Safety of Navigation: ECDIS Assisted Groundings

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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 ≥500GT
- New build Tankers ≥3,000GT
- New build Cargo Ships ≥3,000GT
- Existing Passenger Ships ≥500GT
- Existing Cargo Ships ≥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.
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.
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”
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