RTCM Special Committee 133
Data Exchange for Navigation-Related Internet Connected Applications

New RTCM Standard for Internet-based Automatic Identification System Services (AIS-i)
An update

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Brief on RTCM

- International non-profit scientific, professional and educational organization
- Started in 1947 as a U.S. government advisory committee
- Over 130 member organizations
- 16 Special committees
- Subject-specific interest groups which are not currently developing or maintaining RTCM standards
- 15 Standards developed and maintained
- The RTCM Annual Assembly Meeting and Conference, is open to both RTCM members and non-members
- RTCM standards are incorporated by reference into U.S. Federal Communications Commission and U.S. Coast Guard regulations
- The basis for requirements in standards of the IEC, which are now mandatory under Chapters IV and V of SOLAS.

www.rtcm.org

Update

- Last year I reported that under the SC-133 we started working on developing the Internet-Based Automatic Identification System Services (AIS-i) Specification.

- RTCM Special Committee 133 has completed a revised standard on AIS-i.

- AIS-i is a system of services and protocols for which this document provides guidance.
    - Recreational vessels may share location and identification information over wireless cellular data networks using AIS-i.
    - AIS-i services can provide users with the location of vessels in specific geographic areas.

- Final draft is under revision by members and subject to vote until December 21st
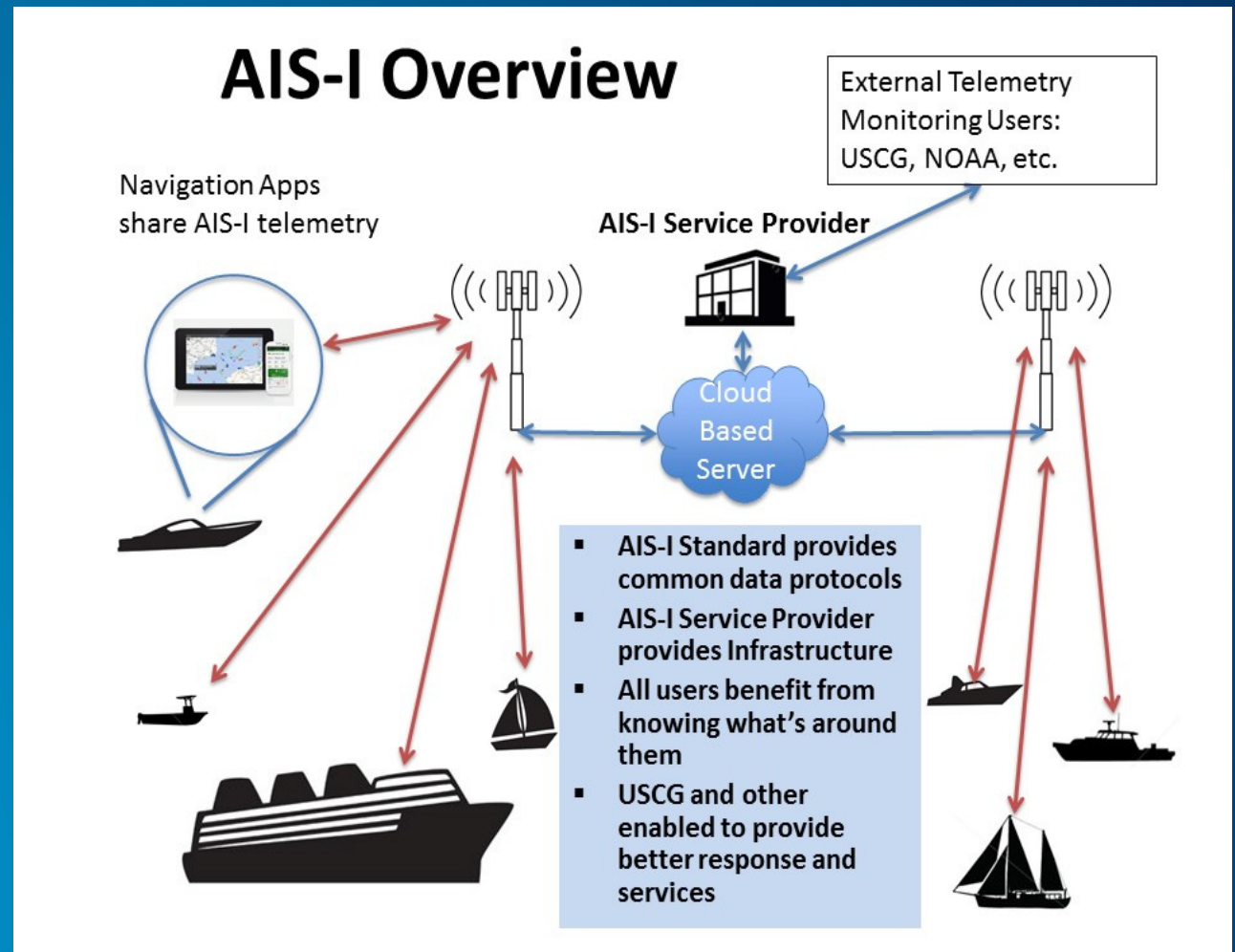
Considerations

- This standard provides a reference to support establishment of an AIS-i system to provide waterway information over the Internet, delivered by applications suitable for portable devices such as smart phones and tablets.

- The standard is based on work performed under contract to the U.S. Department of Homeland Security (DHS) and performed by Team Augmented Reality, Inc.

- Establishing a Small Vessel Security Strategy:
  - Strong partnership with the small vessel community and public and private sector
  - Leverage technology to enhance surveillance on small vessels that pose a maritime security threat

- Enhance cooperation at all levels in coordination with the Department of State and other relevant federal and international authorities

RTCM Standard for Internet-Based AIS Services (AIS-i)

This standard describes a system to provide small vessels not required to carry AIS with AIS-like waterway information over the internet, accessible on personal portable devices such as smart phones and tablets

Scope of this standard

- Defines terms for AIS-i technical elements, data elements, and user / vessel profiles;

- establishes the general architecture for AIS-I;

- specifies protocols for data transfer between AIS-i systems; and

- provides guidelines for implementation of AIS-i into systems.

- This Standard is applicable to all systems that intend to participate in AIS-i services.

Portray AIS-i information using a symbol crafted out of the IEC 62288 AIS symbology (multiple isosceles triangles… to form a [Star Trek] arrowhead).

Applications should color code for latency;

Figure 2 – Accuracy of 10 m or less and no older than 30 seconds

Figure 3 – Accuracy of 11 – 30 m or 31 – 59 seconds old

Figure 4 – Accuracy of 31 – 50 m or 60 – 119 seconds old

Figure 5 – Accuracy of 50+ m or 120+ seconds old = outline, or no location shown on the chart

AIS-i

Register ▶   Account ▶   Support   About   AIS-i Apps

Home

Welcome to the AIS-i Home Page!

AIS-i provides vessel Automatic Identification System (AIS) like services for the unregulated maritime community over the Internet.

- Gives you unparalleled emergency safety thanks to Instant Position Reporting
- Provides clear identification of other vessels: type, size, speed, heading, etc.
- Operates over cellular networks

To become an AIS-i User requires 3 easy steps:

1) Register as an AIS-i User
2) Associate an AIS-i Vessel with your User
3) Log into any AIS-i capable system using your UserName and Password and select a Vessel.

AIS-i should not be confused with AIS Class A or AIS Class B, which are VHF based capabilities overseen by IEC (International Electrotechnical Commission) standards, and in some cases mandated by IMO (International Maritime Organization). AIS Class A & B services and AIS-i services are fully independent of each other, require seperate registrations and operate in different communications domains. For further information on AIS Class A & B, see http://www.navcen.uscg.gov/?pageName=AISFAQ
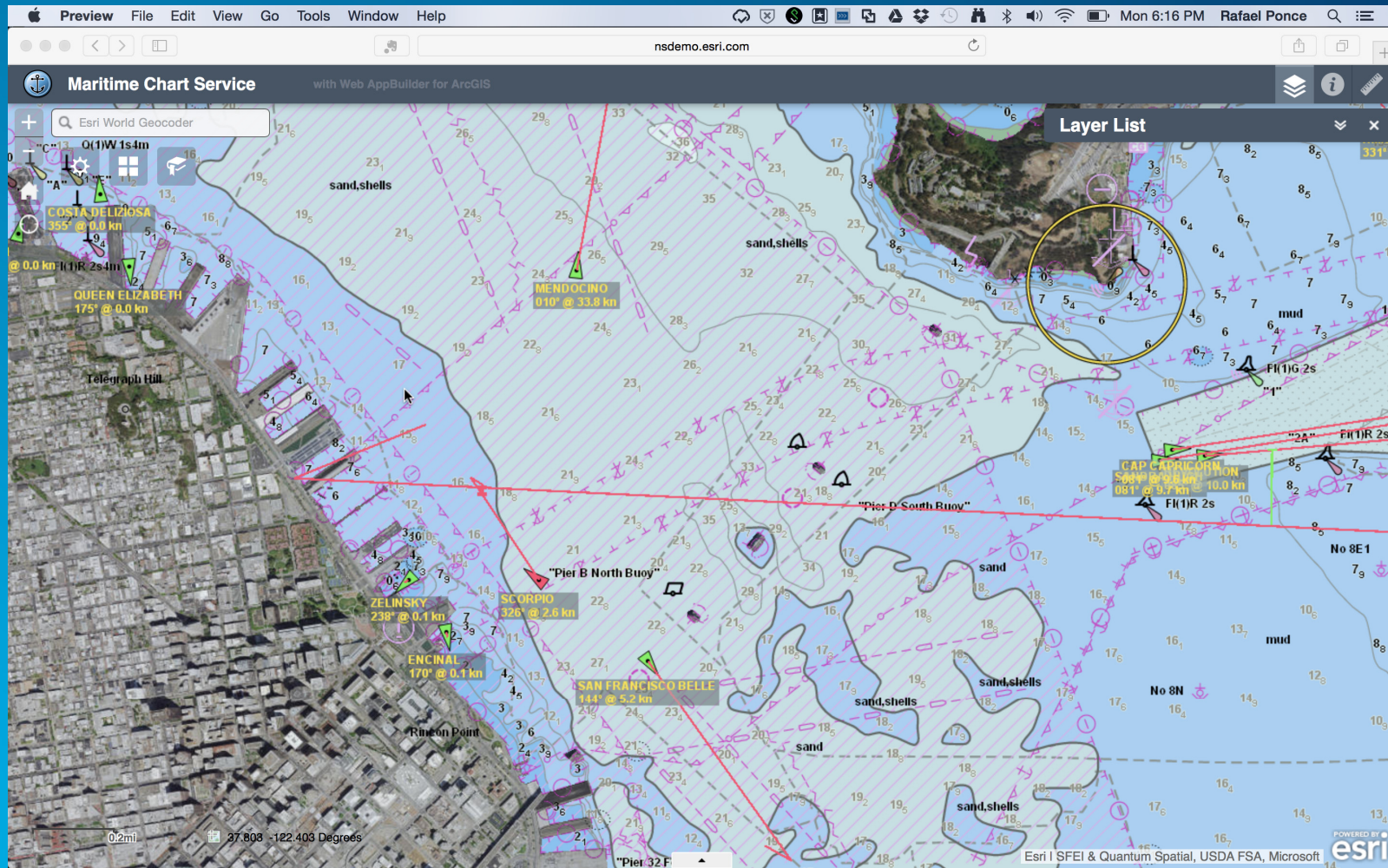
REGISTER ▶   **DOWNLOAD** ⌄⌄

Harmonization of Maritime Services Portfolios —> VTS Service portfolio.

AIS-I REST interface

HSSC is invited to take note of this report.

Thank you