# Automatic Identification System (AIS)
Fact Sheet

The St. Lawrence Seaway is charging forward in navigation safety and efficiency by implementing an Automatic Identification System (AIS), integrated with our Seaway Traffic Management System (TMS). This project is being implemented by a team that includes the U.S. Saint Lawrence Seaway Development Corporation (SLSDC), the Canadian St. Lawrence Seaway Management Corporation (SLSMC) and marine transportation interests, with technical support from the U. S. Volpe National Transportation Systems Center.

What is AIS?

Automatic Identification System (AIS) is a shipboard broadcast transponder system operating in the Very High Frequency (VHF) maritime band that is capable of sending and receiving ship information such as identification, position, heading, speed, ship length, beam, type, draft and hazardous cargo information, to other ships and to shore.

AIS Communication Capabilities

- Ship-to-ship
    Ship meeting
    Collision avoidance

- Ship-to-shore
    Ship identification
    Ship position
    Ship heading/speed
    Ship information

- Shore-to-ship
    Lock availability
    Water levels/flows
    Wind speed/direction
    Ice conditions
    Safety related messages
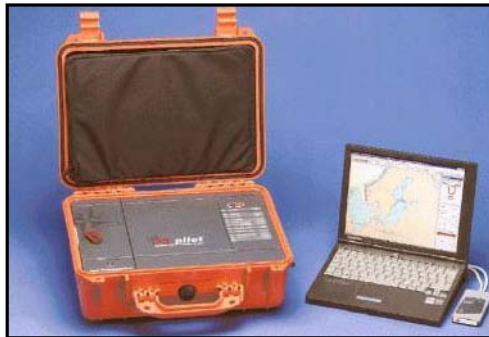
Portable AIS Equipment

Benefits to the Users

- Reduce transit time – better scheduling of vessel lockages and vessel meets.
- Timely pilot dispatching-minimize delays.
- Provide shore-to-ship communication for water and environmental conditions thereby enhancing safety.
- Provide real-time ship-to-ship communication augmenting safety.
- Improve fleet traffic management.

Benefits to Seaway Entities

- Provides real-time accurate vessel position information that will result in more efficient traffic management and timely pilot dispatching.
- Monitors vessel movements by Vessel Traffic Center operators.
- Improves response for accidents/incidents especially for hazardous cargo.
- Provides timely scheduling for ship inspection.
- May lead to the rationalization of Traffic Management Centers.

How is Seaway AIS Implementation Funded?

Through agreements with the Canadian Shipowners Association and The Shipping Federation of Canada, the cost of implementing AIS is shared equally by commercial carrier users and the two Seaway Corporations, SLSMC and SLSDC.

Major Project Milestones to Date

- Defined and tested AIS/TMS communications interface (2/2000).
- Reached cost sharing agreement with carrier users (3/2000).
- Surveyed and selected shore facilities (8/2000).
- Developed and finalized Seaway specific AIS messages (12/2000-5/2002).
- Installed AIS antennas and conducted AIS signal coverage Testing (11/2001).
- Completed development of AIS Network Control Software (4/2002).
- Procured AIS Station Transponders (4-5/2002).
- Completed installation of AIS Shore Station equipment & conducted network testing (6/2002).

Remaining Tasks

- AIS/ECDIS test and evaluation by carrier users (8-11/2002).
- Proposed Rulemaking for Mandatory AIS Carriage by 12/2002.
- Mandatory AIS Carriage (4/1/2003).

AIS Shore Base Station at Eisenhower Lock

Who will be required to carry shipboard AIS? (Proposed Rule)

All ships that require Pre-Clearance and meet or exceed 300 gross tons, or have length over all (LOA) over 20 meters, or carry more than 50 passengers must be equipped with an AIS transponder meeting the IMO standards, to be accepted for transit in the St. Lawrence Seaway.

Dredges and floating plants and towing vessels over 8 meters in length will also be required for mandatory AIS carriage. For combined and multiple units (Tugs and Tows), only the lead unit has to be equipped with the AIS transponder.