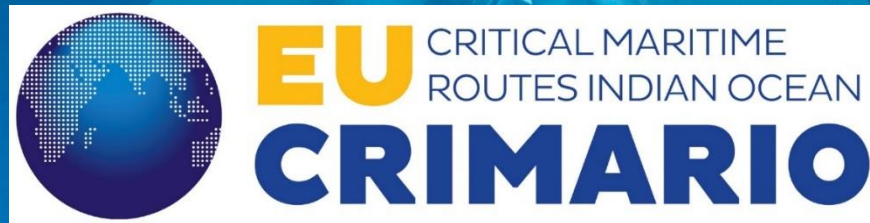


IORIS

Indian Ocean Regional Information Sharing & Incident Management Network



MASE Focal Point Meeting
Mauritius
Friday 12th November 2017

EU CRIMARIO
Maritime Information Sharing Manager
Indian Ocean
David Natrass

dave.natrass@crimario.eu



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The beginning:

- 2013/14 CRIMARIO Identification Phase
- 2014 CRIMARIO Formulation Phase / Results presented to the region in Abu Dhabi
- Jan 2015 CRIMARIO Implementation commences – 4 years
 - » Request for countries to assign designated focal points
- Dec 2015 Introduced concept of IORIS
 - » Expert working group / Mombasa / Joint CRIMARIO/APU

Aim of Introducing IORIS

- To develop with the regional partners:
 - A Maritime Information Sharing Network for the region with Incident Management capability which will be;
 - Regionally Owned (membership defined by the region)
 - Regionally Managed
 - Regionally Located

Consultation

2016 – IORIS Technical Consultation

- Consultation with regional stakeholders through CRIMARIO focal points designated by countries
- Developed Technical specifications shared with stakeholders for feedback

Tender

2017 – Legal process for Tender

- Early 2017 – Launched Part 1 Tender
 - Open Tender – Distributed to regional contact points and TED (EU Tenders Electronic Daily) website.
- March – July 2017
 - Tender contract validated by Expertise France Legal
 - Ownership – Licensing – IP (Intellectual Property)

Tender

- August 2017 – Launched Part 2 Tender
 - Polymorph Ltd. Selected – Contract signed October 17
- Consultation Meeting with Polymorph in Seychelles Nov 17
- Phase I Development Commenced end Nov 17

Key Objectives:

1. Real time communications tool
2. Primarily Regional, also with National capability
3. Secure/encrypted environment to communicate and share information/data.
4. Build trust and confidence.
5. Future interoperability – RMIFC/CRFIM Fusion Module

IORIS - Multiple Collaboration Pages

- IORIS - Multiple collaboration pages
- Regional Centres RCOC/CRCO and RMIFC/CRFIM dedicated pages
- Each country can create private National page (optional)
- Unlimited pages created as required for incidents or collaboration
- Collaboration page is secure and accessible only by permissions or invitation.



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Incident management

The screenshot displays a web interface for incident management. At the top, it shows 'INCIDENTS - Drug Case - Swingstar' and an 'Options' menu. Below this is an 'ALERTS (2)' section with a red header. The first alert is dated '12 Dec 2018 - 15:46 UTC' and contains placeholder text. A red button labeled 'Mark this alert as read' is visible. Below the alerts is a 'REGIONAL MAP' showing a map of East Africa and the Indian Ocean, with a green 'Show options' button. To the right is a 'DISCUSSIONS' section with two entries. The first is by 'Test user' and the second by 'Another user', both dated '12 Dec 2018 - 15:46 UTC'. Each discussion entry has placeholder text and a green 'Post a new discussion' button at the bottom.

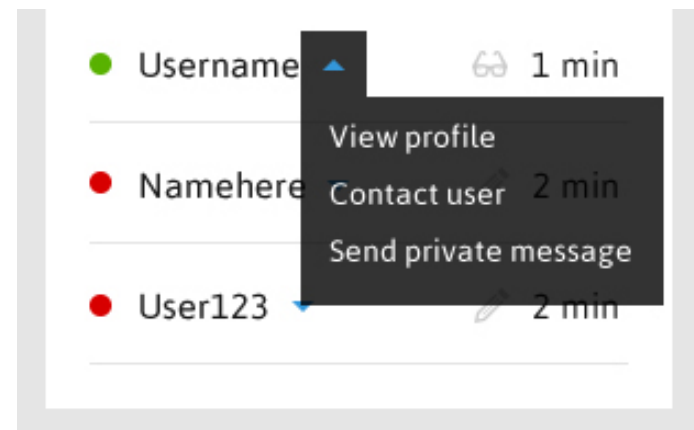
- New collaboration area for incidents
- Incident reports and follow up reports logging

- Associating files/documents/images with a specific incident
- Information can be automatically used when creating reports

Group chat / Presence Awareness

DISCUSSIONS Maximise		
Post discussion		
Date & time	User	Message
21 Aug 2016 15:46 UTC	Testuser	Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.
21 Aug 2016 15:46 UTC	Namehere	 Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.
21 Aug 2016 15:46 UTC	Newuser	Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.
21 Aug 2016 15:46 UTC	Usertest	Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.
21 Aug 2016 15:46 UTC	Newuser	Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.
21 Aug 2016 15:46 UTC	Usertest	Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.
21 Aug 2016 15:46 UTC	Newuser	Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.
21 Aug 2016 15:46 UTC	Newuser	Lorem ipsum dolor sit amet, conseq tetur adi piscing elit aenean intis.

- Real time Group chat
 - Public within IORIS / Private
- Map coordinates linked to mapping function
- User Presence Awareness



Mapping

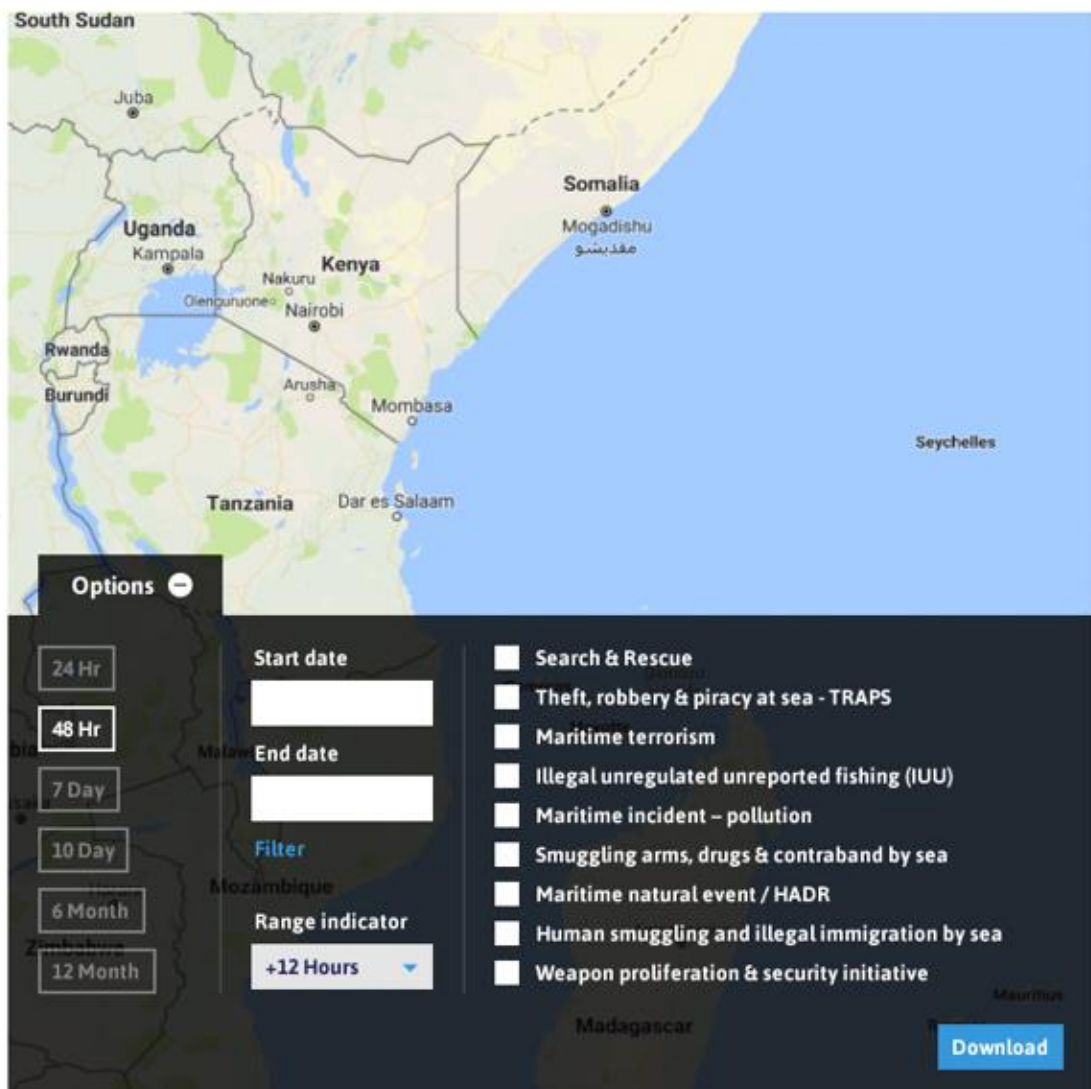
- Plot incidents / Polygons
- Filter by date
- Range
- Overlays (Nautical Charts)



- Import / Export

REGIONAL MAP

Show fullscreen



The regional map displays East African countries including South Sudan, Uganda, Rwanda, Burundi, Kenya, Tanzania, and Somalia, along with the Seychelles and Madagascar. Major cities like Juba, Kampala, Nairobi, Mombasa, Dar es Salaam, and Mogadishu are marked. An 'Options' panel is overlaid on the map, featuring a list of incident types with checkboxes, date selection fields, a range indicator, and a download button.

Options

- Search & Rescue
- Theft, robbery & piracy at sea - TRAPS
- Maritime terrorism
- Illegal unregulated unreported fishing (IUU)
- Maritime incident – pollution
- Smuggling arms, drugs & contraband by sea
- Maritime natural event / HADR
- Human smuggling and illegal immigration by sea
- Weapon proliferation & security initiative

Time filters: 24 Hr, 48 Hr, 7 Day, 10 Day, 6 Month, 12 Month

Start date:

End date:

Filter:

Range indicator: +12 Hours

Download

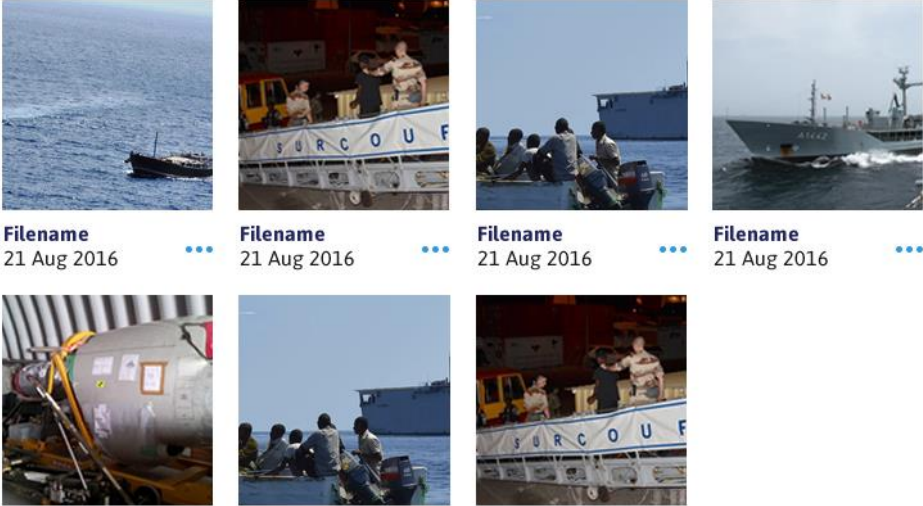
File sharing

FILES Maximise

[Upload file](#)

Folder structure View as list

Somefolder_name



The screenshot displays a file sharing interface. At the top, there is a dark blue header with the word 'FILES' and a 'Maximise' button. Below the header, there is a white bar with an 'Upload file' button and a search box labeled 'Search files'. Underneath, there is a 'Folder structure' section with a dropdown menu showing 'Somefolder_name' and a 'View as list' button. The main content area shows a grid of six image thumbnails. Each thumbnail is accompanied by a caption 'Filename' and a date '21 Aug 2016'. The images depict various maritime scenes: a boat on the open sea, a boat with a banner that says 'SURCOUF', a boat with people on board, a large ship, a close-up of a boat's equipment, and another view of the boat with the 'SURCOUF' banner.

- Upload images, word documents, PDF's etc.

Low Bandwidth and Training Platform


- A low Bandwidth version will also be developed with essential functionality only for:
 - Mobile users / Vessels / Slow internet
- Duplicate Training Platform


Security

- End to end encryption of all page content over the wire
- Username and password for all users
- Optional two-factor authentication
 - To authenticate mobile users for example
- IP Restriction – white list of allowable IP addresses for an account
- Ability to store and share encrypted documents using industry standard ASES256 encryption



User Login

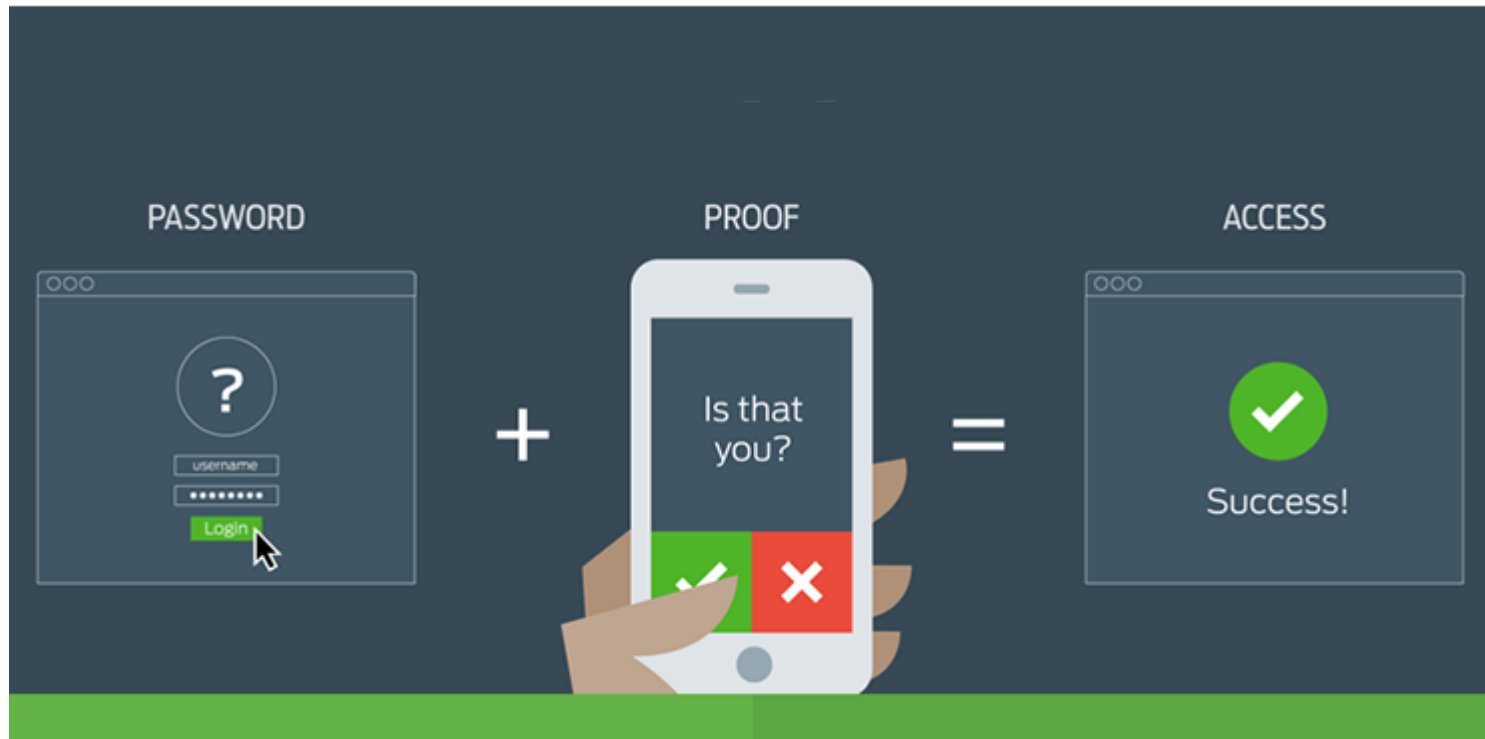
Username 

Password 

Sign in

Two-factor authentication

Username / password AND a secondary device confirmation



Optional Encrypted file sharing

- Files are stored on the system and encrypted using a password
- The user who encrypted the file and who knows the password can:
 - Send a link to the file and
 - Separately send (via SMS or email) the password so the file can be un-encrypted



Server Location/Security/Penetration Testing

New Microsoft Azure Cloud Hosting Facility will come online in South Africa in 2018

Trusted Cloud: Microsoft Azure Security, Privacy, and Compliance



©Microsoft Corporation

Perimeter 	Buildings 	Computer room 
<ul style="list-style-type: none">• Security staff around the clock• Facility setback requirements• Barriers• Fencing	<ul style="list-style-type: none">• Alarms• Security operations center• Seismic bracing• Security cameras	<ul style="list-style-type: none">• Two-factor access control: biometric and card readers• Cameras• Days of backup power

- Full security penetration test will be conducted by 3rd Party Security Company.

Accounting / Auditing / Support

- System activity (including who accessed activity log)
- Administrators can set alarms for particular activities, or combination of activities
 - Some alarms will already be set within the system such as, i.e. failed login
- Azure 'insights' monitoring - comprehensive analytics and error logs
- 24/7/365 Support

Keep it secure but practical.....



Licensing and Intellectual Property

- IORIS includes:
- A perpetual usage license with no ongoing fees
- A copy of the software / source code
- Rights to modify the source code.
- Intellectual rights for the core software and initial development will remain with the developer
- Intellectual rights for future developments shall remain with the Customer / License Holder

Cost and Sustainability

- Long term sustainability essential
 - Maximum upfront costs supported by CRIMARIO
 - Software Development
 - Lifetime Licenses (IORIS / Mapping*)
 - Phase II Development 2018 (Possible development 2019)
 - Maintenance/support/hosting until April 2020
 - Minimise future costs (maintenance, support, hosting)
 - Estimated €25'000 - €40'000 per annum

*Mapping license up to 1000 users



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Training

- Training
 - All Users and Administrators
 - Commencing in April 2018 with TtT in Seychelles
 - 3 Days up to 10 people
 - Training programme will continue thereafter for each country in both English and French supported by CRIMARIO

Implementation timeline

- Phase I in development now
- January – March 2018
 - Testing
 - Penetration tests and rectification
- April 2018
 - Train the trainer
 - Software Acceptance Tests
 - Operational

Future Development

- Phase II -2018
 - After feedback and lessons learned from Phase I
- Phase III – 2019 (To be confirmed)
 - subject to project extension and available funds.

CRIMARIO Secure Web Forum

The screenshot shows the CRIMARIO website interface. At the top, there is a navigation bar with tabs for 'THE PROJECT', 'INFORMATION SHARING', 'TRAINING', and 'EVENTS'. Below this, there are sub-tabs for 'NEWS OF MARITIME DOMAIN', 'PROJECT NEWS', 'CONTACT US', and 'FOLLOW US'. A search bar is located on the right side of the navigation bar. A user profile icon for 'David Natrass' is visible in the top right corner. Three red callout boxes highlight specific features: 'Click here to access to Dashboard' points to the 'NEWS OF MARITIME DOMAIN' tab; 'Click here to modify your profile' points to the user profile icon; and 'Click here to access to current forum' points to the 'CRIMARIO WIKI' section. The main content area is titled 'NEWS OF MARITIME DOMAIN' and features three news articles: 'East Africa's ivory smuggled out of Mozambican ports', 'Goa maritime conclave', and 'EUNAVFOR chases and captures suspected pirates'. A 'FORUMS' section is also visible, showing a search bar and a table of forum topics.

[Click here to access to Dashboard](#)

[Click here to modify your profile](#)

[Click here to access to current forum](#)

www.crimario.eu

Forum	Topics	Posts	Freshness
Private: IORIS forum / Forum IORIS	0	0	No Topics



Any Questions ?

David Nattrass

dave.nattrass@crimario.eu

CENTRES
INCIDENTS

Collaboration Centre
Regional Information Fusion Centre
RMOCC - Regional Maritime Operational Coordination Centre
ROCC - Regional Centre For Operational Coordination
Seychelles Collaboration Centre
India Collaboratio

CENTRES Regional Information Fusion Centre
Options

ALERTS (1)
Display Less
Display More
Information
Key Contacts
Functions

12 Dec 2018 - 15:46 UTC

Curabitur lobortis id lorem id bibendum. Ut id consectetur magna. Quisque volutpat augue enim, pulvinar lobortis nibh lacinia at. Vestibulum nec erat ut mi sollicitudine. Nam tempus vel odio vitae aliquam. In imperdiet eros id lacus vestibulum vestibulum. Suspendisse fermentum sem sagittis ante venenatis egestas quis vel justo. Maecenas sapien convallis eu. Nulla ut turpis in diam dapibus consequat.

Mark this alert as read

PRESENCE

- Test user 1 min
- New user 1 min
- Test user 1 min
- Another user 21 min
- Test user 34 min
- Another test user 36 min
- Another user 41 min
- Another test user 58 min
- Another user 59 min

FORMS

Search Forms

- Form title to go along here in this space 12 Dec 2018 - 03 - v1.2
- Form title to go along here in this space 12 Dec 2018 - 03 - v1.2
- Form title to go along here in this space 12 Dec 2018 - 03 - v1.2

Submit a new form

DOCUMENTS

Search Documents

- Weekly Digest 12 Dec 2018
- Weekly Digest 5 Dec 2018
- Weekly Digest 29 Nov 2018
- Weekly Digest 22 Nov 2018

Upload a new document

REGIONAL MAP

Show options

DISCUSSIONS

Test user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit. Mauris vitae ultrices metus, at condimentum nulla. Vestibulum rutrum quam vitae fringilla trisidant.

Another user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit. Mauris vitae ultrices metus, at condimentum nulla. Vestibulum rutrum quam vitae fringilla trisidant.

Test user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit. Mauris vitae ultrices metus, at condimentum nulla. Vestibulum rutrum quam vitae fringilla trisidant.

Another user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit. Mauris vitae ultrices metus, at condimentum nulla. Vestibulum rutrum quam vitae fringilla trisidant.

Test user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit. Mauris vitae ultrices metus, at condimentum nulla. Vestibulum rutrum quam vitae fringilla trisidant.

Post a new discussion

CENTRES
INCIDENTS

Linking
Drug Case - Swingstar
Pirate Skiff Sighting Briefing
Oil Spill
Drug Case - Alpha
Weapons Audit

INCIDENTS Visitor Training
Options

INCIDENTS Drug Case - Swingstar
Options

ALERTS (2)

12 Dec 2018 - 15:46 UTC

Curabitur lobortis id lorem id bibendum. Ut id consectetur magna. Quisque volutpat augue enim, pulvinar lobortis nibh lacinia at. Vestibulum nec erat ut mi sollicitudine porttitor id sit amet risus. Nam tempus vel odio vitae aliquam. In imperdiet eros id lacus vestibulum vestibulum. Suspendisse fermentum sem sagittis ante venenatis egestas quis vel justo. Maecenas semper suscipit nunc. Sed aliquam sapien convallis eu. Nulla ut turpis in diam dapibus consequat.

Mark this alert as read

REGIONAL MAP

Show options

DISCUSSIONS

Test user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit.

Another user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit.

Post a new discussion

INCIDENTS Pirate Skiff Sighting Briefing
Options

ALERTS

12 Dec 2018 - 15:46 UTC

Curabitur lobortis id lorem id bibendum. Ut id consectetur magna. Quisque volutpat augue enim, pulvinar lobortis nibh lacinia at. Vestibulum nec erat ut mi sollicitudine porttitor id sit amet risus. Nam tempus vel odio vitae aliquam. In imperdiet eros id lacus vestibulum vestibulum. Suspendisse fermentum sem sagittis ante venenatis egestas quis vel justo. Maecenas semper suscipit nunc. Sed aliquam sapien convallis eu. Nulla ut turpis in diam dapibus consequat.

Mark this alert as read

REGIONAL MAP

Show options

DISCUSSIONS

Test user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit.

Another user 12 Dec 2018 - 15:46 UTC

Vestibulum rutrum quam vitae fringilla trisidant. Suspendisse nec tortor urna. Ut laoreet sodales nisi, quis iaculis nulla iaculis vitae. Donec sagittis faucibus locus eget blandit.

Post a new discussion

INCIDENTS Drug Case - Alpha
Options

INCIDENTS Major Delegate Visit
Options



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