SESAR Activity PJ.18-01a Technical Specification (TS/IRS) for V3/TRL6

Deliverable ID:	**D2.1.110**
Dissemination Level:	**PU**
Project Acronym:	**PJ18-4DTM**
Grant:	**734161**
Call:	**H2020-SESAR-2015-2**
Topic:	**SESAR.IR-VLD.Wave1-09-2015**
Consortium Coordinator:	**INDRA**
Edition Date:	**11. October 2019**
Edition:	**02.01.00**
Template Edition:	**02.00.02**

Founding Members

EUROPEAN UNION EUROCONTROL

SESAR JOINT UNDERTAKING

Authoring & Approval

Authors of the document

Name/Beneficiary	Position/Title	Date
REUBER, Edgar / EUROCONTROL	PJ.18-01a, Activity Lead	16/08/2019
KARAARSLAN, Mehtap / EUROCONTROL	Network Technical Expert	16/08/2019
OLBES-CARRERA, Angel / INDRA	Solution Contributor	16/08/2019
PLEVKA, Jan B4 / ANS CR	Solution Contributor	16/08/2019
KUPSCH, Norbert / AIRBUS DS	Solution Contributor	16/08/2019

Reviewers internal to the project

Name/Beneficiary	Position/Title	Date
REUBER, Edgar / EUROCONTROL	PJ.18-01a Activity Lead	29/08/2019
BLOCHING, Oliver / Airbus DS	Solution Contributor	29/08/2019
EBENHOCH, Michael / Airbus DS	Solution Contributor	29/08/2019
HERMANN, Klaus Dieter / Airbus DS	Solution Lead PJ.07-03	29/08/2019
SCHINDLER, Dirk / Airbus DS	Solution Contributor	29/08/2019
HLOUSEK, Petr B4 / ANS CR	Solution Contributor	29/08/2019
PLEVKA, Jan B4 / ANS CR	Solution Contributor	29/08/2019
OLBES-CARRERA, Angel / INDRA	Solution Contributor	29/08/2019
FOTAS, Octavian / EUROCONTROL	Safety Manager	03/09/2019
MANSO – TORRES, Hugo / EUROCONTROL	Safety Manager	03/09/2019

Approved for submission to the SJU By – Representatives of beneficiaries involved in the project

Name/Beneficiary	Position/Title	Date
LE PLAE, Philippe / EUROCONTROL	EUROCONTROL PJ 18 coordinator	10/10/2019
HERMANN, Klaus Dieter / Airbus DS	Solution Lead PJ.07-03	10/10/2019
SALINAS SANZ, Hugo / INDRA	Solution Contributor	10/10/2019
HLOUSEK , Petr B4 / ANS CR	Solution Contributor	10/10/2019
ALONSO, Julian / INDRA	Project lead PJ 18	10/10/2019

Rejected By – Representatives of beneficiaries involved in the project

Name/Beneficiary	Position/Title	Date

Document History

Edition	Date	Status	Author	Justification
02.00.01	01.07.2018	Draft	E. Reuber	New Document V3
02.00.02	29.03.2019	Draft	E. Reuber	1st iteration after V3 operational requirements
02.00.03	08.04.2019	Draft	E. Reuber	Delivery to SJU
02.00.04	28.06.2019	Draft	E. Reuber	2nd iteration after V3 operational requirements
02.00.05	30.07.2019	Draft	E. Reuber	3rd iteration after modelling of NSV
02.00.06	29.08.2019	Final	E. Reuber	4th iteration after internal review for submission to external review
02.01.00	11.10.2019	Final	E. Reuber	Delivery to SJU

PJ18-4DTM

PJ18 4D TRAJECTORY MANAGEMENT

This Technical Specification (TS/IRS) is part of a project that has received funding from the SESAR Joint Undertaking under grant agreement No 734161 under European Union's Horizon 2020 research and innovation programme.

Abstract

Military Airspace Users will provide information for Operational Air Traffic (OAT) flights via the improved OAT Flight Plan format, the iOAT Flight Plan or iOAT FPL. The iOAT FPL will be submitted to the Network Manager (NM), validated and distributed by NM to all respective partners, including the Air Traffic Control Centers (ACCs). The goal of this activity development is to evaluate the feasibility of submitting the iOAT FPL format to NM via Business to Business (B2B) web service interfaces. The aim is to validate the iOAT FPLs data processing via NM Integrated Flight Plan Processing System (IFPS) system, Enhanced Traffic Flow Management (ETFMS), integrating Area Reservations (ARES) information and enabling the distribution to the identified ACCs, including via legacy services using Online Data Interfaces (OLDI) message format as a backup solution. The iOAT FPL represents the initial Mission Trajectory (iMT) and will be used as the initial description of the MT to transition from Time Based Operations into Trajectory Based Operations (TBO) enabling the MT development at a later R&D effort.

This TS/IRS supports solution **PJ.07-03 "Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)"**, which captures those elements that were validated to V3/TRL6 in the context of the validation of the wider "Mission Trajectory Driven Processes":

- The management of mission trajectory (MT) with variable profile areas (VPA) type of airspace reservations (ARES) as shared via iOAT FPL in the planning phase.
- The ARES conceptual evolution allowing more precise identification of ARES Entry and Exit location and time, to support the increased quality of the trajectory prediction in the corresponding wing operations centre (WOC), network manager (NM) and ATC systems. This includes the evolutions of the VPA module reference as integral part of the evolved iOAT FPL syntax & concept.
- The B2B services for iOAT FPL filing from WOC to NM as well as for the iOAT FPL distribution from NM to ATC. B2B services were as well successfully validated to connect Regional ATFCM (NM) and local ATC FMP systems.

Table of Contents

List of Tables

List of Figures

1 Executive summary

The iOAT FPL creates a view on the Mission Trajectory (MT) from planning to execution and is based on the existing ICAO 2012 Flight Plan format. It will be delivered via the civil and military communication systems up to and including the day of the operations, initiated by the Wing Operations Centre (WOC) function. The systems and communications available at the regional network level for managing and disseminating the GAT flight plans, the IFPS, will be used. WOC is the primary source of State Airspace Users iOAT FPLs. IFPS in the Integrated Flight Plan Processing Zone (IFPZ) is the target system to integrate the iOAT FPL in accordance with the syntax and semantics conformity afforded for submission and dissemination.

For military air operations the 'Flight Plan' will constitute the description of the "initial Mission Trajectory" (iMT) and once delivered it will become an initial Shared Mission Trajectory (iSMT). It would then be continuously updated with more accurate and actual data through tactical development as the mission phases progress from mid to short term planning. Once maturity is reached and close to execution, the iOAT FPL will be delivered and characterises the first instantiation of the initial Reference Mission Trajectory (iRMT).

The iOAT FPL aims to include and share ARES information, where required, and military activity intentions with the Network Manager and the relevant partners including the Air Traffic Control (ATC) systems of the ACCs involved. The iOAT FPL uses the available data for ARES (the result of the ASM process) which is shared with the Network Manager via the Airspace Management (ASM) Process. That data is required to be aligned with the common format being used in the IFPS system.

The aim is to describe the system upgrades and interfaces between NM systems and the ATC system using System Wide Information Services (SWIM) B2B communication to complement the existing iOAT flight plan submission and distribution services to support the validation of the iOAT FPL concept up to V3 as part of the overall validation activity.

The purpose of this document is to provide a consolidated set of technical requirements including Interface Requirements enabling the sharing of an iOAT FPL for the State Airspace Users. In accordance with the contract, the scope of the requirements will cover the processing of an iOAT FPL sent from a WOC function via NM to an ATC system. The technical requirements will be summarised in a common data base (for SESAR 2020 WAVE 1 it is SE DMF), where its artefacts will be linked to the corresponding EATMA elements. The iOAT FPL technical architecture will be described by capability configurations, functional blocks, the related functions and the corresponding resource interactions in EATMA.

The requirements have been derived from and are built to support the implementation of systems ensuring the implementation and use of the operational requirements for the iOAT FPL documented in the PJ.07-03 SPR-INTEROP/OSED [38]document. This document is based on dataset 20 draft [39].

This TS/IRS supports solution **PJ.07-03 "Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)"**, which captures those elements that were validated to V3/TRL6 in the context of the validation of the wider "Mission Trajectory Driven Processes":

- The management of mission trajectory (MT) with variable profile areas (VPA) type of airspace reservations (ARES) as shared via iOAT FPL in the planning phase.
- The ARES conceptual evolution allowing more precise identification of ARES Entry and Exit location and time, to support the increased quality of the trajectory prediction in the

corresponding wing operations centre (WOC), network manager (NM) and ATC systems. This includes the evolutions of the VPA module reference as integral part of the evolved iOAT FPL syntax & concept.

- The B2B services for iOAT FPL filing from WOC to NM as well as for the iOAT FPL distribution from NM to ATC. B2B services were as well successfully validated to connect Regional ATFCM (NM) and local ATC FMP systems.

2 Introduction

This TS represents the continuation of iOAT FPL related activities and enablers developed in SESAR 1 encompassing the projects 07.06.02 and 11.1 and their verification and validation achievements as represented in the corresponding validation reports, as well as the TS V2 developed by solution 18-01 in SESAR 2020.

The TS will detail the requirements for the submission / distribution of the iOAT FPL addressing its further dissemination from NM to the respective ATC systems. These subsequent changes will have an influence on the existing SESAR 1 and SESAR 2020 (V2) architecture, requiring change or update also being described in the TS to update the existing technical architecture.

This TS is addressing V3 for the planning phase of the iOAT FPL.

2.1 Purpose of the document

This technical specification contains requirements in V3 for the planning phase (captured in solution PJ.07-03) and in addition V2 requirements for further V3 Validation exercises for NM, the WOC functions and ATC systems involved for the execution phase, enabling the operational requirements developed in the scope of the overall mission trajectory driven processes.

These Specifications shall be used to ensure consistency between existing (out of SESAR 1 and SESAR 2020 (V2)) and the herein newly developed requirements as well as for validation / verification of the related prototypes for the NM system, the WOC system and the ATC system. Additionally it shall be used by CR ANSP, member of the B4 consortium to ensure consistency with their own specifications and for verification of the ATC prototype to enable reception, evaluating and further dissemination of iOAT FPL data.

This document provides the requirements specification, covering functional, non-functional and interface requirements related to SESAR Activity PJ.18-01a within solution PJ.07-03.

2.2 Scope

The iOAT FPL technical solution is part of the mission trajectory management concept. It provides the technical means to enable military airspace user addressing military specific requirements via an ICAO conform template that is compatible to the IFPS system covering the planning phase. This solution provides at the same time the transition from today's operation into the trajectory based operations environment.

The V3 validation in planning phase covers the full submission and distribution of the iOAT FPL from the WOC via NM (IFPS only) into the ATC system and local / subregional ATFCM system.

This TS/IRS covers functional, non-functional and interface requirements related to SESAR Solution PJ.07-03 and its related enabling Activity PJ.18-01a.

2.3 Intended readership

Following the list of interested stakeholders below you find related partners that should be aware of subsequent changes of the technical architecture as to a potential influence on their field of work. The iOAT FPL will imply changes to the NM, (including also the NOP), ATC and WOC systems that are used to create, submit, disseminate, receive and process an iOAT FPL. As the iOAT FPL will also include information about ARES and thus making reference to the Airspace Management (ASM) process, all stakeholders involved should be addressed, too.

The differentiation made is between the dependencies that relate to other SESAR 2020 solutions and those who will exist with partners and their systems, anticipating the implementation of the iOAT FPL.

SESAR 2020 Projects:

- PJ.06
- PJ.07, especially PJ.07-03
- PJ.08
- PJ.09
  - 09.03
- PJ.14
- PJ.17
  - 17.03
- PJ.18
  - 18-02a
- PJ.19
- PJ.22
- PJ.31
- State Airspace User representatives:
  - National MoD
  - EUROCONTROL CMC
  - EDA
  - MEPS
- All Civil / Military ANSPs irrespective of their organisational structure.

2.4 Background

Today the (majority of) Military Airspace Users do not submit OAT Flight Plans at all. This technical specification describes the extensions needed to develop and validate an iOAT FPL submitted by the WOC system and further distributed from the NM system (IFPS) that receives processes and manages an iOAT FPL to concerned civil and military ATM and non-ATM actors inside the IFPZ, especially the ATC systems.

Consequently the integrated iOAT FPL will ensure visibility of OAT flight intentions to the network, increase predictability, improve the network impact assessments as well as the performance measurements needed to ensure a proper DCB process. The further verification / validation of the Enhanced Traffic Flow Management System (ETFMS) will be part of future SESAR activities.

In SESAR 1 the projects 11.1 and 7.6.2 were setting up the first operational and technical requirements for the iOAT FPL. These validation results were achieved as V2 (TRL4) and partially V3 (TRL 6), but related only to the WOC function (11.1) and the IFPS system of the NM. The ATC system and the ETFMS were not addressed at all. The so far achieved results are reflected in the reference documents [40] , [41], [42], [43] and [44].

The technical specification covers also new aspects that were not addressed in SESAR 1 and are not being realised in current baseline (service available but not validated and not addressing the ATC system) – interaction between NM and ATC for the iOAT FPL and interaction between WOC function and ATC in the execution phase, which are out of the scope of solution PJ.07-03 "**Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)"**. The ATC system shall allow reception of iOAT FPL information and process it further, regardless if in the short term planning phase or execution phase (incl. revisions of iRMT initiated by various actors). The ATC system shall also be enabled to share the used surveillance data with WOC function and receive WOC Trajectory revision directly. Based on that, there are several technical aspects that have to be developed and validated (as described in this document). The ETFMS system shall accept the iOAT FPL and use its data initially for the Flight List.

2.5 Structure of the document

This document will be conformal structured as foreseen by SJU SESAR 2020 TS/IRS template once reaching its final stage.

2.6 Glossary of terms

Term	Definition	Source of the definition
AIR-REPORT	A report from an aircraft in flight prepared in conformity with requirements for position, and operational and/or meteorological reporting.	ICAO Annex 3
AIM Technical System	Implements functionalities to collect, process, validate and verify, store, integrate, exchange and deliver quality-assured aeronautical data and aeronautical information (static and dynamic) as stipulated in the State obligations in ICAO Annex 15 (e.g. AIP, NOTAM).	EATMA 9.1 (DS19) (https://www.eatmportal.eu /working/rnd/technical-systems-overview)
ARES Occupancy Duration	The duration in time that an aircraft stays in an ARES as indicated in the STAY indicator in	07 06 02 – D48 – Technical Specifications

Term	Definition	Source of the definition
	the iOAT FPL for a specific mission. Please see	
ARES Occupancy Period	The period that the aircraft stays in an ARES. It is calculated as the sum of Estimated Elapsed Time to the ARES (EET/ARESx in the iOAT FPL) and the STAY duration in the ARES. Please see	07 06 02 – D48 – Technical Specifications
ASM Technical System	Implements the airspace design and management functions.	EATMA 9.1 (DS19) (https://www.eatmportal.eu /working/rnd/technical-systems-overview)
ATFCM Technical System	Supports the regional, sub-regional and local Air Traffic Flow and Capacity Management functions.	EATMA 9.1 (DS19) (https://www.eatmportal.eu /working/rnd/technical-systems-overview)
En-Route / Approach ATC Technical System	Gathers the ground based automated means, used in En-Route and Approach ATC Centres, to support the air traffic controllers in the provision of the following main Air Traffic Services: · Update and distribution of flight plan data, potentially correlated with track data built from surveillance sources (mode 3/A code or 24 bit ICAO address - Aircraft Identification (Mode S or ADS-B), when available) · Distribution of warnings and alerts upon detection of danger areas / separation criteria infringement, or on non-conformance between aircraft behaviour and corresponding flight plan data, · Medium-term and tactical conflicts detection, conflicts resolution assistance and local	EATMA V13.0 Draft (DS19) (https://www.eatmportal.eu /working/rnd/technical-systems-overview)

Term	Definition	Source of the definition
	traffic complexity assessment · Sequencing of arrival aircraft on aerodromes or groups of aerodromes, · Ground-ground and air-ground exchanges of flight and environment data	
State AU Wing Operations Centre (WOC) Technical System	Supports State Airspace Users (this term includes Military Airspace Users, Border Police Airspace Users, etc. and Military Aircraft Operators), which are performing all kind of manned or unmanned flight operations, in the management of their operations. The WOC system supports State Airspace Users also in the management of ICAO compliant flight operations when they operate state aircraft using civil air traffic rules.	EATMA V13.0 Draft (DS19) (https://www.eatmportal.eu /working/rnd/technical-systems-overview)

Table 1: Glossary

2.7 Acronyms and Terminology

Term	Definition
A/C	Aircraft
ACC	Area Control Centre
ACK	Acknowledgement message
ADD	Architecture Description Document
ADEP	Aerodrome of Departure
ADES	Aerodrome of Destination
ADEXP	ATS Data Exchange Presentation
ADS-B	Automatic Dependent Surveillance-Broadcast

Term	Definition
AFTN	Aeronautical Fixed Telecommunication Network
AFUA	Advanced Flexible Use of Airspace
AIM	Aeronautical Information Management
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIREP	Air-Report
AIRM	ATM Information Reference Model
AIS	Aeronautical Information Service
AIXM	Aeronautical Information Exchange Model
AMA	Area Minimum Altitude
AMC	Airspace Management Cell
AMHS	ATS Message Handling System
ANSP	Air Navigation Services Provider
ANU	Air Navigation Unit
AoR	Area of Responsibility
APP	Approach control office
ARCID	Aircraft Identification
ARES	Airspace Reservation
ARESx	ARES with a unique number x within the iOAT FPL
ASM	Airspace Management
ASTERIX	All-purpose Structured Eurocontrol Surveillance Information Exchange
ATC	Air Traffic Control
ATCO	Air Traffic Controller
ATFCM	Air Traffic Flow and Capacity Management
ATM	Air Traffic Management

Term	Definition
ATS	Air Traffic Service
AU	Airspace User
AUP/UUP	Airspace Use Plan/ Updated Airspace Use Plan
B2B	Business to Business
CACD	Central Airspace and Capacity Database (NM)
CC	Capability Configuration
CDM	Collaborative Decision Making
CDR	Conditional Route
CDS	Complete Data Set
CFL	Cleared Flight Level
CHG	Change Message
CMAC	Civil-military ATM Coordination
CNL	Flight Plan Cancellation Message
CR	Change Request
CTA	Controlled Time of Arrival
CTO	Controlled Time Over
CWP	Controller Working Position
DCB	Demand Capacity Balancing
DCN	Diplomatic Clearance Number
DCT	Direct
DLA	Delay message
EAD	European AIS Database
EATMA	European ATM Architecture
E-ATMS	European Air Traffic Management System
EAUP	European Airspace Use Plan

Term	Definition
ECAC	European Civil Aviation Conference
EDA	European Defence Agency
EET	Estimated Elapsed Time
ENV	Environment System
EOBT	Estimated Off-Block Time
ETFMS	Enhanced Tactical Flow Management System
EUROAT	EUROCONTROL Specification for harmonized Rules for Operational Air Traffic under Instrument Flight Rules (IFR) inside controlled Airspace of the ECAC Area
EUUP	European Update airspace Use Plan
FAA	Federal Aviation Administration
FB	Functional Block
FD	Flight Data
FDO	Flight Data Operator
FDP	Flight Data Processing
FDPS	Flight Data Processing System
FMP	Flow Management Position
FMS/MMS	Flight Management System/Mission Management System
FOC	Flight Operations Control
FPL	Flight Plan
FUA	Flexible Use of Airspace
G/G	Ground/Ground
GAT	General Air Traffic
HMI	Human Machine Interface
HTTPS	Secure HTTP

Term	Definition
ICAO	International Civil Aviation Organisation
ID	Identification
IDS	Incremental Data Set
IER	Information Exchange Requirement
IFPS	Integrated Initial Flight Plan Processing System
IFPUV	Integrated Initial Flight Plan Processing System Validation System
IFPZ	IFPS Zone
IFR	Instrument Flight Rules
iMT	Initial Mission Trajectory
INTEROP	Interoperability Requirements
iOAT FPL	Improved OAT Flight Plan
IP	Internet Protocol
iRMT	Initial Reference Mission Trajectory
IRS	Interface Requirements Specification
iSMT	Initial Shared Mission Trajectory
ISRM	Information Services Reference Model
LTCM	Local Traffic Complexity Management
MAN	Manual Message
MAU	Military Airspace User
MEPS	Military Engagement Plan SESAR
MET	Meteorological
METAR	Meteorological Aerodrome or Aeronautical Report
METSP	Meteorological Service Provider
MoD	Ministry of Defence
MONA	Monitoring Aids

Term	Definition
MT	Mission Trajectory
NAF	NATO Architecture Framework
NAVAID	Navigation Aid
NM	Network Manager
NSOV	NAF Service Oriented View
NOP	Network Operations Plan
NOTAM	Notice to Airmen
NOV	NAF Operational View
NSV	NAF System View
OAT	Operational Air Traffic
OI	Operational Improvement
OLDI	On-line Data Interchange
OPMET	Operational Meteorological information
OSED	Operational Service and Environment Definition
PCP	Pilot Common Project
PENS	Pan European Network Service
PIC	Pilot in Command
PIRM	Programme Information Reference Model
POB	Persons on Board
PTR	Profile Tuning Restriction
QoS	Quality of Service
QRA	Quick Reaction Alert
R&D	Research & Development
RAD	Route Availability Document
RBT/RMT	Reference Business Trajectory/Reference Mission Trajectory

Term	Definition
REJ	REJect message
REQ	Requirement
RMK	Remark
RPAS	Remotely Piloted Aircraft Systems
RPL	Repetitive Flight Plan
RSA/TRA	Restricted Area/Temporary Reserved Area
RTSA	Real Times Status Update of ARES
SBT/SMT	Shared Business Trajectory/Shared Mission Trajectory
SDD	Service Description Document
SEG	Secure Exchange Gateway
SESAR	Single European Sky ATM Research Programme
SFPL	System Flight Plan
SFO	Simulated Flame Out
SID/STAR	Standard Instrument Departure/ Standard Terminal Arrival Route
SIGMET	Significant Meteorological Information
SJU	SESAR Joint Undertaking (Agency of the European Commission)
SNET	Safety Net
SOAP	Simple Object Access Protocol
SPECI	Special weather report
SPR	Safety and Performance Requirements
SSR	Secondary Surveillance Radar
STCA	Short-Term Conflict Alert
SUP	Supervisor
SWIM	System Wide Information Management

Term	Definition
TACAN	Tactical Air Navigation
TAF	Terminal Area Forecast
TMA	Terminal Manoeuvring Area
TP&M	Trajectory Prediction & Management
TRL	Technology Readiness Level
TS	Technical Specification
TTO	Target Time Over
UC	Use Case
UML	Unified Modelling Language
UNK	Unrecognisable message
UP4DT	User Preferred 4D Trajectory
V&V	Validation and Verification
VFR	Visual Flight Rules
VPA	Variable Profile Area
WAFS	World Area Forecast System
WOC	Wings Operation Centre
WTC	Wake Turbulence Category
WXXM	Weather Information Exchange Model
XML	Extensible Markup Language

Table 2: Acronyms and terminology

3 SESAR Solution Impacts on Architecture

3.1 Target Solution Architecture

3.1.1 SESAR Solution(s) Overview

Activity PJ.18-01a is an enabling activity that is providing the technical functional and non – functional requirements addressing the operational requirements developed in the solution PJ.07-03 and collected in the respective OSED [38]. Solution PJ.07-03 owns the respective OIs and Activity PJ.18-01a ensures to cover the OI related enablers with the requirements developed in chapter 4.2.

The aim is to enable the WOC system, the NM systems and the ATC system to receive, transmit and process the iOAT FPL through its phases of development, from planning to execution (execution phase was only addressed to the WOC and the ATC system in V2). This functionalities include the checking of iOAT FPL data for consistency, correctness and security.

Solution PJ.07-03 "Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)" covers aspects related to the planning phase and is linked to the following enablers:

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	AAMS-10a	Initial airspace management system enhanced with commonly applied GAT/OAT handling	**Fully addressed – Required / Use**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	AIMS-06	Ground-Ground AIS provision to ASM	**Not addressed – Required / Use**

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	AIMS-19b	Aeronautical Information system interfaced to receive and distribute aeronautical information electronically to military systems.	**Partially addressed – Required / Use**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	FB: Flight planning	AOC-ATM-14	Upgrade of WOC system to handle improved OAT flight plans	**Fully addressed – Required / Develop**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	FB: Flight data support management Flight planning Information and communication management Roles: No associated data	AOC-ATM-15	Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services	**Partially addressed – Optional / Use**
PJ.07-03 Sharing mission trajectory data with NM and ATC via	FB: Coordination and Transfer	ER APP ATC 143	Upgrade of ATC System to handle Improved OAT Flight Plan	**Fully addressed – Required / Develop**

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
an improved OAT Flight Plan (iOAT FPL)	Flight planning – Lifecycle management – Data distribution Roles: No associated dat			
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	FB: Coordination and Transfer Flight planning – Lifecycle management – Data distribution Roles: No associated dat	ER APP ATC 168	FDP system upgraded to process improved OAT flight plans with inherent ARES information (reservation restrictions) in accordance with VPA design principle.	**Fully addressed – Required / Develop**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	MIL-0501	Specifications for the interoperability of military ground systems with SWIM	**Not addressed – Required / Use**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight	Baseline environment for validation	MIL-0502	Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks	**Not addressed – Required / Use**

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
Plan (iOAT FPL)				
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Applicable standards	MIL-STD-03	Update of IFPS User Manual to include OAT Specificities in the Flight Plan (Improved OAT flight plan)	**Fully addressed - Required/developed**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Applicable standards	MIL-STD-04	Procedure to implement EUROAT rules.	**Fully addressed - Required/developed**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	FB: Flight planning	NIMS-35	Flight Planning management sub-system enhanced to process improved OAT flight plans	**Fully addressed – Required / Develop**
PJ.07-03 Sharing mission trajectory data with NM and ATC via	Baseline environment for validation	SWIM-INFR-05a	General SWIM Services infrastructure Support and Connectivity	**Fully addressed – Required / Use**

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
an improved OAT Flight Plan (iOAT FPL)				
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	SWIM-NET-01a	SWIM Network Point of Presence	**Fully addressed – Required / Use**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	SWIM-SUPT-01a	SWIM Supporting Registry Provisions	**Not addressed – Optional / Use**
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	SWIM-SUPT-03a	SWIM Supporting Security Provisions	**Not addressed – Optional / Use**
PJ.07-03 Sharing mission trajectory	Baseline environment for validation	SWIM SUPT-05a	SWIM Supporting IP Network Bridging Provisions	**Not addressed – Optional / Use**

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)				
PJ.07-03 Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)	Baseline environment for validation	CTE-C06d	Gateway for CIV/MIL Interoperability	**Not addressed – Optional / Use**

Table 3: SESAR solution PJ.07-03 Scope and related Functional Blocks/Roles & Enablers

The technical specifications cover as well required evolutions to receive, transmit and process the iOAT FPL in the execution phase, although the project only addressed the WOC and the ATC system in V2. These are the corresponding enablers.

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
N/A, intermediate work on "Mission Trajectory Driven Processes"	FB: Communication management Flight management Flight operations management	AOC-ATM-20	Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services	**Partially addressed**

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
	Flight planning Information and communication management Roles: No associated data			
N/A, intermediate work on "Mission Trajectory Driven Processes"	FB: Trajectory Prediction and management Roles: No associated data	ER APP ATC 82 b	Enhance FDP to process iSMT/iRMT	**Fully addressed**
N/A, intermediate work on "Mission Trajectory Driven Processes"	FB: Flight operations management Flight planning Information and communication management Roles: No associated data	MIL-0103	Wing Operations Centre Mission Support System (including update/revision) of iMT	**Fully addressed**
N/A, intermediate work on "Mission Trajectory Driven Processes"	FB: Flight Planning	MIL-0106	Wing Operations Centre Mission Support System enhanced to support the CDM process	**Fully addressed**

SESAR Solution ID and Title	Functional Blocks/Role impacted by the SESAR Solution (from EATMA)	Enabler ID (from EATMA)	Enabler Title (from EATMA)	Enabler coverage
	Information and communication management Roles: No associated data			
N/A, intermediate work on "Mission Trajectory Driven Processes"	Baseline environment for validation	NIMS 21b	Flight Planning management enhanced to support 4D	**Partially addressed**
N/A, intermediate work on "Mission Trajectory Driven Processes"	FB: Traffic demand management Roles: No associated data	NIMS-45	Initial Flight Planning management enhanced to support initial Mission Trajectory	**Partially addressed**
N/A, intermediate work on "Mission Trajectory Driven Processes"	FB: No associated data Roles: No associated data	PRO-076	Procedures for the iSMT in the CDM process	**Fully addressed**
N/A, intermediate work on "Mission Trajectory Driven Processes"	FB: No associated data Roles: No associated data	PRO-077	Procedures facilitating iRMT management	**Fully addressed**

Table 4: Mission trajectory driven processes, related Functional Blocks/Roles & Enablers beyond the scope of solution PJ.07-03

3.1.1.1 Deviations with respect to the SESAR Solution(s) definition

The following deviations to solution's PJ.07-03 and Activity PJ.18-01a definition in EATMA have to be taken into account.

Enabler	Deviation
A/C-61_b Impact on the A/C functionalities due to new datalink messages to manage the military trajectory along MT lifecycle	This enabler is related to solution 18-01b which is not covered by this TS
A/C-61 c A/C functionalities included in the military C27j Aircraft that allow ARES and MT trajectory representation over the aircraft visualization display.	This enabler is related to solution 18-01b which is not covered by this TS
AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems.	This enabler has TRL 6 maturity level and provides baseline environment for validation
AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services	This enabler has TRL6 and provides baseline environment for validation
CTE-C06d_Gateway for CIV/MIL Interoperability	This enabler has TRL6 and provides baseline environment for validation
MIL-0106_Exchange of specific MT data (ARES description) in standard format	No deviations but maturity dates are not defined
MIL-0501_Specifications for the interoperability of military ground systems with SWIM	This enabler has TRL6 and provides baseline environment for validation, already PCP enablers
MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks	This enabler has TRL6 and provides baseline environment for validation, already PCP enablers

Enabler	Deviation
MIL-STD-03_Update of IFPS User Manual to include OAT Specificities in the Flight Plan (Improved OAT flight plan)	No deviations but maturity dates to be refined
SWIM-INFR-05a General SWIM Services infrastructure Support and Connectivity.	PCP enabler provides baseline environment for validation
SWIM-NET-01aSWIM Network Point of Presence	PCP enabler provides baseline environment for validation
SWIM-SUPT-01a_SWIM Supporting Registry Provisions	PCP enabler provides baseline environment for validation
SWIM-SUPT-03a_SWIM Supporting Security Provisions	PCP enabler provides baseline environment for validation
SWIM-SUPT-05a_SWIM Supporting IP Network Bridging Provisions	With TRL6 maturity level this enabler provides baseline environment for validation

Table 5: Deviating enablers and the related content of CRs

3.1.1.2 Relevant Use Cases

The following UCs reflect the capability configurations and their interconnections. They are developed independently from the UCs of the related OSED (PJ.07-03 Mission Trajectory Driven Processes) in so far, as they are converting their operational content into system configurations and functions and their related messages exchanged. In their totality they reflect the full system approach enabling the operational requirements as defined through the UCs mentioned above.

Name	Description
Exchange Surveillance Data between ATC and WOC	This technical Use Case (UC) depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process exchanging surveillance data from the ATC system to the WOC function as a feedback. This UC covers certain aspects of OSED activities that are executed in the technical elements as the capability configurations “En-Route/Approach ACC (ER APP ACC)” and “State Airspace User operation centre (WOC)”.

Name	Description
Revise Trajectory - From ATC to WOC	This technical Use Case (UC) depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process for the revision of the iOAT FPL during execution phase (out of the scope of solution PJ.07-03). It contains the necessary functions to be performed to ensure consistency of data between the ATC system and the WOC function to enable its (WOC) flight monitoring function. The UC is executed in the operational nodes "En-Route/Approach ATS" and "WOC" as part of the OSED Activity View "ATC triggered iRMT Revision (figure x)
Revise Trajectory - From WOC to ATC	This technical Use Case (UC) depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process for the revision of an iOAT FPL during execution phase initiated from the WOC function (out of the scope of solution PJ.07-03). The UC is executed in the operational nodes "WOC" and "En-Route/Approach ATS" as part of the OSED Activity View "WOC triggered iRMT Revision (figure x)
Send iOAT Flight Plan from WOC via NM to ATC	This technical Use Case (UC) depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process from initial flight planning in the WOC function via the Network Manager (NM) to the related ATC systems. It covers the planning phase up to the submission and distribution of the iOAT FPL. The UC is executed in the operational nodes "WOC", "Regional ATFCM" and "En-Route/Approach ATS" as part of the OSED Activity View "MT Management in Short Term (figure x)

Table 6: Relevant Use Cases

This subparagraph refers to the linkage between CCs and nodes as well as the link between functions and activities in order to show the relation between the operational concept as developed in the relating SPR-INTEROP/OSED and the technical systems involved enabling the operational concept in this initial TS..

Figure 1: MT Management in Short Term

Figure 2: MT Management in Execution Phase

Figure 3: WOC triggered iRMT Revision Activity View

Figure 4: ATC triggered iRMT Revision Activity View

3.1.1.3 Applicable standards and regulations

The following standards and regulations are applicable to the SESAR Solution PJ.07-03 and its included activity PJ.18-01a:

Institutional Enabler	Standard
Rules and procedures defining the Advanced Flexible Use of Airspace (AFUA)	(EC) Regulation 2150/2005 of 23 December 2005
OAT Harmonisation	EUROCONTROL Specifications for harmonized Rules for Operational Air Traffic (OAT) under Instrument Flight Rules (IFR) inside controlled Airspace of the ECAC Area (EUROAT), Ed 3.0, 01.02.2019

Table 7: Relevant Regulations

3.1.2 Capability Configurations required for the SESAR Solution

SESAR Solution ID and Title	Capability Configurations (CCs) (from EATMA)	Sub-Operating Environment (s) where the CCs operate	Capabilities (from EATMA)	Nodes (from EATMA)	Stakeholders (from EATMA)
Mission Trajectory Driven Processes	Regional ASM	High complexity for en-route and TMA	Airspace reservation management Trajectory Management	Airspace Management	Regulator, ANSP, Military, AU, NM,
Mission Trajectory Driven Processes	Sub-Regional/ National ASM	High complexity for en-route and TMA	Airspace reservation management Information Management	Airspace Management	Regulator, ANSP, Military, AU, NM,

SESAR Solution ID and Title	Capability Configurations (CCs) (from EATMA)	Sub-Operating Environment (s) where the CCs operate	Capabilities (from EATMA)	Nodes (from EATMA)	Stakeholders (from EATMA)
			Trajectory Management		
Mission Trajectory Driven Processes	ER APP ACC	High complexity for en-route and TMA	Airspace reservation management Clearance/Instruction Management Collaborative Trajectory planning Coordination and Transfer CTA/CTO Management Trajectory consistence management Trajectory revision in execution	Airspace Management, En-Route/ Approach ATS, Air Traffic Flow and Capacity Management	ANSP, AU, Military
Mission Trajectory Driven Processes	ER APP ACC	High complexity for en-route and TMA	Airspace reservation management Clearance/Instruction Management Collaborative Trajectory planning Coordination and Transfer CTA/CTO Management	Airspace Management, En-route/ Approach ATS, Air Traffic Flow and Capacity Management	ANSP, Military, AU

SESAR Solution ID and Title	Capability Configurations (CCs) (from EATMA)	Sub-Operating Environment (s) where the CCs operate	Capabilities (from EATMA)	Nodes (from EATMA)	Stakeholders (from EATMA)
			Trajectory consistence management Trajectory revision in execution		
Mission Trajectory Driven Processes	Regional ATFCM	-High complexity for en-route and TMA	Air Traffic Demand Provision Clearance/Instruction Management Collaborative Trajectory planning Coordination and Transfer CTA/CTO Management Trajectory consistence management Trajectory revision in execution	Air Traffic Flow and Capacity Management Network Management	ANSP, NM Military, AU, ANSP
Mission Trajectory Driven Processes	Sub-Regional/Local ATFCM	High complexity for en-route and TMA	Air Traffic demand provision Airspace capacity demand provision	Air Traffic Flow and Capacity Management	ANSP, NM Military, AU
Mission Trajectory Driven Processes	State AU Operations Centre (WOC)	High complexity for en-route and TMA	Clearance/Instruction Management Collaborative Trajectory planning Coordination and Transfer	Airspace User Ops Support (Military)	ANSP, NM Military, AU

SESAR Solution ID and Title	Capability Configurations (CCs) (from EATMA)	Sub-Operating Environment (s) where the CCs operate	Capabilities (from EATMA)	Nodes (from EATMA)	Stakeholders (from EATMA)
			CTA/CTO Management Trajectory consistence management Trajectory revision in execution		

Table 8: List of Capability Configuration required for the SESAR Solution

3.2 Changes imposed by the SESAR Solution on the baseline Architecture

Enabler ID (from EATMA)	Enabler Title (from EATMA)	Changes
NIMS-45	Initial Flight Planning management enhanced to support initial Mission Trajectory	ICAO 2012 FPL format and B2B web services interfaces are changed to receive, validate and distribute military flight plan data via iOAT FPL. The iOAT FPL is included in the traffic demand.
AOC-ATM-14	Upgrade WOC systems (military flight plan filing systems and/or mission preparation systems) to file and send the iOAT FPL and to receive and process the associated IFPS messages. The iOAT FPL is based on ICAO 2012 FPL. It may include an ARES and can support the management of a time constraint –	The impact of AOC-ATM-14 on FB Flight Planning is the processing of the iOAT FPL.

Enabler ID (from EATMA)	Enabler Title (from EATMA)	Changes
	TTO (ARES) - for military flights.	
ER APP ATC 143	Upgrade of ATC system to handle iOAT FPL	Update ATC systems to receive and decode the improved OAT flight plan, calculating the trajectory taking into account any airspace reservation/restriction (ARES) and associated time constraint (TTO at ARES entry or exit point) contained in the flight plan
ER APP ATC 82	Enhance FDP to use SBT/SMT and RBT/RMT	Update the ATC system's Trajectory Prediction & Management (TP&M) and Local Traffic Complexity Management (LTCM) functional blocks to use the SBT/SMT and RBT/RMT, including the FOC/WOC-supplied information in the form of the Extended Flight Plan, as their common reference source. Out of the scope of solution PJ.07-03

Table 9: List of changes for the baseline induced by activity 18-01a in solution 07-03

4 Technical Specifications

4.1 Functional architecture overview

4.1.1 Resource Connectivity Model

This NSV1 diagram depicts the capability configuration diagram of the solution PJ 18-01. It shows relationships between the different elements of the System layer including the related nodes, the technical Systems, capability configurations and services used, as well as the resource interactions.

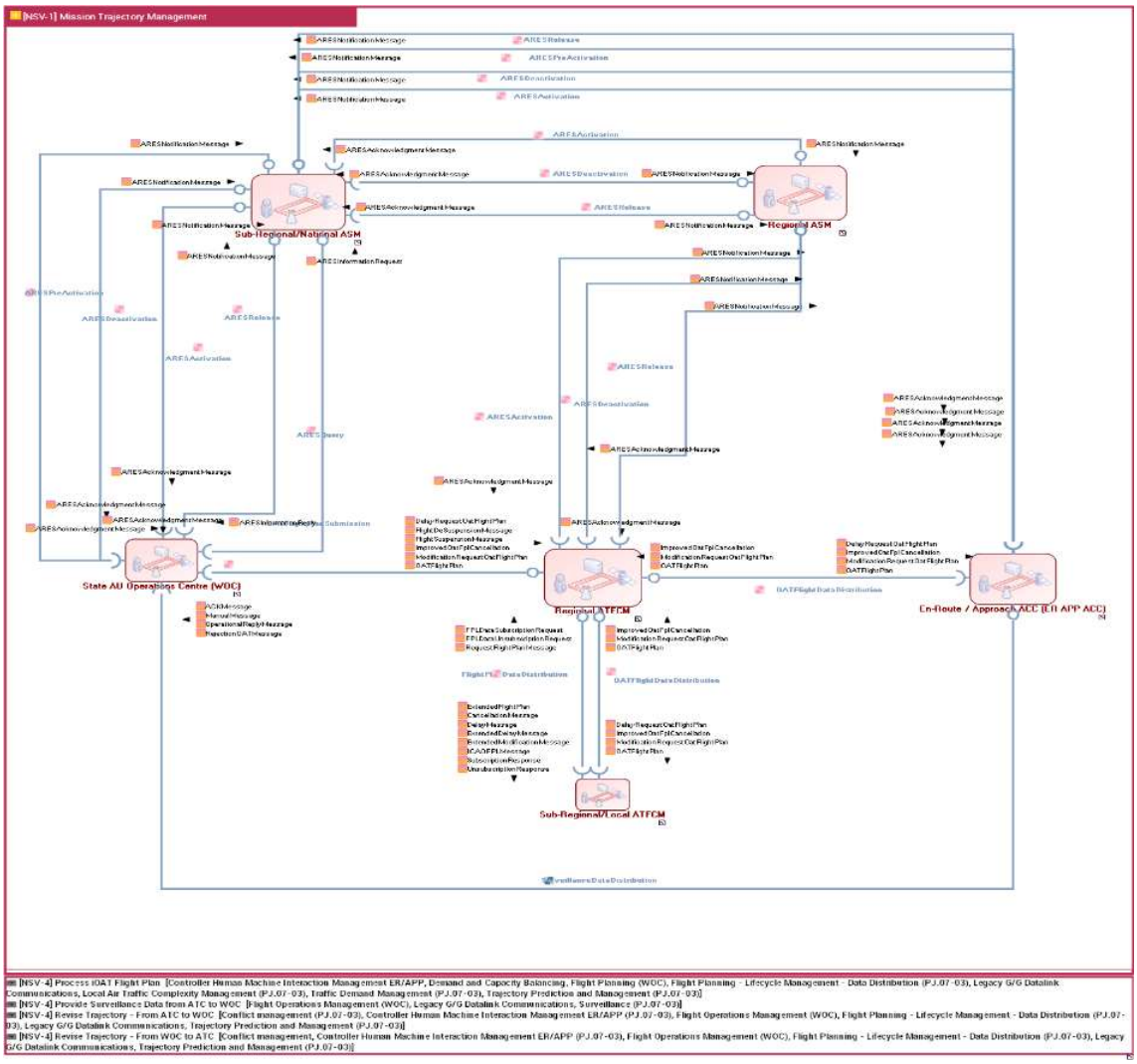

Figure 5: NSV 1 Mission Trajectory Management Process

The NSV2 diagrams represent the specific communication systems pathways or networks and the details of their configurations through which the nodes and systems interfaces (ports) are connected for the mission trajectory management process including its activity 18-01.

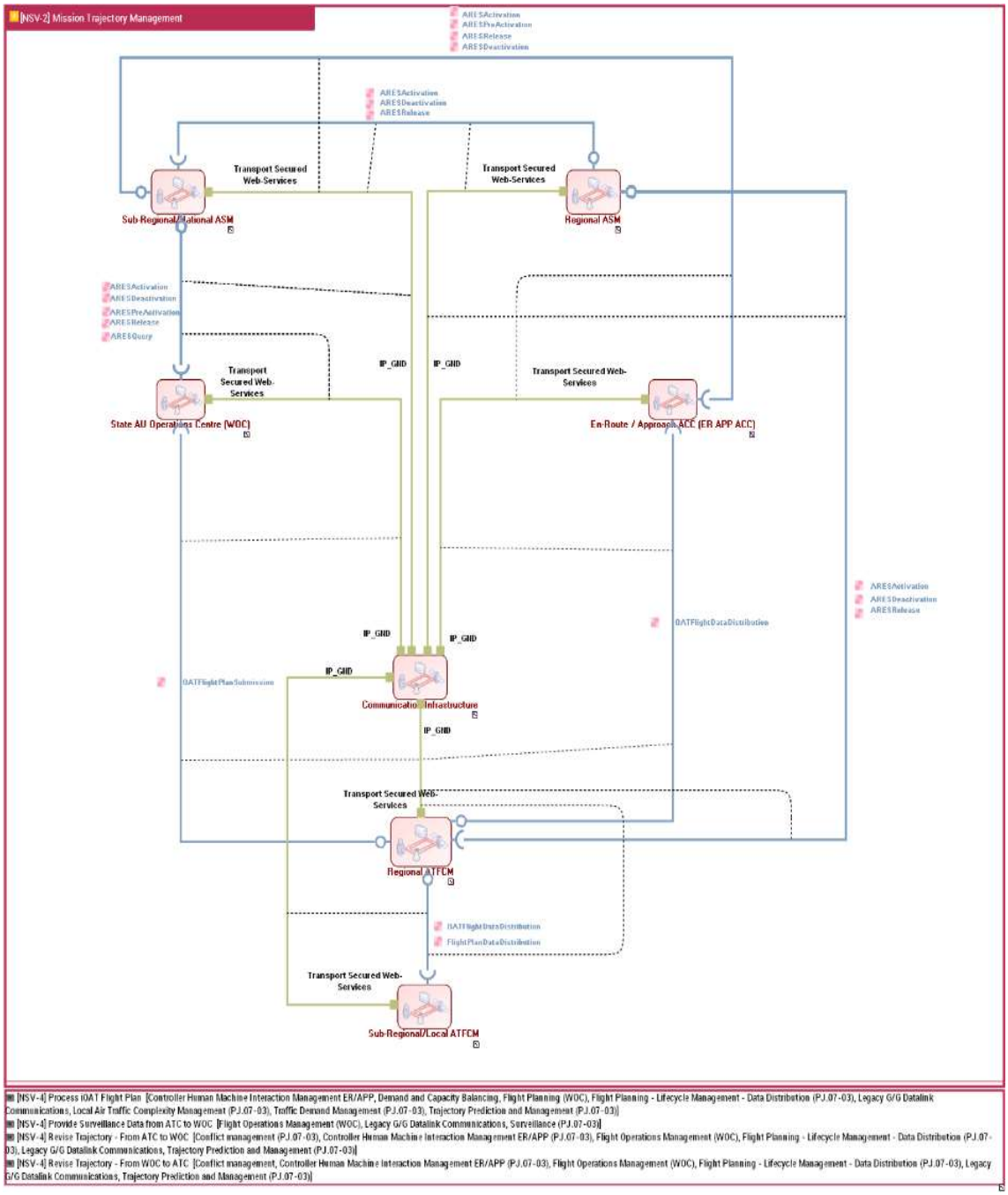

Figure 6: NSV 2 Mission Trajectory Management Process

4.1.2 Resource Orchestration view

This technical Use Case (UC) ”Provide Surveillance Data from ATC to WOC” depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process exchanging surveillance data from the ATC system to the WOC function as a feedback. Covered by solution PJ.07-03.

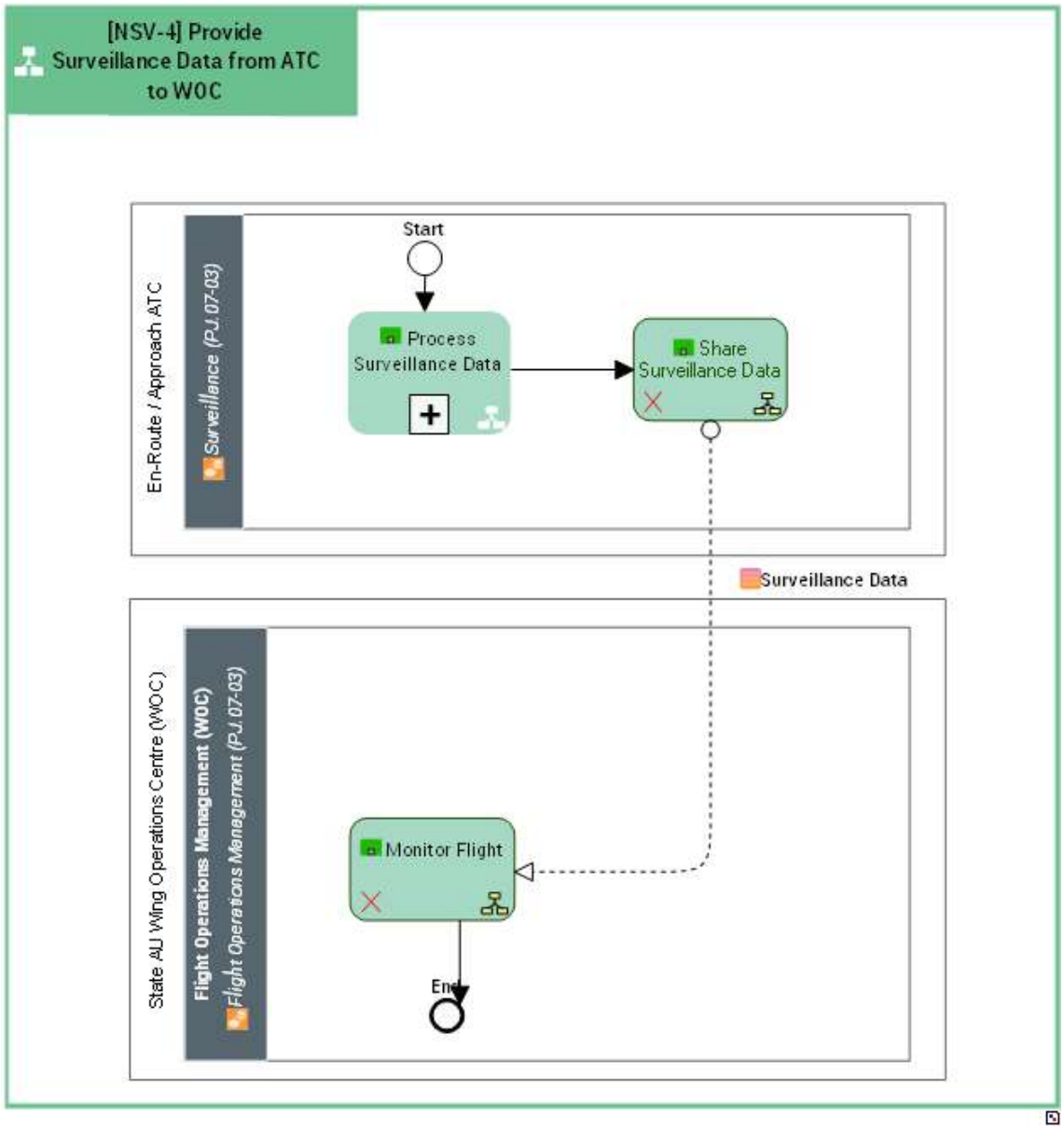

Figure 7: NSV 4 Exchange surveillance data between ATC and WOC

This technical Use Case (UC) “Revise Trajectory – from ATC to WOC” depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process for the revision of the iOAT FPL during execution phase. It contains the necessary functions to be performed to ensure consistency of data between the ATC system and the WOC function to enable its (WOC) flight monitoring function. The use case was not validated at V3/TRL6 level and is out of the scope of solution PJ.07-03.

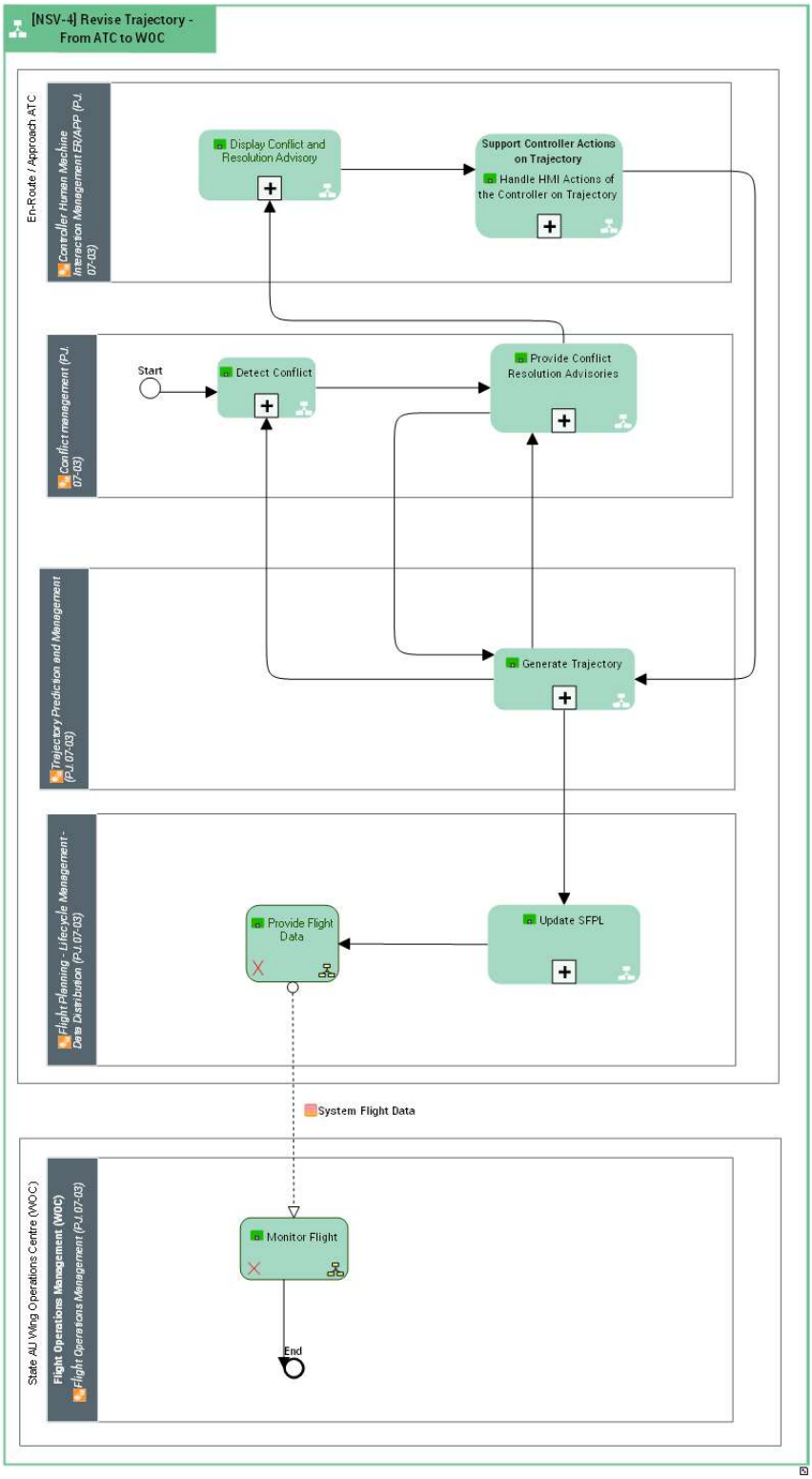

Figure 8: NSV 4 Revise trajectory from ATC to WOC

This technical Use Case (UC) “Revise Trajectory – from WOC to ATC” depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process for the revision of an iOAT FPL during execution phase initiated from the WOC function. The use case was not validated at V3/TRL6 level and is out of the scope of solution PJ.07-03.

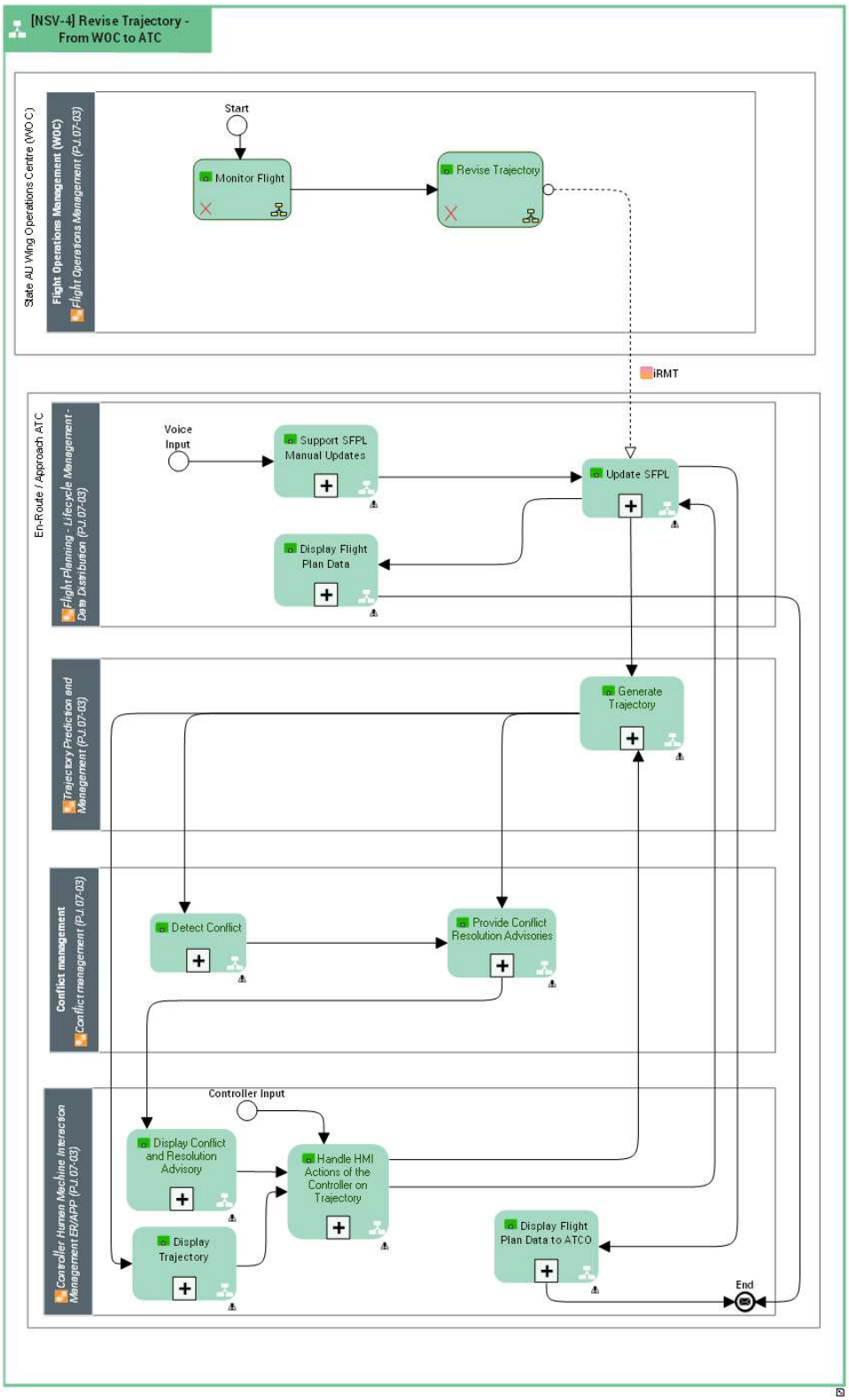
[NSV-4] Revise Trajectory - From WOC to ATC
State AU Wing Operations Centre (WOC)
Flight Operations Management (WOC)
Flight Operations Management (PJ.07-03)
Start
Monitor Flight
Revise Trajectory
iRMT
En-Route / Approach ATC
Flight Planning - Lifecycle Management - Data Distribution (PJ.07-03)
Voice Input
Support SFPL Manual Updates
Update SFPL
Display Flight Plan Data
Trajectory Prediction and Management (PJ.07-03)
Generate Trajectory
Conflict management
Conflict management (PJ.07-03)
Detect Conflict
Provide Conflict Resolution Advisories
Controller Human Machine Interaction Management ER/APP (PJ.07-03)
Controller Input
Display Conflict and Resolution Advisory
Handle HMI Actions of the Controller on Trajectory
Display Trajectory
Display Flight Plan Data to ATCO
End

Figure 9: NSV 4 Revise trajectory from WOC to ATC

This technical Use Case (UC) “Process iOAT FPL” depicts the concerted functional blocks and functions and its linking resource interactions to cover the technical process from initial flight planning in the WOC function via the Network Manager (NM) to the related ATC systems. It covers the planning phase up to the submission and distribution of the iOAT FPL. The idea is to further mature the interface between ATC and WOC towards SWIM Yellow Profile (B2B – FPL Distribution Service). Covered by solution PJ.07-03.

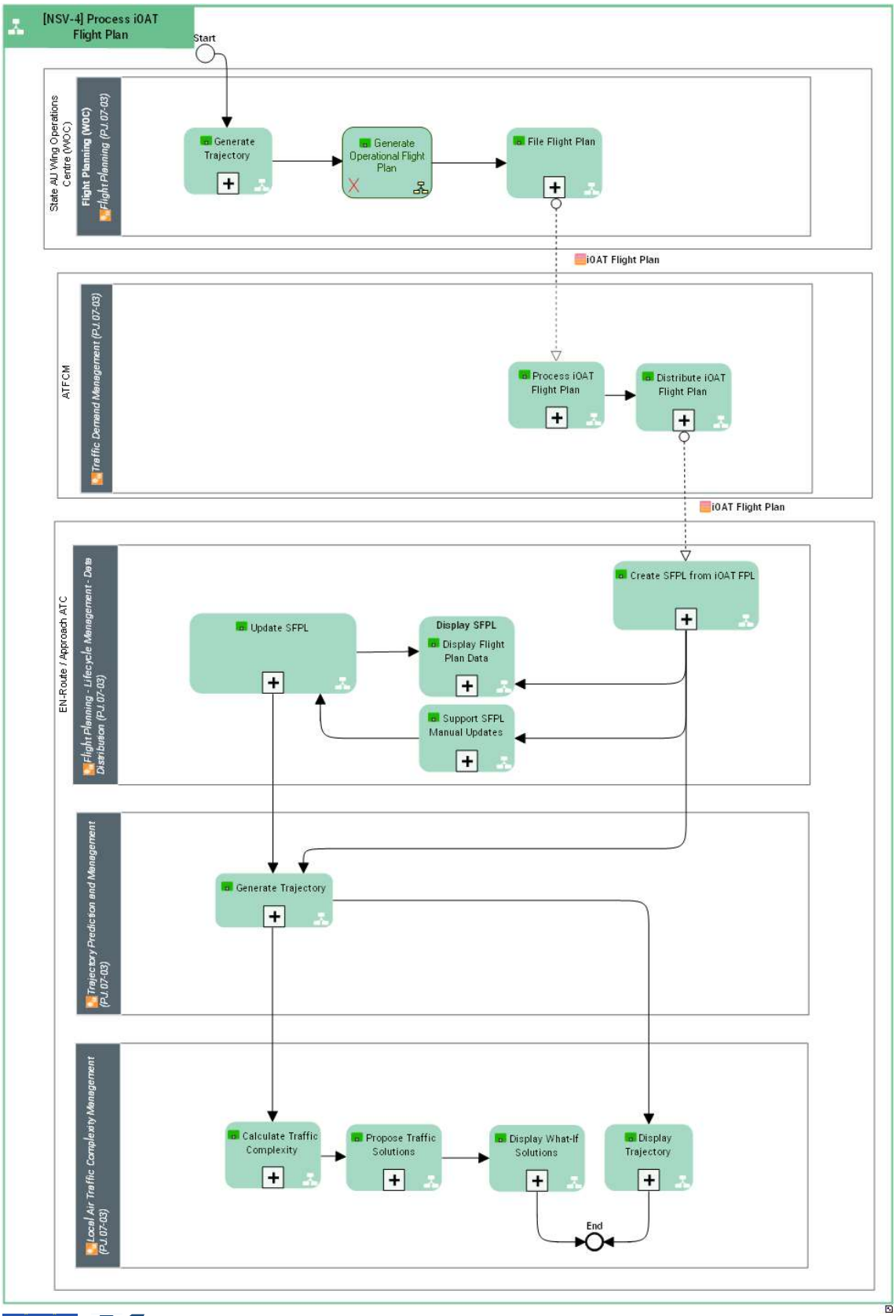
[NSV-4] Process iOAT Flight Plan
Start
State AU Wing Operations Centre (WOC)
Flight Planning (WOC)
Flight Planning (PJ.07-03)
Generate Trajectory
Generate Operational Flight Plan
File Flight Plan
iOAT Flight Plan
ATFCM
Traffic Demand Management (PJ.07-03)
Process iOAT Flight Plan
Distribute iOAT Flight Plan
iOAT Flight Plan
EN-Route / Approach ATC
Flight Planning - Lifecycle Management - Data Distribution (PJ.07-03)
Create SFPL from iOAT FPL
Update SFPL
Display SFPL
Display Flight Plan Data
Support SFPL Manual Updates
Trajectory Prediction and Management (PJ.07-03)
Generate Trajectory
Local Air Traffic Complexity Management (PJ.07-03)
Calculate Traffic Complexity
Propose Traffic Solutions
Display What-If Solutions
Display Trajectory
End

Figure 10: NSV 4 Send iOAT FPL from WOC and NM to FDPS

4.1.3 Infrastructure connectivity model

N/A

4.1.4 Service view

4.1.4.1 Service description

Service	Description
ARESActivation	The ARESactivation service enables the consumer to inform the activation time and / or status of a defined ARES to the provider. This service can only be used in the execution phase.
ARESDeactivation	The ARESdeactivation service enables the consumer to inform the deactivation time and / or status of a defined ARES to the provider. This service can only be used in the execution phase.
ARESPreActivation	The ARESpreactivation service enables the consumer to inform the preactivation time and / or status of a defined ARES to the provider. This service can only be used in the execution phase.
ARESQuery	The ARESquery service enables the consumer to request ARES information to the provider. This service can be used at all stages of the booking process from reservation to execution.
ARESRelease	TheARESrelease service enables the consumer to request the release of an ARES and update the ARES status to the provider. The ARES is made available again for planning after its release. This service can be used at all stages of the booking process from reservation to execution.
METGriddedForecast	This service will be provided by the METSP (MET Service Provider). The METSP is an organization designated to provide MET services supporting international air navigation. - This service will enable the local OUE stakeholders to be provided with all nominal MET information for an airport and its approach areas they require. It contains two main sub-parts being the information on surface elements (like e.g. wind, temperature,

Service	Description
	QNH) as well the aloft elements (e.g. wind and temperature). The required elements should be selectable by the stakeholder. - This service will enable the sub-regional OUE stakeholders to be provided with selectable MET aloft elements (temperature, wind, …). - This service will enable the network OUE stakeholders to be provided with selectable MET aloft elements (temperature, wind, …). A special feature of the network service could be the possible selection of ensemble MET information, next to the deterministic information. This service could possibly be split up between observation and forecast MET information. It is also expected that this service foresees a user selectable temporal resolution (update rate or time steps for forecast data output format (gridded data, graphics) and for the aloft data also spatial resolution (horizontal grid and vertical steps). In addition it is expected that the user can select multiple airports and that the forecast data is deterministic or probabilistic.
OATFlightDataDistribution	The OATFlightDataDistribution Service enables the Provider to: - send a copy of a valid OAT flight plan, change or delay of an OAT flight plan to the service consumers concerned by the flight that want to receive the OAT flight plan related data; - send to all of other service consumers concerned by the flight only a copy of the OAT Flight Plan included in the EFPL message or a copy of a 'simple' modification (CHG) message or a copy of a 'simple' delay (DLA) message; - notify to the service consumers the cancellation of a specified flight plan; - send a specific Flight Plan following a specific request from a service consumer.
OATFlightPlanSubmission	The OATFlightPlanSubmission service enables the Consumer to: - request the validation of an OAT FPL message before its submission; - request the submission of OAT FPL/OAT Modification/OAT Delay message;

Service	Description
	- request the cancellation of an OAT Flight Plan; to the Provider and supports the Provider to: - send the reply of the validation request (ACK, REJ) to the Consumer; - send the reply of the submission request (ACK, MAN, REJ) to the Consumer; - send the status of a specific flight plan to the Consumer. The status may be "Suspended" or "De-suspended".The OAT Flight Plan is communicated to the NM for validation and onward distribution based on internal rules and the trajectory of the flight.

Table 10: Service description

4.1.4.2 Service Provisioning

Only the services mentioned above in Table 10 are used in the TS. These services were all established in SESAR 1 and considered existing. In addition no new services are being developed, so consequently available services from the EATMA common library were used.

Interaction	Source CC	Source System	Target CC	Target System
METGriddedForecast	State AU Operations Centre	State AU Wing Operations Centre (WOC)	ATM-MET	4DWxCube
OATFlightDataDistribution	Regional ATFCM	ATFCM	ER ACC	En-Route / Approach ATC
OATFlightPlanSubmission	State AU Operations Centre	State AU Wing Operations Centre (WOC)	Regional ATFCM	ATFCM
METGriddedForecast	ER ACC	En-Route / Approach ATC	ATM-MET	4DWxCube
OATFlightDataDistribution	Regional ATFCM	ATFCM	Sub-Regional/Local ATFCM	4DWxCube
ARESDeactivation	Regional ATFCM	ATFCM	Regional ASM	ASM
ARESQuery	State AU Operations Centre	ATFCM	Sub-Regional/National ASM	ASM
ARESDeactivation	Sub-Regional/Local ATFCM	ATFCM	Sub-Regional/National ASM	ASM

Interaction	Source CC	Source System	Target CC	Target System
Air Surveillance data	State AU Operations Centre	En-Route / Approach ATC	ER ACC	ASM
ARESRelease	Regional ATFCM	ATFCM	Regional ASM	ASM
ARESRelease	Sub-Regional/Local ATFCM	ATFCM	Sub-Regional/National ASM	ASM
Coordination (OLDI)	State AU Operations Centre	ATFCM	ER ACC	En-Route / Approach ATC
ARESActivation	Sub-Regional/Local ATFCM	ATFCM	Sub-Regional/National ASM	ASM
ARESRelease	State AU Operations Centre	ATFCM	Sub-Regional/National ASM	ASM
ARESActivation	Regional ATFCM	ATFCM	Regional ASM	ASM
ARESDeactivation	State AU Operations Centre	ATFCM	Sub-Regional/National ASM	ASM
ARESDeactivation	Regional ASM	ASM	Sub-Regional/National ASM	ASM
ARESActivation	State AU Operations Centre	ASM	Sub-Regional/National ASM	ASM
ARESActivation	Regional ASM	ASM	Sub-Regional/National ASM	ASM
ARESPreActivation	State AU Operations Centre	ASM	Sub-Regional/National ASM	ASM
ARESRelease	Regional ASM	ASM	Sub-Regional/National ASM	ASM

Table 11: Service provisioning

4.1.4.3 Service Realization

Interaction: Air Surveillance data

Service Interface Definition

ARESActivationNegotiator	
Standard	**MEP, Security Configuration, Interface Bindings**
ARESActivationInterface.Transport Secured Web-Services	MEPs Supported: SRR PSPUSH PSPULL Security Configuration: Interface Binding Traceability: REQ-14.01.04-TS-0901.0790 REQ-14.01.04-TS-0901.0795 REQ-14.01.04-TS-0901.0304 REQ-14.01.04-TS-0901.0305 REQ-14.01.04-TS-0901.0325

Interaction: ARESActivation

Interaction: ARESDeactivation

Service Interface Definition	
ARESDeactivationNegotiator	
Standard	**MEP, Security Configuration, Interface Bindings**
ARESDeactivateInterface.Transport Secured Web-Services	MEPs Supported: SRR PSPUSH PSPULL Security Configuration: Interface Binding Traceability: REQ-14.01.04-TS-0901.0790 REQ-14.01.04-TS-0901.0795 REQ-14.01.04-TS-0901.0304 REQ-14.01.04-TS-0901.0305 REQ-14.01.04-TS-0901.0325

Interaction: ARESDeactivation

Interaction: ARESPreActivation

Service Interface Definition	
ARESPreActivationNegotiator	
Standard	**MEP, Security Configuration, Interface Bindings**
ARESPreActivationInterface.Transport Secured Web-Services	MEPs Supported: SRR PSPUSH PSPULL Security Configuration: Interface Binding Traceability: REQ-14.01.04-TS-0901.0790 REQ-14.01.04-TS-0901.0795 REQ-14.01.04-TS-0901.0304 REQ-14.01.04-TS-0901.0305 REQ-14.01.04-TS-0901.0325

Interaction: ARESQuery

Service Interface Definition	
ARESQueryProvider	
Standard	**MEP, Security Configuration, Interface Bindings**

Interaction: ARESRelease

Service Interface Definition	
ARESReleaseExecutor	
Standard	**MEP, Security Configuration, Interface Bindings**

Interaction: METGriddedForecast

Service Interface Definition	
METGriddedForecastProvider	
Standard	**MEP, Security Configuration, Interface Bindings**
Service Interface Definition	
METGriddedForecastPublisher	
Standard	**MEP, Security Configuration, Interface Bindings**
Service Interface Definition	
METGriddedForecastSubscriber	
Standard	**MEP, Security Configuration, Interface Bindings**

Interaction: METGriddedForecast

Service Interface Definition	
METGriddedForecastProvider	
Standard	**MEP, Security Configuration, Interface Bindings**

Interaction: OATFlightDataDistribution

Service Interface Definition	
OATFlightPlanListener	
Standard	**MEP, Security Configuration, Interface Bindings**

Interaction: OATFlightPlanSubmission

Service Interface Definition
OATFlightPlanConsumer

Standard	**MEP, Security Configuration, Interface Bindings**
Service Interface Definition	
OATFlightPlanProvider	
Standard	**MEP, Security Configuration, Interface Bindings**
OATFlightPlanSubmissionInterface.Transport Secured Web-Services	MEPs Supported: SRR PSPUSH PSPULL Security Configuration: Interface Binding Traceability: REQ-14.01.04-TS-0901.0790 REQ-14.01.04-TS-0901.0795 REQ-14.01.04-TS-0901.0304 REQ-14.01.04-TS-0901.0305 REQ-14.01.04-TS-0901.0325
Service Interface Definition	
OATFlightPlanSynchProvider	
Standard	**MEP, Security Configuration, Interface Bindings**

4.2 Functional and non-Functional Requirements

The requirements that follow cover the full scope of the overall mission trajectory concept.

Within the context of the work on this mission trajectory concept, some elements achieved V3/TRL6 and have been documented in solution **PJ.07-03 "Sharing mission trajectory data with NM and ATC via an improved OAT Flight Plan (iOAT FPL)",** which is focused on the management of the iOAT FPL in the planning phase and its distribution to NM and ATC units.

The scope of solution PJ.07-03 includes the following elements:

- The management of mission trajectory (MT) with variable profile areas (VPA) type of airspace reservations (ARES) as shared via iOAT FPL in the planning phase.
- The ARES conceptual evolution allowing more precise identification of ARES Entry and Exit location and time, to support the increased quality of the trajectory prediction in the corresponding wing operations centre (WOC), network manager (NM) and ATC systems. This includes the evolutions of the VPA module reference as integral part of the evolved iOAT FPL syntax & concept.

- The B2B services for iOAT FPL filing from WOC to NM as well as for the iOAT FPL distribution from NM to ATC. B2B services were as well successfully validated to connect Regional ATFCM (NM) and local ATC FMP systems.

Only those requirements related to the elements described above have completed V3/TRL6 and are considered part of solution PJ.07-03 (they are indicated with status <validated>).

4.2.1 ATFCM related Requirements

The purpose of this section is to provide requirements for processing and the distribution of the iOAT FPL by Regional ATFCM via B2B web services interfaces for the Airspace Users that support the submission, validation and distribution of the iOAT FPL; based on the military and civil airspace data that is provided via Regional ATFCM; and distribution to the concerned En Route Approach ACC.

For the TS, the naming convention of existing requirements as taken from related TSs in SESAR 1 [41]. It was decided to keep the original naming convention of that requirement in SESAR 1.

[REQ]

Identifier	REQ-07.06.02-TS-D048.0151
Title	iOAT FPL Security
Requirement	The AFTN iOAT FPL services shall inherit the security requirements of the current AFTN flight plan filing and distribution services.
Status	<in progress>
Rationale	To ensure that only authorised and authenticated users have access to the features.
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0150
Title	iOAT FPL Security
Requirement	The B2B iOAT FPL services shall inherit the security, authorisation and authentication requirements of the current B2B flight plan filing and distribution services.
Status	<in progress>
Rationale	To ensure that only authorised and authenticated users have access to the features.
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-18.01-TS-NM01.0006
Title	iOAT FPL Distribution
Requirement	The Regional ATFCM system shall distribute the iOAT FPL and related messages to ATC via AFTN and B2B web services.
Status	<validated>
Rationale	To harmonise with the European flight plan processing and distribution process.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO03.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO03.0003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0003
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0023
Title	iOAT FPL Distribution to STAY Aerodrome
Requirement	The IFPS system shall add the AFTN address of the Aerodrome designator present in the F15 STAY indicator to the IFPS distribution list.
Status	<in progress>
Rationale	To enable the ATC informed about the STAY aerodrome activity.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0003
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-18.01-TS-NM01.0005
Title	Profile Calculation in ARES

Requirement	The Regional ATFCM system shall not calculate any profile and apply any validation in the STAY part of the iOAT FPL.
Status	<validated>
Rationale	Out of the scope of the Regional NMF function
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-18.01-TS-NM01.0004
Title	ARES EET Mandatory in iOAT FPL
Requirement	The Regional ATFCM system shall return an error when there is no EET value present in each STAYARES field of the iOAT FPL.
Status	<in progress>
Rationale	For Regional ATFCM to be able to calculate a 4D profile as close as possible to the mission trajectory, and a correct distribution list.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007

<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-18.01-TS-NM01.0003
Title	ARES References in STAY Indicators
Requirement	Within one STAY indicator in field item 15 of an iOAT FPL, Regional ATFCM shall process either · one designator of an individual module of ARES (ERSA) or · one or more designators of individual modules of ARES (ERSA)//of VPA ARES or · a designator of a predefined combination of individual modules of ARES (CRSA) The ARES modules shall be separated by '/' in the ICAO format. The B2B web interface can be structured as appropriate.
Status	<validated>
Rationale	The VPA module used by the iOAT FPL needs to be communicated via the iOAT FPL from the WOC to the Regional ATFCM.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0005
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-18.01-TS-NM01.0002

Title	Flight Plan Processing Rules for iOAT FPL
Requirement	The OAT flight plans shall be exempt from the following IFPS validation and profile calculation rules: · The PTR restrictions · SID/STAR for military aerodromes
Status	<in progress>
Rationale	Military flights, except if they are operated under GAT, should not be subject of restrictions. It was agreed that the iOAT FPL expresses the mission flight plan. There is no need to distinguish mixed or pure OAT FPL. Waiting for the OSED requirements clarification.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0004
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-18.01-TS-NM01.0001
Title	iOAT FPL Regional ATFCM Web Services
Requirement	The Regional ATFCM system shall provide iOAT FPL submit, update, cancel and delay operations via B2B web services.
Status	<validated>
Rationale	To harmonise with the European standards and evolutions
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO03.0004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO03.0005
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO03.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0135
Title	PIC Information Checking
Requirement	The IFPS system shall raise an error if the Flight Type is 'L' or 'P' and the 'Item 18' does not contain 'PIC'.
Status	<in progress>
Rationale	To check that the PIC information is provided in the iOAT FPL.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0010
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0132

Title	Flight Rules and Type of Flight Checking
Requirement	The IFPS system shall validate an FPL according to the iOAT FPL validation rules when the 'Item 8' Flight rules and Type of Flight contains 'L' or 'P'.
Status	<validated>
Rationale	To identify which flight rules to apply and check. Waiting for OSED clarifications.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0131
Title	POB and END in B2B web services
Requirement	The NM B2B flight Services Supplementary Information shall accept in the item 19 name for END/ and POB/.
Status	<in progress>
Rationale	To check FPL information consistency. Refer to ICAO 4444 Item type 19 (Supplementary information). Ignored in FlightPlanValidationRequest and RoutingAssistanceRequest.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0130
Title	iOAT FPL Endurance in Item 19
Requirement	The IFPS system shall raise an error if the Item 19 'E' indicator value is not equal to 'Item 18' 'END'.
Status	<in progress>
Rationale	To check FPL information consistency.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0129
Title	iOAT FPL Persons on Board in Item 19
Requirement	The IFPS system shall raise an error if the Item 19 'P' indicator value is not equal to 'Item 18' 'POB'.
Status	<in progress>

Rationale	To check FPL information consistency.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0128
Title	iOAT FPL DCN Indicator via B2B
Requirement	The NM B2B Flight Services shall accept 'flightApprovals' in the OtherInformation type for DCN.
Status	<in progress>
Rationale	To enable cross border iOAT FPL filing.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0012
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0127

Title	iOAT FPL DCN Indicator in Item 18
Requirement	The IFPS system shall raise an error if the cross-border iOAT FPL does not contain the DCN value in the 'Item 18' FAP indicator.
Status	<in progress>
Rationale	To enable cross border iOAT FPL filing.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0012
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0152
Title	iOAT FPL DCN Indicator in Item 18
Requirement	The IFPS system shall accept the DCN value in the 'Item 18' FAP indicator.
Status	<in progress>
Rationale	To enable cross border iOAT FPL filing.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0012

<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0126
Title	iOAT FPL Formation Flight Aircraft Information Processing via B2B
Requirement	The NM B2B Flight Services shall accept 'formationCallSigns' in the OtherInformation type.
Status	<in progress>
Rationale	To enable the Military AU provide the formation flight information in iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0009
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0125
Title	iOAT FPL Formation Flight Aircraft Information Validation in Item 9
Requirement	The IFPS system shall raise an error if the 'Item 9' contains 'ZZZZ' and the 'Item 18' TYP sub Item does not contain the number and types of aircraft of the formation flight.
Status	<in progress>

Rationale	To enable the Military AU provide the formation flight information in iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0009
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0124
Title	iOAT FPL Formation Flight Aircraft Information in Item 18
Requirement	The IFPS system shall accept aircraft identification information of the individual elements of a formation flight other than the leader aircraft in 'Item 18', under sub Item ‘FOR’.
Status	<in progress>
Rationale	To enable the Military AU provide the formation flight information in iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0009

<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0121
Title	STAY Aerodrome Processing
Requirement	The IFPS system shall apply the STAY indicator processing and validation rules to the STAY indicator with Aerodrome designators.
Status	<validated>
Rationale	To apply the trajectory calculation rules for the stay durations.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0006
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0120
Title	EET in B2B web services
Requirement	The NM B2B Flight Services shall accept EstimatedElapsedTimeAtLocation[] eetsToLocations in the Flight Plan.
Status	<validated>

Rationale	To enable the input of EET for a location. Ignored in FlightPlanValidationRequest and RoutingAssistanceRequest. In case of FlightPlanUpdateRequest, the list of locations should be complete. Omitting a location will delete the location.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0119
Title	Aerodrome Identifiers in Route Item STAY Aerodrome
Requirement	The IFPS system shall accept Aerodrome designator in the STAY indicator in the 'Item 15' Route Item of the iOAT FPL for the OAT portions of the flight.
Status	<in progress>
Rationale	To receive the intended aerodrome usage information.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0005

<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0006
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0118
Title	Airspace Volume Ids in Route Item STAY ARES
Requirement	The IFPS system shall accept ARES designator in the STAY indicator in the 'Item 15' Route Item of the iOAT FPL for the OAT portions of the flight.
Status	<validated>
Rationale	To receive the intended airspace usage information.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0005
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0004
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0114
Title	Formation Flights Aircraft Type
Requirement	The IFPS system shall raise an error if the 'Item 9' contains 'ZZZZ' value but no valid aircraft type found in 'Item 18' TYP/ field.
Status	<in progress>

Rationale	To enable the Military AU provide the formation flight information in iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0008
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0113
Title	Formation Flights Aircraft Type
Requirement	The IFPS system shall accept 'ZZZZ' value in 'Item 9' for iOAT FPL.
Status	<in progress>
Rationale	To enable the Military AU provide the formation flight information in iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0008
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0111
Title	Aircraft Type in B2B web services
Requirement	The NM B2B Flight Services model shall accept 'CivilRPAS' and 'MilitaryRPAS' as additional possible values in the 'FlightType'
Status	<in progress>
Rationale	To allow input of the RPAS flight types via B2B web services.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0009
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0110
Title	Aircraft Type in Item 9
Requirement	The IFPS system shall accept the aircraft type in 'Item 9' as defined in ICAO Doc 8643 for iOAT FPL.
Status	<validated>
Rationale	To be ICAO compliant.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0109
Title	iOAT FPL Processing: Formation Flight Aircraft Information in Item 9
Requirement	The IFPS system shall accept the number and aircraft type and WTC for formation flights in 'Item 9' of the iOAT FPL as defined in the ICAO Doc 4444.
Status	<in progress>
Rationale	To enable the Military AU provide the formation flight information in iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0008
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0108
Title	OAT Indicator and Flight Type Consistency

Requirement	The IFPS system shall raise an error if the Item 8b does not contain 'M' or 'P' and 'EUR/OAT' indicator is present in the iOAT FPL.
Status	<in progress>
Rationale	To identify the type of rules to be applied for the iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0011
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0106
Title	Flight Type Check
Requirement	The IFPS system shall raise an error if the 'EUR/OAT' is present in 'Item 18' and the 'Item 8b' does not contain 'M' or 'P'.
Status	<in progress>
Rationale	The flight type can only be Military or RPAS.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001

<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0104
Title	iOAT FPL Aircraft Identification of Formation Flights in Item 18
Requirement	The IFPS system shall accept the other aircraft's aircraft identifications in 'Item 18' FOR sub Item for a formation flight.
Status	<in progress>
Rationale	To identify the formation aircrafts of the formation flight and be ICAO compliant.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0008
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0103
Title	iOAT FPL Aircraft Identification of Formation Flights in Item 7
Requirement	The IFPS system shall accept the leader aircraft's aircraft identification in 'Item 7' for a formation flight.
Status	<in progress>
Rationale	To identify the leader aircraft of the formation flight and being ICAO compliant.

Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0008
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0102
Title	iOAT FPL Military Callsigns in Item 18
Requirement	The IFPS system shall accept military tactical call signs in 'Item 18' RMK sub Item.
Status	<in progress>
Rationale	To enable the Military AU provide the military tactical call signs in the FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0011
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0007
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0136
Title	iOAT FPL Error Highlighting in the IFPS HMI
Requirement	The IFPS system shall enable the NM IFPS operator to visualise the compliant and erroneous parts of the iOAT FPL calculated trajectory with colour codes.
Status	<in progress>
Rationale	To help the IFPS operators identifying compliance and errors in an iOAT FPL.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0090
Title	NOP IFPUV Free Text Editor
Requirement	The NOP HMI shall provide the NOP IFPUV free text editor interface to validate the iOAT FPL.
Status	<in progress>
Rationale	To enable the MAU validate the candidate iOAT FPL prior to submission.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0002
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0080
Title	STAY ARES Processing
Requirement	The IFPS system shall apply the STAY indicator processing and validation rules to the STAY indicator with ARES designators.
Status	<validated>
Rationale	To apply the trajectory calculation rules for the stay durations.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0079
Title	ARES Exit Time
Requirement	The IFPS system shall use the end of 'ARES Occupancy Period' as the ARES exit time and subsequent trajectory.
Status	<in progress>
Rationale	To be able to calculate a trajectory as realistic as possible.

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0005
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0078
Title	ARES Active Check
Requirement	The IFPS system shall invalidate the iOAT FPL if the ARES is not active during the 'ARES Occupancy Period'.
Status	<validated>
Rationale	To validate iOAT FPL against the known airspace availability
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0005
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0077

Title	ARES Occupancy Period
Requirement	The IFPS system shall calculate the 'ARES Occupancy Period' as 'EET/ARESx' and 'EET/ARESx' + 'STAY/ARESx duration'.
Status	<validated>
Rationale	To validate iOAT FPL against the known airspace availability
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0005
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0076
Title	Mandatory EET STAY for ARES
Requirement	The IFPS system shall raise an error if the 'Item 18' does not contain EET/ARESx when there is STAY/ARESx in 'Item 15'.
Status	<in progress>
Rationale	To validate OAT flight plans against the known airspace availability
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0005

<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0075
Title	Active restricted/reserved airspace
Requirement	The IFPS system shall raise an error if the iOAT FPL crosses an active ARES without a STAY ARES indicator in Item 15.
Status	<validated>
Rationale	To validate iOAT FPL against the known airspace availability
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0005
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0074
Title	Unknown STAY ARES id
Requirement	The IFPS system shall raise an error if the iOAT FPL Item 15c STAY/ARES indicator contains an identifier which is not in the CACD and the identifier is not type restricted/reserved airspace..
Status	<validated>
Rationale	To validate iOAT FPL against the known airspace availability
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0073
Title	STAY ARES Usage in non iOAT FPL
Requirement	The IFPS system shall raise an error if the FPL contains STAY ARES indicator and not identified as EUR/OAT.
Status	<in progress>
Rationale	To validate OAT flight plans against the known airspace availability
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0071
Title	Non ICAO STAY Aerodrome Id

Requirement	The IFPS system shall raise an error if the Aerodrome designator found in the STAY indicator is not an ICAO aerodrome in the IFPZ.
Status	<validated>
Rationale	To validate OAT flight plans against the known aerodromes
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0070
Title	Unknown STAY Aerodrome Id
Requirement	The IFPS system shall raise an error if the iOAT FPL Item 15c STAY indicator contains a designator which is not in the CACD.
Status	<validated>
Rationale	To validate OAT flight plans against the known airspace availability
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001

<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0061
Title	Military Routes and Waypoints in CACD
Requirement	The CACD system shall distinguish the military and civil waypoints and routes
Status	<in progress>
Rationale	To enable the IFPS system calculating the mission trajectory. Waiting for the OSED requirements clarification.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0060
Title	Military Routes and Waypoints in CACD
Requirement	The CACD system shall be able to receive the military waypoints and routes for the IFPZ.
Status	<in progress>
Rationale	To enable the IFPS system calculates the mission trajectory.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0003
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0051
Title	No RAD checking
Requirement	The IFPS system shall disable the RAD checking rules, for the OAT portion of the iOAT FPL.
Status	<in progress>
Rationale	The current mandatory route rule is applicable for Civil flights but not applicable for Military flights. Waiting for the OSED requirements clarification.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0004
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0050
Title	No DCT checking
Requirement	The IFPS system shall disable the DCT checking rules as they are described in the IFPS User's Manual, for the iOAT FPL.
Status	<in progress>
Rationale	The current DCT rules are applicable for Civil flights but not applicable for Military flights Waiting for the OSED requirements clarification.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0004
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0031
Title	iOAT FPL Submission via B2B web services
Requirement	The IFPS system shall be able to receive the iOAT FPLs submitted via the B2B web services.
Status	<validated>
Rationale	Enable the Military AU sending the iOAT FPL via B2B web services.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0002
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0030
Title	iOAT FPL Submission via AFTN
Requirement	The IFPS system shall be able to receive the iOAT FPLs submitted via the AFTN.
Status	<validated>
Rationale	Enable the MAU sending the iOAT FPL via AFTN.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0021

Title	iOAT FPL Validation
Requirement	The IFPS system shall be able to validate the iOAT FPL transmitted by the Military AUs for the IFPZ.
Status	<validated>
Rationale	IFPS shall process the new fields and information provided in the iOAT FPL for NM to build a complete picture of the traffic within IFPZ.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0020
Title	iOAT FPL Submission from Military AU
Requirement	The IFPS system shall be able to receive iOAT FPL and associated messages transmitted by the Military AUs.
Status	<validated>
Rationale	To enable the single flight plan repository containing civil and military OAT, GAT and GAT/OAT flight plans. Redundant with the requirements REQ-07.06.02-TS-D048.0030 and REQ-07.06.02-TS-D048.0031.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0010
Title	iOAT FPL Reception, Processing and Validation
Requirement	The IFPS system shall apply the reception, validation and distribution rules in the following order: 1. According to the iOAT FPL Validation Rules described in this Technical Specifications 2. According to the ICAO 2012 flight plan format and the rules described in the IFPS User's Manual 3. According to the Regional ATFCM (NM) B2B Web Services User Manual
Status	<validated>
Rationale	The FPL processing rules that are described in this specifications supersede the current IFPS processing (please refer to IFPS User Manual) rules when in conflict, or they are additional rules. These specifications describe the variations or new rules with respect to the existing IFPS rules.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0003
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0113
Title	iOAT FPL Confidentiality
Requirement	The Regional ATFCM system shall ensure the confidentiality of iOAT FPL in all Regional ATFCM external interfaces, and iOAT FPL distribution via the STS/PROTECTED indicator.
Status	<in progress>
Rationale	Certain iOAT FPL requires a higher level of confidentiality and shall not be shared with and distributed to everybody.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0112
Title	Aircraft Type in CACD
Requirement	The CACD system shall accept the military aircraft types and the aircraft performance data.
Status	<in progress>
Rationale	To enable IFPS system calculates the mission trajectory according to the aircraft performance.
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.06.02-TS-D048.0040
Title	Military ANUs in CACD
Requirement	The CACD system shall be able to receive the AFTN addresses of all military entities.
Status	<validated>
Rationale	To enable the reception and distribution of the iOAT FPLs and associated messages by the IFPS system to the military entities
Category	<Interface>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP03.0003
<ALLOCATED_TO>	<Enabler>	NIMS-45_Initial Flight Planning management enhanced to support initial Mission Trajectory

[REQ]

Identifier	REQ-07.05.04-TS-0496.0101
Title	DATA_INTEGRITY

Requirement	The NM system interface shall detect data loss and corruption implementing real-time data error detection schemes.
Status	<in progress>
Rationale	In order to guarantee currency and accuracy of the information provided, the NM system interface shall need to consider the likelihood of data loss and corruption.
Category	<Reliability>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

4.2.2 ASM related Requirements

The purpose of this section concerns the modification of an ARES information included in the Improved OAT Flight Plan (iOAT FPL) during the execution phase. The local/sub-regional airspace manager as well as the regional airspace manager receive respective requests via B2B web services interfaces from the Airspace Users. The respective impact assessment will be performed to support the submission, validation and distribution of the iOAT FPL; based on the military and civil airspace data that is provided via the NM CACD system; and distribution to the concerned ATC systems.

[REQ]

Identifier	REQ-07.05.04-TS-0491.2316
Title	Overwrite ARES status in the ATC System ARES database
Requirement	On reception of an ARESACT message notifying an ARES change status the ATC System shall overwrite the ARES status in the ARES database with the information present in the new incoming message
Status	<validated>
Rationale	The ARESACT database should be updated on receiving new information about ARES status
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.2315
Title	ARES Modification
Requirement	The ATC System shall apply the modifications over an ARES only when the ASM Tool sends a modification message
Status	<in progress>
Rationale	The ATC System shall apply the modifications (on the booking list and on the status of the ARES) when the ASM Tool sends a modification message. The modifications are related to the flight levels (only reduce altitude) and the modules available within a booking (only reduce the number of modules).
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.2314
Title	ARES Pre-Notification
Requirement	The ATC System shall pre-notify an ARES only if the ASM Tool sends a pre-notification message
Status	<validated>

Rationale	The ATC System shall pre-notify an ARES only if the ASM Tool sends a pre-notification message.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.2313
Title	ARES de-activation
Requirement	The ATC System shall de-activate an ARES only if the ASM Tool sends a de-activation message
Status	<validated>
Rationale	The ATC System shall de-activate an ARES only if the ASM Tool sends a de-activation message. This implies that the ATC System shall not de-activate an ARES in case the de-activation time reaches.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.2312
Title	ARES activation
Requirement	The ATC System shall activate an ARES only if the ASM Tool sends an activation message

Status	<validated>
Rationale	The ATC System shall activate an ARES only if the ASM Tool sends an activation message. This implies that the ATC System shall not-activate an ARES in case the activation time reaches.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

[REQ]

[REQ]

Identifier	REQ-07.05.04-TS-0491.5103
Title	RTSA_DATA_COMPARISON
Requirement	The NM system shall allow the user to compare and visualize the changes made between different versions of a released RTSA data message, belonging to the same AUP chain.
Status	<validated>
Rationale	Comparing the CDRs/RSAs status of two RTSA data message versions.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.5102
Title	FUA_RESTRICTION_RTSA_EUUP

Requirement	RTSA EUUPs real time availability statements shall include two additional Boolean attributes for FUA level 1 (NAM) and FUA level 2 (AMA), representing the application of a FUA/EU restriction. In the EUUPs two dedicated columns with a checkbox shall be available with the header "FUA/Restriction".
Status	<validated>
Rationale	Once aggregated at ECAC level, FUA/EU restrictions information shall be published via RTSA EUUP in order to reflect the overall airspace allocation.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.5101
Title	FUA_RESTRICTION_RTSA_UUP
Requirement	RTSA UUPs RSA real time allocations shall include an additional Boolean attribute representing the application of a FUA/EU restriction. In the RSA availability list, a dedicated column with a checkbox shall be available with the header "FUA/EU restriction".
Status	<validated>
Rationale	Once consolidated, FUA/EU restrictions information shall be issued via RTSA UUP in order to update NM systems and be available for external client systems.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0391.1200
Title	Send RTSA UUP
Requirement	ASM Tool shall send RTSA UUP to NM system
Status	<validated>
Rationale	The ASM system shall send a RTSA UUP (state ready) to NM B2B server if a change to the reservation database occurs regarding the current AUP timeframe. The trigger for sending is the finished coordination and user input into ASM Tool to release the current RTSA UUP. The UUP contains all relevant reservations from the time of publication until end of current AUP time frame. Also the state of CDR and VPA is listed - useable for civil traffic – YES/NO.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.3103
Title	FUA_RESTRICTION_RETRIEVAL
Requirement	The NM system shall make all data concerning FUA/EU restrictions, including Off Load routes, Excluded routes, SID/STAR, DCT, Nearby routes and related routes, available to external client systems via B2B connection.
Status	<validated>

Rationale	Making FUA (AMA and NAM as published in AIP) and EU (Special or temporary areas) restrictions information accessible for assessing their impact on FPLs at local and network level.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.3101
Title	RTSA_DATA_SHARING
Requirement	The NM system shall make RTSA data available to external client systems via B2B connection.
Status	<validated>
Rationale	Making RTSA data accessible by AOs for pre-calculation of trajectories and re-processing of FPLs at a very early point in the airspace information sharing process.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.3102
Title	RTSA_DATA_RETRIEVAL

Requirement	The NM system shall retrieve RTSA data without interfering with existing AUP/UUP data chain.
Status	<validated>
Rationale	AUP/UUP chain shall not be affected by RTSA data in order to perform network impact assessments, what-if and post-ops analyses.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8503
Title	Handle Proposals
Requirement	The service shall allow for proposals to be accepted or rejected by an authenticated and privileged user for the client ASM tool with an appropriate action.
Status	<validated>
Rationale	The client ASM tool users shall be allowed to accept and reject proposals on a reservation managed by the service that they are responsible for.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8501
Title	Retrieve Proposal Data
Requirement	The service shall allow for all proposals within a configurable time interval to be retrieved from the ASM tool.
Status	<validated>
Rationale	The client ASM tool requires access to existing proposal data, including any they have themselves created. The request is required to support a time based filter to allow the client to control the amount of data to be returned to it.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8308
Title	Retrieve Reservation Action
Requirement	The service shall allow for reservation action information to be retrieved for a set of reservations by an authenticated ASM tool.
Status	<validated>
Rationale	The ASM tool providing the service shall control the users able to create, edit and cancel reservations making this information available to client applications to support their UI.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8306
Title	Retrieve Reservation Conflicts
Requirement	The service shall allow for reservation conflict information to be retrieved for a set of reservations by an authenticated ASM tool.
Status	<validated>
Rationale	The ASM tool providing the service shall apply its own rules to calculate conflicts and make these available to all clients.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8304
Title	Cancel Reservations
Requirement	The service shall allow an update request to cancel a reservation.
Status	<validated>
Rationale	The client ASM tool shall be allowed to forward reservation update requests to cancel previously created reservations
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8302
Title	Create Reservations
Requirement	The service shall allow for reservations to be created by an authenticated and privileged user of the client ASM tool.
Status	<validated>
Rationale	The client ASM tool shall be allowed to forward reservation requests for airspace managed by the service from authenticated users.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8301
Title	Retrieve Reservation Data
Requirement	The service shall allow for all reservations within a configurable time interval to be retrieved from the ASM tool.
Status	<validated>
Rationale	The client ASM tool requires access to existing reservation data, including any they have themselves created. The request is required to support a time based filter to allow the client to control the amount of data to be returned to it.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.8201
Title	Retrieve Static Data
Requirement	The service shall allow the static data managed by the ASM tool to be retrieved in AIXM 5.1 format.
Status	<validated>
Rationale	Reservation data from the ASM tool will reference booked airspace. Retrieval of this data will allow for the resolution of these references as well being able to present the data to a user.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-07.05.04-TS-0491.4102
Title	DATA_VISUALISATION_OPTIONS
Requirement	The NM system shall allow client systems to choose for each individual area which airspace status to plot: planning (AUP, UUP), actual RTSA, or both.
Status	<in progress>
Rationale	Allowing pertinent actors to compare planning and actual ASM data for tactical and post-ops analyses.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

Identifier	REQ-18.01-TS-ASM01.0003
Title	ASM support in execution phase
Requirement	The local/sub-regional ASM support system shall consider FPL change proposals to support the network impact assessment
Status	<in progress>
Rationale	Taking into account known and updated Airspace user intentions, these should be shared in order to improve the impact assessmentsperformed at local / subregional and regional level.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

[REQ]

[REQ]

Identifier	REQ-18.01-TS-ASM01.0001
Title	ASM support in execution phase
Requirement	The Local/sub-regional ASM support system shall allow an operator to perform an impact assessment: Upon reception of the request for new ARES or ARES modification, the impact assessment process starts.
Status	<validated>
Rationale	Adaptation to airspace user needs. Making better use of airspace opportunities (alteration of airspace restrictions, increase route availability) in order to provide additional route options to aircraft operators.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

4.2.3 State AU Operations Centre (WOC) related Requirements

The purpose of this section is to provide requirement for the State AU Operations Centre (WOC) Technical System. They are related to the display of aeronautical information and constraints, the reservation of airspace, the planning of missions and the filing of iOAT FPL as well as the monitoring of missions, airspace status and the revision of mission trajectories.

[REQ]

Identifier	REQ-18.01a-TS-SC04.2137
Title	Notification of the operator by SEG

Requirement	If the 'Secure Exchange Gateway' detects a data element that may not be disseminated in accordance with predefined filter rules, the 'Secure Exchange Gateway' shall notify the operator.
Status	<validated>
Rationale	Classified data shall not be disseminated. A certified 'Secure Exchange Gateway' shall apply pre-defined rules to inspect disseminated data. The 'Secure Exchange Gateway' shall ensure that a classified system connected to a system with lower classification level does not disseminate classified data. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1849 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Function>	Secure Exchange Gateway
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks

[REQ]

Identifier	REQ-18.01a-TS-SC04.2138
Title	Certification of 'Secure Exchange Gateway'

Requirement	The 'Secure Exchange Gateway' shall be certified for exchange of data between systems of different classification levels.
Status	<validated>
Rationale	Classified data shall not be disseminated. A certified 'Secure Exchange Gateway' shall apply pre-defined rules to inspect disseminated data. The 'Secure Exchange Gateway' shall ensure that a classified system connected to a system with lower classification level does not disseminate classified data. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1850 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Function>	Secure Exchange Gateway
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks

[REQ]

Identifier	REQ-18.01a-TS-SC04.2136
Title	Recording of discarded data

Requirement	The 'Secure Exchange Gateway' shall record date, time and content of the respective data element violating the filter rule.
Status	<validated>
Rationale	Classified data shall not be disseminated. A certified 'Secure Exchange Gateway' shall apply pre-defined rules to inspect disseminated data. The 'Secure Exchange Gateway' shall ensure that a classified system connected to a system with lower classification level does not disseminate classified data. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1848 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Function>	Secure Exchange Gateway
<ALLOCATED_TO>	<Enabler>	MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-SC04.2135
Title	Discarding data not eligible for dissemination

Requirement	If the 'Secure Exchange Gateway' detects a data element that may not be disseminated in accordance with predefined filter rules, the 'Secure Exchange Gateway' shall discard the respective data element.
Status	<validated>
Rationale	Classified data shall not be disseminated. A certified 'Secure Exchange Gateway' shall apply pre-defined rules to inspect disseminated data. The 'Secure Exchange Gateway' shall ensure that a classified system connected to a system with lower classification level does not disseminate classified data. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1847 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Function>	Secure Exchange Gateway
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks

[REQ]

Identifier	REQ-18.01a-TS-SC04.2134
Title	Determination of dissemination eligibility

Requirement	The 'Secure Exchange Gateway' shall determine for every data element exchanged between the State AU Wing Operations Centre (WOC) Technical System and other Technical Systems whether the data content may be disseminated to another Technical System.
Status	<validated>
Rationale	Classified data shall not be disseminated. A certified 'Secure Exchange Gateway' shall apply pre-defined rules to inspect disseminated data. The 'Secure Exchange Gateway' shall ensure that a classified system connected to a system with lower classification level does not disseminate classified data. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1846 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Function>	Secure Exchange Gateway
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks

[REQ]

Identifier	REQ-18.01a-TS-SC04.2133

Title	Inspection of disseminated data
Requirement	A 'Secure Exchange Gateway' shall inspect all data exchanged between the State AU Wing Operations Centre (WOC) Technical System and other Technical Systems.
Status	<validated>
Rationale	Classified data shall not be disseminated. A certified 'Secure Exchange Gateway' shall apply pre-defined rules to inspect disseminated data. The 'Secure Exchange Gateway' shall ensure that a classified system connected to a system with lower classification level does not disseminate classified data. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1845 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Function>	Secure Exchange Gateway
<ALLOCATED_TO>	<Enabler>	MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-SC04.4132

Title	Check confidentiality level of element of 'mission data set'
Requirement	If the operator requests the State AU Wing Operations Centre (WOC) Technical System to populate the fields of the 'iOAT flight plan form' with data from a selected mission data set, the State AU Wing Operations Centre (WOC) Technical System shall check the confidentiality level of each element. If the confidentiality level of an element does not allow the publication within an 'improved OAT flight plan', the State AU Wing Operations Centre (WOC) Technical System shall discard the content of that element and notify the operator. If the operator receives the notification and the respective data element is mandatory, the operator needs to analyse and decide whether the flight plan can be modified (and get a lower classification) or not.
Status	<validated>
Rationale	The mission data set comprises all information/data that is collected during the mission planning, mission execution and post flight analysis. Each data element has a classification in regard to the confidentiality level. Classified data shall not be disseminated. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1842 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

		MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-SC04.4131
Title	Store confidentiality level of element of 'mission data set'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall store the confidentiality level for each element of a 'mission data set'.
Status	<validated>
Rationale	The mission data set comprises all information/data that is collected during the mission planning, mission execution and post flight analysis. Each data element has a classification in regard to the confidentiality level. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1841 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

		AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks

[REQ]

Identifier	REQ-18.01a-TS-SC04.4130
Title	Define confidentiality level of element of 'mission data set'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to define the confidentiality level for each element of a 'mission data set'.
Status	<validated>
Rationale	The mission data set comprises all information/data that is collected during the mission planning, mission execution and post flight analysis. Each data element has a classification in regard to the confidentiality level. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1840 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-790
Category	<Security>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

		AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services MIL-0502_Upgrade of military ground systems to allow bi-directional exchanges with non-military IP networks

[REQ]

Identifier	REQ-18.01a-TS-FU04.3129
Title	Analysis of recorded flight-related data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall enable authorized operators to view and analyse recorded flight-related data.
Status	<in progress>
Rationale	Legal recording and post flight analysis. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1837
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-SFU04.3128

Title	Record history of flight-related interface data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall continuously record a complete, intelligible and accurate record of all communications with the ASM Technical System (CC Sub-Regional/National ASM) and the ATFCM Technical System (CC Regional ATFCM).
Status	<in progress>
Rationale	Legal recording and post flight analysis. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1836
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.3127
Title	Record history of flight-related internal data

Requirement	For every mission, the State AU Wing Operations Centre (WOC) Technical System shall continuously record all changes related to - Long-term planning information, - Mission data set, - ARES CDM information, - 4D trajectory information, - Flight plan information. If an operator modifies any of the aforementioned data, the State AU Wing Operations Centre (WOC) Technical System shall record the time as well as the role and user identification of this operator.
Status	<in progress>
Rationale	Legal recording and post flight analysis. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1835
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.3126
Title	Store validity of aeronautical data set
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall store the validity of the aeronautical data set used for calculation of flight routes and 4D trajectories.

Status	<validated>
Rationale	… shall be part of 'detailed mission data'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1832 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.3125
Title	Verify validity of aeronautical information
Requirement	Before calculation of flight routes or 4D trajectories, the State AU Wing Operations Centre (WOC) Technical System shall verify the validity of the aeronautical information to be used.
Status	<validated>
Rationale	To ensure that current data is used. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1831 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.5209
Title	Generate CNL message from 'iOAT flight plan' data set during mission execution
Requirement	During mission execution upon operator request and if an ATS message of type 'FPL' has been sent before, the State AU Wing Operations Centre (WOC) Technical System shall generate an ATS message of type 'CNL' from the 'iOAT flight plan' data set to the En-Route / Approach ATC Technical System (CC ER ACC) via PENS.
Status	<in progress>
Rationale	Generation of CNL message in case a filed FPL shall be cancelled during mission execution. TRL4 / V2 validated in SESAR 2020 Wave 1 EXE-07-03-01
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0012
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Trajectory Revision
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5208
Title	Generate CHG message from 'iOAT flight plan' data set during mission execution
Requirement	During mission execution upon operator request and if the following conditions apply: - an ATS message of type 'FPL' has been sent before, - any parameter of the ATS message of type 'FPL' that has been sent before has changed, - the conditions for an ATS message of type 'DLA' are not met, the State AU Wing Operations Centre (WOC) Technical System shall generate an ATS message of type 'CHG' from the 'iOAT flight plan' data set to the En-Route / Approach ATC Technical System (CC ER ACC) via PENS.
Status	<in progress>
Rationale	Generation of CHG message in case a filed iOAT FPL shall be updated during mission execution. TRL4 / V2 validated in SESAR 2020 Wave 1 EXE-07-03-01
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0012

<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Trajectory Revision
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5207
Title	Revise 'improved OAT flight' data set
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to revise an 'iOAT flight plan' data set during Execution Phase.
Status	<in progress>
Rationale	Revise 'iOAT flight plan' data set TRL4 / V2 validated in SESAR 2020 Wave 1 EXE-07-03-01
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Trajectory Revision
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5061
Title	Store mission track data
Requirement	If mission monitoring is active for a specific mission, the State AU Wing Operations Centre (WOC) Technical System shall store the track data of the respective aircraft and the planned route data for future use in the de-briefing.
Status	<validated>
Rationale	De-briefing, post-flight analysis See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1610 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5060
Title	Notify operator in case of METEO impact 2

Requirement	If mission monitoring is active for a specific mission, the State AU Wing Operations Centre (WOC) Technical System shall inform the operator, if METEO data including one or more of the following meteorological phenomena becomes available and intersects with the flight route: - Jetstream that exceed a speed of V_JET_MAX, - Clear Air Turbulences, - Cumulonimbus Areas, - Volcanic Ash, - Tropical Storms, - Radioactive release, - Cloud with icing and turbulence, - Wind speed and direction that exceed a speed of V_WIND_MAX.
Status	<in progress>
Rationale	As meteorological information is available via WXXM, the system shall inform the operator if a flight route intersects with potentially dangerous areas. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1609
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5059
Title	Notify operator in case of METEO impact 1
Requirement	If mission monitoring is active for a specific mission, the State AU Wing Operations Centre (WOC) Technical System shall inform the operator, if METEO data becomes available that impacts one of the following items of the mission: - METAR/SPECI/TAF for Departure aerodrome - METAR/SPECI/TAF for Destination aerodrome - METAR/SPECI/TAF for Alternate aerodrome(s)
Status	<validated>
Rationale	E.g. METAR/TAF announcing deterioration of weather conditions or even “black” status of runway. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1608 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5058
Title	Notify operator in case of NOTAM impact

Requirement	If mission monitoring is active for a specific mission, the State AU Wing Operations Centre (WOC) Technical System shall inform the operator, if NOTAM data becomes available that impacts one of the following items of the mission: - Departure aerodrome - Destination aerodrome - Alternate aerodrome(s) - Planned route based on 4D trajectory data
Status	<in progress>
Rationale	E.g. NOTAM announcing closure of destination or alternate aerodrome. E.g. NOTAM announcing establishment of area along the planned 4D route. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1607
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5057
Title	Notify operator in case of deviation

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall inform the operator, if thresholds for the calculated 4D deviation of a mission are exceeded.
Status	<validated>
Rationale	Coordinates (x,y), elevation (z), time (t) – limits should be definable. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1606 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5056
Title	Visualize 4D deviation
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall visualize continuously the calculated 4D deviation of a mission.
Status	<validated>

Rationale	Coordinates (x,y), elevation (z), time (t) – thresholds adaptable. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1605 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5055
Title	Calculate 4D deviation
Requirement	If mission monitoring is active for a specific mission, the State AU Wing Operations Centre (WOC) Technical System shall calculate continuously the 4D deviation between the current position of the respective aircraft of (a) mission(s) selected by the operator and the planned route(s) based on 4D mission trajectory information.
Status	<validated>

Rationale	Coordinates (x,y), elevation (z), time (t) – thresholds adaptable. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1604 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5054
Title	Visualize mission information
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall visualize on a 3D geographical background the following information for selected mission(s): - current position of the respective aircraft, - history positions of the respective aircraft, - planned route based on 4D mission trajectory information, - current route based on current flight plan data from the En-Route / Approach ATC Technical System.
Status	<validated>

Rationale	Allow the operator visual comparison between planning data and real-time data. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1603 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5053
Title	Read current flight plan data
Requirement	If mission monitoring is active for a specific mission, the State AU Wing Operations Centre (WOC) Technical System shall permanently read the current flight plan information of the respective aircraft and provide this information to the interface to the operator.
Status	<validated>

Rationale	Track data provided as ASTERIX CAT062. Presumably, Air Defence Technical System will send all track data. The FB 'Flight Operations Management' shall receive only relevant data from FB 'Information and Communication Management'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1602 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5052
Title	Read current aircraft position
Requirement	If mission monitoring is active for a specific mission, the State AU Wing Operations Centre (WOC) Technical System shall permanently read the current position of the respective aircraft and provide this information to the interface to the operator.
Status	<validated>

Rationale	Track data provided as ASTERIX CAT062. Presumably, Air Defence Technical System will send all track data. The FB 'Flight Operations Management' shall receive only relevant data from FB 'Information and Communication Management'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1601 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5051
Title	Perform mission monitoring
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall start/stop perform mission monitoring for missions selected by the operator.
Status	<validated>

Rationale	Start/Stop of monitoring and selection of missions for monitoring. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1600 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.5010
Title	Display real-time Airspace Status
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall display the current status of airspace (inactive, pre-active, active).
Status	<validated>
Rationale	Situation awareness. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1620 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Flight Operations Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Monitoring
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4212
Title	Coordinate route with En-Route/Approach ATS
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall allow the operator to negotiate the route with respective En-Route/Approach ATS (CC ER ACC) before submission to Regional ATFCM .
Status	<in progress>
Rationale	Pre-coordination with ATC, done by phone
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.1006

<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4211
Title	Share 4D profile with Regional ATFCM
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall allow the operator to extract the trajectory 4D profile and share it with Regional ATFCM on demand.
Status	<in progress>
Rationale	TBD
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.1007
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4210
Title	Pre-validate iSMT
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall allow the operator to pre-validate iSMT through the Regional ATFCM validation service before final submission.
Status	<in progress>
Rationale	Optional use of NM validation service for the generated iOAT FPL without filing
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.1005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4119
Title	Notify operator if iOAT FPL has not been filed yet.
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall continuously compare the EOBT of all created 'improved OAT flight plans' that have not been filed against the current time. If the difference between the EOBT and the current time is less than HHMM_FILE_iOAT_FPL, the State AU Wing Operations Centre (WOC) Technical System shall notify the operator.

Status	<in progress>
Rationale	Flight plans have to be filed a certain time before EOBT. The system shall notify the operator in time if he did not file a flight plan in order to allow the operator to file the flight plan in time. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1505 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4118
Title	Display of NM responses on sent ATS messages for ‘iOAT flight plan’
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to view responses to ATS messages sent (ACK, REJ, MAN).
Status	<in progress>

Rationale	To allow the operator the verification of successful transmission. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1504 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4117
Title	Display of NM responses on sent requests for ‘iOAT flight plan’
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to view responses to a FilingRequest/requestOATFPLSubmission; requestOATFPLModification; requestOATDLASubmission; requestOATFPLCancellation made (Valid, Rejected, Queued for correction).
Status	<validated>

Rationale	To allow the operator the verification of successful transmission. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1503 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4116
Title	Generate CNL message from 'iOAT flight plan' data set
Requirement	Upon operator request and if an ATS message of type 'FPL' has been sent before, the State AU Wing Operations Centre (WOC) Technical System shall generate an ATS message of type 'CNL' from the 'iOAT flight plan' data set.
Status	<in progress>

Rationale	Generation of CNL message in case a filed FPL shall be cancelled. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1502 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4115
Title	Generate Cancellation request from 'iOAT flight plan' data set
Requirement	Upon operator request and if a FilingRequest(FlightPlanCreationRequest)/ requestOATFPLSubmission(improvedOatFpl) has been made before, the State AU Wing Operations Centre (WOC) Technical System shall generate a FilingRequest(FlightPlanCancellationRequest)/ requestOATFPLCancellation(improvedOatFplCancellation) from the 'iOAT flight plan' data set.
Status	<validated>

Rationale	Generation of Cancellation request in case a filed FPL shall be cancelled. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1501 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4114
Title	Generate DLA message from ‘iOAT flight plan’ data set

Requirement	Upon operator request and if the following conditions apply: - an ATS message of type 'FPL' has been sent before, - the current departure time is later than 30 minutes than the departure time in the ATS message of type 'FPL' has been sent before, the State AU Wing Operations Centre (WOC) Technical System shall generate an ATS message of type 'DLA' from the 'iOAT flight plan' data set.
Status	<in progress>
Rationale	Generation of DLA message in case a mission is delayed. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1500 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4113
Title	Generate Delay request from 'iOAT flight plan' data set

Requirement	Upon operator request and if the following conditions apply: - a FilingRequest(FlightPlanCreationRequest)/ requestOATFPLSubmission(improvedOatFpl) has been made before, - the current departure time is later than 30 minutes than the departure time in the FilingRequest(FlightPlanCreationRequest)/ requestOATFPLSubmission(improvedOatFpl) that has been made before, the State AU Wing Operations Centre (WOC) Technical System shall generate a FilingRequest(FlightDelayRequest)/ requestOATDLASubmission(delayRequestOATFlightPlan) from the 'iOAT flight plan' data set.
Status	<validated>
Rationale	Generation of Delay request in case a mission is delayed. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1499 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.4112
Title	Generate CHG message from 'iOAT flight plan' data set
Requirement	Upon operator request and if the following conditions apply: - an ATS message of type 'FPL' has been sent before, - any parameter of the ATS message of type 'FPL' that has been sent before has changed, - the conditions for an ATS message of type 'DLA' are not met, the State AU Wing Operations Centre (WOC) Technical System shall generate an ATS message of type 'CHG' from the 'iOAT flight plan' data set.
Status	<in progress>
Rationale	Generation of CHG message in case a filed iOAT FPL shall be updated. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1498 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.4111
Title	FLIGHT PLANNING Generate Update/Modification request from 'iOAT flight plan' data set
Requirement	Upon operator request and if the following conditions apply: - a FilingRequest(FlightPlanCreationRequest)/ requestOATFPLSubmission(improvedOatFpl) has been made before, - any parameter of the FilingRequest(FlightPlanCreationRequest)/ requestOATFPLSubmission(improvedOatFpl) that has been made before has changed, - the conditions for a FilingRequest(FlightDelayRequest)/ requestOATDLASubmission(delayRequestOATFlightPlan) are not met, the State AU Wing Operations Centre (WOC) Technical System shall generate a FilingRequest(FlightPlanUpdateRequest)/ requestOATFPLModification(modificationRequestOATFlightPlan) from the 'iOAT flight plan' data set.
Status	<validated>
Rationale	Generation of Update/Modification request in case a filed iOAT FPL shall be updated. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1497 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing

<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4110
Title	Generate FPL message from 'iOAT flight plan' data set
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall generate an ATS message of type 'FPL' from the 'iOAT flight plan' data set.
Status	<in progress>

Rationale	Generation of FPL message. iOAT flight plan may be filed either in AIXM 5.1 XML schema or ATS message format. Filing can be done either via NM B2B interface/OATFlightPlanSubmission Service or via AMHS/AFTN. At the time of writing this requirement, the 'European ATM Service Description for the OATFlightPlanSubmission Service' document within ISRM Iteration 2.0 was available in version 00.02.01, but the OATFlightPlanSubmission service itself was not available. Hence, the request names from the 'NM20.5 Flight Services' document and the 'European ATM Service Description for the OATFlightPlanSubmission Service' document are used in parallel. Flight Plan with details based on the selected route respectively on the developed mission (MT) and in accordance with - ICAO Doc 4444 ATM/501 (ATS message type 'FPL'), version tbd. - NOP/B2B Reference Manual for release tbd. - Eurocontrol IFPS User Manual, edition tbd. - Eurocontrol IFPS and RPL Dictionary of Messages Ed. Date tbd. Note: Versions and editions of aforementioned documents are referenced as "tbd." as there might be more current versions available depending on the date of implementation of the system. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1496 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004
<ALLOCATED_TO>	<Functional block>	Flight Planning

<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.4109
Title	Generate Creation/Submission request from 'iOAT flight plan' data set
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall generate a FilingRequest(FlightPlanCreationRequest)/requestOATFPLSubmission(improvedOatFpl) from the 'iOAT flight plan' data set.
Status	<validated>

Rationale	Generation of creation/submission request. iOAT flight plan may be filed either in AIXM 5.1 XML schema or ATS message format. Filing can be done either via NM B2B/OATFlightPlanSubmission Service interface or via AMHS/AFTN. At the time of writing this requirement, the 'European ATM Service Description for the OATFlightPlanSubmission Service' document within ISRM Iteration 2.0 was available in version 00.02.01, but the OATFlightPlanSubmission service itself was not available. Hence, the request names from the 'NM20.5 Flight Services' document and the 'European ATM Service Description for the OATFlightPlanSubmission Service' document are used in parallel. Flight Plan with details based on the selected route respectively on the developed mission (MT) and in accordance with - ICAO Doc 4444 ATM/501 (ATS message type 'FPL'), version tbd. - NOP/B2B Reference Manual for release tbd. - Eurocontrol IFPS User Manual, edition tbd. - Eurocontrol IFPS and RPL Dictionary of Messages Ed. Date tbd. - European ATM Service Description for the OATFlightPlanSubmission Service. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1495 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004
<ALLOCATED_TO>	<Functional block>	Flight Planning

<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4108
Title	Take-over of data from 4D trajectory for 'iOAT flight plan' data set
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall populate the '4D trajectory' section of the 'iOAT flight plan form' with data from a selected mission data set (based on 4D trajectory data).
Status	<in progress>
Rationale	Take-over of data from 4D trajectory for 'iOAT flight plan' data set See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1494 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011

<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4107
Title	Take-over of mission data for 'iOAT flight plan' data set
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall populate the following fields of the 'iOAT flight plan form' with the following data derived from a selected mission data set (based on 4D trajectory data): - Departure aerodrome and time (Field Type 13) - Route (Field Type 15) - Destination aerodrome and total elapsed time (Field Type 16)
Status	<validated>
Rationale	Extraction of FPL relevant data from 4D trajectory See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1493 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001

<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4106
Title	Take-over of flight performance data into 'iOAT flight plan' data set
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall populate the 'Flight performance data' section of the 'iOAT flight plan form' with flight performance data.
Status	<in progress>
Rationale	The performance data within the iOAT flight plan is optional. The Flight Performance Data will be provided either as climb and descent performance profiles or as total weight of aircraft as part of the 4D trajectory. It contains a climb profile and a descent profile as specified in - NOP/B2B Reference Manual for release tbd. Note: Versions and editions of aforementioned documents are referenced as "tbd." as there might be more current versions available depending on the date of implementation of the system. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1492 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4105
Title	Notify operator if iOAT FPL includes ARES with status below “Allocated”
Requirement	If the operator orders the State AU Wing Operations Centre (WOC) Technical System to file an 'improved OAT flight plan' including ARES, the State AU Wing Operations Centre (WOC) Technical System shall verify if the ARES referenced in the 'improved OAT flight plan’ data set has a status of at least “Allocated”. If the status of the ARES referenced in the 'improved OAT flight plan’ data set has a status of at less than “Allocated”, the State AU Wing Operations Centre (WOC) Technical System shall notify the operator.
Status	<in progress>

Rationale	When the EAUP/EUUP has been published, the ARES is allocated. Before, the allocation is not granted and hence the ARES cannot be referenced in the iOAT FPL. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1491 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4104
Title	Take-over of data from ARES allocation into ‘iOAT flight plan form’

Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall populate the fields of the 'iOAT flight plan form' with the following data from a selected mission data set (based on the ARES request that has been allocated): - Departure aerodrome (Field Type 13) - Destination aerodrome (Field Type 16) - Number of aircraft (Field Type 9) - ARES Identifier(s) (Field Type 18) - Timeframe of ARES usage (Field Type 15) - Lower Flight Level of ARES usage (Field Type 15) - Upper Flight Level of ARES usage (Field Type 15)
Status	<in progress>
Rationale	After ARES has been allocated (via EAUP/EUUP), the flight plan form can be populated and a FPL message can be sent (i.e. the flight plan can be filed). See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1490 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4103
Title	Validate operator inputs into 'iOAT flight plan form' i.a.w. IFPS documents
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall validate the inputs of the operator into all fields of the 'iOAT flight plan form' i.a.w. IFPS documents.
Status	<validated>
Rationale	Validation of compliance with the following documents: - NOP/B2B Reference Manual for release tbd. - Eurocontrol IFPS User Manual, edition tbd. - Eurocontrol IFPS and RPL Dictionary of Messages Ed. Date tbd. Note: Versions and editions of aforementioned documents are referenced as "tbd." as there might be more current versions available depending on the date of implementation of the system. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1489 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator

<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.4102
Title	Allow inputs into 'iOAT flight plan form' i.a.w. OSED 07.06.02 Vol. 2
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall allow the operator the following inputs into the 'iOAT flight plan form' in addition to ICAO Doc 4444 ATM/501 and IFPS and RPL Dictionary of Messages: - Field Type 8: Indication of RPAS type: 'L' for civil, 'P' military - Field Type 15: Indication of OAT/GAT parts of the route - Field Type 15: Insertion of ARES-Entry Point and related time - Field Type 15: Insertion of STAY-ARES indicator, related time and ARES identifier with related upper and lower flight levels - Field Type 15: Insertion of ARES-Exit Point and related time - Field Type 15: Insertion of STAY-AERODROME indicator, related time and aerodrome identifier - Field Type 16: Insertion of times exceeding 24 hours - Field Type 18: Indication of OAT status in sub-field 'EUR' - Field Type 18: Formation information in sub-field 'FOR' - Field Type 18: Formation aircraft type Information in sub-field 'TYP' - Field Type 18: STAY information in sub-field 'STAYINFO' - Field Type 18: Diplomatic clearance information in sub-field 'DCN' - Field Type 18: RPAS Pilot in command information in sub-field 'PIC' - Field Type 18: Information about number of persons on board in sub-field 'POB' (for military transport aircraft) - Field Type 18: Information about fuel endurance in sub-field 'END' (for military transport aircraft)
Status	<validated>

Rationale	REQ-07.06.02-OSED-0005.0018 through REQ-07.06.02-OSED-0005.0049 Eurocontrol IFPS and RPL Dictionary of Messages for VP-716. Note: These additional inputs are not allowed for flights leaving the IFPZ. Note: Versions and editions of aforementioned documents are referenced as “tbd.” as there might be more current versions available depending on the date of implementation of the system. The military indication in Field Type 8 and the OAT/GAT indication in Field Type 15 in conjunction with the OAT indicator in Field Type 18 (sub-field ‘EUR’) will allow designation of flights of military aircraft as either pure OAT or mixed GAT/OAT flights. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1488 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4101
Title	Validate operator inputs into 'iOAT flight plan form' i.a.w. ICAO 4444
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall validate the inputs of the operator into all fields of the 'iOAT flight plan form' i.a.w. in ICAO Doc 4444 ATM/501.
Status	<validated>
Rationale	Validation of compliance with ICAO Doc. 4444, version tbd. Note: Versions and editions of aforementioned documents are referenced as "tbd." as there might be more current versions available depending on the date of implementation of the system. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1487 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

		AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.4100
Title	Provide fields for 'iOAT flight plan' data set i.a.w. ICAO Doc 4444 ATM/501
Requirement	The interface to the operator to create an 'improved OAT flight plan' data set shall provide for the 'ICAO FPL data' section of the 'iOAT flight plan form' all fields as specified in ICAO Doc 4444 ATM/501.
Status	<validated>
Rationale	- NOP/B2B Reference Manual for release tbd. - OSED 07.06.02 Vol. 1 for Step 1 - ICAO Doc 4444 ATM/501, version tbd. Note: Versions and editions of aforementioned documents are referenced as "tbd." as there might be more current versions available depending on the date of implementation of the system. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1486 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011

<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4099
Title	Provide fields for 'iOAT flight plan' data set i.a.w. NOP/B2B Reference Manual
Requirement	The interface to the operator to create an 'iOAT flight plan' data set shall provide for the 'iOAT flight plan form' the following three sections: - ICAO FPL data (as in ICAO Doc. 4444), (mandatory). - 4D trajectory (UP4DT), (optional) - Flight performance data (optional)
Status	<in progress>
Rationale	- NOP/B2B Reference Manual and European ATM Service Description for the OATFlightPlanSubmission Service for release tbd. - ICAO Doc 4444 ATM/501, version tbd. - European ATM Service Description for the OATFlightPlanSubmission Service, version tbd. Note: Versions and editions of aforementioned documents are referenced as "tbd." as there might be more current versions available depending on the date of implementation of the system. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1485 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4098
Title	Delete ‘improved OAT flight plan’ data set
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to delete an ‘iOAT flight plan’ data set.
Status	<validated>
Rationale	Delete ‘iOAT flight plan’ data set See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1484 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4097
Title	Modify 'improved OAT flight' data set
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to modify an 'iOAT flight plan' data set.
Status	<validated>
Rationale	Modify 'iOAT flight plan' data set See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1483 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator

<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.4096
Title	Store 'iOAT flight plan' data set
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to store an 'iOAT flight plan' data set.
Status	<validated>
Rationale	Store 'iOAT flight plan' data set e.g. for later transmission and recording See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1482 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Operational Flight Plan Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

		AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4095
Title	Create 'improved OAT flight plan' data set
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to create an 'improved OAT flight plan' data set by filling an 'iOAT flight plan form'.
Status	<validated>
Rationale	"Create" means to create a flight plan data set used to derive the FPL message. iOAT flight plan may be filed either in AIXM 5.1 XML schema or ATS message format. Filing can be done either via NM B2B/OATFlightPlanSubmission Service interface or via AMHS/AFTN. Flight Plan with details based on the selected route respectively on the developed mission (MT) and in accordance with - ICAO Doc 4444 ATM/501 (ATS message type 'FPL'), version tbd. - NOP/B2B Reference Manual for release tbd. - Eurocontrol IFPS User Manual, edition tbd. - Eurocontrol IFPS and RPL Dictionary of Messages Ed. Date tbd. Note: Versions and editions of aforementioned documents are referenced as "tbd." as there might be more current versions available depending on the date of implementation of the system. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1481 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Plan Filing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.4094
Title	Calculate EET for 4D trajectory
Requirement	If an operator defines an Estimated Elapsed Time for a point of a 4D trajectory, the State AU Wing Operations Centre (WOC) Technical System shall calculate the Estimated Elapsed Time for a point of a 4D trajectory as follows: EET (relative time) = Absolute time of the point – Absolute time of take-off
Status	<validated>

Rationale	NM (IFPS) uses default taxi times for airports. This information is provided via the ENV data. Take-off time is calculated as EOBT + Taxi time. All EETs refer to take-off time. Therefore the State AU Wing Operations Centre (WOC) Technical System needs to calculate the correct take-off time. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1461 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4093
Title	Calculate take-off for 4D trajectory
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall calculate the take-off time of a 4D trajectory as follows: Take-off time = EOBT + default taxi time
Status	<validated>

Rationale	NM (IFPS) uses default taxi times for airports. This information is provided via the ENV data. Take-off time is calculated as EOBT + Taxi time. All EETs refer to take-off time. Therefore the State AU Wing Operations Centre (WOC) Technical System needs to calculate the correct take-off time. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1460 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4092
Title	Modify 4D trajectory
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to modify the attributes of a 4D trajectory.
Status	<validated>

Rationale	Modify 4D trajectory See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1458 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4091
Title	Calculate 4D trajectory using topical aeronautical information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use topical aeronautical information for calculation of the 4D trajectory.
Status	<validated>
Rationale	Use of current data from AIM Technical System (CC Regional AIM) See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1457 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.4090
Title	Calculate 4D trajectory
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall calculate a 4D trajectory based on the calculated 4D route and the following attributes defined by the operator: - Times for points of the route - Speeds for points of the route - Altitudes for points of the route - Flight rules for points of the route - OAT/GAT indicator for points of the route - Stay indicator (ARES/aerodrome/holding) and stay duration for points of the route if applicable - Aircraft configuration
Status	<validated>

Rationale	Calculate 4D trajectory See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1456 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4089
Title	Modify calculated flight route
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to modify a calculated 4D flight route as follows: - Add/modify/delete points of the route - Add/modify/delete times for points of the route - Add/modify/delete speeds for points of the route - Add/modify/delete altitudes for points of the route - Add/modify/delete flight rules for points of the route - Add/modify/delete OAT/GAT indicator for points of the route - Add/modify/delete Stay indicator (ARES/aerodrome/holding) and stay duration for points of the route

Status	<validated>
Rationale	Define 4D route See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1455 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4088
Title	Calculate flight route using topical aeronautical information
Requirement	For calculation of the 4D flight route, the State AU Wing Operations Centre (WOC) Technical System shall use topical aeronautical information.
Status	<validated>

Rationale	Use of current data from AIM Technical System (CC Regional AIM). Consider temporality information within the AIXM 5.1 XML schema data for the time of the flight. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1454 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4087
Title	Calculate flight route automatically using EAUP/EUUP information

Requirement	If the State AU Wing Operations Centre (WOC) Technical System calculates an 'efficient' 4D flight route, the State AU Wing Operations Centre (WOC) Technical System shall avoid all ARES that is active at the time of flight except that ARES allocated to the own mission. If the State AU Wing Operations Centre (WOC) Technical System calculates an 'efficient' OAT 4D flight route, the State AU Wing Operations Centre (WOC) Technical System shall use DCT. If the State AU Wing Operations Centre (WOC) Technical System calculates an 'efficient' GAT 4D flight route, the State AU Wing Operations Centre (WOC) Technical System shall use ATS routes but avoid all CDRs that are closed at the time of the flight.
Status	<validated>
Rationale	Auto-routing function: calculate waypoints and route legs based on current dynamic information from EAUP/EUUP or AIM Technical System (CC Regional AIM) See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1453 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4086
Title	Calculate flight route automatically using IFR En-route data
Requirement	Upon operator request, The State AU Wing Operations Centre (WOC) Technical System shall calculate an 'efficient' 4D flight route using effective IFR En-route data and a selected 2D flight route.
Status	<validated>
Rationale	Auto-routing function: Calculate route using points (waypoints, navaids) and route legs based on current static aeronautical information from AIM Technical System (CC Regional AIM). Note: The selected 2D route needs to contain at least a start point (e.g. departure aerodrome) and an end point (e.g. destination aerodrome) but may also include points or ATS route segments. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1452 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4085
Title	Define 2D flight route
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to define graphically a 2D flight route within the geographical background of the mission area.
Status	<validated>
Rationale	Auto-routing function: Calculate route using points (waypoints, navaids) and route legs based on current static aeronautical information from AIM Technical System (CC Regional AIM). Note: The selected 2D route needs to contain at least a start point (e.g. departure aerodrome) and an end point (e.g. destination aerodrome) but may also include points or ATS route segments. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1451 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4084
Title	Select aeronautical object types
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to select aeronautical object types within the mission area and display attribute data of these objects.
Status	<validated>
Rationale	The FB 'Flight Planning' shall visualize all aeronautical object types available for the mission area and selected by the operator. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1442 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.4083
Title	Define mission area
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to define a mission area (geographical area of interest).
Status	<validated>
Rationale	Area for start-up to prepare a new mission See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1441 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1 AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4082

Title	Add data to a 'mission data set'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to add the following data to a 'mission data set': - Aircraft configuration data - Tactical data - ARES data - ICAO flight plan data - 4D trajectory data - Flight performance data - Other data
Status	<validated>
Rationale	The mission data set comprises all information/data that is collected during the mission planning, mission execution and post flight analysis. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1400 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4040
Title	Notify operator in case of METEO impact
Requirement	If the State AU Wing Operations Centre (WOC) Technical System calculates an 'efficient' flight route, the State AU Wing Operations Centre (WOC) Technical System shall inform the operator, if the flight route intersects with areas where one or more of the following meteorological phenomena occur: - Jetstream that exceed a speed of V_JET_MAX, - Clear Air Turbulences, - Cumulonimbus Areas, - Volcanic Ash, - Tropical Storms, - Radioactive release, - Cloud with icing and turbulence, - Wind speed and direction that exceed a speed of V_WIND_MAX.
Status	<in progress>
Rationale	As meteorological information is available via WXXM, the system shall inform the operator if a flight route intersects with potentially dangerous areas. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1582
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0003
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4039
Title	Display of WXXM information
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall display at least the following meteorological information received from the 4DWxCube Technical System: - Sig Weather including: - Jetstreams, - Clear Air Turbulence, - Cumulonimbus Areas, - Tropopause, - Volcanoes, - Tropical Storms, - Radioactive release, - Cloud with icing and turbulence. - OPMET including: - METAR, - SPECI, - TAF (Short/Long), - SIGMET, - SIGMET Volcanic Ash, - SIGMET Tropical Cyclone, - AIREP. - WAFS GRIB2 including: - Wind speed and direction, - Coverage from Ground to at least FL530 - Resolution of at least 1.25 degree grids.
Status	<in progress>
Rationale	The 4DWxCube Technical System will provide meteorological data in WXXM format. Storage of data in FB 'Flight Data Support Management'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1581
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0003
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Trajectory Generation
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.4035
Title	Send response to proposal for 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to send a response to proposals received from ASM Technical System (CC Sub-Regional/National ASM) related to previously transmitted 'Request for ARES'.
Status	<validated>
Rationale	Note: Administration of information by FB 'Flight Data Support Management' See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1419 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner

<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4034
Title	Proposals to 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to display proposals from the ASM Technical System (CC Sub-Regional/National ASM) related to transmitted 'Request for ARES'.
Status	<validated>
Rationale	Note: Administration of information by FB 'Flight Data Support Management' See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1418 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4033
Title	Situation Awareness 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to see other 'Request for ARES' for a specific timeframe and a list of specific ARES.
Status	<validated>
Rationale	To allow the operator to see which ARES has been requested already in order to prevent conflicts. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1416 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4032
Title	Deletion of 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to delete a 'Request for ARES'.
Status	<validated>

Rationale	Note: Administration of information by FB 'Flight Data Support Management' See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1414 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4031
Title	Modification of ‘Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to modify a ‘Request for ARES'.
Status	<validated>

Rationale	If conditions such as weather or availability of aircraft change, the timeframe, size or location of ARES may need to be changed. Depending on the status of the ARES request and the impact of a change, a new CDM process will be triggered. Note: Administration of information by FB 'Flight Data Support Management' See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1413 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4030
Title	Creation of 'Request for ARES'

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall provide an interface to the operator to create a 'Request for ARES' including at least the following information: - ARES Identifier(s) - Timeframe of ARES usage - Lower Flight Level of ARES usage - Upper Flight Level of ARES usage - Departure aerodrome (ICAO) - Destination aerodrome (ICAO) - Number of aircraft - Mission type - Priority information
Status	<validated>
Rationale	Minimum data set Note: Administration of information by FB 'Flight Data Support Management' See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1412 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4029
Title	Status of a sent 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall inform the operator about the status of a sent 'Request for ARES'.
Status	<validated>
Rationale	Request sent. Acknowledgement for Request received. Proposal for Request received. Proposal accepted/rejected (incl. counter-proposal). Acknowledgement for counter-proposal received. Reference allocation for request received. Note: Administration of information by FB 'Flight Data Support Management' See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1411 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	Mission Planner
<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.4009
Title	Display AIXM information
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall display at least the following aeronautical information received from AIM Technical System (CC Regional AIM) in AIXM 5.1 XML schema: • Aerodromes • Airspaces • Points (NAVAIDS, waypoints) • Routes (ATS, CDR, TACAN) • SID/STAR • CDR availability • ARES status • NOTAMs
Status	<validated>
Rationale	AIM Technical System (CC Regional AIM) will include information from EAD + CACD in AIXM 5.1 XML schema. Storage of data in FB 'Flight Data Support Management'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1570 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Flight Planning
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	Airspace Reservation
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute

		aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.3081
Title	Provide EAUP information
Requirement	Within the mission area, the State AU Wing Operations Centre (WOC) Technical System shall provide EAUP/EUUP information to the interface to the operator.
Status	<validated>
Rationale	Consider constraints (ARES) and availability of routes (CDR) for flight planning. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1365 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	Flight Constraints Management

<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1 AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.3080
Title	Provide terrain elevation data
Requirement	Within the mission area, the State AU Wing Operations Centre (WOC) Technical System shall provide terrain elevation data to the interface to the operator.
Status	<validated>
Rationale	Terrain elevation data for the 3D background of mission trajectory visualization See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1364 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

		AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.3079
Title	Provide Border Data
Requirement	Within the mission area, the State AU Wing Operations Centre (WOC) Technical System shall provide national border data to the interface to the operator.
Status	<validated>
Rationale	As a minimum of geographical information, national border lines for the 2D background of mission trajectory visualization - may be implemented into map image. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1363 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.3078
Title	Provide Map data
Requirement	Within the mission area, the State AU Wing Operations Centre (WOC) Technical System shall provide map data to the interface to the HMI used by the operator.
Status	<validated>
Rationale	Map data for the 2D background of mission trajectory visualization See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1362 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.3077

Title	Provide static aeronautical information
Requirement	Within the outlines of the mission area, the State AU Wing Operations Centre (WOC) Technical System shall read the following static aeronautical information from the State AU Wing Operations Centre (WOC) Technical System database and provide this information to the interface to the operator: - Aerodromes - Airspaces - Points (NAVAIDs, waypoints) - Routes (ATS routes, Conditional routes, TACAN routes) - SID/STAR
Status	<validated>
Rationale	The State AU Wing Operations Centre (WOC) Technical System database may contain numerous information. Only information located within the mission area shall be provided to the HMI. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1361 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.3076
Title	Store 'iOAT flight plan' data sets
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall store 'iOAT flight plan' data sets.
Status	<validated>
Rationale	Store 'iOAT flight plan' data set e.g. for later transmission and recording See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1351 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0011
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.3049
Title	Administrate surveillance data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall administrate the surveillance data received from the Air Defence Technical System.
Status	<validated>
Rationale	Track data such as position, heading, speed, Mode S information. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1391 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.3038
Title	Administrate meteorological information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall administrate the meteorological data imported from the 4DWxCube Technical System.

Status	<in progress>
Rationale	Administrate: pre-processing to guarantee quick access for application in the FB 'Flight Planning' and the FB 'Flight Operations Management'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1372
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0003
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.3037
Title	Access meteorological information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall access meteorological data imported from the 4DWxCube Technical System.
Status	<in progress>
Rationale	The State AU Wing Operations Centre (WOC) Technical System shall access meteorological data imported from the 4DWxCube Technical System. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1371
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0003
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.3028
Title	Administration of 'Requests for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall administrate ‘Requests for ARES'.
Status	<validated>
Rationale	Administrate: store Request for ARES and its status to the related mission respectively to the appropriate State Airspace User Inclusion of information that is sent/received via FB 'Information and Communication Management'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1341 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.3008
Title	Administrate real-time airspace status information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall administrate real-time airspace status Information received from the ASM Technical System (CC Sub-Regional/National ASM).
Status	<validated>
Rationale	XML file either than specific Airspace Status message or as UUP. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1381 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	Flight Constraints Management
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.3007
Title	Administrate AIM information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall administrate the aeronautical data imported from the AIM Technical System (CC Regional AIM).
Status	<validated>
Rationale	Administrate: pre-processing to guarantee quick access for application in the FB 'Flight Planning' and the FB 'Flight Operations Management'. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1302 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.3006
Title	Access AIM information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall access aeronautical data imported from the AIM Technical System (CC Regional AIM).
Status	<validated>
Rationale	The static data from AIM Technical System (CC Regional AIM) shall be available to support mission planning and flight planning activity. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1301 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Flight Data support Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Navigation Data Management
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-IE04.2206
Title	Accept connection from En-Route / Approach ATC Technical System (CC ER ACC) via PENS
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall accept a connection from the En-Route / Approach ATC Technical System (CC ER ACC) via PENS.
Status	<in progress>
Rationale	Connection from En-Route / Approach ATC Technical System (CC ER ACC) via PENS as alternative way to the Internet.
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0007
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2205
Title	Accept connection from En-Route / Approach ATC Technical System (CC ER ACC) via Internet

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall support a connection from the En-Route / Approach ATC Technical System (CC ER ACC) via Ethernet IP.
Status	<in progress>
Rationale	Connection from En-Route / Approach ATC Technical System (CC ER ACC) via Ethernet IP. Alternative way: PENS TRL4 / V2 validated in SESAR 2020 Wave 1 EXE-07-03-01
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0007
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2204
Title	ADEXP/OLDI format for exchange of information with En-Route / Approach ATC Technical System (CC ER ACC)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use the ADEXP/OLDI format to exchange information with the En-Route / Approach ATC Technical System (CC ER ACC).
Status	<in progress>

Rationale	Current flight plan data based on the FDPS information within the En-Route / Approach ATC Technical System (CC ER ACC). Ethernet IP may be national infrastructure or PENS. TRL4 / V2 validated in SESAR 2020 Wave 1 EXE-07-03-01
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0011
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0008
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2203
Title	Communicate via tbd interface with En-Route / Approach ATC Technical System (CC ER ACC)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall communicate with the En-Route / Approach ATC Technical System (CC ER ACC) via tbd interface.
Status	<in progress>
Rationale	Connection between WOC and En-Route / Approach ATC Technical System (CC ER ACC).
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0011
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0009
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2202
Title	Connect to En-Route / Approach ATC Technical System (CC ER ACC) via PENS
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a connection with the En-Route / Approach ATC Technical System (CC ER ACC) via PENS.
Status	<in progress>
Rationale	Connection to En-Route / Approach ATC Technical System (CC ER ACC) via PENS as alternative way to the Internet.
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0011
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0007
<ALLOCATED_TO>	<Functional block>	Information and Communication Management

<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2201
Title	Connect to En-Route / Approach ATC Technical System (CC ER ACC) via Internet
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a connection with the En-Route / Approach ATC Technical System (CC ER ACC) via Ethernet IP.
Status	<in progress>
Rationale	Connection to En-Route / Approach ATC Technical System (CC ER ACC) via Ethernet IP. Alternative way: PENS TRL4 / V2 validated in SESAR 2020 Wave 1 EXE-07-03-01
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0011
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0007
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2124
Title	AIXM format for exchange of information with ATFCM Technical System (CC Regional ATFCM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use the AIXM format to exchange information with the ATFCM Technical System (CC Regional ATFCM).
Status	<validated>
Rationale	The ATFCM Technical System (CC Regional ATFCM) will provide a publish/subscribe mechanism to exchange airspace management information in AIXM format. Information to be exchanged: - Flight Plan information See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1944 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0018
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	OATFlightPlanSubmission
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2123
Title	Publish/subscribe to ATFCM Technical System (CC Regional ATFCM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use a publish/subscribe mechanism to retrieve information from the ATFCM Technical System (CC Regional ATFCM).
Status	<in progress>
Rationale	The ATFCM Technical System (CC Regional ATFCM) will provide a publish/subscribe mechanism. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1943
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0018
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	OATFlightPlanSubmission
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2122
Title	Communicate via B2B interface (SWIM Profile) with ATFCM Technical System (CC Regional ATFCM)

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall communicate with the ATFCM Technical System (CC Regional ATFCM) via B2B interface (Yellow SWIM Profile).
Status	<validated>
Rationale	Connection between WOC and ATFCM Technical System (CC Regional ATFCM). See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1942 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0020
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0019
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	OATFlightPlanSubmission
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2121
Title	Connect to ATFCM Technical System (CC Regional ATFCM) via PENS

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a connection with the ATFCM Technical System (CC Regional ATFCM) via PENS.
Status	<in progress>
Rationale	Connection to ATFCM Technical System (CC Regional ATFCM) via PENS as alternative way to the Internet. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1941
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0018
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	OATFlightPlanSubmission
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2120
Title	Connect to ATFCM Technical System (CC Regional ATFCM) via Internet
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a connection with the ATFCM Technical System (CC Regional ATFCM) via the Internet.

Status	<validated>
Rationale	Connection to ATFCM Technical System (CC Regional ATFCM) via Internet. Alternative way: PENS See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1940 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0018
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	OATFlightPlanSubmission
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2075
Title	Inform operator on missing response for iOAT FPL

Requirement	If the State AU Wing Operations Centre (WOC) Technical System does not receive any response to a transmitted Filing Request (NM B2B/OATFlightPlanSubmission Service) or ATS message (AMHS/AFTN) from the IFPS within specified T_RESP_IOAT_FPL seconds, the State AU Wing Operations Centre (WOC) Technical System shall inform the operator.
Status	<in progress>
Rationale	T_RESP_IOAT_FPL is a parameter to be defined See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1236 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2074
Title	Receive response to FPL, DLA, CHG, CNL

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive the following responses to transmitted Filing Requests (NM B2B) or ATS messages (AMHS/AFTN) from the IFPS (ATFCM Technical System (CC Regional ATFCM)) in AIXM 5.1 XML schema or ATS message format: - Acknowledge (ACK) - Manual (MAN) - Reject (REJ)
Status	<validated>
Rationale	- NOP/B2B Reference Manual for release tbd. - OSED 07.06.02 Vol. 2 for Step 1 - ICAO Doc 4444 ATM/501, version tbd. - European ATM Service Description for the OATFlightPlanSubmission Service, version tbd. Note: Versions and editions of aforementioned documents are referenced as “tbd.” as there might be more current versions available depending on the date of implementation of the system. AIXM 5.1 XML schema via SOAP over HTTPS with NM B2B ATS message format via X.400 protocol with AMHS ATS message format via X.25 protocol with AFTN See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1235 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004

<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2073
Title	Transmit CNL for iOAT
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall transmit cancellations of iOAT flight plans to the IFPS in one of the following formats: - AIXM 5.1 XML schema (FilingRequest(FlightPlanCancellationRequest)/ requestOATFPLCancellation(improvedOatFplCancellation)) - ATS message format (CNL message)
Status	<validated>

Rationale	- NOP/B2B Reference Manual for release tbd. - OSED 07.06.02 Vol. 2 for Step 1 - ICAO Doc 4444 ATM/501, version tbd. - European ATM Service Description for the OATFlightPlanSubmission Service, version tbd. Note: Versions and editions of aforementioned documents are referenced as “tbd.” as there might be more current versions available depending on the date of implementation of the system. AIXM 5.1 XML schema via SOAP over HTTPS with NM B2B ATS message format via X.400 protocol with AMHS ATS message format via X.25 protocol with AFTN See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1234 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

		AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2072
Title	Transmit DLA
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall transmit delays to departure times of iOAT flight plans to the IFPS in one of the following formats: - AIXM 5.1 XML schema (FilingRequest(FlightDelayRequest)/ requestOATDLASubmission(delayRequestOATFlightPlan)) - ATS message format (DLA message)
Status	<validated>
Rationale	- NOP/B2B Reference Manual for release tbd. - OSED 07.06.02 Vol. 2 for Step 1 - ICAO Doc 4444 ATM/501, version tbd. - European ATM Service Description for the OATFlightPlanSubmission Service, version tbd. Note: Versions and editions of aforementioned documents are referenced as “tbd.” as there might be more current versions available depending on the date of implementation of the system. AIXM 5.1 XML schema via SOAP over HTTPS with NM B2B ATS message format via X.400 protocol with AMHS ATS message format via X.25 protocol with AFTN See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1233 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2071
Title	Transmit CHG
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall transmit updates of iOAT flight plans to the IFPS in one of the following formats: - AIXM 5.1 XML schema (FilingRequest(FlightPlanUpdateRequest)/ requestOATFPLModification(modificationRequestOATFlightPlan)) - ATS message format (CHG message)
Status	<validated>

Rationale	- NOP/B2B Reference Manual for release tbd. - OSED 07.06.02 Vol. 2 for Step 1 - ICAO Doc 4444 ATM/501, version tbd. - European ATM Service Description for the OATFlightPlanSubmission Service, version tbd. Note: Versions and editions of aforementioned documents are referenced as “tbd.” as there might be more current versions available depending on the date of implementation of the system. AIXM 5.1 XML schema via SOAP over HTTPS with NM B2B ATS message format via X.400 protocol with AMHS ATS message format via X.25 protocol with AFTN See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1232 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0005
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

		AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2070
Title	Transmit iOAT
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall transmit iOAT flight plans to the IFPS (ATFCM Technical System (CC Regional ATFCM)) in one of the following formats: - AIXM 5.1 XML schema (FilingRequest(FlightPlanCreationRequest)/ requestOATFPLSubmission(improvedOatFpl)) - ATS message format (FPL message)
Status	<validated>
Rationale	- NOP/B2B Reference Manual for release tbd. - OSED 07.06.02 Vol. 2 for Step 1 - ICAO Doc 4444 ATM/501, version tbd. - European ATM Service Description for the OATFlightPlanSubmission Service, version tbd. Note: Versions and editions of aforementioned documents are referenced as “tbd.” as there might be more current versions available depending on the date of implementation of the system. AIXM 5.1 XML schema via SOAP over HTTPS with NM B2B ATS message format via X.400 protocol with AMHS ATS message format via X.25 protocol with AFTN See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1231 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2069
Title	Communicate with IFPS
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall communicate with the IFPS (ATFCM Technical System (CC Regional ATFCM)) via one of the following two interfaces: - NM B2B interface (Yellow SWIM Profile). - AFTN/AMHS interface
Status	<validated>
Rationale	Either AFTN or AMHS interface using a message gateway or SWIM Profile. SWIM profile: May be represented by the NM B2B webservices (Flight Services) or the OATFlightPlanSubmission Service. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1230 TRL4 / V2 validated in SESAR 1 WP11.1 WOC Exercise VP-789 TRL6 / V3 validated in SESAR 2020 Wave 1 EXE-07-03-02

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0004
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Flight Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2068
Title	AIXM format for exchange of information with ASM Technical System (CC Regional ASM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use the AIXM format to exchange information with the ASM Technical System (CC Regional ASM).
Status	<validated>
Rationale	The ASM Technical System (CC Regional ASM) will provide a publish/subscribe mechanism to exchange airspace management information in AIXM format. Information to be exchanged: - EAUP/EUUP (Receive only) See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1949 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0010
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0022
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	NetworkOperationPlan
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2067
Title	Publish/subscribe to ASM Technical System (CC Regional ASM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use a publish/subscribe mechanism to retrieve information from the ASM Technical System (CC Regional ASM).
Status	<in progress>
Rationale	The ASM Technical System (CC Regional ASM) will provide a publish/subscribe mechanism. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1948
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0010

<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0021
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0023
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	NetworkOperationPlan
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2066
Title	Import static EUUP information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall continuously import the EUUP from the ASM Technical System (CC Regional ASM) and store this data into the State AU Wing Operations Centre (WOC) Technical System database.
Status	<validated>
Rationale	EAUP every 24 hours, EUUPs in between See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1204 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator

<ALLOCATED_TO>	<Function>	Aeronautical Information Parsing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

[REQ]

Identifier	REQ-18.01a-TS-FU04.2065
Title	Import static EAUP information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall continuously import the EAUP from the ASM Technical System (CC Regional ASM) and store this data into the State AU Wing Operations Centre (WOC) Technical System database.
Status	<validated>
Rationale	EAUP every 24 hours, EUUPs in between See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1203 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	Aeronautical Information Parsing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

		AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2064
Title	Receive current flight plan data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive flight plan data from the En-Route / Approach ATC Technical System (CC ER ACC) in ASTERIX CAT150 format via Ethernet IP.
Status	<validated>
Rationale	Current flight plan data based on the FDPS information within the En-Route / Approach ATC Technical System (CC ER ACC). Ethernet IP may be national infrastructure or PENS. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1965 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2063
Title	Receive surveillance data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive surveillance data from the En-Route / Approach ATC Technical System in ASTERIX CAT062 format via B2B interface (Yellow SWIM Profile).
Status	<in progress>
Rationale	Track data such as position, heading, speed, Mode S information. Ethernet IP may be national infrastructure or PENS. TRL4 / V2 validated in SESAR 2020 Wave 1 EXE-07-03-01
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0010
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0012
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2062
Title	Receive surveillance data

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive surveillance data from the Air Defence Technical System in ASTERIX CAT062 format via Ethernet IP.
Status	<validated>
Rationale	Track data such as position, heading, speed, Mode S information. Ethernet IP may be national infrastructure or PENS. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1960 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0010
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0011
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.2050
Title	Administrate current flight plan data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall administrate the flight plan data received from the En-Route / Approach ATC Technical System (CC ER ACC).

Status	<validated>
Rationale	Current flight plan data based on the FDPS information within the En-Route / Approach ATC Technical System (ER ACC). See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1392 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.2048
Title	Accept and validate current flight plan data
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall accept valid flight plan data from the En-Route / Approach ATC Technical System (CC ER ACC).
Status	<validated>

Rationale	Current flight plan data based on the FDPS information within the En-Route / Approach ATC Technical System (ER ACC). See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1295 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-FU04.2047
Title	Accept and validate surveillance data
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall accept valid surveillance data from the Air Defence Technical System.
Status	<validated>

Rationale	Track data such as position, heading, speed, Mode S information. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1290 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0007
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0008
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	Mission Observer
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0103_Wing Operations Centre Mission Support System (including update/revision) of iMT

[REQ]

Identifier	REQ-18.01a-TS-IE04.2046
Title	WXXM format for exchange of information with the 4DWxCube Technical System (CC Aerodrome ATM-MET)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use the WXXM format to retrieve meteorological information from the 4DWxCube Technical System (CC Aerodrome ATM-MET).
Status	<in progress>

Rationale	A B2B service will provide a publish/subscribe mechanism to retrieve meteorological information in WXXM format. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1994
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0005
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	METHazardEnrouteObservation METHazardEnrouteForecast METGriddedForecast
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2045
Title	Communicate with the 4DWxCube Technical System (CC Aerodrome ATM-MET)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall communicate with the 4DWxCube Technical System (CC Aerodrome ATM-MET) via B2B interface (Yellow SWIM Profile).
Status	<in progress>

Rationale	Access of the 4DWxCube Technical System (CC Aerodrome ATM-MET) via B2B web services (Initial SWIM Profile) to retrieve meteorological information. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1992
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0006
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	METHazardEnrouteObservation METHazardEnrouteForecast METGriddedForecast
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2044
Title	Connect to 4DWxCube Technical System (CC Aerodrome ATM-MET) via Internet
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a connection with the 4DWxCube Technical System (CC Aerodrome ATM-MET) via the Internet.
Status	<in progress>

Rationale	Connection to 4DWxCube Technical System (CC Aerodrome ATM-MET) via Internet to retrieve meteorological information. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1990
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0004
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	METHazardEnrouteObservation METHazardEnrouteForecast METGriddedForecast
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2043
Title	WXXM format for exchange of information with the 4DWxCube Technical System (CC ATM-MET)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use the WXXM format to retrieve meteorological information from the 4DWxCube Technical System (CC ATM-MET).
Status	<in progress>

Rationale	A B2B service will provide a publish/subscribe mechanism to retrieve meteorological information in WXXM format. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1974
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0005
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	METHazardEnrouteObservation METHazardEnrouteForecast METGriddedForecast
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2042
Title	Communicate with the 4DWxCube Technical System (CC ATM-MET)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall communicate with the 4DWxCube Technical System (CC ATM-MET) via B2B interface (Yellow SWIM Profile).
Status	<in progress>

Rationale	Access of the 4DWxCube Technical System (CC ATM-MET) via B2B web services (SWIM Profile) to retrieve meteorological information. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1972
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0006
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	METHazardEnrouteObservation METHazardEnrouteForecast METGriddedForecast
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2041
Title	Connect to 4DWxCube Technical System (CC ATM-MET) via Internet
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a connection with the 4DWxCube Technical System (CC ATM-MET) via the Internet.
Status	<in progress>

Rationale	Connection to 4DWxCube Technical System (CC ATM-MET) via Internet to retrieve meteorological information. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1970
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0004
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	METHazardEnrouteObservation METHazardEnrouteForecast METGriddedForecast
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2036
Title	Accept and validate meteorological data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall accept valid meteorological data from the 4DWxCube Technical System.
Status	<in progress>

Rationale	Retrieve meteorological information from 4DWxCube Technical System. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1270
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0003
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	MET Data Operator
<ALLOCATED_TO>	<Function>	Weather Information Parsing
<ALLOCATED_TO>	<Enabler>	AOC-ATM-20_Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2027
Title	Receive 'Reference Allocation' for ‘Request for ARES’
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive a 'Reference Allocation' for ARES in AIXM 5.1 XML schema from the ASM Technical System (CC Sub-Regional/National ASM) related to a previously transmitted 'Request for ARES'.
Status	<validated>
Rationale	WOC reception of ref. allocation from AMC. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1226 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2026
Title	Receive TTO for 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive an acceptance in AIXM 5.1 XML schema including a target time over (TTO) from the ASM Technical System (CC Sub-Regional/National ASM) related to a previously transmitted counter-proposal.
Status	<validated>
Rationale	AMC acceptance of counter-proposal. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1225 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03

<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2025
Title	Send counter-proposal for 'Request for ARES'
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall send a rejection to proposals received from ASM Technical System (CC Sub-Regional/National ASM) related to previously transmitted 'Request for ARES' in AIXM 5.1 XML schema. The rejection shall include a counter-proposal.
Status	<validated>
Rationale	WOC rejection of AMC proposal. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1224 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator

<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2024
Title	Send response to proposal for 'Request for ARES'
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall send an acceptance to proposals received from ASM Technical System (CC Sub-Regional/National ASM) related to previously transmitted 'Request for ARES' in AIXM 5.1 XML schema.
Status	<validated>
Rationale	WOC acceptance of AMC proposal time becomes TTO. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1223 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2023
Title	Receive proposal for 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive proposals in AIXM 5.1 XML schema from the ASM Technical System (CC Sub-Regional/National ASM) related to previously transmitted 'Request for ARES'.
Status	<validated>
Rationale	Only if the AMC does not accept the request. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1222 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2022
Title	Receive acknowledgement for 'Request for ARES'
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive acknowledgements in AIXM 5.1 XML schema from the ASM Technical System (CC Sub-Regional/National ASM) for previously transmitted 'Request for ARES'.

Status	<validated>
Rationale	Confirmation of transmission See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1221 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2021
Title	Transmit ‘Request for ARES’
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall transmit 'Request for ARES' in AIXM 5.1 XML schema to the ASM Technical System (CC Sub-Regional/National ASM).
Status	<validated>
Rationale	AIXM 5.1 XML schema See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1220 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0010
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-IE04.2020
Title	AIXM format for exchange of information with ASM Technical System (CC Sub-Regional/National ASM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use the AIXM format to exchange information with the ASM Technical System (CC Sub-Regional/National ASM).
Status	<validated>
Rationale	The ASM Technical System (CC Sub-Regional/National ASM) will provide a publish/subscribe mechanism to exchange airspace management information in AIXM format. Information to be exchanged: ARES request/negotiation-related information, long-term planning information. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1954 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0025
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0008
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	ARESQuery
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-IE04.2019
Title	Publish/subscribe to ASM Technical System (CC Sub-Regional/National ASM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use a publish/subscribe mechanism to retrieve information from the ASM Technical System (CC Sub-Regional/National ASM).
Status	<validated>
Rationale	The ASM Technical System (CC Sub-Regional/National ASM) will provide a publish/subscribe mechanism. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1953 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0027
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0007
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	ARESActivation ARESDeactivation ARESPreActivation ARESRelease
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-IE04.2018
Title	Communicate via B2B interface (SWIM Profile) with ASM Technical System (CC Sub-Regional/National ASM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall communicate with the ASM Technical System (CC Sub-Regional/National ASM) via B2B interface (Yellow SWIM Profile).
Status	<validated>
Rationale	Connection between WOC and ASM Technical System (CC Sub-Regional/National ASM). See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1952 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0027
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0026
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0009
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	ARESQuery
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-IE04.2017
Title	Securely connect to ASM Technical System (CC Sub-Regional/National ASM) via Internet
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a secure connection with the ASM Technical System (CC Sub-Regional/National ASM) via the Internet ensuring required security standards.
Status	<validated>
Rationale	Secure connection to ASM Technical System (CC Sub-Regional/National ASM) via Internet. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1950 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0024
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0008
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	ARESQuery
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2016
Title	Import AIXM 5.1 XML schema file from data carrier
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall retrieve aeronautical information from an AIXM 5.1 XML schema file provided via data carrier.
Status	<validated>
Rationale	In case no connection via the B2B web services/SWIM is available, there shall be a back-up to import aeronautical information in AIXM 5.1 XML schema. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1935 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional> , <IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0017
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0001
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Aeronautical Information Parsing
<ALLOCATED_TO>	<Service>	AeronauticalInformationMap AeronauticalInformationFeature AeronauticalInformationNotification
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-IE04.2015
Title	AIXM format for exchange of information with AIM Technical System (CC Regional AIM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use the AIXM 5.1 XML schema to retrieve aeronautical information from the AIM Technical System (CC Regional AIM).
Status	<validated>
Rationale	The NM B2B service will provide a publish/subscribe mechanism to exchange information in AIXM format. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1934 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0014
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0001
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	AeronauticalInformationMap AeronauticalInformationFeature AeronauticalInformationNotification
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-IE04.2014
Title	Publish/subscribe to AIM Technical System (CC Regional AIM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall use a publish/subscribe mechanism to retrieve aeronautical information from the AIM Technical System (CC Regional AIM).
Status	<in progress>
Rationale	The NM B2B service will provide a publish/subscribe mechanism. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1933
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0001
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	AeronauticalInformationMap AeronauticalInformationFeature AeronauticalInformationNotification
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-IE04.2013
Title	Communicate with AIM Technical System (CC Regional AIM)
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall communicate with the AIM Technical System (CC Regional AIM) via B2B interface (Yellow SWIM Profile).
Status	<validated>
Rationale	Access of AIM Technical System (CC Regional AIM) via NM B2B web services (Initial SWIM Profile). See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1932 TRL4 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0015
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0001
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	AeronauticalInformationMap AeronauticalInformationFeature AeronauticalInformationNotification
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-IE04.2012
Title	Connect to AIM Technical System (CC Regional AIM) via PENS
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a secure connection with the AIM Technical System (CC Regional AIM) via PENS ensuring required security standards.
Status	<in progress>
Rationale	Secure connection to AIM Technical System (CC Regional AIM) via PENS as alternative way to the Internet ensuring required security standards. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1931

Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0016
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0001
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	AeronauticalInformationMap AeronauticalInformationFeature AeronauticalInformationNotification
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-IE04.2011
Title	Connect to AIM Technical System (CC Regional AIM) via Internet
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall establish a secure connection with the AIM Technical System (CC Regional AIM) via the Internet ensuring required security standards.
Status	<validated>

Rationale	Secure connection to AIM Technical System (CC Regional AIM) via Internet ensuring required security standards. Alternative way: PENS / New PENS See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1930 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<IER>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO04.0013
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE04.0001
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Service>	AeronauticalInformationMap AeronauticalInformationFeature AeronauticalInformationNotification
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.2005

Title	Confirm real-time airspace status information
Requirement	Upon reception of real-time Airspace Status Information, the State AU Wing Operations Centre (WOC) Technical System shall send a confirmation to the ASM Technical System (CC Sub-Regional/National ASM).
Status	<validated>
Rationale	Acknowledgment to confirm successful transmission. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1281 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2004
Title	Receive real-time airspace status information
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall receive real-time airspace status Information from the ASM Technical System (CC Sub-Regional/National ASM) as XML file.
Status	<validated>

Rationale	XML file either as specific Airspace Status message or as UUP. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1280 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	WOC GroundGround Communication
<ALLOCATED_TO>	<Enabler>	MIL-0106_Wing Operations Centre Mission Support System enhanced to support the CDM process

[REQ]

Identifier	REQ-18.01a-TS-FU04.2003
Title	Store AIM data
Requirement	The State AU Wing Operations Centre (WOC) Technical System shall store the aeronautical data from AIM Technical System (CC Regional AIM) including its validity into the State AU Wing Operations Centre (WOC) Technical System database.
Status	<validated>
Rationale	The data from AIM Technical System (CC Regional AIM) shall be available even if the connection to AIM Technical System (CC Regional AIM) failed. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1205 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Aeronautical Information Parsing
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services

[REQ]

Identifier	REQ-18.01a-TS-FU04.2002
Title	Import dynamic AIM information
Requirement	Upon operator request, the State AU Wing Operations Centre (WOC) Technical System shall import the following dynamic aeronautical data from the AIM Technical System (CC Regional AIM) and store this data into the State AU Wing Operations Centre (WOC) Technical System database: • Airspace Status • Digital NOTAMs
Status	<validated>

Rationale	to import autonomously and on demand of operator and support these information for use in system internally See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1202 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Dynamic Data Operator
<ALLOCATED_TO>	<Function>	Aeronautical Information Parsing
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

[REQ]

Identifier	REQ-18.01a-TS-FU04.2001
Title	Import static AIM information in line with AIRAC cycle

Requirement	The State AU Wing Operations Centre (WOC) Technical System shall import the following static airspace structures from the AIM Technical System (CC Regional AIM) at least every 28 days in compliance with the AIRAC cycle and store this data into the State AU Wing Operations Centre (WOC) Technical System database: • Aerodromes and heliports • Airspaces • Points (Navaids and Waypoints including military Points) • Routes (ATS Routes, Conditional Routes, TACAN Routes) • SID/STAR
Status	<validated>
Rationale	… to import autonomously and on demand of operator and support these information for use in system internally Note: The AIM Technical System (CC Regional AIM) will provide Complete Data Sets (CDS) daily and Incremental Data Sets (IDS) if changes occur in between. See SESAR 1 WP11.1 WOC requirement REQ-11.01.03-TS-WOCR.1201 TRL6 / V3 validated in SESAR 1 WP11.1 WOC Exercise VP-789
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP04.0002
<ALLOCATED_TO>	<Functional block>	Information and Communication Management
<ALLOCATED_TO>	<Role>	AIS Static Data Operator
<ALLOCATED_TO>	<Function>	Aeronautical Information Parsing
<ALLOCATED_TO>	<Enabler>	AIMS-19b_Aeronautical Information system is interfaced to receive and distribute aeronautical information electronically to military systems. AOC-ATM-14_Upgrade of WOC system to handle improved OAT flight plans

		AOC-ATM-15_Upgrade of Wing Ops System Technical Architecture to provide Military Mission Trajectory Services SWIM-APS-02a_Consumption of Aeronautical Information services for Step 1

4.2.4 En-Route/Approach ACC related Requirements

[REQ]

Identifier	REQ-18.01a-TS-FU02.0034
Title	iMT without indication of GAT or OAT segments
Requirement	The En-Route and Approach ATC system shall receive, process and develop requested iMT profile irrespective of the GAT or OAT segments.
Status	<in progress>
Rationale	iOAT FPL information based on validated latest available Mission Trajectory data shall be distributed from Regional ATFCM to all relevant users. ATS shall receive and process these iMT even without indication of the GAT or OAT route segments. The Sub-regional/local ATFCM shall receive all data within their AOR/AOI for impact assessment and flow regulation.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution Trajectory Prediction and Management
<ALLOCATED_TO>	<Enabler>	ER APP ATC 82b_Enhance FDP to process iSMT/iRMT ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0033
Title	iMT with flexible entry/exit points
Requirement	The En-Route and Approach ATC system shall receive, process and develop requested iMT including the ARES flexible parameters in iMT profile description.
Status	<in progress>
Rationale	iOAT FPL information based on validated latest available Mission Trajectory data shall be distributed from Regional ATFCM to all relevant users. ATC shall receive and process these data including the ARES entry/exit points either as predefined Waypoints or geographical lat/long coordinates with associated flight levels and time values. The Sub-regional/local ATFCM shall receive all data within their AOR/AOI for impact assessment and flow regulation.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0010
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution Trajectory Prediction and Management
<ALLOCATED_TO>	<Enabler>	ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan ER APP ATC 168_Enable ATC System to manage improved OAT flight plans with inherent ARES information (reservation restrictions) in accordance with VPA design p

[REQ]

Identifier	REQ-18.01a-TS-FU02.0032

Title	iMT referring to ad hoc ASM scenario
Requirement	The En-Route and Approach ATC system shall receive, process and develop requested iMT including demanded ARES configuration as ad-hoc ASM scenario with predefined ID.
Status	<in progress>
Rationale	iOAT FPL information based on validated latest available Mission Trajectory data shall be distributed from Regional ATFCM to all relevant users. ATS shall receive and process these data including demanded ARES configuration as an ad-hoc ASM scenario with predefined ID under one STAY indicator. The Sub-regional/local ATFCM shall receive all data within their AOR/AOI for impact assessment.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0010
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution Trajectory Prediction and Management
<ALLOCATED_TO>	<Enabler>	ER APP ATC 168_Enable ATC System to manage improved OAT flight plans with inherent ARES information (reservation restrictions) in accordance with VPA design p ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0031
Title	iMT with up to 9 VPA modules
Requirement	The En-Route and Approach ATC system shall receive, process and develop requested iMT including demanded ARES configuration via B2B Web Services protocol

Status	<in progress>
Rationale	iOAT FPL information based on validated latest available Mission Trajectory data shall be distributed from Regional ATFCM to all relevant users. ATS shall receive and process these data including demanded ARES configuration as a combination of up to nine predefined VPA modules under one STAY indicator. The Sub-regional/local ATFCM shall receive all data within their AOR/AOI for impact assessment.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0010
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution Communication Management
<ALLOCATED_TO>	<Enabler>	ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan ER APP ATC 168_Enable ATC System to manage improved OAT flight plans with inherent ARES information (reservation restrictions) in accordance with VPA design p

[REQ]

Identifier	REQ-18.01a-TS-FU02.0030
Title	Trajectory Revision from WOC to ATC
Requirement	The En-Route and Approach ATC system shall receive the WOC Trajectory revision for the processing by manual input based on oral communication from WOC/FD to En-Route/APP Supervisor or controller as a backup of REQ-18.01a-TS-FU02.0029.
Status	<in progress>
Rationale	WOC in order to fulfil the mission objectives may request Mission Trajectory revision. When approved by ATC the revision must be distributed to all parties concerned.

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Legacy Ground-Ground Datalink Communications Controller Human Machine Interaction Management Trajectory Prediction and Management Air-Ground Voice Communication
<ALLOCATED_TO>	<Function>	Display Flight Plan Data to ATCO

[REQ]

Identifier	REQ-18.01a-TS-FU02.0029
Title	Trajectory Revision request from WOC to ATC
Requirement	The system shall exchange revisions of iRMT with ATC via B2B Web Services protocol.
Status	<in progress>
Rationale	WOC in order to fulfil the mission objectives may request Mission Trajectory revision. When approved by ATC the revision must be distributed to all parties concerned.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0010
<ALLOCATED_TO>	<Functional block>	Communication Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0028
Title	Syntax and semantics check by trajectory revision from ATC to WOC
Requirement	The En-Route and Approach ATC system shall check the syntax and semantic checks when providing trajectory revisions.
Status	<in progress>
Rationale	Out coming msgs not properly compiled shall be queued on FD position to be corrected prior sending.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution

[REQ]

Identifier	REQ-18.01a-TS-FU02.0027
Title	Trajectory revision from ATC to WOC -
Requirement	The system shall share revisions of Mission Trajectory with WOC via B2B Web Services protocol
Status	<in progress>
Rationale	WOC shall be informed about Mission Trajectory revisions.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Communication Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0026
Title	Surveillance Data share between ATC and WOC
Requirement	The En-Route and Approach ATC system shall provide the surveillance data using the Asterix Cat62
Status	<in progress>
Rationale	It is necessary to guarantee identical Traffic Situation picture from the same source to both entities, ATC and WOC.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0019
<ALLOCATED_TO>	<Functional block>	Surveillance

[REQ]

Identifier	REQ-18.01a-TS-FU02.0025
Title	Surveillance Data share between ATC and WOC
Requirement	The En-Route and Approach ATC system shall share the used surveillance data with WOC
Status	<in progress>
Rationale	It is necessary to guarantee identical Traffic Situation picture from the same source to both entities, ATC and WOC.

Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0019
<ALLOCATED_TO>	<Functional block>	Surveillance

[REQ]

Identifier	REQ-18.01a-TS-FU02.0024
Title	Calculate Traffic Complexity and What If checking
Requirement	The system shall enable “What If” function to check that proposed change will not have negative impact on new iRMT or Capacity/Demand assessment results.
Status	<in progress>
Rationale	The fluent and safe traffic flows shall be guaranteed by means of ATC system operating within its system capacity. The ATC capability and capacity is given by well predicted traffic complexity that is allowing the proper readiness for tactical phase of traffic control.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0005
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-SF03.0002
<ALLOCATED_TO>	<Functional block>	Local Traffic Complexity Management Demand and capacity balancing

[REQ]

Identifier	REQ-18.01a-TS-FU02.0023
Title	Calculate Traffic Complexity and What If checking
Requirement	The system shall repeat the Traffic Complexity computation when any of the Traffic Complexity figures change.
Status	<in progress>
Rationale	The fluent and safe traffic flows shall be guaranteed by means of ATC system operating within its system capacity. The ATC capability and capacity is given by well predicted traffic complexity that is allowing the proper readiness for tactical phase of traffic control.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0005
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0015
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-SF03.0002
<ALLOCATED_TO>	<Functional block>	Trajectory Prediction and Management Cooperative Airspace Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0022
Title	Create Mission Trajectory of ACTIVE flight
Requirement	The En-Route and Approach ATC system shall re-compute Mission Trajectory 4D always when the new flight data are known,irrespective the source.
Status	<in progress>

Rationale	New message data may influence Trajectory Prediction and in this light as well the Capacity/Demand assessment results. Therefore the new data shall be validated and reprocessed.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0006
<ALLOCATED_TO>	<Functional block>	Trajectory Prediction and Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0021
Title	Demand/Capacity assessment
Requirement	The En-Route and Approach ATC system (the inherent local / subregional ATFCM function)shall repeat the process of assessing the required Capacity Demand within AOR against new data influencing iMT.
Status	<in progress>
Rationale	ATC system shall accommodate all traffic including iOAT mission flights, by performing local capacity/demand balancing.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-SF03.0002
<ALLOCATED_TO>	<Functional block>	Local Traffic Complexity Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0020
Title	Manual inputs into SFPL
Requirement	The En-Route and Approach ATC system shall use the eligibility data to grant right for SFPL modification to authorized personnel only
Status	<in progress>
Rationale	SFPL can be subject to changes based on WOC or regional ATFCM request after the Flight Activation. This shall result in SFPL revision and all other successive actions, in particular Mission Trajectory re-computation.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0006
<ALLOCATED_TO>	<Functional block>	Controller Human Machine Interaction Management
<ALLOCATED_TO>	<Function>	Display Flight Plan Data to FDO Display Flight Plan Data to ATCO

[REQ]

Identifier	REQ-18.01a-TS-FU02.0019
Title	Archiving of FPL Messages after the activation of flight
Requirement	The En-Route and Approach ATC system shall archive the messages modifying already existing SFPL that are not used after the flight activation
Status	<in progress>

Rationale	To recognize and process both message formats and pay attention to proper message association and syntax and semantics of items 8, 15 and 18 important for true iOAT FPL trajectory prediction.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution

[REQ]

Identifier	REQ-18.01a-TS-FU02.0018
Title	FPL update
Requirement	The En-Route and Approach ATC system shall update the associated SFPL when receiving valid modification message provided the flight status is Inactive or Pre-active/Proposed
Status	<in progress>
Rationale	Recognise and process both message formats and pay attention to proper message association and syntax and semantics of items 8, 15 and 18 important for true iOAT FPL trajectory prediction.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution

[REQ]

Identifier	REQ-18.01a-TS-FU02.0017
Title	Semantic check
Requirement	The En-Route and Approach ATC system shall check the messages modifying already existing SFPL respective the status of the flight - Inactive or Pre-active/Proposed
Status	<in progress>
Rationale	Recognize and process both message formats and pay attention to proper message association and syntax and semantics of items 8, 15 and 18 important for true iOAT FPL trajectory prediction.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution

[REQ]

Identifier	REQ-18.01a-TS-FU02.0016
Title	Association criteria usage
Requirement	The En-Route and Approach ATC system shall use ARCID, ADEP, ADES, EOBT and EOBD as the association criteria when processing the iOAT FPL messages
Status	<in progress>

Rationale	Recognise and process both message formats and pay attention to proper message association and syntax and semantics of items 8, 15 and 18 important for true iOAT FPL trajectory prediction. NOTE: ARCID, ADEP and ADES are currently used together with EOBT via B2B services. If IFPL is the message then number is used for the message association.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution

[REQ]

Identifier	REQ-18.01a-TS-FU02.0015
Title	Create Mission Trajectory
Requirement	The En-Route and Approach ATC system shall identify new constraints and recomputed Mission Trajectory prediction
Status	<in progress>
Rationale	The mission flight goal can be achieved provided ATC system shall be able to accommodate iOAT successfully during tactical control without any significant constrains caused by mission flight.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012

<ALLOCATED_TO>	<Functional block>	Trajectory Prediction and Management Conflict Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0014
Title	Calculate Traffic Complexity and What If checking
Requirement	The En-Route and Approach ATC system (the inherent local / subregional ATFCM function) shall calculate the Traffic Complexity taking into account, expected traffic figures as predicted on planned trajectories and sector capacity including What If checking
Status	<in progress>
Rationale	The fluent and safe traffic flows shall be guaranteed by means of ATC system operating within its system capacity. The ATC capability and capacity is given by well predicted traffic complexity that is allowing the proper readiness for tactical phase of traffic control.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0005
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-SF03.0002
<ALLOCATED_TO>	<Functional block>	Local Traffic Complexity Management Cooperative Airspace Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0013
Title	Create Mission Trajectory

Requirement	The En-Route and Approach ATC system shall find the applicable constraints and generate iOAT FPL initial Mission Trajectory
Status	<in progress>
Rationale	The mission flight goal can be achieved provided ATC system is able to accommodate iMT successfully during tactical control without any significant constraint. It is necessary to have the possibility to assess strategical assessment of the new flight into already existing flights in the area in question in terms the airspace capacity and perform the iOAT flight as planned.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0010
<ALLOCATED_TO>	<Functional block>	Trajectory Prediction and Management Conflict Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0012
Title	Demand/Capacity assessment
Requirement	The En-Route and Approach ATC system (the inherent local / subregional ATFCM function) shall assess required Capacity Demand within AOR/AOI against requested iOAT SFPL trajectory
Status	<in progress>
Rationale	ATC system shall accommodate all traffic including iOAT mission flights, by performing local capacity/demand balancing
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier

<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-SF03.0002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0005
<ALLOCATED_TO>	<Functional block>	Local Traffic Complexity Management Cooperative Airspace Management

[REQ]

Identifier	REQ-18.01a-TS-FU02.0011
Title	Manual inputs into SFPL
Requirement	The En-Route and Approach ATC system shall perform SFPL reprocessing after manual modifications and validation of SFPL items
Status	<in progress>
Rationale	SFPL can be subject to changes due to ATC needs. This shall result in SFPL modification and all other successive action, in particular iMT re-computation.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0018
<ALLOCATED_TO>	<Functional block>	Controller Human Machine Interaction Management Conflict Management
<ALLOCATED_TO>	<Enabler>	ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0010
Title	Manual inputs into SFPL
Requirement	The En-Route and Approach ATC system shall allow manual inputs into the created and stored iOAT SFPL
Status	<in progress>
Rationale	SFPL can be subject to changes due to ATC needs. This shall result in SFPL modification and all other successive action, in particular iMT re-computation.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0006
<ALLOCATED_TO>	<Functional block>	Controller Human Machine Interaction Management
<ALLOCATED_TO>	<Function>	Display Flight Plan Data to FDO Display Flight Plan Data to ATCO
<ALLOCATED_TO>	<Enabler>	ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0009
Title	Creation and storage of iOAT SFPL
Requirement	The En-Route and Approach ATC system shall create and store iOAT SFPL
Status	<in progress>

Rationale	SFPL in short term planning phase can be subject to changes. This shall result in SFPL modification and all other successive action, in particular iMT re-computation.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0006
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution
<ALLOCATED_TO>	<Enabler>	ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0008
Title	Semantic check of FPL protocols
Requirement	The En-Route and Approach ATC system shall address all not processable FPL items to FDO for corrective action
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0006
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE02.0001

<ALLOCATED_TO>	<Functional block>	Controller Human Machine Interaction Management
<ALLOCATED_TO>	<Function>	Display Flight Plan Data to FDO
<ALLOCATED_TO>	<Enabler>	ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0007
Title	iOAT FPL new items processing
Requirement	The En-Route and Approach ATC system shall process the new items in the field 18 - FOR, EUR/OAT, POB, END, PIC, FAP, DCN and save them to SFPL
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1001
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution
<ALLOCATED_TO>	<Enabler>	ER APP ATC 82b_Enhance FDP to process iSMT/iRMT ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-FU02.0006
Title	iOAT FPL new items presentation
Requirement	The ATC system shall present new items data in FPL window to FDO
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction. After the completion of FPL new items shall be presented on CWP. .
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Controller Human Machine Interaction Management
<ALLOCATED_TO>	<Function>	Display Flight Plan Data to FDO

[REQ]

Identifier	REQ-18.01a-FU02.0005
Title	iOAT FPL new items presentation
Requirement	The En-Route and Approach ATC system shall present new items data in FPL window for FDO
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Controller Human Machine Interaction Management
<ALLOCATED_TO>	<Function>	Display Flight Plan Data to FDO

[REQ]

Identifier	REQ-18.01a-FU02.0004
Title	iOAT FPL new items extraction
Requirement	The En-Route and Approach ATC system shall extract new items in the iOAT FPL field STAY and save them to SFPL - Extract/process/save STAY <stay-type> to SFPL - Extract/process/save STAY <ares-name> to SFPL - Extract/process/save STAY <duration> to SFPL - Extract/process/save STAY <fl-interval> to SFPL
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution

[REQ]

Identifier	REQ-18.01a-TS-FU02.0003
Title	Semantic check of FPL protocols.

Requirement	The En-Route and Approach ATC system shall process new items in STAY field of iOAT FPL
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1001
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution
<ALLOCATED_TO>	<Enabler>	ER APP ATC 82b_Enhance FDP to process iSMT/iRMT ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0002
Title	Semantic check of FPL protocols
Requirement	The En-Route and Approach ATC system shall check semantic iOAT FPL messages ICAO FPL 2012 with respect to all FPL items, in particular items 8, 15, 18
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1002
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1004
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1003
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.1001
<ALLOCATED_TO>	<Functional block>	Flight Plan - Lifecycle Mgt - Data Distribution
<ALLOCATED_TO>	<Enabler>	ER APP ATC 82b_Enhance FDP to process iSMT/iRMT ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan

[REQ]

Identifier	REQ-18.01a-TS-FU02.0001
Title	Translate FPL protocols
Requirement	The En-Route and Approach ATC system shall receive iOAT FPL iSMT/iRMT messages via NM B2B Web Services protocol
Status	<in progress>
Rationale	iOAT FPL data shall be available for further processing, SFPL creation and Mission Trajectory prediction.
Category	<Functional>

[REQ Trace]

Relationship	Linked Element Type	Identifier
<ALLOCATED_TO>	<SESAR Solution>	PJ.07-03
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IO02.0012
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-IE02.0001
<SATISFIES>	< ATMS Requirement>	REQ-07.03-SPRINTEROP-OP02.0006
<ALLOCATED_TO>	<Functional block>	Communication Management

<ALLOCATED_TO>	<Enabler>	ER APP ATC 143_Upgrade of ATC System to handle Improved OAT Flight Plan ER APP ATC 82b_Enhance FDP to process iSMT/iRMT

5 Implementation Options

PJ 07-03 including its activity 18-01a are following one and the same operational concept that was originally developed in SESAR 1. The solution follows a logical approach to continue what has been developed, operationally and technically, by the projects 7.6.2, 11.1 and 7.5.4 in SESAR 1. This combines all relevant systems (WOC, ASM, NM and ATC) and actors involved in the CDM process addressed for the iOAT FPL, the trajectory data, the potential ARES involved as well as all nodes participating: State Airspace User Operating Centre (WOC), Regional ATFCM (NM) and ER/APP ATC.

Saying this, the flexibility and creativity endorsed is limited by the concept existing and applied. Consequently, there are additional implementation options to be followed. These options relate also to the different national civil military ATM systems that vary from a segregated system via a collocated system up to the ideal case of an integrated system. For SESAR 2020 we consider the integrated system as the “ideal” or laboratory environment as to ensure a proper functioning considering that all States will strive to achieve that integrated system one day in the future. This integrated system of course is considered as the future European harmonised system and consequently being addressed and developed in EATMA.

As said above several systems and their associated prototypes / platforms are used to establish our V&V environment, each of them being used in line with concurrent capabilities and availability for the newly developed features, thus creating another limitation to the context we are developing and therefore allowing additional implementation options for each and every technical system, node, actor involved.

In addition, the connection between the systems, ideally using SWIM compliant technology (iB2B), is to a certain degree taken from the existing environment to be improved defining the context in that limited way. The resource envelop applied through SESAR 2020 sets additional limitations to all partners not always allowing the full set of V&V activities.

It is for the solution’s understanding not possible to address each and every potential implementation option as to their vast variety but instead it is understood that referencing the frame of options and confirming their existence suffices like above is adequate.

6 Assumptions

It is assumed that,

- The ATS systems for civil and military are following the integrated model
- The iOAT FPL will ensure its peak benefit only in the civil / military integrated ATS system (see section 5),
- The ICAO 2012 format is the carrier of the iOAT FPL information and will further exist to make the operational improvements usable and beneficial until EFPL is adapted to iOAT FPL,
- The integration of the iOAT FPL will be performed inside the existing ATM environment and at the same time constituting a transition and preparation for the to be developed TBO environment,
- The iOAT FPL will be used by at least a “network critical” mass of users to make its use beneficial,
- Through the MEPS program the Military significance is ensured to the highest degree possible.

7 References and Applicable Documents

7.1 Applicable Documents

Content Integration

[1] EATMA Community pages

[2] SESAR ATM Lexicon

Content Development

System and Service Development

[3] 08.01.01 D52: SWIM Foundation v2

[4] 08.01.01 D49: SWIM Compliance Criteria

[5] 08.01.03 D47: AIRM v4.1.0

[6] 08.03.10 D45: ISRM Foundation v00.08.00

[7] B.04.03 D102 SESAR Working Method on Services

[8] B.04.03 D128 ADD SESAR1

[9] B.04.05 Common Service Foundation Method

Performance Management

[10]B.05 D86 Guidance on KPIs and Data Collection support to SESAR 2020 transition.

[11]16.06.06-D68 Part 1 –SESAR Cost Benefit Analysis – Integrated Model

[12]16.06.06-D51-SESAR_1 Business Case Consolidated_Deliverable-00.01.00 and CBA

[13]Method to assess cost of European ATM improvements and technologies, EUROCONTROL (2014)

[14]ATM Cost Breakdown Structure_ed02_2014

[15]Standard Inputs for EUROCONTROL Cost Benefit Analyses

[16]16.06.06_D26-08 ATM CBA Quality Checklist

[17]16.06.06_D26_04_Guidelines_for_Producing_Benefit_and_Impact_Mechanisms

Validation

[18]03.00 D16 WP3 Engineering methodology

[19]Transition VALS SESAR 2020 - Consolidated deliverable with contribution from Operational Federating Projects

[20]European Operational Concept Validation Methodology (E-OCVM) - 3.0 [February 2010]

System Engineering

[21]SESAR Requirements and V&V guidelines

Safety

[22]SESAR, Safety Reference Material, Edition 4.0, April 2016

[23]SESAR, Guidance to Apply the Safety Reference Material, Edition 3.0, April 2016

[24]SESAR, Final Guidance Material to Execute Proof of Concept, Ed00.04.00, August 2015

[25]SESAR, Resilience Engineering Guidance, May 2016

Human Performance

[26]16.06.05 D 27 HP Reference Material D27

[27]16.04.02 D04 e-HP Repository - Release note

Environment Assessment

[28]SESAR, Environment Reference Material, alias, “Environmental impact assessment as part of the global SESAR validation”, Project 16.06.03, Deliverable D26, 2014.

[29]ICAO CAEP – “Guidance on Environmental Assessment of Proposed Air Traffic Management Operational Changes” document, Doc 10031.

Security

[30]16.06.02 D103 SESAR Security Ref Material Level

[31]16.06.02 D137 Minimum Set of Security Controls (MSSCs).

[32]16.06.02 D131 Security Database Application (CTRL_S)

7.2 Reference Documents

[33]ED-78A GUIDELINES FOR APPROVAL OF THE PROVISION AND USE OF AIR TRAFFIC SERVICES SUPPORTED BY DATA COMMUNICATIONS.

[34]ICAO 4444, Sixteenth Edition, 2016

[35]ICAO 8585, 189th edition, July 2019

[36]IFPS User's Manual, Edition Number : 23.0; Edition Validity Date : 07/05/2019

[37]Real Time Status Airspace TS, Flexible Airspace Management, Project 07.05.04 EUROCONTROL, Real Time Status Airspace TS, D49, Edition 00.01.02; Date 11/12/2015

[38]SESAR Solution PJ.07-03 SPR-INTEROP/OSED for V3 -

[39]ATM Master Plan Dataset 20 draft

[40]SESAR 1, P11.01.03, D16 – D11.1.3-2mb-WOC, Update Technical Specification Step 1 for WOC System (BMT, AFUA. iOATFPL), Edition 00.03.01, 26/10/2016

[41]SESAR 1, P11.01.05, D26 – D11.1.5-2mb-WOC, Update Validation report for stand-alone WOC validation for Step 1 (BMT, AFUA, iOATFPL), Edition 00.01.00, 08/04/2016

[42]SESAR 1, P11.01.05, D27, Update Validation report for stand-alone WOC validation for Step 1 (BMT, AFUA, iOATFPL), Edition 02.00.00, 24/10/2016

[43]SESAR 1, P 10.01.07, D120, Technical Architecture Description - Cycle 2015, Edition 00.01.00, 19/01/2016

[44]SESAR1, P 07.06.02, D48, NM Systems Technical Specifications for Step 1 OAT Prototype, Edition 00.01.01, 01.04.2018

[45]SESAR Activity PJ.18-01a Technical Specification (TS/IRS) for V2/TRL4, Edition 02.00.01, 25 September 2018

Appendix A Service Description Document (SDD)

This template is the applicable one for SESAR 1 programme and has been approved by the SJU. It has been prepared with the goal of assuring continuity between both programmes and of providing SESAR 2020 projects with a baseline to start with.

The Appendix A is considered as N/A to the activity 18-01a.

Appendix B Service Technical Design Document (STDD)

This Appendix B is considered not relevant to the activity 18-01a.

-END OF DOCUMENT-

Insert beneficiary's logos below, if required