GMISS
Maritime Domain Awareness
Open Source Data Utilization

Jeffrey Howard
LexisNexis Special Services Inc.
Finnegan NELSON Howard
Acquiring and managing data

**Cases and Law**
- Federal and state laws
- Case law
- Regulations
- AG opinions
- Rulings
- Citation services
- Secondary sources
- Megan's Law

**Open Media**
- Newspapers
- Newsletters
- Magazines
- Trade journals
- Transcripts
- Wire services
- Political information

**World Finance**
- SEC documents
- Corporate profiles
- Market research
- Financials
- Demographic information
- M&A information

**Public Data**
- Names
- Addresses
- Criminal Data
- Real Property
- Marriage
- Divorce records
- Voter records
- Assets
- Credit information
- Insurance information

**International Data**
- World news
- Country profiles
- Business analysis
- Country information
- International profiles
- Legal and regulatory information

**25 + Watchlists**
- US Patriot Act
- Politically Exposed Persons
- World-Check database
- OFAC List
- United Nations Consolidated List
- Terrorist Exclusion List
- Unauthorized Banking List
- FinCEN 314(a) list
- Bureau of Industry and Security List
- Canada's Office of the Superintendent of Financial Institutions (OSFI)

**Total Storage:** 1.2 Petabytes
- **Online Data Sources:** 35,272
- **Searchable Documents:** 4.2 Billion
- **Searchable Records:** 40+ Billion
- **Searches per Month:** 60+ Million
- **Documents added per hour:** 106,814
- **Daily User Sign-Ons:** 360,000+
- **Web Page Views per Month:** 351+ Million

9/22/2010- Page 3
LexisNexis Confidential
Maritime Domain Awareness Capability Gaps

Critical data requirements to secure the global maritime supply chain

“In order to support Maritime Domain Awareness (MDA) operations, the Navy needs an enterprise-level solution to collect, evaluate, and disseminate a wide variety of information to field units and other government agencies.”

- SECNAV MDA memo

“The capability gaps below come from fleet operator input, MDA and communication systems requirement messages, national MDA implementation team analysis, experimentation objectives, and other documents:

– Lack of net assessment, fusion, and collaboration tools
– Lack of cross domain solutions for information sharing
– Lack of maritime information gathering and collection”

- Fleet MDA CONOPS
Data Policy: The need for safe, secure and correct data sharing procedures

- MDA privacy and policy requirements
- Domestic and International data sharing processes and procedures

KNOW YOUR DATA POLICY

- Common data fusion platform with data policy/data sharing principals architected into the overall solution
- Communities of interest created to facilitate sharing within the US Navy and between the US Navy and other US Government organizations and coalition partners
- “Better information means better decisions.”
Open Source Data Enrichment

“Lack of maritime information gathering and collection”
-Fleet MDA CONOPS

Data: The need for reliable, accurate, and mission-critical content from domestic and international sources
- Maritime vessels
- Maritime businesses
- Merchant mariners and seafarers
- Bulk and containerized cargo
- Maritime infrastructure
- OTHER?? Social networking analysis/deep web mining

The Data Supply Chain is Critical
- Establish providence
- There can be too much data, especially for analysts
- How do you spot the needle in the needle stack?
- “Put all of your money in more data”
- Who is Fishbutt? The wisdom of crowds?
Data Fusion: The need to incorporate all relevant data sources for real-time anomaly detection and threat assessment
- Structured and unstructured data
- Archival data correlation and predictive analysis
- Disparate data and intelligence sources
- Custom algorithm development and integration into existing analytics tools

The Power of Data Fusion
- Harness IT for data ingestion, cleansing, and analysis at data fusion centers
- Ensure that policies, procedures and security requirements built into the platform
- Link data fusion centers for ease of data sharing and policy coordination
Not just having the data. How do you use the data?
Meeting the needs of the global maritime supply chain

Learn from other enterprises
- National Center for Missing and Exploited Children
- State and Local Law Enforcement fusion centers

Set a thief to catch a thief
- Our opponents are operating in a non-traditional, asymmetrical environment. Find like minded individuals and harness their approach

Incentivize cooperation
- What value does commercial industry have in data sharing?
- How can the US Government incentivize cooperation?
- Don’t just pay for data. Insurance?