

Sänger, Eugene Encyclopedia Article

Sänger, Eugene

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Sänger, Eugene

Austrian Aerospace Engineer 1905-1964

An Austrian aerospace engineer, Eugene Sänger developed the first design for a spaceplane, a distant forerunner of the space shuttle. Born in 1905, Sänger began studying the concept of winged rockets while a graduate student at the Viennese Polytechnic Institute in the late 1920s. In 1933 those studies led to Silverbird, a design for a rocketplane capable of flying 30 kilometers (18.64 miles) high at Mach 10.

Sänger, along with his mathematician wife, Irene Bredt, refined Silver-bird through the 1930s, eventually coming up with a design that could be launched from a rocket-powered sled and carry 3,600 kilograms into orbit. Silverbird would return to Earth by "skip gliding," performing a series of skips off Earth's upper atmosphere to lose velocity before gliding to a runway landing. During World War II, Sänger turned the Silverbird concept into Amerika Bomber, a rocketplane that could be launched from Germany, drop 300 kilograms (661 pounds) of bombs over New York City, and skip glide around the world back to Germany.

While neither Silverbird nor Amerika Bomber were ever built, they influenced the design of postwar experimental vehicles, like the X-20 DynaSoar, which in turn led to the development of the space shuttle. Sänger continued his study of rocketplane designs in France and West Germany until his death in 1964.

See Also

Hypersonic Programs (Volume 3);; Space Shuttle (Volume 3).

Bibliography

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