

Nautical Institute AGM

(Hong Kong 2019)

Changes in Shiphandling Techniques
in the Hong Kong Harbour

About Myself

- Capt. Wong Chung Kan, Stephen
- Cadet officer → Master (1972-1982)
- HKPA since 1985
- Senior pilot since 1988



Topics

- Development of navigational equipment
- Development of Containerships
- Ship Handling in confined waters
- Case Study
- Q & A

Development of Navigational Equipment

(Old Days)

- Plain radar
- Visual bearing/transit bearing
- Traditional ship handling technique
- Conventional tug (Twin screw)

Development of Navigational Equipment (Nowadays)

- Modern sophisticated radar
- ECDIS
- VTS assistance
- Highly maneuverable tugs (Z-peller)

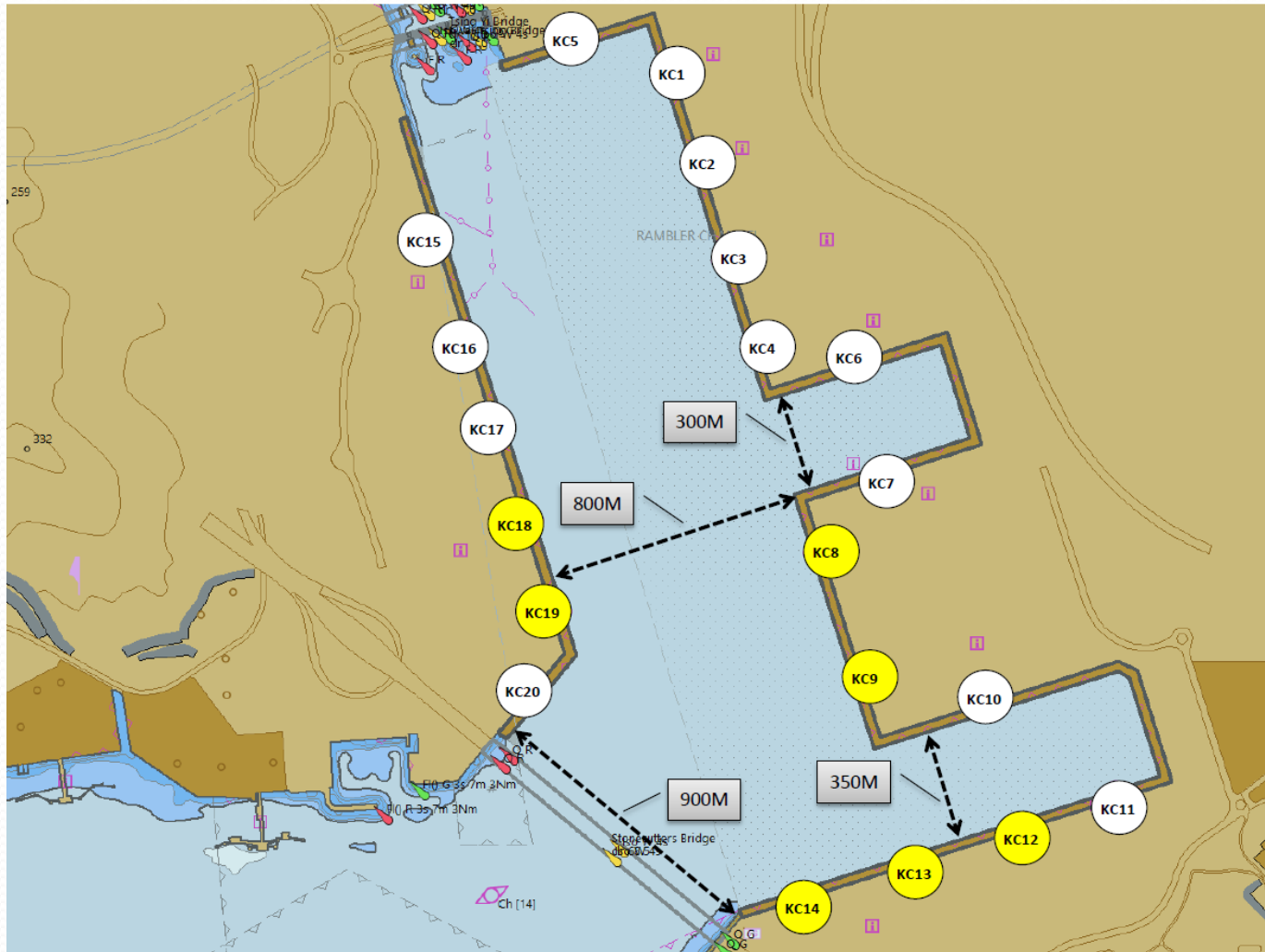
Development of Container Ships

- Old days
- 1st generation
- Feeder service
- Ultra Large Container Ships (ULCS)

Kwai Tsing Container Terminals

- Designed over 50 years
- Continuously upgrading
- Berthing of ULCSs
- High concentration of berths

Kwai Tsing Container Terminals



Ship Handling in confined waters

- Gain control
- Speeds
- Limitation of tugs
- Use of bow thruster
- Speed control

Characteristic of ULCS (1)

- Windage area
- 20 knot wind
- 30 knot wind
- Strength of set & leeway

[Above information was extracted from IMPA on Pilotage]

Characteristic of ULCS (2)

- Transverse thrust
- Confined area
- Landing speed

Demonstration of the approach and berthing of a ULCS to KC13 (1)

- M.V. Barzun
- G/T 195,636
- Draft 14.4m
- LOA 400m

Demonstration of the approach and berthing of a ULCS to KC13 (2)

- Bow thruster 2x3000Kw
- Astern power 51%
- Slow ahead 10 knots
- D.S. ahead 8 knots
- Min. ahead 5 knots

Demonstration of the approach and berthing of a ULCS to KC13 (3)

- Easterly wind
- Flood tide x 0.5 knot
- 3 tugs
- The use of tug
- Bridge wing

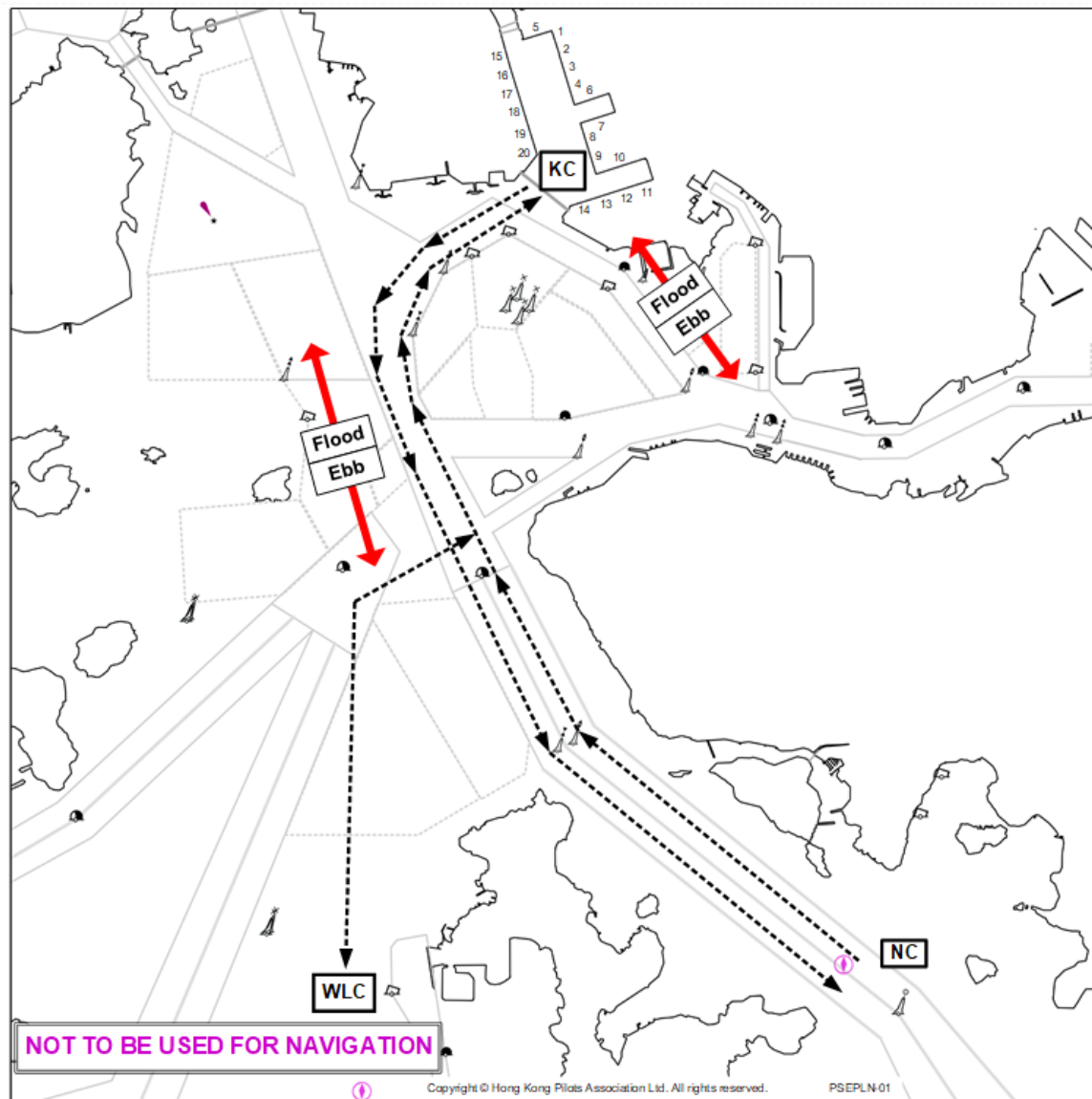
PASSAGE PLAN

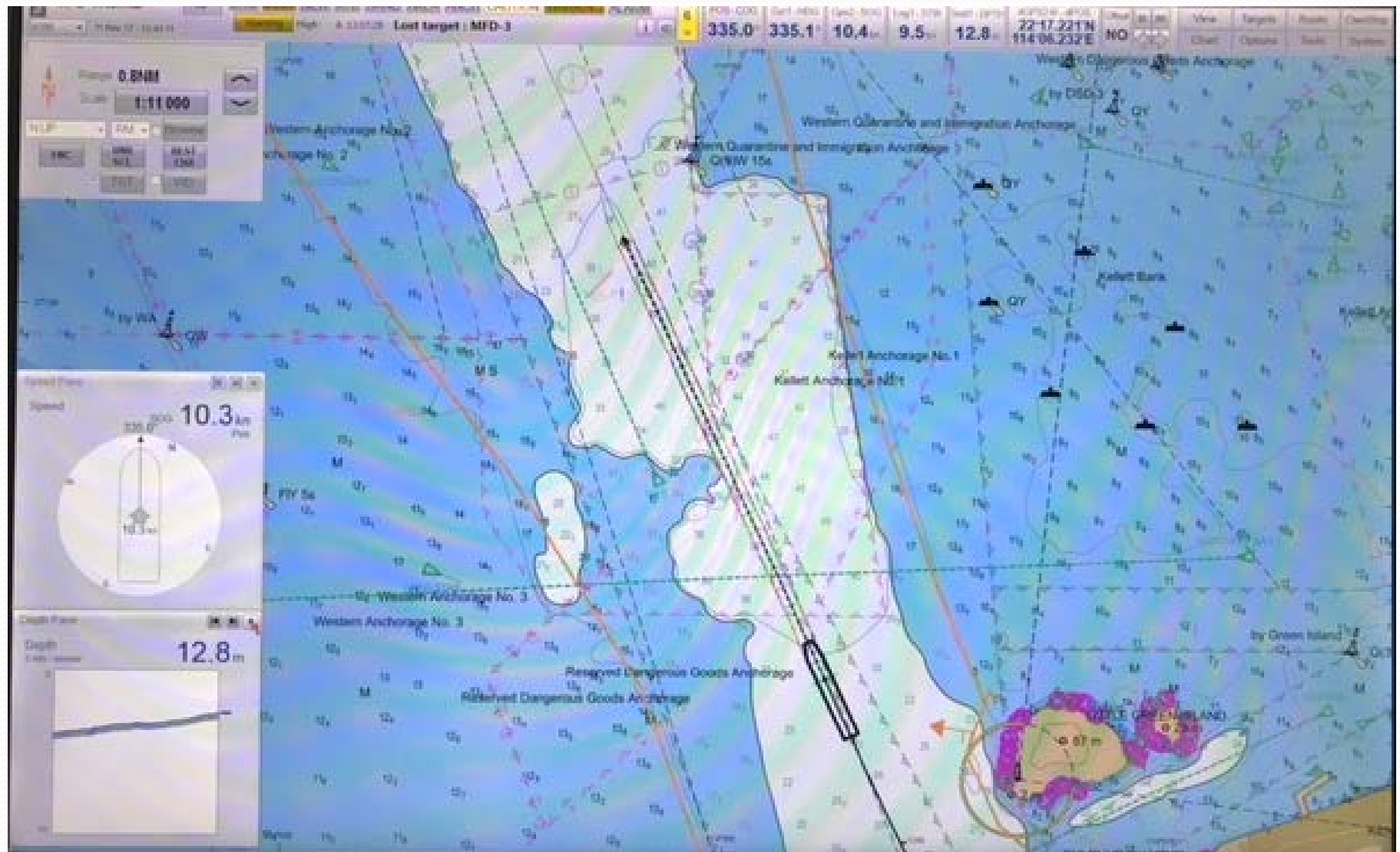
Ngan Chau ↔ Kwai Chung
Terminals

HK Charts: HK1501 HK0803

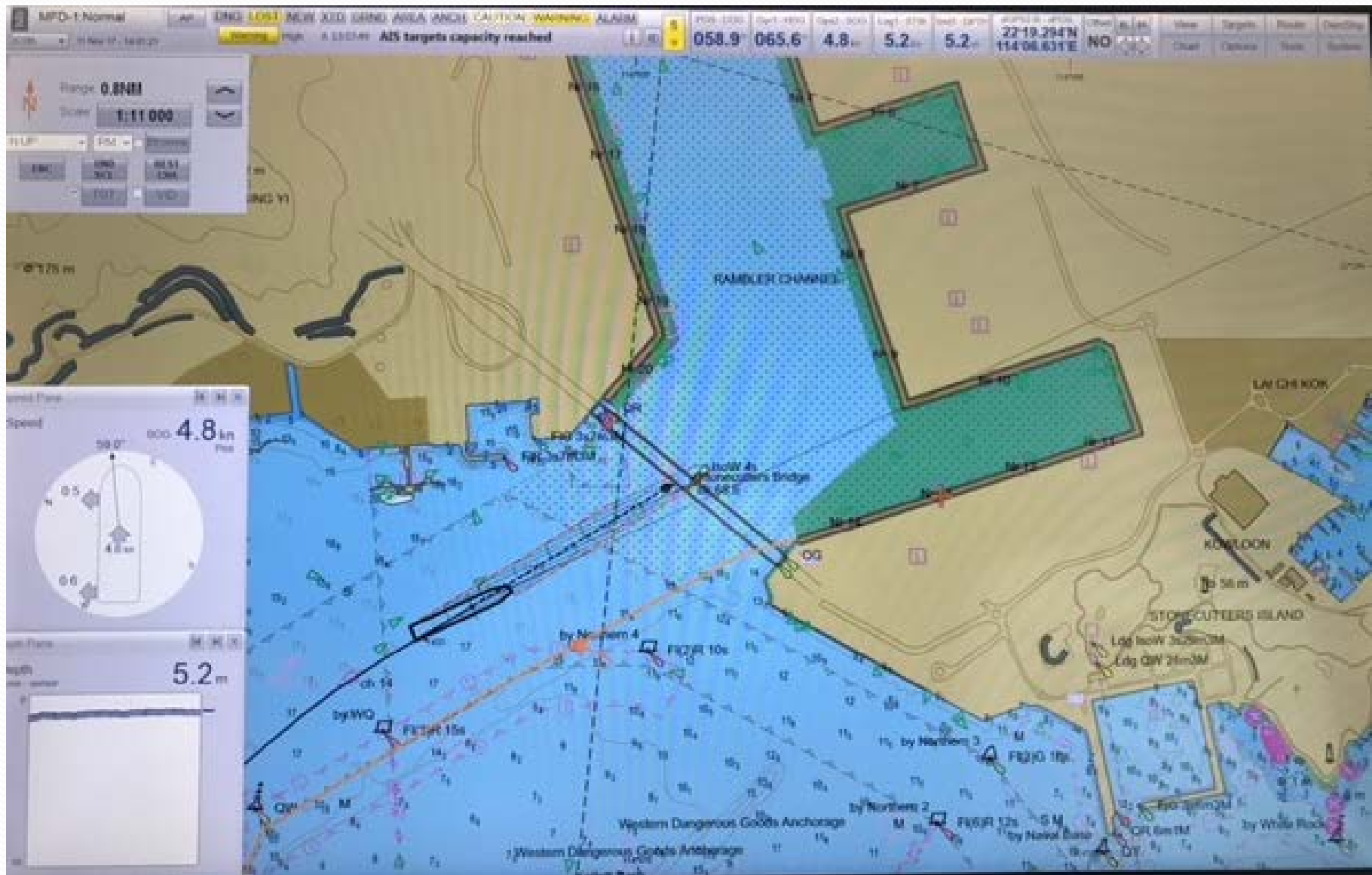
BA Charts: BA4121 BA4119

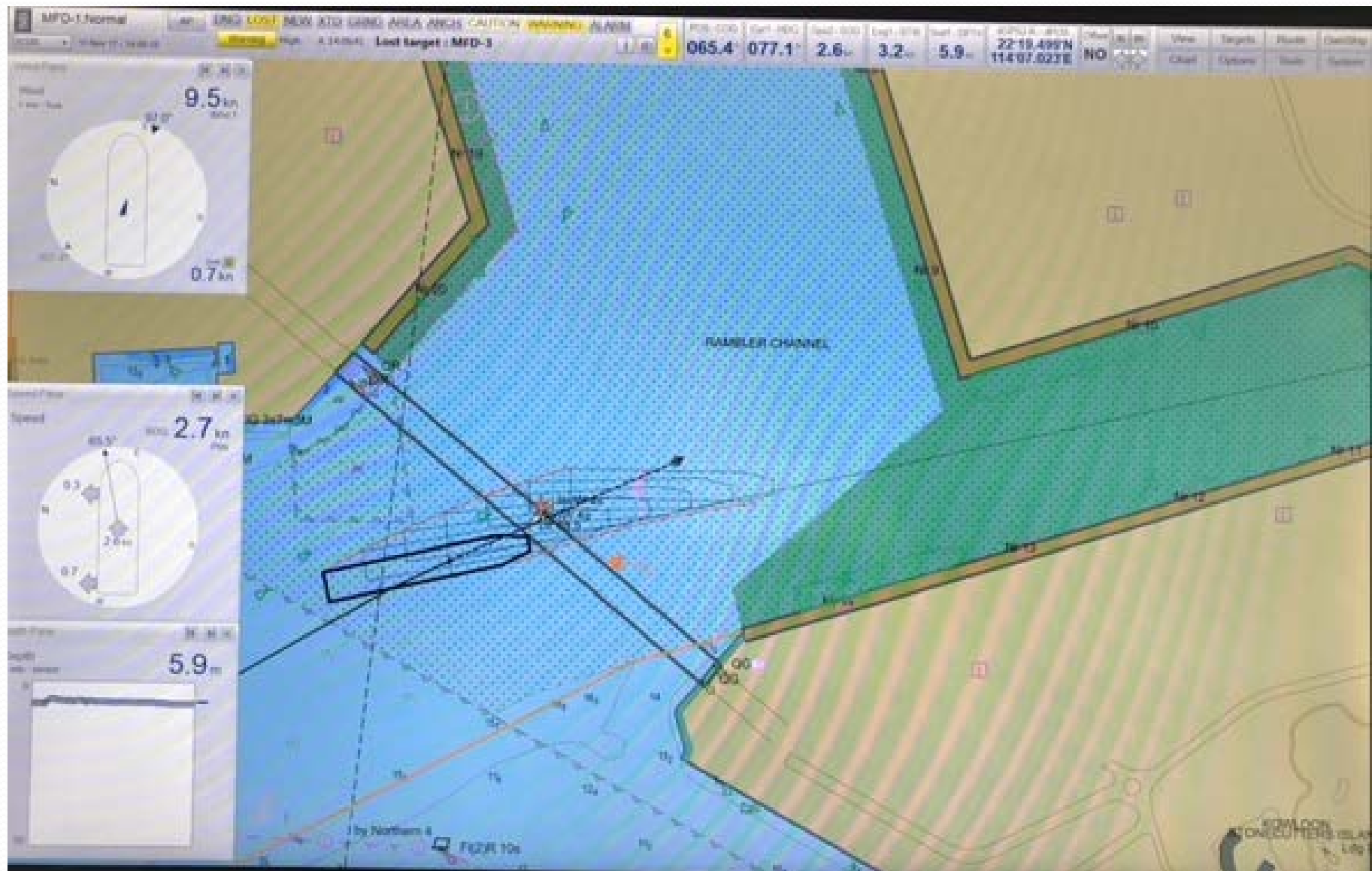
****Good BRM Is Vital To Ensure
Safe Navigation****

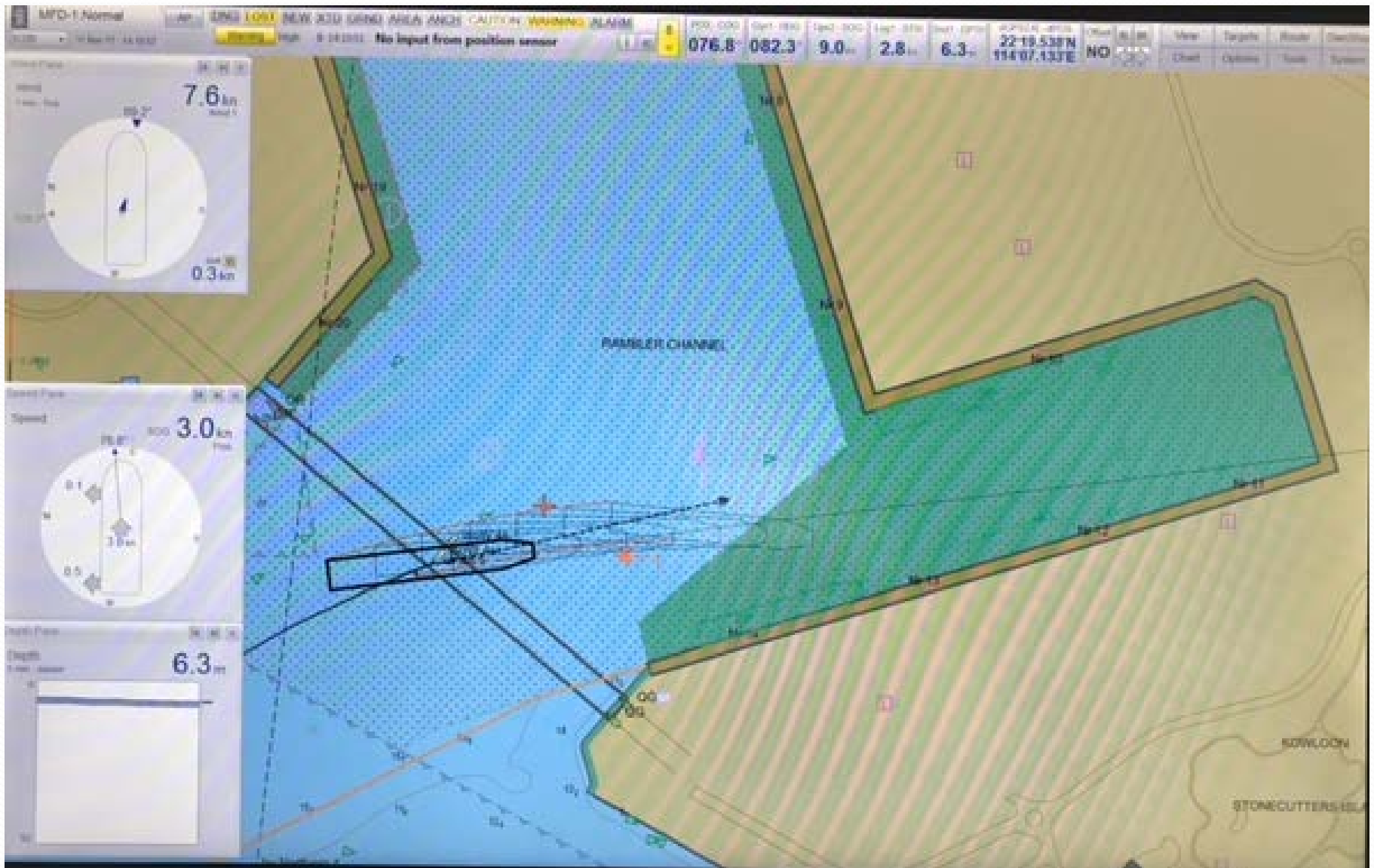


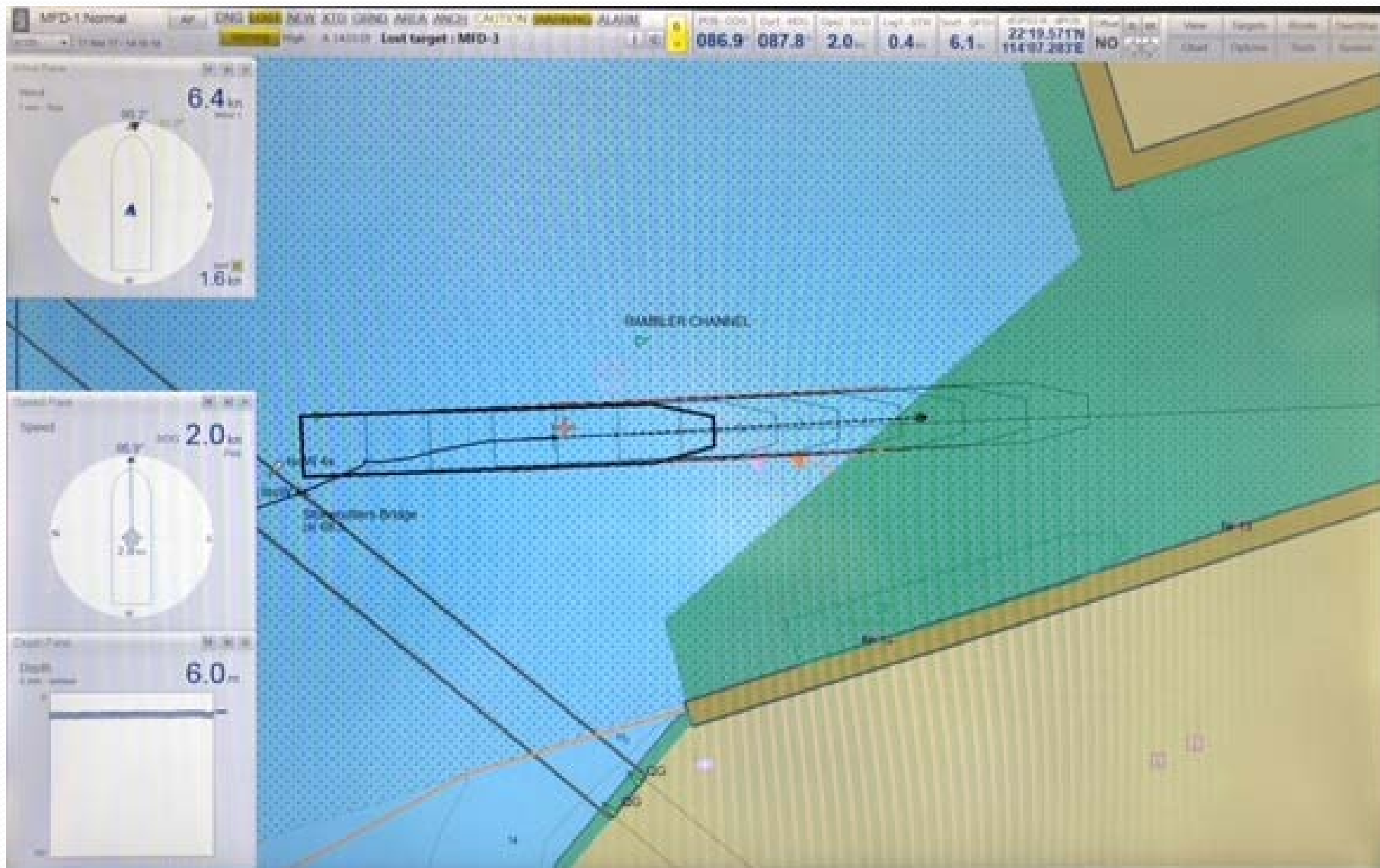


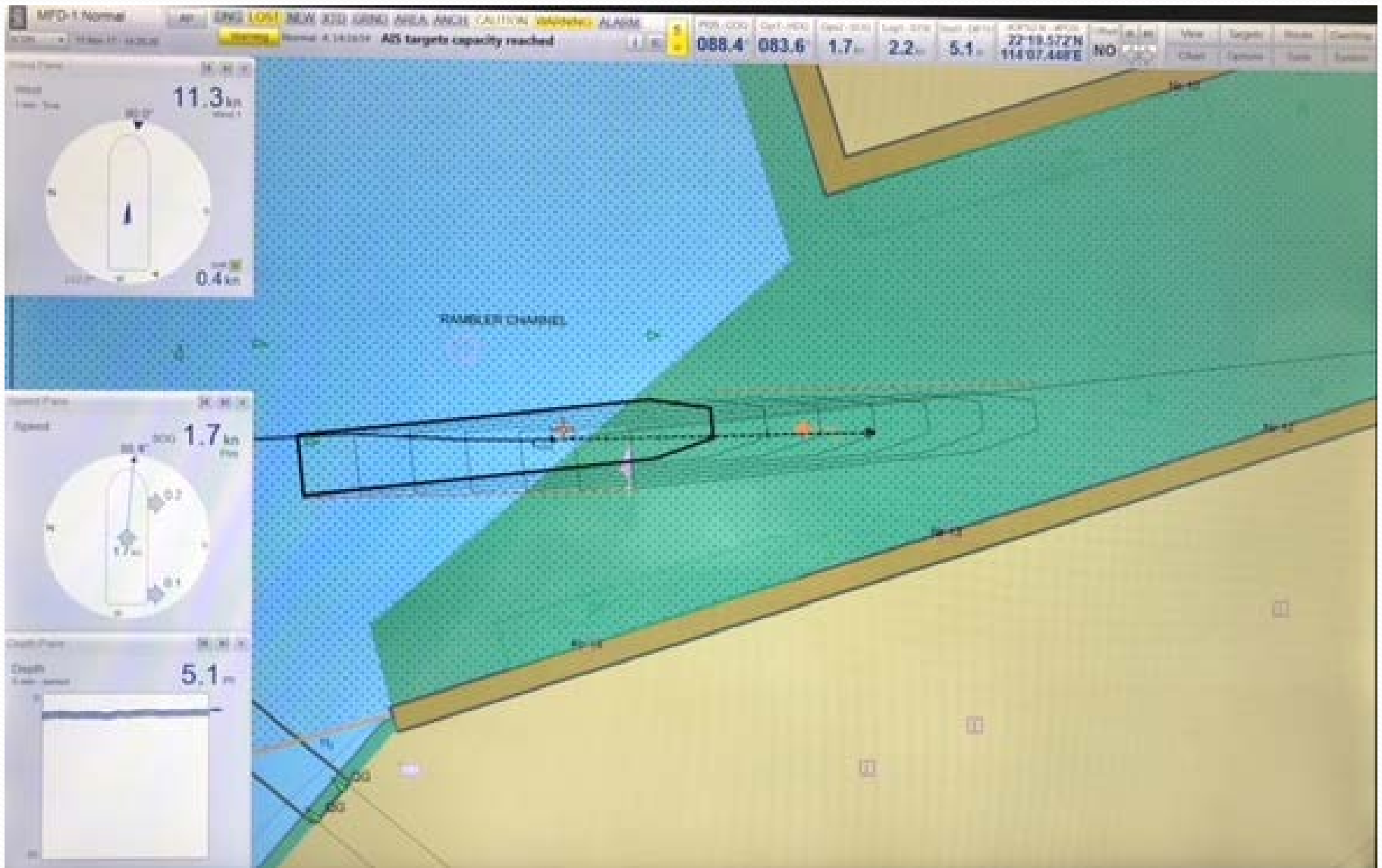


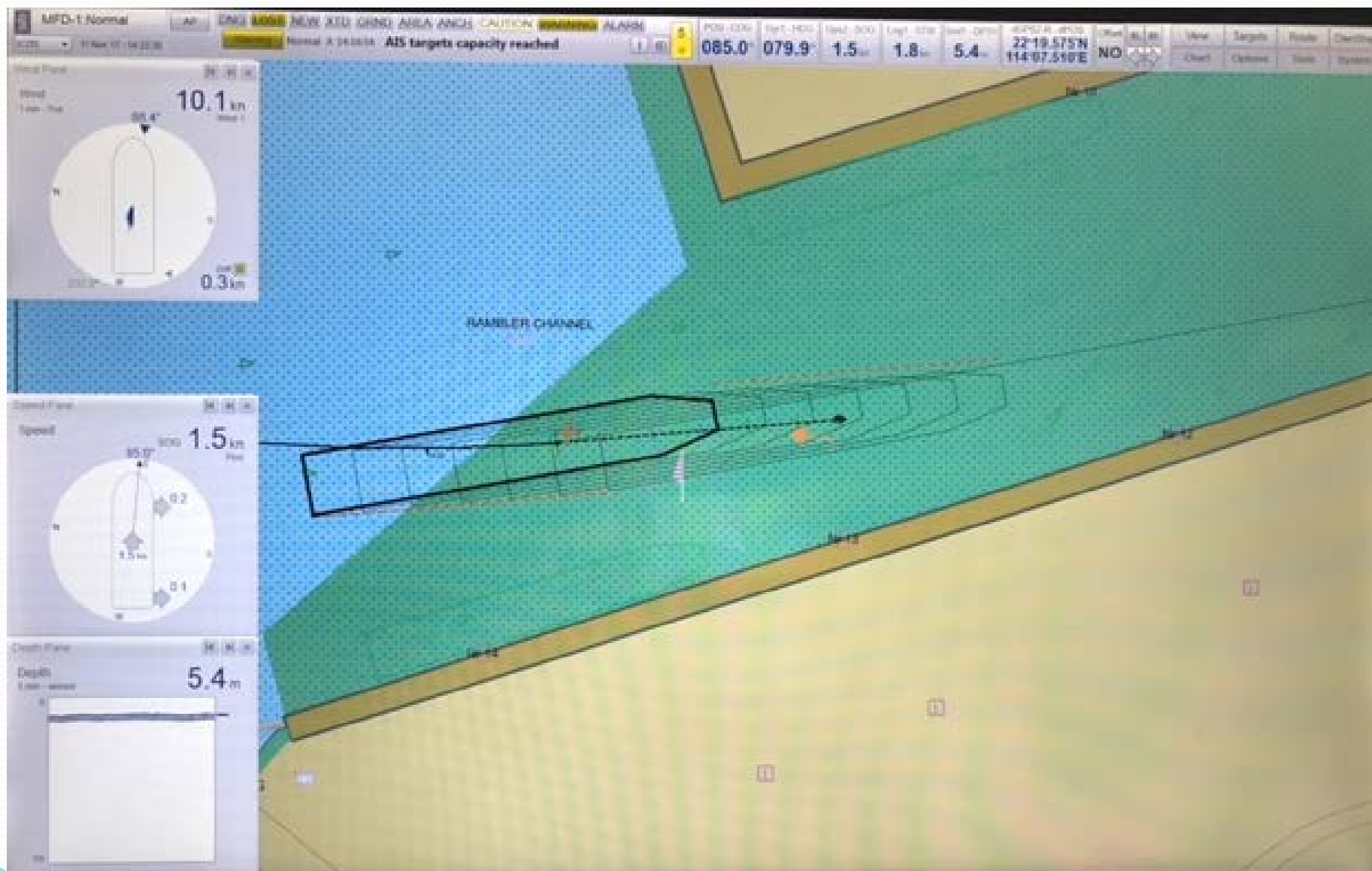


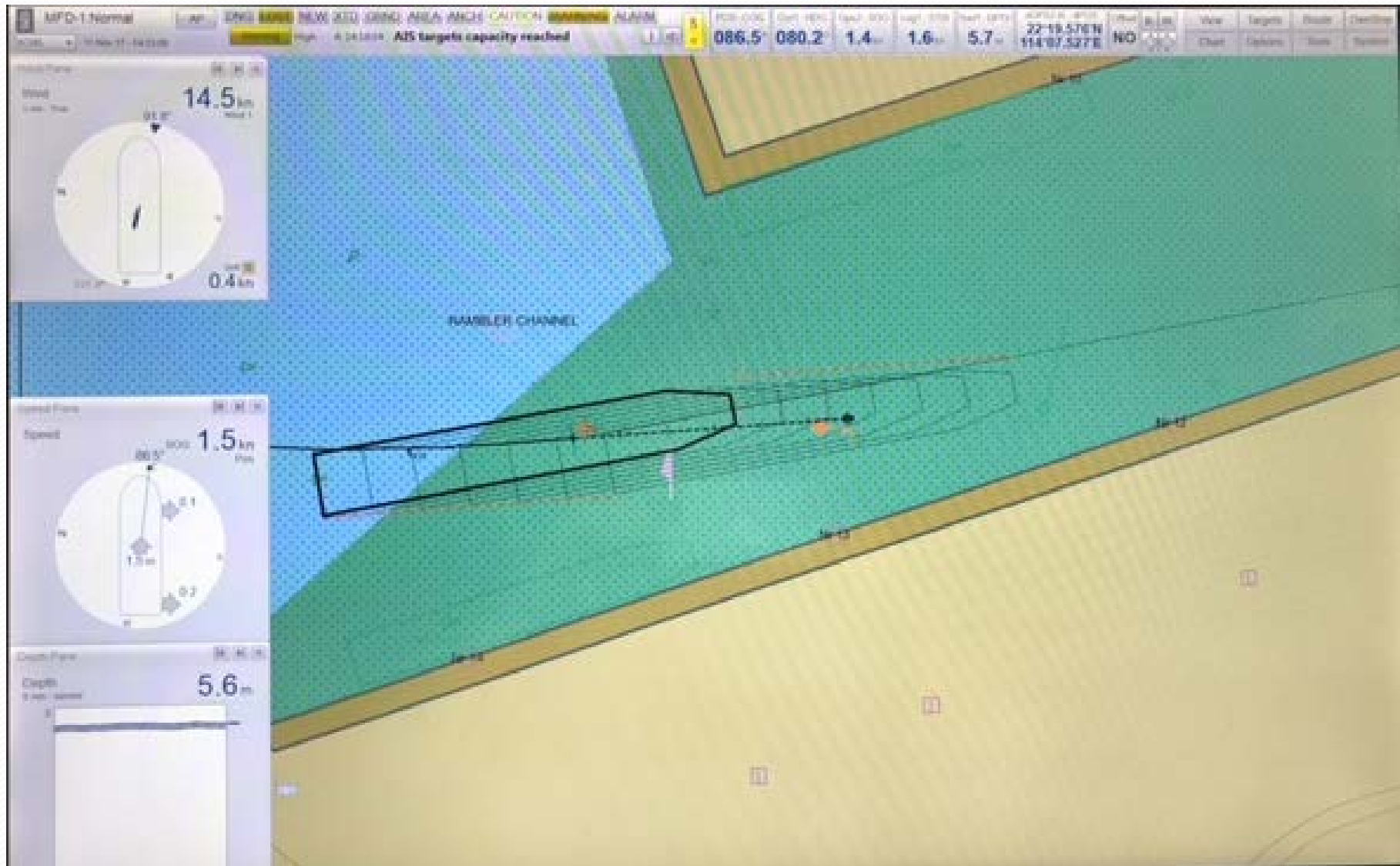


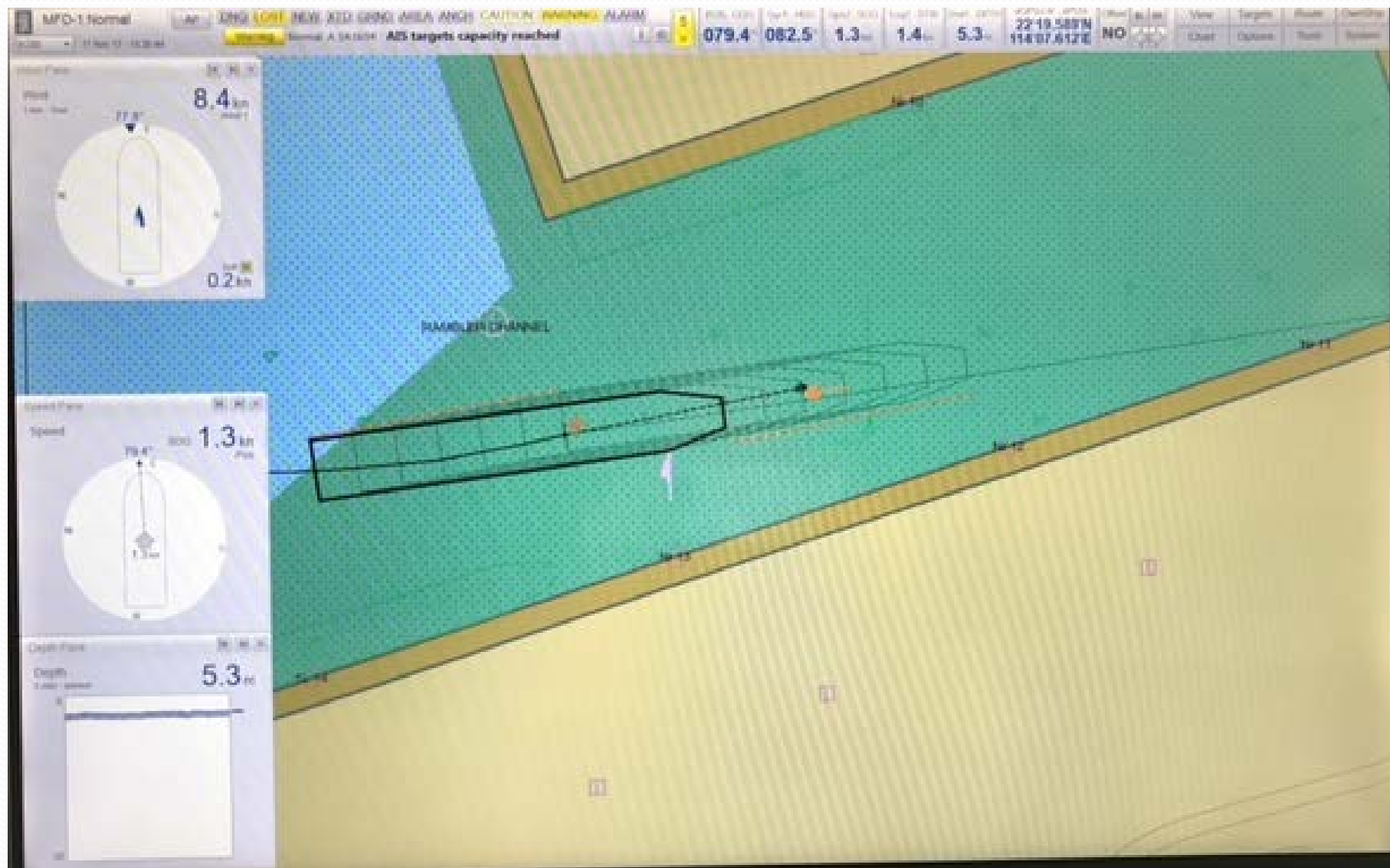


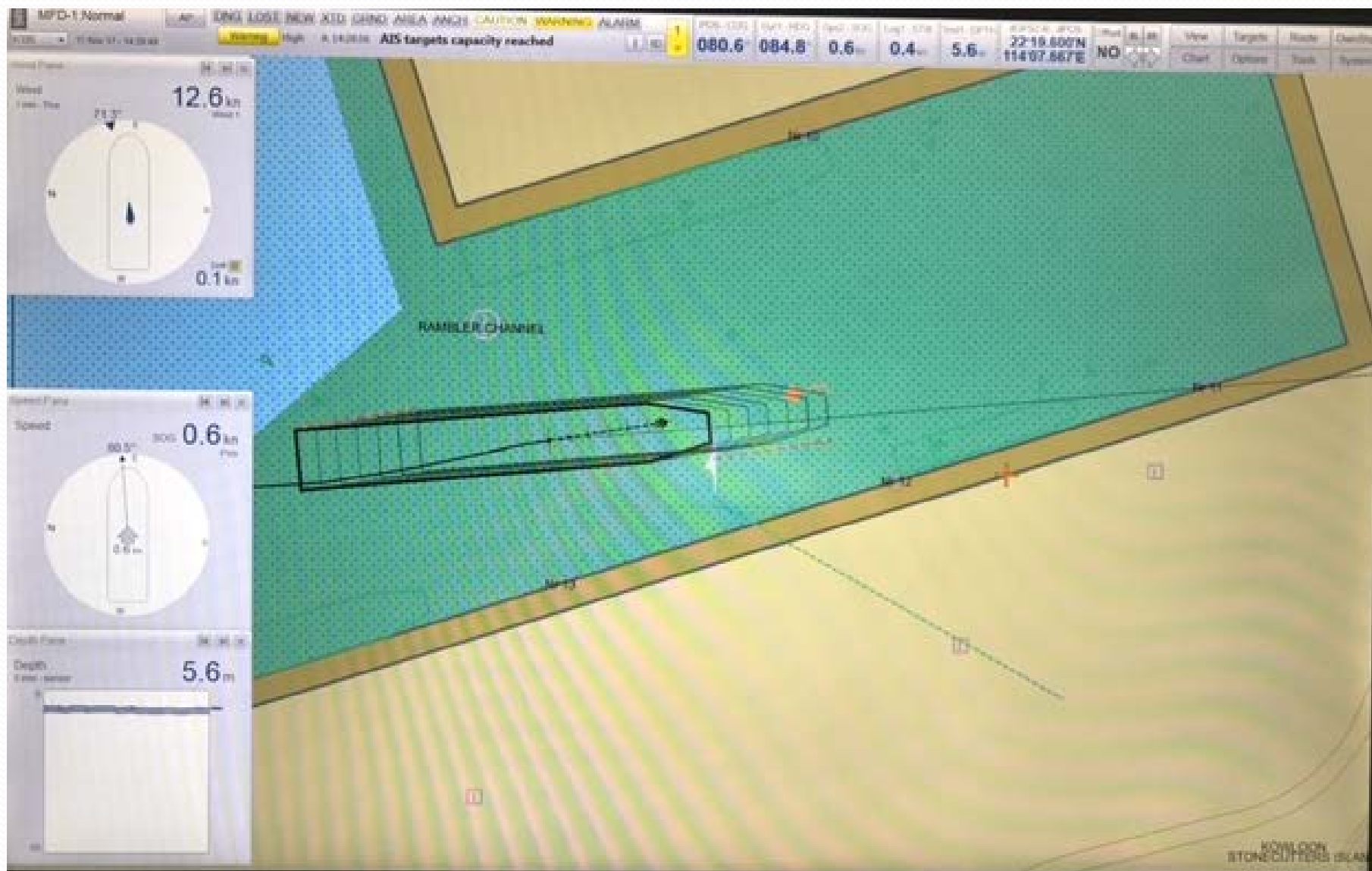


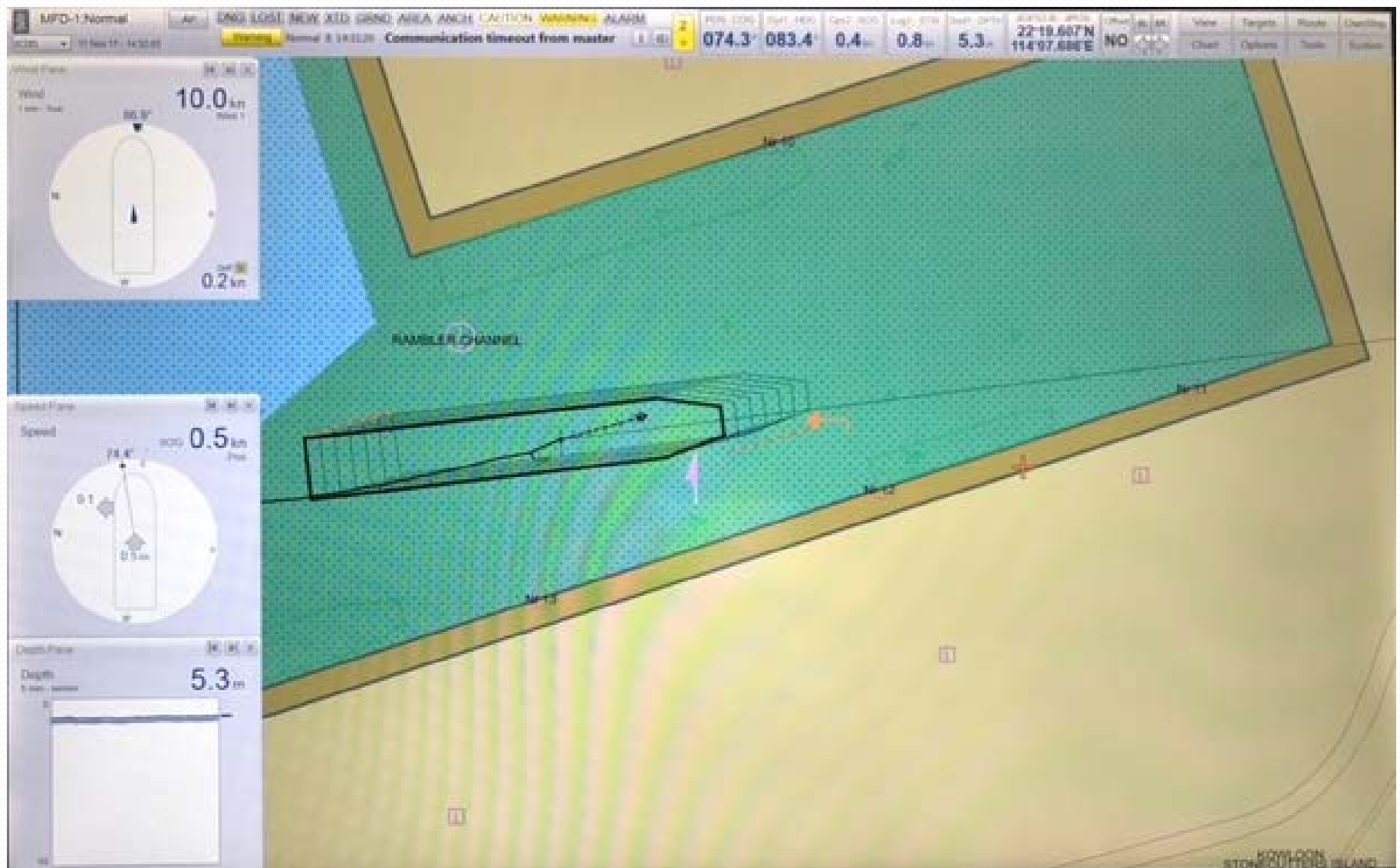


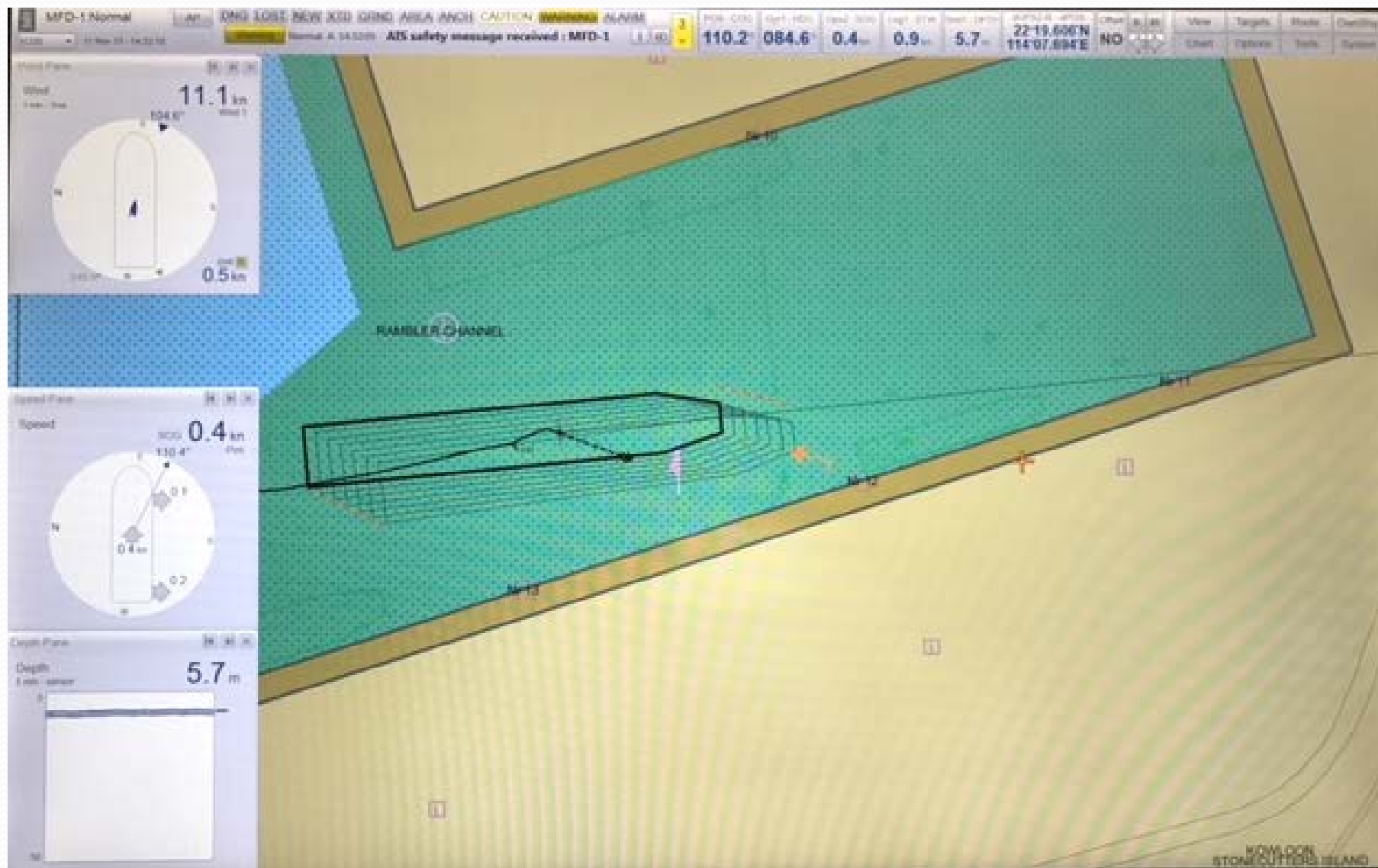


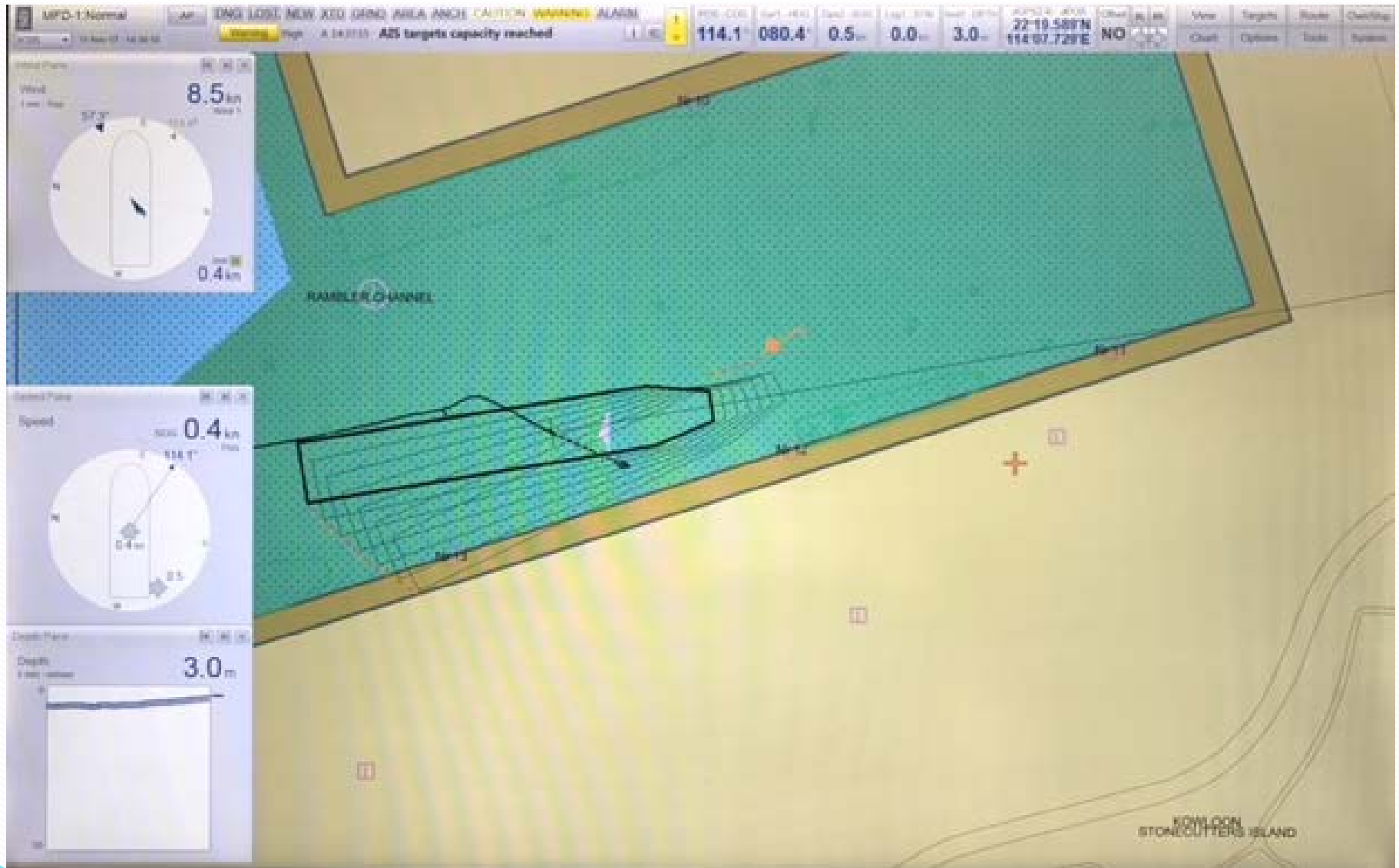


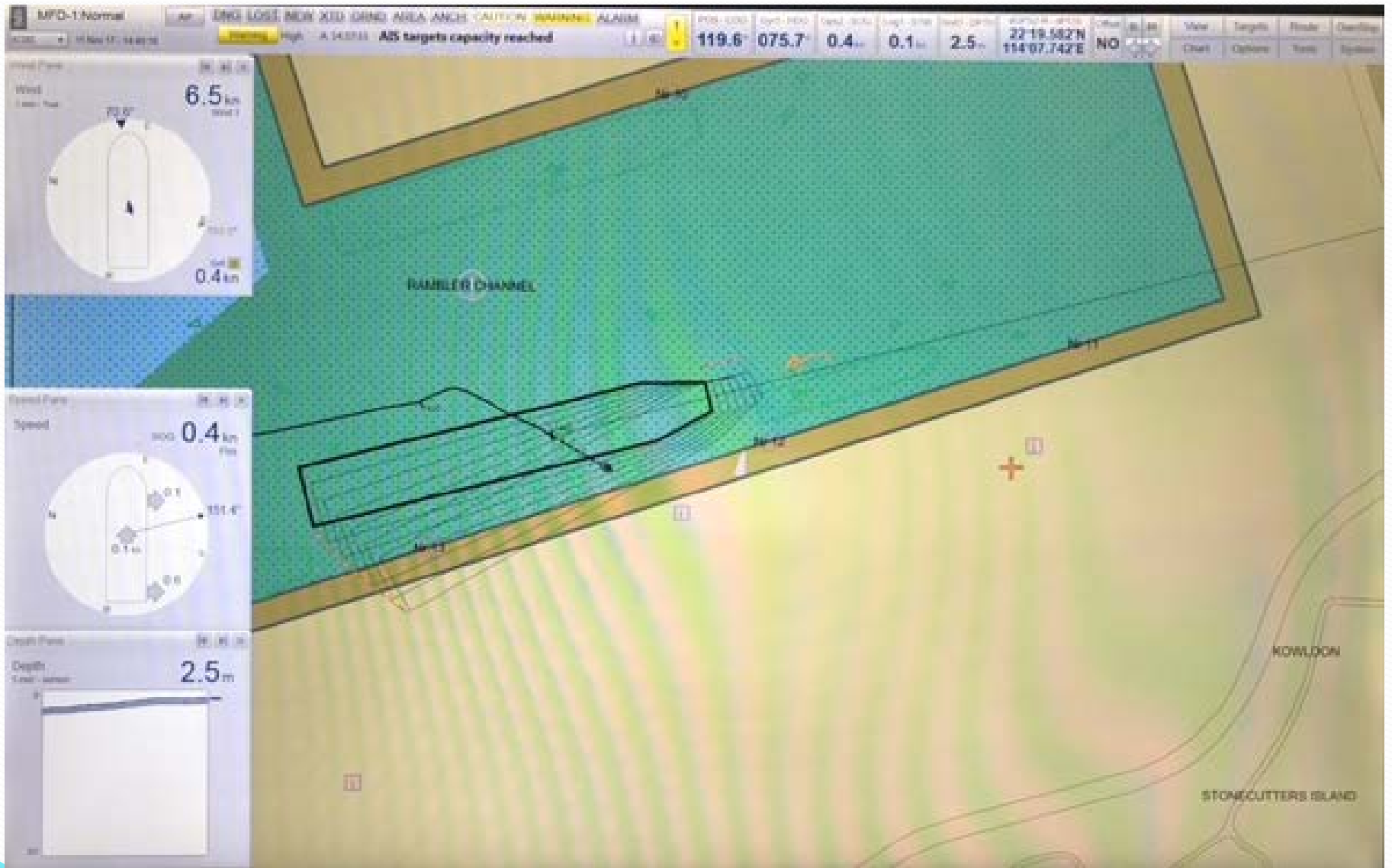


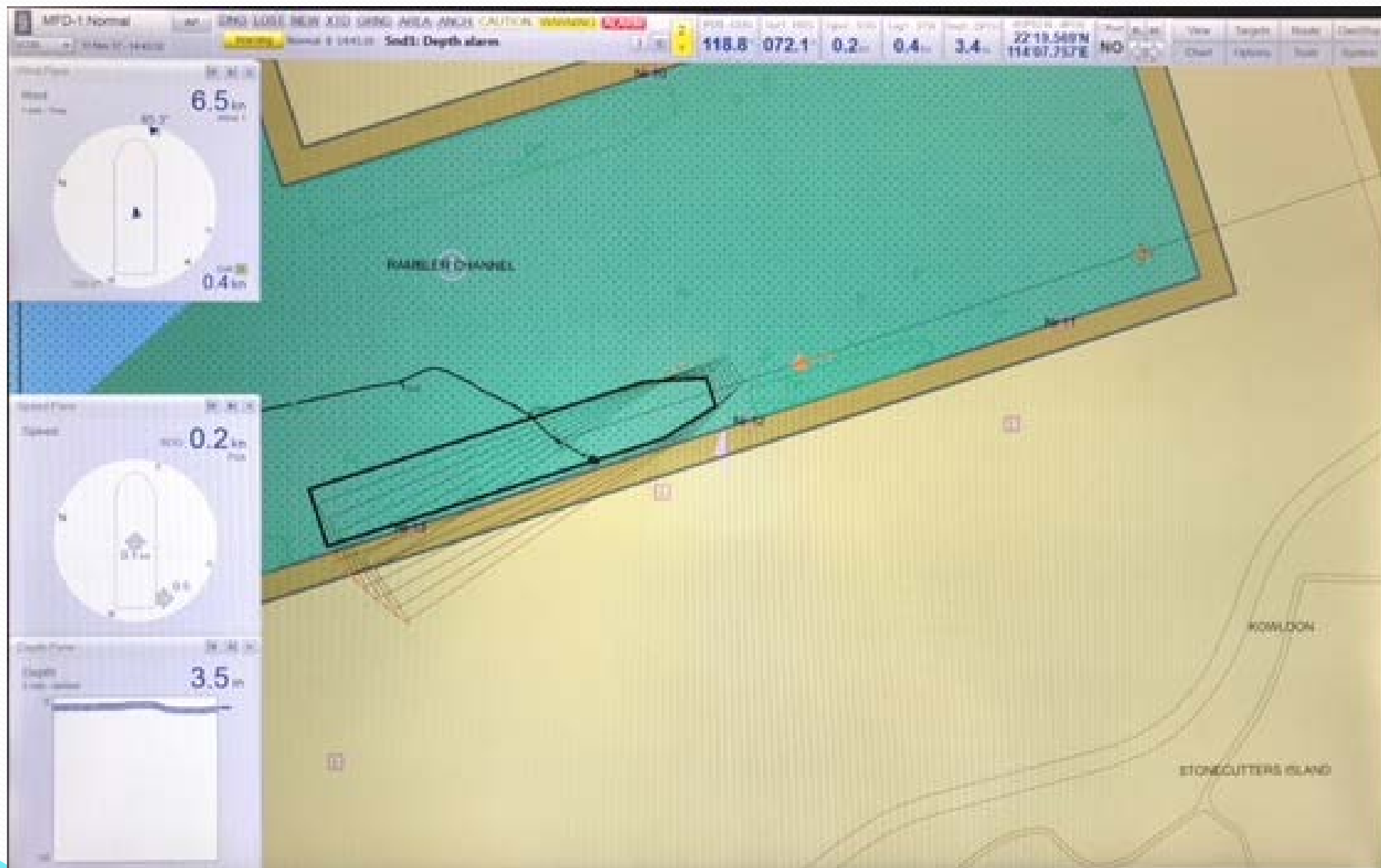






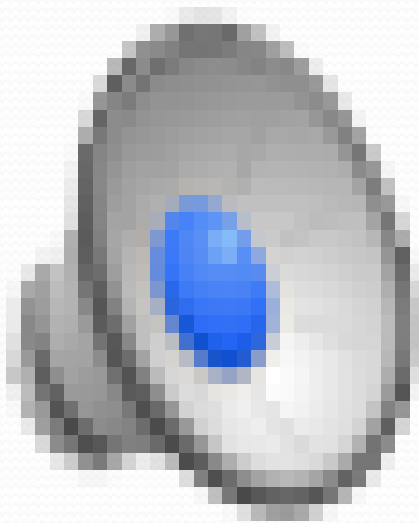




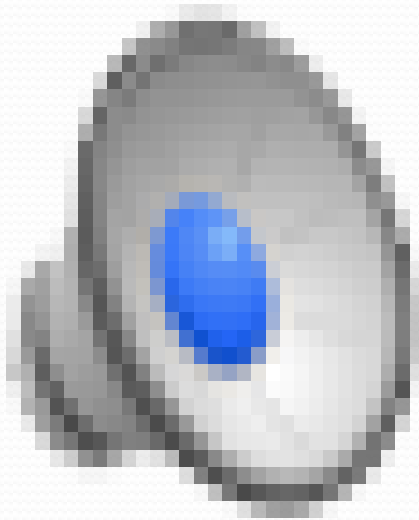


Approaching & Berthing KC 9

–M.V. Al Dahna



Approaching & Berthing KC 9 With Traffic – M.V. Tihama



Thank you very much



