

| SESAR |     | Active                                |     |     |     |     |    |     |     | LOC |  |
|-------|-----|---------------------------------------|-----|-----|-----|-----|----|-----|-----|-----|--|
| ATC18 |     | Multi-Sector Planning En-route - 1P2T |     |     |     |     |    |     |     |     |  |
| REG   | ASP | MIL                                   | APO | USE | INT | IND | NM | MET | AIS | USP |  |

Subject matter and scope

The multi-sector planner (MSP) defines a new organisation of controller team(s) and new operating procedures to enable the planning controller to provide support to several tactical controllers operating in different adjacent en-route sectors.

This Implementation Objective proposes a structure whereby, in en-route sectors, a single planner controller (P) is planning and organising the traffic flows for two tactical controllers (T), each of whom is controlling a different sector (1P-2T configuration). There is no need for exit/entry coordination with the airspace volume of multi-sector planner however, the coordination capability with adjacent planner/multi-planner should remain.  
In order to guarantee that the workload of the multi-sector planner remains comfortable, even when the executive controllers face traffic levels which are not especially low, some enhancements to the planning tools are needed, improving the efficiency of the planning and decision-making processes.

This concept is intended for operation with suitably configured flight data processing components, flexible allocation of ATC roles and volumes and multi-sector planning.

NOTE 1: A further phase of concept development will extend the concept for MSP during SESAR 2020 to (1P-nT) (SESAR Solution PJ10.1.a) and a further evolution of the MSP concept will develop a novel way of working without the necessity for boundary co-ordinations ('Collaborative Control', SESAR Solution PJ10.1.cj).

NOTE 2: Being a local objective, to be applied at individual States or ATC unit level to achieve their performance targets, the objective does not have a mandatory implementation deadline. As guidance, the FOC of the OI Step on which the SESAR Solution is based is 31/12/2024.

NOTE 3: This objective is linked to SESAR Solution #63.

FOR MILITARY AUTHORITIES: It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

Applicability Area(s) & Timescale(s)

|   |  |   |            |                    |  |
|---|--|---|------------|--------------------|--|
| Applicability Area<br>(Subject to local needs)                            |  | All ECAC+ States except: Armenia, Bosnia and Herzegovina, Bulgaria, Croatia, Denmark, Estonia, France, Georgia, Latvia, Luxembourg, Malta, Montenegro, Morocco, Netherlands, Portugal, Serbia, Slovak Republic, Slovenia, Ukraine |            |                    |  |
| Timescales:   |  | From:   | By:        | Applicable to:     |  |
| FOC used for Analytics functioning only - not for implementation planning |  | 31/05/2019  |            | Applicability Area |  |
| FOC used for Analytics functioning only - not for implementation planning |  |   | 01/01/2030 | Applicability Area |  |

References

European ATM Master Plan

|            |          |   |                 |   |  |  |  |          |  |  |  |
|------------|----------|---|-----------------|---|--|--|--|----------|--|--|--|
| OI step -  |          | <a href="#">[CM-0301]-Sector Team Operations Adapted to New Responsibilities in En-Route. 1Planning to 2Tactical Controllers team structure</a> |                 |   |  |  |  |          |  |  |  |
| Enablers - |          | ER ATC 95   | HUM-004         |   |  |  |  |          |  |  |  |
| Legend:    | WXYZ-001 | Covered by SLoA(s) in this objective  | WXYZ-002<br>zzz | Covered by SLoA(s) in another objective<br>Objective covering the enabler |  |  |  | WXYZ-003 | Not covered in the Implementation Plan |  |  |

Applicable legislation

|        |
|--------|
| -none- |
|--------|

Essential Operational Changes

|                                      |
|--------------------------------------|
| Fully Dynamic and Optimised Airspace |
|--------------------------------------|

SESAR Solution

|                             |
|-----------------------------|
| #63 - Multi Sector Planning |
|-----------------------------|

|              |  |
|--------------|--|
| <b>ATC18</b> | <b>Multi-Sector Planning En-route - 1P2T</b> |
|--------------|--|

#### ICAO GANP - ASBUs

|           |                       |
|-----------|-----------------------|
| FRT0-B1/6 | Multi-Sector Planning |
|-----------|-----------------------|

#### Deployment Programme

|          |  |
|----------|--|
| - none - |  |
|----------|--|

#### European Plan for Aviation Safety

|          |  |
|----------|--|
| - none - |  |
|----------|--|

#### Operating Environments

|          |  |
|----------|--|
| En-Route |  |
|----------|--|

### Stakeholder Lines of Action (SLoAs)

| SLoA ref.  | Title  | From       | By         |
|--|--|------------|------------|
| <b>ATC18-ASP01</b>   | ATM system support to permit a single planner role associated to two adjacent tactical roles | 31/05/2019 | 01/01/2030 |
| <b>ATC18-ASP02</b>   | Develop multi-sector planning procedures and working methods for en-route sectors            | 31/05/2019 | 01/01/2030 |
| <b>ATC18-ASP03</b>   | Train air traffic controllers to multi sector planning                                       | 31/05/2019 | 01/01/2030 |
| <b>ATC18-ASP04</b>   | Develop, and deliver as necessary, a safety assessment                                       | 31/05/2019 | 01/01/2030 |
| Description of finalised and deleted SLoAs is available on the eATM Portal @ <a href="https://www.eatmportal.eu/working/depl/essip_objectives">https://www.eatmportal.eu/working/depl/essip_objectives</a> |  |            |            |

### Expected Performance Benefits

|                                |  |
|--------------------------------|--|
| <b>Safety:</b>                 | -  |
| <b>Capacity:</b>               | The workload reduction might be translated in marginal capacity gains.   |
| <b>Operational Efficiency:</b> | Slight increase in the number of direct routes facilitate by the fact that adjacent sectors share the same planner controller. |
| <b>Cost Efficiency:</b>        | -  |
| <b>Environment:</b>            | -  |
| <b>Security:</b>               | -  |

### Detailed SLoA Descriptions

|                                      |  |                            |                          |
|--------------------------------------|--|----------------------------|--------------------------|
| <b>ATC18-ASP01</b>                   | <b>ATM system support to permit a single planner role associated to two adjacent tactical roles</b>  | <b>From:</b><br>31/05/2019 | <b>By:</b><br>01/01/2030 |
| <b>Action by:</b>                    | <b>ANS Providers</b>   |                            |                          |
| <b>Description &amp; purpose:</b>    | <p>The en-route ATM system functions are enhanced to allow a planner role to be associated to two adjacent sector tactical roles. The planner role shall be given the data access and eligibility to modify relevant traffic attributes for the airspace volume allocated to him so that the planner can identify the s potential conflicts or risk of conflicts and de-conflict/smooth the traffic flows in order to avoid the tactical interventions. Traffic flow between the two tactical sector controllers is also smoothed and workload associated with tactical tasks is maintained at a manageable level for the two tactical controllers.</p> <p>The actually necessary capabilities depend on the individual level of complexity.</p> |                            |                          |
| <b>Supporting material(s):</b>       | SJU - SESAR Solution 63: Data Pack for multi-sector planning<br>Url : <a href="https://www.sesarju.eu/sesar-solutions/multi-sector-planning">https://www.sesarju.eu/sesar-solutions/multi-sector-planning</a>  |                            |                          |
| <b>ATM Master Plan relationship:</b> | <a href="#">[ER ATC 95]-ATC System Support to Permit a Single Planner Role Associated to Two Adjacent Tactical Roles</a>   |                            |                          |
| <b>Finalisation criteria:</b>        | 1 - Systems are adapted to support single multi-planner role associated to two adjacent tactical roles.  |                            |                          |
| <b>ATC18-ASP02</b>                   | <b>Develop multi-sector planning procedures and working methods for en-route sectors</b>   | <b>From:</b><br>31/05/2019 | <b>By:</b><br>01/01/2030 |
| <b>Action by:</b>                    | <b>ANS Providers</b>   |                            |                          |

| ATC18   |            | Multi-Sector Planning En-route - 1P2T   |   |              |            |            |            |
|---|------------|---|---|--------------|------------|------------|------------|
| <b>Description &amp; purpose:</b>   |            |   |   |              |            |            |            |
| With the introduction of a new staffing configuration (e.g. changing from existing 1 tactical (executive) and 1 planning controller to 2 tactical (executive) and 1 planning controller in en-route sectors), the allocation of tasks (including new tasks) changes.<br><br>Therefore, procedures and working methods have to be developed to cater for enhanced multi-planner needs triggered by the change of coordination. |            |   |   |              |            |            |            |
| <b>Supporting material(s):</b>  |            |   |   |              |            |            |            |
| SJU - SESAR Solution 63: Data Pack for multi-sector planning<br>Url : <a href="https://www.sesarju.eu/sesar-solutions/multi-sector-planning">https://www.sesarju.eu/sesar-solutions/multi-sector-planning</a>   |            |   |   |              |            |            |            |
| <b>ATM Master Plan relationship:</b>  |            |   |   |              |            |            |            |
| <a href="#">[HUM-004]-New staffing configuration / Extended ATC Planner in en-route</a>   |            |   |   |              |            |            |            |
| <b>Finalisation criteria:</b>   |            |   |   |              |            |            |            |
| 1 - Multi-sector planner concept is in operational use.   |            |   |   |              |            |            |            |
| <b>ATC18-ASP03</b>  |            | <b>Train air traffic controllers to multi sector planning</b>   | <table><tr><td><b>From:</b></td><td><b>By:</b></td></tr><tr><td>31/05/2019</td><td>01/01/2030</td></tr></table> | <b>From:</b> | <b>By:</b> | 31/05/2019 | 01/01/2030 |
| <b>From:</b>  | <b>By:</b> |   |   |              |            |            |            |
| 31/05/2019  | 01/01/2030 |   |   |              |            |            |            |
| <b>Action by:</b>   |            | <b>ANS Providers</b>  |   |              |            |            |            |
| <b>Description &amp; purpose:</b>   |            | Train operational staff in the use of multi sector planning. The tasks to be done are as follows:<br>- Develop a training package (material);<br>- Update the training plans;<br>- Determine ATCO population to be trained;<br>- Apply the training plans.  |   |              |            |            |            |
| <b>Supporting material(s):</b>  |            | SJU - SESAR Solution 63: Data Pack for multi-sector planning<br>Url : <a href="https://www.sesarju.eu/sesar-solutions/multi-sector-planning">https://www.sesarju.eu/sesar-solutions/multi-sector-planning</a>   |   |              |            |            |            |
| <b>ATM Master Plan relationship:</b>  |            | <a href="#">[HUM-004]-New staffing configuration / Extended ATC Planner in en-route</a>   |   |              |            |            |            |
| <b>Finalisation criteria:</b>   |            | 1 - The training plans have been updated and a training package has been developed for the use of multi sector planning.<br>2 - The concerned personnel have been trained.  |   |              |            |            |            |
| <b>ATC18-ASP04</b>  |            | <b>Develop, and deliver as necessary, a safety assessment</b>   | <table><tr><td><b>From:</b></td><td><b>By:</b></td></tr><tr><td>31/05/2019</td><td>01/01/2030</td></tr></table> | <b>From:</b> | <b>By:</b> | 31/05/2019 | 01/01/2030 |
| <b>From:</b>  | <b>By:</b> |   |   |              |            |            |            |
| 31/05/2019  | 01/01/2030 |   |   |              |            |            |            |
| <b>Action by:</b>   |            | <b>ANS Providers</b>  |   |              |            |            |            |
| <b>Description &amp; purpose:</b>   |            | Develop safety assessment of the changes, notably ATC systems and procedures that will implement multi-sector planning.<br>The tasks to be done are as follows:<br>- Conduct hazard identification, risk assessment in order to define safety objectives and safety requirements mitigating the risks;<br>- Develop safety assessment;<br>- Deliver a safety assessment report to the NSA, if new standards are applicable or if the severity class of identified risks is 1 or 2.<br>This safety assessment shall be based on a fully validated/recognised method. |   |              |            |            |            |
| <b>Supporting material(s):</b>  |            | EUROCONTROL - EAM 4 - ESARR 4 - Risk Assessment and Mitigation in ATM - Edition 1.0 / 04/2001<br>Url : <a href="https://www.eurocontrol.int/publication/esarr-4-risk-assessment-and-mitigation-atm">https://www.eurocontrol.int/publication/esarr-4-risk-assessment-and-mitigation-atm</a><br>EUROCONTROL - Air Navigation Systems Safety Assessment Methodology (SAM) - Version 2.1 / 11/2006<br>Url : <a href="https://www.eurocontrol.int/tool/safety-assessment-methodology">https://www.eurocontrol.int/tool/safety-assessment-methodology</a>                 |   |              |            |            |            |
| <b>Finalisation criteria:</b>   |            | 1 - The safety assessment report for the changes has been developed and delivered to the NSA, as necessary.   |   |              |            |            |            |

