Appendix Revisions

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**IALA Recommendation**

**ENAV-[###] - Appendix 10.1**

**Generic Functional Description of the Physical Layer as A Whole   
– The Remote Shore Station**

**[Working Towards] Edition 1**

**[2015]**

**Initial Version**

Revisions to this Appendix are to be noted in the table prior to the issue of a revised document.

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| **Date** | **Page / Section Revised** | **Requirement for Revision** |
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IALA Recommendation ENAV-[####]

Appendix 10.1 – Generic Functional Description of the Physical Layer as A Whole – The Remote Shore Station

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**Es konnten keine Einträge für ein Abbildungsverzeichnis gefunden werden.**

Appendix 10.1 -

**Generic Functional Description of the Physical Layer as A Whole – The Remote Shore Station**

# Introduction

--- adapt text from AIS Service

The RSS is the most basic AIS-related entity, which can exist on its own in a real physical environment, as opposed to the Physical AIS Shore Station (PSS) or an AIS base station.

An RSS is physically fixed or is considered to be "fixed"[[1]](#footnote-1). An RSS may be theoretically mounted on a flying or floating platform, however. The latter cases are excluded from the scope of this document for simplicity's sake.

An RSS consists of *at least* the following components or functions:

* one *Physical AIS Shore Station (PSS)*;
* one *AIS base station* (or one AIS repeater station);
* *RF-domain equipment*, at minimum simply a cable and a VHF antenna;
* an *agent of the AIS Service Management* at the Remote Site (ASM-RS) (generally another software process);
* *service owned infrastructure components on site*, such as computer(s) to run the Physical AIS Shore Station and the software agents of the AIS Service Management, Local Area Networking components etc.;
* *shared or framework on-site infrastructure*, such as power supply, a means to protect the above component against environmental influence and damage, e.g. a shelter building or a housing case.

Thus, an RSS does not necessarily need to be considered large physically.

A RSS may generally have a *UTC source* of its own (there may be cases during which the AIS base station may be set up using only the synchronisation provided by the AIS VDL itself, i.e. UTC indirect or even slot synchronisation). This UTC source may be internal to the AIS base station such as a GNSS receiver, or external to the RSS (being a part of the on-site framework infrastructure), such as a solid-state (crystal oscillator) clock, also providing timing for the AIS base station(s) by an appropriate timing interface (such as IRIG / IEEE 1344).

Figure 11 on the following side illustrates these aspects. It zooms into Premise A given in Figure 9 above, while adding an overview of on-site framework infrastructure considerations (refer to **Annexes 3 and 12** for further detail).

**Figure 11: Typical setup of Remote Shore Station of the AIS Service (with on-site framework infrastructure and Technical Operation Personnel site; also typical)**



*Cautionary note:* Figure 11 should not be construed as normative or the only recommended way to set up a Remote Shore Station of the AIS Service. Figure 11 does claim however to be correct and consistent with the normative statements in this Recommendation in regard to what it shows.

Conceptional co-location issues of RSS of the AIS Service with RSS of other shore-based e-Nav services at the same Remote Site, *i.e.* e.g. VHF Communications Service or DSC Service, are addressed in **Annex 3** from the AIS Service’s point of view.

This annex on Remote Shore Stations (RSS) Considerations

* provides a detailed description of the RSS in total;
* provide guidance how to install all necessary components of a Remote Shore Station at the Remote Site in order to avoid interference;
* gives particular attention to the technical details of co-location with other e-Nav services operating at the same Remote Site.

# --- more chapters

--- develop the structure of the Appendix.

--- for a brief content description compare appropriate section in Main part of the Recommendation

1. As is the case when mounted on an AtoN; the point here is, that the Physical AIS Shore Station has a fixed geographical position. If it is mounted on an AtoN the area in which the AtoN is allowed to swing is very small compared to the coverage area of this Physical AIS Shore Station. [↑](#footnote-ref-1)