



Network Manager
nominated by
the European Commission



Commercial Space Transportation and the European network

Integrating commercial space vehicles in the European ATM network

Dragos Tonea
Chairman ICAO ATM Operations Panel
30 August 2017

[About](#)
[Network Manager](#)
[Research & SESAR](#)
[Civil-military](#)
[Pan-European Single Sky](#)
[MUAC](#)
[Route Charges](#)
[Projects](#)
[Services](#)
[Media](#)

41

EUROCONTROL
Member States

2

Comprehensive
Agreement States

16

Bilateral agreements
with partner countries

10

EAD agreements for
data providers from
partner countries

34

Bilateral agreements
with partner
organisations



THE NETWORK MANAGER IN 2016

CONNECTING THE NETWORK TO DELIVER IMPROVED PERFORMANCE



Network Manager
nominated by
the European Commission

ATFM DELAY
TARGET SET
FOR REFERENCE
PERIOD (RP)2:

0.5 MINUTE
PER FLIGHT
2016
0.86 MINUTE
PER FLIGHT

AIRPORTS IN THE NETWORK

AIRPORT COLLABORATIVE
DECISION-MAKING
AIRPORTS WORK BETTER WHEN
ALL SERVICES, FROM ATC TO
BAGGAGE-HANDLING, ARE
CONNECTED WITH EACH
OTHER AND THE NETWORK

AIRSPACE DESIGN & CAPACITY PLANNING
WE WORK WITH ALL OUR STAKEHOLDERS
TO TACKLE BOTTLENECKS,
TO CREATE AN EFFICIENT, FLEXIBLE AND
DYNAMIC AIRSPACE STRUCTURE AND
TO EXTRACT MAXIMUM CAPACITY
FROM THE NETWORK

OPERATIONS CENTRE

- KEEPING THE NETWORK RUNNING 24/7
- REDUCING DELAYS
- CIVIL-MILITARY COORDINATION
- WORKING TO REDUCE WEATHER IMPACT AT >40%
(WEATHER IS A MAJOR CONTRIBUTOR TO ATFM DELAYS)

2016 WAS
THE BUSIEST YEAR
ON RECORD WITH
10,190,903 FLIGHTS

ENVIRONMENT
MINIMISING FUEL BURN
AND EMISSIONS

MANAGE SCARCE RESOURCES

ENHANCED FREQUENCY MANAGEMENT
PROCEDURES & TOOLS TO REDUCE THE
TIME & COST OF SATISFYING
NEW FREQUENCY REQUESTS

CRISIS MANAGEMENT

WE COORDINATE THE MANAGEMENT
OF RESPONSES TO ANY CRISIS WHICH
IMPACTS ON AVIATION IN EUROPE

SAFETY

- MITIGATING THE TOP 5 OPERATIONAL
SAFETY ISSUES IN THE NETWORK
- SUPPORTING SAFE OPERATIONS
ACROSS EUROPE

DATA SHARING

AERONAUTICAL SERVICES

- PROVIDING INFORMATION FOR
THE FLIGHT: FROM AIRSPACE
CLOSURES TO WEATHER CONSTRAINTS
- B2B WEB SERVICES REQUESTS:
1 MILLION PER DAY

THE NETWORK

2.27  MILLION
PASSENGERS
PER DAY
27,920  FLIGHTS
PER DAY
1,940  AIRCRAFT
OPERATORS
520  AIRPORTS
68  CONTROL
CENTERS
43  EU / NON-EU
STATES

NETWORK PLANNING

- NETWORK STRATEGIC PLAN
- NETWORK PERFORMANCE PLAN
- NETWORK OPERATIONS PLAN

FLOW MANAGEMENT

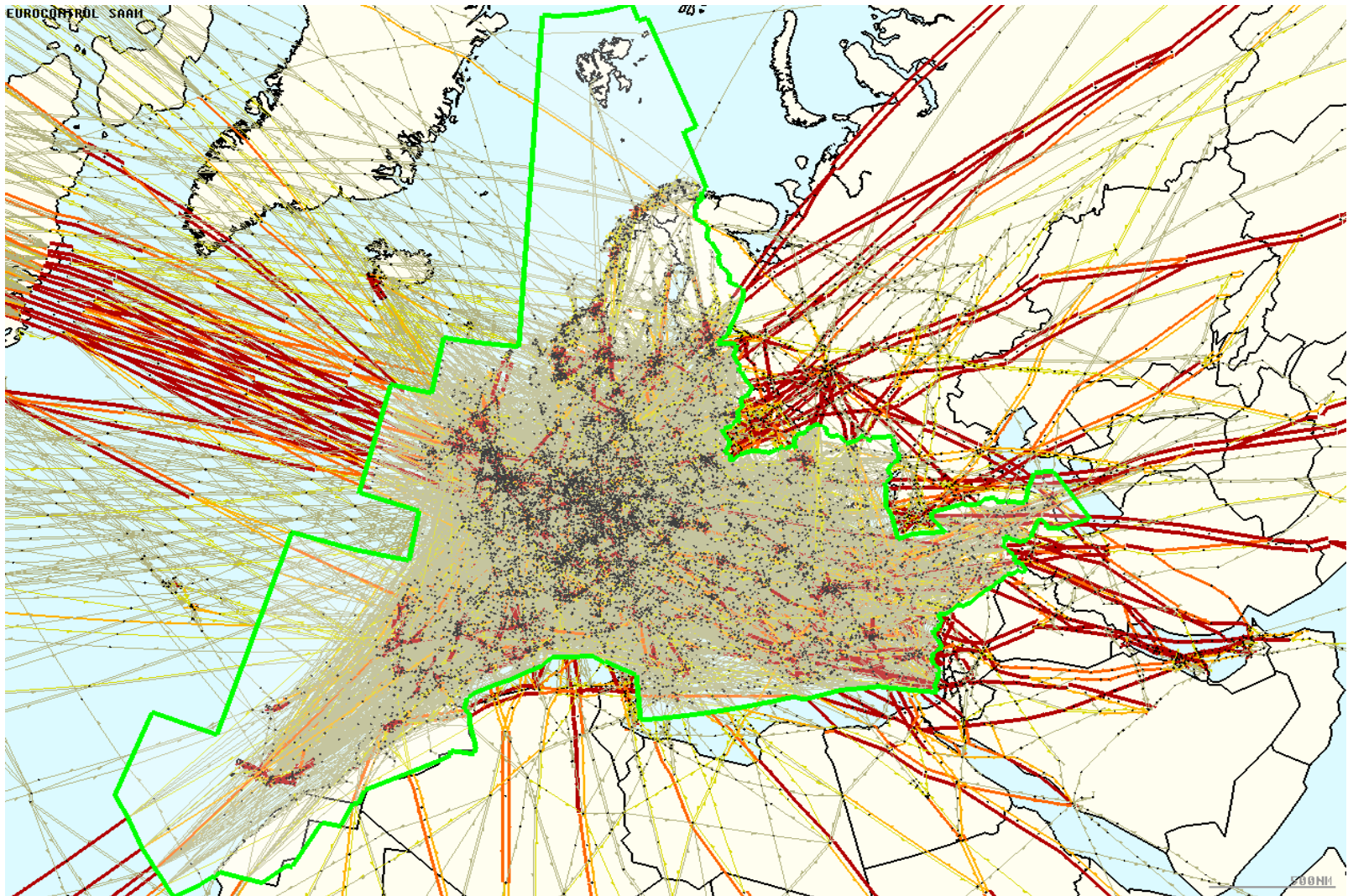
WE PROTECT ATC SECTORS FROM OVERLOAD IN AIR TRAFFIC
SO AS TO MINIMISE IMPACT ON THE NETWORK. FLOW MANAGEMENT
MINIMISES DEMAND/CAPACITY IMBALANCES, FUEL BURN AND
EMISSIONS BY HOLDING AIRCRAFT ON THE GROUND
SO AS TO AVOID CONGESTION IN THE AIR

FLIGHT EFFICIENCY

WE OFFER AIRCRAFT OPERATORS THE MOST EFFICIENT
ROUTES POSSIBLE, TAKING INTO ACCOUNT ALL AIRSPACE
RESTRICTIONS AND CONSTRAINTS



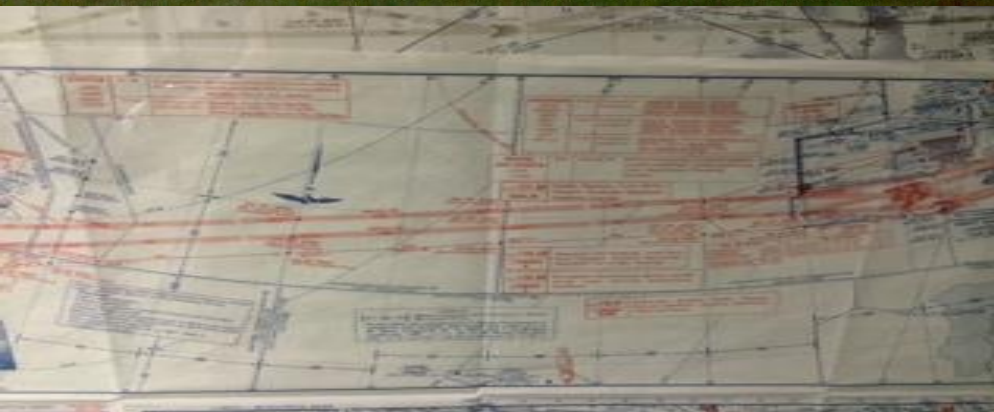
European operations perspective







October 24, 2003: Last BA Concorde flight



Network Operations Plan



Disruptive
Innovation?

or

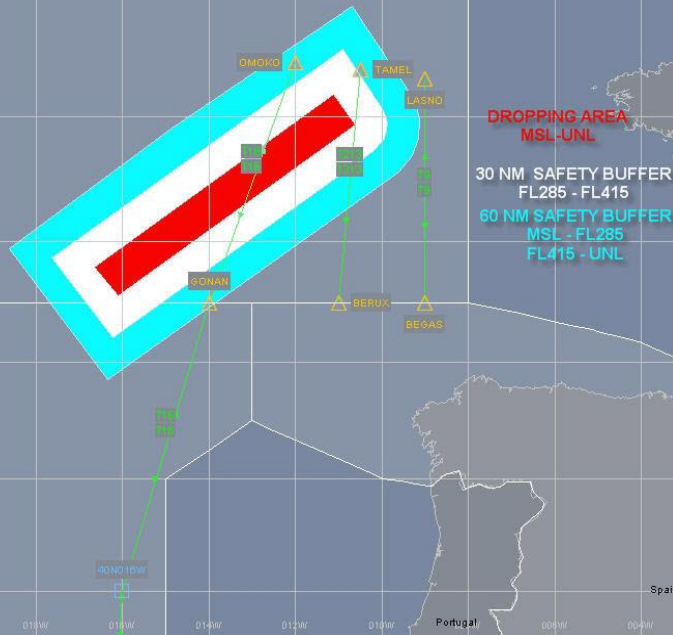
Innovation
that's
Disruptive?

- New Actors?
- Location?
- Type and profile?
- Frequency?
- Segregation or non segregation?
- Operational procedures?
- Notification and duration?
- Contingency?



SOYUZ ROCKET LAUNCH

17 DEC
WITH ALTERNATE
EVERY DAY TILL
31 DEC



NMD/NOM/NOS	Operational Instruction	Temporary	Doc ID:
Issued on: 09/12/2015 By: ILI	Subject FRENCH GUYANA SOYUZ VS13 LAUNCH	Validity From: 17/12/2015 To: 31/12/2015	OI/15-203
Applicability	AD <input checked="" type="checkbox"/> FCM <input checked="" type="checkbox"/> FPL <input checked="" type="checkbox"/>		NOP Portal: Yes Briefing: No

Introduction

The European Space Centre will proceed to a SOYUZ launch (VS13) from French Guyana (South America) on 17 December with possible postponements till 31 December.

The main propulsion stage will be recovered in an area located in Shanwick (EGGX) airspace.

Procedure

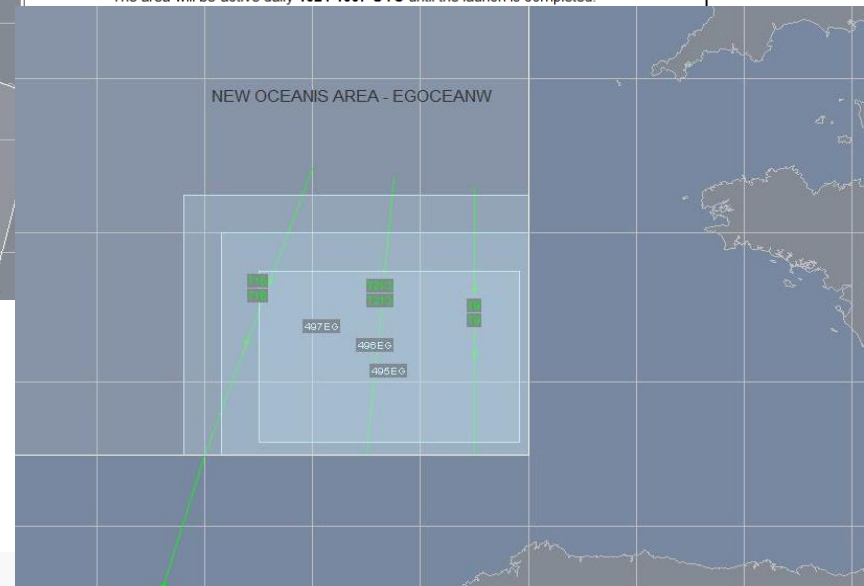
CADF will activate manually restriction **EUSOYUZ** for 17 DEC from 09:54 to 14:07 UTC. In case of postponement the same procedure will be applied daily, if spare days are required.

The general procedure referring to these rocket launches is described in OI/15-009.

This OI refers to the specific VS13 launch.

2.1. Airspace

- The recovery area has been defined with the following coordinates:
4821N01107W 4752N01037W 4507N01606W 4535N01638W
- The area will be active daily **1024-1337 UTC** until the launch is completed.



NM and Current Spaceflight Operations



Network Manager
nominated by
the European Commission



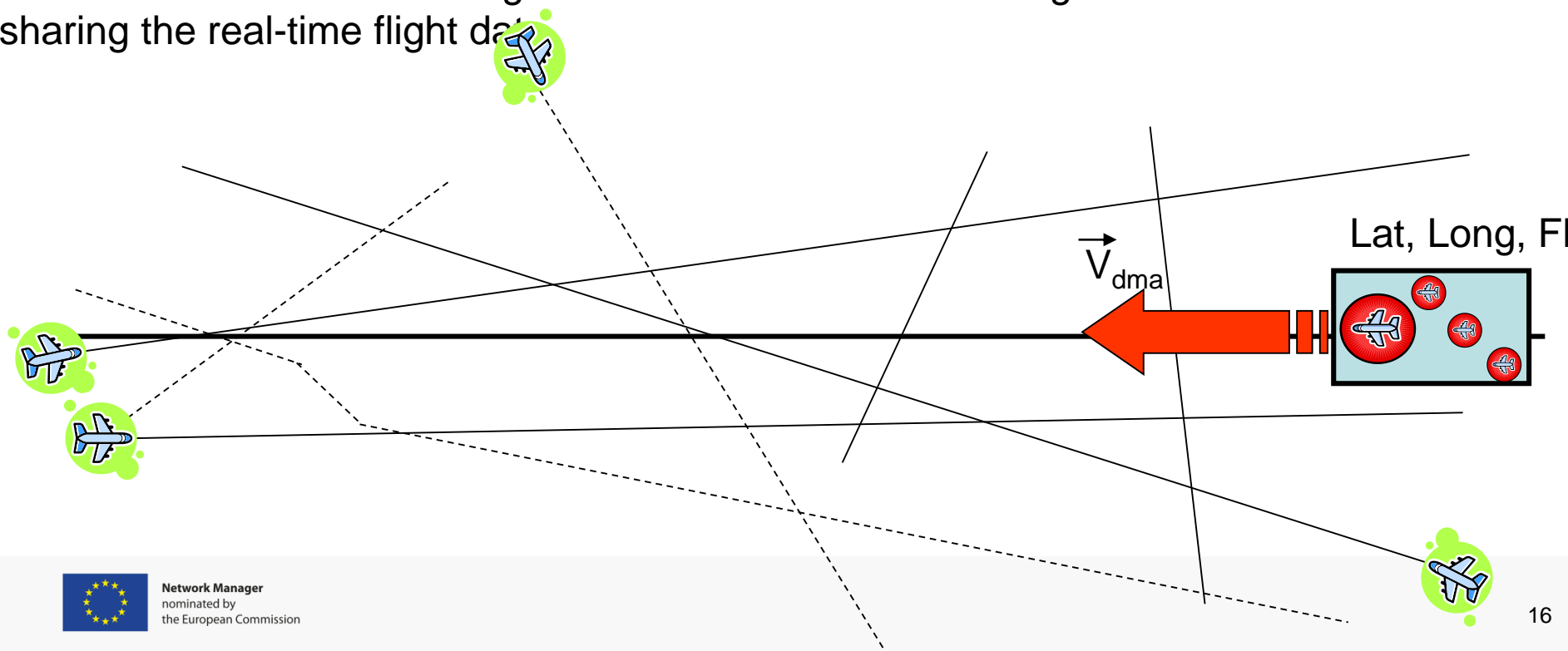
Flexible Use of Airspace (FUA)

- Airspace is one continuum
- Conditional routes & temporary reserved areas
- Direct coordination between civil and military
- Strategic decisions - performance measurement



Advanced FUA – Dynamic Mobile Areas

- Protects an activity or a flight along the path
- Area with defined lateral/vertical dimensions around moving activity to be protected
- Shared Mission Trajectory and moving airspace dimensions
- Area “attached” to the leading aircraft that should be in charge of sharing the real-time flight data



- New Actors
- Location
- Type and profile
- Frequency
- Segregation or non segregation
- Operational procedures
- Notification and Duration
- Contingency



THANK YOU

Dragos TONEA

Chairman of ICAO ATMOPS Panel
EUROCONTROL Network Manager