



Researching security

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Security is one of life's basic necessities. The term means a condition or situation that is free of unacceptable risks. In technical terms, risk is the multiplicative product of the probability of an event and the severity of the damage it causes. In daily usage, the meaning of security is reduced to the opposite of risk, or rather, residual risk. Buildings, procedures, pharmaceuticals, events and entire social systems – they must all be safe. The concept of security has a special meaning for each individual in society. Although we may enjoy taking risks repeatedly, even intensifying them for the kick they give us during our leisure activities, we want society to protect us from risks and keep us secure in everyday life. Security is a need with special features, a condition that is not self-evident, and the need for which is felt only when it is absent. It is something that has to be studied and worked towards.

DLR is very closely engaged with all issues of security, both in the direct, technical sense and in society at large. Our research into security includes, on the one hand, defence research: providing the German Federal Ministry of Defence with our assessment and consulting expertise in the area of militarily-relevant technologies. On the other hand, civil security research projects are fundamental to our work: supporting technologies, systems, concepts and expertise as well as the associated capabilities in the areas of active and passive protection. DLR's civil security research also includes the field of safety, when a failure, whether human or technical, has occurred, or a natural event has had devastating consequences.

DLR established its Security research programme in spring 2010. A Programme Coordinator has been appointed to steer and coordinate security-related activities within DLR. Working with Members of the Executive Board and Programme Directors for the areas of Aeronautics, Space, Energy and Transport research, the Coordinator harmonises these activities and as the primary contact for both internal and external partners, represents the interests of Security research. Within DLR itself, special weight is accorded to the initiation of new civil security research projects in consultation with federal, regional, industrial and scientific partners.

The foundations for performing security research at DLR are excellent. Our expertise and capabilities go far beyond pure technology development to include secure communications, navigation and remote sensing. Especially in the area of security, it is important that a range of disciplines be coordinated systematically in order to provide clear, unified data analyses, thereby enabling reliable situation evaluations and recommendations for action. DLR has recently provided active assistance after many catastrophes around the world, from the earthquake in Haiti to the forest fires in Russia and the floods in Pakistan, and has developed information products from raw data that have been – and continue to be – of enormous value to humanitarian agencies in the field. Multidisciplinary concepts, such as airport security, aimed at making critical infrastructure safe, are also areas of active research in addition to themes such as maritime security.

We at DLR will continue to actively pursue all aspects of security research, so as to deploy the full range of our expertise for the benefit of society. Research is indispensable to security. ●