

## Report from Bonn by Rainer Apel

### Cooperation with Soviet Union grows

*The potential of joint German-Soviet projects is still mostly untapped, but progress is being made.*

**O**n April 28, a news headline here reported an important development inside the Soviet Union: For the first time since the end of World War II, a Western airline has received permission to land in Kaliningrad, which had been a strictly military zone.

Even more interesting was that the airline that would begin flights to Kaliningrad was Hamburg Airlines, a commercial German firm. Kaliningrad is the old German city of Königsberg, which was renamed after 1945, when the Red Army conquered the city.

The other interesting aspect was that the chief administrator of Kaliningrad announced plans to modernize and turn the port of the city into a civilian facility which would handle shipments of components for the joint 1991-95 German-Soviet home-building project, and then be used to develop Kaliningrad into a special economic and trade zone, again emphasizing cooperation with Germany.

Cooperation in the rail transport sector has also returned to the German-Soviet agenda. At a seminar in Bonn on April 15, German Transport Minister Günther Krause endorsed the extension of the high-speed Hanover-Berlin railroad project to Moscow, via Warsaw. This was the first time since the Nov. 28, 1989 parliamentary address of Chancellor Helmut Kohl, that the project had received cabinet-level support in Bonn. This may indicate that officials, including the republic-level governments on the Soviet side, will sit down and discuss project implementation soon.

Another key area of cooperation

which may become even more important as the U.S.-German trade war over various high-tech and aerospace issues keeps escalating, is in the aerospace sector.

On April 26, the German Agency for Space Affairs and the Soviet Academy of Sciences signed a contract in Bonn, for the participation of Germany in the 1994 Soviet Mars exploration mission, and including cooperation in 13 scientific areas—primarily chemical and optical experiments to map out the shape and inner composition of the “red planet’s” atmosphere. The German share in the Mars mission is DM 150 million.

This may open the door for another important project: the development of the multi-use Sängler orbital shuttle. The Soviets, who have problems with the development of their Buran shuttle (which is modeled on the U.S. shuttle), have signaled interest in the Sängler, which is designed to cut the costs to put a payload into space to one-tenth of today’s costs.

The Sängler was proposed by Germany for funding by the European Space Agency, but due to British and some French opposition, ESA has decided to proceed instead with the Hermes, the first-generation European space shuttle, at least for the time being.

This puts the Sängler on the German-Soviet agenda for space technology projects. German Minister of Technology Heinz Riesenhuber discussed the issue with Soviet Deputy Minister of Aerospace Affairs Barukhin at the Hanover industrial fair in

mid-April.

The two ministers presented other joint projects in the aerospace sector: for example, a series of experiments to be conducted with a new type of fuel, cryogen. The fuel, which is based on hydrogen and has less specific weight than kerosene, has been tested on a Soviet Tupolev-155 since late 1988, and will be tested now on a German Airbus-310 airliner.

Another project is a modern version of the prewar German airship, the Zeppelin. The experimental version of the new airship, which has a payload of 10 tons, will be tested beginning this autumn between the western parts of the Soviet Union and far eastern areas of Siberia that lack modern airport infrastructure.

Using such aircraft may seem outmoded, but the new Zeppelin has advantages that make it useful for long-distance transport of goods: It can land on almost any flat strip of land, is not dependent upon a developed airbase infrastructure, and requires very little fuel. It is much slower than today’s aircraft, but the transport costs will be cheaper.

Regular flights on the Siberian route are scheduled to begin in late summer 1993, and if the project proves feasible, larger types of such airships will be built.

Lastly, there are perspectives for the revolutionary design of modern aircraft for transport of passengers as well as goods. The Soviets have already signaled interest in an experimental aircraft based on the Sängler design. The Hytex airliner would fly at a maximum speed of Mach 7 on a ballistic curve at extreme altitudes and cover the entire 12,000 kilometers from Frankfurt to Vladivostok in less than three hours. The Germans have not yet found a Western partner for this project; they may find one in the Soviet Union.