

ATON PRODUCT SPECIFICATIONS – S-201 DATA PRODUCTION

IALA HQ, 23RD TO 27TH FEBRUARY 2026

COURSE DESCRIPTION

This course provides a structured introduction to the principles and processes required for the production of S-201 Aids to Navigation data within the S-100 Universal Hydrographic Data Model. 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 Aids to Navigation (AtoN) Managers and technical staff responsible for managing, updating, and migrating AtoN data. It is particularly relevant for professionals working in Lighthouse or Marine Aids to Navigation 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. Knowledge and basic understanding of Markup and model languages (GML, XML,...) is recommended. The course will support them in understanding, preparing, and implementing this migration.

LECTURERS

The Seminar will be facilitated by global experts in S-100, S-200 and data product specification development.

COURSE DURATION & VENUE

The course will be held at IALA HQ between Monday 23rd February at 12h00 and Friday 27th February at 12h30.

COST

The cost of this four-day course is €1,000 and includes all lectures, Materials and lunches.

PRACTICAL INFORMATION

For practical information regarding accommodation and transportation to reach the IALA Headquarters, please refer to the following link:

<https://events.iala.int/contact-us/>

For any enquiries regarding the availability of this course, please contact the IALA World-Wide Academy at: academy@iala.int.



PROVIOSIONAL OUTLINE

| Day | Time | Activity |
|-------------------------|------------|--|
| Mon 23 Feb 2026 | 1200-1230 | Opening the course |
| | 1230-1300 | Introduction to the Maritime Service and technical services |
| | 1300-1430 | Introduction to S-100 UHDM |
| | 1430-1445 | Break |
| | 1445-1615 | Introduction to S-100 UHDM (Continuation) |
| | 1615-1700 | Introduction to S-200 |
| | 1700-1730 | Q & A and Summary discussion |
| Tue 24 Feb 2026 | 0900- 0945 | Overview of Markup & Model Languages |
| | 0945-1030 | Technical Comparison of Formats |
| | 1030-1045 | Break |
| | 1045-1130 | ISO Standard on GML, ISO 19136-1:2020 |
| | 1200-1230 | GML Grammar |
| | 1230-1330 | Lunch |
| | 1330-1445 | Reading and interpretation of S-201 features and attributes |
| | 1445-1500 | Break |
| | 1500-1600 | Description and anatomy of S-201 (Part I) |
| | 1600-1700 | Description and anatomy of S-201 (Part II) |
| | 1700-1730 | Q & A and Summary discussion |
| Wed 25 Feb 2026 | 0900- 1000 | Description of S-101 data set (from the mariner/user perspective) |
| | 1000-1100 | Relationship of S-125 / S-201 / S-101 / S-124 |
| | 1100-1115 | Break |
| | 1115-1215 | Exercise 01: Explain and interpret an S-201 data set |
| | 1215-1230 | Q & A and Summary discussion |
| | 1230-1330 | Lunch |
| | 1330-1500 | Exercise 02: Compare national data sample against S-201 |
| | 1500-1515 | Break |
| | 1515-1700 | Exercise 03: Produce S-201 data set using a simple data sample (e.g., GeoJSON) |
| Thur 26 Feb 2026 | 1700-1730 | Q & A and Summary discussion |
| | 0900- 1030 | Test and Validation tools |
| | 1030-1045 | Break |
| | 1045-1200 | Hands-on session: Produce full S-201 data set and apply validation tools |
| | 1200-1230 | Q & A and Summary discussion |
| | 1230-1330 | Lunch |
| | 1330-1500 | Use cases of S-201 implementation |
| | 1500-1515 | break |
| | 1515-1530 | Introduction to technical services |
| | 1530-1610 | Service Specification (SS)+Exercise |
| | 1610-1040 | Service Design (SD) |
| | 1640-1710 | Service Instance (SI)+Exercise |
| Fri 27 Feb 2026 | 1700-1730 | Q & A and Summary discussion |
| | 0900- 1030 | Data Validation |
| | 1030-1045 | Break |
| | 1045-1200 | Participants' presentations (assessment) |
| | 1200-1230 | Closing remarks and certificates' handover |