

SESAR

JOINT UNDERTAKING

SESAR, volet technologique du
Ciel Unique, statut du Programme
et prochaines étapes

F. GUILLERMET

SJU Deputy Executive Director

founding members



Political level

SES High-Level Goals

Planning level

SES Strategic Performance Objectives (Long Term View)

Performance Scheme (Short & Medium Term View)

SESAR Performance Contribution
Operational and Technical system evolution

SES Pillars Performance Contribution
Structural reform - FAB, NMF, Best practices

Performance Needs

Validation Targets

PERFORMANCE DRIVEN R&D

MATURE SOLUTIONS

Needs & Priorities



Business Cases
Performance Expectations

EUROPEAN ATM MASTER PLAN

Performance Scheme Targets (RPx)

NETWORK STRATEGY PLAN

FAB/National Perf. Plans



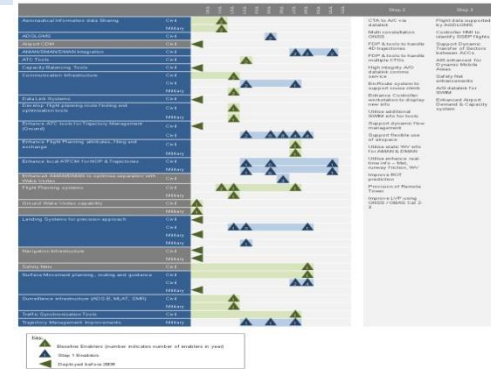
SESAR DEVELOPMENT

MASTER PLAN

PERFORMANCE NEEDS

OPERATIONAL IMPROVEMENTS & ENABLERS

HIGH LEVEL DEPLOYMENT & DEVELOPMENT TIMELINE



PROGRAMME

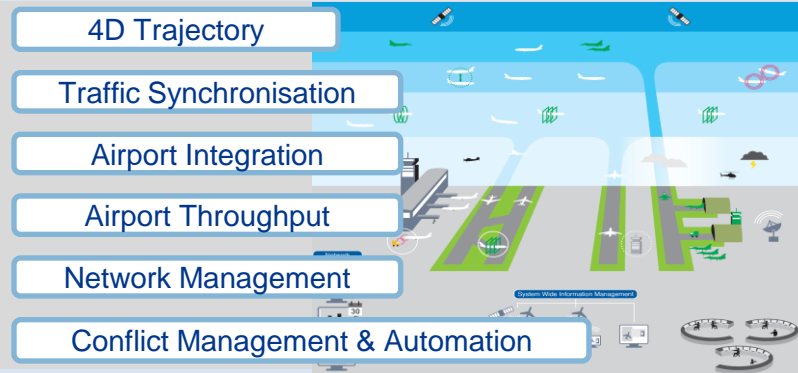
PERFORMANCE VALIDATION TARGETS

CONCEPT & ARCHITECTURE

OPERATIONAL & TECHNOLOGY SOLUTIONS

CASES

STANDARDISATION & REGULATION PREP.

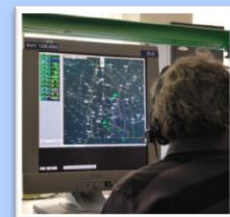
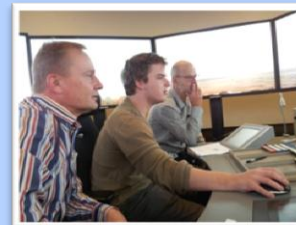


R&D PROJECTS

OPERATIONAL REQUIREMENTS

SYSTEM PROTOTYPES

VALIDATION ACTIVITIES & RESULTS



SESAR DELIVERY

MASTER PLAN

2010

2011

2012

2013

2014

Performance 2020+

Trajectory Based Operations

Time Based Operations

2017

2013

PROGRAMME

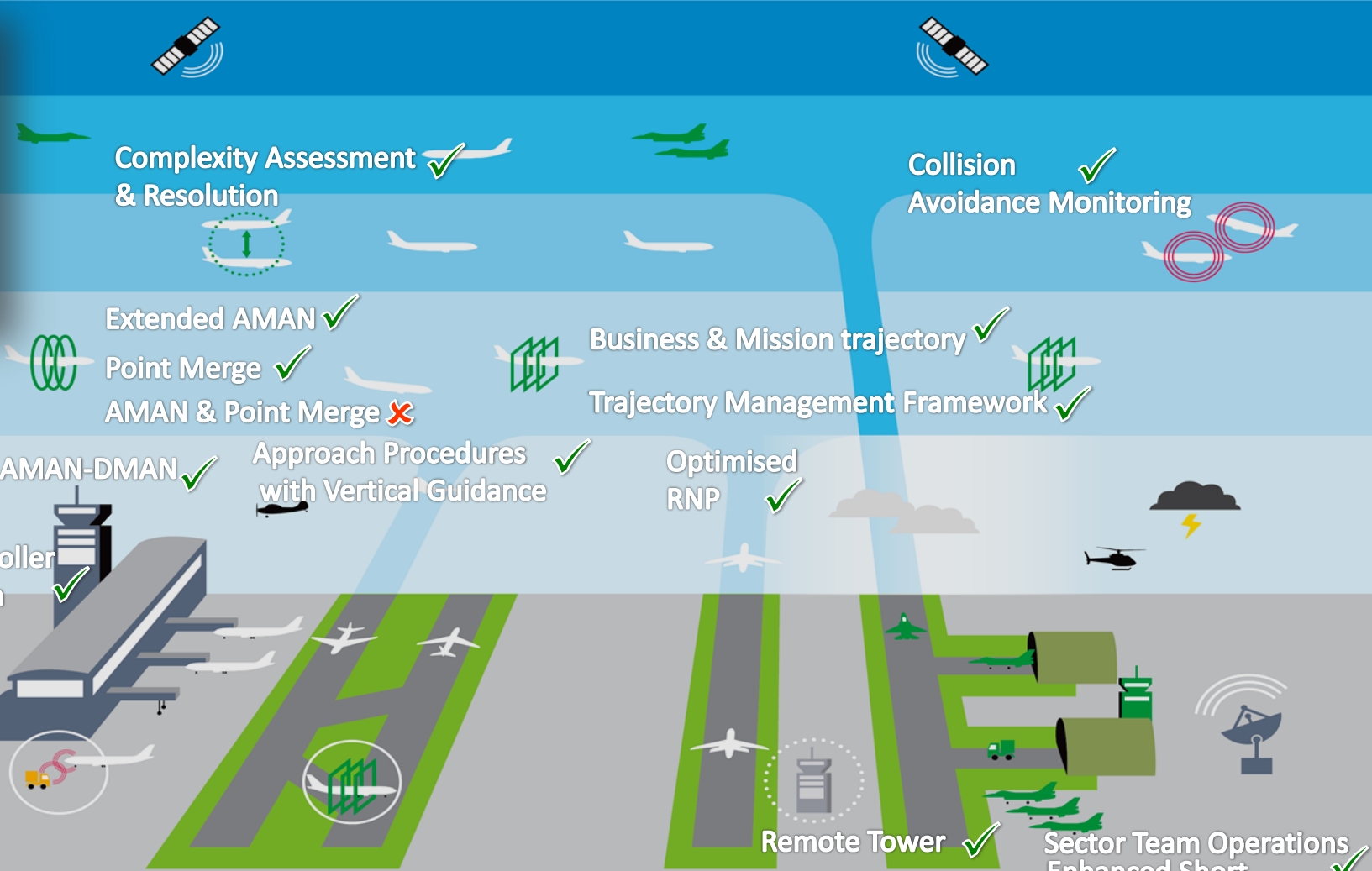


R&D PROJECTS

MATURITY

- Concept
- Requirements
- Prototype
- Validation
- Safety and Business Cases





Network Management



Enhanced ATFCM Process ✓

System Wide Information Management



Enhanced Decision Support Tools ✓





KEY SESAR SOLUTIONS IN RELEASE 1



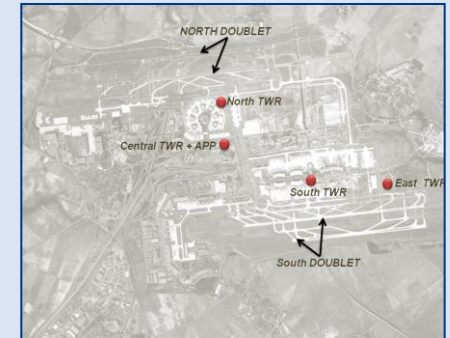
Integrated Arrival and Departure Manager

Extended AMAN Horizon

Point Merge in Complex TMA

INTEGRATED ARRIVAL AND DEPARTURE MANAGER

Validation through live trial of enhanced Departure Manager in terms of procedures for establishing pre-departure sequence at Paris CDG



- Performance improvement in terms of target start-up time, **predictability** and stability of departure sequence
- Average taxi time decreased by 9%
- Improved adherence to CFMU slots
- **Reliability** of the DMAN in bad weather conditions
- Enhanced tactical scheduling of changes to runway capacity and configuration

Time period (LT)	Improvement
6H-7H	-15%
9H-10H	-9%
12H-13H	-8%
18H-19H	-37%

Delay at the runway threshold during peak hours

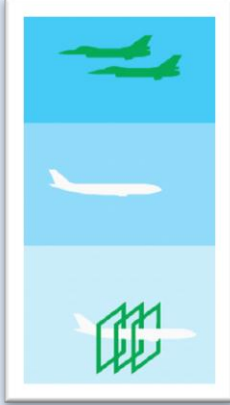
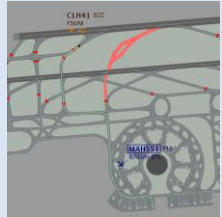


Key highlights Release 2



Surface planning & routing

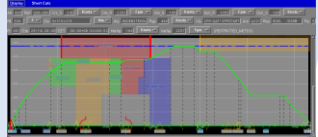
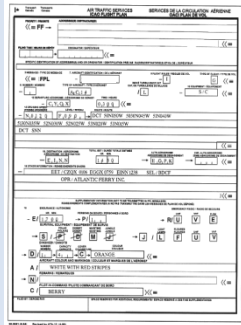
Refinement of Time Based Separation minima



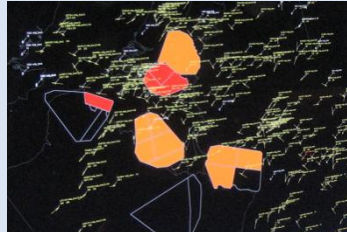
Improved ATC Trajectory prediction thanks to AOC data

Enriched ICAO flight plan information with flight performance data provided by AOC

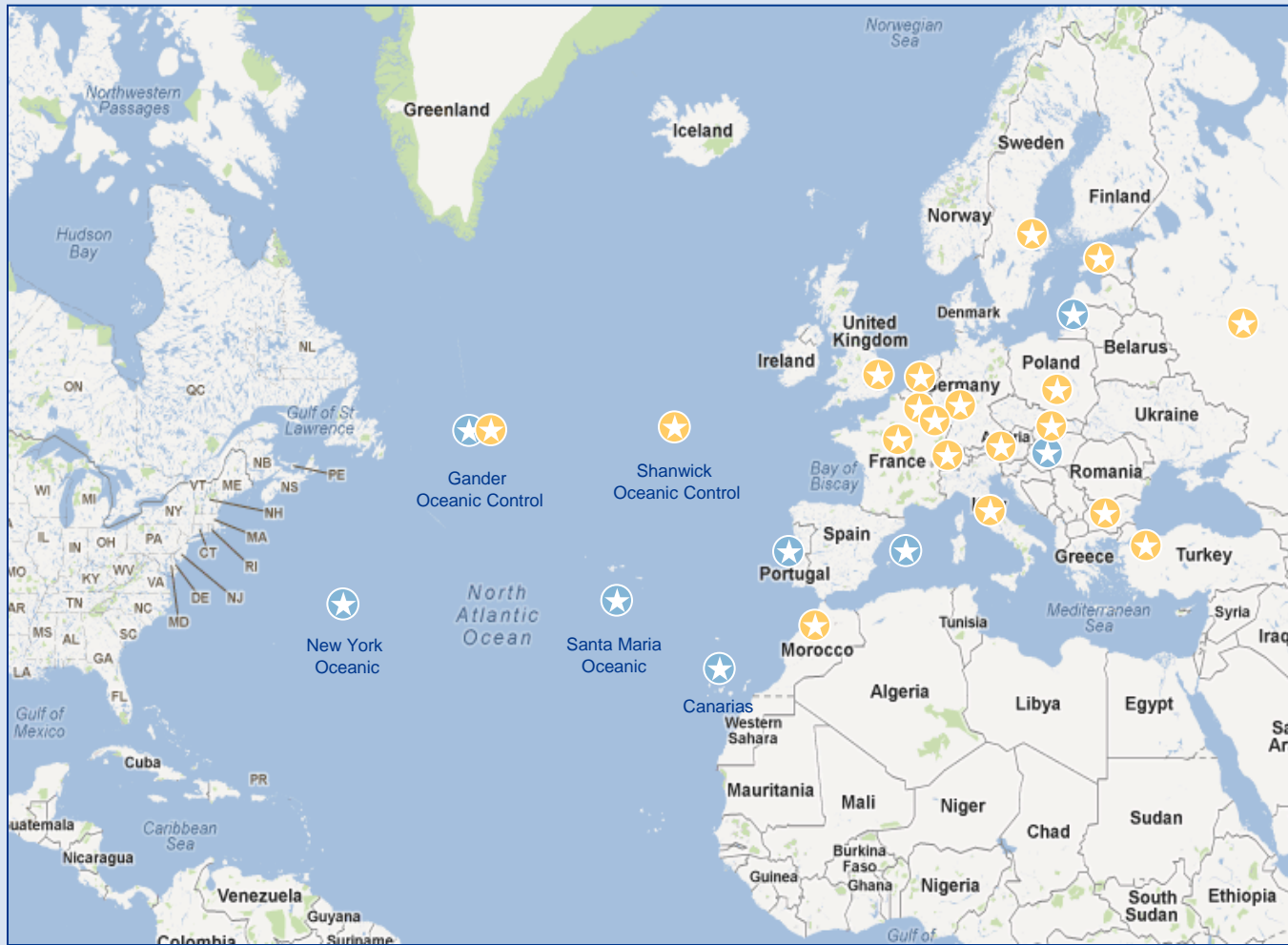
i4D + CTA



Enhanced interoperability between ASM, ATFCM tools and ATC controller working position



Going beyond the Releases: SESAR Demos



- ★ AIRE (Environment)
- ★ SESAR Solutions Demonstrations



To conclude

- SESAR solutions are developed to support **performance** improvement
- The SESAR projects are delivering results through yearly **Releases**
- Exercises performed within Release 1 have **demonstrated** concrete contributions to the achievement of the main SESAR targets
- Some exercises demonstrate negative results allowing to close R&D options
- Release 2 is launched



Mature solutions developed in Releases will be further demonstrated to the ATM community through dedicated activities

