



Evolution of Rotary Wing Technology, Enhanced Capabilities for Humanitarian Operations

Global Humanitarian Aviation Conference

Lisbon, 11th October 2017

Clive Scott, Director of Tiltrotor and Unmanned Programs



AgustaWestland Products

2016: A NEW BEGINNING – LEONARDO COMPANY

Our name changed to Leonardo, inspired by the
creative and innovative Leonardo da Vinci

**One Company
Stronger Together**



LEONARDO BUSINESS

Aerospace, Defence and Security worldwide

7 DIVISIONS



Helicopters



Aircraft



Aerostructures



Airborne & Space Systems



Land & Naval Defence Electronics



Defence Systems



Security & Information Systems



LEONARDO has the Most Comprehensive Range of Helicopters



AW119



AW139



AW101



AW109



AW169



AW189



AW609

LEONARDO Helicopters' significant experience in Humanitarian Operations

LEONARDO HELICOPTERS WORLDWIDE PRESENCE

Over **170**
countries use our
products, systems
and services

4 Domestic
Markets

ITALY



UK



USA



POLAND



GLOBAL & TAILORED CUSTOMER SUPPORT SERVICES REACHING REMOTE AREAS

FLEET

>5,000 a/c

FH

>1M/year

SERVICE CENTRES

>90

CUSTOMERS

>1,400



LEONARDO HELICOPTERS' Product Strategy

HELICOPTERS



- Dual-Use concept
- Family concept
- All-weather
- High performance
- Leading Edge on Safety
- Reliability & Affordability

- Hovering
- Low-speed efficiency

TILTROTOR



- Advanced technology
- High productivity
- High speed
- Cost effective
- Easy fit into ATM & infrastructure system

- Range
- Speed
- Altitude

RUAV



- Mission operational autonomy
- Advanced sensors integration
- Payload

- Expendable
- Promising Market
- Mixed Fleet

LEONARDO HELICOPTERS' Family Approach



- **MULTI-GEOGRAPHY:** Worldwide specs
- **MULTI-ROLE:** Intrinsic versatility with specific size-related performance
- **MULTI-SIZE:** A coherent value proposition in the 4 to 9 tonne weight class (8-19 seats)
- **ECONOMICS:** Inherent operational flexibility for optimum economics

Distinct Capabilities, One DNA, Latest Design and Safety Standards

AW169 8 - 10 pax
4.6/4.8 tonne



3 Tonne

LIGHT INTERMEDIATE

AW139 12 - 15 pax
6.8/7.0 tonne



5 Tonne

INTERMEDIATE

AW189 16 - 19 pax
8.6 tonne



7 Tonne

MEDIUM

9 Tonne

CONTINUOUS PRODUCT IMPROVEMENT

AW119Kx recently extended operating flight envelope (24.000 ft altitude)



AW119^{Kx} Fast and Flexible

Examples of Key Technology Enablers



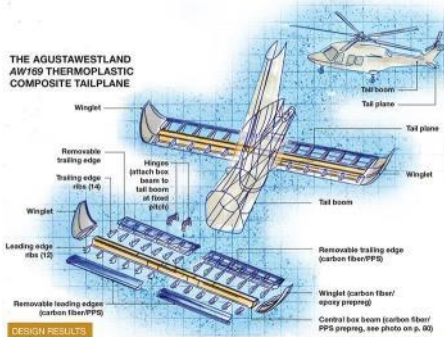
**Multiplatforms NAV/COM/AFCS
integration, GNSS based
procedures**



**All WX / hostile environment
capabilities through advanced
system integration & integrity,
Low pilot workload**



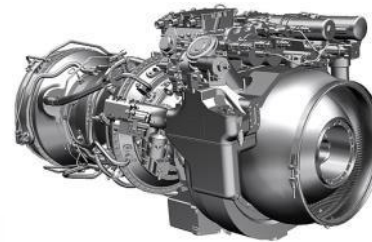
**Advanced technologies,
health/usage monitoring,
flexible maintenance programs
for cost reduction**



**Recyclable techs, low emissions
(noise, CO2, NOx, waste)**



**Intrinsic/embedded
safety features**



**Clean, silent, reduced
maintenance power
plants, electric
technology**



**Innovative advanced
configurations**

AW609
TILTROTOR

On Track with
Certification Activities!



The Key Peculiar Feature of Tiltrotors

It goes beyond limitations & annoyance of conventional Helicopters while keeping its unique operational flexibility

AIRPLANE MODE

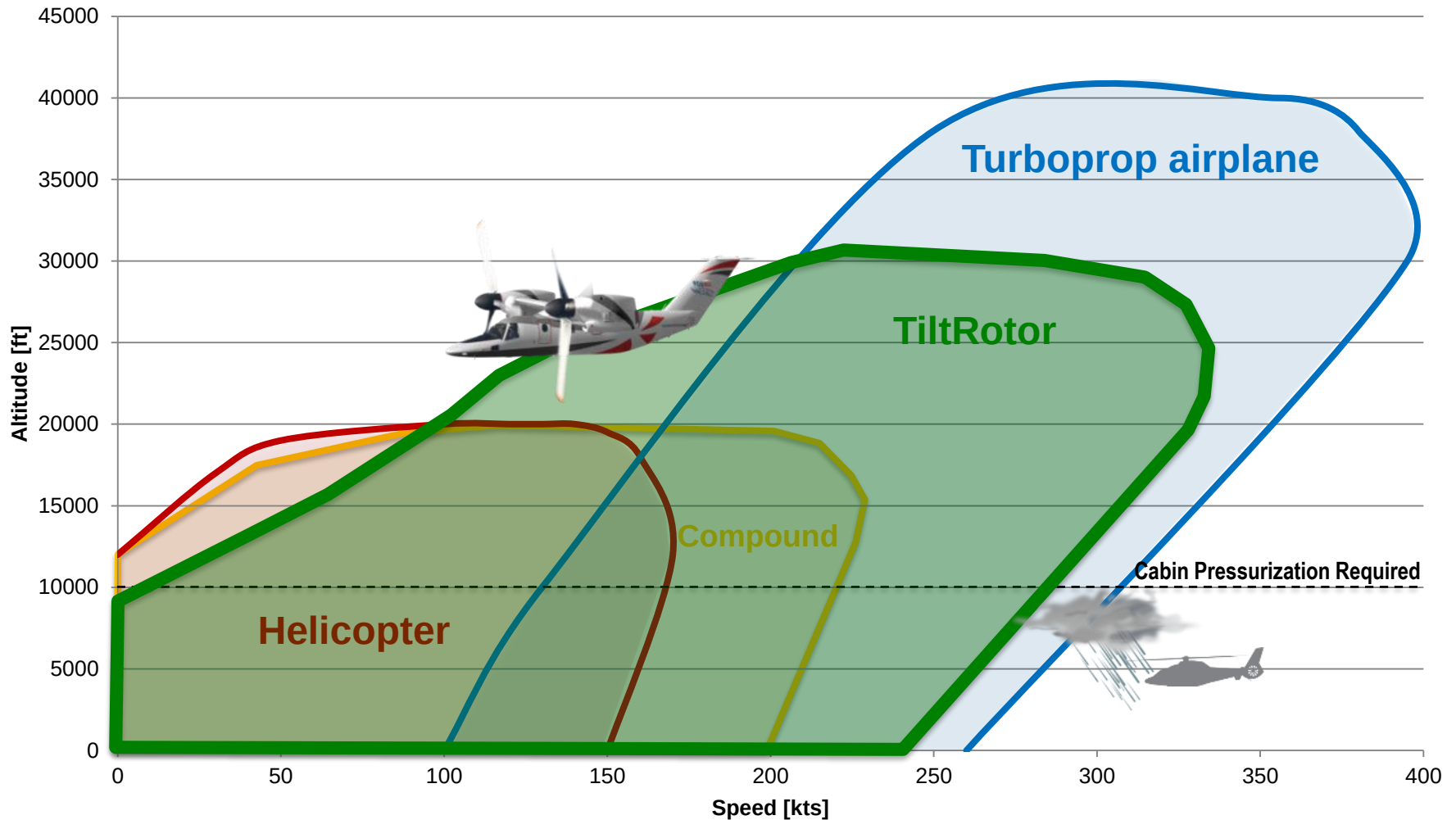
Transition from Hover to Forward Flight

HELICOPTER Mode
(Vertical Take-off)



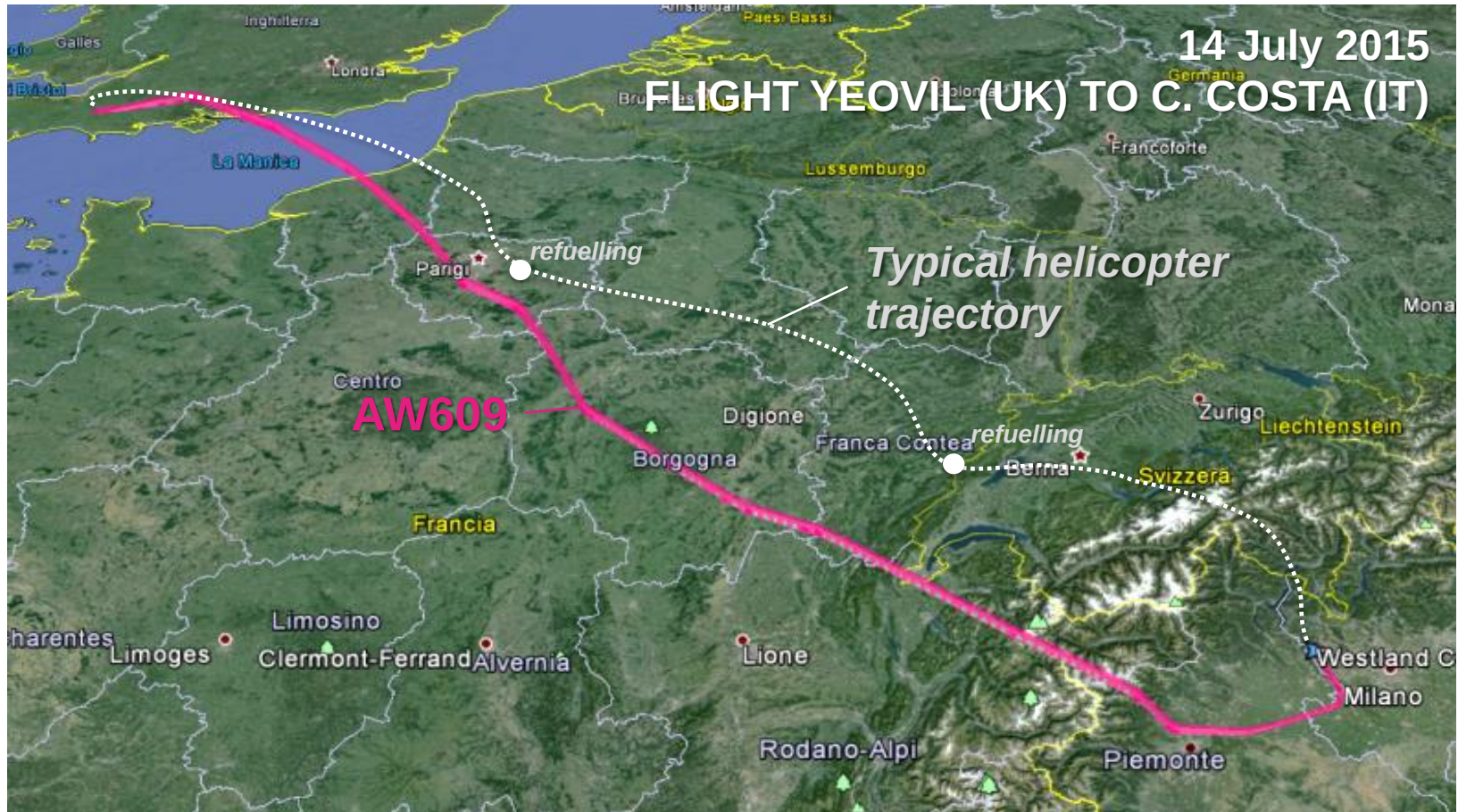
AW609
TILTROTOR

The New Frontier of the Vertical Flight



Tiltrotor is a Mobility Enabler

Speed record on a 1,161 km 'point-to-point' journey, covering 627 nm in 2 hrs 18'



Max Speed: 310 kt (average cruise 280/290 kt)
Max Altitude: 26.430 ft (max PA: 25.000 ft)

Making The Difference: AW609 Time Critical SAR Mission

1 hour rescue response time



Looking Forward: the NextGen Tilt Rotor



A ~20 pax a/c that cruises at 330+ kts with a >700 nm Range
Payload/Fuel trade-off possible to extend the range even further



LEONARDO HELICOPTERS is ahead of RUAV technologies



Perfect low cost unmanned solution
for humanitarian applications

AWHERO Eye in the Skies

MTOW 200 kg

The Future is Here: New Gen Helicopters, Fast Rotorcraft & RUAV



Conclusions

- ❑ Committed to be a **leader** in the helicopter market
- ❑ A coherent, **latest technology product range** to satisfy the most demanding requirements
- ❑ Focus on **economics** and **availability**
- ❑ Commitment and investment in **safety & support**
- ❑ At the leading edge of **innovation**



THANK **YOU** FOR YOUR ATTENTION



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