New Product Development

Jonathan Pritchard
United Kingdom Hydrographic Office
May 8th 2006

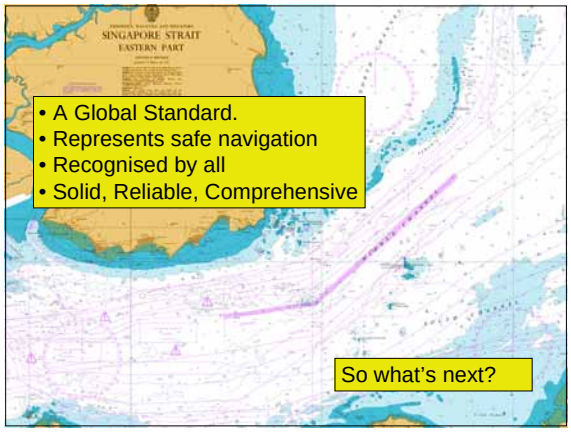
Paper Charts & Publications

Global series
3300 Navigational charts
Worldwide cover/distribution
3+ million charts per annum

220 publication titles
800,000 copies pa
Sailing Directions, List of Lights, Radio Signals, Tide Tables, chart catalogue, etc

Opportunities …

… direction …



- A Global Standard.
- Represents safe navigation
- Recognised by all
- Solid, Reliable, Comprehensive

So what's next?

The Global Environment

- Issues
  - Time pressure
  - Administrative load
  - Reduced time in port
  - World crew skills crisis
- Must Haves
  - Regulatory compliance
  - Reduced costs
  - Greater efficiency

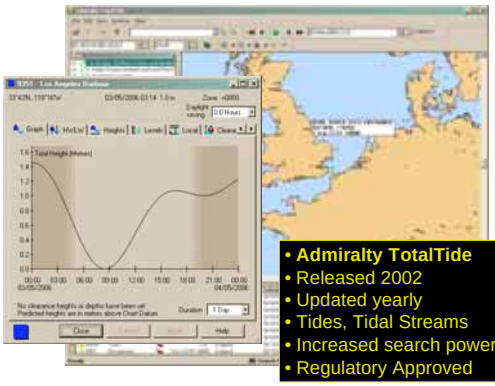
E-Navigation

- Proposed by a group of nations (Japan, Marshall Islands, the Netherlands, Norway, Singapore, the UK and the US) at IMO level.
- IMO should be mapping a "strategic vision" to use "new technologies" in a "structured way" that is "compliant" to deliver "safe, secure and efficient shipping on clean oceans
- The Aim? "to develop an overarching accurate, secure and cost-effective system with the potential to provide global coverage for vessels of all sizes."

E-navigation components

- Accurate, comprehensive and up-to-date Electronic Navigational Charts, covering the entire geographical area of a vessels operation
- Accurate and reliable electronic positioning signals, with fail-safe performance
- Provision of information on vessel route, course, manoeuvring parameters and other status items in electronic format;
- Transmission of positional and navigational information: ship-to-shore, shore-to-ship and ship-to-ship;
- Accurate, clear, integrated, user friendly display of the above information onboard and ashore.
- Information prioritization and alert capability in risk situations (collision, grounding etc), both onboard and ashore;
- Reliable transmission of distress alerts and maritime safety information

So where does this take us?



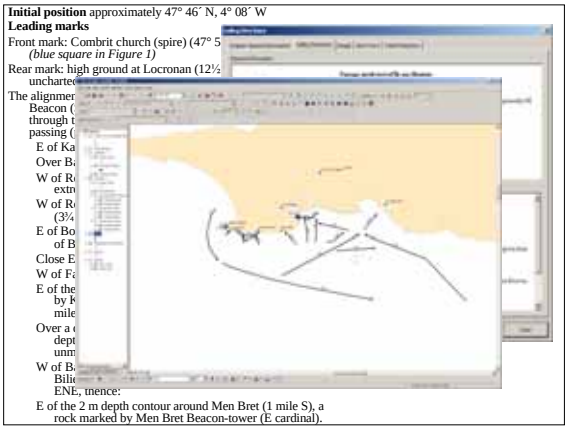
- **Admiralty TotalTide**
- Released 2002
- Updated yearly
- Tides, Tidal Streams
- Increased search power
- Regulatory Approved

- **Admiralty Digital List of Lights.**
- Released 2004
- Updated weekly
- 89,000 lights worldwide
- Increased search power
- Regulatory Approved

The future…

now

- TotalTide
- Lights List
- ALRSvol6
- Sailing Directions



- Benefits of digital publications
  - Reduced updating workload
  - Easier planning
- Where is it going?
  - Fusion of planning data into single application
  - Input data
    - Environmental
    - Chart and publications
    - Commercial
  - Outputs
    - Structured, quality passage plans
    - Meeting regulations and company policy
    - Enabling efficient routing
- But is technology the solution???

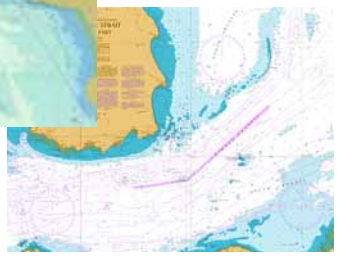
Technology – the Downside!
- Skills and Competence
- The Maintenance burden
- Company Policy
- Multitasking
- Unexpected behaviour

Safety and Technology

Safety – our prime concern

To This…

From this…

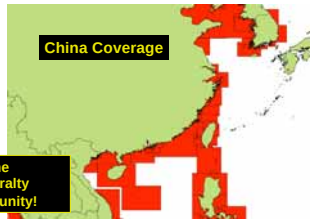


Paper – still our core strength

There are Issues:
- Coverage gaps
- The need for up to date data
- improving the deal for the mariner

Innovating with a 200 year old product !

The trend
More data out!
More data in!



The Admiralty Community!

Print on Board

- Printing out standard charts on COTS printers
- Based on print on demand technology
- For emergency use only, numbers are limited and marked
- Trial approved by MCA in the UK
- UKHO internal safety board approval