



ATON PRODUCT SPECIFICATIONS – S-201 DATA PRODUCTION

Cost: €1,000 | Language: English | The course will be conducted via:

- **Self-study, distance learning** from the 11th January to 14th February 2027 using the IALA World-Wide Academy (WWA) e-learning platform (~20 hrs commitment).
- **In-person training** from the Monday 15th to 19th February 2027 at the IALA Headquarters (HQ) in St Germain en Laye, France.

For further information contact the IALA WWA: academy@iala.int or visit the IALA website.

COURSE DESCRIPTION

This course provides a structured introduction to the principles and processes required for the production of S-201 Aids to Navigation (AtoN) data within the S-100 Universal Hydrographic Data Model (UHDM). It offers participants a comprehensive understanding of the S-201 Product Specification, relevant markup and modelling languages, and the transition from legacy AtoN data formats to S-100-compliant structures. Through guided instruction and practical exercises, participants will develop the competencies needed to create, manage, and validate S-201 datasets in accordance with international standards.

LEARNING OBJECTIVES

By the end of this training, participants will be able to:

- **Understand** the S-100 framework, UHDM, and the role of the GI Registry in developing S-200 data models.
- **Interpret** GML structures and create basic datasets using relevant markup and modelling languages.
- **Read & Apply** the S-201 Product Specification to interpret features, attributes, and encoding rules.
- **Produce & validate** S-201 datasets, including the use of S-101 inputs and standard validation tools.
- **Explain** the principles of Service Specifications and their relation to service products and service instances in the S-100 ecosystem.
- **Perform** practical data-production workflows through use cases, guided exercises and scenarios.

TARGET AUDIENCE

This training is designed for AtoN Managers and technical staff responsible for managing, updating, and migrating AtoN data. It is particularly relevant for professionals working in Lighthouse or AtoN Authorities, Coast Guards, Port Authorities, and other organizations that maintain AtoN registries and databases.

Participants are expected to be familiar with existing AtoN data formats or tools (e.g., spreadsheets, legacy databases, older IALA exchange formats) and now need to transition to the S-201 standard within the broader S-100 framework. The course will support in understanding, preparing, and implementing this migration. Knowledge and basic understanding of markup and model languages (GML, XML,...) are recommended.

LECTURERS

The course will be delivered by international experts in the S-100 framework, S-200 series, and maritime data product specification development from organisations including the International Hydrographic Organization (IHO), the UK Hydrographic Office (UKHO), the Korea Research Institute of Ships and Ocean Engineering (KRISO), and the International Organization for Marine Aids to Navigation (IALA). The training will also benefit from contributions by several professionals actively involved in the development and implementation of S-100 standards.

COST

The cost of this five-day course is €1,000 and includes:

- All lectures & training materials
- Two coffee breaks a day
- Lunches
- Welcome reception

DELIVERY MODE

The course will be delivered in a blended format, including online preparatory sessions followed by a five-day in-person training workshop in France, allowing participants to combine theoretical learning with hands-on practical exercises.

REGISTRATION

Registration is open through the IALA website at:

<https://academy.iala.int/www/training/course-schedules/>



CANCELLATION POLICY

Cancellations must be sent by e-mail to contact@iala.int. A refund in full of the registration fee will only be provided if notification is given at least one month before the event. Otherwise, a cancellation charge of 50% will be applied. Name changes will be accepted. In case of a no-show, 100% of the registration fee will be charged.

PRACTICAL INFORMATION

A list of hotels near the IALA HQ are published on the IALA website: <https://www.iala.int/contact/>

ENQUIRIES

For any enquiries regarding this course, please contact the IALA WWA at: academy@iala.int.

PROVISIONAL COURSE OUTLINE

Online learning, 11 th January to 14 th February 2027			
Online preparation		~20 hours self-learning (S-100 / S-200 documents) via the IALA WWA e-learning platform. Video lectures (~10h) (dates TBC).	
In person, at the IALA HQ, 15 th to 19 th February 2027			
Day	Module	Time	Activity
Mon 15 Feb	Opening	0900–0930	Course opening
	Module 0: Introduction to S-100 Universal Hydrographic Data Model UHDM	0930–1030	Overview of maritime and technical services
		1030–1045	Break
		1045–1215	Introduction to S-100 UHDM
		1215–1315	Lunch
		1315–1445	S-100 UHDM (Continuation)
		1445–1500	Break
		1500–1600	S-200 overview (S-125, S-201, S-212 etc.)
		1600–1630	Product specification versioning
		1630–1700	Group work – assignment briefing
Tue 16 Feb	Module 1: Introduction to markup and model languages	0900–1015	UML concepts & application schemas
		1015–1030	Break
		1030–1200	Markup languages (XML, GeoJSON, GML)
		1200–1300	Lunch
		1300–1430	Understanding S-100’s Use of GML as a subset of ISO 19136
		1430–1445	Break
	Module 2: S-201 Aids to Navigation information	1445–1630	S-201 structure, features and attributes, description and anatomy of S-201
		1630–1700	Discussion / group reflection
Wed 17 Feb	Module 2: S-201 Aids to Navigation information	0900–1000	Description of S-101 data set (from the mariner/user perspective)
		1000–1030	Relations between S-125 / S-201 / S-101 / S-124
		1030–1045	Break
		1045–1215	Exercise 01: Interpret S-201 dataset
		1215–1315	Lunch



	Module 3: Data production and validation	1315–1445	Exercise 02 : Compare national AtoN data with S-201
		1445–1500	Break
		1500–1630	Exercise 03: Produce S-201 dataset
		1630–1700	Group work review
Thu 18 Feb	Module 3: Data production and Validation	0900–1015	Validation concepts and tools (SIREN)
		1015–1030	Break
		1030–1130	Hands-on: Dataset production & validation
	Use Cases of S-201 implementation	1130–1230	S-201 Implementation use cases
		1230–1330	Lunch
		1330–1500	Additional implementation case studies
		1500–1515	Break
		1515–1700	Group work review
Fri 19 Feb	Module 4: Technical services	0900-1030	Technical services (SS, SD, SI) + exercise
		1030-1100	Break
	Module 5: Data validation	1100–1230	Data validation concepts
		1230-1330	Lunch
	Assessment	1330-1600	Participants' group presentations
		1600-1630	Break
	Evaluation & closing	1630-1700	Course review and feedback
		1700-1800	Closing remarks and certificates

