



**PIANC** *“Navigation, Ports, Waterways”  
Inland Waterways Commission*

# The PIANC RIS guidelines Edition 4, 2018

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- PIANC and the RIS Guidelines
- RIS lifecycle and RIS Guidelines,
- RIS definitions edition 2, 2018
- RIS Guidelines 2018 edition 4, 2018
  - Why updating the Guidelines of 2011
  - What are the differences

## Origin of River Information Services

- Initial research in the context of “sharing information” in 1995
  - Research on the technology and possible impact of providing vessel traffic management information via ICT (“shore based radar on board”)
- Initial research in period 1996 -1998 on the benefits of maritime developments for inland waterways
  - Synergy between the maritime concept in previous century (VTMIS) and RIS
  - Usability of AIS and ECDIS in inland waterways

## RIS in a historical context

- The EC supports since 1996 RIS research projects and implementation studies
- PIANC installed a working group on River Information Services in 1998.
- Central Rhine Commission (CCNR) installed in 2004 a RIS working group and formalized the PIANC RIS guidelines and RIS standards
- UN ECE and Danube Commission followed the initiative of the CCNR.
- In October 2005, the EU RIS Framework Directive of the European Union (2005/44/EC) entered into force.
  - Applicable to all waterways of class IV or higher
  - Binding rules for authorities on the implementation of RIS
- River Information Services are nowadays in an implementation stage in North and South America, Europe and Asia

## PIANC permanent working group on RIS

- PIANC installed in 1998 the first working group on River Information Services in cooperation with IALA
- The second edition of the PIANC RIS guidelines (2004) is adopted by the European Commission as Commission Regulation 414/2007
- The CCNR and UNECE formally adopted the PIANC RIS Guidelines edition 3, 2011.
- The permanent working group on River Information Services (PWG125) worked in recent years on:
  - Status report of implementation of RIS in USA, Asia and Europe
  - RIS related definitions 2018 edition 2
  - RIS Guidelines 2018 edition 4.
- Members from USA, Russia, Vietnam, Austria, Belgium, France, Hungary, Germany, Poland, Czech Republic, Spain , the Netherlands and CCNR.



## RIS Lifecycle and the PIANC RIS Guidelines

- 1996-2005: focus on research and development
  - PIANC RIS guidelines edition 1 and 2 based on research results in European context
- 2005-2010: focus on implementation of RIS technologies
- 2010-2015: focus on traffic management related services
  - PIANC Guidelines 2011 edition 3 based on experiences on implementation of RIS key technologies and initial basic services
- 2010-2020: focus on traffic & transport management services
  - PIANC Guidelines 2018 edition 4 based on
    - World wide experiences on implementation of services
    - Development of Corridor Management
    - Synergy and benefits of e-Navigation for RIS
- 2020-2030: Information services in a synchro-modal transport domain and new challenges like smart shipping.

# The deliverables of PIANC Permanent Working Group on RIS in 2018

- Status report on RIS implementation and development in the period 2011-2018
- RIS related definitions edition 2, 2018
- PIANC RIS Guidelines edition 4, 2018

# RIS RELATED DEFINITIONS

## RIS related definitions edition 2

- Update of PIANC document on RIS definitions and abbreviations
- Sources:
  - RIS standards – RIS expert groups
  - IMO, IHO, IALA, WCO, ISO, WCO, EU, CCNR, UNECE, PIANC
- Publication on CCNR internet site:
  - Maintenance is a joint action of CCNR and PIANC
  - Living document



# PIANC RIS Guidelines edition 4, 2018

What is new and what has changed since the publication of edition 3 in 2011.

## PIANC RIS Guidelines edition 3, 2011

- UNECE Resolution No. 57 on Guidelines and Recommendations for River Information Services (TRANS/SC.3/165).
- CCNR has published the RIS Guidelines version 3 based on CCNR protocol 2003-I-22.

## The need for updating PIANC RIS Guidelines 2011

- Practical experiences and lessons learned on implementation of RIS since 2011
- Need for the globalisation of RIS guidelines
- Synergy with the maritime world and the development of e-Navigation as input for further development of RIS
- Development of RIS enabled Corridor Management
- Other developments and challenges like
  - Inter/synchro model transport information services
  - DINA
  - Smart Shipping
  - Cybersecurity
- Omissions and corrections

## PIANC RIS Guidelines edition 4, 2018

*An essential change in relation to the e-Navigation developments is the alignment between RIS and e-Navigation, and consequently as a first step the use of the same terminology.*

*For this reason in these guidelines the term “RIS key technologies” is replaced by “Technical Services” and “Services” are changed into “Operational Services” to be in line with the terms used in the domain of e-Navigation.*

- Still in draft
  
- Input, questions and comments to be provided
  - before 01-08-2018
  - to [Caswillems@me.com](mailto:Caswillems@me.com)

## Chapter 1 of the PIANC RIS Guidelines edition 4, 2018

- Historical development of River Information Services.
  - The evolution of the PIANC RIS Guidelines.
  - The PIANC RIS guidelines 2018.
  - Reading guide for the document.
- 
- The foreword, summary and chapter 1 of Edition 3 of the PIANC RIS Guidelines are replaced by a new chapter 1 in order to reduce the overhead in the guidelines and focus more on the real relevant content of the guidelines.

## Chapter 2 of the PIANC RIS Guidelines edition 4, 2018

- River Information Services and its objectives
  - Contribute to safety of traffic and transport
  - Contribute to efficiency of traffic and transport
  - Contribute to environmentally friendly transport by:
    - Make inland navigation a reliable, plannable and transparent transport mode in the multimodal transport chain.
- RIS stakeholders.
  - Services consumers – RIS users - in inland navigation operations
  - Authorities
  - Managers in inland navigation
  - Information providers
  - Service providers

## Chapter 2 of the PIANC RIS Guidelines edition 4, 2018

- RIS Information needs.

The User Information Needs (table 2.1) became an essential table throughout the document and organises user needs in information categories being:

- Infrastructure related information:
- Vessel related information:
- Voyage and cargo related information
- Traffic related information

- Overall the content of chapter 2 has not been changed in essential way.

The description on RIS stakeholders is reduced to summing up of the stakeholder groups instead of a full definition of possible stakeholders and their main added value of RIS.

In the information needs a category on traffic related information is added, this was an omission in edition 3.



## Chapter 3 of the PIANC RIS Guidelines edition 4, 2018 RIS Operational Services and Functions

*Mainly traffic related*

- 1 Fairway information Services (FIS)**
- 2 Traffic information (TI)**
  - a) Tactical traffic information (TTI)
  - b) Strategic traffic information (STI)
- 3 Traffic management information (TM)**
  - a) Local traffic management (vessel traffic services - VTS)
  - b) Lock and bridge management (LBM)
  - c) Traffic Planning (TP)
- 4 Information to support calamity abatement (CAS)**

*Mainly transport related*

- 5 Transport logistics Information (ITL)**
  - a) Voyage planning (VP)
  - b) Transport management (TPM)
  - c) Port and terminal management (PTM)
  - d) Cargo and fleet management (CFM)
- 6 Information on Law Compliancy (ILC)**
- 7 Statistics information (ST)**
- 8 Information for waterway charges and harbour dues (CHD)**

- RIS operational services is slightly amended in wording.



## Chapter 3 of the PIANC RIS Guidelines edition 4, 2018 RIS Operational Services and Functions

- The definition of the RIS operational services are shifted to this chapter.
- The chapter 3 includes an extensive table on RIS functions based on the information needs as described in chapter 2. The table is based on the function table in edition 2 of the RIS Guidelines and was not included in edition 3, this was reported by users of the RIS guidelines as an omission.
- The chapter 3 includes also a sub-chapter with an explanation on RIS enabled Corridor Management. Corridor Management as a concept aims at linking services together on a route or network in order to provide RIS not just locally, but regional, national and international to support inland navigation on their voyages on the network. Corridor management will realise support for transport management.

# Chapter 3 of the PIANC RIS Guidelines edition 4, 2018

## RIS Operational Services and Functions

Functions		Function Number	RIS operational services			RIS operational services				
1st level	2nd level		Fairway Information Services	Traffic Information	Traffic Management	Calamity Abatement Support	Information for Transport Logistics	Information for Law compliance	Statistics	Waterway charges and harbour dues
Provide navigation-based information on fairway and/or navigable water area		FIS 1	X	X	X	X	X			
	Provide information on bank of waterway, boundaries of the fairway, etc.									
	Provide information on depth profile of the fairway									
	Provide information on non-navigable or un-surveyed water area									
	Provide information on anchorage areas, mooring facilities and berths									
	Provide information on permanently moored vessel or facility in waterway									
Provide meteorological information		FIS 2	X	X		X				
	Provide continuous weather information									
	Provide weather warnings									
	Provide actual ice situation									
	Provide predicted ice situation									
Provide water level related information		FIS 3	X	X		X	X			
	Provide actual water levels									
	Provide predicted water levels									
	Provide actual discharge information									
	Provide predicted discharge information									
	Provide least sounded actual depths information (shallow sections)									
	Provide least sounded predicted depths information (shallow sections)									
	Provide barrage status									
	Provide regime status									
Provide information on obstructions and limitations		FIS 4	X	X			X			
	Provide information on long-time obstructions in the fairway									
	Provide information on temporary obstructions in the fairway									
	Provide information on ferries									
Provide information on navigation rules and regulations		FIS 5	X	X			X			X
	Provide information on official aids-to-navigation									
	Provide information on traffic signs									
	Provide information on traffic rules and regulation									



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## Chapter 4 of the PIANC RIS Guidelines edition 4, 2018 Recommendation on implementation of the RIS Operational Services

- Only minor changes, the recommendations on the implementation of the RIS operational services are updated.

## Chapter 5 of the PIANC RIS Guidelines edition 4, 2018 RIS technical Services

- The order of the chapters has changed. It is seen as more logical to have first the chapter on RIS operational services and the RIS functions (chapter 3) as well as the chapter on recommendations for the implementation of RIS operational services (chapter 4).
- The chapter on “Recommendations for the implementation of RIS technical services” will be changed in the next version into a set of recommendations and separated from the annexes with explanations on the technical services and reference data.
- The chapter has been updated to the state of the art 2018.
- The technical services have been upgraded to worldwide use. Still special attention has been given to the standards on the technical services in Europe like inland ENC, inland AIS, electronic reporting, Notices to Skippers as well as the RIS index.

## Chapter 6 of the PIANC RIS Guidelines edition 4, 2018 Recommendations on the integration of e-Navigation in the RIS domain

- PIANC saw the relevancy of the e-Navigation development for inland navigation and installed in 2011 a working group on e-Navigation with the task to determine whether inland navigation could benefit from the e-Navigation development and to identify the implications for River Information Services. The working group published in 2017 their findings in a report called “e-Navigation for Inland Waterways”
- In the guidelines general recommendations on policy level and specific recommendations on technical level are given to be taken into account by those who are in the coming years planning and/implementation a RIS in their domain.

## Chapter 7 of the PIANC RIS Guidelines edition 4, 2018 Considerations on mid-term RIS related developments

- This new chapter reflects on upcoming initiatives and developments that will have an impact on RIS, and how RIS might be perceived and utilised by these initiatives.
- The considerations include:
  - The evaluation and update of the RIS directive in Europe
  - Digitization developments like DINA
  - The COMEX project and the foreseen resultsand planned are to include:
  - Cybersecurity
  - Smart Shipping

## Chapter 8 of the PIANC RIS Guidelines edition 4, 2018 Structured approach of the implementation of RIS services

- The content is not changed only the relation to recommended open standards are not mentioned anymore.
- It is intended to include in this chapter recommendations on Quality Management related to the implementation and operation of RIS services



**Questions?**

**or**

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