

## **Best Practice: GRAFIMAR System**



<b>Category:</b>	Electronic Surveillance
<b>Location:</b>	Chile
<b>Date Observed:</b>	August 24, 2004
<b>POC:</b>	Direccion General del Territorio Maritimo y de Marina Mercante

**Description:** GRAFIMAR Geographic Information System (GIS)

**Discussion:** GRAFIMAR is a GIS-based software computer system that integrates vessel notice of arrival information, vessel position, shipboard personnel, port personnel and satellite/aerial surveillance data into a single graphic representation that can be viewed in real time. An updated version of GRAFIMAR was instituted in December 2004 (original start date 1995). Automatic Identification System (AIS) information, satellite positioning information (VMS) and self-reporting information are incorporated into the system to more effectively utilize security resources and track vessel movements and personnel within the ports. GRAFIMAR has a internet-based access that can be utilized by the Chilean government, private facilities, company owners and DIRECTEMAR. GRAFIMAR serves as an example of a very successful public/private partnership regarding safety and security issues.

**Potential Down-side:** If there are no data collection system in place there could be significant funding and man-hour requirements. Initial training of personnel, both government officials and private company employees, could be substantial.

**Conclusion:** GRAFIMAR is a state of the art GIS that uses a number of different data elements that give users real time information to make better decisions. Knowing where vessels are in your territorial waters and which personnel are working in your ports greatly enhances your ability to prevent, deter and respond to security incidents.

**Cost:** Start up costs could be significant depending on available computer hardware, worker expertise and experience. Costs will also depend on the implementation of the system and whether it is only a local or nation wide program.