



DLR and NASA announce partnership in aeronautics research

11 September 2012

On 11 September 2012 at the ILA Berlin Air Show, the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) and the United States National Aeronautics and Space Administration (NASA) announced a future collaboration in the field of aeronautics research. This bilateral agreement was signed by NASA's Associate Administrator for Aeronautics Jaiwon Shin and DLR's Executive Board Member for Aeronautics, Rolf Henke. Air traffic management is the focal point of this future joint scientific work.

"I am looking forward to expanding our collaboration with NASA," stated Johann-Dietrich Wörner, Chairman of the DLR Executive Board. "Increasing our levels of cooperation with international partners remains one of DLR's main strategic objectives." In December 2010, DLR and NASA signed a framework agreement that laid the foundations for joint research work. "NASA has enjoyed a long history of successful cooperation with DLR," Shin said. "Our ability to work closely together will benefit each nation by increasing air traffic capacity and reducing aviation's impact to the environment."

Better flight routes and improved airport utilisation

"DLR is bringing its extensive research experience in the air traffic management sector," explains Henke. "At the same time, our scientists will be able to benefit from the experience of their NASA colleagues." Through this collaboration, DLR and NASA will improve their prediction of wind, weather and areas of turbulence, and consequently have the capability to plan flight routes, especially across the Atlantic, that are more environment-friendly and cost-effective. Landing, taxiing and approach routes will be designed to reduce noise, travel time and fuel consumption.

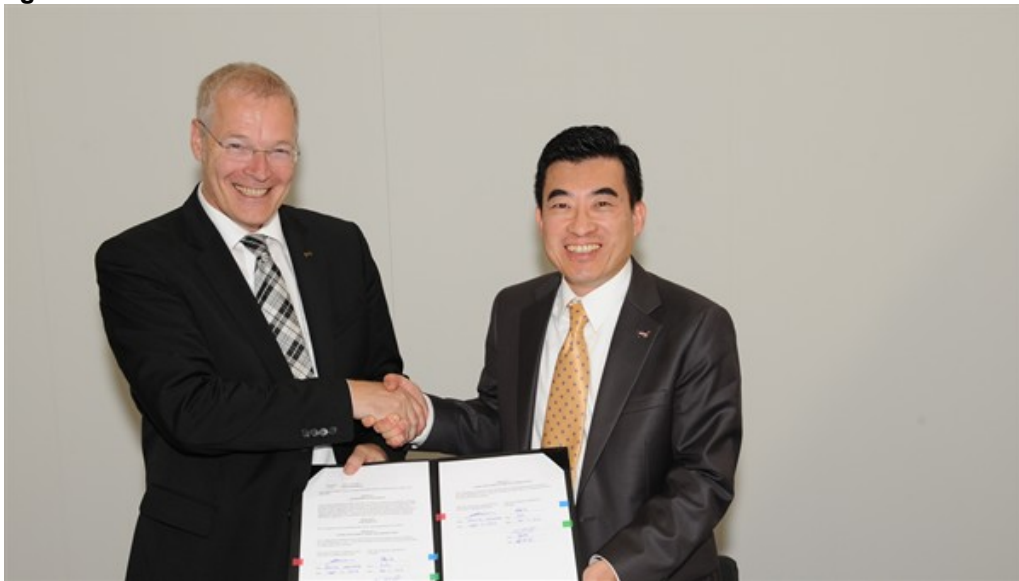
Both partners also wish to conduct research into how to make better use of runways taking into account departure routes and separation between aircraft. The goal is to develop a more accurate system for planning aircraft departures and taxiway usage to enable air traffic controllers to process more flights within the same period of time. DLR has been conducting research in this field for over a decade. US airports trail somewhat in this respect, which is why NASA is currently interested in this type of research. The partners hope to improve airport utilisation through the simulation of wake vortices on runways. In the future and upon greater understanding of these issues, passenger aircraft will be able to land at shorter intervals without endangering one another.

This joint aeronautics research project between DLR and NASA will initially run for three years. Researchers from the DLR Institute of Flight Guidance and the DLR Institute of Atmospheric Physics will be cooperating directly with colleagues from Ames Research Center in California and the Langley Research Center in Virginia. Alongside the planned collaboration and the exchange of scientific data, there will be an increase in the exchange of staff between the facilities.

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Rolf Henke (DLR) and Jaiwon Shin (NASA) after the signing of the agreement



Rolf Henke, DLR Executive Board Member for Aeronautics Research, and Jaiwon Shin, NASA Associate Administrator for the Aeronautics Research Mission Directorate, after the signing of the agreement. The focus of future joint scientific work will be air traffic management.

Credit: DLR (CC-BY 3.0).

A NASA delegation were guests of DLR at the ILA Berlin Air Show 2012



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