The purpose of this Operator's Guide is to provide basic operating procedures for this equipment. For more detailed information see the Operator's Manual.

**MENU**
- Enters alphanumeric data.
- Chooses menu items and options.
- Shifts cursor.

**DISP**
- Terminates keyboard input.
- Changes screen.

**DIM**
- Adjusts panel dimmer and LCD contrast.

**FA-150 NAV**
- Displays nav status menu, which sets up for a voyage.

**PWR**
- Turns the power on and off.

**ENT**
- Chooses a display screen; closes menu.

**Selected target**
- (circle filled in black)

**Target (hollow circle)**

**Own ship course marker**

**Lost target**

**Display range**

<table>
<thead>
<tr>
<th>[FURUNO]</th>
<th>Target name</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDG: 111°</td>
<td>Heading</td>
</tr>
<tr>
<td>SOG: 10kn</td>
<td>Speed</td>
</tr>
<tr>
<td>COG: 111°</td>
<td>Course</td>
</tr>
<tr>
<td>CPA: 6.19NM</td>
<td>CPA</td>
</tr>
<tr>
<td>TCPA: 12'59&quot;</td>
<td>TCPA</td>
</tr>
<tr>
<td>INTRD: 1</td>
<td>Number of dangerous targets</td>
</tr>
</tbody>
</table>

**危险目标**
(Target whose CPA and TCPA are lower than CPA and TCPA alarm settings.)

**Lost target**

| Number of dangerous targets |

**Display range**

**RNG:** 6 NM

**Plotter display**

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**SOLAS MODE OPERATIONS**

**How to set up for a voyage**

1. Press the NAV STATUS key.

```
[NAV STATUS]
NAV STATUS: <NEW>

***STATUS DETAIL***
UNDER WAY USING ENGINE

[15]
```

2. If your navigation status is different from that shown, do a) and b) below. If it is the same as shown, go to step 3.
   a) Press the ENT key.
   b) Press ▲ or ▼ to choose appropriate status and then press the ENT key.

3. Press ▶ to show page 2 of the NAV STATUS menu.

```
[DESTINATION] <->

***********<NEW>********

[NEW!]
```

4. NEW is selected; press the ENT key.

```
[DESTINATION] <->

ENTER A NEW DESTINATION

QUIT [NAV STATUS]
```

5. Press the ENT key. Use the CursorPad to enter destination and then press the ENT key.

```
[SET MSG]
SET MSG TYPE
MSG TYPE: NORMAL
SEND MSG
```

6. Press ▶ to show page 3 of the NAV STATUS menu.

```
[ARRIVAL TIME]
DATE [UTC]: <NEW>

TIME [UTC]: <NEW>
```

7. DATE is selected; press the ENT key.

8. Use the CursorPad to enter the date of arrival and then press the ENT key.

9. TIME is selected; press the ENT key.

10. Use the CursorPad to enter the estimated time of arrival and then press the ENT key. Use 24-hour notation.

11. Press ▶ to show page 4 of the NAV STATUS menu.

```
[CARGO TYPE & CREW] <->

CREW: <NEW>

******* TYPE DETAIL *****
NOT AVAILABLE

15
```

12. CREW is selected; press the ENT key.

13. Use the CursorPad to enter number of crew and then press the ENT key.

14. TYPE NO. is selected; press the ENT key.

15. Use the CursorPad to choose type of vessel and then press the ENT key.

16. Press ▶ to show page 5 of the NAV STATUS menu.

```
[DATE]
DATE: <NEW>

[ARRIVAL TIME]
ARRIVAL TIME: <NEW>

**[NEW!]**
```

17. Press the ENT key.

**How to send a message**

1. Press the MENU key.

```
[DESTINATION] <->

DESTINATION

[DESTINATION]
```

2. Use ▲ or ▼ to choose appropriate status and then press the ENT key.

```
[SET MSG]
SET MSG TYPE
MSG TYPE: NORMAL
SEND MSG
```

3. CREATE MSG is selected; press the ENT key.

```
[CREATE MSG] <->

CREATE MSG

SET MSG TYPE

BROAD CAST

SEND MSG
```

4. SET MSG TYPE is selected; press the ENT key.

```
[SET MSG TYPE]
ADR TYPE: BROAD CAST

MSG TYPE: NORMAL

CHANNEL: ALTERNATE
```

5. ADRS TYPE is selected; press the ENT key.

```
[ADR TYPE]
ADR TYPE: BROAD CAST

MSG TYPE: NORMAL

CHANNEL: ALTERNATE
```

6. Choose ADRS CAST or BROAD CAST as appropriate. Press the ENT key.

7. For BROAD CAST, go to step 8. For ADRS CAST, "MMSI" is selected; press the ENT key, use the CursorPad to enter MMSI number of receiving vessel and then press the ENT key.

8. MSG TYPE is chosen; press the ENT key.

```
[MSG TYPE]
MSG TYPE: NORMAL

SEND MSG
```

9. Choose message type: NORMAL (message other than safety) or SAFETY (important navigational or meteorological warning). Press the ENT key.

```
[MSG TYPE]
MSG TYPE: NORMAL

SEND MSG
```

10. CHANNEL is chosen; press the ENT key.

```
[CHANNEL]
CHANNEL: <NEW>

[NEW!]
```

11. Choose which channel to transmit your message over.

12. Press the ENT key.

13. Press the MENU key to return to the CREATE MSG sub-menu.

14. Choose SET MSG and press the ENT key.

```
[SET MSG]
SET MSG TYPE

BROAD CAST

SEND MSG
```

15. Use the CursorPad to enter your message. Use ▲ or ▼ to choose character; ▲ or ▼ to shift the cursor.

16. Press the ENT key to return to the CREATE MSG sub-menu.

17. Choose SEND MSG; press the ENT key to send your message.

18. Press ▲ to choose YES; press the ENT key.

**How to set CPA/TCPA**

1. Press the MENU key.

```
[CARGO TYPE & CREW] <->

CREW: <NEW>

******* TYPE DETAIL *****
NOT AVAILABLE

15
```

2. Use ▲ or ▼ to choose USER SETTINGS and then press the ENT key.

```
[SET MSG]
SET MSG TYPE

BROAD CAST

SEND MSG
```

3. Use ▲ or ▼ to choose CPA/TCPA ALARM and then press the ENT key.

```
[CPA/TCPA ALARM]
CPA: 6.00
TCPA: 60 min
ALARM MODE: ON
ALARM BUZZER: ON

[QUIT MENU]
```

4. CPA is selected; press the ENT key.

5. Use the CursorPad to enter CPA and then press the ENT key.

6. TCPA is selected; press the ENT key.

7. Use the CursorPad to enter TCPA and then press the ENT key.

```
[SET CPA/TCPA ALARM]
CPA: 6.00
TCPA: 60 min
ALARM MODE: ON
ALARM BUZZER: OFF
```

8. ALARM MODE is selected; press the ENT key.

```
[ALARM MODE]
ALARM MODE: <NEW>

[NEW!]
```

9. Choose ON to enable the CPA/TCPA alarm feature; OFF to disable it. Press the ENT key.

10. ALARM BUZZER is selected; press the ENT key.

```
[ALARM BUZZER]
ALARM BUZZER: <NEW>

[NEW!]
```

11. Choose ON to enable the CPA/TCPA audio alarm, or OFF to disable it. Press the ENT key.

12. Press the DISP key to close the menu.

**INLAND AIS OPERATIONS**

**How to select INLAND AIS mode**

1. Press the NAV STATUS key.

```
[NAV STATUS]
NAV STATUS: <NEW>

***STATUS DETAIL***
SOLAS

[NEW!]
```

2. Press the ENT key.

```
[AIS MODE]
AIS MODE: <NEW>

[NEW!]
```

3. Use the CursorPad to enter ERP and then press the ENT key.

```
[SOLAS MODE OPERATIONS]
SOLAS MODE OPERATIONS

[NEW!]
```

4. SOLAS MODE OPERATIONS is selected; press the ENT key.
2. Push ▼ to select AIS MODE then press the ENT key.

3. Select INLAND then press the ENT key.

How to enter voyage-related data
1. Press the NAV STATUS key.

```
[NAV STATUS]  
NAV STATUS: 0  
AIS MODE: INLAND  
***STATUS DETAIL***  
UNDER WAY USING ENGINE  
```

2. Press ► to show the DESTINATION sub-menu.

```
[DESTINATION]  
***************(0/0)  
[NEW]  
QUIT [NAV STATUS]  
```

3. NEW is selected; press the ENT key.

4. Press the ENT key. Enter destination (20 characters max.) then press the ENT key.

5. Press ► to show the ARRIVAL TIME sub-menu.

```
[ARRIVAL TIME]  
DATE[UTC]:  
TIME[UTC]:  
```

6. DATE[UTC] is selected; press the ENT key.

7. Enter the date of arrival then press the ENT key.

8. TIME[UTC] is selected; press the ENT key.

9. Enter the estimated time of arrival then press the ENT key. Use 24-hour notation.

10. Press ► to show the DRAUGHT sub-menu.

```
[DRAUGHT]  
SOLAS DRAUGHT: 0.00 m  
INLAND DRAUGHT: 0.00 m  
```

11. SOLAS DRAUGHT is selected; press the ENT key.

12. Enter SOLAS draught then press the ENT key.

13. INLAND DRAUGHT is selected; press the ENT key.

14. Enter inland draught then press the ENT key.

15. Press ► to show the CARGO TYPE sub-menu.

```
[CARGO TYPE]  
TYPE NO.:  
***TYPE DETAIL***  
NOT AVAILABLE  
```

16. TYPE NO. is selected; press the ENT key.

17. Select type of vessel/cargo then press the ENT key.

18. Press ► to go to the ERI CODE sub-menu.

```
[ERI CODE]  
ERI CODE: 0000  
***CODE DETAIL***  
VESSEL, TYPE UNKNOWN  
```

19. ERI CODE is selected; press the ENT key.

20. Enter four-digit ERI code then press the ENT key.

21. Press ► to go to the NO. OF PERSONS sub-menu.

```
[NO. OF PERSONS]  
CREW:  
PASSENGER:  
SHIPBOARD PERSONNEL:  
NO. OF PERSONS: 0  
```

22. CREW is selected; press the ENT key.

23. Enter number of crew then press the ENT key.

24. PASSENGER is selected; press the ENT key.

25. Enter number of passengers then press the ENT key.

26. SHIPBOARD PERSONNEL is selected; press the ENT key.

27. Enter number of shipboard personnel then press the ENT key.

28. NO. OF PERSONS is selected; press the ENT key.

29. Enter the total number of persons then press the ENT key.

30. Press ► to go to the LENGTH&BEAM sub-menu.

```
[LENGTH&BEAM]  
LENGTH OF SHIP: 0.0 m  
BEAM OF SHIP: 0.0 m  
```

31. Enter the length and beam of your ship, pressing the ENT key after entering each item.

32. Press ► to go to the OTHER sub-menu.

```
[OTHER]  
DYNAMIC INFORMATION RATE: AUTO  
HAZARDOUS CARGO: UNKNOWN  
UN/LOADED: UNKNOWN  
```

33. DYNAMIC INFORMATION RATE is selected; press the ENT key.

34. Select option then press the ENT key.

35. HAZARDOUS CARGO is selected; press the ENT key.

36. Select appropriate item then press the ENT key.

37. UN/LOADED is selected; press the ENT key.

38. Select appropriate item then press the ENT key.

39. Press the DISP key to close the menu.

How to send an ETA message
1. Press the MENU key.

2. Select MSG then press the ENT key.

```
[MSG]  
TEXT ETA/RTA NO. OF PERSONS EMMA WARNING WATER LEVEL  
```

3. Select ETA/RTA then press the ENT key.

```
[ETA/RTA]  
DATE[UTC]  
TIME[UTC]  
```

4. CREATE MSG is selected; press the ENT key.

```
[CREATE MSG]  
SET MSG TYPE E  
SET DESTINATION  
SET ETA SEND MSG  
```

5. SET MSG TYPE is selected; press the ENT key.

```
[SET MSG TYPE]  
MMSI: 000000000  
CHANNEL: ALTERNATE  
RETRY TIMES: 3  
```

6. MMSI is selected; press the ENT key.
7. Enter the MMSI of the lock/bridge/terminal you want to pass through then press the ENT key.
8. CHANNEL is selected; press the ENT key.

9. Select the channel over which to send the message then press the ENT key.
10. RETRY TIMES is selected; press the ENT key.

11. Enter the number of times to re-send the message (if the first transmission is unsuccessful) then press the ENT key.

12. Select which channel to transmit your message over then press the ENT key.
13. RETRY TIMES is selected; press the ENT key. If the ADRS TYPE is BROAD CAST go to step 14. For ADRS CAST, enter the number of times to re-transmit a message (0-3) then press the ENT key.

14. NEW is selected. If your destination is shown on screen, select it, press the ENT key then go to step 18. To enter a new destination, go to step 15.
15. With NEW selected, press the ENT key.

16. COUNTRY CODE is selected; press the ENT key. Enter the UN country code of your destination, referring to ISO 3166, then press the ENT key.
17. Enter location code, fairway no., terminal code, and fairway hectometre.
18. Press the MENU key twice to return to the CREATE MSG menu.
19. Select SET ETA then press the ENT key.

20. DATE[UTC] is selected; press the ENT key.
21. Enter the day (1-2 digits) and month (three-character abbreviation) of ETA then press the ENT key.
22. TIME[UTC] is selected; press the ENT key.
23. Enter your ETA, in 24-hour notation, then press the ENT key.

24. AIR DRAUGHT is selected; press the ENT key.
25. Enter your ship's air draught then press the ENT key.
26. NO. OF TUGBOATS is selected; press the ENT key.
27. Enter the no. of assisting tugboats (0-6) your ship requires then press the ENT key. Enter "0" for none.
28. The response shown below appears.

29. Select SEND MSG then press the ENT key. You are asked if you are sure to send the message. Select YES then press the ENT key to send the message.

How to send a text message
1. Press the MENU key to open the menu.
2. Select MSG then press the ENT key.
3. TEXT is selected; press the ENT key.
4. CREATE MSG is selected; press the ENT key.
5. SET MSG TYPE is selected; press the ENT key.

6. ADRS TYPE line is selected; press the ENT key.

7. Select ADRS CAST or BROAD CAST as appropriate.
8. Press the ENT key. For ADRS CAST, select MMSI then enter MMSI no.
9. Select MSG TYPE then press the ENT key.

10. Select message type: NORMAL (message other than safety) or SAFETY (important navigational or meteorological warning). Press the ENT key.
11. CHANNEL is selected; press the ENT key.
12. Enter your ETA, in 24-hour notation, then press the ENT key.
13. TIME[UTC] is selected; press the ENT key.
14. ENTER A NEW DEST then press the ENT key.
15. Select SET DESTINATION then press the ENT key.

16. Use the CursorPad to enter your message.
17. Press the MENU key to return to the CREATE MSG sub-menu.
18. Select SEND MSG then press the ENT key. The prompt shown below appears.

19. Press ▼ to select YES then press the ENT key to send your message.

How to display an RTA message
1. Press the MENU key to open the menu.
2. Select MSG then press the ENT key.
3. Select ETA/RTA then press the ENT key.
4. Select RTA LOG then press the ENT key to show the RTA log.
5. Select message then press the ENT key.

6. ADRS CAST go to step 14. For ADRS CAST, enter the number of times to re-transmit a message (0-3) then press the ENT key.

7. Select message type: NORMAL (message other than safety) or SAFETY (important navigational or meteorological warning). Press the ENT key.
8. CHANNEL is selected; press the ENT key.
9. ENTER A NEW DEST then press the ENT key.
10. Select which channel to transmit your message over then press the ENT key.
11. RETRY TIMES is selected; press the ENT key. If the ADRS TYPE is BROAD CAST go to step 14. For ADRS CAST, enter the number of times to re-transmit a message (0-3) then press the ENT key.
12. Press the MENU key to return to the CREATE MSG sub-menu.
13. Select SEND MSG then press the ENT key.

14. Use the CursorPad to enter your message.
15. Press the MENU key to return to the CREATE MSG sub-menu.
16. Select SEND MSG then press the ENT key. The prompt shown below appears.

17. Press the MENU key to open the menu.
18. Select MSG then press the ENT key.
19. TEXT is selected; press the ENT key.
20. CREATE MSG is selected; press the ENT key.
21. SET MSG TYPE is selected; press the ENT key.

22. PRESS SEND MSG then press the ENT key. The prompt shown below appears.

23. Press ▼ to select YES then press the ENT key to send your message.