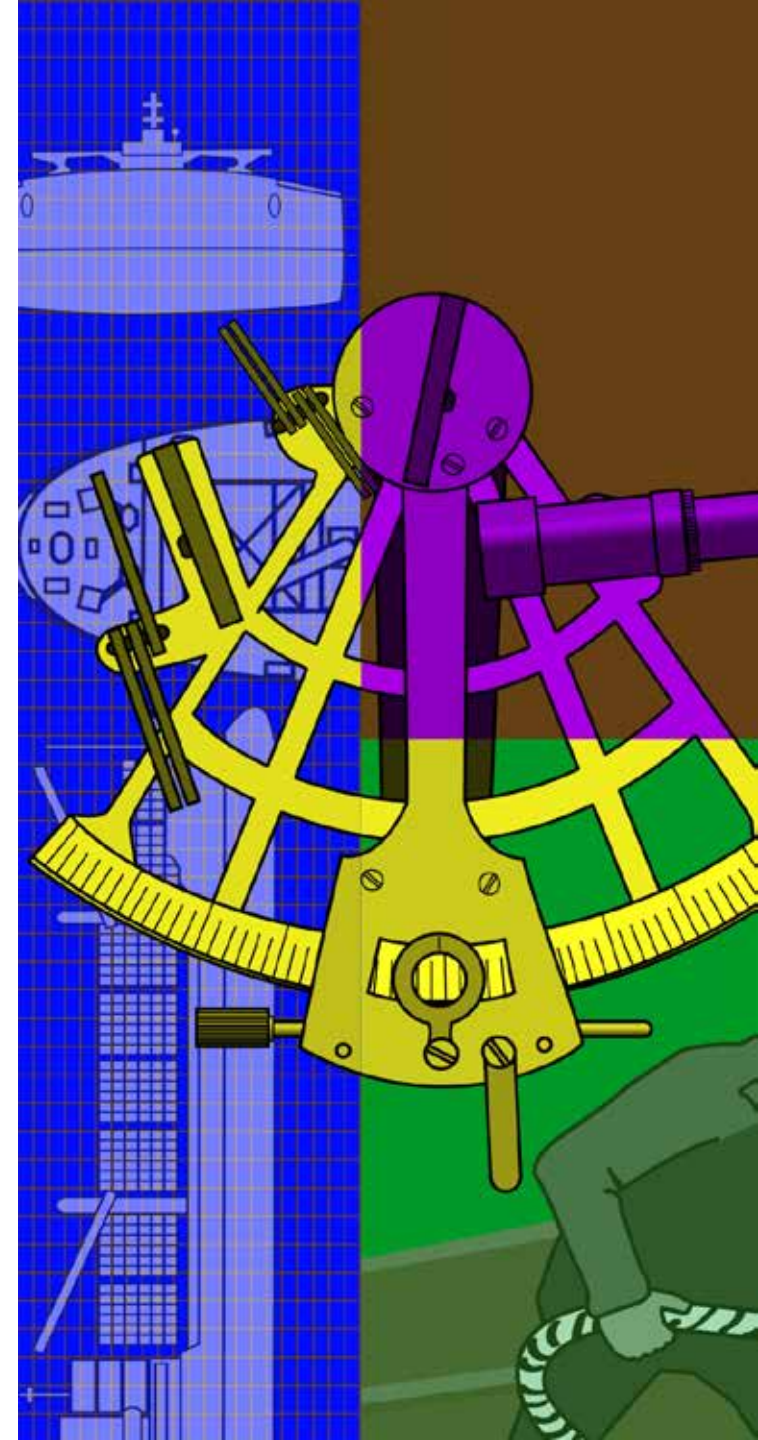


2016 SAFETY4SEA Forum Athens

Safety of Navigation: ECDIS Assisted Groundings

Danielle Centeno
Asst. Vice President
Shipowners Claims Bureau, Inc.
New York, NY USA





RELAX... THE
COMPUTER SAYS
WE'RE FINE AND
ON COURSE.

ECDIS Regulations

SOLAS Chapter V regulation 19.2

Mandatory carriage of ECDIS Systems on ships on international voyages from July 2014- July 2018:

Compulsory:

- New build Passenger Ships $\geq 500\text{GT}$
- New build Tankers $\geq 3,000\text{GT}$
- New build Cargo Ships $\geq 3,000\text{GT}$
- Existing Passenger Ships $\geq 500\text{GT}$
- Existing Cargo Ships $\geq 50,000$



Forthcoming:

- Existing Cargo Ships 20,000-50,000 GT
July 2017
- Existing Cargo Ships 10,000-20,000 GT
July 2018

Incident No. 1- Varne Bank

A Chemical Tanker carrying a cargo of vegetable oil, (9,500 m tons) ran aground in the Varne Sandbank in the Dover Strait for approximately 3 hours.

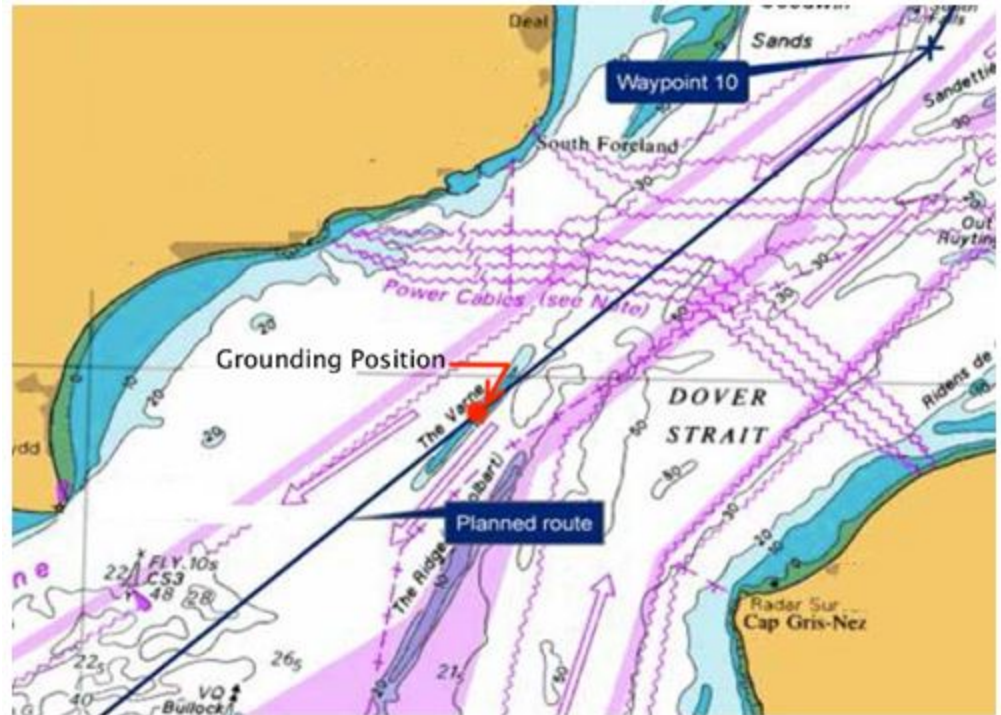
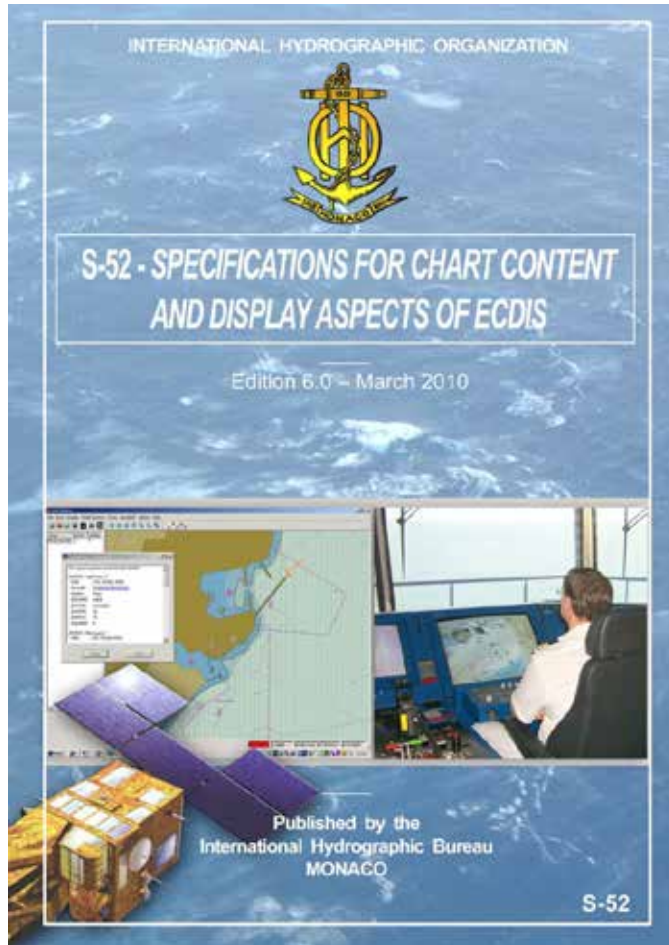


Figure 2

Incident No. 2- Authorized Charts



Over-reliance on the electronic chart system (ECS) and unofficial chart products for passage planning and navigation resulted in a vessel touching bottom on a bank in the Indian Ocean.

Incident No. 3- Avoiding Collision

A bulk carrier grounded after altering course to avoid oncoming traffic. ECDIS anti-grounding safety function audible alarm never sounded.



Common Themes

In all three Incidents:

- ECDIS was used as the primary means of navigation.
- Ships Officers had completed generic ECDIS training.
- Mistakes made by the navigating officers went undetected by Master.



ECDIS Capabilities and Limitations

- ECDIS Features and Alarms
- Accuracy of the Charts Products
- Training and Competency of the Crew



Foreseeable trends and risks



- Over-Reliance
- Improper Settings
- Alarm Deafness
- Different Manufactures
- Anomalies

An emphasis on practical Navigation: *“U.S. Naval academy reinstates celestial navigation”*



Ευχαριστώ