

**"Trends of German and European Aerospace Programs  
including the Awareness of Public Safety and Reliability"**

Remarks by

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at the

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Ladies and Gentlemen,

Thank you very much for inviting me to your Third Workshop. It is an honor to be here.

My remarks will focus on the German government's efforts in the fields of aviation research, air traffic, and measures to support research activities.

Today is the eleventh of September, a year after the terrorist attack on the World Trade Center in New York.

Its consequences for civil aviation have still not been completely overcome.

I feel the need to speak about this event and its impact, even though the topic has already been addressed by other speakers.

My reasons are that

- number one: aviation is at the center of my remarks and
- number two: I am responsible for this area in the German Economics Ministry.

The security aspects of the terrorist attack have been analyzed in detail over the past several months.

It is safe to say that we must aim our greatest efforts at substantially improving security measures on the ground.

Aviation experts have primarily concentrated their attention on safety enhancement. Scenarios for the cockpit and for flight control did not include the threat of terrorists using commercial airliners for such an attack.

Within these limits, aviation and aircraft construction had achieved a very high level of safety, security, and reliability.

The success rates for identifying errors and detecting damage have been just as high.

Those responsible have developed such strict safety standards that we have basically learned how to operate aviation without disturbance.

The factors showing the highest risk of disturbance continue to be starts, landings, and the human element. Human error by the crew causes most accidents. Statistically it amounts to about 65%. Purely technical causes have declined to a minimum, thanks in part to your work. (*Bei Fragen: roughly 5% or less*).

To market a product today, reliability, maintenance hours, service, and operational costs are playing an ever greater role. This is true without exception, worldwide.

Of course, procurement costs are still very important. But unlike the past, the hard task of relating these factors to costs has been accomplished and must now be optimized in keeping with the customer's interests.

Your daily work has already given you extremely varied job specifications. In some industrial branches, including aviation, a new form of commerce has been developed with leasing or temporary and task-oriented rental of equipment.

With this philosophy, even large companies are going to be developing their own operational divisions and capacities for maintenance and repair. This will mean new challenges for manufacturers, service firms, and especially for you in your responsibility as the experts on reliability.

What once began with the sale of turnkey investment has now led to far reaching changes in the relationship between customer and vendor. These changes will continue to influence your field of work and trigger innovation.

Completely new requirements arise when a product is not purchased outright but is rented on a temporary basis. For the manufacturer and service provider the aspects of reliability, service life, longevity, product support, and other such elements appear in an entirely new light.

There are also new service areas such as the pre-financing of one's own product. An aircraft-engine plant, for example, often makes a profit for the manufacturer only

after the first major servicing and replacement of worn parts (after about 3 to 5 years). Until then, the manufacturer's costs surpass his revenues.

In the next few days, you will be discussing product longevity, reliability, and similar topics. And you will most likely come up with unusual solutions.

But now I want to turn to the second - just as important - part of my remarks: aviation and the German government's efforts in this area.

Assistance for aviation research, and thus also the search for more safety and security, remains one of the important tasks of the German government's economic and technology policy.

On June 6 of this year, the German Bundestag therefore voted to continue the national aviation research program. And Federal Chancellor Gerhard Schröder spoke in favor of this measure at the opening of ILA 2002 at Berlin-Schönefeld on May 6. In this connection, the Federal Ministry of Economics and Technology has worked out a new technology program for the period 2003 to 2007. The economic and policy goal of the new program is both the development of sensitive technologies and the relaxation of links between traffic growth, fuel consumption, and pollution.

Other challenges of the future are safety and passenger-friendliness, along with economical operation and the value-added chain. We want to work toward these goals by launching well-conceived R&D projects. In terms of government financing, the international conditions for aviation research are now unequal. The German government's program aims at offsetting the competitive disadvantages relative to the support provided by the United States and the assistance given by our European partner countries.

But our goal is not a competition of subsidies. Rather, it is the creation of a level playing field. At the same time we want to accelerate economic growth by way of research and technology. With goal-specific assistance, we hope to facilitate scientific studies and thus to strengthen skills, reinforce key technologies, and ensure sustained development.

Besides national research efforts, we also need the European harmonization of aviation research and the greater integration of transatlantic research activities to increase safety and environmental-friendliness.

A positive example for me was the signing of the Memorandum of Understanding for the development of a transmission fan by MTU and Pratt & Whitney at the international air show in Berlin in May of 2002. With this research project, we will jointly strengthen both the economy and the ecology on a transatlantic basis.

Ladies and Gentlemen,

Allow me to make a few remarks on the status of European harmonization and aviation research efforts.

As part of the EU's fifth research program (covering the years from 1999 to 2002) the German government worked hard to ensure the inclusion of an independent project of key importance designated "New Prospects for Aviation." In this program, Germany's industry and scientific community demonstrated its competence and capabilities to act in European partnership.

This good starting position must be expanded.

In the EU's sixth framework program for research (2003 to 2006), financed by a budget of roughly 12.9 billion euros, aerospace will again have a position of importance. Some 1.075 billion euros have been earmarked for this sub-program.

Achieving a consensus with the smaller Member States and arriving at this result was no easy task.

We must now push forward with harmonizing European and national research efforts. The German Ministry of Economics and Research is participating actively within the Advisory Council for Aeronautical Research (ACARE) to draft the Strategic Research Agenda, which will be completed by this coming November.

Safety and security also occupy a place of importance in the Strategic Research Agenda. In Europe, there is a focus on the safety of aircraft and air traffic systems.

The investigations hope to cut the accident rate by one-half in the short term, and to one-fifth in the long term.

In the case of the air traffic systems, the focus has been placed on optimizing the use of airspace and airports, as well as the associated shortening of flight delays. A fully integrated European flight traffic management system that also facilitates the accomplishment of the desired "single European sky" will be an additional and positive force in achieving this objective.

In closing, I would like to return to the events of September 11 and the activities of the German government to improve safety and security in aviation.

Together with the responsible federal agencies, we have worked out a government strategy for technology development in the field of aircraft and aviation safety. We will primarily focus on the aspects of aviation on the ground.

The Federal Institute of Materials Research and Testing is going to make an important contribution in the field of passenger and baggage checks. It will provide its comprehensive know-how in conjunction with industrial partners to upgrade the technical capabilities of present equipment.

The research will particularly concentrate on the specific detection of hazardous objects and the shortening of inspection times.

The crash of two large aircraft near Lake Constance last July 1 made our call for a Single European Sky and for greater uniformity and better air surveillance more urgent than ever before.

European air traffic controls must increase their reliability and make better use of available resources. Parallel to these improvements and the boosting of safety standards, there must also be an increase in efficiency and a lowering of costs. I see this as a goal we can accomplish.

But despite a good deal of progress, there will always be new tasks to be solved.

In this spirit, I wish you interesting presentations and discussions, and upon your return to your desks, success in accomplishing the challenges that lie ahead.