	
Soviet Union Category	Undefined	
Status	Active 🗸	
St. Helena Case Description		<u>^</u>
St. Kitts/Nevis		
St. Lucia		
St. Pierre and Miquelon		
Sudan		×
Surinam 🗸		
< >>		

Note that all locally created case files are initially designated as Temporary. Select the appropriate Assignment Block for the case file that best suits the associated collection programme and the sequence number will be automatically generated when the case file is saved.

Enter a title of the network, a short title for quick reference and a brief description of the network. Case files are initially set to the Active status but this can be changed at any time. There are three status options:

1. Active – assigned to a Case File that currently reflects the network

2. **Cancelled** – assigned to a Case File that has been superseded by another Case File

3. **Suspended** – assigned to a Case File that no longer reflects the network

Once all the relevant information has been entered, click the Save button on the toolbar to save the case file.

#### 2.2 Callsigns

The Callsign section allows you to record observations about callsign usage, callsign continuity and the typical types of callsigns used by stations on this network.

😸 HARVESTER COMINT SUITE - Traffic Analysis Workbench — 🗆 >					×				
Traffic Analysis Workbench								Logged in as	ALPHA
File Tools Modules									Help
🎯 Case Files									
Country Menu	E 😭 🔛 🞯 I								
2	Case Files 🛅 RSN	IB TQ00000005							
South Africa     S	Callsign Statistics	equencies Schedules O ntinuity Callsign Systems Last 7 Days Callsign Type Fixed Fixed	perating Procedures Trai	fic Cryptor	graphic Systems	COMINT Entities	Locations Identiti First Heard 2024-10-06 00:0 2020-05-01 00:0	Last Hea 0 2024-10 0 2024-10	RMP
St. Helena     St. Kitts/Nevis     St. Lucia     St. Pierre and Miquelon     St. Vincent and the Grenadir									
Surinam V	<								>

#### 2.2.1 Callsigns

Select the Callsigns tab and click the Add button on the toolbar to open the Add New Callsign window:

eneral Calisign Calisign Role Undefined Calisign Type Calisity Cal	dd New Callsign		
Callsign Callsign Role Undefined Callsign Type Undefined Callsign Type Undefined Callsign Type Undefined Callsign Station Number in Net Entity Platform Type Undefined First Heard 08 January 2024 Titlests Callside Callsi	Seneral		
Callsign Role Undefined  Callsign Type Undefined  Callsign Type Undefined  Callsign Type Indefined  Platform Type Indefined  First Heard 08 January 2024  Tics5  UTC Last Heard 08 January 2024  Callsign Callsing	Callsign		
Callsign Type Undefined  Station Number in Net Entity Platform Type Undefined First Heard 08 January 2024 16:55 UTC Last Heard 08 January 2024 16:55 UTC Frequencies	Callsign Role	Undefined V	
Station Number in Net Entity Undefined V First Heard 08 January 2024 16:55 UTC Last Heard 08 January 2024 Utc Frequencies	Callsign Type	Undefined $\checkmark$	
Entity VINdefined VIC First Heard 08 January 2024 VIC Last Heard 08 January 2024 VIC Frequencies	Station Number in Net		
Platform Type Undefined  First Heard 08 January 2024  Last Heard 08 January 2024  UTC Frequencies	Entity	~	
First Heard         08         January         2024         Image: Table	Platform Type	Undefined $\checkmark$	
Last Heard 08 January 2024	First Heard	08 January 2024 🔍 🕈 16:55 🖨 UTC	
Frequencies	Last Heard	08 January 2024	
	Frequencies		
Frequency Frequency Use	Frequency	Frequency Use	
□ <u>11</u> 5179.000K2 Broadcast	🔲 🏨 5179.000К2	Broadcast	

Callsigns are an essential means of identification within any network or net therefore being able to record the types of callsigns in use is a critical tool in the analysis of a network. Callsigns may be fixed, making stations easier to follow and identification much more straightforward, or they could be follow a daily changing random pattern. Whichever method a network uses, it is essential to understand callsign habits and be able to recognise them. This part of the callsign module will allow you to record callsigns by both days of use and the frequencies on which they appear.

Useful fields to note here are:

- 1. **Station Number in Net**. This number reflects that order in which out stations are called up in a network. In some networks, the control station will call up out stations in the same physical station order, irrespective of the callsign order. In such cases, the station number in the net becomes the key to callsign continuity.
- 2. **Entity**. This dropdown box is automatically populated with all the entities added under the COMINT Entities tab (See Section 2.9)
- **3.** Frequencies. This box automatically lists all the frequencies that have been added under the Frequencies tab (See Section 2.3)

#### 2.2.2 Callsign Continuity

Select the Callsign Continuity tab and click the Add button on the toolbar to open the Add New Callsign Continuity window

Add New Callsign Conti	nuity	×
General		
Date of Change Time of Change	21 June 2023 , ▼ 00:00	
Old Callsign		$\sim$
New Callsign		$\sim$
Comments		~
	ОК	Cancel

For random and semi-permanent callsign systems, callsign continuity is an important step in attempting to understand the underlaying system being used to generate callsign series, whether they are taken from a book of callsigns or whether they are generated by cryptographic method. The first step in this process of analysis is the collection of as many consecutive daily examples of callsign changes.

Enter in the date and time of the callsign change as well as the old callsign and the new callsign then click the OK button to save the record.

# 2.2.3 Callsign Systems

Select the Callsign System tab and click the Add button on the toolbar to open the Add New Callsign System window

neral			
System Name			
Official System Name			
Scope	Undefined	$\checkmark$	
Гуре	Undefined	$\checkmark$	
Format	Undefined	~	
Status	Active ~		
– Semi-Permanent and F	Random Callsigns		
Callsign Allocation	Undefined	$\sim$	
Change Rota	Undefined	$\sim$	
Hour of Change	16:56 🗘 UTC		
Separations			^
Repeat Patterns			×
nep corr or cons			
			~
Date First Heard	16 January 2019		
Date Last Heard	16 January 2019		
Comments			~
			× .

Analysis of callsign behaviour within a network will very quickly reveal the type of callsign system that is in use. In most cases, a network will utilize only one callsign system but there any many exceptions where two or more callsign systems are all in operation at the same time. Use the Callsign System window to record all the characteristics of each callsign system in operation then click the OK to save the record.

# 2.3 Frequencies

The Frequencies section allows you to record the various frequencies used by stations in this network.

Traffic Analysis Workbench Logged i File Tools Modules Country Menu I I I I I I I I I I I I I I I I I I I	as ALPHA Help
File Tools Modules  Case Files  Country Menu	Help •
Case Files Country Menu I I I I I I I I I I I I I I I I I I I	•
Country Menu 🛛 🔯 🔄 🧭	-
😨 🔵 Case Files 🔤 RSNB T 200000005	
Papua New Guinea     A     RSNB TQ000000005	RMP
Paraguay     General Callsigns Frequencies Schedules Operating Procedures Traffic Cryptographic Systems COMINT Entities Locations Identities TEXTA	Log
Persian Sum     Frequency use     Principines     Frequency use     Principines     Provide     Protain Islands     Poland     Poland     Puerto Rico     Querto Rico     Querta Rico	< >
Reunion Frequencies Frequency References Frequency Rotas	
Komania     increating increasing incr	
Rwanda Frequency Ura Day Night First Heard Lat Heard Comments	
San Marino Cone and Pincipe III 5179.000K2 Broadcast No Yes 2024-11-07.22:04	
<ul> <li>Salo forme and minippe</li> <li>Salo forme and minippe</li> <li>Salo forme and minippe</li> <li>Stengal</li> <li>Spice and Spice and Spic</li></ul>	3

#### 2.3.1 Frequencies

Select the Frequencies tab and click the Add button on the toolbar to open the Add New Frequency window.

Add New Frequency			×
General			
Frequency			
Frequency Type	Undefined		~
First Heard	08 January 2024	16:57	υтс
Last Heard	08 January 2024 🛛	16:57 ≑	UTC
	Day Frequency		
	Night Frequency		
Comments			^
		ОК	Cancel

Enter the frequency and select the appropriate frequency type that best describes the frequency's use. Frequency use falls into four categories:

- **Broadcast** These are frequencies that only support one way transmissions, such as weather stations, fleet broadcasts and analogue pager systems.
- **Net Control Station** These are frequencies that only support the net control station in a duplex frequency arrangement.
- **Out Stations** These are frequencies that only support out stations in a duplex frequency arrangement
- **Simplex** These are frequencies that support both the net control station and any out stations

**NOTE:** Frequencies entered here will be used throughout the Case File record to populate lists of operating frequencies.

Once the challenge and authentication, and any supporting information has been added, click the OK button to save the record.

#### **2.3.2 Frequency References**

Select the Frequency References tab and click the Add button on the toolbar to open the Add New Frequency Reference window.

Add New Frequency Reference				
General   Reference   Date Heard   26   June   2024   Tequency   Frequency   Frequency Use   15179.000K2   Broadcast   Comments   OK   Cancel	Add New Frequency Referen	ce		×
Reference   Date Heard   26   June   2024   16:58   UTC   Recovered Frequencies   Frequency   Frequency Use   11   5179.000K2   Broadcast   Comments   OK	General			
Date Heard 26 June 2024 v 16:58 vrc Recovered Frequencies  Frequency Frequency Use 35179.000K2 Broadcast  Comments OK Cancel	Reference			
Recovered Frequencies         Frequency       Frequency Use         Image: S179.000K2       Broadcast         Comments       Image: S179.000K2         OK       Cancel	Date Heard	26 June 2024	16:58 ≑	ОТС
Frequency       Frequency Use         Image: S179.000K2       Broadcast         Comments       Image: S179.000K2         OK       Cancel	Recovered Frequencies			
Comments OK Cancel	Frequency	Frequency Use		
Comments	<b>1 1</b> 5179.000K2	Broadcast		
Comments OK Cancel				
Comments				
Comments OK Cancel				
Comments OK Cancel				
Comments				
Comments OK Cancel				
OK Cancel	Comments			~
OK Cancel				
OK Cancel				
OK Cancel				
OK Cancel				$\sim$
OK Cancel				
			OK	Cancel

For reasons of brevity and security, many networks may be refer to operating frequencies by some arbitrary code or reference rather than pass the actual dial frequency. The reference may actually be a pre-programmed channel number or a pre-defined channel designator but it could also be an encrypted version of the frequency. In many cases, channel numbers or designators may remain static for extended period of times and these may be determined over time however encrypted frequency references may change on a daily basis and without knowing the corresponding frequency, maintaining continuity on the network following a frequency change can be problematic. It is therefore essential that some attempt to understand a network's scheme of frequency references be made.

Enter any frequency reference that is heard along with the date and time it was used. Add the recovered frequency if known and any other supporting information. Even if the frequency (or in some cases, the frequency pair) cannot be recovered, it is always worth recording the frequency reference for analysis and in case the operating frequency for that exact same transmission is discovered at a later date.

Click the OK button to save the record.

# 2.4 Schedules

The Schedules section of Case Files allows you to record the working schedules for stations in the network under analysis.

HARVESTER COMINT SUITE - Traffic	Analysis Workbench					- C	× c
Traffic Analysis Workbench						Logged	in as ALPHA
File Tools Modules							Help
🍘 Case Files							
Country Menu	🔮 🛃 🥥						-
3	📋 Case Files / 🛅 RS	5NB TQ000000005					
	RSNB TQ000000	005					RMP
Paraguay	General Callsigns I	Frequencies Schedules Operating Procedures	Traffic Cryptographic System	s COMINT Entities	Locations Iden	tities TEXTA	Log
Persian Guir	Schedules						
🍯 Philippines	🗄 🜩 🎓 🔀 🖌 🛛						
Pitcairn Islands	Name	Description	Time	First Heard	Last Heard	Frequencies	
	Weather	Daily Schedule	2100-2200 U	C 2024-11-07	2024-11-07	5179.000K2	
🥳 Romania							
San Marino							
- 🍝 Sao Tome and Principe							
Serbia							
🎸 Seychelles							
Sierra Leone							
Slovak Republic							
South Africa							
Soviet Union							
🎸 Spain							
Sri Lanka							
St. Helena							
🎸 St. Lucia							
St. Pierre and Miquelon							
Sc vincent and the Grenadir							
	<						>
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Click the Add button on the toolbar to open the Add New Schedule window.

d New Schedule		
eneral		
Schedule Name		
Schedule Type	Undefined	~
	Continuous Operation (24 Hours)	
	O Daily	
	O Weekly	
	Monday Tuesday Wednesd	day
	Thursday Friday Saturday	
	Sunday	
Start Time	16:59 🚖 UTC	
End Time		
End Time	16:59 🔽 010	
Frequencies	Frequency Frequency Use	
	5179.000K2 Broadcast	
Date First Heard	08 January 2025	
Date Last Heard	08 Japuany 2025	
		_
Comments		^
		~

Determining a network's operating schedules provides both valuable details of the operating procedures of the network and also important data for the management and planning of collection assignments against the network.

Networks may operate numerous schedules combining broadcast-only components as well as station to station exchanges. Schedules may be limited to a few minutes each day or may operate 24 hours per day over a wide range of frequencies. Operating times may vary depending on the time or season of year, or from year to year. Additional schedules may be added to support specific events and removed when operation requirements no longer require them.

From your analysis of the operating patterns of the network, determine the number of schedules in operation and create a separate schedule record for each one, noting as much information as possible.

Operating frequencies are automatically populated from the case file frequencies entered on the Frequencies tab (Section 2.3)

Once you have entered all the information, click the OK button to save the record.

# 2.5 Operating Procedures

The Operating Procedures section allows you to record observations about network procedures, operator behaviours and habits by stations in the network.

I HARVESTER COMINT SUITE - Traffic	Analysis Workbench				- 0	×
Traffic Analysis Workbench					Logged in	as ALPHA
File Tools Modules						Help
🎡 Case Files						
Country Menu	: 🕒 🔒 🕼					-
2	📋 Case Files 🛛 🛅 RSNB TQ000	000005				
Papua New Guinea	RSNB TQ00000005					RMP
	General Callsigns Frequenci	es Schedules Operating Procedures Traffic Cry	ptographic Systems	COMINT Entities Locations	Identities TEXTA	Log
Persian Gulf	Operating Procedures Emission	ons Procedure Signals Chatter				
Philippines	Type of Working	Duplex	~			
Poland	Type of Calling	Double Callsign	~			
Puerto Rico	Number of Out Stations					
	Time Zone	UTC+03:00 Moscow				
	Order of Traffic	the define of				
Russia Russia	Order of frame	Undefined		~		
San Marino	Receipting Traffic	Undefined		~		
	Corrections	Undefined		~		
Saudi Arabia	Sign-Off	Undefined		~		
Serbia	Peculiar Operating Habits					
Seychelles	recular operating habits					
Sierra Leone						
Slovak Republic						
Slovenia						
Solomon Islands						
🥳 South Africa						
Soviet Union						
Span				~		
St. Kitts/Nevis						
St. Pierre and Miquelon						
St. Vincent and the Grenadir						
Sudan						
< >						

Select the Operating Procedures tab and provide as much information about that observed procedures of stations in the network. All stations will follow the same procedures and any unusual deviations for that procedure by particulars stations or operators can be noted under Peculiar Operating Habits.

Generally, each network will have a set of procedures that can be categorised as follows:

1. **Type of Working** – describes how the physical net operates in terms of the frequency schemes it uses.

- Broadcast
- Complex Receiving
- Complex Sending
- Complex Star
- Duplex
- Free Star
- Simplex
- Star
- Star with Lateral
- Undefined

- 2. **Type of Calling** describes how stations in the net call each other.
  - Collective Callsign
  - Double Callsign
  - Link Callsign
  - Single Callsign
  - Undefined

3. **Number of Out Stations** – many networks will have a variable number of out stations but others will have a fixed number and this can prove a valuable clue to identification following callsign changes.

4. **Time Zone** – this can often give a clue to the origin of a network though care must be taken as UTC is used by many networks worldwide.

5. **Order of Traffic** – this is almost always in order of priority though can be difficult to assess when single or groups of similar priority messages are sent together.

6. **Receipting Traffic** – this is usually a QSL signal but there are some variations specific to certain networks.

7. **Corrections** – this is more prevalent with voice or Morse communications where errors are more likely. Corrections are less likely in telex messages which are generally pre-prepared. Correction methods are often unique across entire country users which is indicative of well organised training and disciplined operators.

8. Sign Off – this can range from a simple QRU to less formal 73.

9. **Peculiar Operating Habits** – this is less obvious with disciplined operators but occasionally an operator will have a very distinctive hand or voice, or may say or send traffic in an unusual manner that is starkly different from other operators or stations.

Company and Customer CONFIDENTIAL

#### 2.5.1 Emissions

Select the Emissions tab and click the Add button on the toolbar to open the Add New Emission window:

Add New Emission		×
General		
Emission	Undefined	$\sim$
Modulation	Undefined	$\sim$
Parameters		
First Heard	08 January 2025	
Last Heard	08 January 2025	
Comments		^
		$\vee$
L		
	OK Car	icel

Select emission and modulation types from the dropdown lists. If the emission or modulation type required is not available in the lists, ask your System Administrator to add them to the list. Add emission parameters, if known, and any additional information then click the OK button to save the record.

# 2.5.2 Procedural Signals

Select the Procedural Signals tab and click the Add button on the toolbar to open the Add New Procedural Signal window:

		~
Add New Procedure Signal		×
General		
Genal		- I
Signai		
Signal Type	Undefined	$\sim$
Description		
Example of Use		~
		~
First Heard	08 January 2025 🔲 🔻	
Last Heard	08 January 2025 🗐 🔻	
Comments		^
		× .
	OK Canc	el

Enter the Procedural Signal and select the signal type from the dropdown list that best describes it. These signal types are

- International
- Q Code
- Undefined
- Z Code

Add a description of the meaning or purpose of the signal. Provide an example of how the signal is used and any additional information then click the OK button to save the record.

# 2.6 Traffic

The traffic section allows you to record observations about traffic characteristics and the typical types of traffic sent by stations in the network. In most cases, networks use a small number of message types. These types are often similar to other networks so it is essential that each detail about messages types are noted to aid in the identification of any one network.



Click the Add button on the toolbar to open the Add New Traffic Type window:

neral		
Message Type Traffic Name	Undefined	
Plain Language		
🔿 Cipher		
Cipher System		
Message Format	Undefined	
Preamble	Undefined	
Separator	Undefined	· · · · · · · · · · · · · · · · · · ·
Postamble	Undefined	· · · · · · · · · · · · · · · · · · ·
Language	Undefined	· · · · · · · · · · · · · · · · · · ·
sample Message		
First Heard	15 January 2024	
Comments	15 January 2024	A
		~

Message types generally fall into number of general categories

- Navigational Warnings
- Operational Messages
- Radar Tracking Reports
- Situation Reports
- Training Messages
- Undefined
- Weather Forecasts
- Weather Reports

Select the message type from the dropdown and provide a name of the message or broadcast type if know. Note if the message is in plain language or is encrypted, and if encrypted, what type of cryptographic system is being used. These systems can be defined in the Cryptographic Systems tab.

Most messages follow a standard format of preambles, separators and postambles. Select the values that best describe the message, noting the language and add an example of the message.

# 2.7 Cryptographic Systems

The Cryptographic Systems section allows you to record observations about the types of cryptographic systems in use and appearing in traffic send by stations in this network.

HARVESTER COMINT SUITE - TO HARVESTER COMINT SUITE - TO	affic Analysis Workbench	- 🗆 ×
Traffic Analysis Workbench		Logged in as ALPHA
File Tools Modules		Help
🎡 Case Files		
Country Menu	i 😭 🔜 🕼	•
2	🔵 Case Files 🛛 🛅 RSAA TQ000000021 🕅 <no name=""></no>	
Paraguay     Persian Gulf     Peru	General Callsigns Frequencies Schedules Operating Procedures Traffic Cryptographic Systems COMINT Entities Lu	ocations Ident
Princairn Islands	Cryptographic Systems Authentications	
- 🥉 Poland	1 + 2 X	
Portugal     Portugal     Portugal     Qatar     Qatar     Russia     Rwanda     San Marino     San Marino     San Marino     San Marino     San Marino     San Marino     Savedi Arabia     Seregal     Serebia     Serebia     Seychelles     Sierra Leone     Singapore     Slovak Republic     Sovenia     Solomon Islands     Somalia     South Africa     Soviet Union	Name Cipher Type Message Format	First Heard

#### 2.7.1 Cryptographic System

Select the Cryptographic Systems tab and click the Add button on the toolbar to open the Add New Cryptographic System window:

Add New Cryptographic	System	×
General		
System Name		
Cipher Type	Undefined	~
Message Format	Undefined	$\sim$
First Heard	08 January 2025 🔲 🔻	
Last Heard	08 January 2025	
Comments		^
		4
	OK Cano	ei

As the official name of a system is usually unknown, a suitable alias must often to used.

**Cipher Types** 

- Generic Machine Cipher
- Monographic Substitution Cipher
- Polygraphic Substitution Cipher
- Transposition Cipher
- Undefined

Message Formats

- 4 Digit Groups
- 5 Character Hexadecimal Groups
- 5 Digit Groups
- 5 Letter Cyrillic Groups
- 5 Letter Groups
- Undefined

Select the cipher type and message format that best reflects the cryptographic system then click OK to save the record.

#### 2.7.2 Authentications

Authentication systems form an essential part of net security, and being able to record challenge and authentication parts over time provides a usual resource when attempting to cryptanalytic attack of the system.

Select the Authentications tab and click the Add button on the toolbar to open the Add New Authentication window:

Add New Authentication			×
General			
Authentication Time	11 December 2024		😫 итс
Challenge			
Authentication			
Comments			~
			~
· · · · · · · · · · · · · · · · · · ·		OK	Cancal
		UK	Cancel

Once the challenge and authentication, and any supporting information has been added, click the OK button to save the record.

## 2.8 COMINT Entities

The COMINT Entities section allows you to record entities that are connected to individual stations within the network.

🔗 HARVESTER COMINT SUITE - Traffic Analysis Workbench	-	
Traffic Analysis Workbench	Logg	jed in as ALPHA
File Tools Modules		Help
Case Files		
Country Menu 🔄 🚰 🙀		-
💈 👘 Case Files 🛍 RSAA TQ00000021		
Paraguay     Persian Gulf     RSAA TQ000000021		REA4
Peru Callsigns Frequencies Schedules Operating Procedures Traffic Cryptographic Systems COMINT Entities Location	s Identi	ties TEX • •
C Prinippines     Friedrich Islands     Friedrich Islands     Friedrich Islands		
Poland COMINT Entity First Heard Last Heard		Comments
Portugal 💁 REA4, Russian Air Force 2024-12-14 00:00 2024-12-14 0	0:00	
Qatar		
Reunion		
Konstia		
Rwanda -		
San Marino		
Saudi Arabia		
Senegal		
Serbia		
Sierra Leone		
- Singapore		
Slovak Republic		
Slovenia		
- 📀 Somalia		
South Africa		
		>

Select the COMINT Entities tab and click the Add button on the toolbar to open the Add New COMINT Entity window

neral		
Country	Russia	
COMINT Entity:		
	E- Russia	
	RTI	
	RNM6 RRO6	
	RTK5	
	RAL2 RGY	
	RWM	
	Murmansk Radio (UDK)	
	Russian Army	
	Russian Diplomatic Service	
	Russian Navy	
Description		
First Heard	15 January 2025	
Last Heard	15 January 2025	
Comments		

Once the country is selected, the Entity box will be populated with entities from the COMINT Entities module in OOB. Navigate to and select the appropriate entity then click the OK button to save the COMINT Entity.

Company and Customer CONFIDENTIAL

#### 2.9 Locations

The Locations section allows you to record locations that have been mentioned in intercepts or about have been connected to individual stations within the network.

😸 HARVESTER COMINT SUITE - Traff	fic Analysis Workbench				-	
Traffic Analysis Workbench					Loggi	ed in as ALPHA
File Tools Modules						Help
🧻 TEXTA Database 🛛 🏶 Case Files						
Country Menu	E 😭 🖬 🕼 .					•
2	Case Files 👼 RSNB TQ00000005 👼	<no name=""></no>				
Papua New Guinea     Paracel Islands     Paracel Islands     Paracel Islands     Perigina Guif     Peri     Philippines     Pitcaim Islands     Portugal	General Calisigns Frequencies Schedules	Operating Procedures Traffic	Cryptographic Systems	COMINT Entities	ations Identities	TEXTA ••
Other Rico     Other     Other     Other     Content     Cont						
Saudi Arabia Senegal Serbia Serbia Sierra Leone Sigapore Singapore						
Slovenia Solomon Islands Somalia South Africa South Africa Soviet Union Spain						
St. Kitts/Nevis     St. Kitts/Nevis     St. Vitts/Nevis     St. Vitts/Nevis     St. Vitcent and the Grenadi     St. Vincent and the Grenadi						

Select the Locations tab and click the Add button on the toolbar to open the Add New Location window

neral		
Country	Unknown	· · · · · · · · · · · · · · · · · · ·
Location		
	-	
Description		
		~
First Heard	08 January 2025	
	08 January 2025 🛄 🔻	
Last Heard		
Last Heard Comments		^
Last Heard Comments		^
Last Heard Comments		

Once the country is selected, the Location box will be populated with locations from the Geolocation module in OOB. Navigate to and select the appropriate location then click the OK button to save the location.

# 2.10 Identities

The Identities section allows you to record identities that have been mentioned in intercepts or about have been connected to individual stations with the network.



Select the Identities tab and click the Add button on the toolbar to open the Add New Identity window

Add New Identity		×
General		
Identity		
Description		^
		~
First Heard	08 January 2025 🔍 🛒	
Last Heard	08 January 2025	
Comments		^
		~
	L	
	ОК	Cancel

Enter all the available details about the identity then click the OK button to save the record.

# **2.11 TEXTA**

The TEXTA section provides a textual summary, in the form of a TEXTA Page, including all the information that has been entered into the Case File. It should be noted that the TEXTA Page is not a vehicle to list extensive historical information but should be a summary that reflects the current status of a net or network. The information is summarised into seven section, to provide the most up-to-date description of a network or net, and will aid Intercept Operators to rapidly identify the network.

The seven summarised TEXTA areas:

- Case Summary
- Callsigns and Frequencies
- Schedules
- Operating Procedures
- Traffic
- Locations and Identities
- History

IARVESTER COMINT SUITE - Traff	ic Analysis Workbench	- 0	×
Traffic Analysis Workbench		Logged in a	s ALPHA
File Tools Modules			Help
TEXTA Database 🏼 🖓 Case Files			
Country Menu	: 📭 🛄 🗿 (		•
2	Care Filer BSNB TO0000	0005	
			_
Papua New Guinea	RSNB TQ00000005		RMP
	Callsigns Frequencies Schedule	s Operating Procedures Traffic Cryptographic Systems COMINT Entities Locations Identities TEXTA Log	4 •
Persian Gulf			
Philippines	Publish Last Publish	ed: 2024-11-09 12:00:51 Published Revision 0	
Pitcairn Islands		-	
Poland	RSNB TQ0000000	5 ACTIVE	^
Portugal Puerto Rico	RUSSIA, NAVAL FORCES, M	ANUAL MORSE	
	General		
Reunion	Title	RMP	
Russia	Category	Undefined	
	Call Signs and Frequencies		
San Marino	Control Station Call Sign or type of	DUD	
Saudi Arabia	Call Sign used	Rah	
	Control Station Frequencies	5179.000K2	
Serbia Seychelles	Out Station Call Sign or type of Call Sign used	REO	
Sierra Leone	Out Station Frequencies	None Reported	
Singapore	Schedules		
Slovenia	Schedule	Daily Schedule - 2100-2200 UTC on 5179.000K2	
Solomon Islands	Operating Procedures		
South Africa	Emission Equipment	None Reported	
Soviet Union	Type of Working	Duplex	-
Spain	Number of Out Stations		-
Sri Lanka	Type of Calling	Double Callsign	-
St. Kitts/Nevis	Procedural Codes	None Reported	-
	Order of Traffic	Undefined	-
St. Pierre and Miquelon	Decembing Traffic	Indefined	-
	Company marine		
Surinam Y	Corrections	Undermed	-
. /			

#### 2.11.1 Publishing TEXTA

The TEXTA Page displayed in Case Files shows a summary of all the information added to the case file, and is automatically refreshed whenever the case file is saved. In order to publish the TEXTA Page to the TEXTA Database so that other users, including as Intercept Operators, can view it, click the Publish button. Unpublished and amended TEXTA Pages will not appear in the TEXTA Database once they have been published.

#### 2.12 Logs

The Logs section provides a systems log of major events in the life of each Case File, such as when it was created, when it was updated and when, and what revision number, was published to the TEXTA Database. The log is automatically maintained by the system.

Traffic Analysis Workbench       Logged In as ALPHA         File       Tools       Modules       Help         Image: Country Menu
File       Tools       Modules       Help         Country Menu       Country Menu       Case Files       Country Menu       Case Files       Country Menu       Case Files       RSNB T0200000005       RMP         Papua New Guinea       Case Files       RSNB T0200000005       RMP       RMP         Paraguay       Paraguay       Case File gast 7D ays       Case File updated and saved (Revison 5).       Country Log Time       User ID       Log Description       Case File updated and saved (Revison 5).       Country Log Time       Case File updated and saved (Revison 5).       Country Log Time       Case File updated and saved (Revison 5).       Country Log Time       Case File updated and saved (Revison 5).       Country Log Time       Case File updated and saved (Revison 5).       Country Log Time       Case File updated and saved (Revison 5).       Case File updated and saved (Revison 5). <t< td=""></t<>
Country Menu   Country Menu   Papua Rew Guinea   Papua New
Country Menu       Case Files       RNB TQ000000005         Case Files       Case Files       RSNB TQ000000005         Paracel Islands       Persian Gult       Persian Gult         Persian Gult       Case Files       Case Files         Persian Gult       Case File updated and saved (Revison 5).         Polad       Case File updated and saved (Revison 5).         Catar       Case File updated and saved (Revison 5).         Catar       Case File updated and saved (Revison 5).         Reunion       Case File updated and saved (Revison 5).         Russia       Case File updated and saved (Revison 5).         Save Ariza 100:22:27       ALPHA         Case File updated and saved (Revison 5).         Catar       Case File updated and saved (Revison 5).         Russia       Case File updated and saved (Revison 5).         Save Ariano       Case File updated and saved (Revison 5).         Save Ariano       Case File updated and saved (Revison 5).         Save Ariano       Case File updated and saved (Revison 5).
Country Wenu       Image: Style
Case Files     Case File     Case Files     Case File     Case     C
Papua New Guinea          Paracel Islands          Paracel Islands          Persian Guif          Persian Guif          Persian Guif          Persian Guif          Persian Guif          Persian Guif          Destian Guif          Persian Guif          Destian Guif          Persian Guif          Destain Islands          Polad          2024-12-21 00:25:29          Polad          2024-12:21 00:22:27          Quit 1:20 01:20:05          AIPHA          Case File updated and saved (Revison 5).         Quit 1:20 01:55:24          AIPHA          Case File updated and saved (Revison 5).         2024-12:20 16:52:34         Rwanda          2024-12:20 16:52:34          Quit 1:20 16:52:34         San Marino         San Marino
General       Callsigns       Frequencies       Schedules       Operating Procedures       Taffic       Cryptographic Systems       COMINT Entities       Locations       Identities       TEXTA       Log         Peru       Peru       Image: Schedules       Operating Procedures       Taffic       Cryptographic Systems       COMINT Entities       Locations       Identities       TEXTA       Log         Peru       Image: Schedules       Operating Procedures       Taffic       Cryptographic Systems       COMINT Entities       Locations       Identities       TEXTA       Log         Peru       Image: Schedules       Operating Procedures       Taffic       Cryptographic Systems       COMINT Entities       Locations       Identities       TEXTA       Log         Peru       Procedures       Taffic       Cryptographic Systems       COMINT Entities       Locations       Identities       TeXTA       Log         Peru       Procedures       Taffic       Cryptographic Systems       COMINT Entities       Locations       Identities       TeXTA       Log         Poland       2024-12-21       Cryptographic Systems       Commons       Log       Texta       Cryptographic Systems       Comins       Log       Texta       Log       Texta       Log       <
Persian Gulf       Persian Gulf         Persian Gulf       Peru         Philippines       Log Time       User ID       Log Description         Philippines       2024-12-21 00:25:29       ALPHA       Case File updated and saved (Revison 5).         Poland       2024-12-21 00:22:25       ALPHA       Case File updated and saved (Revison 5).         Portugal       2024-12-21 00:22:25       ALPHA       Case File updated and saved (Revison 5).         Putro Rico       2024-12-21 00:22:27       ALPHA       Case File updated and saved (Revison 5).         Qatar       2024-12-21 00:22:27       ALPHA       Case File updated and saved (Revison 5).         Reunion       2024-12-21 00:22:27       ALPHA       Case File updated and saved (Revison 5).         Rewanda       2024-12-20 10:55:43       ALPHA       Case File updated and saved (Revison 5).         Russia       2024-12-20 16:56:46       ALPHA       Case File updated and saved (Revison 5).         San Marino       2024-12-20 16:56:44       ALPHA       Case File updated and saved (Revison 5).         Saud Arabia       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         Saud Arabia       2024-12:06 10:22:09       ALPHA       Case File updated and saved (Revison 5).         Sergal       2024-11:09 11:20:4
Philippines       Log Time       User ID       Log Description       ^         Protrain Islands       2024-12.21 00:25:29       ALPHA       Case File updated and saved (Revison 5).       ^         Portugal       2024-12:21 00:22:25       ALPHA       Case File updated and saved (Revison 5).       ^         Putro Rico       2024-12:21 00:22:25       ALPHA       Case File updated and saved (Revison 5).       ^         Qatar       2024-12:21 00:22:27       ALPHA       Case File updated and saved (Revison 5).       ^       ^         Qatar       2024-12:20 10:22:27       ALPHA       Case File updated and saved (Revison 5).       ^       ^       ^         Reunion       2024-12:20 10:22:27       ALPHA       Case File updated and saved (Revison 5).       ^       ^         Russia       2024-12:20 10:55:15       ALPHA       Case File updated and saved (Revison 22).       ^       ^         Russia       2024-12:20 15:55:31       ALPHA       Case File updated and saved (Revison 5).       ^       ^         Sao Tome and Principe       2024-12:20 16:52:34       ALPHA       Case File updated and saved (Revison 5).       ^       ^         Sao Tome and Principe       2024-12:0 16:52:34       ALPHA       Case File updated and saved (Revison 5).       ^       ^
Pitcain Islands       2024-12-21 00:25:29       ALPHA       Case File updated and saved (Revison 5).         Poland       2024-12-21 00:23:25       ALPHA       Case File updated and saved (Revison 5).         Poland       2024-12-21 00:23:25       ALPHA       Case File updated and saved (Revison 5).         Puerto Rico       2024-12-21 00:23:25       ALPHA       Case File updated and saved (Revison 5).         Qatar       2024-12-21 00:23:27       ALPHA       Case File updated and saved (Revison 5).         Rusino       2024-12-21 00:23:27       ALPHA       Case File updated and saved (Revison 5).         Reunion       2024-12-20 10:59:31       ALPHA       Case File updated and saved (Revison 22).         Rusinal       2024-12-20 10:59:31       ALPHA       Case File updated and saved (Revison 22).         Rusinal       2024-12-20 10:59:31       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-12-20 10:52:34       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-12-20 10:52:31       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-12-20 10:52:31       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-12-20 10:52:31       ALPHA       Case File updated and saved (Revison 5).
Poland       2024-12-21 0022-22       ALPHA       Case File updated and saved (Revison 5).         Portugal       2024-12-21 0022-22       ALPHA       Case File updated and saved (Revison 5).         Outar       2024-12-21 0022-22       ALPHA       Case File updated and saved (Revison 5).         Outar       2024-12-21 0022-27       ALPHA       Case File updated and saved (Revison 5).         Reunion       2024-12-21 0022-27       ALPHA       Case File updated and saved (Revison 5).         Reunion       2024-12-21 0022-27       ALPHA       Case File updated and saved (Revison 2).         Reunion       2024-12-20 105:23       ALPHA       Case File updated and saved (Revison 22).         Rewanda       2024-12-20 16:56:46       ALPHA       Case File updated and saved (Revison 5).         San Marino       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         Sao Tome and Principe       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         Serbia       2024-11-20 11:52:31       ALPHA       Case File updated and saved (Revison 5). <t< td=""></t<>
• Portugal       • 2024-12-21 0023-25       ALPHA       Case File updated and saved (Revison 5).         • Quatar       • 2024-12-21 0023-25       ALPHA       Case File updated and saved (Revison 5).         • Reunion       • 2024-12-21 0023-25       ALPHA       Case File updated and saved (Revison 5).         • Reunion       • 2024-12-21 0023-25       ALPHA       Case File updated and saved (Revison 5).         • Reunion       • 2024-12-20 1055-31       ALPHA       Case File updated and saved (Revison 5).         • Russia       • 2024-12-20 1055-31       ALPHA       Case File updated and saved (Revison 5).         • Russia       • 2024-12-20 1055-31       ALPHA       Case File updated and saved (Revison 5).         • San Marino       • 2024-12-20 1055-31       ALPHA       Case File updated and saved (Revison 5).         • Saud Arabia       • 2024-12-20 1055-31       ALPHA       Case File updated and saved (Revison 5).         • Saud Arabia       • 2024-12-20 105:2-34       ALPHA       Case File updated and saved (Revison 5).         • Saud Arabia       • 2024-12-20 105:2-31       ALPHA       Case File updated and saved (Revison 5).         • Saud Arabia       • 2024-12-20 105:2-31       ALPHA       Case File updated and saved (Revison 5).         • Saud Arabia       • 2024-11-20 11:5-34       ALPHA       Case File updated and sav
Puerto Rico       2024-12-21 00:22:27       ALPHA       Case File updated and saved (Revison 5).         Catar       2024-12-21 00:21:05       ALPHA       Case File updated and saved (Revison 5).         Reunion       2024-12-20 10:55:03       ALPHA       Case File updated and saved (Revison 5).         Reusian       2024-12-20 10:55:03       ALPHA       Case File updated and saved (Revison 22).         Russia       2024-12-20 16:55:43       ALPHA       Case File updated and saved (Revison 5).         Russia       2024-12-20 16:55:44       ALPHA       Case File updated and saved (Revison 5).         San Marino       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         San Marino       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-12-20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         Saudi Arabia       2024-11:09 12:00:51       ALPHA       Case File updated and saved (Revison 5).         Serbia       2024-11:09 12:00:51       ALPHA       Case File updated and saved (Revison 5).         Serbia       2024-11:09 12:00:51       ALPHA       Case File updated and saved (Revison 5).         Serbia       2024-11:09 12:00:51       ALPHA       Case File updated and saved (Revison 5). <td< td=""></td<>
Outer         Outer         Outer         Outer           Rewinion         2024-12-21 00:21:05         ALPHA         Case File updated and saved (Revison 5).           Romania         2024-12-20 17:01:29         ALPHA         Case File updated and saved (Revison 22).           Restrict         2024-12-20 16:55:31         ALPHA         Case File updated and saved (Revison 22).           Restrict         2024-12-20 16:55:43         ALPHA         Case File updated and saved (Revison 5).           San Marino         2024-12-20 16:52:34         ALPHA         Case File updated and saved (Revison 5).           Saso Tome and Principe         2024-12-20 16:52:34         ALPHA         Case File updated and saved (Revison 5).           Saso Saudi Arabia         2024-12-20 16:52:31         ALPHA         Case File updated and saved (Revison 5).           Seregal         2024-12-20 16:22:09         ALPHA         Case File updated and saved (Revison 5).           Serbia         2024-11-09 12:00:13         ALPHA         Case File updated and saved.           Seychelles         2024-11-09 12:00:05         ALPHA         Case File updated and saved.           Serbia         2024-11-109 12:00:05         ALPHA         Case File updated and saved.           Seychelles         2024-11-109 12:00:05         ALPHA         Case File updated and saved.
Reunion         Ø 2024-12-20 17:01-29         ALPHA         Case File updated and saved (Revison 22).           Russia         Ø 2024-12-20 16:55:31         ALPHA         Case File updated and saved (Revison 22).           Rwanda         Ø 2024-12-20 16:55:31         ALPHA         Case File updated and saved (Revison 22).           San Marino         Ø 2024-12-20 16:52:34         ALPHA         Case File updated and saved (Revison 5).           San Drome and Principe         Ø 2024-12-20 16:52:34         ALPHA         Case File updated and saved (Revison 5).           Sand Janabia         Ø 2024-12-20 16:52:34         ALPHA         Case File updated and saved (Revison 5).           Sengal         Ø 2024-12-00 16:22:09         ALPHA         Case File updated and saved (Revison 5).           Sergelal         Ø 2024-11-09 12:00:31         ALPHA         Case File updated and saved (Revison 5).           Seychelles         Ø 2024-11-09 11:00:20:09         ALPHA         Case File updated and saved (Revison 5).           Seychelles         Ø 2024-11-109 11:00:05         ALPHA         Case File updated and saved (Revison 5).           Seychelles         Ø 2024-11:09 11:50:40         ALPHA         Case File updated and saved.           Singapore         Ø 2024-11:09 11:55:43         ALPHA         Case File updated and saved.           Ø Singapore         Ø 2024-11:0
Russina <sup>2</sup> 2024-12-20 16:59:31        ALPHA        Case File updated and saved (Revison 52).          Rwanda <sup>2</sup> 2024-12-20 16:56:46        ALPHA        Case File updated and saved (Revison 5).          San Marino <sup>2</sup> 2024-12-20 16:55:47        ALPHA        Case File updated and saved (Revison 5).          San Marino <sup>2</sup> 2024-12-20 16:52:31        ALPHA        Case File updated and saved (Revison 5).          Sand Jarbia <sup>2</sup> 2024-12-20 16:52:31        ALPHA        Case File updated and saved (Revison 5).          Saudi Arabia <sup>2</sup> 2024-12-20 16:52:31        ALPHA        Case File updated and saved (Revison 5).          Serbia <sup>2</sup> 2024-11-09 12:00:53        ALPHA        Case File updated and saved (Revison 5).          Serbia <sup>2</sup> 2024-11-09 12:00:51        ALPHA        Case File updated and saved.          Serbia <sup>2</sup> 2024-11-09 12:00:51        ALPHA        Case File updated and saved.          Sigrapore <sup>2</sup> 2024-11-09 11:59:49        ALPHA        Case File updated and saved.          Sigrapore <sup>2</sup> 2024-11-09 11:59:49        ALPHA        Case File updated and saved.
• Rwanda       • 2024-12-20 16:56:46       ALPHA       Case File updated and saved (Revison 5).         • San Marino       • 2024-12-20 16:52:34       ALPHA       Case File updated and saved (Revison 5).         • San Ome and Principe       • 2024-12:20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         • Saudi Arabia       • 2024-12:20 16:52:31       ALPHA       Case File updated and saved (Revison 5).         • Senegal       • 2024-11:09 12:00:138       ALPHA       Case File updated and saved.         • Serbia       • 2024-11:09 12:00:51       ALPHA       Case File updated and saved.         • Serbia       • 2024-11:09 12:00:51       ALPHA       Case File updated and saved.         • Serbia       • 2024-11:09 12:00:51       ALPHA       Case File updated and saved.         • Signapore       • 2024-11:09 11:59:49       ALPHA       Case File updated and saved.         • Signapore       • 2024-11:09 11:59:43       ALPHA       Case File updated and saved.         • Signapore       • 2024-11:09 11:59:43       ALPHA       Case File updated and saved.
San Marino         2024-12-20 1652:31         ALPHA         Case File updated and saved (Revision 5).           Sao Tome and Principe         2024-12-20 1652:31         ALPHA         Case File updated and saved (Revision 5).           Sao Tome and Principe         2024-12-20 1652:31         ALPHA         Case File updated and saved (Revision 5).           Sao Tome and Principe         2024-12-06 102:20         ALPHA         Case File updated and saved (Revision 5).           Seregal         2024-11-09 12:01:38         ALPHA         Case File updated and saved.           Seretral         2024-11-109 12:00:31         ALPHA         Case File updated and saved.           Seychelles         2024-11-109 12:00:40         ALPHA         Case File updated and saved.           Signapore         2024-11-109 11:55:49         ALPHA         Case File updated and saved.           Singapore         2024-11-109 11:55:43         ALPHA         Case File updated and saved.
Sao Tome and Principe <sup>2</sup> 2024-12-20 16:52:31           ALPHA         Case File updated and saved (Revison 5).          Sourd Xabia <sup>2</sup> 2024-12-20 16:52:31           ALPHA         Case File updated and saved. (Revison 5).          Serona <sup>2</sup> 2024-11:09 12:00:51           ALPHA         Case File updated and saved.          Serona <sup>2</sup> 2024-11:09 12:00:51           ALPHA         Case File updated and saved.          Serona <sup>2</sup> 2024-11:09 12:00:51           ALPHA         Case File updated and saved.          Serona <sup>2</sup> 2024-11:09 12:00:51           ALPHA         Case File updated and saved.          Signapore <sup>2</sup> 2024-11:09 11:59:33           ALPHA         Case File updated and saved.          Signapore <sup>2</sup> 2024-11:09 11:59:33           ALPHA         Case Notation published.
Saudi Arabia     2024-12.06 1022:09     ALPHA     Case File updated and saved (Revison 5).       Senegal     2024-11:09 12:00:31     ALPHA     Case File updated and saved.       Serbila     2024-11:09 12:00:51     ALPHA     Case File updated and saved.       Seychelles     2024-11:09 12:00:51     ALPHA     Case File updated and saved.       Seychelles     2024-11:09 12:00:00     ALPHA     Case File updated and saved.       Signapore     2024-11:09 11:59:49     ALPHA     Case File updated and saved.       Signapore     2024-11:09 11:59:49     ALPHA     Case File updated and saved.
Sengal       2024-11-09 12:01:38       ALPHA       Case File updated and saved.         Serbia       2024-11-09 12:00:51       ALPHA       Case Notation published.         Seychelles       2024-11-09 12:00:51       ALPHA       Case File updated and saved.         Seychelles       2024-11-09 12:00:40       ALPHA       Case File updated and saved.         Signapore       2024-11-09 11:58:35       ALPHA       Case File updated and saved.         Signapore       2024-11-09 11:58:35       ALPHA       Case Notation published.
Serbia     2024-11-09 12:00:51     ALPHA     Case Notation published.       Seychelles     2024-11-09 12:00:40     ALPHA     Case File updated and saved.       Singapore     2024-11-09 11:59:33     ALPHA     Case File updated and saved.       Construction     Singapore     2024-11:09 11:59:33     ALPHA     Case Notation published.
Seychelles         2024-11.09 12:00:40         ALPHA         Case File updated and saved.           Signapore         2024-11.09 11:59:49         ALPHA         Case File updated and saved.           Class File updated and saved.         Case File updated and saved.         Case File updated and saved.
O Sterra Leone     O 2024-11-09 11:59:49     ALPHA     Case File updated and saved.       Singapore     O 2024-11-09 11:59:35     ALPHA     Case Notation published.
Singapore 2024-11-09 11:58:35 ALPHA Case Notation published.
Sugar Republic 2024-11-09 11:58:32 ALPHA Case File updated and saved.
Solema / Solema / 2024-11-07 22:37:51 ALPHA Case Notation published.
Solution isatus 2024-11-07 22:37:18 ALPHA Case File updated and saved.
South Africa 2024-11-07 22:35:58 ALPHA Case File updated and saved.
Source Union Q22:35:57 ALPHA Case File updated and saved.
Spain Spain 2024-11-07 22:35:57 ALPHA Case File updated and saved.
Sri Lanka 2024-11-07 22:35:57 ALPHA Case File updated and saved.
🕂 St. Helena – 🥝 2024-11-07 22:35:26 ALPHA Case File updated and saved.
St. Kitts/Nevis 2024-11-07 22:35:24 ALPHA Case File updated and saved.
St. Lucia 2022-11-07 22:34:55 ALPHA Case File updated and saved.
- 💱 St. Pierre and Miquelon 🖉 2024-11-07 22:04:58 ALPHA Case Notation published.
St. Vincent and the Grenadir 22:04:52 ALPHA Case File updated and saved.
Sudan Q2024-11-07 22:04:26 ALPHA Case File updated and saved.
Surinam 20224-11-07 22:03:59 ALPHA Case File updated and saved.

# 2.13 Block Assignments

Block Assignments provide a useful tool to the Traffic Analyst when managing targeted collection assignments. By defining different blocks for different collection

I HARVESTER COMINT SUITE - Traffi	c Analysis Workbench	– 🗆 🗙
Traffic Analysis Workbench		Logged in as ALPHA
File Tools Modules		Help
Case Files		
Country Menu		
		•
: <b>@</b>	Case Files 🔤 RSNB TQ00000005	
	Russia	
Paracel Islands		
Persian Gulf	Case Files DIOCK Assignments	
	+ New Block Z Refresh X Delete	
	Block Block Name Decription	Status
Pitcairn Islands	1000 Default	Enabled
- Ortugal		
Reunion		
Russia		
Rwanda		
Sao Tome and Principe		
Saudi Arabia		
Serbia		
Seychelles		
🌀 Sierra Leone		
Slovak Republic		
Solomon Islands		
- Somalia		
Soviet Union		
Sri Janka		
St. Helena		
St. Pierre and Miquelon		
Sudan		
- Surinam V		
< >	¢.	>

Click the New Block button in the toolbar to open the Block Assignment Editor window.

Block Assignment Editor		×
General		
Block Number		
Block Name		
	✓ Enabled	
Description		^
		~
	ОК	Cancel

# **3. TEXTA DATABASE (TDB)**

The TEXTA Database (TDB) module provides a country by country list of all the currently published TEXTA for networks and nets currently identified or under analysis. Each TEXTA page is divided into seven specific areas that are organised into topics that will help Intercept Operators rapidly identify communications.

**NOTE** This module is also available to Intercept Operators in the Collection Operator Terminal.

Select the TEXTA Database option from the menu to open the TEXTA Database module.

<u> </u> H	ARVESTER COMINT SUITE - T	fraffic Analysis Workbench						-		×
Traffic	Analysis Workbench							Logg	ed in as	ALPHA
File	Tools Modules									Help
🗍 ТЕ	XTA Database									
TDB	1							Ve	rsion 202	24.003
Count	ry Menu	United Kingdom								
	Sweden	Case Notations Search								
8	Syria	i 🗶 All	Temporar	Permanent	21 Record(s)					
- 6	Taiwan	Case Notation	Service		Transmission System	Title			Cate	000
	Tajikistan Tanzania		Air Force		Sneech	LIK ARCN Network			0	, oij
	Thailand	UKAS TO00000009	Air Force		Speech	OK AKCH NELWOIK			0	
	Togo	UKAS TQ00000018	Air Force		Speech	ATC National Voice Networ	k			
	Tokelau Islands	🛅 UKAS TQ00000023	Air Force		Speech	ATC			0	
	Tonga	🔚 UKAS TQ00000044	Air Force		Speech	RAF Volmet			0	
	Trinidad and Tobago	G UKAS TQ00000093	Air Force		Speech	UK MRCC			0	~
	Tunisia	<								>
	Turkey	UKAC TOOOO		•			1070	-		
	Turkieriistari Turks and Caicos Island	UKAS IQUUU	10000	2			AC IIV	E		^
	Tuvalu	United Kingdom	ir Fore	o Snood	h					
l l č	Uganda	United Kingdom /		e, speeci						
	Ukraine	UK ARCN Network								
ĕ	United Arab Emirates									- 11
- 6	United Kingdom	Case Summary								
	United States	Cose Description								
	Unknown	Case Description								
	Uruguay	Call Signs and Frequencies								
	Uzbekistan	Control Station Call Sign or	type							
	Vatican City	of Call Sign used	MK	L						
	Venezuela									-
	Vietnam	Control Station Frequencies	s 669	7.000K8						
Š	Virgin Islands (U.S.) Wake Island Wallis and Eutuna	Out Station Call Sign or type Call Sign used	e of Ra	ndom Tactical 3	3 Characters (nLL, LnL)					
	Western Samoa	Out Station Frequencies								
<	Yemen ×	Description of calls, separa	itions							<b>`</b>

Select the country of interest in the Country Menu and the current list of published TEXTA for that country will be displayed in the right-hand panel. Select a Case Notation from the list to display the TEXTA page. Each TEXTA page is organised into TEXTA areas:

- Case Summary
- Callsigns and Frequencies
- Schedules
- Operating Procedures
- Traffic
- Locations and Identities

• History

TEXTA pages should be viewed as "latest available information" but are works in progress as they constantly evolve as new information is gleaned from Traffic Analysis. It is the responsibility of the Traffic Analysis process to keep TEXTA pages up-to-date. As well as viewing specific countries, the TEXTA Database can also be searched.

G HARVESTER COMINT SUITE -	Traffic Analysis Workbench					- 0	×
Traffic Analysis Workbench						Logged in as	ALPHA
File Tools Modules							Help
TEXTA Database							
TDB						Version 20	24.003
Country Menu	United Kingdom						
Sweden	onnea kingaoni						
	Case Notations Search						
Syria	🔄 🖏 Query Editor 🛛 🤹	0 Record(s) found					-
Taiwan	Case Notation	Country	Service	Transmission System	Title		
Tanzania							
Thailand							
Tokelau Islands							
Tripidad and Tohago							
Tunisia							
- 🥉 Turkey							
- 😪 Turks and Caicos Island							
Tuvalu							
Uganda							
United Arab Emirates							
- 🌀 United States							
Uruguay							
Vanuatu							
Vatican City							
Virgin Islands (U.S.)							
Wallis and Futuna							
Western Samoa							
🛶 😽 Yemen 🗸 🗸 🗸							
< >							

Select the Search tab then click the Query Editor button to open the Query Editor window. Here Case Notations can be searched using the wildcard character %, by Country, Service or Transmission System. Results can be further refined by defining the originator of the TEXTA, the Case title and any specific words that might be used in the TEXTA page, again using the wildcard character %.

Query Editor			2
General			
Case Notation			
O Country/Service/Transmi	ssion System		
Country		~	
Service		~	
Transmission System		~	
Originator		~	
Title			
Search Text			
Case Notation Type	Temporary		
	Permanent		
		OK Cancel	

# 4. ORDER OF BATTLE

The Order of Battle (OOB) module provides a repository for the development and recording of individual organisations and their constituent entities as they are discovered through intercepts and analysis. The hierarchical view allows the internal structures of each organisation to be modelled to produce an Order of Battle for each individual organisation. OOB data is fully integrated throughout HARVESTER COMINT Suite to provide a universal data structure onto which all information gleaned from intercepts, such as intercept logs, messages and callsigns, can be quickly and easily mapped. This level of integration then allows logs from individual COMINT entities to be rapidly retrieved for analysis.

**NOTE:** The OOB module uses a Query Focussed Dataset which must be periodically refreshed to ensure that the latest logs appear against selected COMINT Entities. The last refresh date is displayed at the right hand side of the module's toolbar. If you need the data refreshed, ask your Systems Administrator to refresh the PENDRAGON dataset.

It should be noted that there is an important functional difference between an organisational unit and a COMINT entity. Organisational units reflect the hierarchy of an organisation, its roles and its functions but do not emit COMINT signals. COMINT entities, on the other hand, are physical entities attached to the various levels of an organisational hierarchy that will emit COMINT signals and will be identified by a callsign.

Select the OOB option from the menu to open the Order of Battle module.

I HARVESTER COMINT SUITE - T	fraff	ic Analysis Workbench				-		×
Traffic Analysis Workbench						Logg	ed in as A	LPHA
File Tools Modules								Help
PENDRAGON								
DENIDRACON								
PENDRAGON								attie
Country Menu		Russia						
2		COMPLETE A LONG						
	~	COMINI Entitles Geolocation	1					_
		Navigation Menu	: 🕂 Add 😴 Refresh 🗙 Delete					
Puerto Rico		+ 2	Russia					
Reunion		- A Russia	Name		Туре		Location	^
Romania		Russian Air Force	Russian Air Force		Organisation			
		😳 Russian Army	Russian Army		Organisation			
Rwanda		Russian Diplomati	Russian Diplomatic Service		Organisation			
San Marino		Russian Meteo Sel	Russian Navy		Organisation			
Saudi Arabia			RAL2		Undefined			
Senegal			🔓 RGY		Land Fixed			
😌 Serbia			🚔 RNM6		Undefined			~
Seychelles			<					>
Singapore			🔹 🝸 Last 7 Days 🔹					
Slovak Republic			The second					
			Log Number	Description				
Solomon Islands								
South Africa								
Soviet Union								
😽 🕤 Sri Lanka								
St. Helena								
St. Lucia								
St. Pierre and Miquelon								
Sudan								
Surinam	¥							
< >		` `	`			 		'

#### 4.1 Adding a new Organisational Unit

With the COMINT Entities tab selected, select the country of interest from the Country Menu. This will load the country information into the Navigation Menu. The country icon and name will appear in the country hierarchy view. Click the Add icon in the Navigation Menu to open the Add New Organisational Unit window.

Add New Organisational Un	it	$\times$
General Attributes		
Name		۱ ۱
Organisation Type	Undefined ~	/
Arbitrary Unit Designator		
Country	Unknown	*
Fixed Location	~	*
Description	^	
Effective Date	15 January 2025	
Obsolete Date	15 January 2025	
Remarks		
	v	
	OK Cance	9

Enter the name of the organisation and any additional information that is known about it then click the OK button to save the new organisational unit. The new unit will be appear in the hierarchy view of the country with the name that was entered in the Name field.

An Arbitrary Unit Designator can be assigned to each individual organisational unit if required to help map the organisational structure and add an additional level of hierarchy and deposition information. This is particularly useful when mapping military organisational structures.

Country can be selected to provide a general location for an organisational unit, and can be further refined by selecting a Fixed Location from the dropdown box. Fixed location are populated directed from Geolocation data.

**TIP** When building an organisational hierarchy, there can often be some confusion when trying to decide whether a certain type of entry should be defined as either a organisational unit or as a COMINT entity. A good example of this is a military airfield. It will be home to a number of services, each of which may well support COMINT emitters. In this case, it is suggested that the airfield is defined as an organisational unit with each of its services defined as different organisational units. Only the transmitting entities within each organisational unit should be defined as COMINT entities. Another example of this is an embassy. Although the embassy is a physical location, it is also a COMINT emitter therefore would be recorded on the OOB as a COMINT entity.

#### 4.2 Adding a new COMINT Entity

Select the organisational unit in the Navigation Menu that you wish to add the COMINT entity to and click the Add icon in the right hand toolbar to open the Add New COMINT Entity window.

dd New COMINT Entity		
eneral Attributes		
Name	1	
Permanent Callsion		
· · · · · · · · · · · · · · · · · · ·	Collective Callsign	
Platform Type	Undefined ~	
Platform Description	Undefined	$\sim$
Arbitrary Unit Designator		
Country	Unknown	$\sim$
Fixed Location		$\sim$
First Heard	11 January 2025	
Last Heard	11 January 2025	
Entity Description		~
	11 Januari 2025	~
Effective Date	11 January 2025	
Obsolete Date	11 January 2025	
Remarks		
		~
	OK Can	icel

COMINT entities can be identified by either the name of the entity or by its callsign. This allows both known entities that have not yet been heard or intercepted entities that have not yet been fully identified to be added.

To add additional information about the COMINT entity, click the Attributes tab to access the entity attributes module.

Enter as much information about the entity that is known then click the OK button to save the new organisational unit. The new COMINT Entity will be appear in the right-hand entity panel.

Add New COMINT Entity		×
General Attributes		
💠 🕂 Add 🛫 Refresh 🗙 Delete		
Attribute Name Value		
	OK	Cancel

To add a new attribute, click the Add button in the toolbar to open the Add New Attribute window.

Add New Attribute		×
General		
Attribute Type	Undefined	~
Attribute		
Description		^
	ОК	Cancel

Select the type of attribute being added from the dropdown box, enter the attribute value and a description if required, then click the OK button to save the attribute.

There are currently 29 types of attribute that can be attached to organisational units and COMINT Entities.

Aeronautical Selcal Code (ANNEX 10)	Internal Tele
Aircraft Registration	IPv4 Address
ALE Call Sign	IPv6 Address
Email Address	ITU Call Sign
Fixed Service Maritime Selcal	Landline Tel
Fixed Service Selcal	Maritime Mo
Home Port	MMSI
Hull Number	Mobile Tele
IATA 3-Letter Airfield Code	Pager Numb
IATA Airline Code	Postal Addre
ICAO 4-Letter Airfield Code	Routing Desi
ICAO24 Address	Undefined
IMO Number	URL
IMSI	Voice Call Sig
INMARSAT Telephone Number	WMO Obser

Internal Telephone Extension IPv4 Address IPv6 Address ITU Call Sign Landline Telephone Number Maritime Mobile Selcal MMSI Mobile Telephone Number Pager Number Postal Address Routing Designator Undefined URL Voice Call Sign WMO Observing Station Number

#### 4.6 Geolocation

With the Geolocation tab selected, select the country of interest from the Country Menu. This will load the country information into the Navigation Menu. Like OOB data, Geolocation data is fully integrated throughout HARVESTER COMINT Suite and is used in Case Files as a method of correlating the locations of different COMINT entities. Geolocation data is divided into two types: Locations and Installations.

HARVESTER COMINT SUITE - Transition	íraffic Analysis Workbench – 🗆	×
Traffic Analysis Workbench	Logged in a	as ALPHA
File Tools Modules		Help
PENDRAGON		
PENDRAGON	Order	Of Battle
Country Menu	Sweden	
2		
Solomon Islands	COMINT Entities Geolocation	
Somalia	Navigation Menu 🚽 🖶 Add 🛫 Refresh 🗙 Delete	
South Africa	+ 🕹 Sweden	
	Name Type Type Amplifier	
Spain		
St Halana		
St. Helena		
St. Lucia		
St. Pierre and Miquelon		
🚽 🌀 St. Vincent and the Grenac		
Surinam		
Swaziland		
Switzerland		
Svria		
💽 Tajikistan		
Togo		
Tongo		
Trinidad and Tobago		
Tunisia		
Turks and Caicos Islands		
Tuvalu		
Uganda	×	
< >	<	>

# 4.6.1 Locations

Locations describe major regions and areas within a country and fall into three main categories: Geopolitical Areas, Population Areas and Geographical Features. These categories are further defined as:

#### **Geopolitical Areas**

- Autonomous Region
- Country
- County
- Occupied Territory
- Region
- State

#### **Population Areas**

- City
- Suburb
- Town
- Village

#### **Geographical Features**

- Hill
- Inland Waterway
- Mountain

To add a new location, click the Add button in the toolbar to open the Add New Location window.

Add New Location		×
General		
Schelar		
Location Name		
Location Abbreviation		
Туре	Undefined	~
Type Amplifier	Undefined	$\sim$
Description		^
		~
Latitude/Longitude	00° 00' 00.0 N ~ 000° 00' 00.0 E ~	
Determined By	Undefined	$\sim$
Ground Elevation (m)	0.0	
Area Axis Major (km)	0.0	
Area Axis Minor (km)	0.0	
Effective Date	08 January 2025	
Obsolete Date	08 January 2025	
Remarks		~
		$\sim$
	or	Cancel
	OK	cuncer

#### 4.6.2 Installations

Installations describe specific physical buildings and structures within a location. There are currently 26 defined types of installation:

- Airfield Airport Antenna Site Barracks Container Storage Facility Embassy or Consulate Factory Fire Station Government Building Government Installation Harbour Headquarters Building Hospital
- Office Block Oil Refinery Oil Storage Facility Police Station Port Power Station (Coal) Power Station (Gas) Power Station (Nuclear) Radar Station Railway Station Railway Yard Research Building Training Area

To add a new installation, click the Add button in the toolbar to open the Add New Installation window.

Add New Installation		$\times$
General		
Installation Name	1	ا ٦
Installation Abbreviation		-
Installation Type	Undefined	~
	Civilian	_
	Military	
Description		^
Latitude/Longitude	00° 00' 00.0 N V 000° 00' 00.0 E V	
Determined By	Undefined	~
Ground Elevation (m)	0.0	
Area Axis Major (km)	0.0	
Area Axis Minor (km)	0.0	
Effective Date	15 January 2025	
Obsolete Date	15 January 2025	
Remarks		^
	OK Canc	el

# **5.** LOG ANALYSIS

The Log Analysis module is designed to provide traffic analysts with an ability to rapidly search all local logs (Coverage, Intercepts and Message logs) to aid in the analysis task.

**NOTE:** The Log Analysis module uses a Query Focussed Dataset which must be periodically refreshed to ensure that the latest logs are available for analysis. The last refresh date is displayed at the right hand side of the module's toolbar. If you need the data refreshed, ask your Systems Administrator to refresh the TANGERINE dataset.

Click on the Modules menu and select the Log Analysis option to open this module.



In the Log Analysis module, click on the New Query button on the toolbar bar to open a new Query window:

I HARVESTER COMINT SU	ITE - Traffic Analysis	Workbench					-		×
Traffic Analysis Workbench							Logg	ed in as	ALPHA
File Tools Modules									Help
TANGERINE									
TANGERINE								Log Ar	nalysis
Queries	: 🕒 🔒 👔								
2 🗢 📄	No Name>								
	🕴 🖏 Query Editor	2 0 record	s)						
Russian Naval	Date	Source	Survey Case Notation	Case Notation	Record Type	Log Number	Frequencies		
	<								>

Click on the Query Editor button on the toolbar to open the Query Editor:

Query Editor		>
Standard Query		
Case Notation		
Survey Case Notation		
Frequency		
Modulation	~	
Emission	~	
	✓ Include Coverage	_
	Coverage Number	
	Include Intercepts	_
	Intercept Number	
	Include Messages	_
	Message Log Number	
Description		
Content		
Operator Comments		Ī
From	14 January 2025	
🗌 Until	14 January 2025	
Day Filter	Last 24 Hours 🗸	
Collection Systems		
HARVESTER		
	OK Cano	el

In the Query Editor, you can define a number of parameters to meet your search requirements then click the OK button to run the query. Query results are displayed in the lower section of the query window.

I HARVESTER COMINT SU	ITE - Traffic Analysis	Workbench					-		×
Traffic Analysis Workbench							Logge	ed in as (	Alpha
File Tools Modules									Help
TANGERINE									
TANGERINE								Log Ar	nalysis
Queries	i 🔮 🔒 🕼								
i 🤹 🕨	😑 <no name=""> *</no>								
	🛛 🖏 Query Editor	2   4 re	ecord(s)						
🛄 Russian Naval	Date	Source	Survey Case Notation	Case Notation	Record Type	Log Number	Frequencies		
	2024-12-09	HARVESTER	54130000	USQS TQ00000028	Intercept	2024344000001	5413.000K3		
	2024-12-09	HARVESTER	54130000	USQS TQ00000028	Intercept	2024344000001	5413.000K3		
	2024-12-13	HARVESTER	32580000	GCQS TQ00000029	Intercept	2024348000001	3258.000K8		
	2024-12-13	HARVESTER	63420000		Intercept	2024348000002	6342.000K5		
	<								>
	Intercept 2024	4344000001	Intercept 2024344000002						
	Intercept 202	4344000001							
	SRI								
	Survey Case Notat	ion	54130000						
	Case Notation		USQS TQ00000028						
	Frequencies		5413.000K3						
	TUOI	TUOI 09 December 2024 16:01:20							1
	TDOI		09 December 2024 16:01:20						1
	Duration		00:00:00						
	Emission		Voice						1
	Content								
	Intercept Number		2024344000001						
	Description		RCV sends traffic to RIP90 (Message Number 490)						1
			RCV						
	Content		8666						

To amend a query, click the Query Editor button to reopen the Query Editor.

If your query if one that you will reuse, it can be saved by clicking the Save button on the toolbar.