Neuilly-sur-Seine, October 30, 2009 – Air France today took reception of its first A380 aircraft, the largest passenger jet in the world. This super-sized aircraft - capable of carrying 855 passengers, but carrying only 538 in the Air France version - is at the forefront of innovation in aviation, displaying a superior design that combines unparalleled size and might with aesthetics and grace.

The wings alone on this record-breaking super jet each measure 845m². The A380 also boasts 50 percent more floor surface than any other high capacity aircraft, giving passengers space to relax in what is the quietest cabin of any airliner currently in service.

Thales is a long-standing Airbus partner, and the main supplier of the A380’s cockpit display systems – its technology can be found throughout the aircraft’s avionics system, covering navigation, flight controls, electrical power systems and utilities such as braking systems and door management systems. The A380’s passenger doors are for the first time ever electronically controlled instead of mechanically operated. Within the cabin, the company provides state-of-the-art lighting systems and Inflight Entertainment systems.

Thales systems comprise a significant percentage of the electronics onboard the A380 and as such the company plays a significant role in bringing the aircraft to market. An average of 350 Thales employees per year worked on developing systems onboard the A380 over a period of five years.

Thales in addition supplied the A380 with a state-of-the-art full flight simulator for crew training. Innovative Thales solutions give crews on the A380 all the onboard intelligence they need for flying the aircraft, and the company’s expertise in simulation and air traffic management provides the breadth of vision required to further develop optimum solutions for this aircraft of the future.

(1) In partnership with Diehl Aerospace
(2) Developed by Aerolec, a JV with Goodrich
(3) Supplied to Messier Bugatti
(4) Developed and supplied by Diehl Aerospace
Innovation for the Pilot

The A380 cockpit contains completely new technology, such as the Integrated Modular Avionics (IMA) suite, never before seen on an aircraft. With an eye on the future, the cockpit has been designed in a way that will reduce training costs and optimise use of airline resources. Namely, an A380 pilot will need just minimal amounts of training to be able to transfer to the new layout and functions of the next generation A350 XWB.

Innovation and IMA

The A380 is the first aircraft ever to be fitted with the Integrated Modular Avionics (IMA) suite, a major technical evolution of global importance for airlines and operators. Designed by Airbus and co-developed with Thales and Diehl Aerospace, the IMA is a leap-ahead technological innovation, with all onboard computing modules networked and able to support different applications. The result is a substantial improvement in computing power, reliability, maintainability, volume, weight and scalability.

Through its IMA platform, Thales has halved the number of parts required, leading to significant gains in direct maintenance costs as communication between the different systems is optimised. The principles of standardisation and the multiple use of function units are applied by combining computing as well as input and output functions in standardised computer platforms.

The IMA solution maximises the benefits of reuse developed for the Airbus A380 and specific requirements of the A400M, the Airbus military transport aircraft currently under development. For the A400M, the IMA has been adapted to meet military requirements for resistance to higher vibration levels, higher electromagnetic compatibility and necessary lightning protection system.

Innovation and the Onboard Airport Navigation System

Thales is providing the world’s first Onboard Airport Navigation System (OANS) within the A380 cockpit, providing crewmembers with improved situational awareness on airport surface manoeuvres. OANS allows the flight crew to more efficiently navigate at airports, which have become increasingly congested.

The OANS draws on an Airport Mapping Database (AMDB) to dynamically display the aircraft position on high-resolution geo-referenced airport maps. This information is presented to pilots via a large format liquid crystal display (Navigation Display).

On ground, the function displays high-resolution airport moving maps that depict the aircraft’s position in relation to airport surface features for taxiing operations from and to the gate. The system and database are designed with commonality for Airbus aircraft, first deployed on the A380, and then on A330/A340, A320 families, as well as on the future A350XWB.

Innovation and Head-Up Display

The Head-Up Display (HUD) is making its first appearance on an A380 aircraft with the entry into service of the A380 with Air France, the first airline to select the Thales HUD (in dual configuration) for this aircraft type. The European Aviation Safety Agency certified the Thales HUD on the A380 in both single (left seat only) and dual (left and right seats) configurations. Other Thales A380 HUD customers include China Southern Airlines and Korean Air.

The HUD increases pilot situational awareness by creating the conditions for a smoother transition from head down to head up. This feature is particularly advantageous during
approach and landing phases, when it displays trajectory related symbols superimposed on the pilot's actual external view.

The new Thales HUD is based on innovative and proven technologies and is already available as a catalogue option on Airbus Single Aisle and A380 aircraft families in current production.

**Innovation for the Passenger**

**Innovation and Inflight Entertainment**
Air France is equipping all of its A380 fleet with the advanced Thales TopSeries Inflight Entertainment (IFE) system. This system provides high-speed delivery of onboard services with large, widescreen displays at every seat. Air France A380 passengers can access a broad range of entertainment that includes approximately 100 on-demand movies, 300 audio CDs, 26 games, live camera, flight information map, in-seat chat and a customised menu option for children.

Air France is the first airline to equip each seat in the Affaires and Voyageur cabins with a USB socket, enabling passengers to download content such as flight schedules, information on Air France, destinations guides, games for children, as well as relaxation videos and podcasts. Passengers select the "Forum" programme from the list, which automatically disconnects when another application is selected.

The TopSeries IFE system is the first passenger system of its type to integrate on-demand entertainment and in-seat power to accommodate personal electronic devices. With a growing market share that today exceeds 40%, this web-based system is scalable to any aircraft and has been selected by more than 50 airlines worldwide.

**Innovation and Cabin Lighting**
Thales and Diehl's joint venture company Diehl Aerospace, the world leader in cabin mood lighting, supplies the general cabin lighting system onboard the A380. This solution consists of the very latest technology for cabin lighting installations on commercial airliners in service.

The system enhances passenger relaxation by means of innovative ceiling mood lighting throughout cabin, creating restful day and night ambiances. These lighting innovations contribute to diminishing the effects of jet lag.

The so-called mood lighting effect is created by the Hybrid Integrated Ballast Unit (HIBU) system, by means of which LED elements complement conventional fluorescent light tubes. The HIBU system is superior to previous cabin lighting installations on long-range aircraft, because its MELODY (Modular Enhanced Low Dimming) technology allows for more variation than ever before in lighting scenarios.

MELODY means that cabin light on the A380 can be dimmed down to 0.1 per cent, and the technology is particularly effective for simulating a gradual increase of light again. As such, day and night effects can be simulated very subtly.

**Thales is very proud to be onboard the A380 and to have worked alongside Airbus to tailor the very latest technological innovations to meet the needs of this superior aircraft.**