| **ENG Committee – Work Plan 2014-2018** | | | | | | | | | | | | |
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| **Strategy Technical Domain** | **Work package** | **Expected Output** | **Strategy** | **WG** | **Session** | | | | | | | **Status** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| 1. TD#1 – Light and vision physics | | | | | | | | | | | | |
| * 1. Visual perception | * + 1. Develop guidance on Marine Signalling   *[Apparent intensity, background lighting, modelling techniques, LED sector lights]* | Guideline on Marine Signalling or inclusion in existing docs | P7 | 1 |  |  |  |  |  |  |  |  |
| * 1. Conspicuity and the effectiveness of visual signalling |  |  |  | 1 |  |  |  |  |  |  |  |  |
| * 1. Background lighting effects and mitigation |  |  |  | 1 |  |  |  |  |  |  |  |  |
| * 1. Colours in visual signalling |  |  |  | 1 |  |  |  |  |  |  |  |  |
| * 1. Range and performance of visual AtoN | * + 1. Presentation to ENG committee on new developments in AtoN & related topics.   *[Presentations & papers in pace with emerging technology]* | Rapporteur reports  Input papers  Presentations | P14 | 1 | x | x | x | x | x | x | x | Ongoing |
| * + 1. Navguide updates   *[Updates to the Navguide on Wiki as requested by ARM]* | Updated Navguide on the Wiki format | G2, S1  P1, P8 | 1 |  |  |  |  |  |  |  |  |
| * + 1. Navguide updates   *[Updates to the Navguide on Wiki as requested by ARM]* | Updated Navguide on the Wiki format | G2, S1  P1, P8 | 2 |  |  |  |  |  |  |  |  |
| * + 1. Workshop on Lights and Batteries | IALABATT/IALALITE workshop | P5,P14 | 2 |  |  |  |  |  |  |  |  |
| 1. TD#2 – AtoN design and maintenance | | | | | | | | | | | | |
| * 1. Buoy and beacon engineering and performance, including power systems, harmonising and interfacing of equipment and systems, and remote monitoring and control | * + 1. Develop further guidance on Plastic Buoys, Systems & Sensors   *[Taking into consideration development in plastic buoys, alternate sinker systems, minimising impact on seabed, visbility and movement sensors that can be integrated with AIS for transmitting data.]* | Guideline | P8 | 1 |  |  |  |  |  |  |  |  |
| * + 1. Engineering guidance on the implementation of e-Navigation systems   *[Awaiting requirements definition input from ENAV Committee]*  *[Investigate the role of short range AtoN in context of E-navigation and future integration]* | Guidance document on agreed e-Nav topic | P3 | 2 |  |  |  |  |  |  |  |  |
| * + 1. Develop guidance on deterring theft and vandalism on AtoN | Guidance document | P8 | 1 |  |  |  |  |  |  |  |  |
| * 1. Maintenance strategy and techniques | * + 1. Develop guidance on Sustainable AtoN design & Maintenance.   *[Taking into consideration methods to reduce impact on the environment, zero maintenance concept, service interval extension, recycling, reuse and disposal of equipment, decommissioning of AtoN site etc.]* | Guidance document | P8 | 2 |  |  |  |  |  |  |  |  |
| * + 1. Develop guidance on the commissioning of AtoN equipment and systems and Engineering audits.   *[Pre-installation and testing of equipment and confirmation of correct system configuration and performance following installation. Guidance on auditing AtoN sites from a technical perspective to ensure correct AtoN operation and performance]* | Guidance document | P8 | 2 |  |  |  |  |  |  |  |  |
| * + 1. Presentation to ENG committee on new developments in AtoN & related topics.   *[Presentations & papers in pace with emerging technology]* | Rapporteur reports  Input papers  Presentations | P14 | 2 | x | x | x | x | x | x | x | Ongoing |
| * 1. Extreme environment AtoN engineering | * + 1. Develop guidance on AtoN design & maintenance for hot climates.   *[Taking into consideration work already completed on polar regions, additional guidance is required for AtoN in extreme heat environments]* | Guidance document | P8 | 2 |  |  |  |  |  |  |  |  |
| * + 1. Seminar on Aton delivery and maintenance in Extreme Heat | Seminar | P5,P14 | 2 |  |  |  |  |  |  |  |  |
| * 1. Safety of personnel |  |  |  |  |  |  |  |  |  |  |  |  |
| * 1. Data populating for S-100 | * + 1. Populate the S100 registry for relevant AtoN classes   *[Needs an update and for new technology as guided by ENAV]* | Revised and reviewed S-100 registry data as requested. Later in the work period. | G1, S3  P3 | 1 |  |  |  |  |  |  |  |  |
| 1. TD#3 – Global capacity building and training | | | | | | | | | | | | |
| * 1. Standards for training and certification of AtoN personnel | * + 1. Review of IALA documents (ref ENG1 input paper on document ownership)   *[Some will need deleting, amalgamating, Editing, Updating. As per input paper on document ownership]* | List of reviewed / amended suite of IALA documents providing Comprehensive mix of Recommendations, Guidelines and other documents related to ENG (15 Recommendations, 38 Guidelines and 1 Conservation manual) | G2, S1  P1, P8 | 1 |  |  |  |  |  |  |  |  |
| * + 1. Review of IALA documents (ref ENG1 input paper on document ownership)   *[Some will need deleting, amalgamating, Editing, Updating. As per input paper on document ownership]* | List of reviewed / amended suite of IALA documents providing Comprehensive mix of Recommendations, Guidelines and other documents related to ENG (15 Recommendations, 38 Guidelines and 1 Conservation manual) | G2, S1  P1, P8 | 2 |  |  |  |  |  |  |  |  |
| * + 1. Identify current documents as potential Standards, Recommendations, Guidelines & Manuals.   *[As per the IALA documentation policy. Some guidance from PAP required]* | List of proposed Standards, Recommendations, Guidelines & Manuals | G1, S1  P2 | 1 |  |  |  |  |  |  |  |  |
| * + 1. Identify current guidelines as potential Standards, Recommendations, Guidelines & Manuals.   *[As per the IALA documentation policy. Some guidance from PAP required]* | List of proposed Standards, Recommendations, Guidelines & Manuals | G1, S1  P2 | 2 |  |  |  |  |  |  |  |  |
| * 1. Support for the WWA, including developing and coordinating model courses for AtoN and e-Navigation | * + 1. Support the WWA in updating Recommendations, Guidelines and model courses on standards for training and certification of AtoN personnel as training courses are undertaken.   *[In cooperation with WWA Course Manager.*  *Review and update guidance and model course as a result of feedback from WWA training events, other training providers and developments in technology]* | Updated WWA courses  WWA Training standards. | G2, S2  P11 | 2 |  |  |  |  |  |  |  |  |
| * 1. Information sharing | * + 1. Develop the IALA Wiki | Active Wiki for document sharing and editing with appropriate security in place. | P14 | 2 |  |  |  |  |  |  |  |  |
| 1. TD#4 – Civil engineering and environment | | | | | | | | | | | | |
| * 1. Maintenance of AtoN structures | * + 1. Develop guidance on the maintenance & use of heritage lighthouses for modern AtoN equipment & systems.   *[Taking into consideration installation of AIS AtoN, LED light sources, optical focussing, removal of mercury from lens rotation systems*] | Guidance document | P8 | 2 |  |  |  |  |  |  |  |  |
| * + 1. Develop guidance on AtoN structure protection systems & repair techniques   *[Taking into consideration corrosion prevention systems (cathodic protection, jackets and paint systems), concrete repair, erosion and scour prevention and effects of impacts of global warming. Specific repair techniques, products and the use of alternate modern materials such as acrylic glazing etc.]* | Guidance document | P8 | 2 |  |  |  |  |  |  |  |  |
| * 1. Protection of the marine environment |  |  |  |  |  |  |  |  |  |  |  |  |
| * 1. Supervision of the Heritage Forum |  |  |  |  |  |  |  |  |  |  |  |  |

IALA Strategy 2014-2018

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| **G1 - Ensure that aids to navigation systems and related services, including e-Navigation, Vessel Traffic Services, and emerging technologies, are harmonised through international cooperation and the provision of standards** | **G2 - All coastal states have contributed to an efficient global network of aids to navigation and services for the safety of navigation, through capacity building and the sharing of expertise** |
| G1 S1 - Develop standards suitable for direct citation by States in areas deemed important by the General Assembly, and continue to improve strong governance, including document policy and procedure for standards | G2 S1 - Position IALA as the source of standards, knowledge, and expertise that will enable States to undertake and share the technical development of aids to navigation, in accordance with UNCLOS, SOLAS, and other obligations. |
| G1 S2 - Improve and harmonise the delivery of VTS globally and in a manner consistent with international conventions, legislative frameworks and public expectations. | G2 S2 - Continue to develop capacity building activities to improve the global operations and management of aids to navigation systems and related services including VTS. |
| G1-S3 - Harmonise the information structure, Maritime Service Portfolios, and communications for e-Navigation by creating standards, and by cooperation with other IGOs, to achieve worldwide interoperability of shore and ship systems, including IMO sustainability goals for a maritime transport system. | G2 S3 - Coordinate the further development of VTS, e-Navigation, and short range aids to navigation, taking into account new technologies and sustainability. |
| G1 S4 - Work towards the transformation of IALA into an IGO, to enable the organisation to better fulfill its objectives, subject to General Assembly decision. | G2 S4 - Create standards for the design and analysis of aids to navigation systems in areas where increasing environmental and economic developments are affecting navigable waters. |
| G1 S5 - Ensure that the resources and capabilities of the Secretariat are sufficient to enable IALA and its committees and organs to reach its goals. |  |

# IALA Strategic plan priorities 2014-2018

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| P1 - Transform the IALA product line by redefining and restructuring existing documentation to meet the future needs of the organisation, including document content, the approval process, and accessibility. | P8 - Provide guidance on management, engineering, and sustainability in aids to navigation, particularly concerning modern materials and light sources |
| P2 - Deliver a limited suite of high level standards suitable for direct citation by States and by other international organisations. | P9 - Promote the demonstration of e-Navigation services, through the provision of test beds, and the harmonisation of results. |
| P3 - Develop guidance on positioning, communications, Maritime Service Portfolios, and data modelling for e-Navigation | P10 - Develop guidance on information management, portrayal, and new technologies for VTS. |
| P4 - Develop guidance for the delivery of VTS, including communications, human factors, qualifications, and training. | P11 -Develop funding sources, programs and delivery options for The World Wide Academy. |
| P5 - Develop guidance on aids to navigation in navigable waters affected by operational limitations | P12 - As part of the WWA Master Plan, prioritise and conduct needs-assessment missions and related capacity-building activities, and further the use of Model Courses by national authorities. |
| P6 - Develop a forward plan for future delivery of aids to navigation systems and related services including VTS, taking account of developments in technology and changing needs. | P13 - Define common metrics and evaluation techniques, including risk analysis methodologies, for use in determining aids to navigation solutions. |
| P7 - Continue to improve guidance on light and vision aspects of marine signaling, consolidating documentation. | P14 - Promote technology transfer and knowledge sharing concerning aids to navigation. |