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| From: ENG Committee | ENG7-11.1.36 |
| To: PAP | 12 October 2017 |

Draft workplan for ENG 2018 - 2022

# Summary

Below is the draft work plan for the Engineering & Sustainability as drafted at ENG7. This is for review and comment by PAP. The Radionavigation section has yet to be drafted and awaits input from Dr Alan Grant.

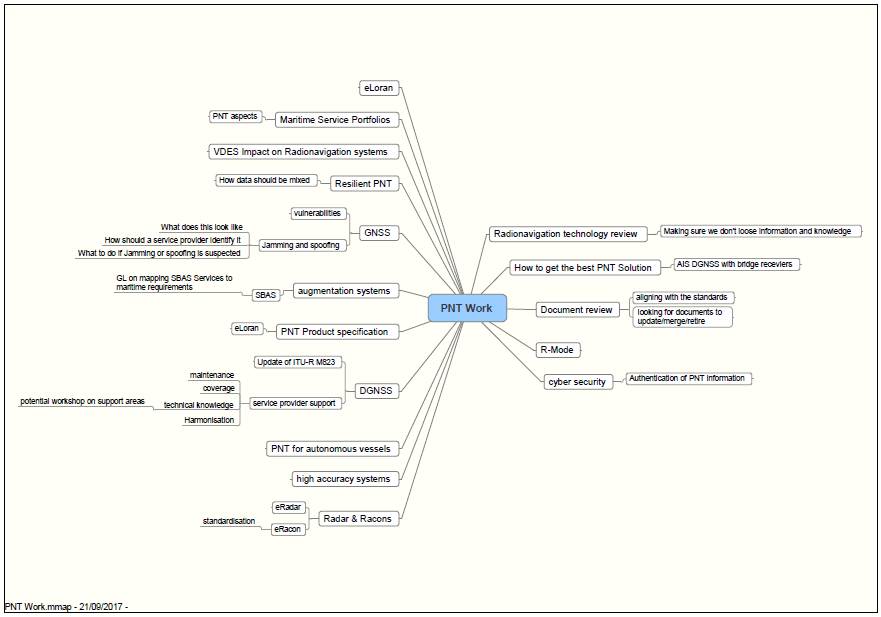
# Action requested of the Committee

The Committee is requested to consider the attached workplan and comment as appropriate.

ENG Workplan for 2018 - 2022

From the IALA Standards structure, categories for ENG are :

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| --- | --- | --- | --- |
| **Standards** | **Work item title** | **WG** | **Comment** |
| **AtoN Design and Delivery** |  |  |  |
| Visual signalling (Vision, Colour, Conspicuity, Rhythmic characters) | Update E-111 Port Traffic Signals. | 1 |  |
|  | Develop E-112 Leading Lights and 1023 Leading Lines into a Guideline. | 1 |  |
|  | Revise Guideline 1041 on sector lights. | 1 |  |
|  | Complete Guideline 1061 Illumination of structures. | 1 |  |
|  | Review & update guideline 1043 on Light sources | 1 |  |
|  | Develop guideline for E-106 Retroreflective materials |  |  |
| Range and performance (visual and audible) | Develop E200-3 on measurement into a Guideline. | 1 |  |
|  | Develop E200-5 on Optical Performance into a Guideline. |  |  |
|  | Develop Guideline on effective intensity. | 1 |  |
|  | Develop Guidance on monitoring of function and degradation of AtoN light sources. | 1 |  |
|  | Develop Guidance on service factors. | 1 |  |
|  | Develop Guidance on Colour fading of AtoN (plastic and painted) – methods to measure and assess. | 1 |  |
|  | Joint ENG/ARM WORKSHOP – topic to be ascertained. | 2 |  |
| Design, Implementation & Maintenance | Develop  guidance  to  identify  appropriate  standards  for  AtoN  equipment  with extreme environmental conditions. Humidity, temperature, enclosure ratings, UV etc) Also including peak intensity specification for LED AtoN, batteries, optic service factor, thermal cap, etc. | 2 |  |
|  | Complete guidance on Maintenance of AtoN structures. | 2 |  |
|  | Develop Guideline on Tidal flow data capture and display. | 2 |  |
| Power systems | Develop Guidance on what constitutes a good Marine AtoN solar panel. | 2 |  |
|  | Deliver a WORKSHOP - IALABATT/ IALALITE | 1 & 2 |  |
|  | Monitor Battery development for use in AtoN | 2 |  |
| Floating AtoN (buoys, moorings, stability, etc.) | Develop guidance on Buoy Stability testing procedure for use afloat. New guidance or develop existing. | 2 |  |
|  | Develop new or existing guidance on Radar reflection properties of plastic buoys. | 2 |  |
|  | Complete guideline on floating AtoN | 2 |  |
| Environment, Sustainability & Legacy | Develop Guidance on Modern equipment in traditional lighthouses. Merge from 1043 & 1048. | 2 |  |
|  | Monitor Climate Change to inform IALA of impact and potential adaptation requirements for AtoN providers. | 2 |  |
|  | Supervision of the Heritage Forum | 2 |  |
| **Radionavigation Services** | To be completed with input from ENAV WG5 |  |  |
| Satellite positioning and timing |  |  |  |
| Terrestrial positioning and timing (including eLoran, eChayka, R-mode) |  |  |  |
| Racon & radar positioning |  |  |  |
| Augmentation services (SBAS & DGNSS) |  |  |  |
| **Training and Certification** |  |  |  |
| Training and assessment | Development and review of WWA courses | 1 & 2 |  |
| Competency certification and revalidation |  |  |  |
| Simulation in training |  |  |  |
| Human factors |  |  |  |
| Capacity building | Navguide updates and review | 1 & 2 |  |
| **AtoN Planning and Service Requirements** |  |  |  |
| Obligations and regulatory compliance |  |  |  |
| AtoN Planning (offshore signals, bridge signals, traffic signals, MBS, fairway design) | Develop guidance on AtoN simulation technology. ARM or ENG? | 2 |  |
|  | Develop Guidance on protection zones in light and daymark sectors and radar/ VTS systems to avoid obstructions due to structures, mooring ships, etc and competing lights (Joint ARM cooperation). |  |  |
| Levels of service objectives. (Availability and Categories) |  |  |  |
| Risk Management |  |  |  |
| Virtual marking |  |  |  |
| Quality management | Develop Guidance on checking that 3rd party AtoN providers are providing what they are obliged to provide– 3rd party AtoN provider quality control. (Joint ARM cooperation) | 2 |  |
| **Digital Communications Technologies** |  |  |  |
| Harmonised maritime connectivity (Maritime Internet of Things, intelligent sensors, AtoN monitoring) | Review telemetry Guideline 1008. | 2 |  |
|  | Develop guidance on how to package monitoring information on AtoN status such that it can be fed into the MCP (Maritime Connectivity Platform) as an MSP. | 2 |  |
|  | Cyber security for AtoN operations. (Joint ENAV co operation). | 2 |  |
|  | Deliver WORKSHOP on engineering support for e-navigation services, including hot/cold climates & radio propagation. | 2 |  |



**STRATEGIC VISION FOR 2018‐2026**

IALA’s Strategic Vision for the period from 2018 to 2026 is the following.

**Purpose**

The aim of IALA is to foster the safe, economic and efficient movement of vessels, through improvement

and harmonisation of aids to navigation worldwide and other appropriate means, for the benefit of the

maritime community and the protection of the environment.

**Motto**

"Successful voyages, sustainable planet."

**Goals**

G1 – Marine Aids to Navigation are harmonised through international cooperation and the provision of

standards.

G2 ‐ All coastal states have contributed to an efficient global network of Marine Aids to Navigation

through capacity building and the sharing of expertise.

**Strategies**

S1 ‐ Develop Standards suitable for direct citation by States, in areas deemed important by the General

Assembly, and the related Recommendations and Guidelines.

S2 ‐ Position IALA as the source of standards, knowledge, and expertise that will enable States to

provide Marine Aids to Navigation, in accordance with relevant international obligations and

recommendations.

S3 ‐ Coordinate the further development of Marine Aids to Navigation, taking into account new

technologies and sustainability.

S4 ‐ Continue to develop capacity building activities to improve the global provision of Marine Aids to

Navigation.

S5 ‐ Harmonise the information structure, Maritime Service Portfolios, and communications for e‐

Navigation by creating standards, and by cooperation with other international organisations, to achieve

worldwide interoperability of shore and ship systems, including IMO sustainability goals for a maritime

transport system.

S6 ‐ Improve and harmonise the delivery of VTS globally and in a manner consistent with international

conventions, national legislation and public expectations, , to ensure the safety and efficiency of vessel

traffic and to protect the environment.

S7 ‐ Work towards the transformation of IALA into an IGO, to enable the organisation to better fulfil its

objectives.

S8 ‐ Ensure that the resources and capabilities of the Secretariat are sufficient to enable IALA and its

committees and organs to reach its goals.