

MR. COLIN THOMPSON

**A350-1000 WING ARCHITECT
AIRBUS OPERATIONS LTD,
BRISTOL, UK**

www.airbus.com



Education and Training

- B. Eng. (Hons) Aeronautical Eng, University of Limerick, Ireland, 1998
- Certificate in Management, University of Lancaster, 2003

Current Position

Title	Dates	Employer
A350-1000 Wing Architect	2008 - Present	Airbus, Bristol, UK

Previous Positions

Title	Dates	Employer
Direct Entry Graduate (DEG) Programme	Oct 1998 - Oct 1999	Airbus, Bristol, UK
Designer, Fuel Systems Installation - A340-600	Oct 1999 - Dec 2001	Airbus, Bristol, UK
Wing Design Liaison to Final Assembly Line (FAL) - A340-600.	Jan 2001 - Apr 2001	Airbus, Toulouse, France
Lead Designer, Wing Electrical Systems Installation- A380	May 2001 - Apr 2004	Airbus, Bristol, UK
Systems Installation Specialist, Final Assembly Line- A380	May 2004 - Sep 2005	Airbus, Toulouse, France
Electrical Installation Integrator - A400M	Oct 2005 - Dec 2005	Airbus, Bristol, UK
Leading and Trailing Edge Integrator - A350 Scenario 1a.	Jan 2006 - May 2006	Airbus, Bristol, UK
Lead Engineer Trailing Edge - A350 XWB	Jan 2007 - Apr 2007	Airbus, Bristol, UK
Leading Edge Integrator and Plateau Leader - A350 XWB	Apr 2007 - Dec 2007	Airbus, Bristol, UK

"Home" Town(s)/County(s)

Cashel, Co. Tipperary

Please describe your current job

My current role is that of Wing Architect for the A350XWB-1000 Aircraft. I have worked in the Wing Architect team from early 2008 and led the Wing modifications for the -1000 variant since early 2009.

The A350XWB (XWB: eXtra Wide Body) programme was developed as a replacement for the ageing A330/A340 aircraft and has been running since 2006. The A350XWB programme has 3 variants. The initial version is the A350-900 where all the new ideas are initially implemented, followed by the A350-800 (a shorter fuselage length with common wing) and finally the A350-1000 (a longer fuselage with a modified and reinforced wing).

During 2008/2009 I helped develop ideas in wing leading and trailing edge integration of the high lift and flying control surfaces (Moveables) and systems. Moving onto the role as -1000 Wing Architect we had to modify the wing to be capable of greater lift to enable take-off and landing of this heavier aircraft.

Through this we have embodied a modified wing while trying to maintain significant levels of commonality. The wing design teams develop the design solution and trade studies which the architect team help to progress and ultimately make decisions on, as to whether to implement. The Wing Architect's role is to ensure all issues are understood clearly, full integration occurs between the different departments (including Systems, Aerodynamics, internal and external design teams, Loads, etc) and then to provide the Aircraft Chief Engineer a full set of data with recommendations, to allow a balanced decision for the benefit of the full aircraft.

In this role I spend 3 days a week in my home site (Bristol - where the wing design teams are based) and 2 days a week in Toulouse liaising on other aspects of the aircraft.

Please describe your career path since graduating with your B.Eng. Aeronautical Eng.

After leaving the University of Limerick in 1998 I joined Airbus on their Graduate Development Programme. This allowed me to undertake 3-month placements within a number of departments, including Stress, Project Management, Manufacturing support and In-service Support.

I then moved into a design role with the Fuel System Installation team, working on a new wing for the A340 aircraft (A340-600). During the assembly of the systems into the wing I supported the manufacturing build team with immediate solutions. This role evolved into supporting the whole wing assembly process in the final stages of build. As part of this role I spent 6 months, travelling 5 days a week to Toulouse acting as a liaison identifying errors as manufacturing/design or process issues, and generating new solutions for the design teams to implement for serial production. I was lucky enough to be in Toulouse to support the preparation for flight test and watch the first flight of the A340-600.

In 2001 I moved into the Electrical Installation design team, leading a group of designers responsible for the A380 Wing trailing edge. Again I followed this role into the assembly process correcting manufacturing errors, and proposing changes to the design. This time I moved to a permanent role in Toulouse for 16 months, again supporting preparation for flight test but also the final build of all flight test aircraft and initial serial production for customer delivery.

On return to Bristol in 2005 I initially supported a troubleshooting role on the A400M programme. In early 2006 I joined the A350 Wing team, initially as part of the Wing Trailing Edge design team but subsequently moved to be Leading Edge Integrator, responsible for delivering a new high lift design solution to achieve increased lift at take-off limited airports. Due to the multi-national nature of the design teams involved in the project I instilled a multiple co-location solution to ensure close team working. The team switched between working 3 days in Germany and 3 days in Bristol each week where the two main teams were based. This still allowed other team members to be at their home sites.

In 2008 I joined the Wing Architect team within the A350 programme, initially to look after moveable surface integration with aerodynamics, loads and fixed wing leading and trailing edge fixed structure before becoming the A350-1000 architect.

What made you decide to study Aeronautical Engineering at UL?

Through my school years I had always wanted to be an architect (in the traditional building sense). During a University road show at the RDS I had a great discussion with a lecturer from Salford University (Manchester), which encouraged me to thinking about Aeronautical Engineering. My parents, wanting to keep me closer to home, pointed out that University of Limerick did a similar

course After a bit of research I realised this was a good quality course and that I would achieve a fantastic degree within Ireland. This led to this being my priority 1 selection.

Are you glad you did?

Yes delighted I chose this route. Fifteen years after not going down the route of being a traditional architect, I have become an aircraft architect which is a far more challenging environment.

What did you most enjoy about studying at UL - academically, and also non-academically?

Academically I enjoyed Aircraft design, Propulsion and the level of project-based work. Non-academically I was heavily involved in sports. I represented the university at Freshers Rugby, being runners-up in the Irish Colleges title. I also participated in 5 Hockey Intervarsities and a cricket Intervarsities. I still play hockey seriously, and represented Airbus in World Corporate Adventure Racing (including winning the World Championships).

Where did you do your COOP?

I spent 9 months on COOP in the Air Corp. A very interesting experience. 3 months spent on Marchetti trainer aircraft hands on maintenance, 3 months on piston engine overhaul, and 3 months with Dauphin helicopters. I carried out a key study while there, assessing the cost of part replacement on the Dauphin helicopters.

What advice would you give school-goers considering choosing Aeronautical Engineering?

Aeronautical Engineering is such a rewarding career. There are always improvements to be considered, and with the current fuel prices aircraft will continue to evolve and require new concepts to reduce the fuel consumption.

Being able to identify or embody changes to the aircraft you are working on gives you the knowledge that you played a part in improving the future. Personally I can look at the A380 and identify a number of components on the wing designed due to a part I played in the process.

Aeronautical Engineering also provides a secure grounding for many other careers as the depth of knowledge you gain is regarded highly in other industries providing good flexibility.

What advice would you give future graduates of Aeronautical Engineering?

In the first few years of job experience it is imperative to gain practical experience with manufacturing or in-service operations. It is also important to follow a design process from cradle to grave, to ensure you understand the implications of design solutions you have invented, as well as changes that are forced on you through integrated working and evolution of data, as maturity is improved. This knowledge allows for greater understanding of the design process as your career progresses and allows you to understand the complexity of the jobs of those who work around you.