

**Agenda item 9 – IALA TECHNICAL ACTIVITIES****9.4 e-NAV****9.4.1 Documents submitted for approval*****9.4.1-1 Revision of the e-NAV Committee Work Programme*****Information paper by the e-NAV Committee****1 INTRODUCTION**

At its 13<sup>th</sup> session the e-NAV Committee determined that it needed to request some changes to formalise its work at its final session for the current Work programme (e-NAV14).

**2 REQUESTED CHANGES**

The changes requested are at Annex A.

In summary:

- Task 32 Provide guidance on the reliability of AIS data when used in court  
This formalises the task set the Committee at the Council's 54<sup>th</sup> session.
- Task 33 Advise on management of the IALA domain, according to IHO standards S-100 & S-99  
An amendment to the title.
- Task 34 Prepare Recommendations and Guidelines on data modelling  
An extension of timing to include e-NAV14.
- Task 35 Advise on establishment and requirements for e-Navigation test beds  
A new task, following the formation of Working Group 7 (Testbeds).
- Task 36 Co-ordinate results of test beds using a portal  
A new task, following the formation of Working Group 7 (Testbeds).
- Task 37 Provide an online forum for the IALA membership to discuss issues of common interest and concern in relation to testbeds  
A new task, following the formation of Working Group 7 (Testbeds).

**3 ACTION REQUESTED**

The Council is requested to consider the changes requested at Annex A, with a view to approval.

## ANNEX A REVISION OF THE e-NAV COMMITTEE'S WORK PROGRAMME

(Changes made at e-NAV13 have been highlighted.)

e-Navigation is an holistic concept of enhanced navigation through electronic systems, based on user needs and derived user requirements. In particular, the e-Navigation concept simultaneously targets:

- the harmonization of shipborne and shore-based functionality;
- the harmonization of shore-based operational and technical functionalities and services of different shore-based stake-holders;
- multi-dimensional quality improvements of shore-based operational and technical services;
- demonstration of service levels achieved, using appropriate management and engineering methods.

The e-NAV Committee deals with:

- progressive contributions to IMO and other relevant international bodies to support the IMO stated 'core goals' and 'key strategic elements' of its e-Navigation concept and to reap its intended, stated 'benefits';
- harmonized derivation of user requirements from stated user needs, both existing and new, regarding shore-based operational services as well as technical services and systems, in close liaison with other IALA Committees;
- the appropriate description of operational presentation surfaces to shore-based users, employing the methodology of information portrayal;
- radio navigation and communications services and systems for the provision of integrated electronic navigation information (including AIS, GNSS, etc.);
- the architectural aspects of IMO's e-Navigation concept, in particular regarding harmonized concepts such as the (IALA) Universal Maritime Data Model (UMDM), the (IALA) Maritime Data Exchange Format (MDEF), and the IALA Common Shore-based System Architecture (CSSA);
- the impact of IMO's e-Navigation concept on the Work Programme of IALA.

In the work of the Committee, the following general aspects are to be taken into consideration:

- Strategic focus of IALA;
- Harmonized use of definitions and terms;
- Concepts associated with risk Assessment / management;
- IMO e-Navigation strategy;
- Work Programme 2010 – 2014.

Task	Estimated number of sessions	WG	Deliverable	Strategy element(s)
Strategy and operations, User requirements)				
1 Monitor and co-ordinate input on Strategy & Operations to the IMO process	7	1	Inputs to NAV, COMSAR, STW & CG	1.2
2 Review and update IALA Strategy for e-Navigation	3	1	Input for PAP	1.2
3 Maintain and update user requirements (in co-ordination with the VTS & ANM Committees)	4	1	Inputs to NAV & CG	1.2
4 Monitor developments in navigation for polar regions	2	ALL	Recommendation on e-Navigation for polar regions	11
Position, Navigation, and Timing (Sensors):				
5 Review and update World Wide Radio Navigation Plan	3	2	Input to NAV & CG	1.2
6 Prepare Recommendations and Guidelines on PNT systems and radar AtoN	5	2	Revised Racon & DGNSS Recommendation	10.11
7 Co-ordinate input to IMO, ITU, and IEC on PNT systems	4	2	NAV & CG inputs (Liaison with RTCM SC104)	1.2, 10.11, 15.2
8 Prepare a Guideline on establishment and operation of navigation systems in polar regions	2	ALL	IALA Recommendation on e-Navigation in polar regions	10.3, 11
9 Monitor developments in satellite and terrestrial EPFSs and non-radionavigation systems	4	2	Periodic updates to Committee	13.2, 13.6, 15.1
10 Guideline on recommended measures for disaster recovery	2	ALL	IALA Guideline	10.11
11 Monitor developments in radar technology and their effect on racons	3	2	Updated Racon Strategy	13.6
AIS				
12 Review and update documentation on AIS (M.1371; A-124, A-126)	4	3	Revised recs.	5, 10.3
13 Co-ordinate input to IMO, ITU, and IEC on AIS	3	3	Liaison notes, CG & NAV inputs	1.2, 15.2

Task	Estimated number of sessions	WG	Deliverable	Strategy element(s)
14 <del>Monitor and contribute to development of AIS, including the next generation of AIS</del> <i>Monitor and contribute to the efficient utilization of AIS, development of future VHF Data Exchange (VDE) and technical standards.</i>	4	3 & 4	Periodic updates	13.6
15 Monitor developments in the technical definition of AIS stations at IEC, satellite detection of AIS, and terrestrial long range AIS.	5	3	IEC inputs	1.2
16 Monitor developments in the use of AIS in polar regions (e.g. AIS AtoN)	3	ALL	IALA Recommendation on e-Navigation in polar regions	11
32 Provide guidance on the reliability of AIS data when used in court	2	3 & 4	Liaison Note to LAP	
Communications:				
17 Review and update IALA Maritime Radio Communications Plan	5	4	COMSAR & CG input	1.2, 15.1
18 Review Recommendations and Guidelines on communications	4	4	IALA Recommendations and Guidelines	10.3
19 Co-ordinate input to ITU, IMO, and IEC on communications	4	4	CG & COMSAR inputs	1.2, 15.2
20 Prepare a Guideline on establishment and operation of communications systems in polar regions	2	ALL	IALA Recommendation on e-Navigation in polar regions	10.3, 11
21 Monitor developments in GMDSS and LRIT	3	4	Periodic updates	13.2
Architecture:				
22 Develop and maintain shore-based e-Navigation Architecture	5	5 (assisted by 2,3,4 & 6)	Periodic updates to Committee	10.11
23 Prepare Recommendations and Guidelines on e-Navigation architecture	5	5	IALA Recommendations & Guidelines	10.3, 10.11

Task	Estimated number of sessions	WG	Deliverable	Strategy element(s)
24 Co-ordinate input to IMO, IHO, ISO, IEC & CIRM on architecture	3	5	CG & NAV inputs	1.2, 10.11, 15.2
Information Portrayal:				
25 Prepare Recommendations and Guidelines on Maritime Information Systems (in co-ordination with the VTS Committee)	5	6/4	IALA Rec. and inputs to NAV & CG. Liaison with IHO	10.11, 13.2
26 Prepare Recommendations and Guidelines on the portrayal of information	5	6	IALA Rec. and inputs to NAV & CG. IHO liaison	10.3
27 Monitor developments in ECDIS, INS and ENCs	3	6	Periodic updates to Committee	10.3, 13.2, 15.1
Data Modelling				
33 Advise on management of the IALA domain, according to IHO standards S-100 & S-99	4	6		10.11
34 Prepare Recommendations and Guidelines on data modelling	4	6		10,11
Test Beds				
35 Advise on establishment and requirements for e-Navigation test beds	2	7	Guidance on test bed requirements	1.2, 10.11, 13.2
36 Co-ordinate results of test beds using a portal	2	7	Co-ordination of results in a portal	10.5
37 Provide an online forum for the IALA membership to discuss issues of common interest and concern in relation to testbeds	1	7		
General:				
28 Monitor and report progress on related systems	4	2/3/4	Periodic updates	13.4
29 Liaise with other IALA Committees and other bodies	4	C/VC	Liaison notes, PAP	1.2, 13.4
30 Prepare a combined IALA e-Navigation Plan (all Committees)	4	C/VC	PAP	1.2, 13.6

Task	Estimated number of sessions	WG	Deliverable	Strategy element(s)
31 Consider the regulatory process for e-Navigation and recommend the best approach	3	ALL	Policy paper for Council	15.2

## Monitoring Items

Task	Duration	Strategy element(s)
M1 None at this time		

## Deferred Items

Task	No. of sessions	Strategy element(s)
D1 None at this time		

**e-NAV Committee Work Plan - 2010 – 2014**

Task	Session						
	8	9	10	11	12	13	14
1 Monitor and co-ordinate input on Strategy & Operations to the IMO process	X	X	X	X	X	X	X
2 Review and update IALA Strategy for e-Navigation	X	X	X				
3 Maintain and update user requirements (in co-ordination with the VTS & ANM Committees)			X	X	X	X	
4 Monitor developments in navigation for polar regions				X			X
5 Review and update World Wide Radio Navigation Plan		X		X		X	
6 Prepare Recommendations and Guidelines on PNT systems and radar AtoN	X	X		X	X	X	
7 Co-ordinate input to IMO, ITU, and IEC on PNT systems	X			X		X	X
8 Prepare a Guideline on establishment and operation of navigation systems in polar regions		X			X		
9 Monitor developments in satellite and terrestrial EPFSs and non-radionavigation systems		X	X		X		X
10 Guideline on recommended measures for disaster recovery			X	X			
11 Monitor developments in radar technology and their effect on racons	X			X		X	
12 Review and update documentation on AIS (M.1371; A-124, A-126)		X		X		X	X
13 Co-ordinate input to IMO, ITU, and IEC on AIS	X		X				X
14 Monitor and contribute to the efficient utilization of AIS, development of future VHF Data Exchange (VDE) and technical standards.	X	X	X			X	
15 Monitor developments in the technical definition of AIS stations at IEC, satellite detection of AIS, and terrestrial long range AIS	X	X		X	X		X
16 Monitor developments in the use of AIS in polar regions (e.g. AIS AtoN)	X		X			X	

Task	Session						
	8	9	10	11	12	13	14
17 Review and update IALA Maritime Radio Communications Plan		X		X	X	X	X
18 Review Recommendations and Guidelines on communications	X	X		X		X	
19 Co-ordinate input to ITU, IMO, and IEC on communications		X		X	X		X
20 Prepare a Guideline on establishment and operation of communications systems in polar regions	X			X			
21 Monitor developments in GMDSS and LRIT		X			X		X
22 Develop and maintain shore-based e-Navigation Architecture	X	X	X	X		X	
23 Prepare Recommendations and Guidelines on e-Navigation architecture	X	X	X	X	X		
24 Co-ordinate input to IMO, IHO, ISO, IEC & CIRM on architecture			X	X		X	
25 Prepare Recommendations and guidelines on Maritime Information Systems (in co-ordination with the VTS Committee)	X	X		X	X		X
26 Prepare Recommendations and guidelines on the portrayal of information	X		X	X		X	X
27 Monitor developments in ECDIS, INS and ENCs		X		X		X	
28 Monitor and report progress on related systems	X		X		X		X
29 Liaise with other IALA Committees and other bodies		X		X		X	X
30 Prepare a combined IALA e-Navigation Plan (all Committees)	X	X			X	X	
31 Consider the regulatory process for e-Navigation and recommend the best approach			X	X	X		
32 Provide guidance on the reliability of AIS data when used in court						X	X
33 Advise on the management of the IALA domain, according to IHO standards S-100 & S-99				X	X	X	X
34 Prepare Recommendations and Guidelines on data modelling				X	X	X	X

Task	Session						
	8	9	10	11	12	13	14
35 Advise on establishment and requirements for e-Navigation test beds						X	X
36 Co-ordinate results of test beds through a portal						X	X
37 Provide an online forum for the IALA membership to discuss issues of common interest and concern in relation to testbeds							X