



The Use of Analytics to Increase Maritime Domain Awareness & Inter-Agency Response



Commonalities

- Lack of Resources
 - Human Resources
 - Operational Platforms (Sea and Air)
 - Budget
- Impact of Transnational Crime (TOC)
- Impact on natural resources
- Food Security



Information and Intelligence Analysis -What is Intelligence?

Information (data) + Analysis = Intelligence

- **Information:** Pieces of raw, unanalyzed data that identifies people, evidence, events, or illustrates processes indicating a criminal event or witnesses or evidences of a criminal event.
- **Analysis:** The process of deriving meaning from information or data; identification of information present or missing from facts or evidence. It involves thoughtful contemplation, making inferences or conclusions, and identifies recommendations for action.
- **Intelligence:** The product of an analytic process that evaluates information collected from diverse sources, integrates the relevant information, and produces a conclusion or estimate about criminal activity by using a methodical problem solving approach.



What is Intelligence?

Purpose

- **Prevention.** Intelligence used to apprehend criminals, harden targets, and develop strategies to eliminate or mitigate threats.
- **Planning and Resource Allocation.** Intelligence about the nature of criminal threats, their characteristics and methodologies, and evolving patterns to develop response strategies, reallocate resources, and accomplish effective prevention.

Tactical vs Strategic

- **Tactical intelligence** contributes directly to the success of specific investigations of criminal activity.
- **Strategic intelligence** deals with “big-picture” issues, such as planning and manpower allocation.
- Tactical intelligence directs immediate action; strategic intelligence evolves over time and explores long-term, large-scope solutions.



The Intelligence Process

- It is the means of developing raw information into finished intelligence products for use in decision making and formulating policies/ action.
- It provides mechanisms to ensure the consistent management of information that will be used to create intelligence.
- It applies to all crimes (maritime, drug trafficking, gangs, terrorism, and any other criminal enterprise).
- It seeks to identify potential threats, determine the status of suspicious activity, and provide indicators of criminality so that operational units can develop responses.





IBM i2 Analyst Notebook

- IBM® i2® Analyst's Notebook® is a visual intelligence analysis environment that can optimize the value of massive amounts of information collected by government agencies and businesses.
- With an intuitive and contextual design it allows analysts to quickly collate, analyze and visualize data from disparate sources while reducing the time required to discover key information in complex data.
- Link to IBM i2 Analyst Notebook:
<http://www-03.ibm.com/software/products/en/analysts-notebook>



ADDITIONAL INFO SEAMAN'S PAPER


Seaman Book No.		GF 06285	
Name			
Sex	MALE	Nationality	
Place of birth		Date of birth 08 MAY 1973	
Height	1.67	Metre	Special peculiarities
Personal No.		3101100050471	
Date of issue	21 JUN 2013	Date of expiry	20 JUN 2018
Issued by		AT	
Surname		GF 06285	
Name			
			
Signature of the bearer			

Seaman/Book No.		DF 06804	
Name			
Sex	MALE	Nationality	
Place of birth		Date of birth 10 OCT 1993	
Height	1.68	Metre	Special Peculiarities
Personal No.		36A01 0035A 319	
Date of issue	2 APR 2013	Date of expiry	11 APR 2018
Issued by		AT	
Surname		DF 06804	
Name			
			
Signature of the bearer			



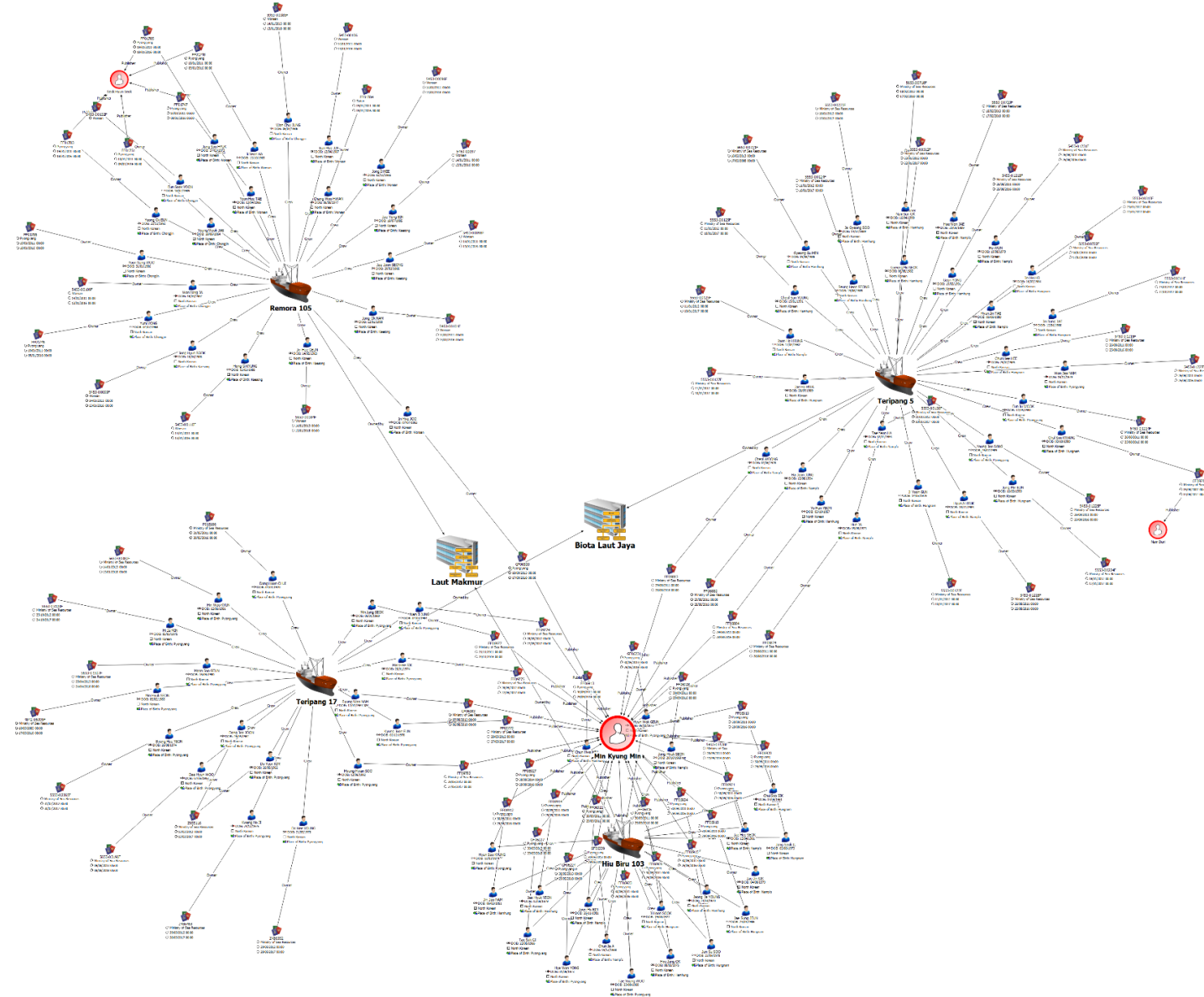
ADDITIONAL INFO SEAMAN'S PAPER

Seaman Book No. 5453 - 02351 F		
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Place of birth		
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Date of issue 26 DEC 2011	Date of expiry 25 DEC 2016	Issued by The Harbour Department.
Surname		
Name		
		
Signature of the bearer		

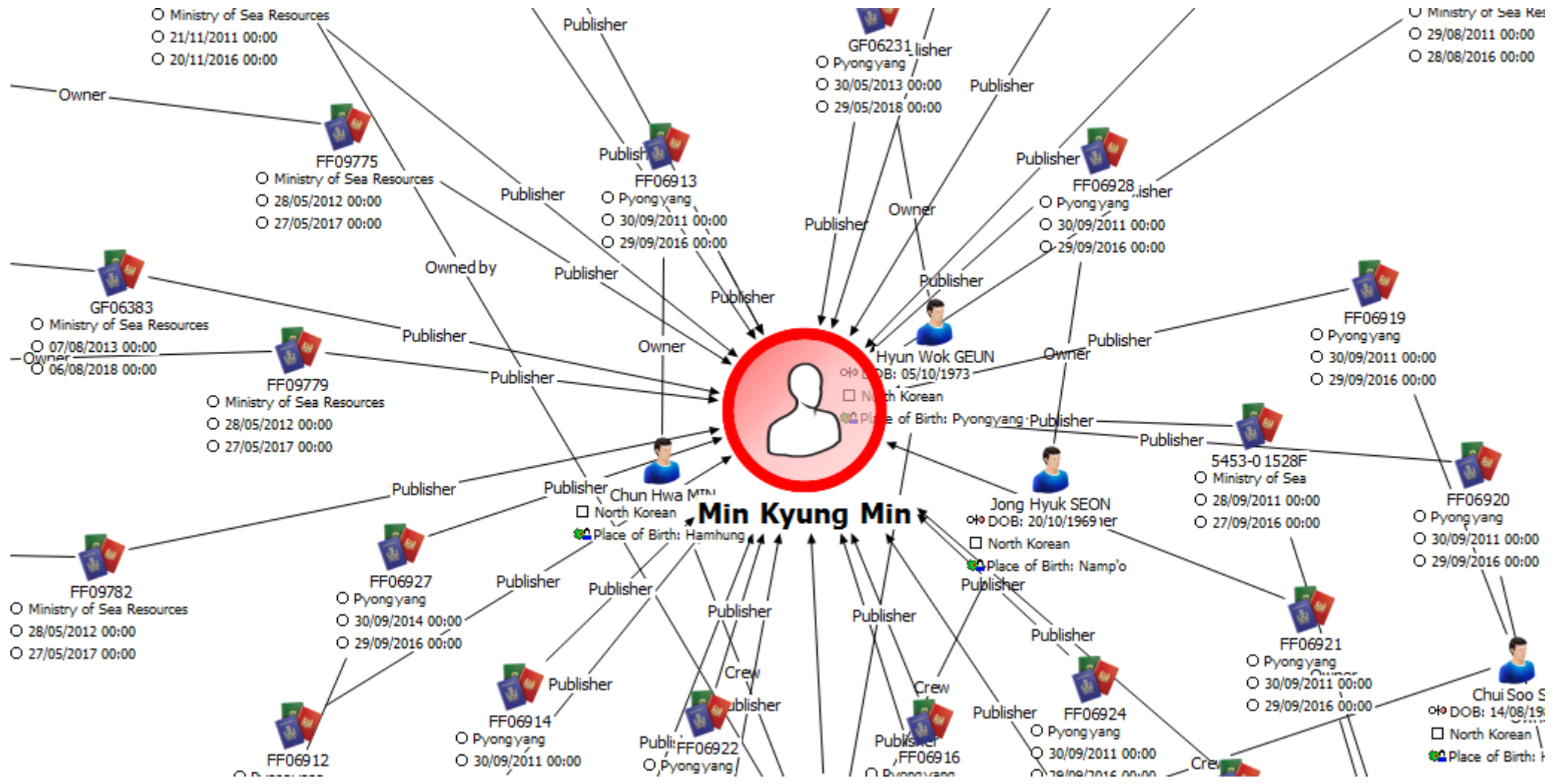
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Trafficking in Persons at Sea (1)

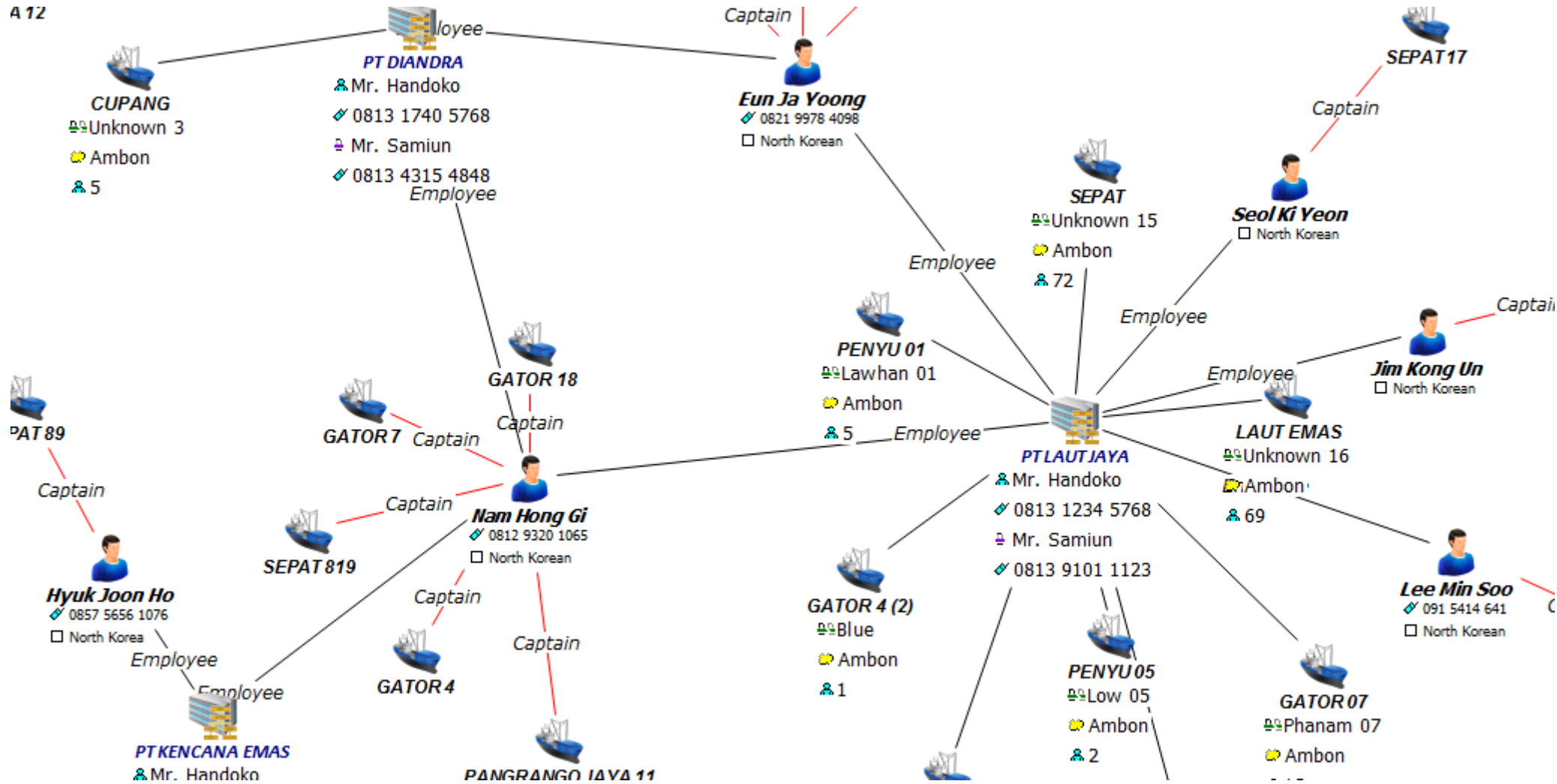


Trafficking in Persons at Sea (2)

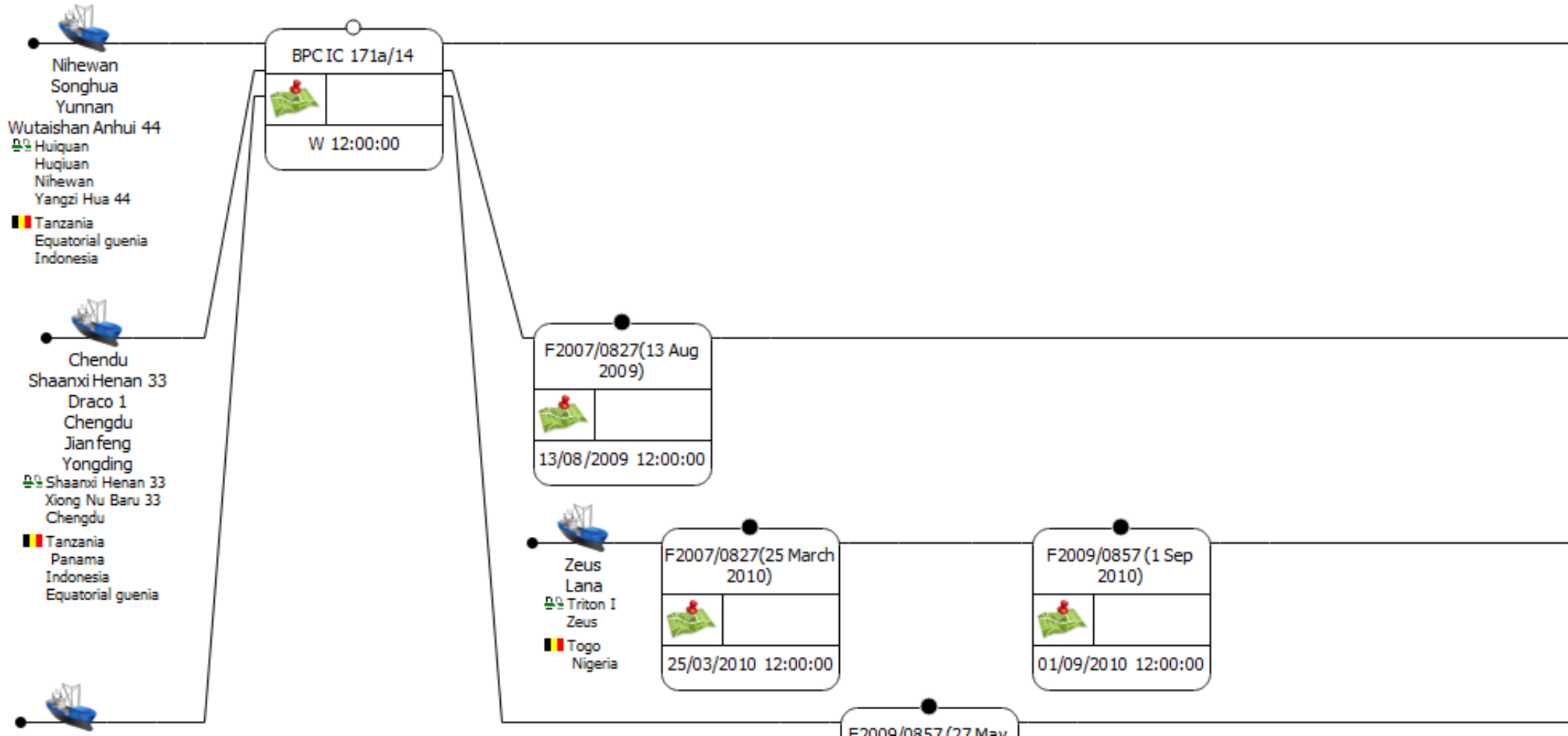




Companies, Captains and Boats (2)

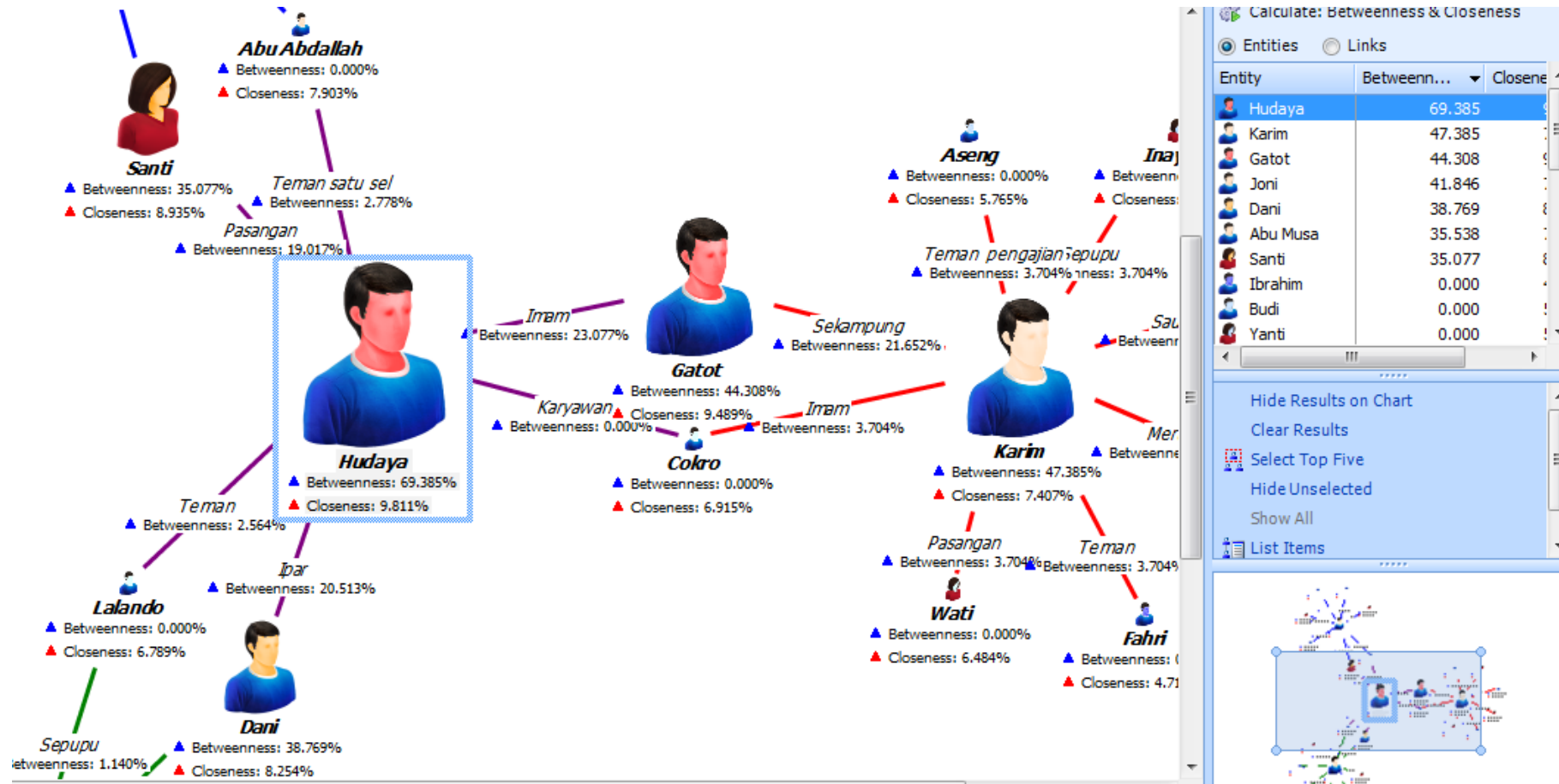


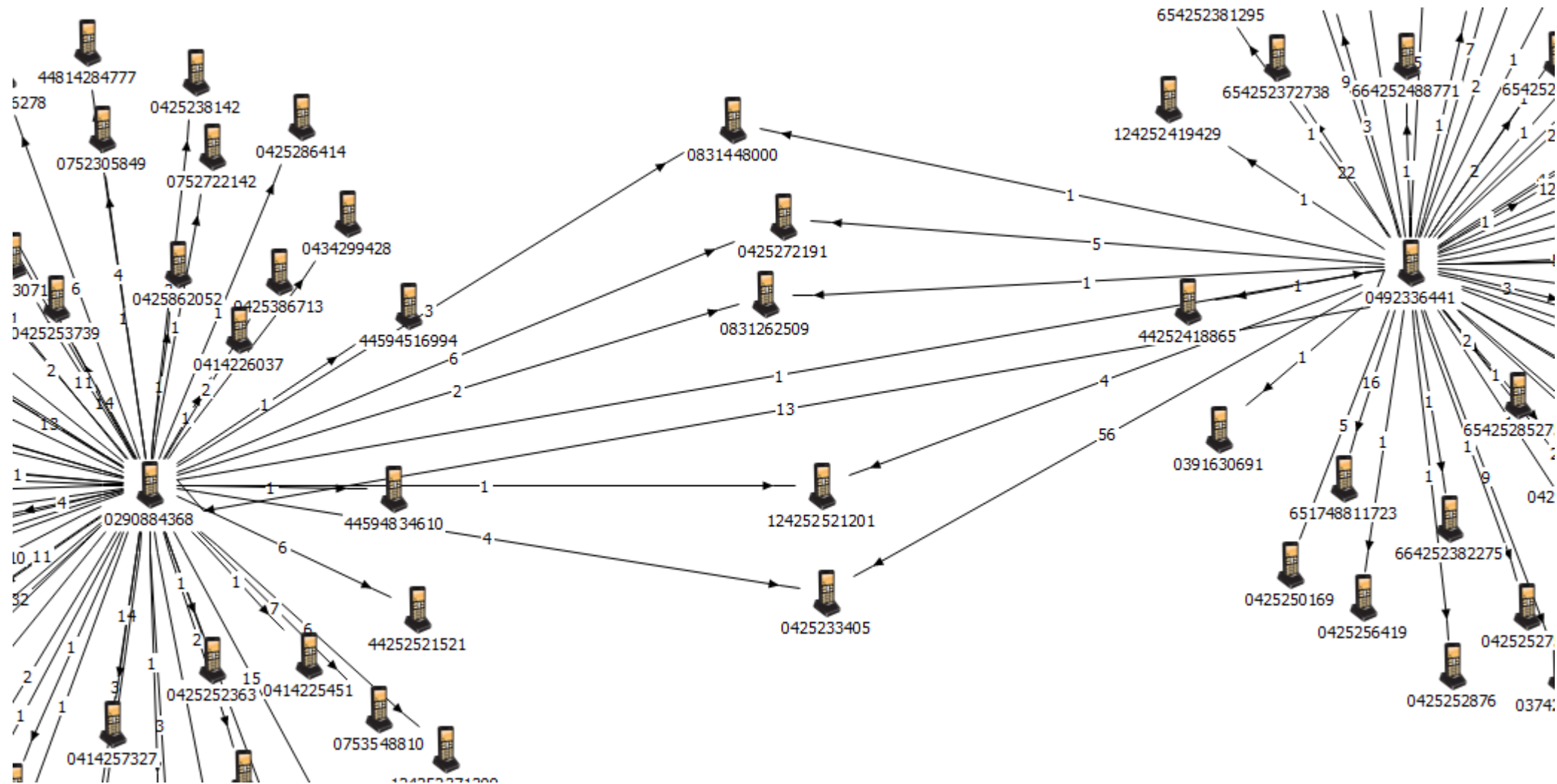
Timeline Chart



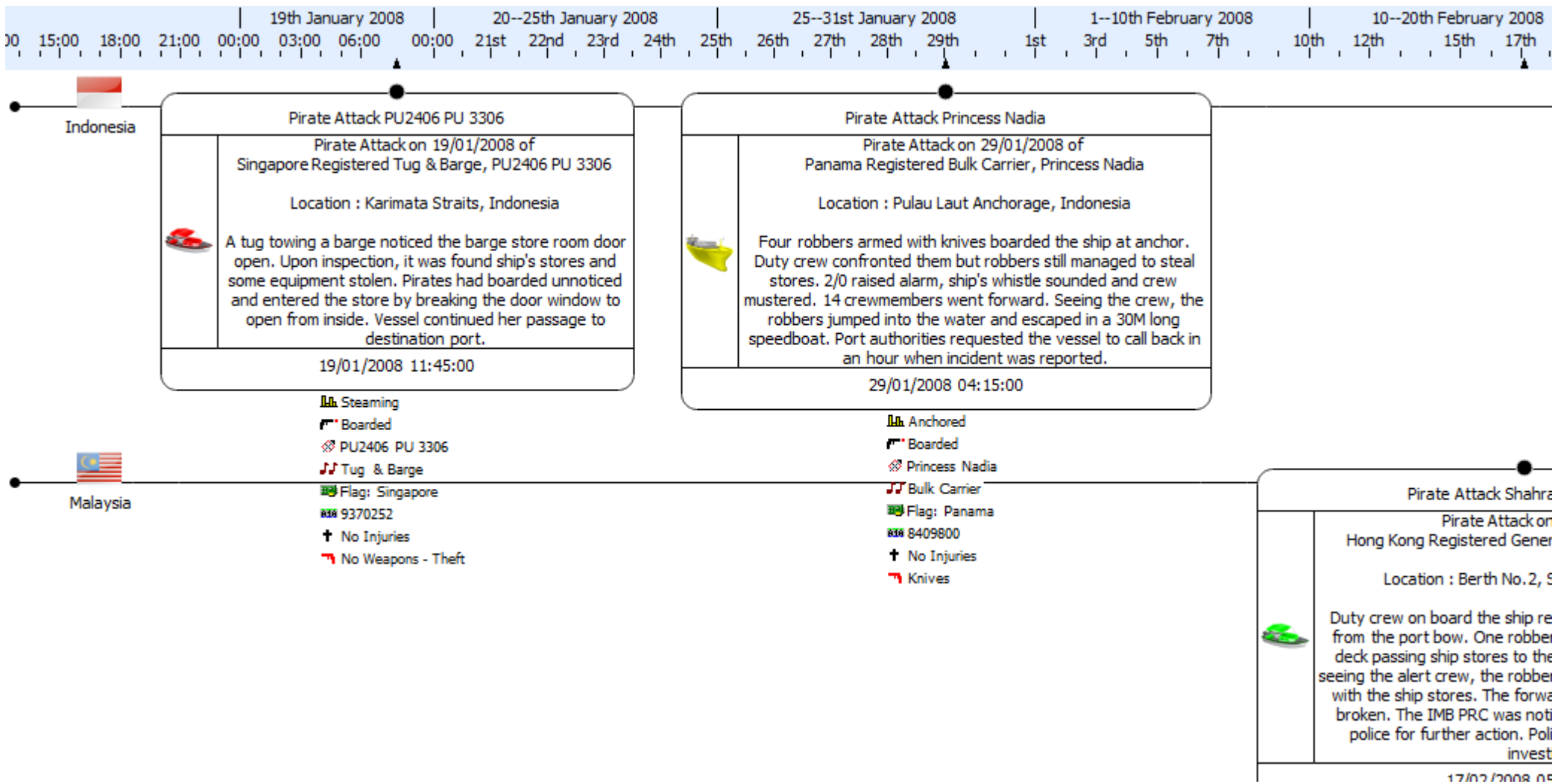
Social Network Analysis

- Calculate: Betweenness & Closeness

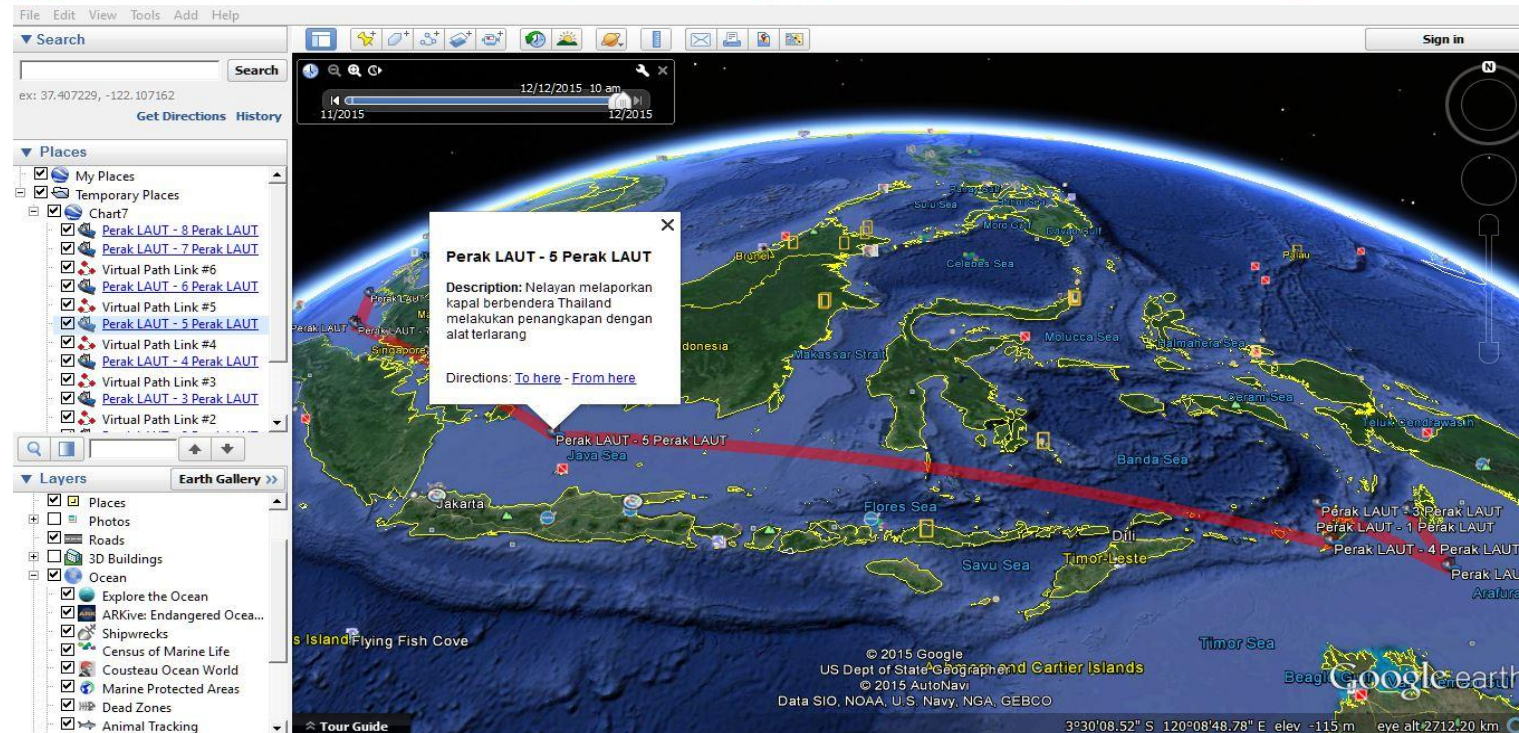




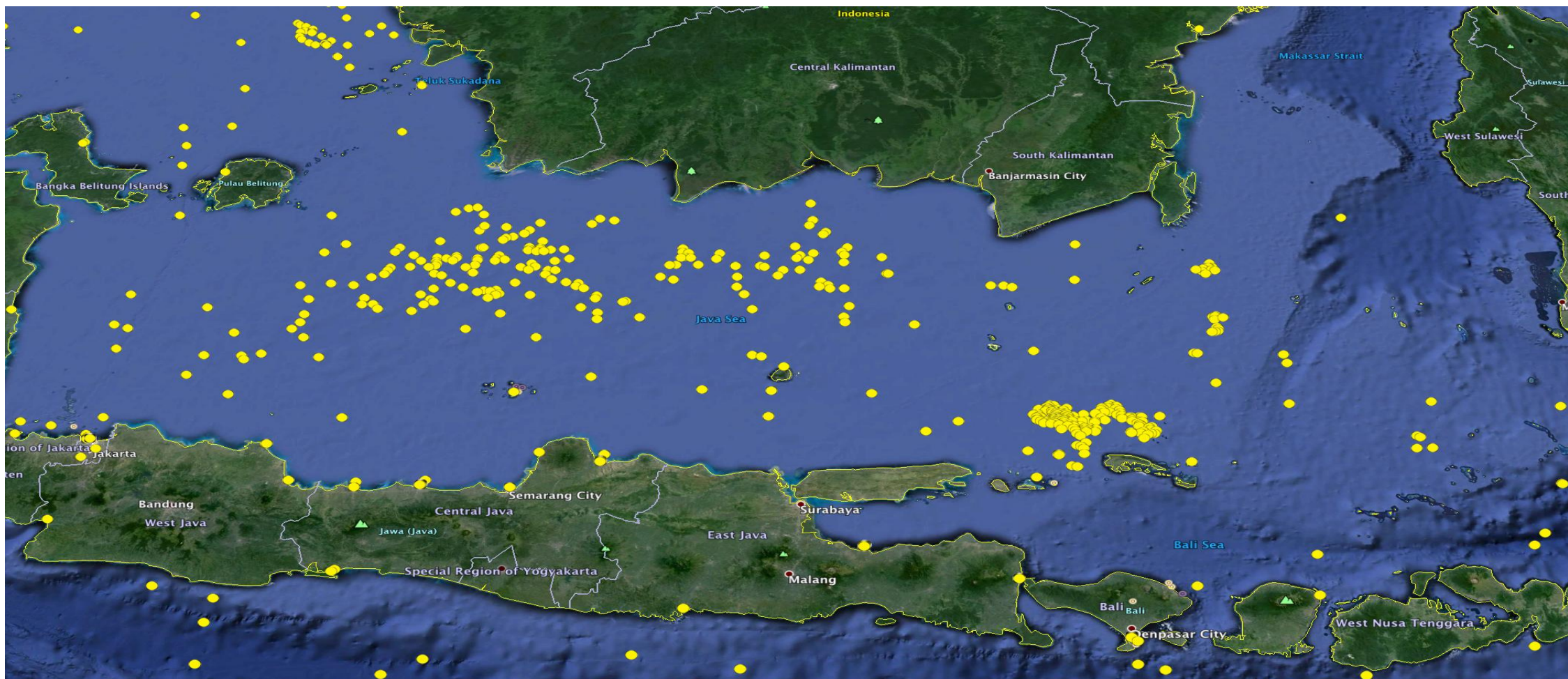
Piracy in Southeast Asia



IUU Fishing Mapped using Google Earth

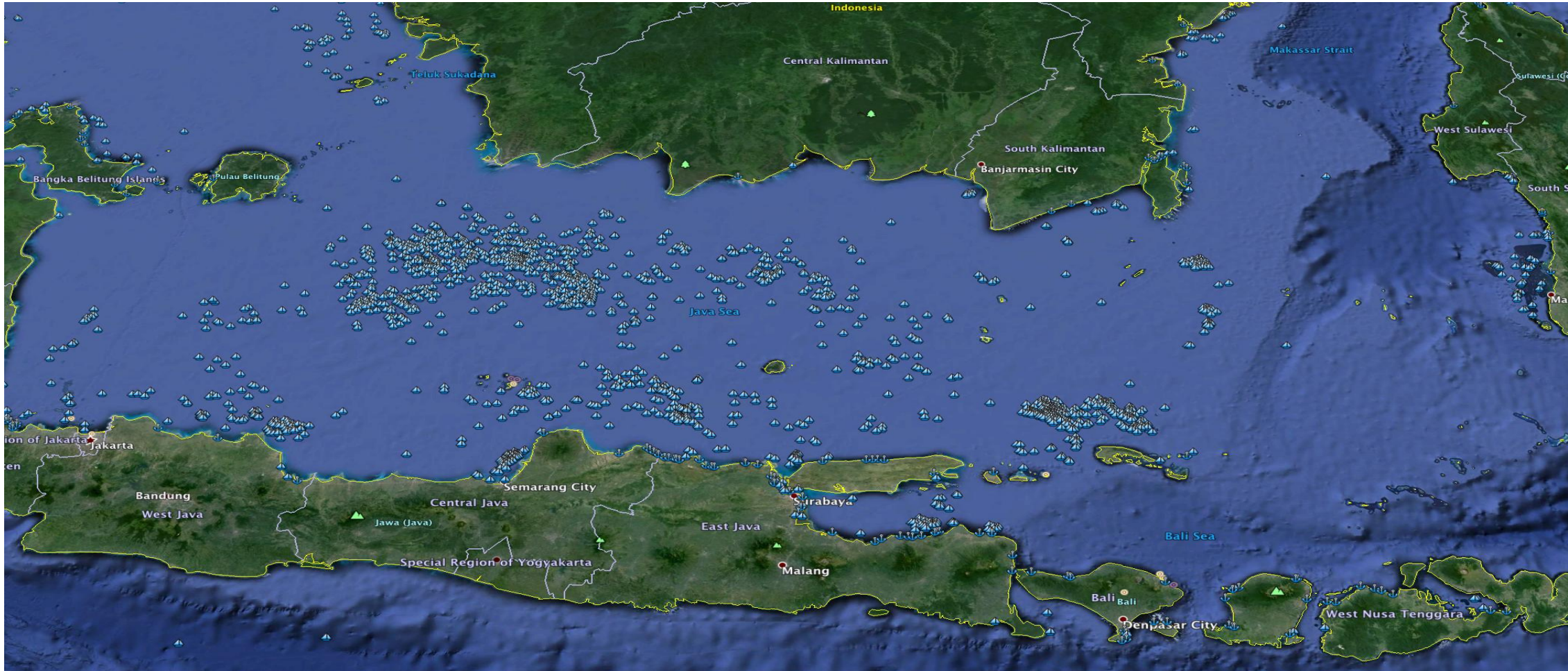


KKP VMS DATA

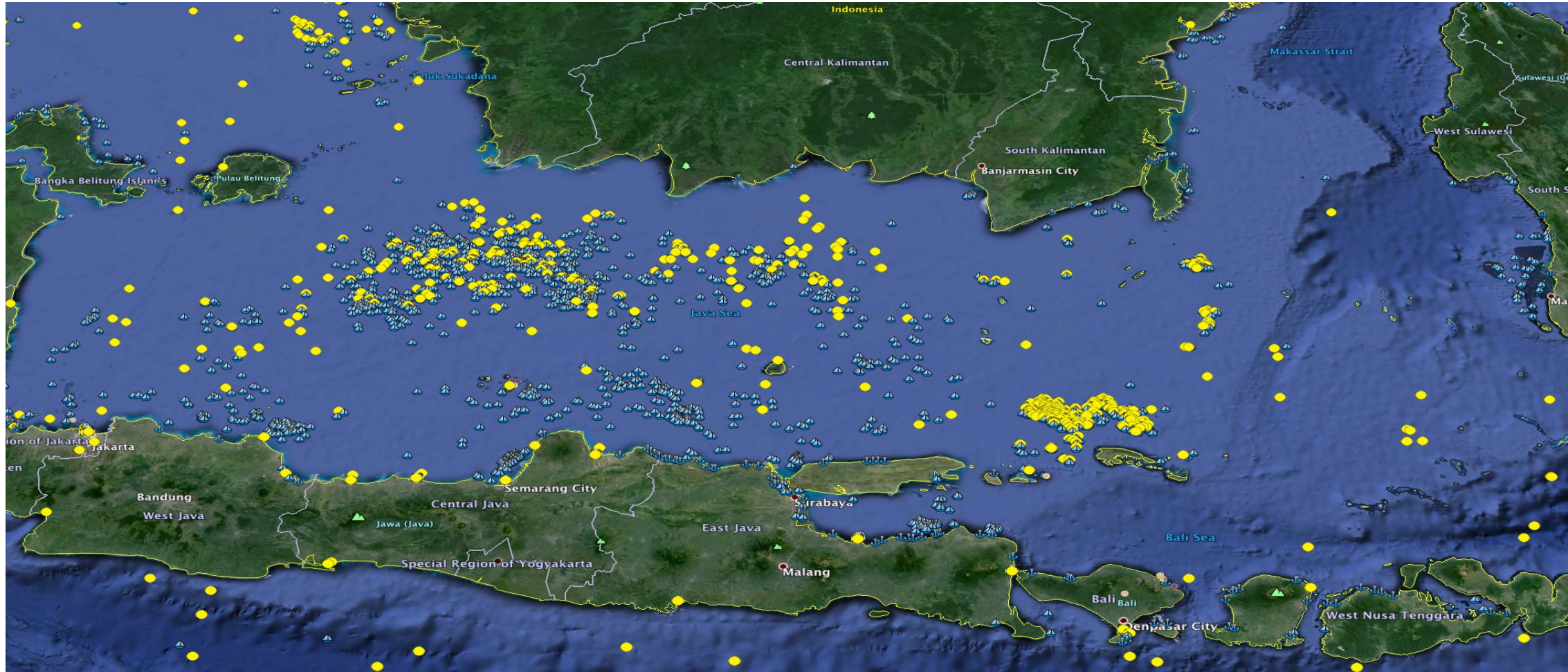


NOAA VIIRS DATA

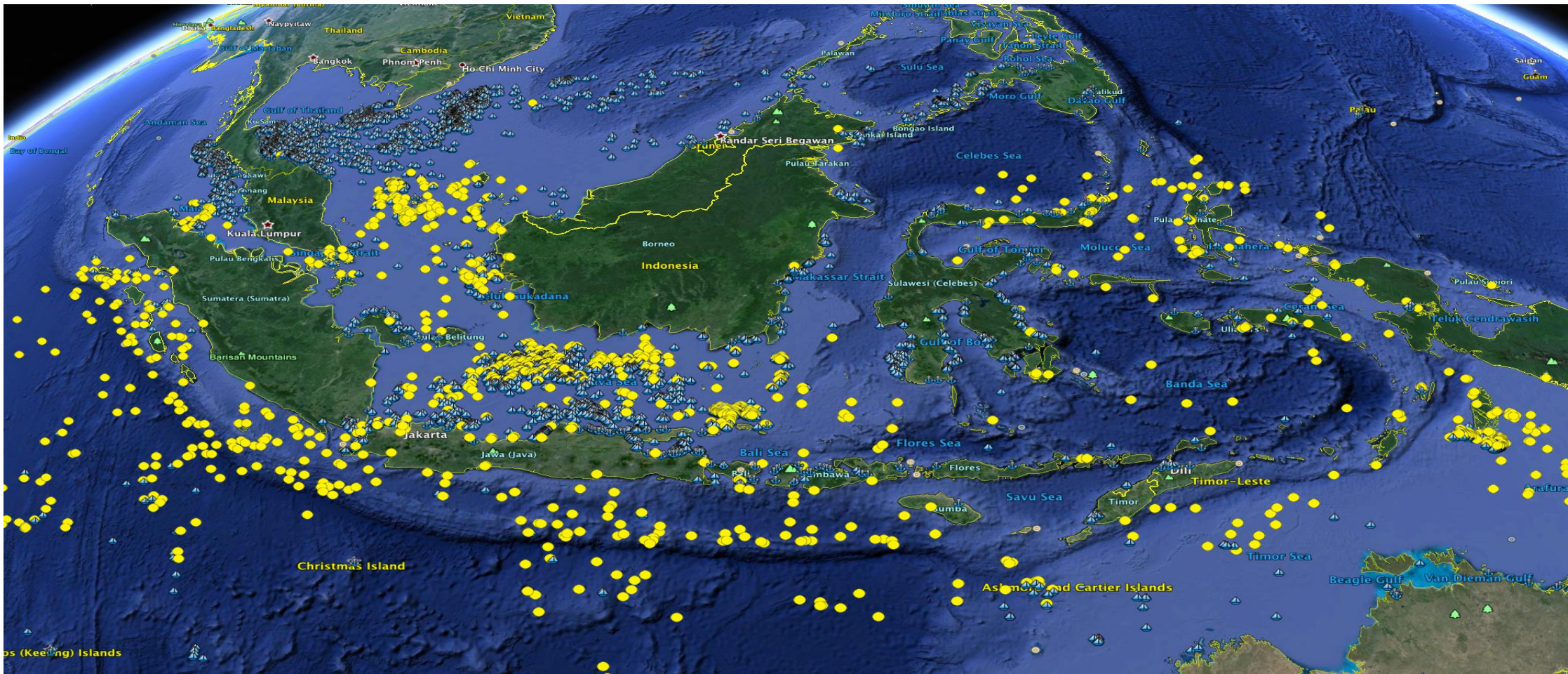
Visible Infrared Imaging Radiometer Suite



VMS AND VIIRS COMBINED DATA

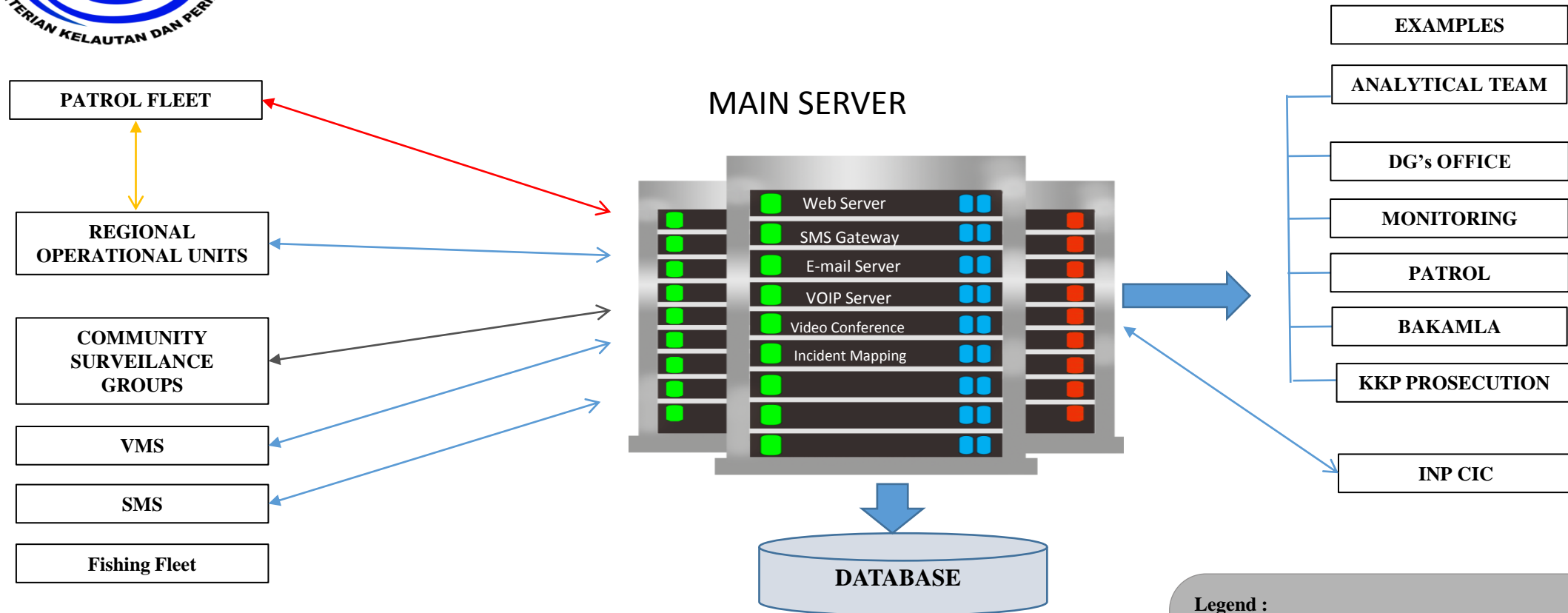


VMS AND VIIRS COMBINED DATA





Ministry of Maritime Affairs and Fisheries
Marine Resources and Fisheries Surveillance Directorate
Database Management System



1. Community Surveillance Group/Fishermen may submit crime tips by SMS through SMS Gateway
2. Regional Fisheries Prosecution Office will input case data using online reporting module
3. All incoming reports will be processed in main server and will be forwarded to other internal/external link (outstations) based on category or case jurisdiction
4. Analytical Team mines, collate, analyze and interpret data from DMS Database using I2 Analyst Notebook Software to generate intelligence
5. Real time VMS will be overlaid on incident mapping for data verification





KKP SMS Gateway

