Input paper: [[1]](#footnote-1) ENG4-9.18

Input paper for the following Committee(s): check as appropriate Purpose of paper:

**□** ARM **□** ENG **□** PAP **□** Input

**□** ENAV **□** VTS **□** Information

Agenda item [[2]](#footnote-2) **9**

Technical Domain / Task Number 2 **5.1.7 - Update Recommendation E-111 for Port Traffic Signals**

Author(s) / Submitter(s) **James COLLOCOTT**

# Summary

At ENG3, ENG Committee Members were requested to submit input papers to ENG4 in support of the revision of Recommendation E-111 on Port Traffic Signals.

## Purpose of the document

The ENG Committee is to take note of the challenges being experienced with the implementation of the current version of the Recommendation E-111 on Port Traffic Signals and to consider how these challenges can be accommodated in the revised version of the Recommendation.

## Related documents

Not applicable.

# Background

South Africa has nine commercial ports and various small harbours. Port Traffic Signals are in operation at four of these ports. None of these ports are riverine ports and the approached to these ports are all from the open sea.

Putting the current version of the Recommendation E-111 on Port Traffic Signals into practice have resulted in a number of challenges, with the result that a national standardised Port Traffic Signals system was introduced which differ from the current version of the Recommendation E-111 on Port Traffic Signals.

# Discussion

The area to be covered by the Main Movement message of Port Traffic Signals can be as much as 270°, with ranges up to 10Nm during day and night.

1. The current Recommendation makes provision for, and quote:
   1. “*The Main Movement message to be given by a Port Traffic Signal shall always comprise 3 lights vertically disposed. No additional light shall be added to the column carrying the main message*”.
      1. Taking the maximum divergence of a light into consideration, it is impossible in South Africa to:
         1. Cover the area required
         2. Obtain the ranges required
      2. Even if such a high intensity light, with such a wide divergence is available, it would be highly unlikely to be able to distinguish the three lights individually from a distance (would blur), unless these are separated at a large distance apart, making in very impractical to mount these.
      3. If one of the 3 lights should fail, the main message could be interpreted incorrectly
2. The following standardised Port Traffic Signals system is currently in place in South Africa**[[3]](#footnote-3)** in those ports were Port Traffic Signals are required to provide the Main Movement message.
   1. An array of lights are being used to cover the required area
   2. Only green and red lights are used, either flashing, or fixed
   3. The same red lights are used as fixed, or flashing, i.e. there are not separate coloured lights provided for fixed or flashing lights
   4. The green and red areas are mounted vertically disposed
   5. The number of rows of each colour of lights would depend on the range to be obtained
   6. The intensity of the lights are reduced during night-time
   7. The following messages are displayed:
      1. Port Close = Flashing Red
      2. One way traffic entering Port = Fixed Green
      3. One way traffic leave Port = Fixed Red
      4. Two way traffic in and out of the Port = Fixed Green and Fixed Red
3. *“Signals auxiliary to the main signal may be devised by the appropriate Local Authority. Such auxiliary signals should employ only white and/or yellow lights and should be displayed to the right of the column carrying the main message”*.
   * 1. In South Africa auxiliary signals are required to indicate messages to vessels in the berthing area.
        1. The messages would, e.g.:
           1. Replicate the Main Movement message
           2. Indicate to vessels in one berthing area, that a vessel in another berthing has the right of way to depart
        2. Yellow lights are used are auxiliary signals
4. General

The layout and text (font type and fonts size) of the Recommendation need to match the IALA document standards.

# References

Not applicable.

# Action requested of the Committee

Take cognisance of the challenges being experience din South Africa with the implementation of the current version of the Recommendation E-111 on Port Traffic Signals and consider how these challenges can be accommodated in the revised version of the Recommendation.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)
3. This does not apply to the Port of Cape Town though due to its layout. In the Port of Cape Town the following system is in operation:

   Ben Schoeman Dock: Permission to enter = Flashing Red

   Permission to leave = Fixed Red

   Duncan Dock: Permission to enter = Flashing Green

   Permission to leave = Fixed Green

   Victoria Dock: Permission to enter = Flashing Yellow

   Permission to leave = Fixed Yellow [↑](#footnote-ref-3)