

Engaging the Navigator

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Why Engage?

- The navigator or OOW is predominately the sole decision maker upon whom safety of navigation relies.
- Research shows that in about 50% of collisions during the past 10 years, either one or both vessels didn't see each other until it was too late!

(Seaways July 07)



Questions

- Do we need a navigator on the Bridge?
- What is their role?
- Do they have the tools?
- Do they have the training?
- Do they have the motivation?



Modern Times

- Life with ECDIS, INS/IBS...
- Maintenance of situational awareness?
- Decisions for Command and Control?
- Familiarisation of Interface?
- Audit-ability?



Engagement Triangle



The diagram illustrates the Engagement Triangle, a concept used in maritime education and training. It features a central purple triangle with the word "Motivation!" written across it in a large, bold, black font. The triangle is surrounded by three colored ovals: an orange oval at the top labeled "Technology", a yellow oval at the bottom left labeled "Procedures", and a green oval at the bottom right labeled "Training". The background of the slide includes a photograph of a large green and red cargo ship at sea, and a large, faint watermark of the word "Nautical" is visible behind the triangle.

Motivation!

Technology

Procedures

Training

Technology

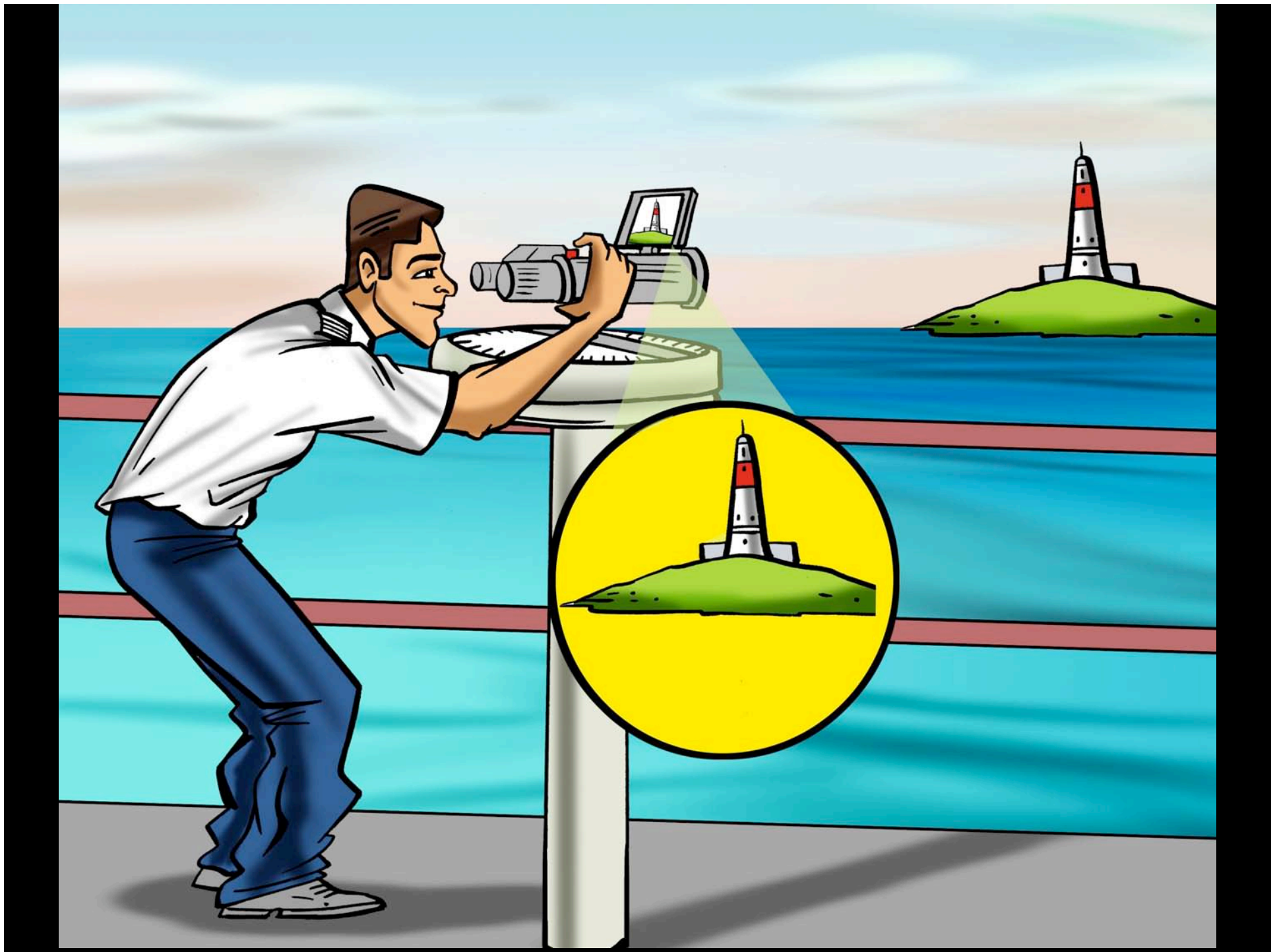
- ECDIS, Radar, Track Control, Auto Pilot, Gyro, GPS ...
- INS/IBS, Decision Support, GNSS
- Engagement Options:
 - Manufacturer interface
 - S Mode
 - ePelorus

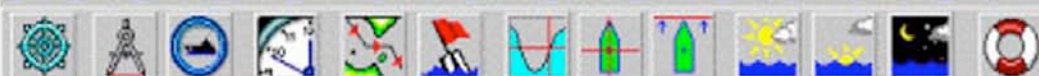


Why ePelorus?

- Ability to engage the mariner
- Improve situational awareness
- Make use of the superb MK1 eyeball.
- Secondary navigation system
- Identify Risk of Collision
- Audit trail for activity







Depths In Metres

Latitude	53 32.42N
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Longitude 0 05.48E

Chart Details

Chart Number: 109

Country Of Origin 68

Edition Date: 25 Feb 1994

Datum: WGS84 Available

GPS Details

Latitude 53 33.06N

Longitude 0 09.33E

SOG 5

COG	294.6
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STW 0

CTW	0
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Ring Radius	.59 NM
Min. Radius	

Line Bearing	n/a
Line Distance	n/a

Line Distance Active W/point

Active Waypoint

V/pl Beating	295.6T
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W/pt Distance	1.25 NM
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W/pt Time To Go	0:15
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W/pt ETA 14:51
N/A ETA 15:10

W/pt ETA Date 10 JUL 1995

Route

Distance To Go 18.66 NM

Time To Go 3.44

ETA Destination 1820

ETA Date 10 JUL 1995

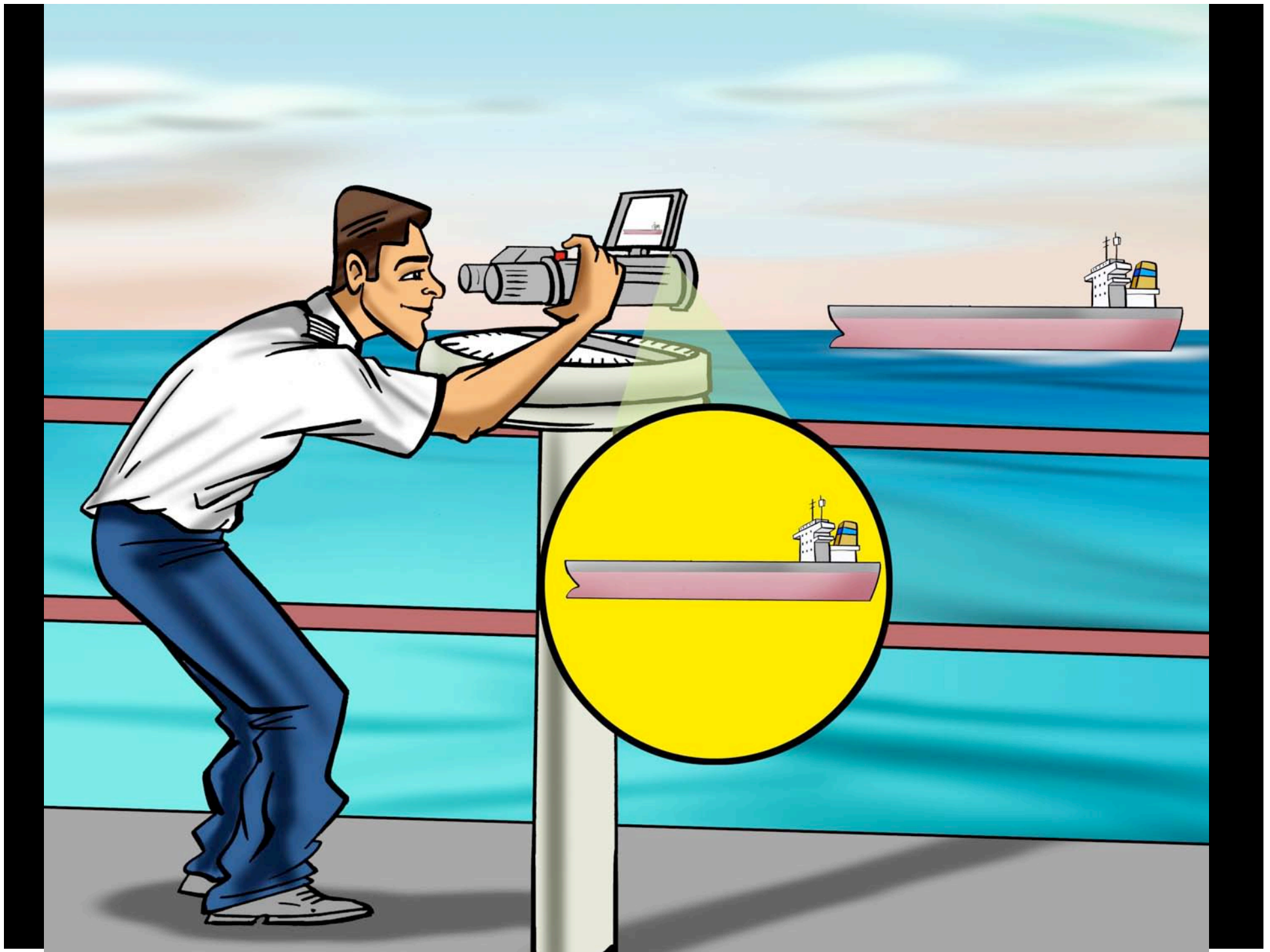
Route Details

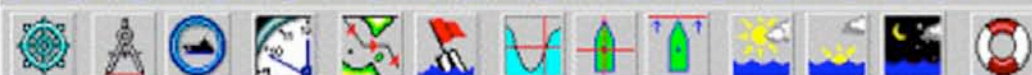
File C:\..HUMBERIN.PUN

Route Spurn L/V to Saltend

No. Waypoints	21
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[More](#)





Depths In Metres

Latitude 53 32.42N
Longitude 0 05.48E

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Chart Number: 109
Country Of Origin: GB
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GPS Details

Latitude 53 33.06N
Longitude 0 09.33E
SOG 5
COG 294.6
STW 0
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Ring Radius 59 NM
Line Bearing n/a
Line Distance n/a

Active Waypoint

Wpt Bearing 295.6T
Wpt Distance 1.25 NM
Wpt Time To Go 0:15
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Wpt ETA Date 10 JUL 1995

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Distance To Go 18.66 NM
Time To Go 3:44
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ETA Date 10 JUL 1995

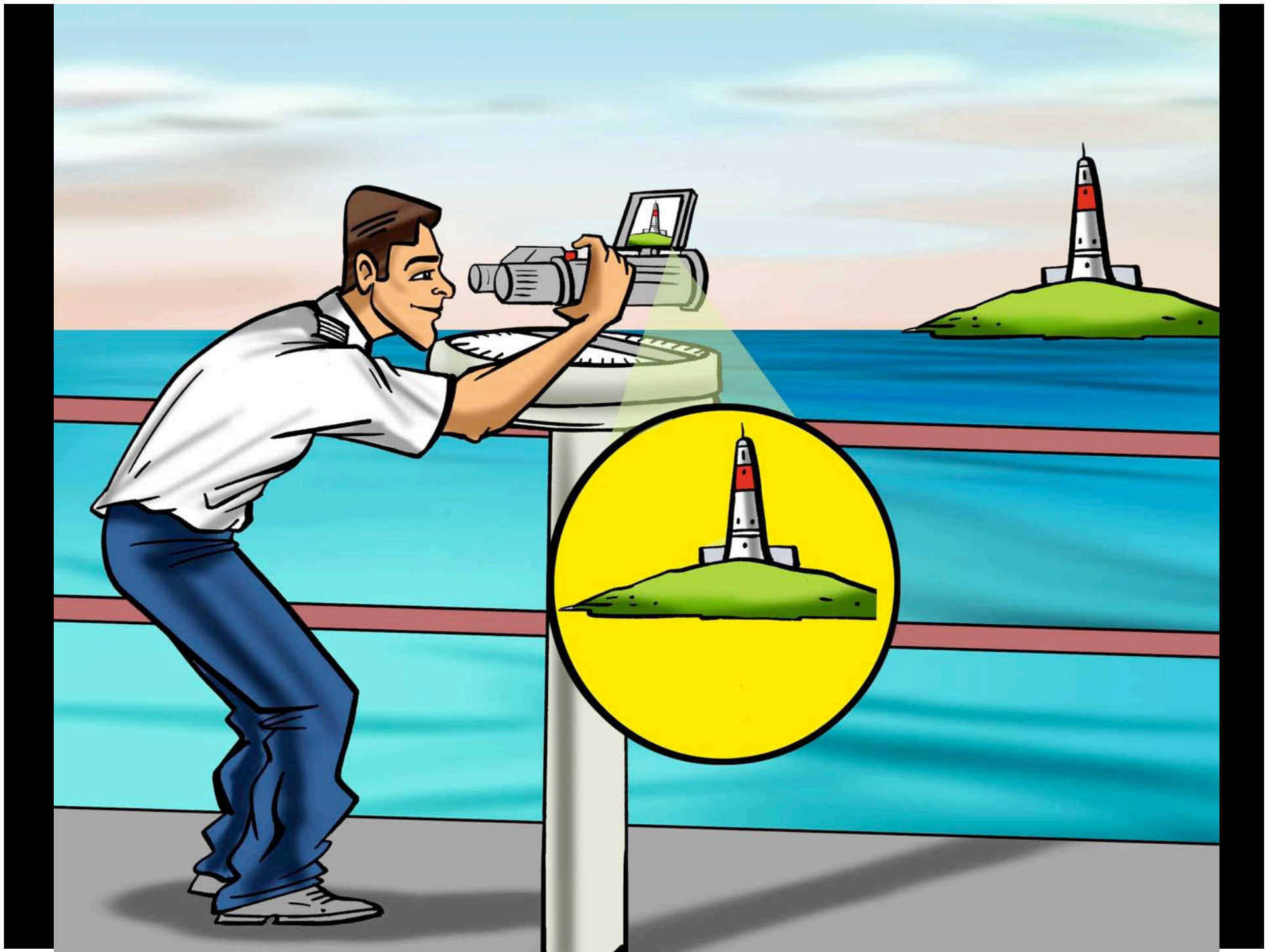
Route Details

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Route Spurn L/V to Salsend
No. Waypoints 21

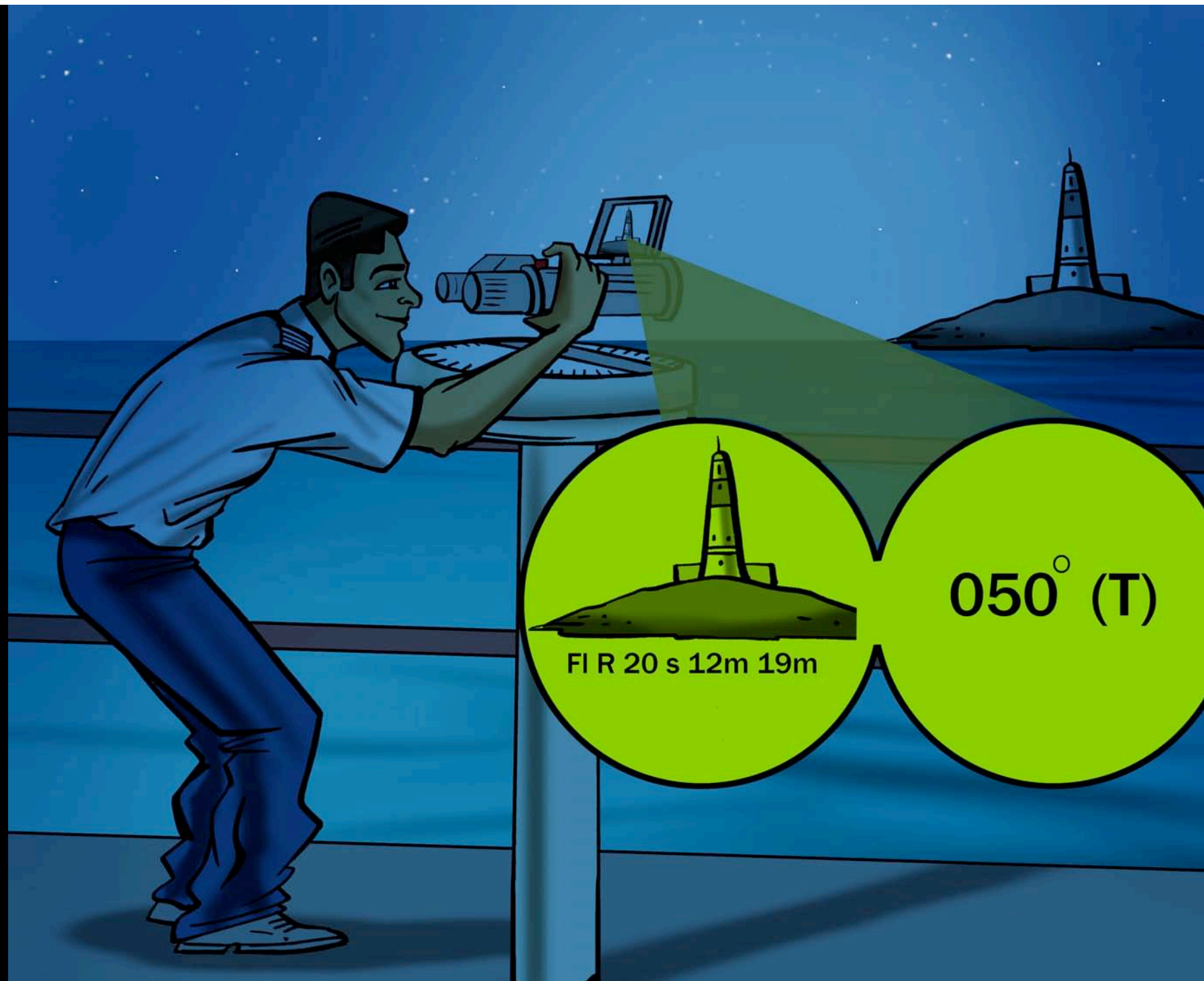
More

14:36









FI R 20 s 12m 19m

050° (T)

Procedures

- Tradition
- Develop 'Best Practice'
- Company procedures (ISM, TQM ...)
- Mentoring
- Sharing



Training

- IMO Model Courses (minimum)
- Competencies
- Assessment (Simulation)
- Refresher training
- Cascade training ☹️
- Challenge of keeping pace with developments and design differences



Motivation

- By threat
- Through teamwork
- Professional ethos/pride
- Through education
- Awareness campaign



Nautical
Institute

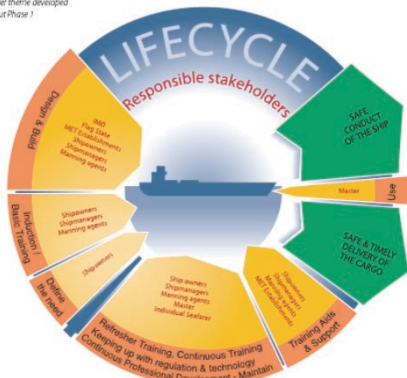
e-Nav Issues

- IMO states that e-Nav is user led
- SG states that the mariner should not be relegated to that of a 'monitor'.
- Training must be considered at all stages of development.
- e-Navigation must be scaleable





Stakeholder theme developed throughout Phase 1



Human Element

- Engagement starts with design
- Roles must be clear and current
- Operational engagement must address Technology, Procedures, Training and Motivation
- Engagement is iterative

Conclusion

- Important to engage the mariner
- Mariner must be able to be engaged (operations and design)
- Mariners must be motivated to engage.
- e-Navigation should address this
- Scalability requires wide range of stakeholders and tools.
- Role for RIN and NI



**Engagement with
The Nautical Institute through
membership and participation is
very much appreciated!**

Thank You

Join Now!

and the RIN

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