# Report for June 2017 Intersessional

# IALA ENAV Working Group 3 – Telecommunication

The IALA eNAV working group 3 telecommunication met at IALA the week of June 12, 2017. The agenda called for progress on the following objectives:

Before the meeting:

* For each high priority item the lead needs to provide the chairs with a brief synopsis of discussion/conclusion by June 1st;
* All participants are prepared by reading the change proposals (keep a watch for late submittals);

Following shall be on the agenda for 2092-1:

* Presentation and approval/rejection/adjustment of all high priority incoming change proposals;
* Paragraph by paragraph review of draft 2092-1;  We will do this at the end of the week with track changes off;
* Schedule 1 day workshops, with assigned technical lead, for any unresolved high priority items;
* Establish work plan between intersessional and ENAV21;

Prepare the project plan for 2092- x

* New change proposals outside the work item list;
* Short intro and prioritization by the group (ensure item does not need to be in -1);
* Alignment on who does what as homework with delivery dates for all change proposals;

The documents can be found at:

<http://www.iala-aism.org/file-sharing/ws-working-groups-workingspace/WG3/20170612_Intersessional/WORKING_OUTPUT/>

ENAV21 is scheduled for the week of September 18, 2017 where 2092-1 will be finalized.

Summary of Discussion:

Report of ITU meeting

Stefan Bober provided a briefing on recent ITU meetings and expectations for the IALA work. We had some discussions around recent inputs from Russia and China regarding the VDE-SAT link PFD mask and how these might be addressed for our planned submittal to ITU WP5B in November of the VDE-SAT Report.

VDE-SAT Report

During the meeting SWG VDE-SAT reviewed the output from the latest ITU-R WP 5B meeting in May, specifically the updated version of the Working Document towards a Preliminary Draft New Report ITU-R M.[VDES-SAT]. The review resulted in twelve new tasks for the task list in addition to the three tasks already on the task list from previous meetings.

Following a review of the outstanding tasks, they were prioritized and task responsibilities were assigned. The group developed and reviewed proposals for resolving eight of the outstanding tasks. Seven of the proposals were approved and the tasks closed, while the last task with proposal was discussed and found to be obsolete. Time did not permit the remaining seven open tasks to be addressed properly during this meeting, but they are expected to be resolved by ENAV21.

The approved proposals were merged into one, and uploaded to the IALA WG3 file share in the working output folder for this meeting along with the updated task list.

2092

The change log was reviewed and those with action items came prepared with presentations on their work, and the results were incorporated into 2092 as appropriate. Presentations were given by Mark Johnson, Arunas Macikunas, Hans Haugli, Derek Love, Jan Safar, Ross Norsworthy and Johnny Schultz.

With some minor editorial changes between now and ENAV21, ANNEX 2 describing the behavior on the ASM channels, is now complete.

There was a proposal to include 4FSK as the base modulation on ASM1. This would allow the immediate deployment of solutions, the manufacturer’s in attendance confirmed that although a firmware revision would be required, the existing hardware platforms will support 4FSK. It was further agreed that inclusion of this modulation would have minimum impact on the standard and provided 4FSK proves to be viable, inclusion in the standard would not affect our planned readiness for publication after ENAV21.

A subgroup including Derek Love, Neil Peniket, Arunas Macikunas, Ernie Batty, Hans Haugli, Mark Johnson, Krzysztof Bronk, Yoshio Miyadera will work together to ensure that 4FSK at 19.2 has comparable performance to pi/4QPSK. They will have those results before ENAV21 where a final decision to allow this modulation on ASM1 will be taken.

With editorial changes between now and ENAV21, ANNEX 3 and 4 describing the behavior on the VDE channels, is now complete. There is some further technical work being done on the ramp up modulation, training sequence and transmission mask but the group is confident that this will be resolved before ENAV21.

There is a proposal for an authentication method using SIM card technology that would require further investigation. This could drive considerable administrative time and effort, so for the publication of 2092-1 we will allow for the capability of providing cyber security for the VDES via SIM card. While this could drive complexity the advantages could reach beyond BB security all the way to protecting the VDL, the device and the PI. The group does need expert advice.

The group discussed a document submitted by Cato from CEPT where they state because of the satellite aspects of VDES will not be decided until WRC19, the entire VDES concept must wait until this decision pushing out adoption until 2024. Further, they are recommending that national authorities do not need to vacate the frequencies until 2024. WG3 will draft advisory text that may be used by IALA membership to counter this view and lobby their ITU representatives to counter this proposal.

The group also recognized that Annex 1, describing the common elements of the VDES system, should be reviewed. Further Annex 6, the sharing aspects, needs to be reviewed for applicability and completeness. Annex 7 has been removed as it is no longer needed. The chair, Ernie Batty, and Jillian Carson-Jackson have agreed to work intersessionally to prepare an edited version of all changes to date.

During the final plenary we added item 162 to the change log because we need to describe the possibility of detecting the bulletin board on the lower leg as agreed at the South Africa intersessional but not included in the change log. The co-chair, Mr. Stefan Bober, has agreed to bring the possible need for bulletin board knowledge on the AIS channels to the attention of the group doing drafting work on 1371 such that further mechanisms on the AIS channels may be considered.

# eNAV committee requirements progress summary

\* On target, behind target but under control behind target needs action

| **Task** | **Start Session** | **Planned End Session** | **Revised End Session** | **Progress Indicator** | | | **Status Overview** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Green** | **Yellow** | **Red** |
| **WG3 Telecommunications** |  |  |  |  |  |  |  |
| 1.4.1 Develop VDES Message Structures | 18 | 21 |  |  |  |  | Complete at ENAV21 |
| 1.4.2 Assist in the Development of Message Structures for e-Nav | 18 | 21 |  |  |  |  | Commence ENAV18 provided WG1 is ready |
| 2.1.1 Update the Marine Radio Communication Plan | 20 | 21 |  |  |  |  | Commence ENAV20 |
| 2.1.2 Develop Recommendation on VDES | 15 | 21 |  |  |  |  | On-going |
| 2.1.3 Organise a Workshop on VHF Data Exchange System | 17 | 17 |  |  |  |  | Complete |
| 2.2.1 Update IALA Recommendations and Guidelines for AIS and VDES | 15 | 21 |  |  |  |  | On-going |
| 2.3.1 Manage Application Specific Message (ASM) catalogue | 20 | 21 |  |  |  |  | Complete until ENAV20 |
| 3.2.1 Liaise with ARM regarding Virtual AtoN | 17 | 17 |  |  |  |  | Complete |

# Output Papers

The output papers will be referred to IALA council for approval, then submitted to ITU.

| Number | | Title | Status |
| --- | --- | --- | --- |
| Output 1 |  | Report on Comms Intersessional June 2017 | Final |
| Output 2 |  | 20170616\_ITU-R-REC-M.2092\_PDNR\_changelog | Working Document |
| Output 3 |  | PDNR\_ITU-R\_M\_VDES-SAT\_WG32017-06\_output | Working Document |
| Output 4 |  | PDNR\_ITU-R\_M\_VDES-SAT\_tasks20170615.xlsx | Working Document |
| Output 5 |  | 20170616\_wd\_Item161\_ASM\_REC-M.2092\_JCJ\_v1 | Working Document Latest 2092 |

# Attendees

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