

# GUIDELINES ON THE INSTALLATION OF THE INLAND AUTOMATIC IDENTIFICATION SYSTEM

## INLAND AIS STATION

Edition 2022/1



European Committee  
for drawing up standards  
in the field of inland navigation



## PRELIMINARY REMARKS

In this document, the following wordings apply:

- The word "shall" indicates the requirements set out in ES-TRIN.
- The term "is strongly recommended" indicates a provision which is essential but currently not set out in ES-TRIN.
- The word "should" indicates the best practice for the installation of an Inland AIS station on board of inland vessels.
- The word "may" indicates options or a possible solution of several.

These guidelines have been elaborated taking into account the requirements contained in ES-RIS 2023/1 and ES-TRIN 2023/1. They reflect the state of good practice.

The rules defining the installation of Inland AIS station are defined in ES-TRIN. Please note that the term "Inland AIS station" that is used in this document should be considered as equivalent to "Inland AIS equipment" or "Inland AIS device" that can be found in other documents published by CESNI.

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# PART I

## RECOMMENDATION FOR THE INSTALLATION OF AN INLAND AIS STATION ON BOARD OF INLAND VESSELS

### 1. General

This document is meant as a guide for installation firms when installing Inland AIS stations on board of inland vessels. Its purpose is to guide through the installation, configuration and testing of the Inland AIS station to ensure a correct setup.

The rules defining the installation of Inland AIS station are defined in the “European Standard laying down Technical Requirements for Inland Navigation” (ES-TRIN) Annex 5 Section IV “Minimum requirements, requirements for installation and performance tests for Inland AIS equipment in inland navigation”. These rules are legally binding.

These “Guidelines on the Installation of the Inland Automatic Identification System” reflect the state of good practice and are meant to supplement the ES-TRIN minimum rules as are the installation manuals of the manufacturer of the Inland AIS station. They reflect the state of good practice and while not strictly legally binding, failure to follow the good practice may result in incorrect operation of the Inland AIS station or cause damages.

In case local police regulations differ from these guidelines, they take precedence. Otherwise, these local police regulations may complement, clarify or reinforce these guidelines. In any case, local police regulations must be strictly followed.

As defined in ES-TRIN, already installed Inland AIS stations conforming to Edition 1.0 or 1.1 of the Inland AIS Test standard may only be maintained as long as the stations are working properly, possibly after repairs. Inland AIS stations conforming to Edition 2.0 of the Inland AIS Test standard may only be installed before the 1<sup>st</sup> January 2024 and may be maintained thereafter as long as the stations are working properly, possibly after repairs.

New installations or replacements of existing Inland AIS station shall conform to ES-TRIN, taking into account the transitional provisions.

### 2. Installation of the Inland AIS station

The following actions should be taken during installation:

- install the Inland AIS station on board, according to the installation manual provided by the manufacturer
- configure the Inland AIS station as per the installation manual,

- carry out testing of the Inland AIS station for correct operation and settings,
- document all settings in the “Report about installation and operation of the Inland AIS station”, (attached to these guidelines in Part II),
- instruct the boatmaster in editing the static and voyage related data, and how to handle alerts of the Inland AIS station,
- fill in the Inland AIS equipment part of the “Installation and performance certificate for navigational radar installations, rate-of-turn indicators, for Inland AIS equipment and for tachographs in inland navigation” provided in section VI of Annex 5 of the ES-TRIN,
- hand over to the boatmaster / vessel owner the following documents:
  - The certificate as provided in section VI of Annex 5 of the ES-TRIN, which must be permanently retained on board as stipulated in ES-TRIN, Annex 5 section IV, Article 2.
  - The user instructions, which must be permanently retained on board as stipulated in ES-TRIN, Annex 5 section IV, Article 2.
  - The “Report about installation and operation of the Inland AIS station” to keep it on board (the specialist firm should also keep it in its records).

It is strongly recommended that the Inland AIS station is installed in such a way that it does not degrade the performance of other navigation devices like radar installation and VHF radio telephony, and other navigation devices do not interfere with the correct operation of the Inland AIS station(s).

When choosing the location for installation of the Inland AIS station the necessary measures to keep the Inland AIS station within the specified temperature ranges (e.g. ventilation) should be taken.

It should be checked that the latest type approved firmware of the manufacturer is installed in the Inland AIS station.

It is proposed that for any installation the approved specialised firm should complete and sign the installation report attached to these guidelines in Part II, additionally to the report required in ES-TRIN. The police regulations in force in the Member States must be followed regarding documents to be kept on board and to be submitted to the national competent authority.

## 2.1 Installation of a second Inland AIS station

If a second Inland AIS station is installed for redundancy reasons, it shall be ensured that both are not transmitting at the same time.

It is strongly recommended that both Inland AIS stations have a corresponding configuration. If two GPS-Antennas are used, then this shall be reflected in the configuration, i.e. the ABCD-values (see Chapter 11.4.1).

The installation report should be filled for each Inland AIS station separately.



### 3. Installation of the MKD (Minimum Keyboard and Display)

As stipulated in Article 2, paragraph 3 of the Annex 5, section IV of the ES-TRIN :

“The functionality of a Minimum Keyboard Display (MKD) must be easily accessible to the boatmaster. The warning and Inland AIS station status information must be located within the helmsman’s direct field of view. Other devices used for navigational purposes may however take priority as regards their direct visibility. All warning indicator lights must remain visible after installation.”

In this context, the above mentioned requirements apply to the MKD whether it is internal or external.

The MKD of an Inland AIS station can be replaced by a MKD functionality of another equipment, such as an Inland ECDIS. In this case, the MKD functionality shall be type approved according to ES-RIS "Inland AIS shipborne equipment operational and performance requirements, methods of test and required test results" part with this specific configuration.

### 4. Antenna installation

It is strongly recommended that only antennas which are type approved with the Inland AIS station are installed.

Antennas not included in the type approval need a declaration of conformity to the type approval certificate, delivered by the manufacturer of the type approved Inland AIS station.

#### 4.1 VHF Antenna for the Inland AIS station

ES-TRIN states that “Inland AIS equipment antennas must be installed and connected to the stations so as to ensure that these stations operate reliably under all normal conditions of use.” The above requirement is met if the following good practices are implemented.

It is strongly recommended that the AIS VHF antenna is installed in such a way that the potential interference with other high-power energy sources, such as navigational radar installation and other VHF antennas, is as low as technically and physically possible. Usually this means a maximum distance to other VHF antennas and/or different heights since most of these systems are intended to radiate horizontally.

To operate reliably, the VHF antenna shall be placed in a vertical position, but it should be possible to lower the antenna temporarily for passing under bridges and other objects with a reduced height.

Interferences to other on-board equipment, like the vessel’s VHF radiotelephone, shall be avoided; attention should be paid to the location and installation of the various antennas, in order to support the antenna characteristics in the best possible way.

AIS VHF antenna should have an omni-directional characteristic and a vertical polarization. Special attention should be paid to the installation on antenna masts which can be tilted.

The AIS VHF antenna should be placed in an elevated position, as free standing as possible, with maximum horizontal distance from objects made of conductive materials. The antenna should not be installed close to any large vertical obstruction. The AIS VHF antenna should have a visible horizon of 360 degrees.

#### 4.1.1 AIS VHF antenna for second Inland AIS station

In case two Inland AIS stations are installed each Inland AIS station should use its own VHF antenna installation.

Alternatively, an antenna splitter may be used to use a single VHF antenna for two inland AIS stations. In that case, this makes the VHF antenna a single point of failure.

Any antenna splitter should have the lowest loss and highest protection of interference.

#### 4.2 GNSS Antenna

The internal GNSS sensor must be connected to a GNSS antenna which is listed in the Inland AIS type approval or declared as equivalent by the manufacturer, even if the Inland AIS equipment is connected to an external GNSS position sensor.

The GNSS antenna should be installed where it has a clear view to the sky, so that it will access the horizon freely over 360 degrees, with a vertical observation of 5 degrees to 90 degrees above the horizon.

The GNSS antenna should be installed with maximum horizontal distance from high-power transmitters (e.g. Radar antenna), and out of their transmitting beam.

##### 4.2.1 GNSS antenna for second Inland AIS

In case two Inland AIS are installed, it is strongly recommended that both Inland AIS have their individual GNSS antenna.

Alternatively, an antenna splitter may be used to use a single GNSS antenna for two Inland AIS stations. In that case this makes the GNSS antenna a single point of failure<sup>1</sup>.

Any antenna splitter should have the lowest loss and highest protection of interference.

#### 4.3 Antenna cabling

It is strongly recommended that the recommendation of the manufacturer is considered and appropriate cable- and connector types are used for the VHF antenna and the GNSS antenna working under the environmental conditions of inland navigation.

The type of coaxial cable used should be the best cable available to minimize the cross-talk from and to other cables/devices.

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<sup>1</sup> In order to have the same Inland AIS settings, both Inland AIS stations need the same reference point (i.e. GNSS antenna location)

The coaxial cables between the antennas and the Inland AIS should be routed as short as possible, avoiding sources of electromagnetic interference in order to minimize attenuation of the signal. Coaxial cables should be installed in separate signal cable channels/tubes preferably, and if possible more than 10 cm away from any power supply cables. Crossing of cables should take place at right angles (90 degrees). The cable should not be installed close to high-power lines, such as radar or radio-transmitter lines. Coaxial down-leads should be used for VHF antennas, and the coaxial shield should be connected to the ground at one end.

All connectors should have multiple layers/rings of protection for interference.

All outdoor connectors on the coaxial cables should be fitted with preventive isolation, such as shrink-tubing/stocking with silicone to protect the antenna cable against water penetration.

#### 4.4 Shared VHF antenna between Inland AIS station and VHF-radiotelephone

An Inland AIS station needs a VHF antenna of its own. Thus, it is strongly recommended that no shared VHF antenna and cabling for VHF radiotelephony and Inland AIS station are used.

#### 4.5 Combined VHF/GNSS antenna

A combined VHF/GNSS antenna for Inland AIS station is permitted. The combined use of the cabling for Inland AIS VHF Antenna and GNSS Antenna is permitted. It is strongly recommended that only antennas which are in the inland AIS station's type approval or are approved by the Inland AIS station manufacturer are used (see paragraph "4 - Antenna installation" above).

#### 4.6 Interference from low-power energy sources

Low-power energy sources such as LED (navigation) lights, electrical household equipment on the wheelhouse should be checked for possible interference with the Inland AIS station.

### 5. Additional requirements for the installation of Inland AIS station on ADN vessels

For vessels carrying dangerous goods additional requirements apply.

According to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) no part of an aerial for electronic apparatus, no lightning conductor and no wire cable shall be situated above the cargo area and no part of a VHF antenna for Inland AIS shall be situated within 2 m from the cargo area.

### 6. Transmission settings

The AIS station is meant to run autonomously on its default transmission parameters, and they may only be changed if required by police regulations in force in the Member States.

## 7. Connection of blue sign

It is strongly recommended that the blue sign information corresponds to the real state of the blue sign on the vessel. The status of the blue sign is strongly recommended to only be sent if the connection to such an equipment ensures that the real state can be determined at all times. It is recommended to use the feedback signal from blue sign.

It is strongly recommended that the status “not available” is sent if the blue sign is not connected to the Inland AIS station.

## 8. Connection to an Inland ECDIS device

It is recommended to connect the Inland AIS station to an Inland ECDIS or a comparable device for displaying charts to use the Inland AIS station derived information for on board information or navigation support. This connection should be wired for Inland ECDIS in information mode and shall be wired for Inland ECDIS in Navigation mode.

In some areas the connection of an Inland ECDIS or a comparable device may be required by the police regulations in force in the Member States.

## 9. Connection of external sensors (Position, Heading, Rate of Turn)

The Inland AIS station has interfaces (configurable as IEC 61162-1 or 61162-2) for position, speed over ground (SOG), heading (HDG) and rate of turn (ROT) sensors.

According to Article 2 (6) of Annex 5 Section IV of the ES-TRIN, only type approved sensors shall be connected to the Inland AIS. In the absence of suitable inland navigation standards, the external sensors connected to the Inland AIS shall be type approved in accordance with the following appropriate maritime standards:

Sensor	Minimum performance standard (IMO)	ISO/IEC standard
GPS	MSC 112(73) <sup>2</sup>	IEC 61108-1, 2003
DGPS/DGLONASS	MSC 114(73) <sup>3</sup>	IEC 61108-4, 2004
Galileo	MSC 233(82) <sup>4</sup>	IEC 61108-3, 2010
Heading/GPS Compass	MSC 116(73) <sup>5</sup>	ISO 22090-3 Part 3 “GNSS-Principles”, 2014

Rate-of-Turn indicators connected to the Inland AIS station shall comply to the requirements defined in ES-TRIN Annex 5 Section II.

<sup>2</sup> MSC.112(73) adopted on 1 December 2000 - Revised Performance Standards for Shipborne Global Positioning System (GPS) Receiver Equipment.

<sup>3</sup> MSC.114(73) adopted on 1 December 2000 - Revised Performance Standards for Shipborne DGPS and DGLONASS Maritime Radio Beacon Receiver Equipment.

<sup>4</sup> MSC.233(82) adopted on 5 December 2006 - Performance Standards for Shipborne Galileo Receiver Equipment.

<sup>5</sup> MSC.116(73) adopted on 1 December 2000 - Performance Standards for marine transmitting heading devices (THDs).

## 10. Power supply

According to ES-TRIN Article 10.02 and Annex 5, Section IV, Article 2, paragraph 4:

*“Where craft are fitted with an electrical installation, that installation shall have at least two power sources in such a way that where one power source fails the remaining source is able to supply the consumer equipment needed for the safe operation for at least 30 minutes.*

*Adequate sizing of the power supply shall be demonstrated by means of a power budget calculation. An appropriate utilisation factor may be taken into account.”*

ES-TRIN Annex 5, Section IV stipulates for the AIS station:

*“It must be possible to establish visually whether [the AIS station] is operating. The equipment is to be connected directly to the power supply system described in article 10.02. The equipment shall feature a power circuit with its own safety device as described in article 10.12, paragraph 2, letter a above, and be capable of being provided with power at all times” (for example in case of loading and discharging of cargo, when some electronic devices have to be switched off).*

In order to prevent damage to the Inland AIS station and to ensure a stable reporting behaviour, special attention should be paid to the stability of the power supply. Appropriate measures (e.g. DC-DC converter) should be taken if needed for the correct operation of the Inland AIS station.

## 11. Configuration of the Inland AIS station

The minimum mandatory data set transmitted by the Inland AIS station is subject to the police regulation in force in the member states.

The police regulation in force in the member states usually specify that data transferred by Inland AIS stations shall be permanently valid and correct, having the following consequences:

- During installation of the Inland AIS station the data of the vessel shall be entered properly. This includes the password protected static data like MMSI, ENI, call sign, name of the vessel etc. The full list of password-protected static data is defined in the “Vessel Tracking and Tracing for Inland Navigation” part of the ES-RIS.
- User changeable semi-static data, should be configured reflecting the status at the time of the installation. The user shall keep them up to date.

### 11.1 Configuration of the second Inland AIS station

It should be ensured, that the active Inland AIS station always broadcasts correct Inland AIS data. This can be done either manually using the MKD or by a connected Inland ECDIS device (if available). The specialised firm should train the user how to do this properly.

## 11.2 Missing unique European vessel identification number

In case a pleasure craft does not have an ENI number the data field shall be set to “00000000” (ENI not assigned) as stipulated in Article 3.05 of Part II of the ES-RIS,

For maritime vessels having an IMO number instead of an ENI number, the IMO number shall be set in the Inland AIS station and the ENI field shall be set to “00000000” (ENI not assigned).

## 11.3 Alerte settings

Malfunctions and irregularities detected by the inland AIS station are indicated by alerts as defined in IEC 62923-1 ed.1: 2018 (Bridge alert management), formerly named alarms.

Alerts now fall in

- 4 priorities (Emergency Alarm - Alarm - Warning - Caution) and
- 3 Categories (A - B - C)

**Inland** AIS stations only generate alerts of the 2 lowest priorities Warning and Caution and of Category B.

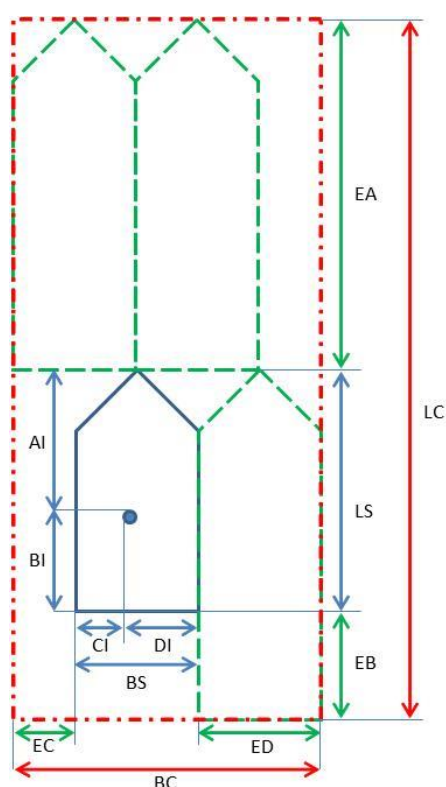
Alerts may be disabled in the configuration of an inland AIS station.

It is highly recommended that only alerts are disabled that are meaningless. Eg “Missing ROT” when there is no ROT-sensor connected. All other alerts (eg. “Lost ext EPFS” when there should be an external Position sensor connected) need to be remedied and the root cause eliminated.

## 11.4 Special aspects

Special attention should be paid while configuring following data since those data appear on both places, in the inland specific data set as well as in the common maritime/inland data set. The correct conversion between both data sets should be checked.

### 11.4.1 Length and beam of a convoy or a vessel



For backward compatibility with previously installed Inland AIS station (type approved based on Edition 1.0 or 1.1 of the Inland AIS test standard):

The data overall length and beam of the convoy or of a single vessel shall match the length and beam derived from the reference point of the GNSS antenna (A, B, C, D values). When converting from decimetre (dm) to meter (m), the values shall always be rounded upwards, as defined in ES-RIS.

For Inland AIS station type approved to Edition 2.0 or higher:

The dimensions of the own vessel (BI and LS, CI and BS) which are password protected, shall be set correctly during the installation and shall not be changed by the user.

The parameters of the convoy extension (EA, EB, EC and ED) can be entered/changed by the user.

### 11.4.2 Type of convoy / type of vessel

If the police regulation in force in the member states requires it, the type of convoy / type of vessel code shall be set according to Annex 6: "Inland vessel and convoy types" of the ES-RIS, The conversion from the Inland vessel and convoy type to the IMO vessel type is also provided in this annex.

The Annex 6 is attached to this guideline for quick reference only, it shall be verified if its content is still enforced before using it.

### 11.4.3 Vessel's draught

The draught of the convoy or the vessel should be provided as decimetre value (dm) for the common maritime / inland setting and as centimetre value (cm) for the specific inland setting.

When converting from centimetre (cm) to decimetre (dm) the value shall always be rounded upwards, as defined in ES-RIS,

## 12. Quality of sensor input

It is strongly recommended that the parameter quality of sensor input is set to "low" as default value unless a type-approved sensor is connected to the Inland AIS station.

## 13. Testing of the Inland AIS station

After completion of the installation and configuration of the Inland AIS station a functional test should be performed to ensure correct operation and settings. This applies also when the unit was fitted with other or new firmware.

The functional test should be done under operational conditions, i.e. with activated radar installation (when available) and VHF radio.

### 13.1 Test of received data

Data received from another Inland AIS station should be verified using the internal or external MKD and, if available, by any additional external application (e.g. Inland ECDIS) on board.

During this test the navigation lights and other equipment with low-power energy sources should be switched on and off in order to determine if the navigation lights or other equipment have a detrimental effect on the reception. If so it should be considered to either relocate the navigation lights or other impairing equipment or to relocate the AIS VHF antenna.

### 13.2 Test of transmitted data

The automatic transmission of the installed inland AIS station should be observed and verified. For this purpose, the built-in communication test could be used. The data transmitted could be verified onboard another vessel or using a portable test equipment. Authorities may offer a verification service of the transmitted data.

The following items should be verified (see “Report about installation of the Inland AIS station” - Part II):

- Transmission of correct static data,
- Transmission of correct voyage related data,
- Transmission of correct dynamic data,
- Suitable range for the current location.



# PART II

## INSTALLATION TECHNICAL REPORT ON INLAND AIS STATION

The report below does not replace the Installation and performance certificate for Inland AIS station (or “AIS equipment”) defined in Annex 5, section VI of the ES-TRIN.

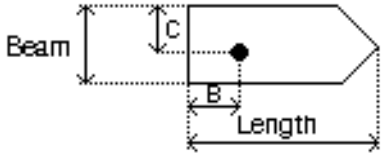
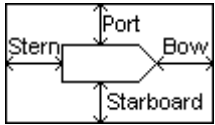
If there is more than one Inland AIS station installed the following tables should be filled in each Inland AIS station. If the Inland AIS station is an addition to an already installed Inland AIS station, the information of the installed Inland AIS station should be filled in also.

### INSTALLATION TECHNICAL REPORT ON INLAND AIS STATION

VESSEL STATIC			
Name of the Vessel:		Unique European Vessel Identification Number (ENI):	
Maritime Mobile Service Identity (MMSI):		Call Sign:	
Height over Keel:		IMO number (optional):	
Inland Ship/Convoy type (ERI Code):		IMO Ship Type (optional):	

VESSEL OWNER			
Vessel Owner:		Address :	
Contact Person:			
Phone:			
Email:			

AIS STATION INFORMATION <input type="checkbox"/> primary <input type="checkbox"/> secondary			
Manufacturer / Model		Certificate Number	
Serial Number		Firmware Version	

VESSEL DIMENSIONS			
Internal GPS antenna position (in simplified input mode)	Length [x.x m]: B [x.x m]: (all values in m with one decimal precision)	Beam [x.x m]: C [x.x m]:	
External GPS antenna position (in simplified input mode)	Length [x.x m]: B [x.x m]: (all values in m with one decimal precision)	Beam [x.x m]: C [x.x m]:	
Convoy (if applicable)	Bow [x.x m]: Port [x.x m]: (all values in m with one decimal precision)	Stern [x.x m]: Starboard [x.x m]:	
Estimated Cable length to GPS antenna in m:		Estimated Cable length to VHF antenna in m:	
GPS antenna (make & type):		GPS antenna (make & type):	

INLAND VOYAGE DATA			
Draught [x.xx m]		Navigational Status	
Air Draught [x.xx m]		Blue Cones (Inland AIS)	
Persons on Board	Crew:	Personnel:	Passengers:
<b>The user has been informed on how to enter and maintain the above configured semi static and voyage related data as well as other optional information supported by the Inland AIS station.</b>			

**PERIPHERY AND COMMUNICATION – (PLEASE LIST MANUFACTURER AND TYPE)**

Sensor connected	Type of connected Equipment	Used NMEA Talker/ Sentences	Baudrate	
Sensor 1				
Sensor 2				
Sensor 3				
ECDIS				
Pilot Port				
Long Range				
RS232				
Alarm relay				
Blue Sign				
Quality of sensor input	Speed: <input type="checkbox"/> high <input type="checkbox"/> low	Course: <input type="checkbox"/> high <input type="checkbox"/> low	Heading: <input type="checkbox"/> high <input type="checkbox"/> low	
Power Supply of the AIS device (and Emergency Power source)			Supply Voltage	V

Alert ID	Alert Text (BAM)	Description Text (BAM)	Active	Disabled	Alert ID	Alert Text (BAM)	Description Text (BAM)	Active	Disabled
3003	Lost ext EPFS	Check external position sensor			3113	Sync in fallback	Check AIS for UTC time synchronization		
3008	Transceiver fail	Not transmitting check AIS			3116	Impaired radio	Reduced coverage (antenna VSWR)		
3008	Transceiver fail	Not receiving check AIS			3116	Impaired radio	Ch1 inoperative check AIS		
3009	MKD Lost	Cannot Display safety related messages			3116	Impaired radio	Ch2 inoperative check AIS		
3013	Doubtful GNSS	Int/Ext GNSS position mismatch			3116	Impaired radio	DSC inoperative		
3013	Doubtful Heading	Difference with COG exceeds limit			3119	Missing SOG	Not transmitting SOG		
3015	Lost position	Own ship position not transmitted			3119	Missing COG	Not transmitting COG		
3019	Wrong NavStatus	Check NavStatus setting			3119	Missing Heading	Not transmitting Heading		
3062	General fault	Check AIS equipment			3119	Missing ROT	Not transmitting Rate of Turn		
3108	Locating device	Check AIS targets			10072	Tx disabled	AIS transmitting externally disabled		

Note: In case of deactivation of alerts in the Inland AIS station.

- Active alerts are alerts that were in condition "alert" before they've been manually deactivated
- Disabled alerts are deactivated alerts, regardless of their alert condition (e.g. if no ext. EPFS is installed)

OPERATIONAL TEST			
Verification by MKD of own vessel's data	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Position/Time:	<input type="checkbox"/> OK <input type="checkbox"/> NOK
Verification by MKD of other vessel's data	<input type="checkbox"/> OK <input type="checkbox"/> NOK	ECDIS connection:	<input type="checkbox"/> OK <input type="checkbox"/> NOK <input type="checkbox"/> not installed
Test of transmitted data	<input type="checkbox"/> OK <input type="checkbox"/> NOK	Blue sign:	<input type="checkbox"/> OK <input checked="" type="checkbox"/> NOK <input type="checkbox"/> not installed
Communication test (range in km)		Active Alerts:	<input type="checkbox"/> NO <input type="checkbox"/> YES _____

INSTALLATION AND TRAINING DETAILS			
Vessel Location (Port/country):		Date:	
Name(s) of trained crew:			
Trained Topics:	<input type="checkbox"/> Input/Output <input type="checkbox"/> LEDs <input type="checkbox"/> System Status <input type="checkbox"/> Static Data <input type="checkbox"/> Voyage Data <input type="checkbox"/> Nav Status <input type="checkbox"/> Alerts		
Remarks:			
Signature of Specialised firm, Date and Location		Signature of Customer, Date and Location	



This attachment is for quick reference. It is the Annex 6 of the ES-RIS. Before using it, it shall be verified if it still applies or if some new version has to be taken into account.

The CESNI website is accessible here: <https://cesni.eu>

## PART III

### INLAND VESSEL AND CONVOY TYPES

*Source: Annex 6 of the ES-RIS*

This correspondence table is based on an excerpt of the 'Codes for Types of Means of Transport' according to UNECE Recommendation 28 and the maritime ship types as defined in Recommendation ITU-R M.1371 'Technical characteristics for a universal ship borne automatic identification system using time division multiple access in the VHF maritime mobile band'.

Inland vessel and convoy type		Maritime ship type	
code	vessel name	1 <sup>st</sup> digit	2 <sup>nd</sup> digit
8000	Vessel, type unknown	9	9
8010	Motor freighter	7	9
8020	Motor tanker	8	9
8021	Motor tanker, liquid cargo, type N	8	0
8022	Motor tanker, liquid cargo, type C	8	0
8023	Motor tanker, dry cargo as if liquid (e.g. cement)	8	9
8030	Container vessel	7	9
8040	Gas tanker	8	0
8050	Motor freighter, tug	7	9
8060	Motor tanker, tug	8	9
8070	Motor freighter with one or more vessels alongside	7	9
8080	Motor freighter with tanker	8	9
8090	Motor freighter pushing one or more freighters	7	9
8100	Motor freighter pushing at least one tank-vessel	8	9
8110	Tug, freighter	7	9
8120	Tug, tanker	8	9
8130	Tug, freighter, coupled	3	1
8140	Tug, freighter/tanker, coupled	3	1

Inland vessel and convoy type		Maritime ship type	
code	vessel name	1 <sup>st</sup> digit	2 <sup>nd</sup> digit
8150	Freightbarge	9	9
8160	Tankbarge	9	9
8161	Tankbarge, liquid cargo, type N	9	0
8162	Tankbarge, liquid cargo, type C	9	0
8163	Tankbarge, dry cargo as if liquid (e.g. cement)	9	9
8170	Freightbarge with containers	8	9
8180	Tankbarge, gas	9	0
8210	Pushtow, one cargo barge	7	9
8220	Pushtow, two cargo barges	7	9
8230	Pushtow, three cargo barges	7	9
8240	Pushtow, four cargo barges	7	9
8250	Pushtow, five cargo barges	7	9
8260	Pushtow, six cargo barges	7	9
8270	Pushtow, seven cargo barges	7	9
8280	Pushtow, eighth cargo barges	7	9
8290	Pushtow, nine or more barges	7	9
8310	Pushtow, one tank/gas barge	8	0
8320	Pushtow, two barges at least one tanker or gas barge	8	0
8330	Pushtow, three barges at least one tanker or gas barge	8	0
8340	Pushtow, four barges at least one tanker or gas barge	8	0
8350	Pushtow, five barges at least one tanker or gas barge	8	0
8360	Pushtow, six barges at least one tanker or gas barge	8	0
8370	Pushtow, seven barges at least one tanker or gas barge	8	0
8380	Pushtow, eight barges at least one tanker or gas barge	8	0
8390	Pushtow, nine or more barges at least one tanker or gas barge	8	0
8400	Tug, single	5	2
8410	Tug, one or more tows	3	1



Inland vessel and convoy type		Maritime ship type	
code	vessel name	1 <sup>st</sup> digit	2 <sup>nd</sup> digit
8420	Tug, assisting a vessel or linked combination	3	1
8430	Pushboat, single	9	9
8440	Passenger vessel, ferry, red cross vessel, cruise vessel	6	9
8441	Ferry	6	9
8442	Red cross vessel	5	8
8443	Cruise vessel	6	9
8444	Passenger vessel without accommodation	6	9
8445	Day-trip high speed vessel	6	9
8446	Day-trip hydrofoil vessel	6	9
8447	Sailing cruise vessel	6	9
8448	Sailing passenger vessel without accommodation	6	9
8450	Service vessel, police patrol, port service	9	9
8451	Service vessel	9	9
8452	Police patrol vessel	5	5
8453	Port service vessel	9	9
8454	Navigation surveillance vessel	9	9
8460	Vessel, work maintenance craft, floating derrick, cable-vessel, buoy-vessel, dredge	3	3
8470	Object, towed, not otherwise specified	9	9
8480	Fishing boat	3	0
8490	Bunkervessel	9	9
8500	Barge, tanker, chemical	8	0
8510	Object, not otherwise specified	9	9
1500	General cargo Vessel maritime	7	9
1510	Unit carrier maritime	7	9
1520	Bulk carrier maritime	7	9
1530	Tanker	8	0
1540	Liquefied gas tanker	8	0
1850	Pleasure craft, longer than 20 metres	3	7
1900	Fast vessel	4	9
1910	Hydrofoil	4	9
1920	Catamaran fast	4	9





