



# SWIM Compliance Report

## METHazardEnrouteForecast

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### **Abstract**

This report is evidence that the **Validation Exercise EXE-13.02.03 VP-700** has services that have been assessed for SWIM Compliance. It provides the SWIM Compliance Level for each of the services assessed in the Validation Exercise.

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Rational for rejection
None.

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## Executive Summary

This report is evidence that the **Validation Exercise 13.02.03 VP-700** has services that have been assessed for SWIM Compliance. It provides the SWIM Compliance Level for each of the services assessed in the Validation Exercise.

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# 1 Introduction

## 1.1 Purpose of the Document

This template report is part of the SWIM Compliance Framework, produced in the context of SWIM Compliance for Validation Exercises that want to demonstrate the SWIM Compliance level. The SWIM Compliance Criteria for R5 explain the criteria against we assess for SWIM Compliance. This template provides the evidence to satisfy the Compliance Criteria. The steps in completing the template report are the following:

1. The SWIM Compliance Applicant<sup>1</sup> person responsible for the Validation Exercise, with assistance from WP 8 and WP 14 experts, produces the SWIM Compliance Report i.e. using this template.
2. The report is then handed over to the SWIM Compliance Acceptance Team, who performs the assessment and completes this template report into the final SWIM Compliance Assessment Report, including a **SWIM Compliance Level**.

This report is meant to contain all evidences that show the SWIM compliance for the Service Technical Design Description (STDD) for a service.

## 1.2 Intended Readership

- WP8 / WP 14
- WP 3
- Persons participating in the R5 Validation Exercise (e.g. Owners of the Validation Exercise)
- System Projects
- SWIM Compliance Acceptance Team

## 1.3 Acronyms and Terminology

Term	Definition
<b>Capability</b>	The collective <b>ability to deliver a specified type of effect or a specified course of action</b> . Within the context of the SESAR Programme a capability is therefore the ability to support the delivery of a specific operational concept to an agreed level of performance. <b>Source: Common working meeting between B41 EA study and B43 T5. In bold, the NATO Architecture Framework V3 definition</b>
<b>Governance</b>	Ability of decision-makers to set policies regarding stakeholders, services, and their relationships
<b>Information Exchange</b>	A specification of the information that is to be exchanged. An Information Exchange must have a unique identifier. Source: NATO Architecture Framework V3 definition.
<b>Information Exchange Requirement</b>	An Information Exchange Requirement (IER) is the description, in terms of characteristics, of the requirement to transfer information between two or more end users. The characteristics described include source, recipients, content, size, timeliness, security and trigger. IERs are defined as independent of the communications medium. An IER may express both current and future requirements.  Note: an information element is the descriptor of the content in the IER.

<sup>1</sup> For definition and example of SWIM Compliance Applicant, see SWIM Compliance Criteria document.



Term	Definition
	Source: (British) Ministry of Defence, Information Exchange Requirements.
<b>Infrastructure profile</b>	A set of features characterising the enabling infrastructure, including the QoS and security that the infrastructure provides, technical constraints, user behaviour patterns and characteristics.  Profiles relate to legacy and/or new infrastructures such as the SWIM technical infrastructure. Source: B43 T5 study
<b>Means of compliance</b>	Means to demonstrate that an 'Object under Assessment' conforms to a rule (such rule being as e.g., a specification, policy, standard or law)
<b>Node</b>	<b>A logical entity that performs Operational Activities specified independently of any physical implementation</b> , e.g. a stakeholder type providing and/or consuming operational information within a network of other stakeholders. Source: Common working meeting between B41 EA study and B43 T5. In bold, the NATO Architecture Framework V3 Definition.
<b>Object under Assessment</b>	Item (i.e., specifications, mechanisms, activities, individuals) upon which an assessment method is applied during an assessment. In this document, the Object under Assessment (OuA) is the Service Technical Design Description for a service.
<b>Operational Focus Area</b>	A limited set of dependent operational and technical improvements related to an Operational Sub-Package, comprising specific interrelated OIs designed to meet specific performance expectations of the ATM Performance Partnership. Source: ATM Lexicon
<b>Policy</b>	Principle or rule with a view to guiding decisions and achieving one or more rational outcomes
<b>Registry</b>	The SWIM registry is a trusted, managed, complete and consolidated source of reference for service information and related regulations (policies, standards, certifications and taxonomies). It holds all SWIM metadata regarding:  - stakeholders,  - service definitions (ISRM),  - service instances,  and the links between them.  Source: Registry ConOps
<b>Service</b>	The contractual provision of something (a non-physical object), by one party, for the use of one or more other parties. Services involve interactions between providers and consumers, which may be performed in a digital form (data exchanges) or through voice communication or written processes and procedures. Source: ATM Lexicon
<b>Service definition</b>	The specification of a service as it appears in the Service Description Document and Service Interface Definition. The Service Description Document consists of a mix of textual information and graphics (expressed in a UML notation). The Service Interface Definition consists of machine-interpretable constructs specified according to the selected technical platform, including the necessary technology bindings, e.g. complete

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Term	Definition
	WSDL (and XSD), IDL, AMQP, DDS, etc. Source: B4.3 Working Method on Services.
<b>Service interface</b>	The mechanism by which a service communicates.  Service providers and consumers need to implement service interfaces in order to be able to collaborate. A service interface includes service operations that enable access to the functionality of the services identified, as well as the data used in the service interaction. Source: B43 T5 study.
<b>Service instance</b>	Service which has been implemented in accordance with its specification in the service catalogue (during the SESAR Development Phase, the service definitions are available in the ISRM) by a service provider (by itself or contracted to a third party). Source: SWIM ConOps
<b>Service level</b>	A value specification for one or more service attributes indicating the level to which a technical system (or resource if including non-automated services) delivers a service in a particular environment. Example: A "Service Response time" may be defined in relation to a service. A given technical system could have a corresponding Service Level, e.g. "Less than 3 seconds". Source: B43 T5 study.
<b>Service consumer</b>	Stakeholder which consumes service(s) provided by other stakeholder(s)
<b>Service lifecycle</b>	The lifecycle defines the sequence of phases followed by a service.
<b>Service Payload definition</b>	The data/information exchange model represented in UML contained in the Service Description Document.
<b>Service provider</b>	Stakeholder which provides service(s) that can be consumed by other stakeholder(s)
<b>SWIM</b>	System-wide information management. SWIM consists of standards, infrastructure and governance enabling the management of ATM information and its exchange between qualified parties via interoperable services. Source: SWIM ConOps.
<b>SWIM Common Component</b>	A SWIM infrastructure element managed by the 'SWIM authority' and implementing a shared capability, e.g. registry, PKI, etc. Source: SWIM ConOps.
<b>SWIM Compliance Acceptance Team</b>	The group of experts who perform the SWIM Compliance Assessment and provide the final SWIM Compliance Level.
<b>SWIM Infrastructure</b>	The sum of all the SWIM infrastructure elements which are needed to support SWIM services. Source: B43 T5 study.
<b>SWIM Profile</b>	A SWIM profile is a coherent, appropriately sized grouping of middleware functions/services for a given set of technical constraints/requirements which permit a set of stakeholders to share information
<b>Service Technical Design Description</b>	A set of one or more published documents that express meta information about a service. The fundamental part of a service contract consists of the service description documents that express its technical interface. These form the Service Technical Design Description (STDD) which essentially establishes an API into the functionality offered by the service.

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Term	Definition
	<p>The service interface definition in the STDD is mainly given as a machine-readable format usually provided in a standard definition language such as IDL, WSDL or others. The STDD also describes such aspects as the message exchange pattern between provider and consumer, plus the chosen SWIM profile and requirements (bindings) on the technical infrastructure.</p> <p>A STDD can further reference human-readable documents, such as Service Level Agreement (SLA) that describes additional quality-of-service features, behaviours and limitations.</p>

## 1.4 Acronyms and Terminology

Term	Definition
<b>AIRM</b>	ATM Information Reference Model.
<b>ADQ</b>	Aeronautical Data Quality
<b>ATM</b>	Air Traffic Management
<b>CLDM</b>	Consolidated Logical Data Model
<b>ConOps</b>	Concept of operations
<b>DDS</b>	Data Distribution Service
<b>DOD</b>	Detailed Operational Description
<b>EA</b>	Enterprise Architecture
<b>EAEA</b>	European ATM Enterprise Architecture
<b>EASA</b>	European Aviation Safety Agency
<b>EC</b>	European Commission
<b>EU</b>	European Union
<b>ESB</b>	Enterprise Service Bus
<b>EUROCAE</b>	European Organization for Civil Aviation Equipment
<b>IBP</b>	Industry Based Prototype
<b>ICAO</b>	International Civil Aviation Organisation
<b>ICD</b>	Interface Control Document
<b>IER</b>	Information Exchange Requirements
<b>INTEROP</b>	Interoperability Requirements
<b>IRS</b>	Interface Requirements Specification

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Term	Definition
ISO	International Organisation for Standardisation
ISRM	Information Services Reference Model
IT	Information Technology
ITIL	IT Infrastructure Library (ITIL® provides a Best Practice guidance framework for IT Service Management)
MET	Meteorology
NAF	NATO Architecture Framework
OFA	Operational Focus Area
OI	Operational Improvement
OPS	Operational
OSED	Operational Service and Environment Definition
OuA	Object under Assessment
PKI	Public Key Infrastructure
QoS	Quality of Service
RPC	Remote Procedure Call
RTCA	Radio Technical Commission for Aeronautics
SACG	SWIM Architect Co-ordination Group
SCG	Service Coordination Group
SCL	SWIM Compliance Level
SDD	Service Description Document
SES	Single European Sky
SESAR	Single European Sky ATM Research Programme
SESAR Programme	The programme which defines the research and development activities and projects for the SJU
SID	Service Identification Document
SIR	Service Identification Report
SJU	SESAR Joint Undertaking (Agency of the European Commission)
SJU Work Programme	The programme which addresses all activities of the SESAR Joint

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Term	Definition
	Undertaking Agency.
<b>SLA</b>	Service Level Agreement
<b>SOA</b>	Service Oriented Approach
<b>SOAP</b>	Simple Object Access Protocol
<b>SoaML</b>	Service Oriented Architecture Modelling Language
<b>SVA</b>	Service Activity
<b>SWIM</b>	System Wide Information Management
<b>SWIM TI</b>	SWIM Technical Infrastructure
<b>SYS</b>	System Projects
<b>TAD</b>	Technical Architecture Description
<b>TS</b>	Technical Specification
<b>STDD</b>	Service Technical Design Description
<b>UDDI</b>	Universal Description, Discovery and Integration
<b>UML</b>	Unified Modelling Language
<b>URN</b>	Uniform Resource Name
<b>WP</b>	Work Package
<b>WSDL</b>	Web Services Description Language
<b>XSD</b>	XML Schema Definition

## 2 SWIM Compliance Report Summary

This section summarises the main information about the compliance assessment.

<b>STDD Name and Version</b>	<i>European ATM Description for the METHazardEnrouteForecast Service Edition 01.00</i>
<b>Services assessed for SWIM Compliance</b>	<i>METHazardEnrouteForecast</i>
<b>Version of the AIRM</b>	<i>3.3.0</i>
<b>Version of the ISRM</b>	<i>1.4</i>
<b>Version of the TI</b>	<i>3.0</i>
<b>Version of SWIM Compliance Framework applied</b>	<i>SWIM Compliance Framework Criteria D48 edition 00.02.11</i>
<b>Reason for the Assessment</b>	Demonstrate the SWIM Compliance for services in Validation Exercises VP-700
<b>Responsible for service requirements</b>	████████████████████
<b>SWIM Support</b>	
<b>Name of the SWIM Acceptance Team</b>	<i>AIRM:</i> ████████████████████ <i>ISRM:</i> ████████████████████ <i>TI:</i> ████████████████████
<b>SWIM Compliance Level per service and compliance domain</b>	<i>METHazardEnrouteForecast AIRM Compliant, ISRM Compliant<sup>2</sup>, TI Binding Yellow Profile Compatible</i>

### Notes:

1. Italics need to be verified and updated, text in Blue will be filled in by the SWIM Acceptance Team
2. The SWIM Acceptance Team, following the final assessment, could change the SWIM Compliance levels.

<sup>2</sup> The Information Service assessment is dependent on the Change Request raised to ISRM CCB to include the Synchronous Request/Reply MEP to the Service

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### 3 Details of the Compliance Assessment

This section expands of the summary contained in section 2. It covers the main information about the compliance assessment in the three areas (Technical Infrastructure (TI), Information Exchange Services (ISRM), Information (AIRM)) and provides additional details where needed. This section has to be filled in by the SWIM Compliance Applicant, together with the SWIM Support team (WP 8 and WP 14 experts). The SWIM Acceptance Team will assess the information below and provide the final SWIM Compliance Level.

The detailed criteria are available in the SWIM Compliance Framework for R5 V&V exercises [21].

#### 3.1 Description of the services

*This section shall contain:*

- *The name (and version) of the services being assessed as per the STDD;*
- *A brief description of the service. Information from the Service Portfolio can be referenced or copied.*

Service Name	Description
<b>METHazardEnrouteForecast Version 01.00</b>	<p>The METHazardEnrouteForecast service defines an information service for exchanging Forecasts and Nowcasts of significant weather phenomena. The service is realised in the publish/subscribe message exchange pattern and to this end defines subscribe, unsubscribe and publish operations. The subscription mechanism additionally allows for fine-grained filtering.</p> <p><i>It provides three operations:</i></p> <p><b><i>subscribeToForecast</i></b></p> <p><b><i>unsubscribeFromForecast</i></b></p> <p><b><i>publishForecast</i></b></p>

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## 3.2 Contacts

The following list contains the contacts for the SWIM Services that are assessed for SWIM Compliance. The information is needed to be able to contact the right person in the case that more evidence or clarifications are required.

Service Name	Contacts
METHazardEnrouteForecast	<p data-bbox="837 434 1347 495"><i>Aeronautical Information Reference Model (AIRM) Contacts:</i></p> <div data-bbox="837 510 1232 584" style="background-color: black; width: 100%; height: 100%;"></div> <p data-bbox="837 633 1294 694"><i>Information Exchange Service (ISRM) Contacts:</i></p> <div data-bbox="837 710 1232 784" style="background-color: black; width: 100%; height: 100%;"></div> <p data-bbox="837 833 986 864"><i>TI Contacts:</i></p> <div data-bbox="837 880 1391 965" style="background-color: black; width: 100%; height: 100%;"></div>

## 3.3 Information Service Compliance

### 3.3.1 General Evidence

The purpose of checking the Information Exchange Service Compliance is to ensure that the OuA (i.e. the STDD describing the realisation of the service within the used technology context) meets the description of the logical service in the SDD.

You must fill in the table below to indicate the relevant Logical Service together with its version and origin. If the logical service is not part of the ISRM provide this fact in the right column.

Service Name	Logical Service Name	Logical Service Origin and Version Number
METHazardEnrouteForecast	METHazardEnrouteForecast	SDD Version 1.00 <a href="https://extranet.sesarju.eu/WP_08/Project_08.03.10/Project%20Plan/ISRM%201.4/DEL_08.03.10_D64_European_ATM_Service_Description_for_METHazardEnrouteForecast_Service.doc">https://extranet.sesarju.eu/WP_08/Project_08.03.10/Project%20Plan/ISRM%201.4/DEL_08.03.10_D64_European_ATM_Service_Description_for_METHazardEnrouteForecast_Service.doc</a>

### 3.3.2 Evidence for Information Service Compliance

For each of the services assessed, the evidence for the Information Exchange Service compliance as required by the SWIM Compliance Framework Criteria Document [21].

The relevant mappings can be given as tables in the sections below or referenced from external documents.

#### 3.3.2.1 Operations mapping (IS-1)

Provide a mapping that shows which operation(s) in your STDD implements which operation given in the SDD in order to assess condition IS-1 in the Information Service Criteria Document. All SDD operations need to be mapped. In case of uncertainty or deviations, please provide textual justification.

Operation name per STDD	Operation name per SDD
subscribeToForecast	subscribeToForecast
unsubscribeFromForecast	unsubscribeFromForecast
publishForecast	publishForecast

#### 3.3.2.2 Payload mapping (IS-2)

Provide a mapping that shows which payload element in your STDD is semantically equivalent to which attribute given in the SDD in order to assess condition IS-2 in the Information Service Criteria Document. All SDD attributes need to be mapped. In case of uncertainty or deviations, please provide textual justification.

Due to the implementation of the Service using Request/Reply MEP the mapping should be understood as logical.

SDD Entity	Physical Description Document Element
METHazardEnrouteForecastPublication	GetFeature Reply

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METHazardEnrouteForecastSubscription	GetFeature
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### 3.3.2.3 MEP mapping (IS-3)

Provide Information on which technical Message Exchange Pattern will be used in your implementation in order to assess condition IS-3 in the Information Service Criteria Document. If you deviate from the mapping given in Appendix B of [21] please provide a textual justification.

SDD				STDD
Service	Operation	MEP	Proposed SWIM-TI Profile	
<b><u>METHazardEnrouteForecast</u></b>	subscribeToForecast	Publish/Subscribe Push	Yellow Profile v3.00	SRR-MEP
	unsubscribeFromForecast			
	publishForecast			

The MEP used in the STDD doesn't match the one defined in the SDD. A Change Request to the ISRM CCB has been petitioned to include the Synchronous Request/Reply MEP in the definition of the METHazardEnrouteObservation Service. In accordance with the SWIM Compliance Framework, IS-3 condition is considered satisfied until a final decision is taken by ISRM CCB.

### 3.3.2.4 Service in ISRM (IS-4)

IS-4: "The referenced logical service is part of the ISRM."

The METHazardEnrouteForecast Service is part of ISRM 1.4.

### 3.3.2.5 NFR mapping (IS-5)

IS-5: "For all the interfaces involved in the mapping as per IS-1, all NFRs required by the SDD are mapped to either NFRs in the STDD or fulfilled by design decisions."

No specific requirements set. Yellow profile applied.

## 3.3.3 Assessment Result - Information Service Compliance Level

Please, fill in the table with the Information Service Compliance level achieved for each of the services based on the evidence collected above and on the conditions stated in the Compliance Framework Criteria Document section on "Information Service Compliance".

Service Name	Information Service Compliance Level- Claimed	Information Service Compliance Level- approved	Remarks (optional)
	To be filled in by the SWIM Compliance Applicant	To be filled in by the SWIM Acceptance Team	To be filled in by the SWIM Acceptance Team

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<p><b><u>METHazardEnrouteForecast</u></b></p>	<p>Statement on the level of compliance claimed by the Compliance Applicant:</p> <p><b>Information Service Compliant</b></p>	<p>The evidence provided supports the <b>Information Service Compliant</b> level of Compliance.</p>	<p>The MEP used doesn't match the MEP required by the SDD. Assessment of Compliance is based on the Change Request to ISRM to include the SRR MEP to the Service.</p>
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## 3.4 Information Compliance

### 3.4.1 Evidence for Information Compliance – General Case

The purpose of checking the Information/AIRM compliance is to demonstrate that all elements in OuA (i.e. one service's physical message(s)) have a semantic correspondence with elements in the AIRM in accordance to AIRM Compliance Rulebook [23]. The templates and examples provided in example formats in the AIRM Compliance Handbook [23] could be used but are not mandatory.

The information provided in the Table 1 is mandatory to be provided for all targeted levels of compliance.

Table 1. General information (one table per service)

Service Name	<b><u>METHazardEnrouteForecast</u></b>
AIRM version	3.3.0
Reference to AIRM	A reference to the AIRM foundation and model artefacts constituting named AIRM version.
Reference to OuA (Physical Messages)	METHazardEnrouteFilter, Airspace, METHazardEnrouteForecastSubscriber, WeatherCondition, WeatherPhenomenon, MovementDescription

For each of the services assessed, provide here the evidence for semantic correspondence of the physical messages to AIRM reaching one of the following three levels according to the AIRM Compliance Rulebook:

- If you aim at level "Information Ready" then provide evidence for Level 1 AIRM compliance. As a rule of thumb this implies providing a mapping between all OuA information entities to corresponding AIRM elements;
- If you aim at level "Information Compatible" then provide evidence for Level 2 AIRM compliance. As a rule of thumb this implies providing a mapping between all OuA entities and property to corresponding AIRM elements;
- If you aim at level "Information Compliant" then provide evidence for Level 3 AIRM compliance. As a rule of thumb this implies providing a mapping between each OuA entity, property, datatype and business rule constraint to corresponding AIRM element(s): entities, properties, datatypes and constraints.

According to the Handbook, the mapping could be given in one of the following formats:

- in UML as a set of <<SemanticTrace>> relationships mapping OuA::ModelElements to AIRM::ModelElements (as a Sparx EA or an XMI file embedded in the report, or linked via a reference to the Extranet), if the service message is represented in UML;
- as a table showing the correspondence between service physical message element names and AIRM element names, including the AIRM elements' URNs. This applies e.g. for messages expressed as XSD schemas.

Table 2. Evidence for semantic correspondence with AIRM (one table per service)

Evidence for AIRM Compliance	<ul style="list-style-type: none"> <li>• METHazardEnrouteForecastSubscriber : CLDM_out_of_scope (1)<sup>3</sup></li> <li>• METHazardEnrouteFilter : CLDM_out_of_scope (1)</li> <li>• Airspace             <ul style="list-style-type: none"> <li>○ Designator                 <ul style="list-style-type: none"> <li>▪ CLDMSemanticTrace : urn:x-</li> </ul> </li> </ul> </li> </ul>
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	<p>ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:AirspaceInfrastructure:Airspace:Airspace@designator</p> <ul style="list-style-type: none"><li>• METHazardEnrouteForecastPublisher : CLDM_out_of_scope (1)</li><li>• WeatherCondition :<ul style="list-style-type: none"><li>○ confidence<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherCondition@confidence</li></ul></li></ul></li><li>• WeatherPhenomenon :<ul style="list-style-type: none"><li>○ Extent<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:WeatherPhenomenon@extent</li></ul></li><li>○ Intensity<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:WeatherPhenomenon@intensity</li></ul></li></ul></li><li>• MovementDescription<ul style="list-style-type: none"><li>○ directionTowards<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:MovementDescription@directionTowards</li></ul></li><li>○ isStationary<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:MovementDescription@isStationary</li></ul></li><li>○ speed<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:MovementDescription@speed</li></ul></li></ul></li><li>• VerticallyBoundedPhenomenon<ul style="list-style-type: none"><li>○ Base<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:VerticallyBoundedPhenomenon@base</li></ul></li><li>○ Top<ul style="list-style-type: none"><li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:VerticallyBoundedPhenomenon@top</li></ul></li></ul></li></ul>
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	<ul style="list-style-type: none"> <li>• Convection             <ul style="list-style-type: none"> <li>○ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:GenericMeteorology:WeatherPhenomena:Convection</li> </ul> </li> <li>• Icing             <ul style="list-style-type: none"> <li>○ accretionRate                 <ul style="list-style-type: none"> <li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:AviationMeteorology:AviationWeatherPhenomena:Icing@accretionRate</li> </ul> </li> </ul> </li> <li>• Turbulence             <ul style="list-style-type: none"> <li>○ Edr                 <ul style="list-style-type: none"> <li>▪ CLDMSemanticTrace: urn:x-ses:sesarju:airm:v330:ConsolidatedLogicalDataModel:SubjectFields:Meteorology:AviationMeteorology:AviationWeatherPhenomena:Turbulence@edr</li> </ul> </li> </ul> </li> </ul>
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*Additional evidences may be provided in an annex to the report.*

### 3.4.2 Evidence for Information Compliance – reuse of existing approved compliance report

Not applicable

### 3.4.3 AIRM Change Requests

*In case there is a gap in the AIRM impeding the Semantic Correspondence, one or more AIRM CRs shall be issued accordingly and the service message attributes shall be mapped to those CRs (see [9]). The table below shall be used to record the intention to fill in those gaps in a future release of AIRM.*

Element in the Object Under Assessment	AIRM Change Request Number
N/A	N/A

### 3.4.4 Out of Scope Justifications

*If the service message contains elements which are “out of scope” of the AIRM, according to the AIRM Compliance Rulebook [9], a justification shall be provided in the table below. Otherwise mark this section as “Not Applicable”.*

Element in the Object Under Assessment	Reason why it is out of scope
CLDM_out_of_scope (1): <ul style="list-style-type: none"> <li>• METHazardEnrouteForecastSubscriber</li> <li>• METHazardEnrouteFilter</li> </ul> METHazardEnrouteForecastPublisher	These data elements are pure container. They need not be traced semantically.

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### 3.4.5 Assessment Result - Information Compliance Level

Please, fill in the table with the Information Compliance level achieved for each of the services based on the evidence collected above and on the conditions stated in the Compliance Framework Criteria Document section on "Information Compliance".

Service Name	Information Compliance Level - Claimed <i>To be filled in by the SWIM Compliance Applicant</i>	Information Compliance Level- Approved <i>To be filled in by the SWIM Acceptance Team</i>	Remarks (optional) <i>To be filled in by the SWIM Acceptance Team</i>
METHazardEnrouteForecast	Statement on the level of compliance claimed by the Compliance Applicant: <b>Information Compliant</b>	The evidence provided supports the <b>Information Compliant</b> level of Compliance	N/A.

**Note:** The AIRM is available: **Error! Reference source not found..**

## 3.5 Compliance with SWIM-TI TS

### 3.5.1 Evidence for TI Compliance

The purpose of checking the SWIM TI compliance is to ensure that the services are instantiated on a given SWIM-TI Profile. This section shall contain the assessment level against the TI for of each of the services.

You (the Applicant) must fill in the table below per each service.

Table 3. Evidence for TI Compliance (one table per service)

Field name	Reference to TI criteria condition	Evidence
Service Name	(N/A)	METHazardEnrouteForecast
SWIM Profile	(N/A)	Yellow
SWIM TI Profiles Version	TI-1	3.0
MEP <sup>4</sup>	TI-2	SRR-MEP
	TI-5	The Interface Binding REQ-14.01.04-TS-0901.0302 has the MEP SRR-MEP which matches the MEP chosen in the STDD.
Technology	TI-3	Web service protocol stack HTTPS GET/POST/PUTDELETE/HEAD over TCP.
Interface Binding	TI-4	REQ-14.01.04-TS-0901.0302
Link to the service interface	TI-6	<a href="https://extranet.sesarju.eu/WP_11M/Project_11.02.02/Project%20Plan/M-ET-GATE%20WebService%20Description%20-%201.1.pdf">https://extranet.sesarju.eu/WP_11M/Project_11.02.02/Project%20Plan/M-ET-GATE%20WebService%20Description%20-%201.1.pdf</a> <a href="http://docs.opengeospatial.org/is/09-025r2/09-025r2.html">http://docs.opengeospatial.org/is/09-025r2/09-025r2.html</a>
Requirements coverage	TI-7	Not provided

### 3.5.2 Assessment Result – TI Compliance Level

Please, fill in the table with the TI Compliance level achieved for each of the services based on the evidence collected above and on the conditions stated in the Compliance Framework Criteria Document section on “Technical Infrastructure Compliance”.

Service Name	TI Compliance Level - Claimed	TI Compliance Level- approved	Remarks (optional)
	To be filled in by the SWIM	To be filled in by the	To be filled in by the SWIM

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	<i>Compliance Applicant</i>	<i>SWIM Acceptance Team</i>	<i>Acceptance Team</i>
<i>METHazardEnrouteForecast</i>	Statement on the level of compliance claimed by the Compliance Applicant:  <b><i>TI Binding Yellow Profile Compatible</i></b>	The evidence provided supports the <b>TI Binding Yellow Profile Compatible</b> level of Compliance.	Interface Bindings requirements coverage not provided, consider providing evidence to achieve Yellow Profile 3.0 Compliant level.

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## 3.6 Post-conditions for SWIM Compliance

### 3.6.1 Post-condition on payload compliance

*Compliance criteria described in sections 3.3 and 3.4 require that the OuA payload has documented mappings to the SDD and to the AIRM respectively. In this section you must provide documentation, how these two mappings can be checked for coherence.*

*For this purpose describe here how the mappings of the payload in sections 3.3 and 3.4 can be compared. It is advisable to make use of identical techniques documenting the two mappings enabling to combine them in a common view. This allows you (the Applicant) to check the coherence upfront and the SWIM Acceptance to complete their work without further enquiries.*

*If the process for information service and information compliance (thread 1) has been followed as indicated in the the Appendix on the process of the criteria document, then simply declare that the post-condition should already be met.*

*If errors are spotted in the SDD-AIRM mappings, then raise a CR to the SDD via ISRM CCB and write here the CR codename issued.*

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## 4 Feedback from SWIM Compliance Acceptance Team

### 4.1 Service assessment: conclusions and way forward

*This section is filled in by the SWIM Acceptance Team. The Acceptance Team recaps here the overall feedback on the evidence material provided in the previous sections and make recommendations to the Applicant on the way forward for achieving the claimed level of SWIM Compliance.*

In accordance with the SWIM Compliance Framework an exception to the application of IS-3 has been made upon the existence of a petition to ISRM CCB of a Change Request to include the implemented MEP on the service logical definition. The SWIM Compliance Report is recommended to be updated to include the concrete CR identifier once the CR is formally created.

The Service Physical Description Documents are provided only indirectly by means of an ICD. The SWIM Acceptance Team strongly recommends providing said documents explicitly, this is what is required by the SWIM Compliance Framework and simplifies significantly the evidence assessment process.

### 4.2 SWIM Compliance Criteria feedback

*This section is filled in by any actor in the Compliance Process. This section includes the possible needs for improvements of the SWIM Compliance Framework Criteria.*

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