



# AOM21.1 — Direct Routing

Direct Routing Airspace is described as an airspace defined laterally and vertically with a set of entry/exit conditions where published direct routings are available. Direct Routing aims at offering additional route options to the airspace users while maintaining the same level of safety. It offers flexibility and brings more predictability to the system; it is foreseen as an intermediate step towards Free Route Airspace (FRA).

The Direct Routing implementation is coordinated through the NM European Route Network Improvement Plan (ERNIP) and the Network Operations Plan following the Strategic Objectives and Targets set in the Network Strategic Plan and in the Network Manager Performance Plan.

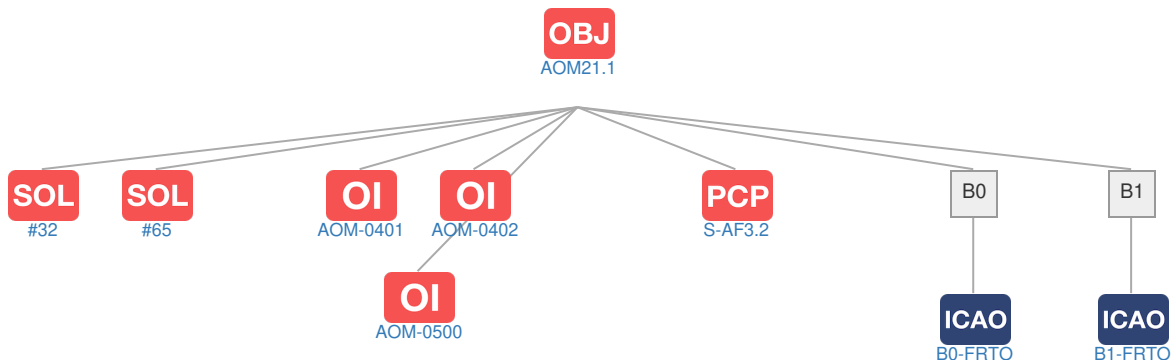
The geographical scope for Direct Routing is defined by PCP IR as the airspace for which the Member States are responsible at and above flight level 310 in the ICAO EUR Region.

*NOTE 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 MIL Authorities.*

<b>Edition</b>	2022
<b>Stakeholders</b>	Air Navigation Service Provider / Network Manager
<b>Type</b>	SESAR
<b>Scope</b>	Multi-National
<b>Status</b>	Achieved

## Context

### Related Elements
















## Applicability Area(s) and Timescales

**Applicability Area:** All EU SES States except: Belgium, Bulgaria, Estonia, Finland, Hungary, Latvia, Luxembourg, Netherlands, Norway, Portugal, Romania. Plus: Bosnia and Herzegovina, Morocco, North Macedonia, Türkiye, United Kingdom (All ECAC States, at and above FL310 (not applicable for those States that have already implement FRA or planned to deploy FRA at and above FL310 before 1 January 2018))















Timescales	From	By	Applicable to
Initial Operational Capability	01-01-2015	-	Applicability Area
Full Operational Capability	-	31-12-2017	Applicability Area

## Links to ATM Master Plan Level 2






### Operational Improvement Steps

Code	Title	IOC	FOC	Related Elements
AOM-0401	Multiple Route Options & Airspace Organisation Scenarios	-	-	  
AOM-0402	Further Improvements to Route Network and Airspace incl. Cross-Border Sectorisation and Further Routing Options	-	-	 
AOM-0500	Direct Routing for flights both in cruise and vertically evolving for cross ACC borders and in high complexity environments.	31-12-2016	31-12-2024	       







### Links to SESAR Solutions

Code	Title	Program	Related Elements
#32	Free Route through the use of Direct Routing	SESAR1	      
#65	User Preferred Routing	SESAR1	      

### Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
S-AF3.2	Free Route	    

### ICAO Block Modules

Designator	Title	Related Elements
B0		
B0-FRTO	Improved Operations through Enhanced En-Route Trajectories.	 
B1		
B1-FRTO	Improved Operations through Optimized ATS Routing	   

## References

#### Applicable legislation

- Regulation (EU) No 677/2011 laying down detailed rules for the implementation of air traffic management (ATM) network functions and amending Regulation (EU) No 691/2010

- Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project

#### Applicable ICAO Annexes and other references

None

#### Deployment Programme 2022

-

#### Operating Environments

En-Route

Network

## Expected Performance Benefits

<b>Safety</b>	Although the main benefits are expected in the area of environment and operational efficiency Direct Routing implementation has the ambition to at least maintain the current level of safety.
<b>Capacity</b>	-
<b>Operational efficiency</b>	Savings in route distances and fuel efficiency through increased use of preferred flight profiles and improved sectorisation.
<b>Cost efficiency</b>	-
<b>Environment</b>	Reductions in emissions through use of more optimal routes.
<b>Security</b>	-

## Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
ASP01	Implement procedures and processes in support of the network dimension	01-01-2015	31-12-2017	
ASP02	Implement system improvements	01-01-2015	31-12-2017	EN
ASP03	Implement procedures and processes in support of the local dimension	01-01-2015	31-12-2017	EN
ASP04	Implement transversal activities (verification at local/regional level, safety case and training)	01-01-2015	31-12-2017	EN
NM01	Implement system improvements	01-01-2015	31-12-2017	EN
NM02	Implement procedures and processes	01-01-2015	31-12-2017	

## Supporting Material

Title	Related SLoAs
EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 1 - European Airspace Design Methodology - Guidelines - 2.0 / 12/2018 <a href="https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-1">https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-1</a>	ASP03, ASP04
EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 2 - European ATS Route Network - Version 2019-2024 - June 2019 / 07/2019 <a href="https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-2">https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-2</a>	NM02
EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 <a href="https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3">https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3</a>	NM02
EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 4 - RAD Users Manual - 2.0 / 12/2018 <a href="https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-4">https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-4</a>	NM01, NM02

## Consultation & Approval

<b>Working Arrangement in charge</b>	NETOPS
<b>Outline description approved in</b>	-
<b>Latest objective review at expert level</b>	05/2018
<b>Commitment Decision Body</b>	Provisional Council (PC)
<b>Objective approved/endorsed in</b>	10/2015
<b>Latest change to objective approved/endorsed in</b>	10/2015