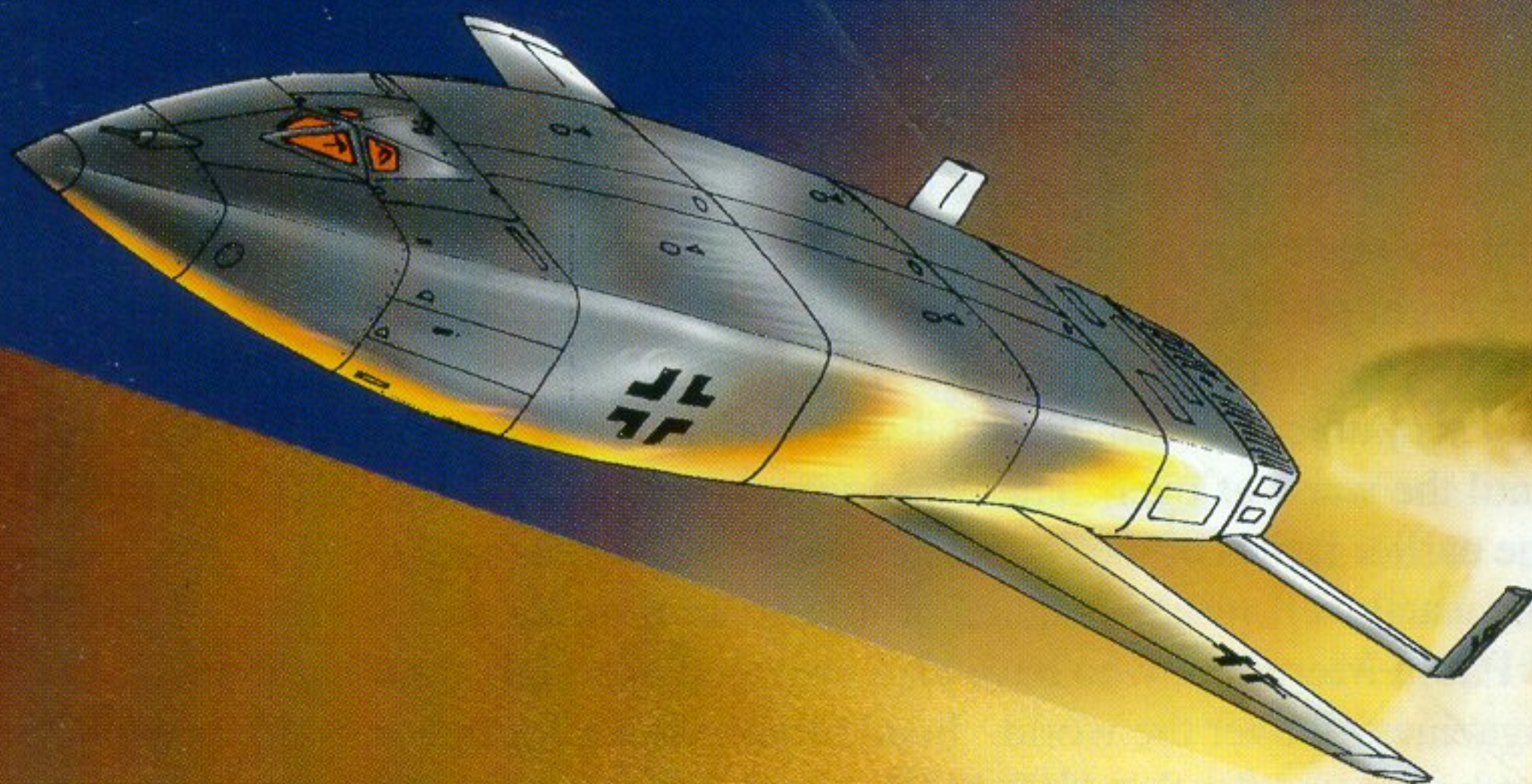


*Luftwaffe*



1946

# TECHNICAL MANUAL



Amerika



Bombers

The “Amerika bomber” was a contradiction in terms—the last place Hitler wanted to bomb was America!

Before the Anglo-France alliance declared Hitler’s invasion of Poland (half of which was taken by the Soviet Union shortly after) as the beginning of the Second World War, Hitler considered England and especially America as his biggest potential allies against Communism, a belief he held until it was too late.

While the concept of the “Ural bomber” was considered for those who read Hitler’s *Mein Kampf* and knew his future intentions, it only became the “Amerika bomber” project after Hitler declared war against the United States in December 1941, five years earlier than he ever expected to confront even England!

His new global mission was totally against his earlier land-hopping campaign, and a long-range strategic force had to be created almost from a scratch. Advancement in German technology made it possible to be not totally reliant on a time-consuming bomber aircraft flight profile, while supersonic rockets and atmosphere-skipping configurations made it possible to bomb from outer space!

But the mad scramble to commit to total war in 1943 made it impossible to catch up with reality until the war was over. The world was thus spared from a space war in 1946.

As with the earlier issues of the *Luftwaffe: 1946 Technical Manual*, this fourth volume will include the usual well-researched and profiled data from the famous team of **Justo Miranda** and **Paula Mercado**, who have also provided materials for other aviation books and magazines all over the world. In addition, extra information is provided from **Ted Nomura** who created the first “World War II: 1946” stories in 1986, the *Luftwaffe: 1946* series in 1996 and the current, full-color *World War II: 1946* series in 1999, including the first-ever chronology of this alternate version of World War II.

# **Luftwaffe**



# **1946**

## **TECHNICAL MANUAL**

### **Band 4**

## **The Amerika Bombers**

**Justo Miranda/Paula Mercado**

**Ted Nomura**

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# INTRODUCTION

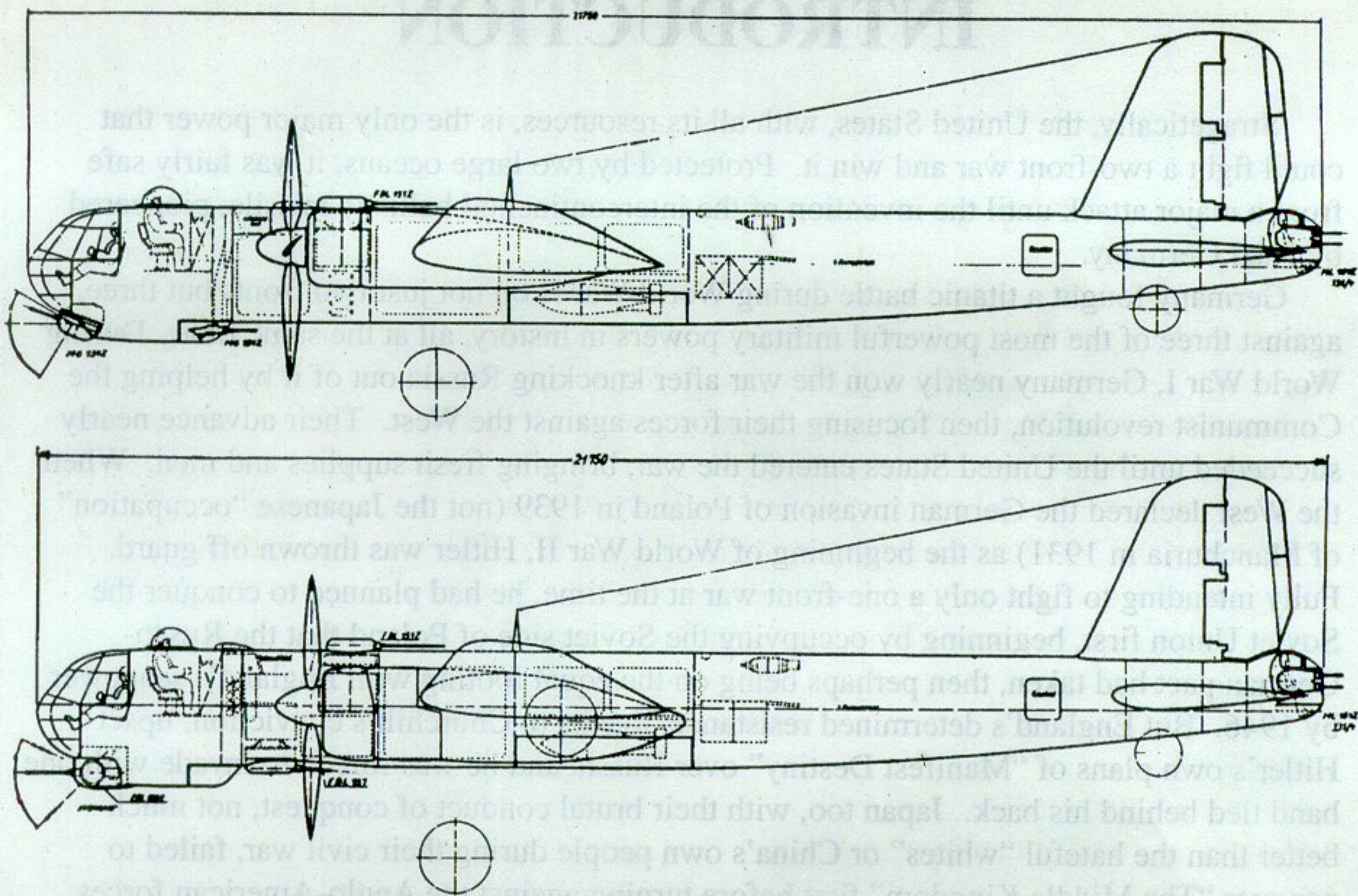
Strategically, the United States, with all its resources, is the only major power that could fight a two-front war and win it. Protected by two large oceans, it was fairly safe from a major attack until the invention of the intercontinental ballistic missile, pioneered by Nazi Germany.

Germany fought a titanic battle during World War II on not just two fronts but three, against three of the most powerful military powers in history, all at the same time. During World War I, Germany nearly won the war after knocking Russia out of it by helping the Communist revolution, then focusing their forces against the West. Their advance nearly succeeded until the United States entered the war, bringing fresh supplies and men. When the West declared the German invasion of Poland in 1939 (not the Japanese "occupation" of Manchuria in 1931) as the beginning of World War II, Hitler was thrown off guard. Fully intending to fight only a one-front war at the time, he had planned to conquer the Soviet Union first, beginning by occupying the Soviet side of Poland that the Russo-German pact had taken, then perhaps being on the equal footing with England's seapower by 1946. But England's determined resistance, thanks to Churchill's conviction, upset Hitler's own plans of "Manifest Destiny" over Russia and he was forced to invade with one hand tied behind his back. Japan too, with their brutal conduct of conquest, not much better than the hateful "whites" or China's own people during their civil war, failed to conquer "The Middle Kingdom" first before turning against the Anglo-American forces. The Soviet Union only won their war after concentrating the one-front war concept against Germany, then turning against Japan after the war in Europe was over. Japan held on as long as they did because they were still fighting a two-front war, not three. Yet Germany still believed that they could change the tide of destiny with their series of secret weapons, one of them being the "Amerika Bomber" project.

Germany's strategic bombing concept goes back to World War I, beginning with the development of large two-engined warplanes in 1914 named "Kampfflugzeuge" (lit., "battleplanes") like the Friedrichshafen FF36 and Rumpler 5A 15 (G1). The next step was designated as the G-type (Gross-Flugzeug) in 1915, and there was an even bigger project designated as the R-type (Reisen-Flugzeug or Giant aircraft). But it was Imperial Russia, under their lead designer Igor Sikorsky (who later defected to the United States after the Communist takeover in 1917), that built the world's first practical long-range bomber, the Ilya Muromets in 1913.

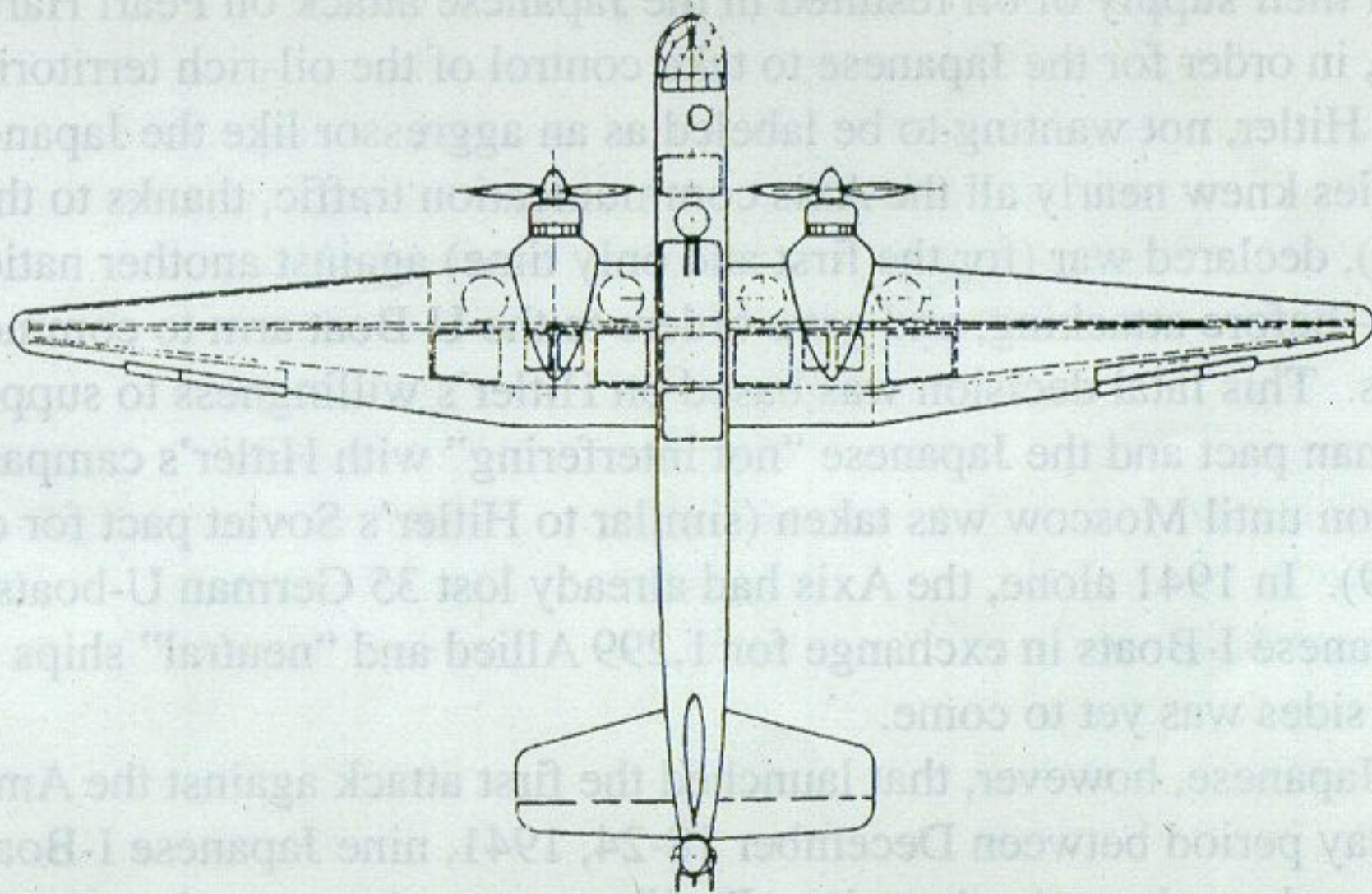
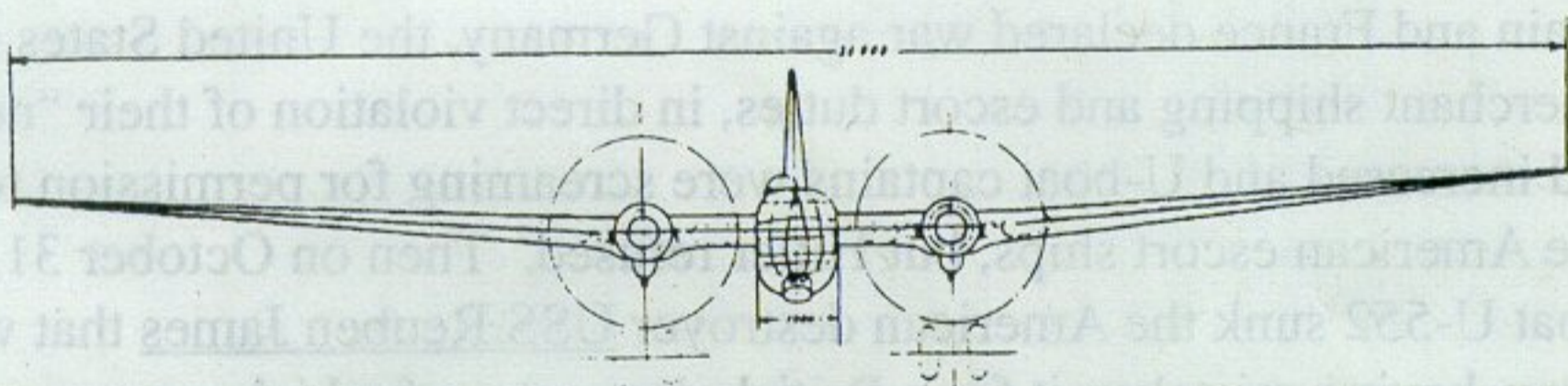
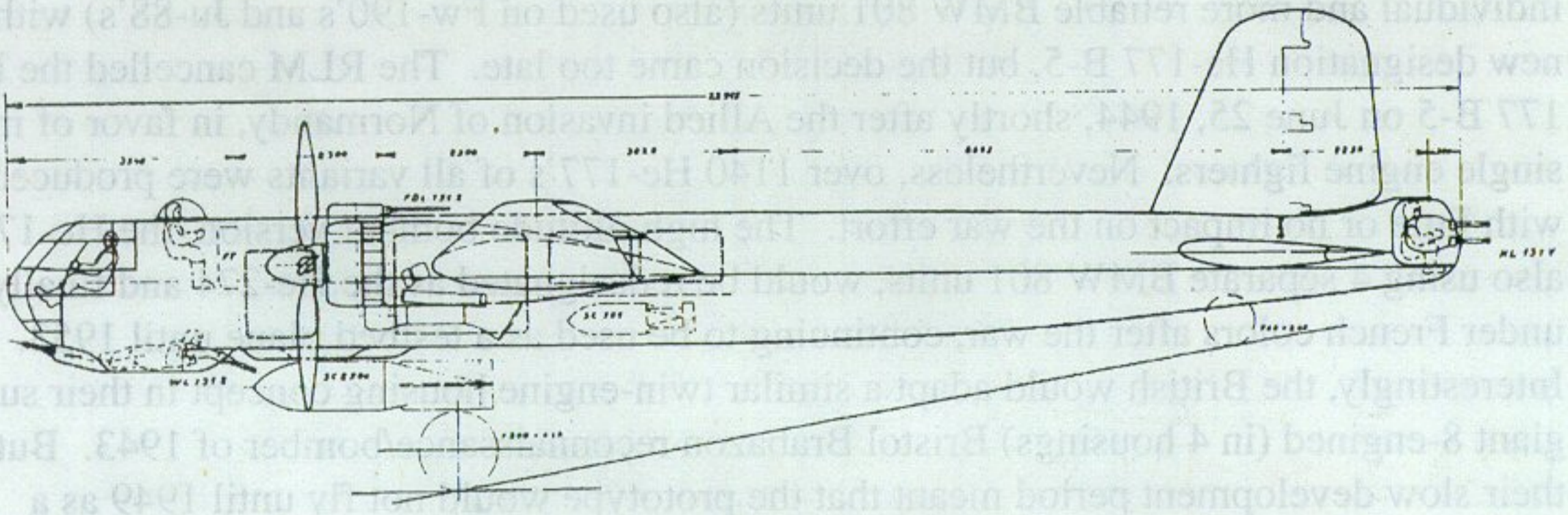
Germany's heavy bomber developments, along with the British counterparts, were overshadowed by the Zeppelins that bombed England for small-scale damage but giant-scale propaganda. The British press labeled the Germans bombing civilian targets as "barbaric" and declared that the captured aircrews should be shot on sight for being "baby-killers". Yet only a generation later, the Royal Air Force would kill hundreds, if not thousands of times that many German civilians. The 20th century would change the format of warfare, when more civilians would die than the men in battlefield.

By the time Hitler came to power in 1933, the strategic heavy bomber project was already being developed under the strong support of the first Generalstabschef der Luftwaffe, Generalleutnant Walter Wever, which led to the Dornier Do-19 and Junkers Ju-89. General Wever had read Hitler's *Mein Kampf* and deduced that Hitler intended to take Russia, thus the necessity of the "Ural Bomber". The unarmed Do-19 V1 (Werk-Nr. 701, code: D-AGAI) first flew in October 1936 and the first Ju-89 (Werk-Nr. 4911, code: D-



AFIT) flew in December 1936. Both were designed under the guidelines of General Wever's specifications, but after the General's untimely (and somewhat suspicious) aircraft crash of the same year, the heavy bomber project was severely curtailed in favor of a less expensive, lighter and shorter-ranged twin-engine bombers, a concept championed by Hermann Göring. During the late 1930s, both Hitler and Göring reasoned that war against America was highly unlikely. Göring, already rich and comfortable in his high-class living, did not want to risk it all by promoting a war. Hitler had his mind toward the East, not the West. He had his forces in a land-hopping campaign (capturing forward airbases to make use of their short-range fighters and bombers) to make this possible. The anti-war and pro-German movements were strong in America (in 1939, over 50% of the Americans polled believed that Jews did not deserve equal rights), and last thing Hitler wanted to do was to provoke the Americans. The decision to curtail the expensive long-range bombers in favor of the more economical short-range bombers would prove disastrous to the defense of Germany. By 1942, Germany was looking for a way to end the war against the West, but after the "Casablanca Conference" between Churchill and Roosevelt during January 14-25, 1943, in which they demanded Germany's "unconditional surrender," Goebbels made his famous "Total War" speech at the Berlin Sportpalast on February 18, 1943 and a full civilian mobilization, for which Germany was not fully prepared, was activated. Jews, with no place to go, suffered the full wrath of the "Holocaust" during 1943-1944.

After General Wever's death, the RLM issued a new requirement for a heavy bomber: it should be capable of dive-bombing! Out of 5 contractors, only Heinkel took the challenge and created a revolutionary design that would lead to the He-177. The concept seemed sound, adapting two engines into a single propeller, thereby reducing drag and giving a four-engine bomber the look of a twin-engined type. The first prototype, the He-



177V1, with four DB 601 engines coupled as two DB 606 units, flew on November 11, 1939. Despite many teething problems, 35 He-177 A-0's were rushed into production in 1942 after the need for the "Ural Bomber" became urgent. Arado also took licensed construction of 130 He-177 A-1's, but plans for the improved He-177A-3's with DB 610 units (twin DB 605's each) was placed in storage due to the higher priority of DB 605 engines for Bf-109 and Bf-110 fighter production. 565 He-177A-5's would be built despite continued problems with the twin-engine/single propeller concept, often causing fires even while running idle on the ground. Heinkel finally decided on using four individual and more reliable BMW 801 units (also used on Fw-190's and Ju-88's) with the new designation He-177 B-5, but the decision came too late. The RLM cancelled the He-177 B-5 on June 25, 1944, shortly after the Allied invasion of Normandy, in favor of more single engine fighters. Nevertheless, over 1140 He-177's of all variants were produced with little or no impact on the war effort. The high-altitude bomber version, the He-177 H, also using 4 separate BMW 801 units, would be redesignated as the He-274 and finally fly under French colors after the war, continuing to be used as a testbed plane until 1953. Interestingly, the British would adapt a similar twin-engine housing concept in their super-giant 8-engined (in 4 housings) Bristol Brabazon reconnaissance/bomber of 1943. But their slow development period meant that the prototype would not fly until 1949 as a proposed giant airliner. But the advancements in jet travel spelled doom for this noble concept, and it was cancelled in 1953, a year after its last flight, before the turbo-prop variant could be constructed.

After Britain and France declared war against Germany, the United States increased its aid through merchant shipping and escort duties, in direct violation of their "neutrality". In 1941, their aid increased and U-boat captains were screaming for permission to fire torpedos at the American escort ships, but Hitler refused. Then on October 31, 1941, the German U-Boat U-552 sunk the American destroyer USS Reuben James that was escorting a British convoy, having mistaken it for a British destroyer, of which many were sold by United States. With 95 American seamen killed in this tragedy, provoking the Germans proved useful to President Roosevelt's campaign to turn public opinion from against war to against Nazi Germany. Provoking the Japanese to give up all the territories they'd gained and cutting off their supply of oil resulted in the Japanese attack on Pearl Harbor on December 7th, in order for the Japanese to take control of the oil-rich territories in the Dutch Indies. Hitler, not wanting to be labeled as an aggressor like the Japanese (even though the Allies knew nearly all the Axis communication traffic, thanks to their excellent code-breaking), declared war (for the first and only time) against another nation—the United States—before attacking, and gave orders to the U-Boat arm to commence their offensive plans. This fatal decision was based on Hitler's willingness to support the Japanese/German pact and the Japanese "not interfering" with Hitler's campaign against the Soviet Union until Moscow was taken (similar to Hitler's Soviet pact for dividing Poland in 1939). In 1941 alone, the Axis had already lost 35 German U-boats, 18 Italian subs and 3 Japanese I-Boats in exchange for 1,299 Allied and "neutral" ships sunk. The worst for both sides was yet to come.

It was the Japanese, however, that launched the first attack against the American coast. During the 7-day period between December 18-24, 1941, nine Japanese I-Boat submarines positioned themselves along the American Pacific coast and managed to attack 8 merchant ships, two of which were sunk and two more damaged, in addition to bombarding the coast line, causing more damage due to civilian and military panic than to anything they themselves inflicted. The biggest damage was caused by the Germans. Under Admiral

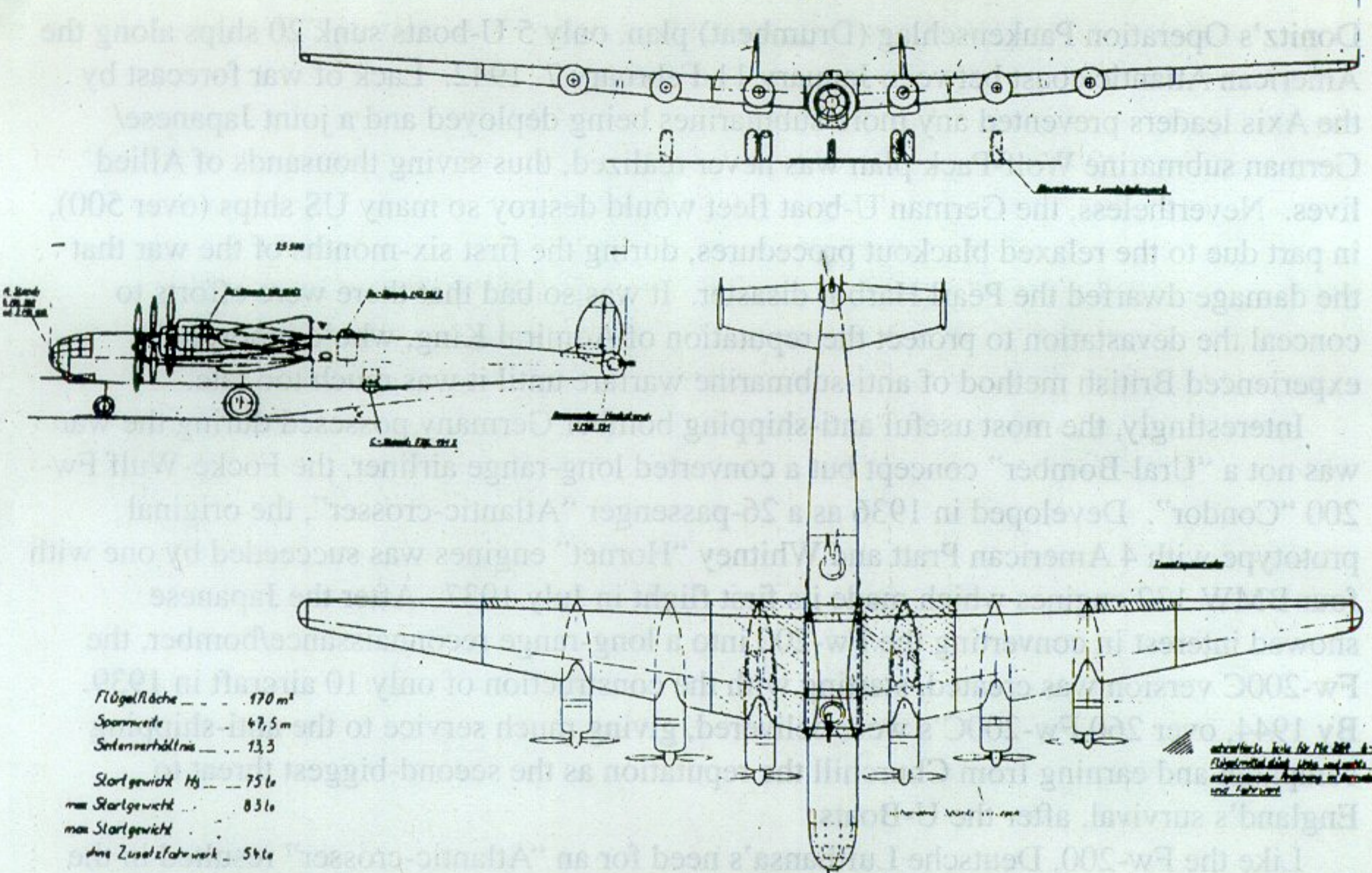


Donitz's Operation Paukenschlag (Drumbeat) plan, only 5 U-boats sunk 20 ships along the American Atlantic coast between January 11-February 7, 1942. Lack of war forecast by the Axis leaders prevented any more submarines being deployed and a joint Japanese/German submarine Wolf-Pack plan was never realized, thus saving thousands of Allied lives. Nevertheless, the German U-boat fleet would destroy so many US ships (over 500), in part due to the relaxed blackout procedures, during the first six-months of the war that the damage dwarfed the Pearl Harbor disaster. It was so bad that there were efforts to conceal the devastation to protect the reputation of Admiral King, who'd ignored the experienced British method of anti-submarine warfare until it was much too late.

Interestingly, the most useful anti-shipping bomber Germany possessed during the war was not a "Ural-Bomber" concept but a converted long-range airliner, the Focke-Wulf Fw-200 "Condor". Developed in 1936 as a 26-passenger "Atlantic-crosser", the original prototype with 4 American Pratt and Whitney "Hornet" engines was succeeded by one with four BMW 132 engines which made its first flight in July 1937. After the Japanese showed interest in converting the Fw-200 into a long-range reconnaissance/bomber, the Fw-200C version was created, starting with the construction of only 10 aircraft in 1939. By 1944, over 260 Fw-200C's were delivered, giving much service to the anti-shipping campaign and earning from Churchill the reputation as the second-biggest threat to England's survival, after the U-Boats.

Like the Fw-200, Deutsche Lufthansa's need for an "Atlantic-crosser" resulted in the Ju-90, a passenger-liner version converted from the Ju-89 V3 (Werk-Nr. 4913) bomber. The Ju-90 was again turned into an improved bomber version with four BMW 801 engines and redesignated as the Ju-290. Originally intended to replace the aging Fw-200 for anti-shipping missions and reconnaissance over the Bay of Biscay, its long-range capability interested Hitler, and in June 1944, after the Allied invasion of Normandy, he ordered the 29 already built Ju-290's to be used on ultra-long-range missions like supply-route missions to Japan and Africa. Ju-290's were also used in covert operations, with KG200 units parachuting more than 600 male and 10 female agents behind Allied lines before the war's end. The plane's last wartime mission was as a passenger liner on May 6, 1945, carrying 80 men, women and children, complete with luggage, from the Soviet zone in Munich to the safer American zone, despite unknowingly carrying an unexploded booby-trap bomb on the wing. Out of nearly 100 Ju-290's built, only a handful remained by 1945. After the war, the surviving Ju-290's were used by Spain and even manufactured from remaining parts in Czechoslovakia. They even came close to being part of the new Israeli Air Force in 1947. Out of two known six-BMW 801-engined Ju-390's, one even made it within visual range of New York in December 1944. Despite the usefulness of the Ju-290/390 series, production was allowed to run out in September 1944 in favor of Ju-388's and Ju-488's which promised greater speed for safety against fighter interception.

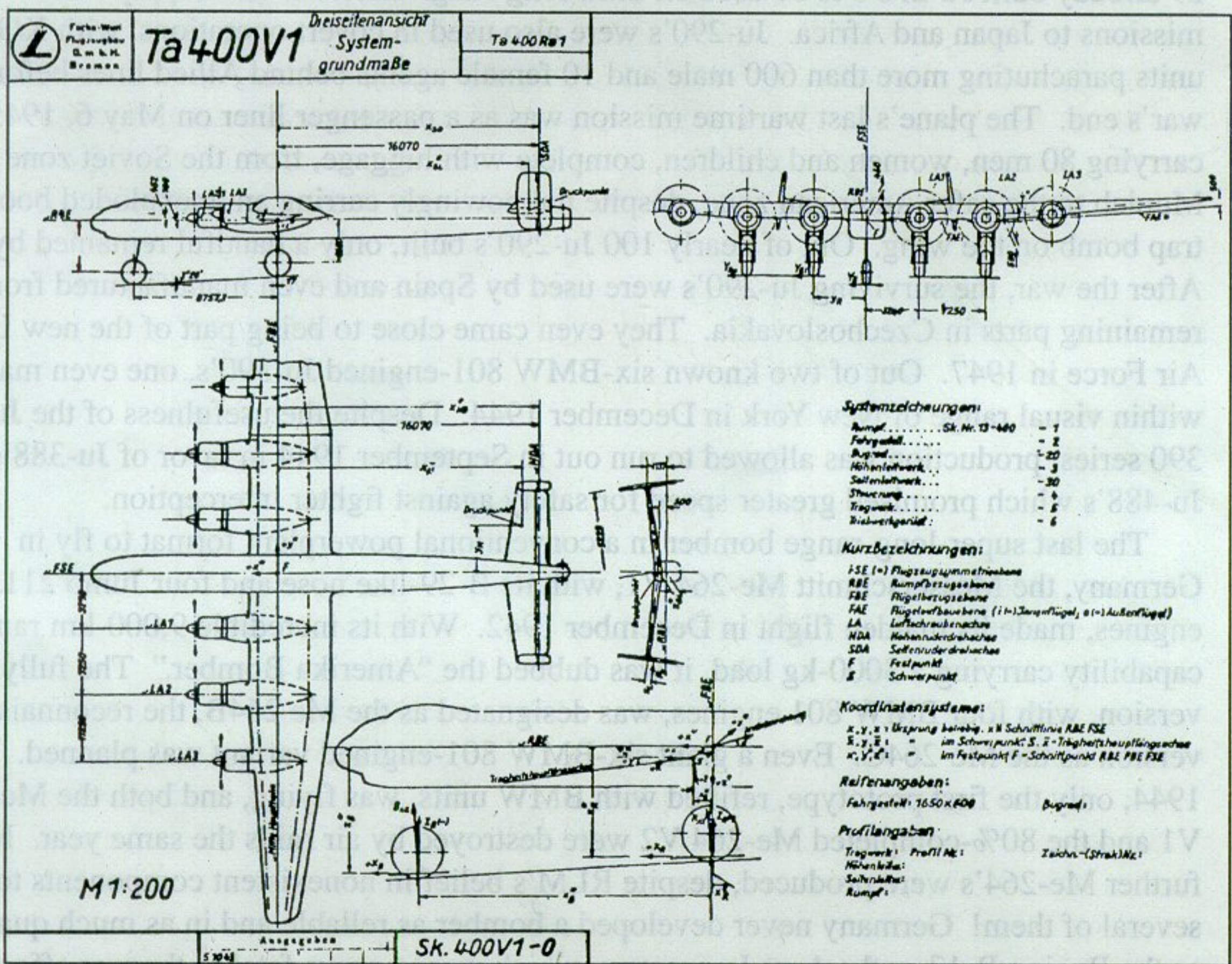
The last super-long-range bomber in a conventional powerplant format to fly in Germany, the Messerschmitt Me-264 V1, with its B-29-like nose and four Jumo 211J engines, made its maiden flight in December 1942. With its incredible 9,000-km range capability carrying a 3000-kg load, it was dubbed the "Amerika Bomber." The fully armed version, with four BMW 801 engines, was designated as the Me 264B, the reconnaissance version as the Me-264C. Even a giant six-BMW 801-engined variant was planned. But by 1944, only the first prototype, refitted with BMW units, was flying, and both the Me-264 V1 and the 80%-completed Me-264 V2 were destroyed by air raids the same year. No further Me-264's were produced, despite RLM's belief in nonexistent components to build several of them! Germany never developed a bomber as reliable and in as much quantity as the Boeing B-17 or the Avro Lancasters, which was to prove fatal to the war effort.



Flügelfläche ... 170 m<sup>2</sup>  
 Spannweite ... 47,5 m  
 Seitenverhältnis ... 13,3  
 Startgewicht Hg ... 75 t  
 max Startgewicht ... 83 t  
 max Startgewicht ohne Zusatzfahrwerk ... 54 t

entwerfer: Heide für Me 264 - 4-motorige  
 Fliegerstaffel 100, und wurde auf  
 entwerfer: Prof. Dr. Ing. H. G. ...  
 und ...

Germany's plan for "Amerika Bomber" did not end with the Me-264. Despite chaotic wartime conditions, many desperate measures were envisioned for bombing across the Atlantic in the slight hope that America would prefer conditional peace terms over a bombardment like England faced. However, their own resistance against the much worse Allied bombing of Germany should have made the leaders realize that bombings enforce

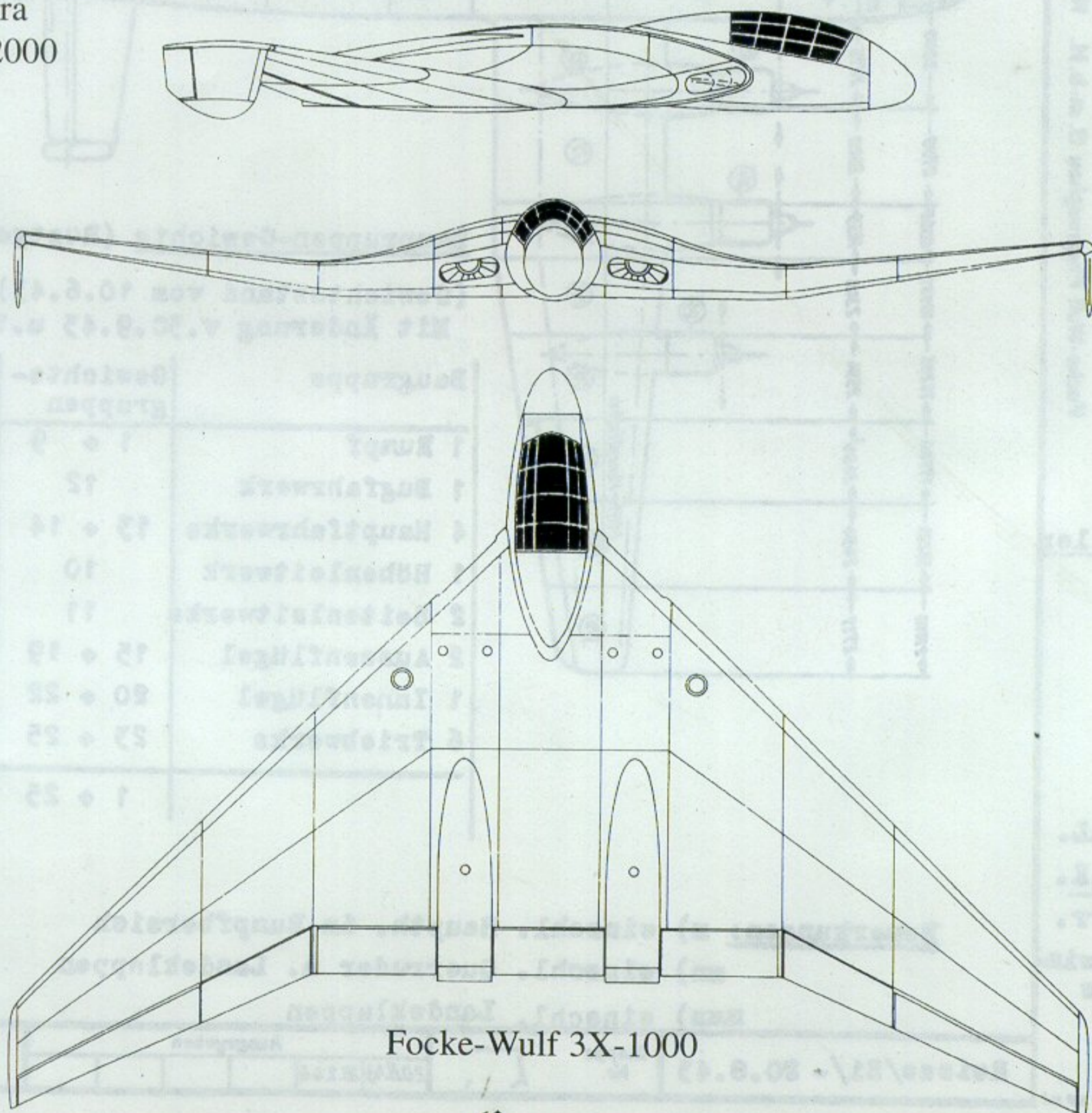




OKW continued with "Amerika Projektil" projects. Conventional warheads might have influenced the psychological war, while atomic bomb research conducted by both Germany and Japan might have proven decisive. But a projected weight of over 10,000 lbs for such a bomb meant bigger bombers. An even more modern version of the "Amerika Bomber," the 6-engined Focke-Wulf Ta-400, and a flying wing bomber version by Focke-Wulf and Horton was being designed and studied. In addition, the V-2 was being upstaged by a sub-launched variant towed by a Type XXI sub to the US East Coast, and an A-9/A-10 twin-stage intercontinental ballistic missile capable of reaching New York and an even longer-ranged A-9/A-10/A-11 variant capable of reaching America's heartland were being envisioned. Finally, making the "Buck Rogers" mentality into a reality, the six-engined, super-giant Daimler-Benz "Projekte E und F 'Schnellbombertrager'" (Fast Bomber Carrier) and a true space-plane, the Sanger-Bredt antipodal bomber, were also being studied. In the latter part of 20th Century, Germany's former adversaries, the United States and the Soviet Union, would do much turning of science-fiction projects into science-fact, thanks in large part to the German scientists and engineers who worked desperately for survival during World War II.

As in the Soviet Union, a cruel and brutal slave-labor workforce made the incredible rise in war-machine production in Nazi Germany possible. The modern space age that we enjoy today owes much to the dark chapters of World War II. A nightmare of bombing cities led to incredible advancements in technology, technology that improved and lengthened lives and sometimes threatened them, only because circumstances led Hitler into wanting to bomb the very country that he thought would be his greatest future ally.

Ted Nomura  
February 2000



# THE REICHDREAMS CONCEPT

When the balance of military power began to tilt in favor of the Allies during the last months of 1942, the Axis powers had to change their “conquer and consolidate” strategy for another of “defense of the metropolitan territory.”

The industrial reorganization derived from this sudden change of political objectives proved to be of such a magnitude that Germany could only comply with it partially.

It was carried out by burying whole factories under armored tunnels, scattering industries to make enemy bombardments more difficult, developing new chemical technologies to compensate for the loss of raw materials such as rubber and oil, and exploring physics in all directions in the hopes of finding alternative industrial procedures, detection systems, new materials for engineering or...the final weapon.

Geographical imperatives forced the Allies to depend on aviation to “carry the war” to the German metropolitan territory. Bombing raids actually did only little damage to the Reich industry, but had a devastating effect upon the population. This was the reason why top priority was given to antiaircraft defense: artillery, missiles, radar and high-performance fighters.

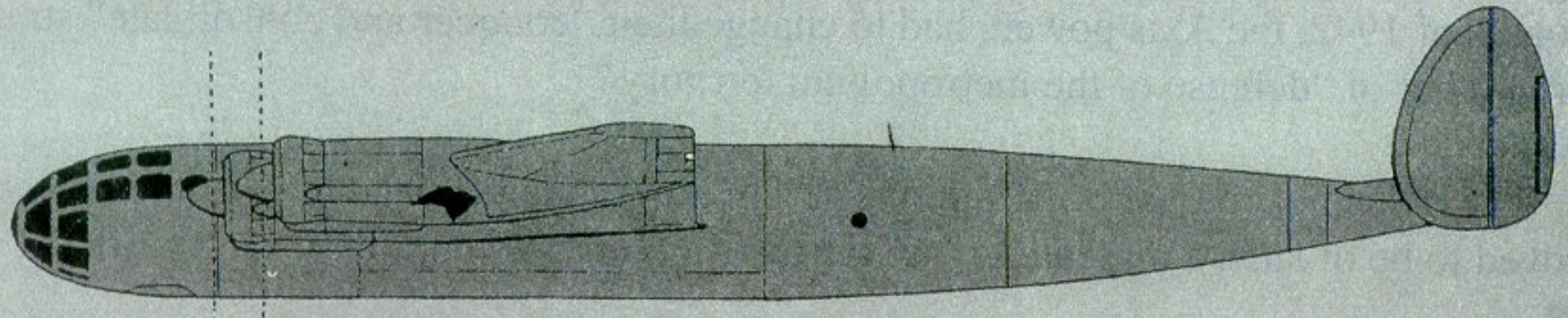
In this way, German scientists and engineers, working under high pressure and having the right resources and motivation, created a huge dossier of projects without equal in the history of aeronautical technology, as much for the variety and ingenuity of designs as for the limited human resources and short span of time (five years) available to produce these amazing scientific and technological achievements.

Contemporary engineers' fantasy is strongly determined by such conservative terms as profit, safety, etc., all very reasonable in peaceful times. Exotic ideas which are not turned down in the computer are eliminated in the wind tunnel. Their German colleagues of 1943 had nothing to lose. They tested everything and...succeeded many times, as the winning powers confirmed in the post-war years.

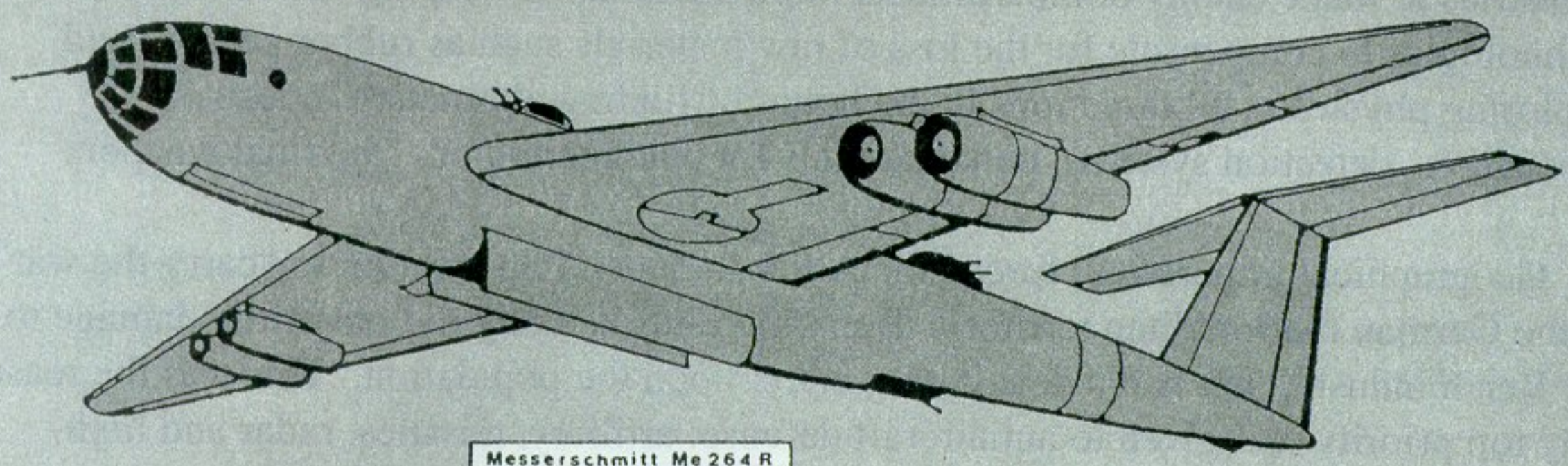
Justo Miranda  
Madrid, Spain



AMERIKA-BOMBER



Me 264 V1



Messerschmitt Me 264 R

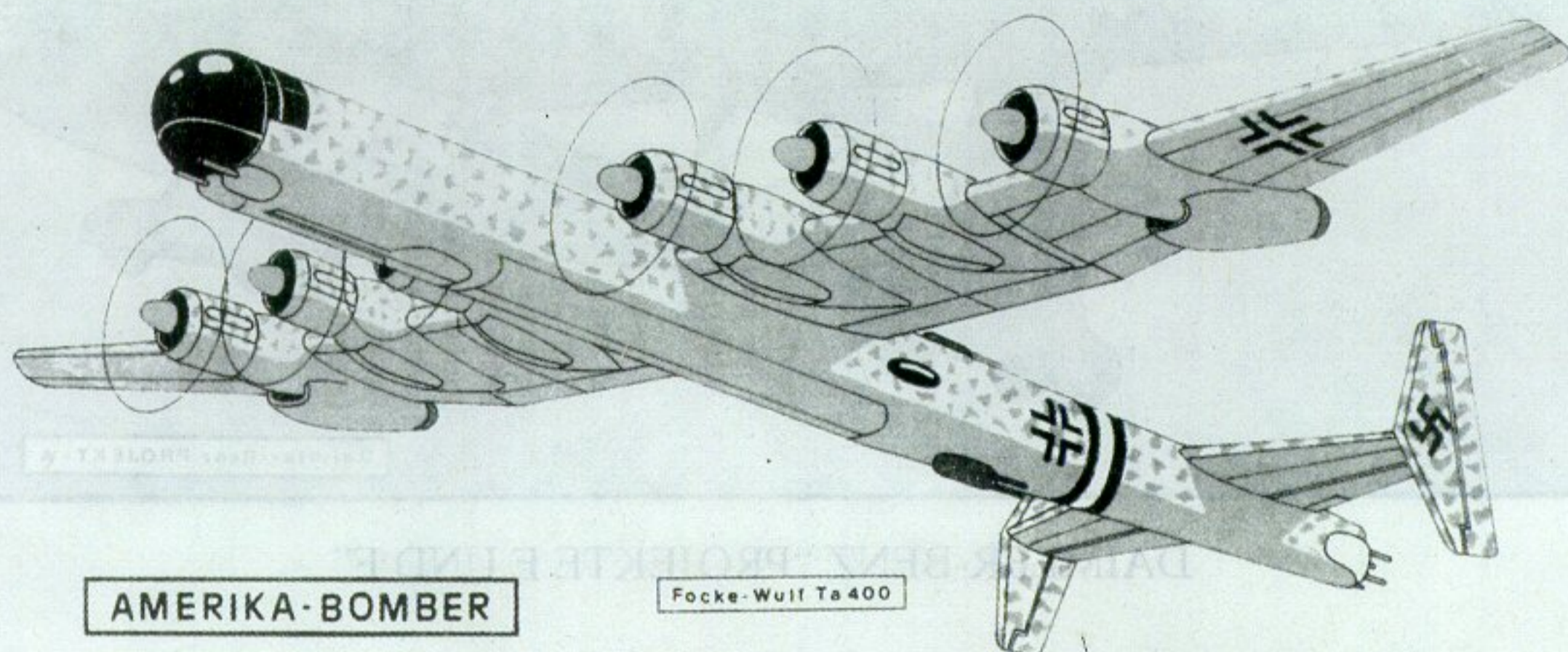
MESSERSCHMITT ME 264

In 1941, the RLM considered the possibility of building intercontinental bombers, foreseeing that the United States would come into the war. The Amerika-Bomber program was created to stimulate the German manufacturers into presenting designs of bombers able to reach targets on the other side of the Atlantic.

Messerschmitt proposed a model similar to the American B-29, but with a dorsal wing and double empennages. The prototype was to be equipped with four Jumo 004 turbojets or different combinations of BMW 018, 028 and 801 turbojets and turboprops.

Technical Data

- Stage: Flight tests
- Type: Intercontinental bomber
- Wingspan: 43 m (141 ft.)
- Length: 20.9 m (68 ft. 7 in.)
- Range: (4 x BMW 801) 14,990 km (9,315 mi.)
- Maximum Speed: (4 x BMW 801) 600 km/h (377 mph)
- Weight Loaded: 45,550 kg (100,210 lbs.)
- Armament: Two MG 151/20 plus four MF 131/13
- Payload: 2000 kg of bombs (4,410 lbs.)



### FOCKE-WULF TA 400

The Ta 400 was designed to carry a bomb load of 10,000 kg (22,046 lbs.) in a 9.15m- (30-ft.-) long bomb bay over a range of 4,800 km (2,980 miles). Although the project was of Focke-Wulf origin, several companies in France, Italy and Germany were commissioned to design and build many of the main components. The main spars were to be of dural and the skin of dural sheet. Plans for construction of the Ta 400 were well advanced when the end of the war halted the project.

A crew of six was to be carried, and they shared the task of operating five remote-control twin 20mm cannon barbettes.

**Powerplant:** Six BMW 801D piston engines (1700 hp each) and two Junkers Jumo 004B turbojets (1984 lbs./900 kg st.)

**Maximum Speed:** 520 km/h (323 mph) (piston engines alone), 730 km/h (453 mph) (plus turbojets at 5000 m/16,400 ft.)

**Range:** 5,000 km (3,107 mi.)

**Weight:** 60,000 kg (132,276 lbs.) loaded

**Wingspan:** 42.0 m (137 ft. 8 1/2 in.)

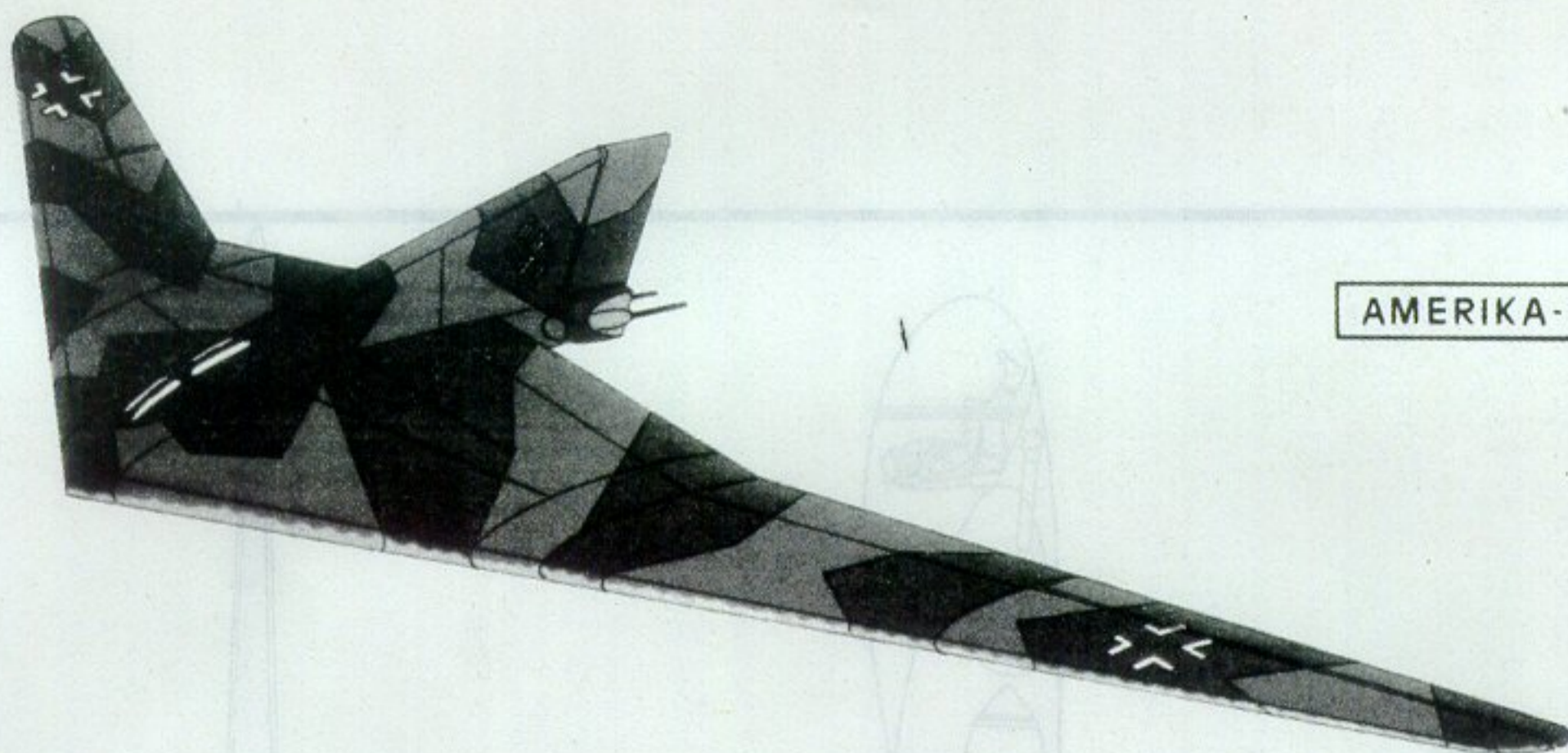
**Length:** 28.15m (92 ft. 4 1/4 in.)

**Wing Area:** 188.5m<sup>2</sup> (2,092 ft.<sup>2</sup>)

**Armament:** Ten MG 151/20 20 mm cannons







AMERIKA-BOMBER

Horten Ho XVIII

## HORTEN HO XVIII B

The last design of the firm during the war. Two different variants were presented. One was of the pure flying-wing type, similar to the Junkers design. The other was more conventional and provided with a big triangular empennage.

### Technical Data

Stage: Design

Type: Intercontinental bomber

Powerplant: Four HeS 011A turbojets of 1300 kp each

Range: 9,000 km (5,593 mi.)

Weight: 44,000 kg (97,000 lbs.)

Wingspan: 30 m (98 ft. 6 in.)

Length: 19 m (62 ft. 4 in.)

Armament: Four MG213 remote-controlled 30 mm revolver cannons

Payload: 4000 kg of bombs (8,818 lbs.)

## JUNKERS EF.130

A design of the "flying wing" type manufactured by the Junkers company at the beginning of 1945, following the specifications of the Amerika-Bomber program.

### Technical Data

Stage: Design

Type: Intercontinental bomber

Powerplant: Four HeS 011A turbojets of 1300 kp each

Maximum Speed: 990 km/h (615 mph)

Range: 5,090 km (3,666 mi.)

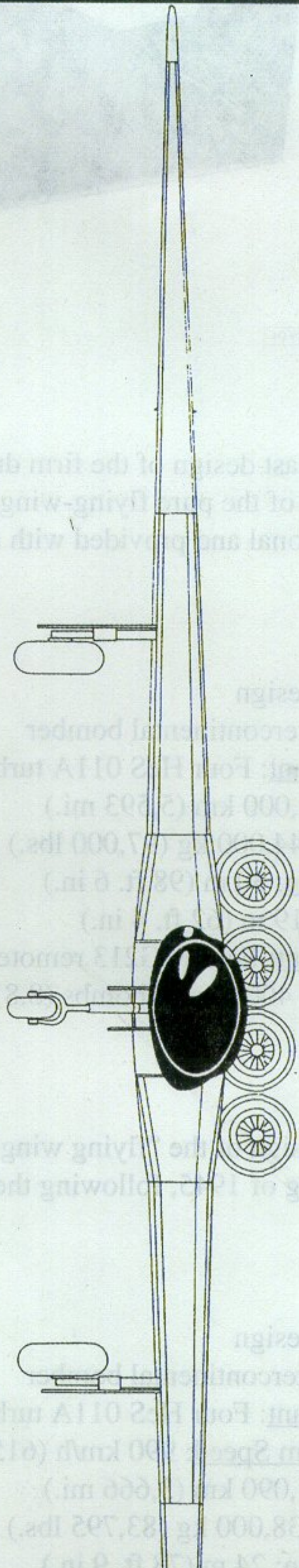
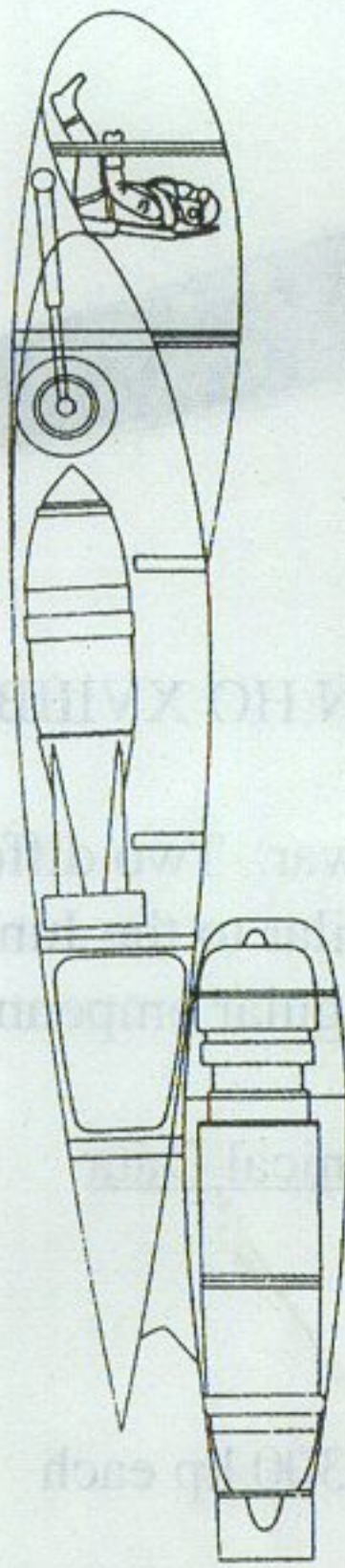
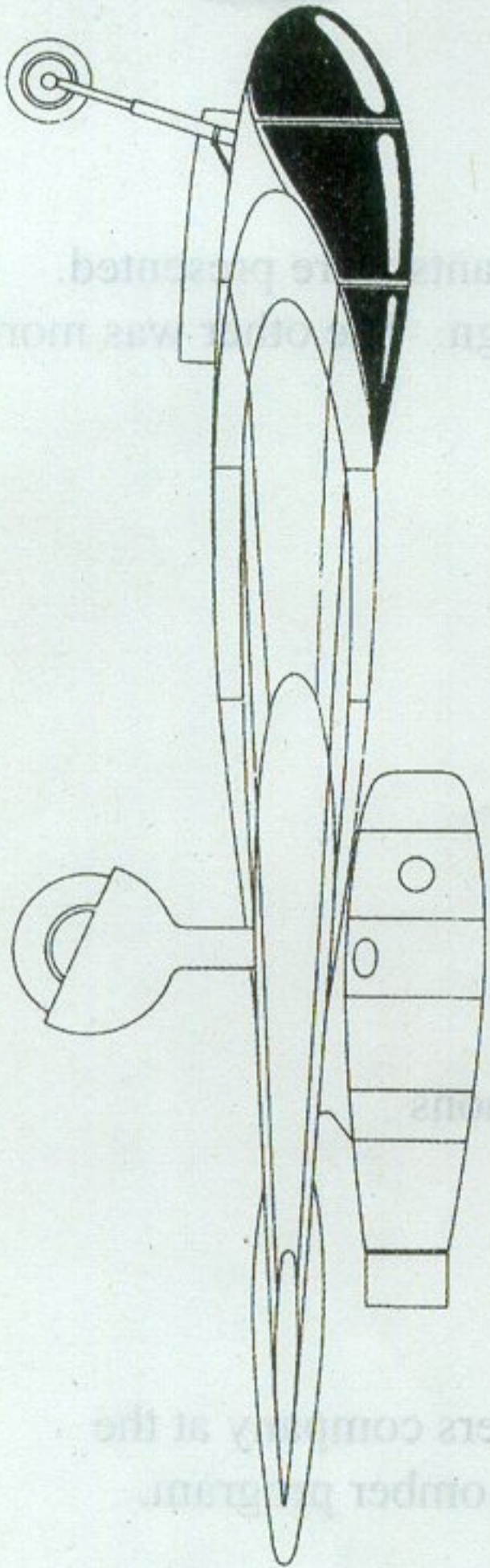
Weight: 38,000 kg (83,795 lbs.)

Wingspan: 24 m (78 ft. 9 in.)

Length: 11 m (36 ft. 9 in.)

Payload: 2950 kg of bombs (6,500 lbs.)

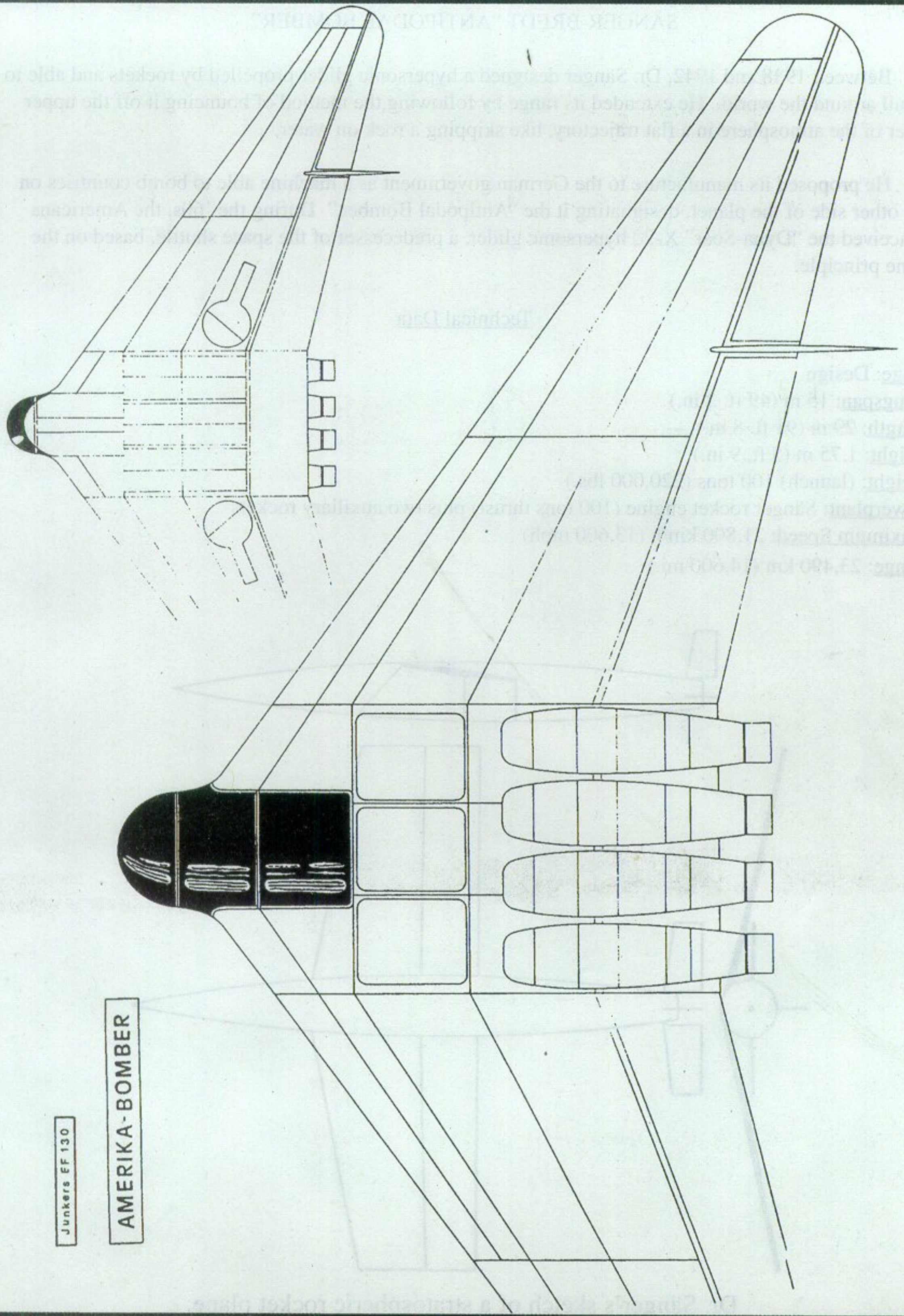
AMERIKA-BOMBER



AMERIKA-BOMBER

Junkers EF.130

JUNKERS EF.130



Junkers EF 130

AMERIKA-BOMBER

JUNKERS EF.130

## SÄNGER-BREDET "ANTIPODAL BOMBER"

Between 1938 and 1942, Dr. Sänger designed a hypersonic glider propelled by rockets and able to go all around the world. He extended its range by following the method of bouncing it off the upper layer of the atmosphere in a flat trajectory, like skipping a rock on water.

He proposed its manufacture to the German government as a machine able to bomb countries on the other side of the planet, designating it the "Antipodal Bomber." During the '60s, the Americans conceived the "Dyna-Soar" X-20 hypersonic glider, a predecessor of the space shuttle, based on the same principle.

### Technical Data

Stage: Design

Wingspan: 15 m (49 ft. 2 in.)

Length: 29 m (91 ft. 8 in.)

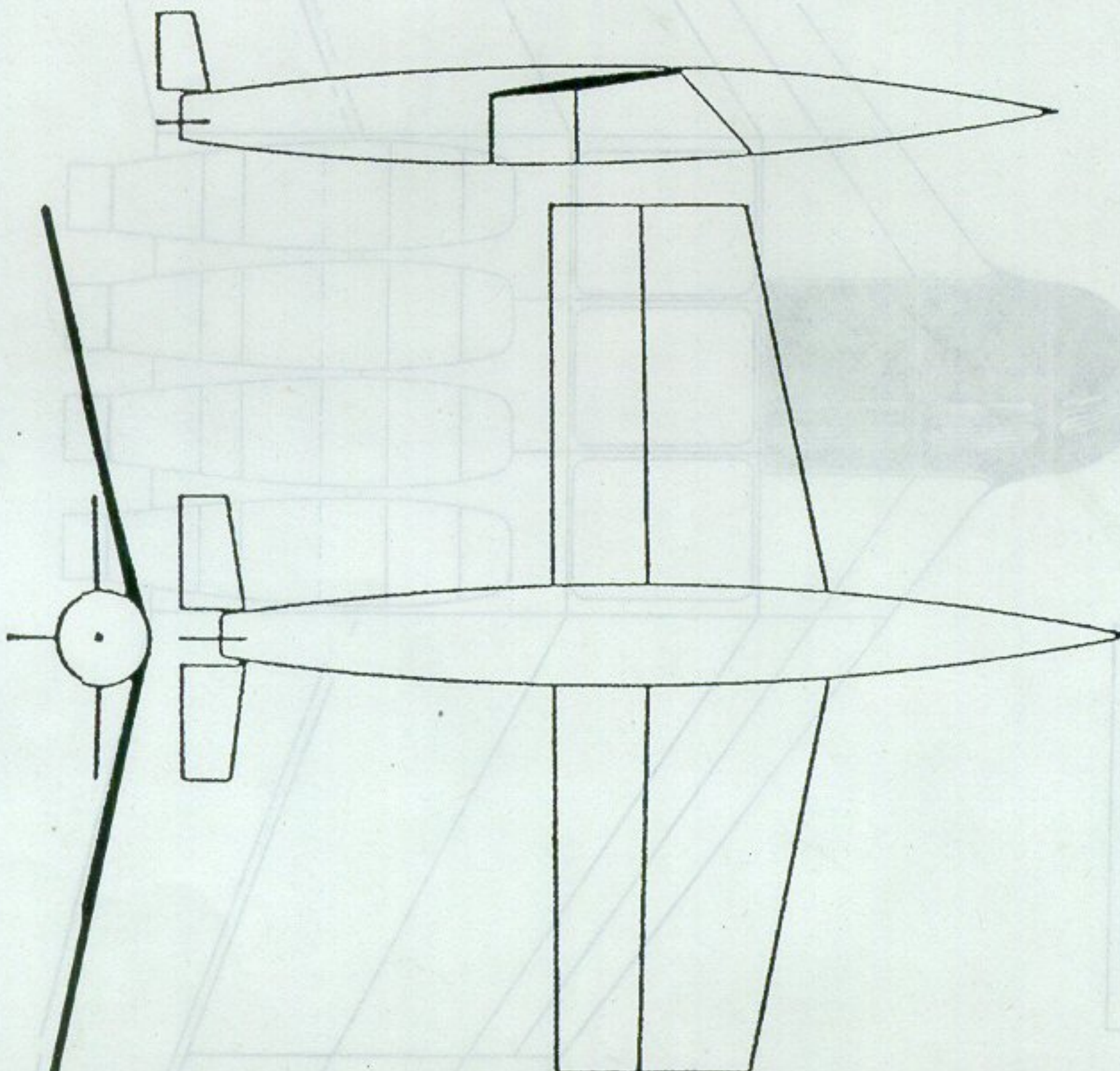
Height: 1.75 m (5 ft. 9 in.)

Weight: (launch) 100 tons (220,000 lbs.)

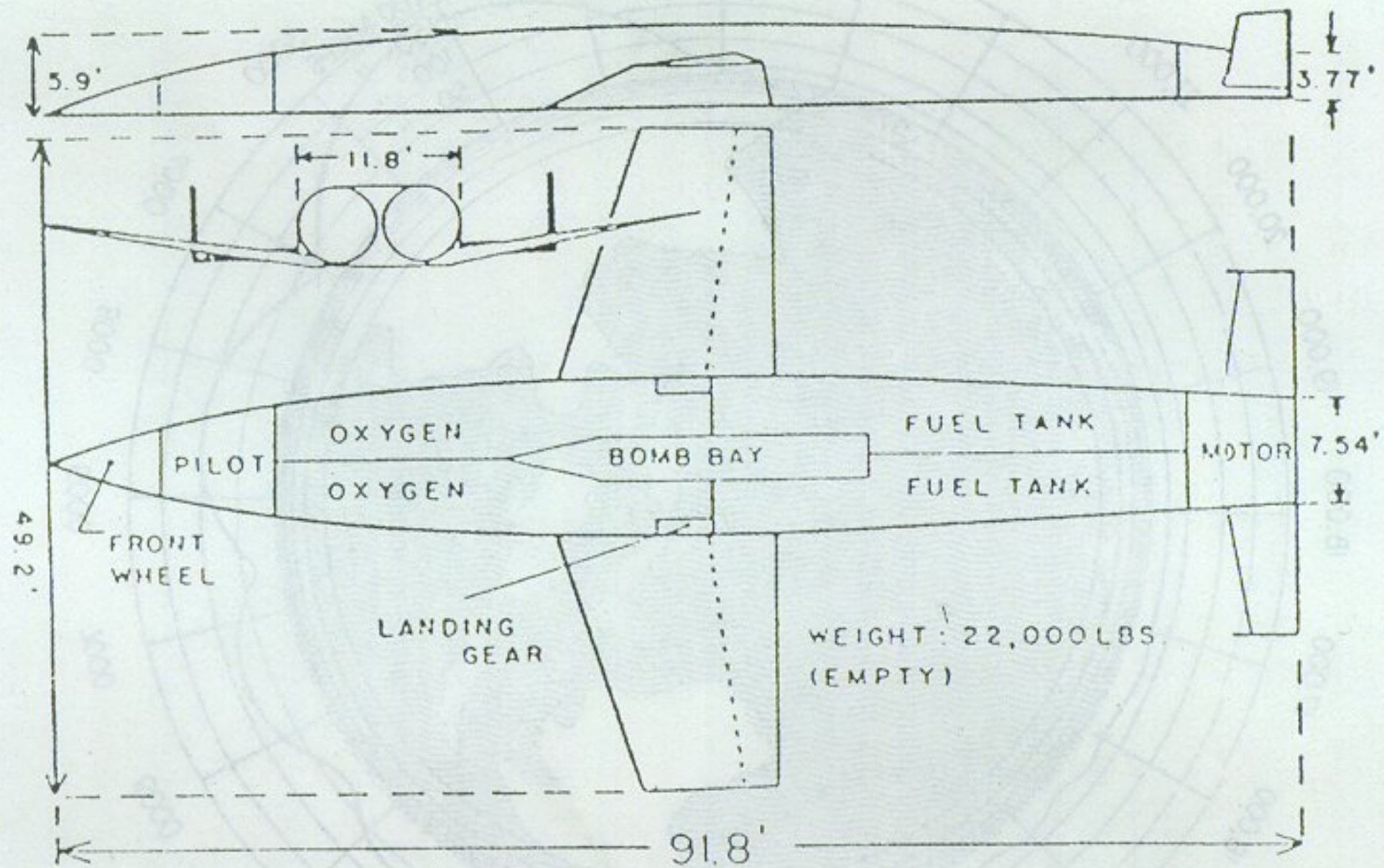
Powerplant: Sänger rocket engine (100 tons thrust) plus two auxiliary rockets

Maximum Speed: 21,800 km/h (13,600 mph)

Range: 23,490 km (14,600 mi.)

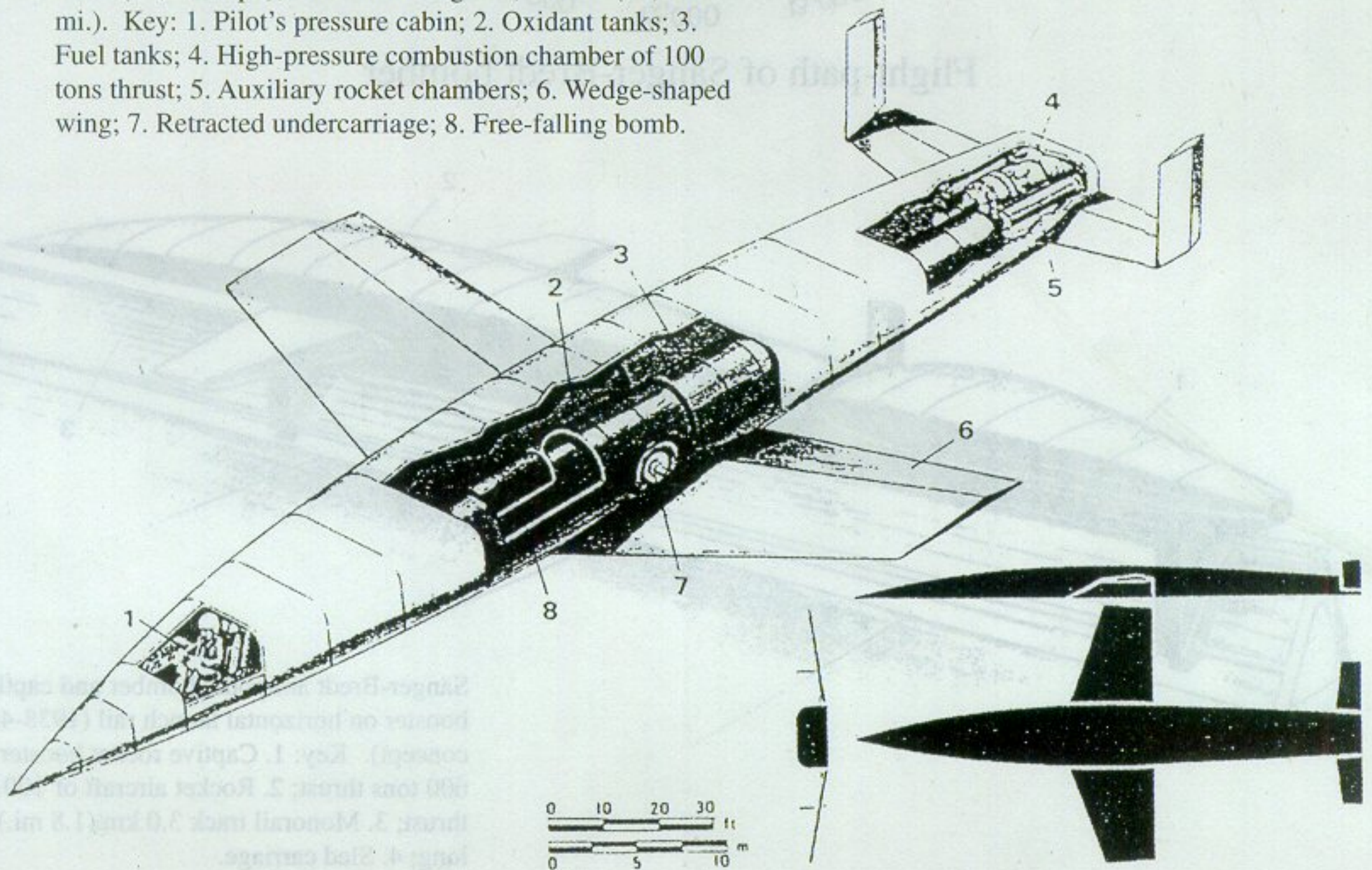


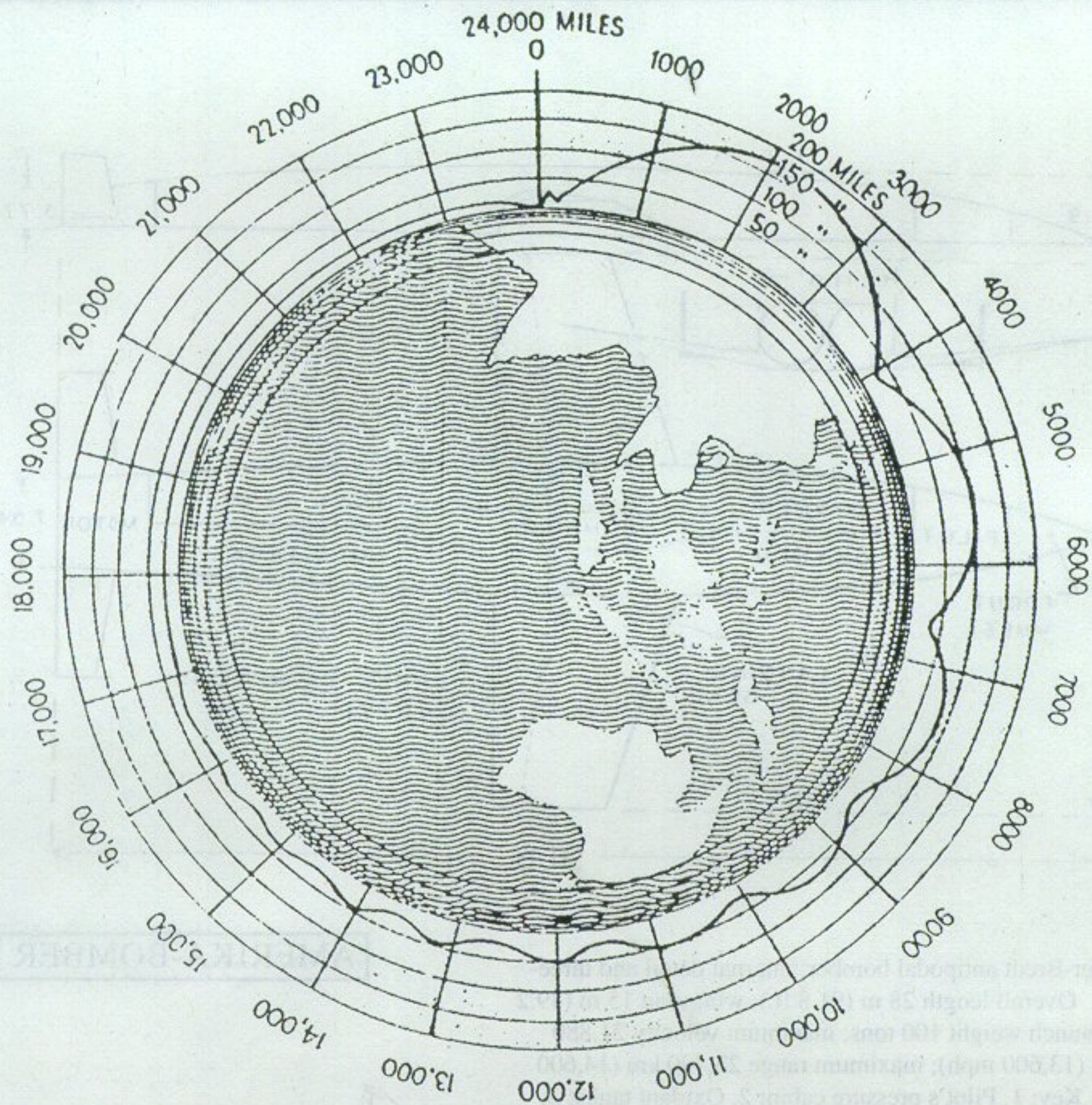
Dr. Sänger's sketch of a stratospheric rocket plane.



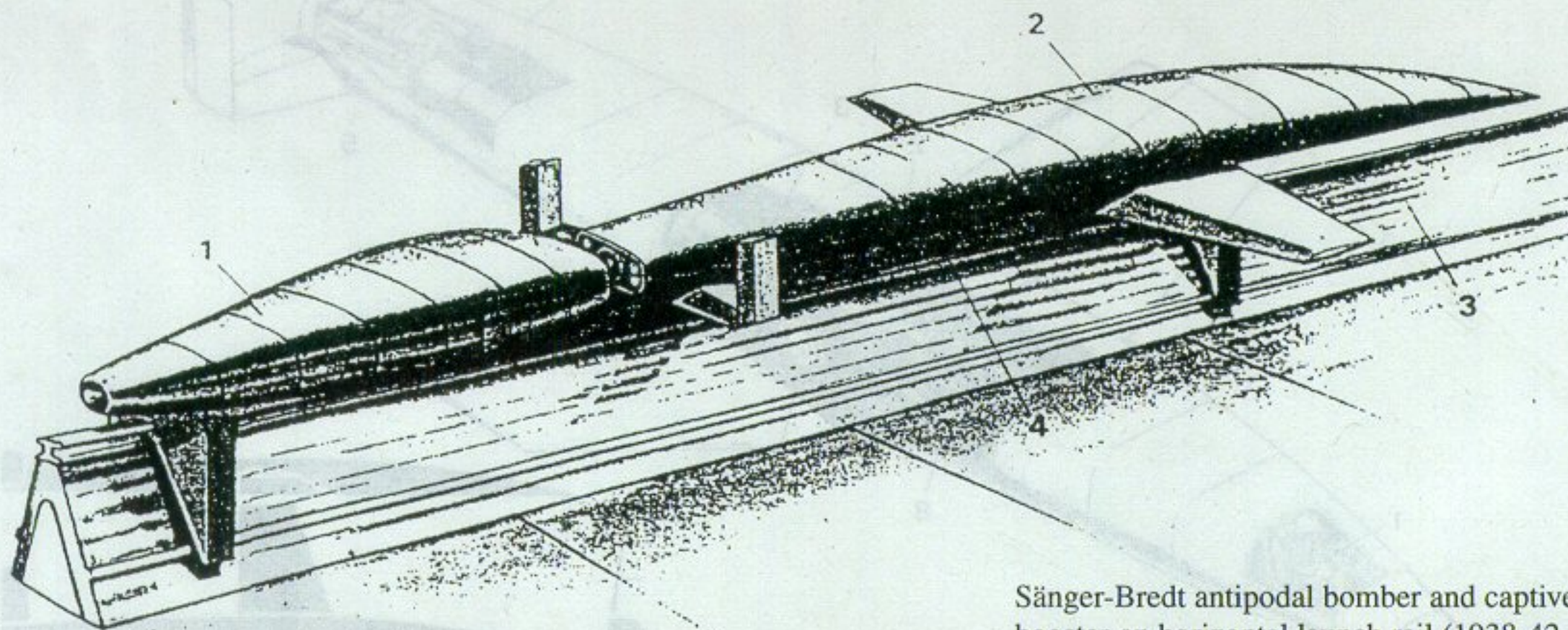
**AMERIKA-BOMBER**

Sänger-Bredt antipodal bomber: internal detail and three-view. Overall length 28 m (91.8 ft.); wingspan 15 m (49.2 ft.); launch weight 100 tons; maximum velocity 21,880 km/h (13,600 mph); maximum range 23,490 km (14,600 mi.). Key: 1. Pilot's pressure cabin; 2. Oxidant tanks; 3. Fuel tanks; 4. High-pressure combustion chamber of 100 tons thrust; 5. Auxiliary rocket chambers; 6. Wedge-shaped wing; 7. Retracted undercarriage; 8. Free-falling bomb.





Flight-path of Sänger-Bredt bomber



Sänger-Bredt antipodal bomber and captive booster on horizontal launch rail (1938-42 concept). Key: 1. Captive rocket booster of 600 tons thrust; 2. Rocket aircraft of 100 tons thrust; 3. Monorail track 3.0 km (1.8 mi.) long; 4. Sled carriage.

## SPACE FLIGHTS ORIGIN

The film *Frau im Mond*, shot in 1928, excited the imagination of many German scientists connected with the research of liquid-propelled rockets. Those who at the beginning only tried to get a new type of powerful engine suddenly realized that they had on their hands the only instrument able to break the chains of Earth's gravity, to surpass the sound barrier, to travel outside the atmosphere...

The idea passed on from the visionary genius types to the scientists and then to modest engineers. The fascination for the speed and power generated by rockets never left them, and many dreamt of machines landing on the Moon's surface. In July 1969, a group of excited German scientists from the Peenemünde site had the satisfaction of seeing their dreams made true with the landing on the Moon of the manned Apollo XI, which owed so much to the basic research made by the Germans during the war.

Rocket enthusiasts always worked having space flight in mind, although they had to collaborate with the German Army in the creation and improvement of deadly devices to get the necessary materials and financial support. During the worst moments of the war and under intense pressure, the Peenemünde team designed and flew an arrow-winged V-2 able to considerably increase its range by means of not ballistic but gliding flight. There was also a project for a piloted version with a pressurized cockpit and retractable undercarriage. It seems this was presented to the Army as a reconnaissance device.

An even more advanced version, fitted with Gothic delta wings and a rocket motor based on non-cryogenic propellants, was projected as a superior stage of the complex A9/A10. This was an enormous two-stage rocket presented to the OKH as a long-range ballistic missile able to reach cities on the east coast of the U.S. from their launch sites in Europe. The superior stage, comparable in size and characteristics to the North American X-15, which was built at the end of the '50s, was capable of extra-atmospheric flights.

The designers of all these projects always found a good excuse to introduce a manned version based on poor accuracy obtained by automatic guidance systems. Theoretically, they were semi-suicidal crews destined to be ejected from the machine at the last moment after leaving it well-oriented to the target. In fact, this was a roundabout way to obtain permission and means from politicians to begin with manned extra-atmospheric flight...

## OTHER PROJECTS FROM THE PEENEMÜNDE SCIENTIFIC GROUP

Although its official designation was HVP (Army Experimentation Site at Peenemünde), its activity was camouflaged under the commercial name of EMW (Elektromechanische Werke).

After the A4, the research took two directions, one to enlarge the weapon's range (A4b, A9/A10) and the other to obtain engines capable of working with propellants which the damaged German industry could more easily produce. So arose the A6, based on the A4 but equipped with an engine which worked with "Visol" (a combustible made from vinylic ethers) and with SV-Stoff or "Salbei" (98% of nitric acid), and the A8, which was nearly the same as the A6 but worked with a "Salbei" rocket engine and diesel oil.

Experiments aimed at improving the range of the A4 were most important. The best-known (A4b) consisted of an A4 fitted with swept wings and tailfins of bigger surface. Von Braun tells in his autobiography of a piloted A4b fitted with landing gear for flying control tests which should have doubled the range of the A4. Only two launches were made, and they showed that the wing surface was not really the most suitable for atmospheric reentry.

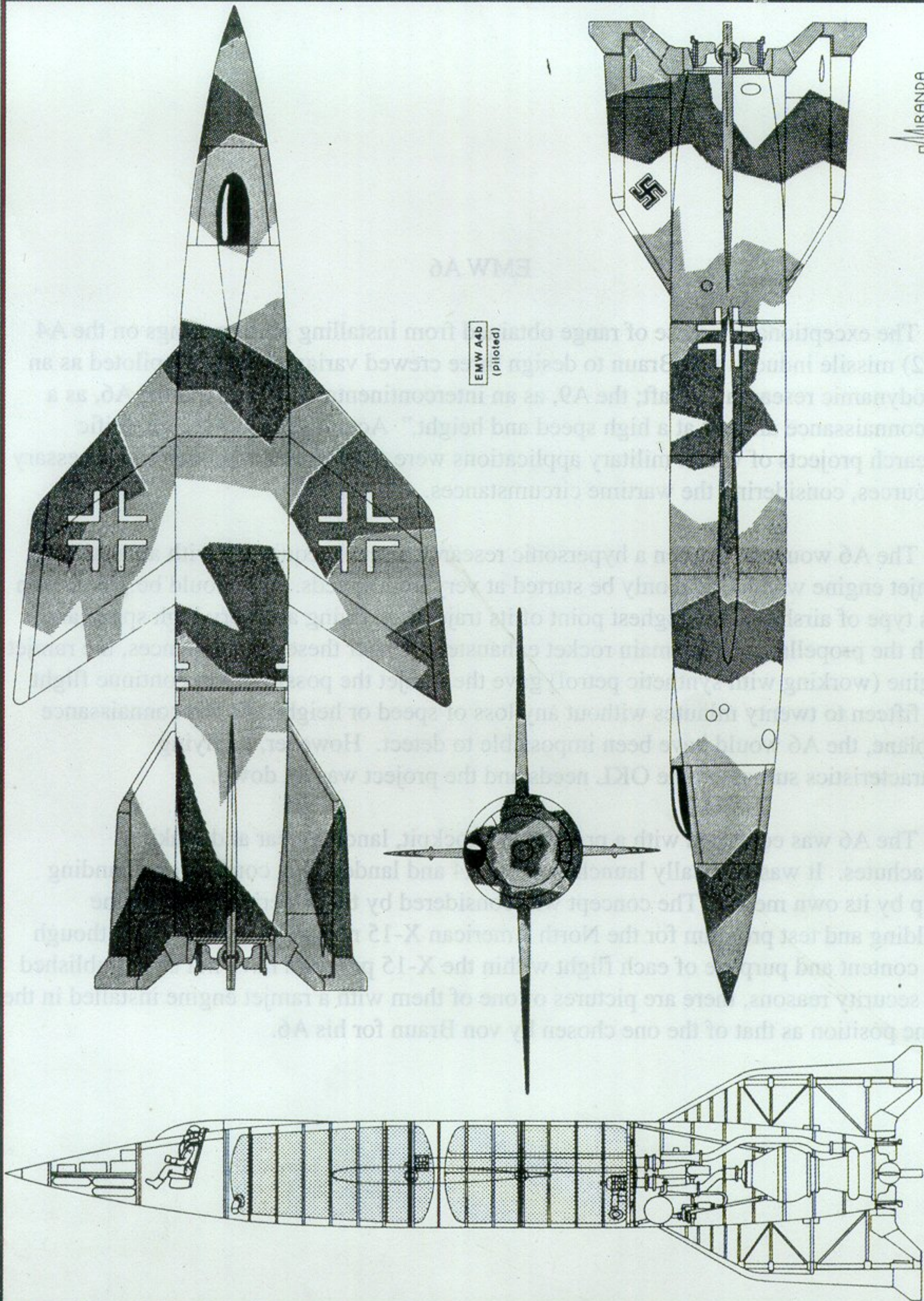
The A7 was built with the fuselage of an A5 to test the flying characteristics of a new type of wing (the ogival delta) intended for the A9 intercontinental missile.

The Army's answer to American raids was the design of the "Projektile Amerika," a giant weapon system of great range based on the two-stage A9/A10 missile and able to bomb New York. The A10 was a very big accelerator rocket conceived to put an A4 at a height of 24 km with its whole propellant to multiply its range. The original project implied the use of a test model propelled by six A4-type combustion chambers with a common Venturi nozzle. The technology used was already known (LOX and alcohol plus hydrogen peroxide turbopumps) and it was enough to prove the project's feasibility.

A more advanced version intended for real operations was projected to replace the A4 with an A9, which would have had a bigger gliding range and been fitted with a warhead of 910 kg of Amatol 60/40 and a terminal guidance of radar-points based on submarines. The production of a piloted model to improve its accuracy was also planned.

As for the operational version of the A10, this would be propelled by a single, enormous engine able to work with nitric acid (Salbei) and diesel oil, which were easier to produce and stock than cryogenic propellants.





EMW A4b  
(piloted)

HIRANDA

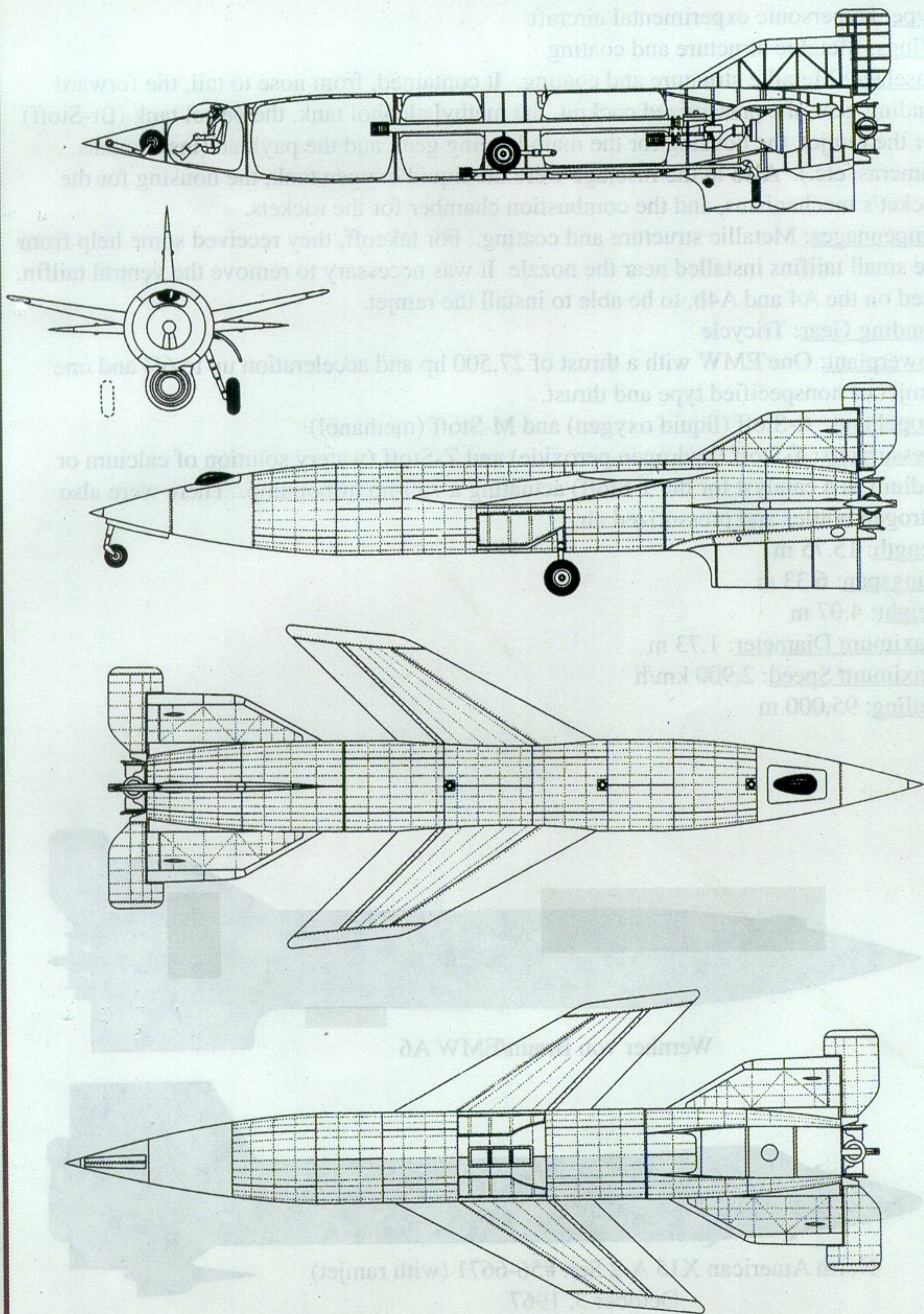
EMW A4b

## EMW A6

The exceptional increase of range obtained from installing gliding wings on the A4 (V-2) missile induced von Braun to design three crewed variants: the A4b, piloted as an aerodynamic research aircraft; the A9, as an intercontinental bomber; and the A6, as a "reconnaissance aircraft at a high speed and height." Actually, they were scientific research projects of which military applications were emphasized to obtain the necessary resources, considering the wartime circumstances.

The A6 would have been a hypersonic research aircraft, equipped with an auxiliary ramjet engine which could only be started at very high speeds. This could be possible in this type of airship at the highest point of its trajectory, flying at a very high speed and with the propellants of the main rocket exhausted. Under these circumstances, the ramjet engine (working with synthetic petrol) gave the ramjet the possibility to continue flight for fifteen to twenty minutes without any loss of speed or height. As a reconnaissance airplane, the A6 would have been impossible to detect. However, its flying characteristics surpassed the OKL needs and the project was let down.

The A6 was equipped with a pressurized cockpit, landing gear and braking parachutes. It was vertically launched as an A4 and landed on a conventional landing strip by its own means. The concept was considered by the Americans during the building and test program for the North American X-15 research aircraft. Even though the content and purpose of each flight within the X-15 program have not been published for security reasons, there are pictures of one of them with a ramjet engine installed in the same position as that of the one chosen by von Braun for his A6.



Wernher von Braun/EMW A6

## A6 Technical Data

Stage: Design

Type: Hypersonic experimental aircraft

Wings: Metallic structure and coating

Fuselage: Metallic structure and coating. It contained, from nose to tail, the forward landing gear, the pressurized cockpit, the methyl alcohol tank, the petrol tank (Br-Stoff) for the ramjet, the housing for the main landing gear, and the payload (instruments, cameras, etc.). Also in the fuselage were the liquid oxygen tank, the housing for the rocket's mechanisms, and the combustion chamber for the rockets.

Empennages: Metallic structure and coating. For takeoff, they received some help from the small tailfins installed near the nozzle. It was necessary to remove the ventral tailfin, used on the A4 and A4b, to be able to install the ramjet.

Landing Gear: Tricycle

Powerplant: One EMW with a thrust of 27,500 hp and acceleration up to 6G and one ramjet of nonspecified type and thrust.

Propellants: A-Stoff (liquid oxygen) and M-Stoff (methanol)

Pressurizers: T-Stoff (hydrogen peroxide) and Z-Stoff (watery solution of calcium or sodium as a catalyst for the T-Stoff) actuating a 730-hp turbopump. There were also nitrogen bottles and pressurized air.

Length: 15.75 m

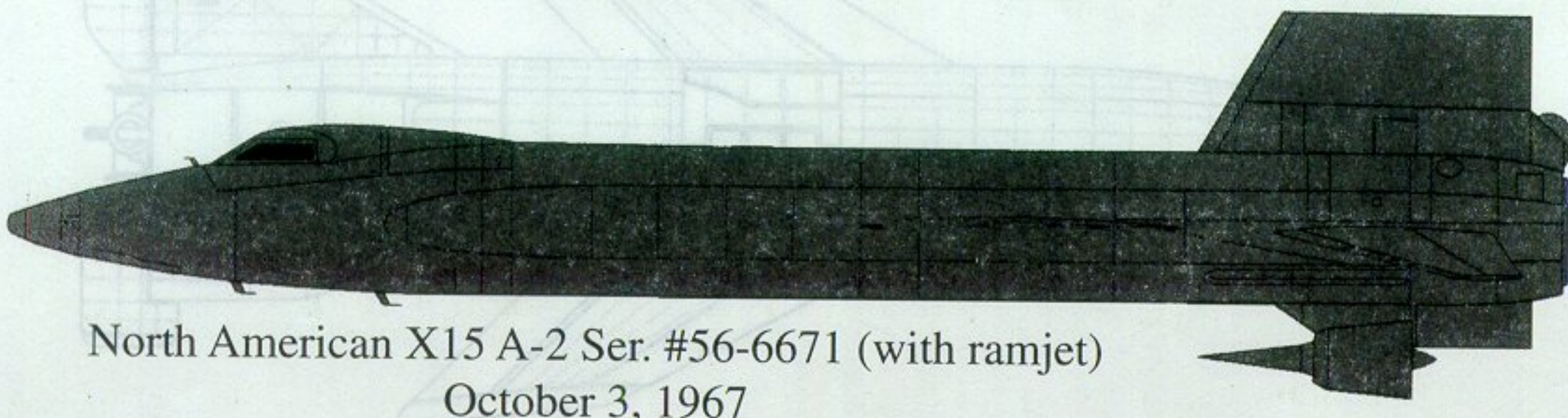
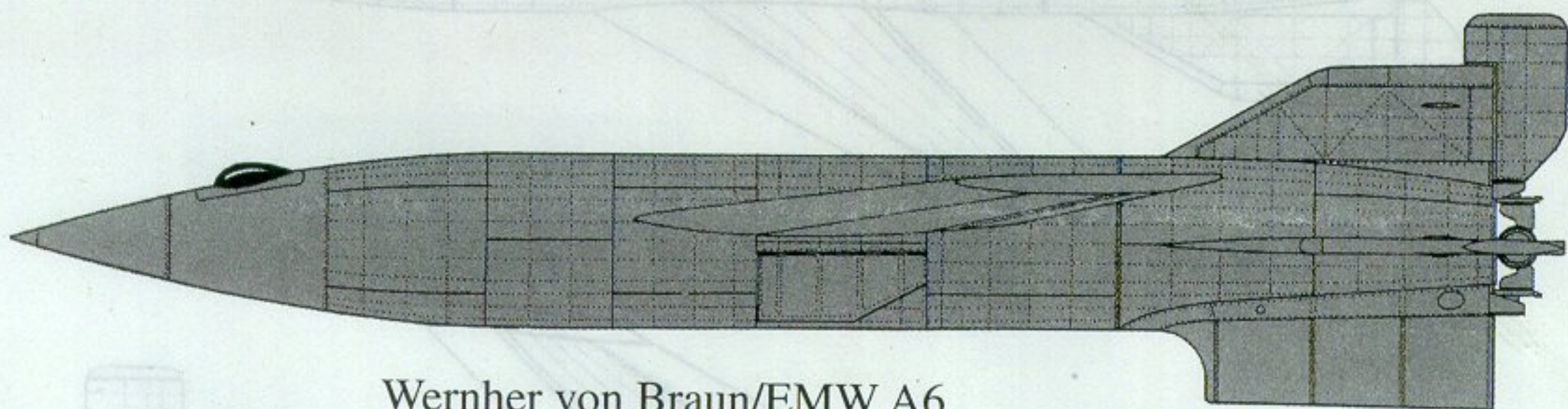
Wingspan: 6.33 m

Height: 4.07 m

Maximum Diameter: 1.73 m

Maximum Speed: 2,900 km/h

Ceiling: 95,000 m



## EMW A9/A10 "PROJEKTIL AMERIKA"

In 1944, the scientific equipment of Peenemünde evaluated a winged variante of the A-4 (V-2) missile. The new machine, called the A4b, showed a great capacity for reaching farther targets on a gliding flight (750 km, as opposed to the 320 km of the operative V-2's). Based on the results, an improved variant, the A-9, was designed with ogival-delta wings, optimized for supersonic gliding flight.

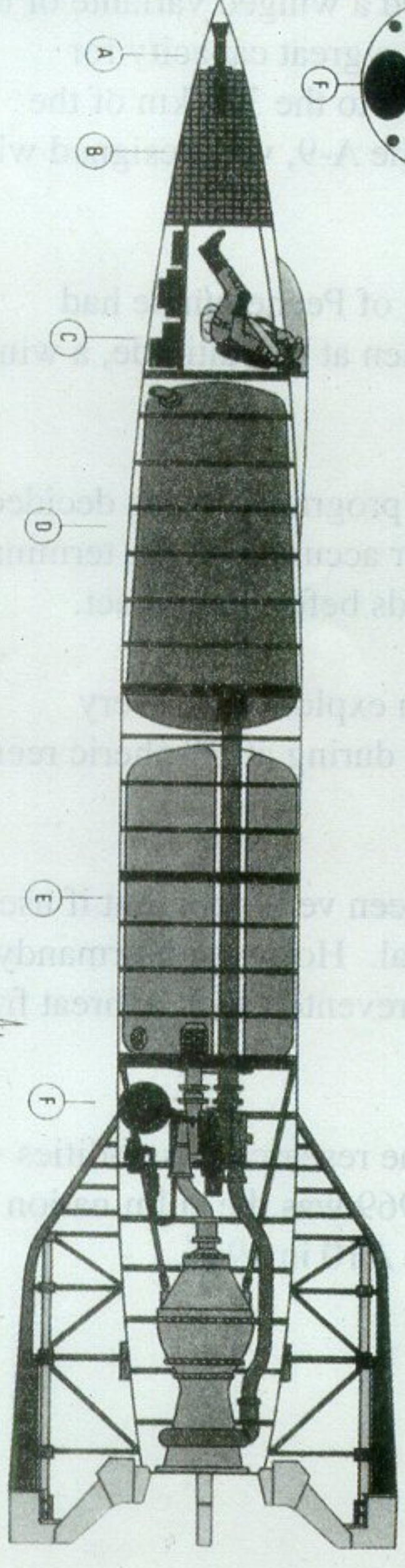
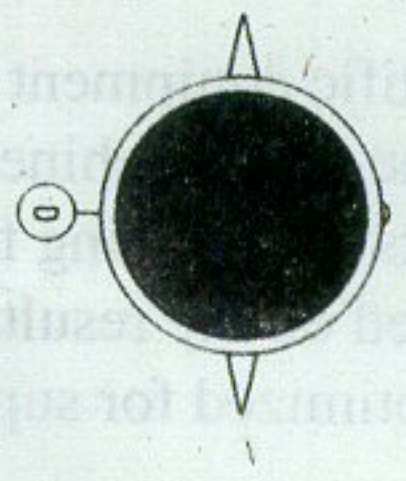
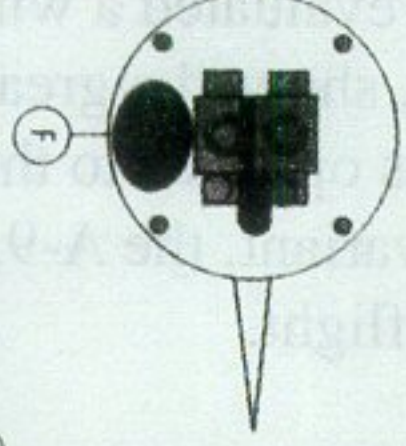
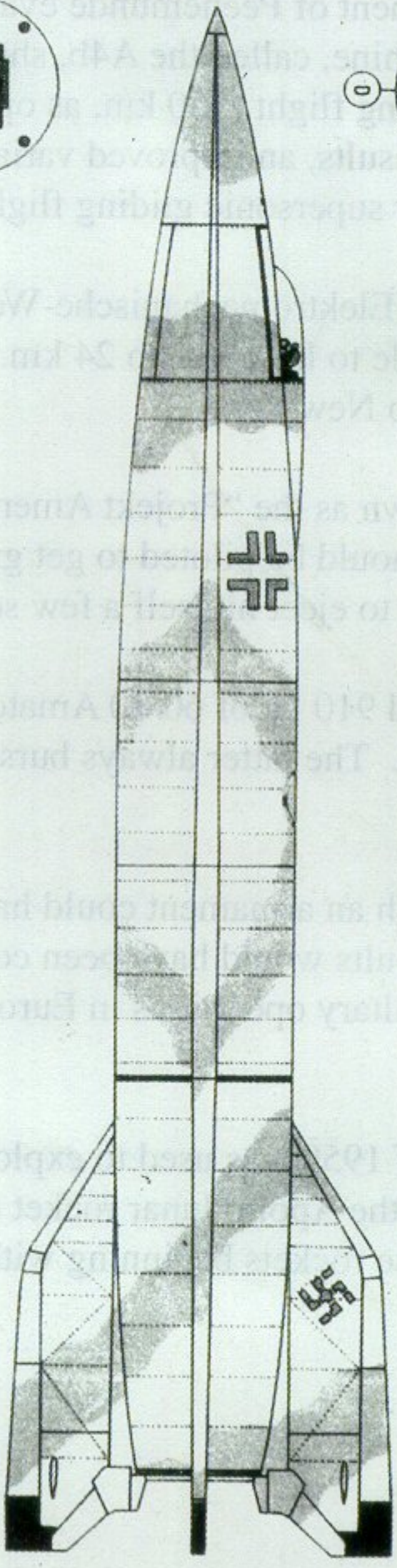
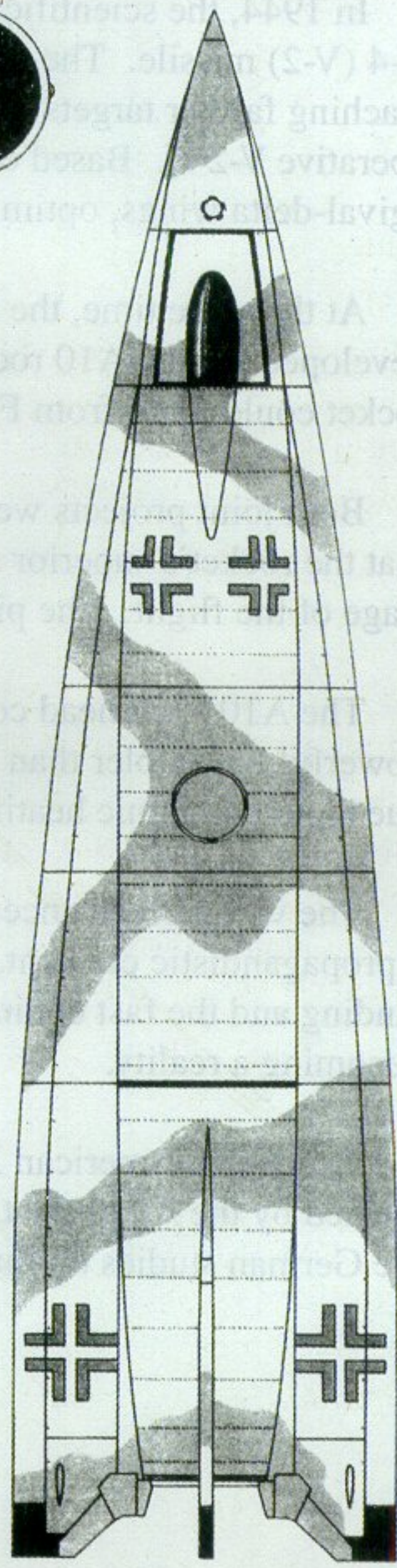
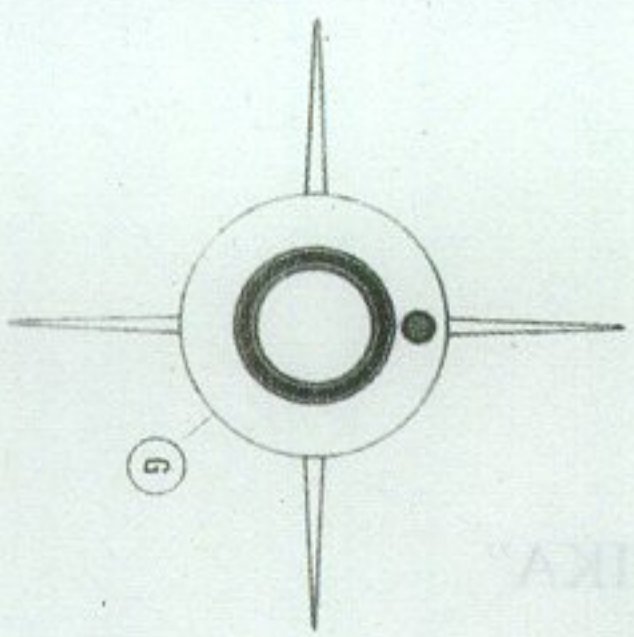
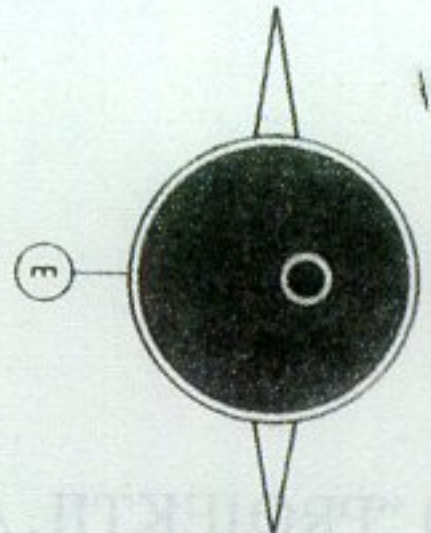
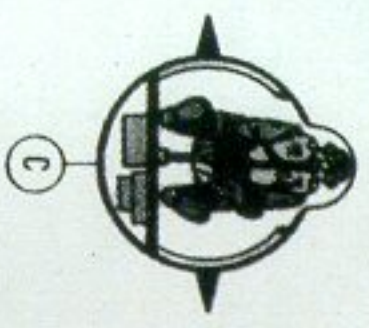
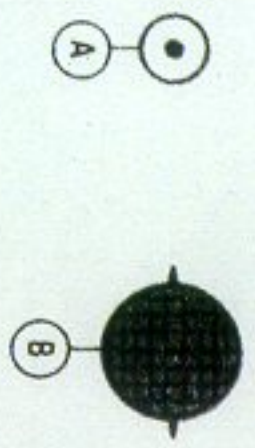
At the same time, the EMW (Elektromechanische-Werke) of Peenemünde had developed a giant A10 rocket, able to lift a V-2 to 24 km. When at this altitude, a winged rocket could glide from France to New York.

Both joint projects were known as the "Projekt Amerika" program. It was decided that the rocket's superior stage should be piloted to get greater accuracy in the terminal stage of the flight. The pilot had to eject himself a few seconds before the impact.

The A10's warhead contained 910 kg of 60/40 Amatol, an explosive not very powerful but stabler than Trialen. The latter always burst out during atmospheric reentry, due to aerodynamic heating.

The war performances of such an armament could have been very poor, but if used as a propagandistic element, the results would have been colossal. However, Normandy's landing and the fast ending of military operations in Europe prevented such a threat from becoming a reality.

The North American X-15 of 1959 was used to explore the research possibilities opened by the A9 project, while the Apollo lunar rocket of 1969 was the culmination of the German studies on multiphase rockets beginning with the A10 in 1945.



## A9 First Version Technical Data

Stage: Project

Structure: Steel

Cladding: Riveted steel plate

Tail Unit: Movable tailfins actuated by electrohydraulic controls

Powerplant: One EMW with a thrust of 25,000 hp (55,000 lbs.)

Propellants: "Visol" (compound of vinylic ethers) and "Salbei" (98% nitric acid)

Pressurizers: T-Stoff (186 kg/260 lbs.) and Z-Stoff, actuating a 730 hp turbopump

Equipment: Gyroscopic plant, integrated accelerometers and radio control equipment

Warhead: 1000 kg (2200 lbs.) of Amatol 60/40

Length: 14 m (46 ft.)

Wingspan: 3.5 m (11 ft. 7 in.)

Maximum Diameter: 1.7 m (5 ft. 6 7/8 in.)

Launch Weight: 13,000 kg (28,660 lbs.)

Maximum Speed: 2,800 m/sec (9,200 ft./sec)

Ceiling (Top): 160 km (86.4 n/mi.)

Range: 5000 km (2,699 n/mi.)

## A9 Piloted Version Technical Data

Stage: Project

Structure: Steel

Cladding: Riveted steel plate

Tail Unit: Movable tailfins actuated by electrohydraulic controls

Powerplant: One EMW with a thrust of 25,400 hp (55,880 lbs.)

Propellants: "Visol" and "Salbei"

Pressurizers: T-Stoff (186 kg/260 lbs.) and Z-Stoff, actuating a 730 hp turbopump

Equipment: Cartographic radar, gyroscopic plant, ejectable seat, oxygen and pressurized cockpit.

Warhead: 1000 kg (2200 lbs.) of Amatol 60/40

Length: 14.2 m (46 ft. 7 in.)

Wingspan: 3.5 m (11 ft. 7 in.)

Maximum Diameter: 1.7 m (5 ft. 6 7/8 in.)

Launch Weight: 16,260 kg (35,850 lbs.)

Maximum Speed: 2,800 m/sec (9,200 ft./sec)

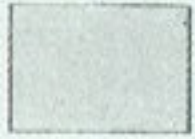
Ceiling (Top): 160 km (86.4 n/mi.)

Range: 5000 km (2,699 n/mi.)

EMW A9+A10  
EARLIER VERSION



A9



Shock Absorber



Liquid Oxygen



Ethyl Alcohol



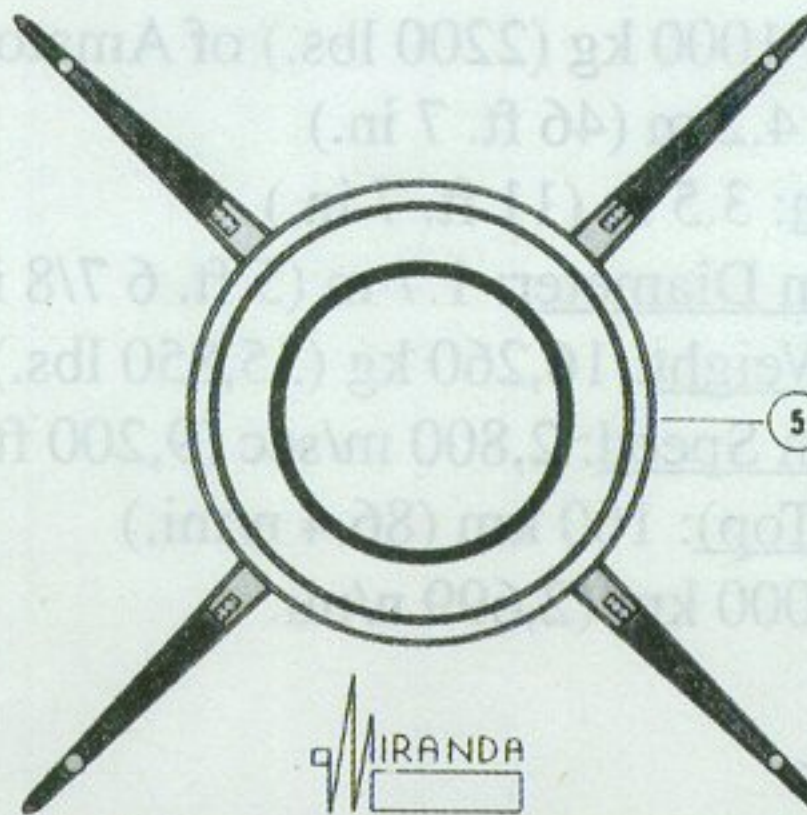
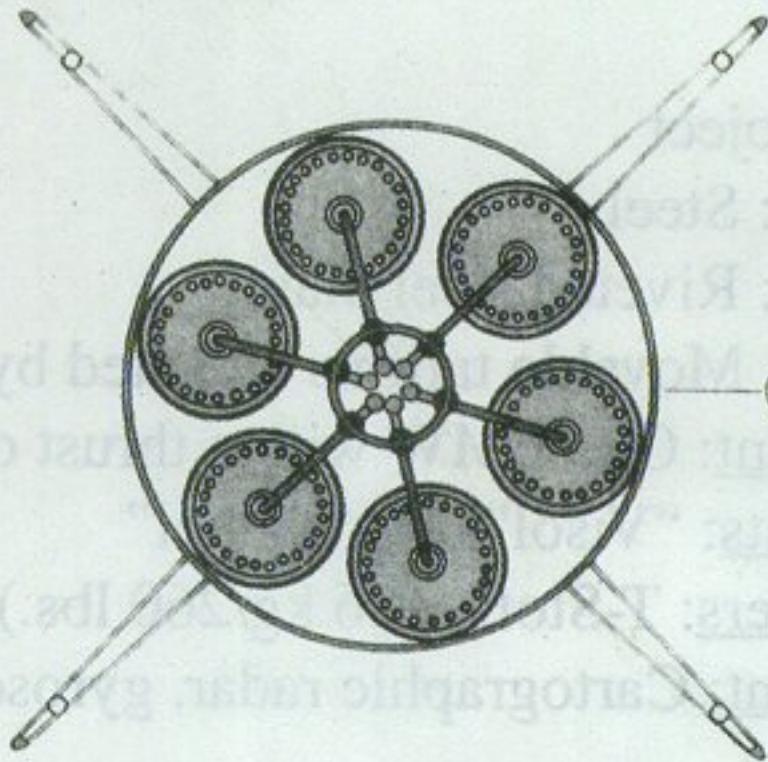
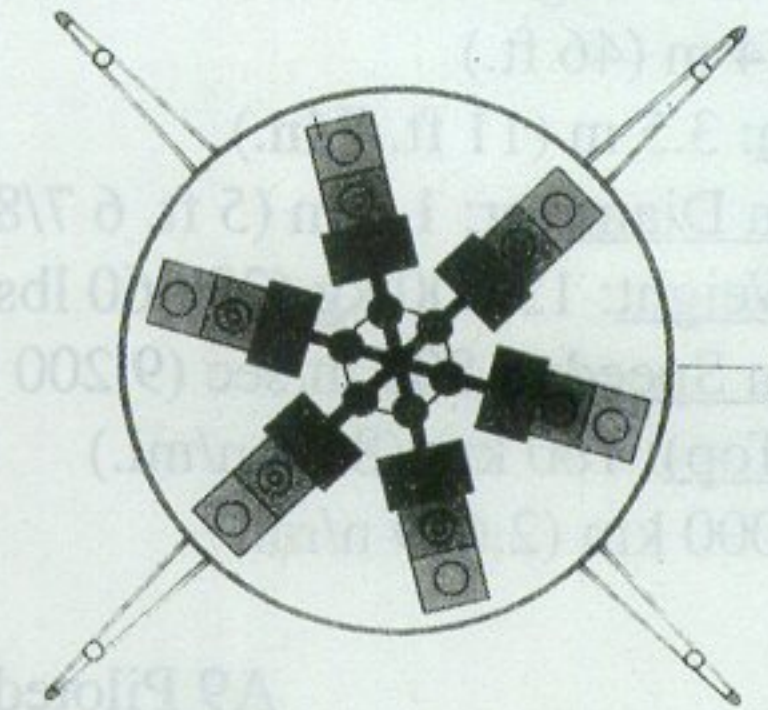
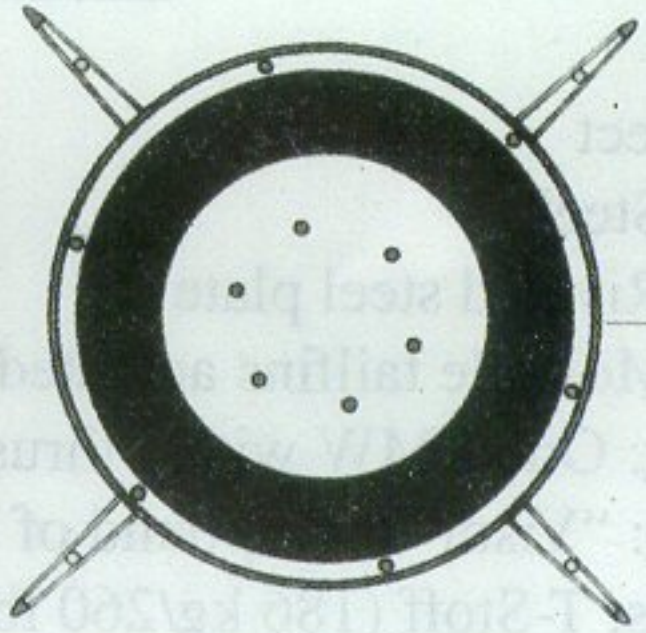
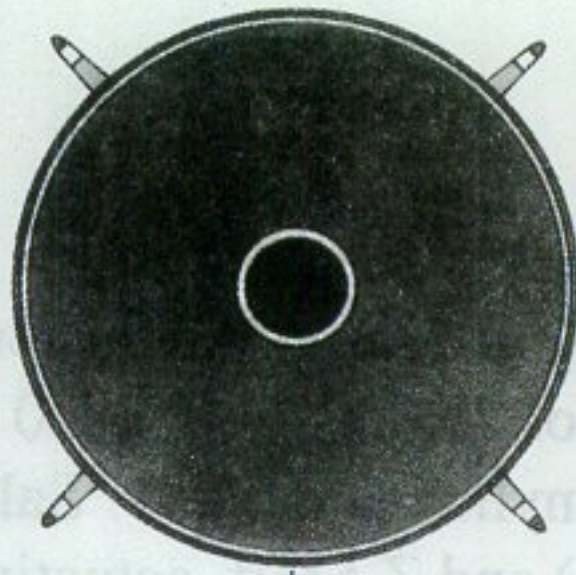
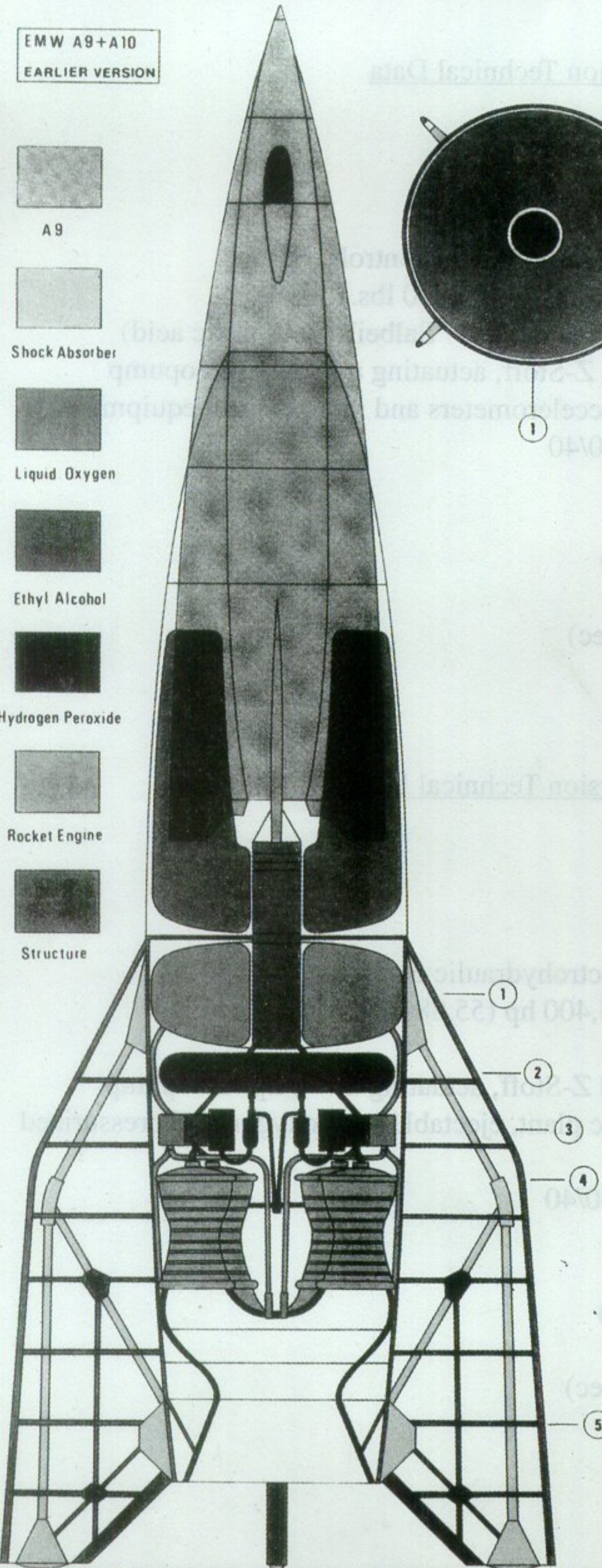
Hydrogen Peroxide



Rocket Engine



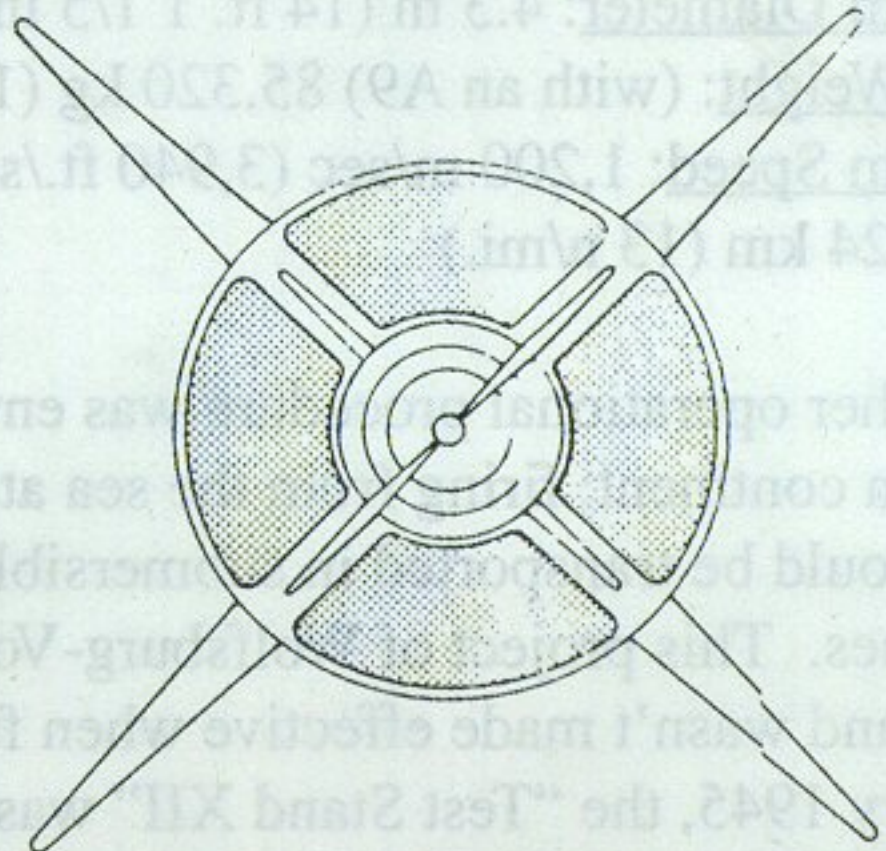
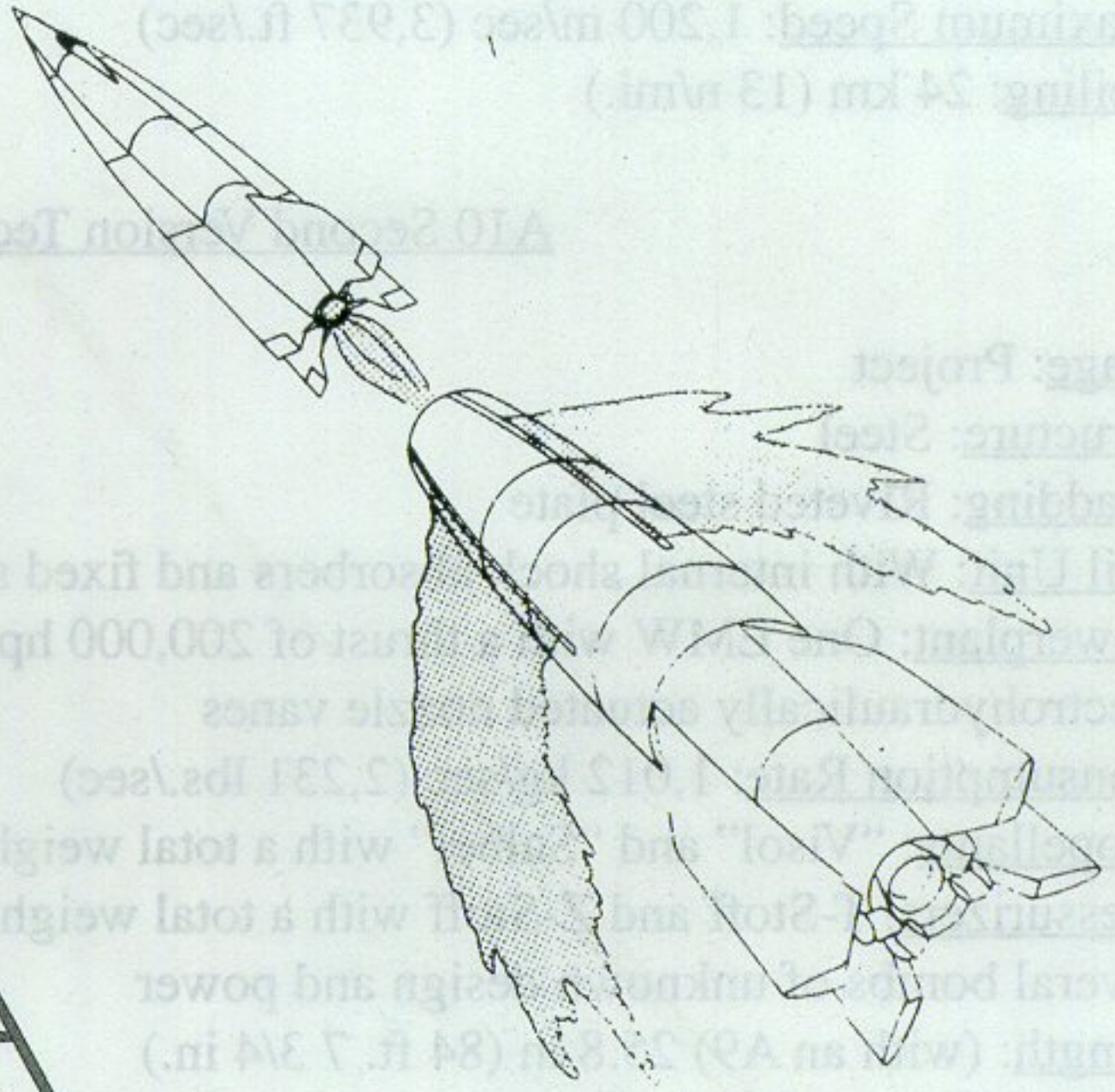
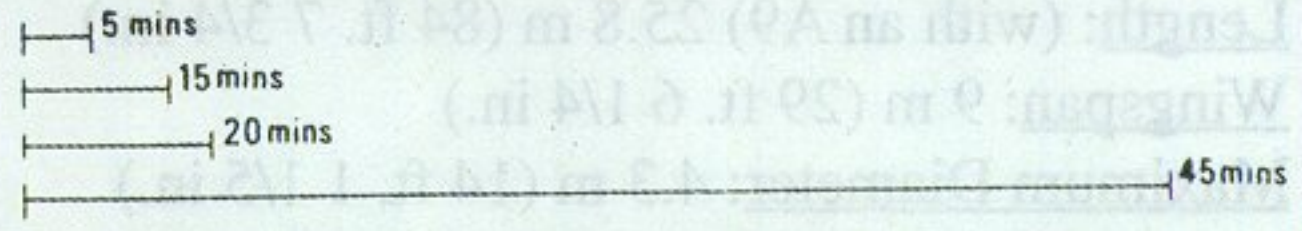
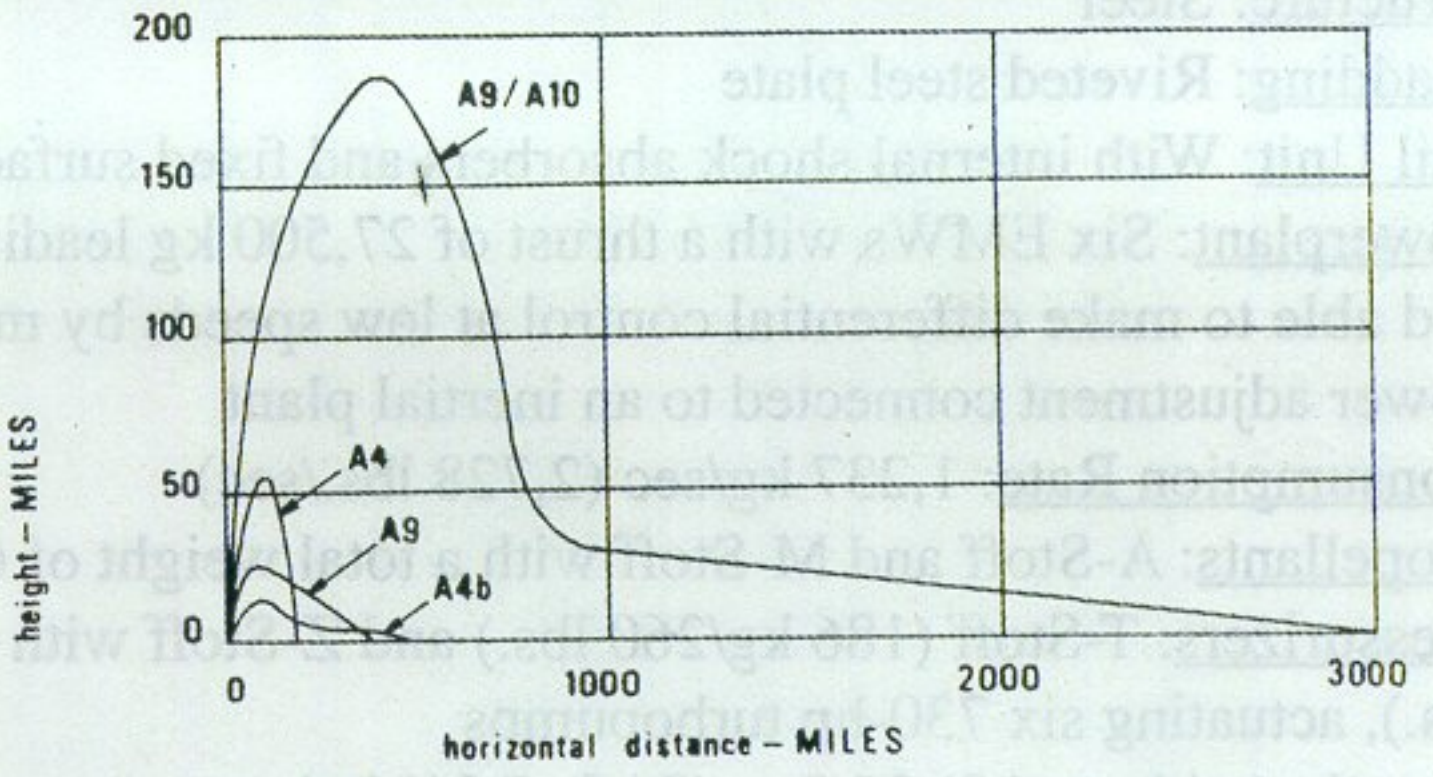
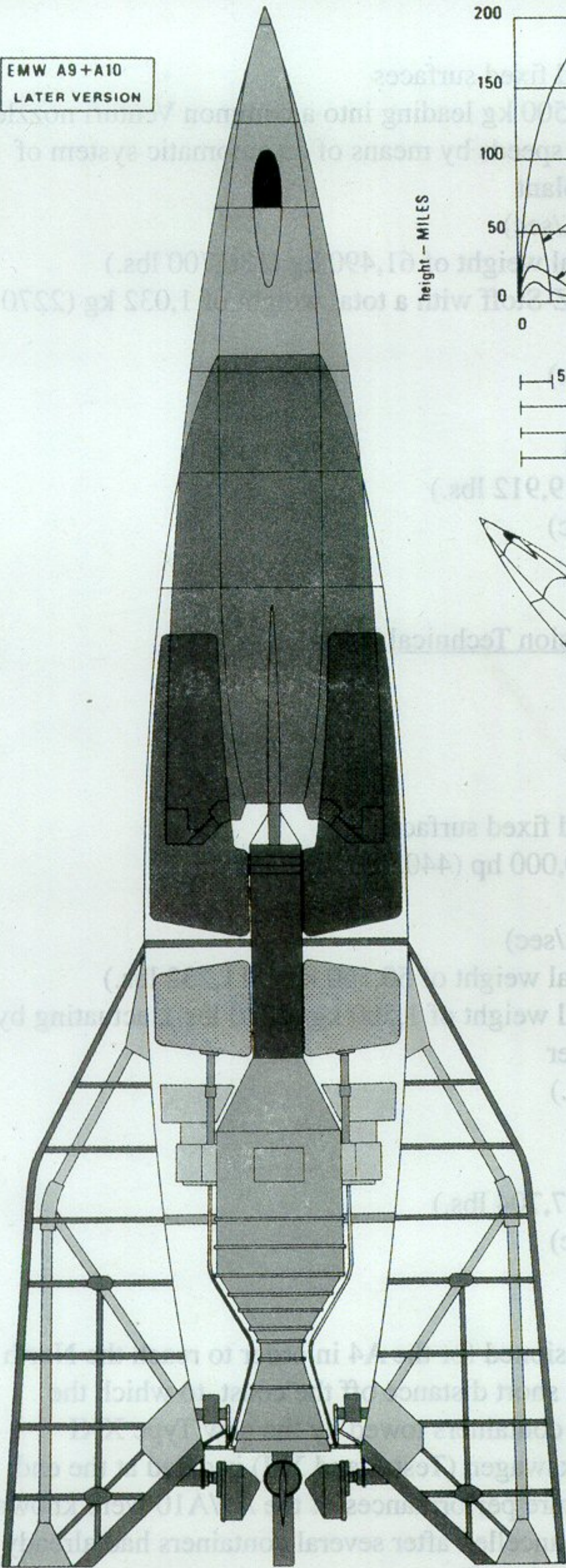
Structure



MIRANDA



EMW A9+A10  
LATER VERSION



## A10 First Version Technical Data

Stage: Project

Structure: Steel

Cladding: Riveted steel plate

Tail Unit: With internal shock absorbers and fixed surfaces

Powerplant: Six EMWs with a thrust of 27,500 kg leading into a common Venturi nozzle and able to make differential control at low speeds by means of an automatic system of power adjustment connected to an inertial plant

Consumption Rate: 1,237 kg/sec (2,728 lbs./sec)

Propellants: A-Stoff and M-Stoff with a total weight of 61,490 kg (136,700 lbs.)

Pressurizers: T-Stoff (186 kg/260 lbs.) and Z-Stoff with a total weight of 1,032 kg (2270 lbs.), actuating six 730-hp turbopumps

Length: (with an A9) 25.8 m (84 ft. 7 3/4 in.)

Wingspan: 9 m (29 ft. 6 1/4 in.)

Maximum Diameter: 4.3 m (14 ft. 1 1/5 in.)

Launch Weight: (with an A9) 99,960 kg (219,912 lbs.)

Maximum Speed: 1,200 m/sec (3,937 ft./sec)

Ceiling: 24 km (13 n/mi.)

## A10 Second Version Technical Data

Stage: Project

Structure: Steel

Cladding: Riveted steel plate

Tail Unit: With internal shock absorbers and fixed surfaces

Powerplant: One EMW with a thrust of 200,000 hp (440,000 lbs.) and electrohydraulically actuated nozzle vanes

Consumption Rate: 1,012 kg/sec (2,231 lbs./sec)

Propellants: "Visol" and "Salbei" with a total weight of 50,560 kg (111,232 lbs.)

Pressurizers: T-Stoff and Z-Stoff with a total weight of 1,500 kg (2270 lbs.), actuating by several bombs of unknown design and power

Length: (with an A9) 25.8 m (84 ft. 7 3/4 in.)

Wingspan: 9 m (29 ft. 6 1/4 in.)

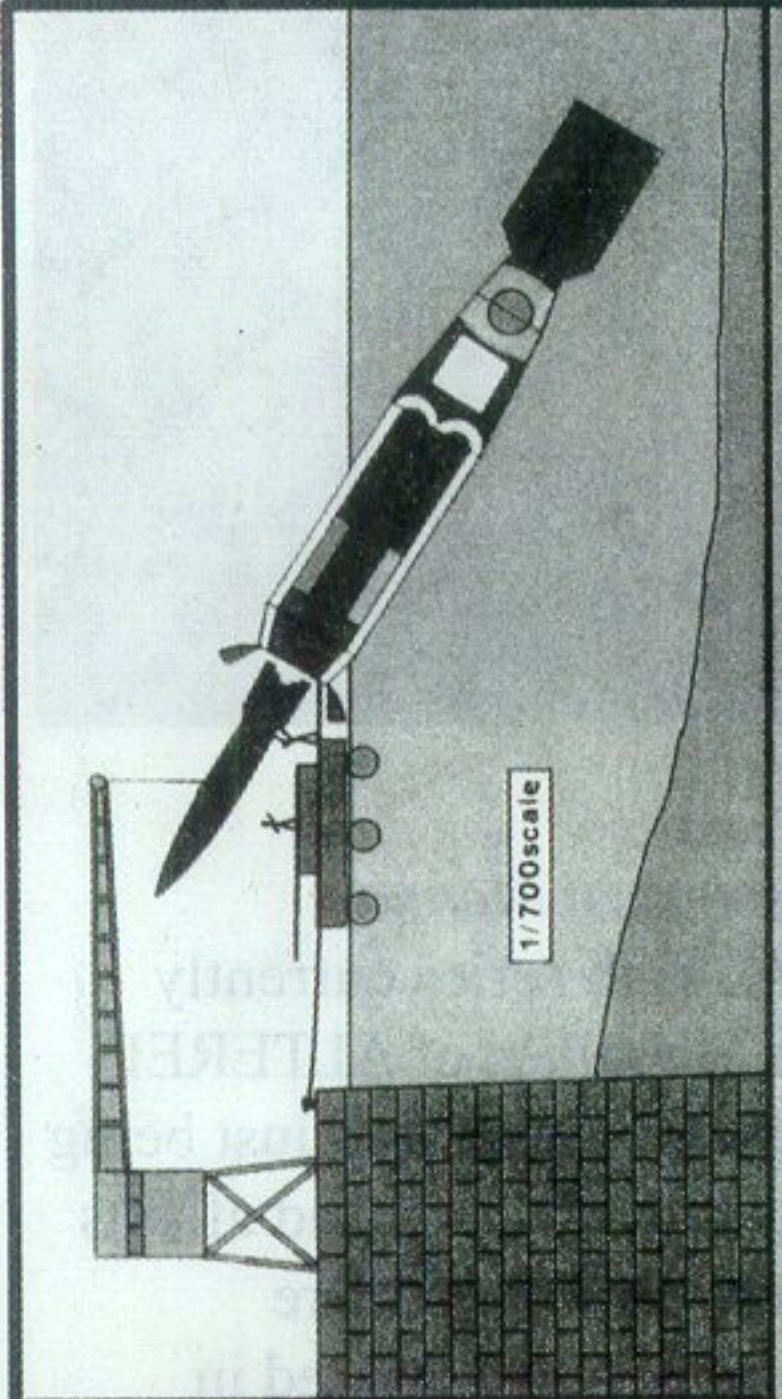
Maximum Diameter: 4.3 m (14 ft. 1 1/5 in.)

Launch Weight: (with an A9) 85,320 kg (187,704 lbs.)

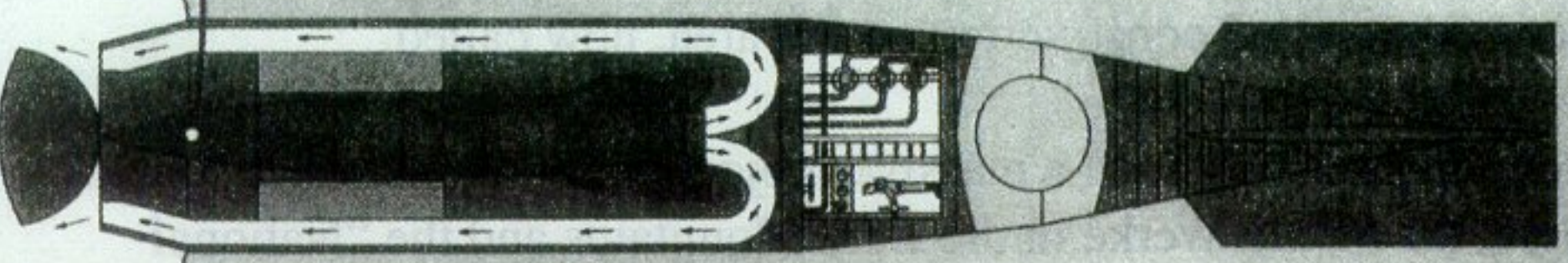
Maximum Speed: 1,200 m/sec (3,940 ft./sec)

Ceiling: 24 km (13 n/mi.)

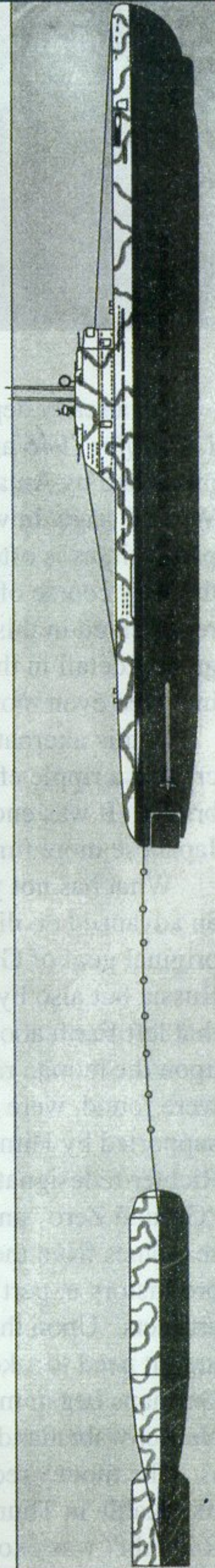
Another operational procedure was envisioned for the A4 in order to reach the North American continent: firing from the sea at a short distance off the coast, to which the missile could be transported in submersible containers towed by the new Type XXI submarines. This project of Wolfsburg-Volkswagen (Test Stand XII) is dated at the end of 1944 and wasn't made effective when future performances of the A9/A10 were known. In January 1945, the "Test Stand XII" was cancelled after several containers had already been built and tested in the Vulcan-Stettin dockyards.



1/700scale



PROJEKT «TEST STAND XII»



Projekt "Test Stand" XII

# LUFTWAFFE: 1946—X-PROFILES



As already depicted in the earlier volumes of the *L:1946 Technical Manual*, *Luftwaffe: 1946* and its full-color successor, *World War II: 1946*, both series currently published by Antarctic Press, represent only a part of the larger “Families of ALTERED WARS” saga, in which the main fictional characters change history, rather than just being part of it, as is often the case with other famous works. History thus changes and affects the very course of time/space stability and human destiny. Many profiles that are represented in this issue have already been mentioned earlier and will be depicted in greater detail in the future, including the Japanese use of German technology that’ll be included even more in the upcoming *Kamikaze: 1946* series.

In this alternate World War II, a series of small changes of events before the war created a ripple effect and by late 1944, fortune had turned in the Axis’ favor, if only briefly. It was enough to extend the war 15 months, though, giving the Germans and Japanese more time to develop their “super weapons”.

What has not yet been explained in detail is that Hitler, after discovering evidence of an advanced civilization that lived on Earth before recorded history, decided to alter his original goal of Greater Germany. They would not just focus on the “Wild East” of Russia but also by prepare themselves for the expected “second coming” of a super-race that left Earth about 65 million years ago, when the aliens would make a final judgment upon the human race. Expeditions in Mongolia, Tibet and Antarctica, where artifacts were found, were supported under the guidelines of Ahnenerbe, the SS University supported by Himmler. In 1938, a German Antarctic expedition under Captain Alfred Richter redesignated the Norwegian territory in Antarctica called Queen Maud Land as “Ground Zero” and spent three weeks exploring, using the additional support of two seaplanes from the German carrier *Schwabenland*. Their expeditions were enhanced by pre-history expert Mika Oberlicht, who used an Fw200 to carry supplies and bring back artifacts. Upon the departure of their first extended expedition, the Germans stressed the urgent need to take this territory for the Greater Reichs from Norway. In 1940, the Germans began major underground construction on the area, now called Neuschwabenland.

The money required to construct such a massive project, not to mention other areas like Kahla in Thuringia, the Mittle-Werke in the Harz Mountains and the “National Redoubt” was exorbitant, in addition the cost of a war that they did not expect to last past 1942 fighting against three major military powers. Extensive loans were made from the Bank of England and other major banks from the United States shortly after Hitler took power in 1933, thereby enabling Germany to afford a massive military build-up despite

their bankrupt situation at the time. Even before the war began in 1939, German banks continued to make monthly payments on time back to the banks of England and the United States through Swiss accounts under the guise of the BIS (Bank of International Settlements), thereby keeping good credit for future loans and being able to get 1/3 back as dividends each time. However, this was not enough to pay for the entire war, let alone additional construction projects, so the banks conspired to murder selected Jewish families that had extensive funds in their “secret Swiss accounts,” thus freeing up that money for more spending. As was often the case, entire Jewish communities were eliminated to hide their crime and Swiss officials often directed the Nazis to the location of banks in conquered territories to enhance their “payments”. During this time, bank officials from Axis and Allied powers (except the Soviet Union) regularly conducted business on how the funds should be used. As with the Nazi concentration camps, the BIS funded the Antarctica base construction for profit.

Meanwhile, plans were made to change the American “public mind” to make peace with Nazi Germany, thereby freeing the Jews to go to the United States, Palestine and Madagascar, then fight a “Final War” against the Soviet Union. But in January 1943, Roosevelt and Churchill decided to sacrifice the Jews in exchange for total victory. Their demand for “unconditional surrender” was unacceptable to Germany, for it was like a repeat of World War I. Thus, in February, “Total War” was declared, German citizens were mobilized, and the hapless Jews, with no country to accept them, suffered the full wrath of genocide originally conceived a year earlier by SS deputy leader Reinhard Heydrich at the Wannasee Conference.

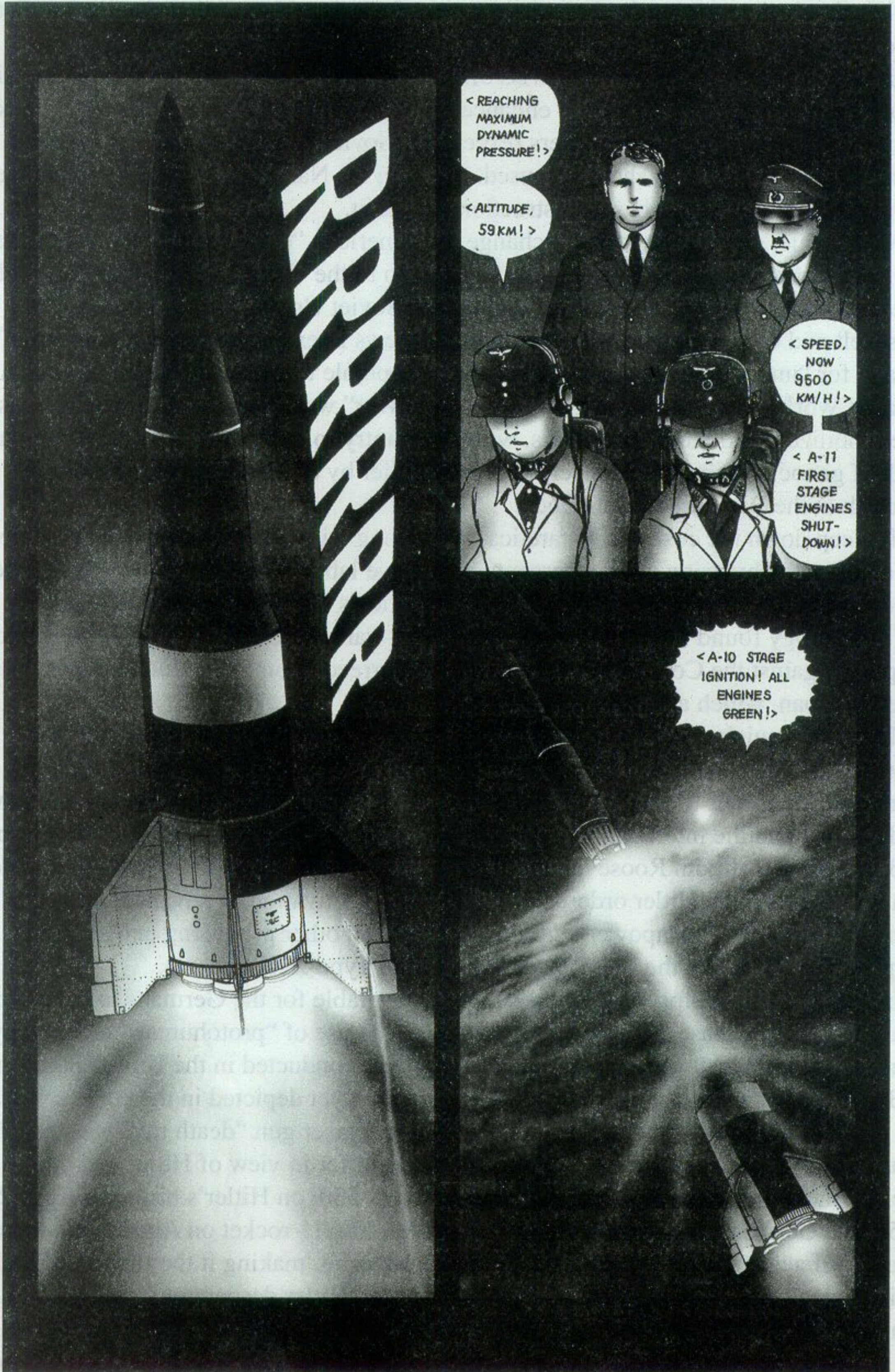
To keep down the cost, the Antarctica base, along with other underground complexes, was constructed by using a large percentage of slave labor, most of them worked to death. A secret conference with Britain’s MI-6 and America’s MJ-12 was made to deal with the new technology found there. In return, rapid post-war reconstruction of Germany and a campaign against the Communism were covertly agreed upon. The situation was the same for Japan, which also funded the project.

To make a quick peace by 1942, Hitler ordered all weapons research conducted before that time that couldn’t be completed within a year to be cancelled or severely downsized. Thus the “Amerika Bomber” and other advanced projects like atomic power, the death ray and the intercontinental ballistic missile went on at a snail’s pace. But by 1943, realizing that both Roosevelt and Churchill would rather see him dead or arrested for a war crimes trial, Hitler ordered an immediate reactivation of advanced projects, often taking valuable manpower and funds away from other promising and nearly completed projects like the Me-262 jet fighters and Type-XXI U-boats.

In this alternate history, additional time was available for the Germans to construct such weapons in a reasonable quantity. And with the use of “protohuman” technology, advanced projects testing of space-time stability was conducted in the United States in 1943 and in Nazi Germany in 1946. Also, though not yet depicted in the current *World War II: 1946* series (scheduled for issue #9), the first laser gun “death ray” was tested aboard a U-997 commanded by Captain Heinz Schaeffer in view of Hitler and other officials, including some from the Allies aboard a U-530, on Hitler’s birthday, April 20, 1945. The Germans also launch the first live A9/A10/A11 rocket on April 1946, thereby secretly—if accidentally—placing an A9 into earth orbit, making it the first unofficial artificial satellite. Despite a lack of high-octane fuel, Hitler desperately attempted to change the tide of war by sending U-boats carrying V-2’s (depicted in *WWII:1946 V1 #6*), squadrons of Me264 bombers (*L1946 V1 #4*), and finally the Daimler-Benz Projekt

atom-bombers (L1946 V1 #4), thus activating the "time-governers" left by the protohumans and recycling the damaging chain of events back one year, with earlier events erased as foreseen by Hitler's "dream".

Despite being given a "second chance," Hitler and his Nazi Germany would still be defeated in the end, but the consequences from the rupture in space and time would have devastating results in the future.



## FAMILIES OF ALTERED WARS CHRONOLOGY

Since the introduction of the original "Families of ALTERED WARS" series under the *Tigers of Terra* title in 1986, many historical events have been included in a fragmentary format so as not to prolong one period of time extensively for lack of available page count space. But due to the complex nature of events, many readers (including the editors!) requested a chronology of this alternate history, including issue numbers in which it featured, thus providing a fuller picture of this complex history. The original draft was made in 1985, and little was changed or revised in 15 years of storytelling, but the following list is the latest revisions as of January 2000 (our time!).

-TN

- Aug 27, 1895: Margareina Sabre born in Tunguska, Siberia (*ToT V2 #1*)
- Jun 30, 1909: Margareina survives the Tunguska blast (*ToT V2 #1*)
- Apr 01, 1913: Margareina receives invitation to Germany (*L1946 V2 #13*)
- Apr 13, 1913: Margareina boards Titanic for trip to Germany via England (*L1946 V2 #13*)
- Apr 13, 1913: Young Hitler meets young Wolfgang Ritter at Vienna (*L1946 V2 #13*)
- Apr 27, 1913: Margareina meets Prof. Hockdruckpumpe in Berlin (*L1946 V2 #7*)
- Jun 29, 1914: Margareina meets Wolfgang Ritter (*L1946 V2 #7*)
- Oct 07, 1916: Pvt. Hitler injured in battle on Western Front (*L1946 V2 #7*)
- Oct 15, 1916: Czar of Russia meets Louis Coudouret (*L1946 V2 #7*)
- Dec 25, 1916: James Joseph Condorcet I born in New Orleans, LA
- Apr 16, 1917: Lenin returns to Petrograd, Russia, to start the revolution (*L1946 V2 #13*)
- Apr 27, 1917: Reimar Ritter born in Courtrai, Belgium
- May 07, 1917: Tyrus "Tiger" Siddeley shoots down Göring's Albatros fighter (*ToT V1 #7*)
- Jul 06, 1917: Red Baron injured during air combat over Western Front (*L1946 V2 #14*)
- Aug 27, 1917: Margareina meets Red Baron (*ToT V2 #18/L1946 V2 #1*)
- Sep 23, 1917: Tyrus meets Wolfgang Ritter in air combat (*ToT V2 #18*)
- Dec 16, 1917: Gustav Adler born in Dresden, Germany
- Aug 02, 1918: Reinhard Wagner born in Hamburg, Germany
- Oct 13, 1918: Cpl. Hitler gassed by British attack (*L1946 V2 #15*)
- Nov 11, 1918: German carrier Mackensen cancels to launch rocket fighter (*L1946 V1 #3*)
- Nov 13, 1918: Margareina flies to Allied Zone on Fokker Dr.I (*ToT V2 #18*)
- Jul 27, 1919: Manfred Richthofen discovers Olga Romanov's pregnancy (*L1946 V2 #15*)
- Aug 01, 1919: Wolfgang witness destruction of German Air Service (*L1946 V2 #15*)
- Aug 27, 1919: Mika Oberlicht born in London, England
- Mar 10, 1920: Dora Oberlicht and Katerina Soyuz are born in Breslau, Silesia
- Mar 20, 1920: Olga Romanov killed, Margareina Sabre injured (*L1946 V2 #15*)
- Feb 13, 1922: Bullard Maulidi born in Los Angeles, CA
- Jul 04, 1922: Wolfgang meets Hitler in Germany (*L1946 V2 #15*)
- Apr 01, 1934: Richthofen brings Dora and Mika back from Malta (*L1946 V2 #15*)
- Apr 01, 1937: First "Wurfscheibe" disc found near Mongolia (*L1946 V1 #1*)
- Aug 27, 1937: Karl Eichmann meets Dora (*L1946 V1 #1*)
- Apr 01, 1938: Mika meets Himmler and Heydrich, joins Ahnernerbe (*L1946 V2 #16*)
- Apr 21, 1938: Richthofen killed over Spain (*L1946 V2 #15*)
- Apr 27, 1938: Dora and Mika attend Richthofen's funeral (*L1946 V2 #16*)
- Dec 25, 1938: Mika discovers "protohuman" in Antarctica (*WW2 #5*)
- Feb 21, 1939: Lt. Nobuharu Nomura meets Hitler at Tachikawa (*L1946 V2 #2*)
- Apr 13, 1939: Karl Eichmann and Emil Ritter meet Hitler (*L1946 V1 #2*)
- Aug 27, 1939: First flight of Me-262V1 (*L1964 V1 #1*)

Aug 27, 1939: Mika Oberlicht visits Tibet for Ahnernerbe (WW2 #6)  
 May 10, 1940: Hess makes flight to England on Bf-110C (L1946 V2 #16)  
 Aug 13, 1940: Radio Berlin announces cease-fire with England (L1946 V2 #16)  
 Jun 22, 1941: Germany invades Soviet Russia (L1946 V2 #17)  
 Oct 02, 1941: Me-163A V39 flight breaks 1000 km/h (L1946 V2 #7)  
 Oct 13, 1941: Aviatrix "Elfie" flies Me163A/Ju88 Mistel for Hitler's view (ToT V2 #11)  
 Oct 13, 1941: Katerina Soyuz enlists in Soviet Air Force (WW2 #3)  
 Nov 30, 1941: Japanese naval forces attack Pearl Harbor (ToT V2 #14)  
 Dec 01, 1941: AVG's flight to bomb Japan cancelled (WW2 #4)  
 Dec 01, 1941: Amelia Earhart visits Japan (ToT V2 #14)  
 Dec 27, 1941: P-40/Hurricane flight in Burma (ToT V1 #1)  
 Jan 27, 1942: Captain Saburo Mikasa in Malaya ordered back to Japan (WW2 #4)  
 Apr 15, 1942: Capt. Mikasa leads 3 Ki-61 Hiens as Tiger flight at Fussa (WW2 #4)  
 May 03, 1942: Kate Soyuz in Pe-2 meets Gus in Bf-109F (WW2 #3)  
 May 06, 1942: Kate meets Lilya Litvyak (WW2 #3)  
 Jun 22, 1942: Comrade "Birdboy" attacks Ju-88's (ToT V2 #1/L1946 V2 #11)  
 Jul 20, 1942: Comrade Birdboy's BI-1 rocket fighter flight (ToT V2 #7)  
 Jul 27, 1942: Kate Soyuz's Po-2 flight over River Don (ToT V1 #3)  
 Oct 30, 1942: Hanna Reitsch injured flying Me-163B V5 (L1946 V2 #7)  
 Nov 23, 1942: "Flying Pancake" Vought V-173's first flight (L1946 V2 #10)  
 Apr 01, 1943: Reimar Ritter fights P-40's over Tunisia (L1946 V2 #1)  
 Apr 03, 1943: Reimar meets General Galland in Berlin (L1946 V2 #1)  
 May 27, 1943: Battle of Kursk Bulge (L1946 V2 #17)  
 Jun 03, 1943: Vought V-173 crashes near Jennifer Dare, who meets J.J. (L1946 V2 #10)  
 Jul 13, 1943: Raisa Soyuz's T-34/85 meets "Black" Tiger VI (L1946 V2 #17)  
 Aug 01, 1943: Kate Soyuz and Lilya Litvyak return from mission alive (L1946 V2 #17)  
 Aug 06, 1943: Malta falls to the Germans after long, bitter battle (WW2 #6)  
 Aug 27, 1943: Mika flies Fokker Dr.I and recovers family swords at Malta (WW2 #6)  
 Aug 27, 1943: Dora and Gus sees Flugelrad I's first flight attempt (L1946 V2 #10)  
 Nov 26, 1943: Hitler sees Me-262V6 in flight (L1946 V2 #1)  
 Feb 27, 1944: Dora and Gus sees Sack AS/6's first flight attempt (L1946 V2 #10)  
 May 14, 1944: "Red" Me-163B V41 flight (L1946 V2 #7)  
 Jun 13, 1944: Eisenhower killed over Normandy (L1946 V1 #1)  
 Jul 06, 1944: Me-163B V18 loses tail in near-Mach flight (L1946 V2 #7)  
 Aug 05, 1944: Me-163B's first combat (L1946 V2 #7)  
 Aug 27, 1944: Dora and Gus see another AS/6 flight attempt (L1946 V2 #10)  
 Sep 27, 1944: Dora and Gus see Flugelrad II's first flight (L1946 V2 #10)  
 Oct 25, 1944: Battle off Samor, USS Arizona battles IMS Mutsu (ToT V2 #15)  
 Oct 31, 1944: Hitler reviews Japanese Kamikaze report with Himmler (L1946 V2 #3)  
 Nov 06, 1944: Lt. Yeager's P-51D shoots down Me-262 (L1946 V2 #7)  
 Nov 07, 1944: Lt. Maulidi meets SS Me-262 flight over Italy (ToT V1 #11/L1946 V2 #4)  
 Dec 23, 1944: Obersturmbannführer Peiper nearly killed at Ardennes (L1946 V2 #3)  
 Dec 24, 1944: Cpl. Morrow and SSgt. Stoner injured at Bastone (WW2 #7)  
 Jan 02, 1945: J.J. and Jennifer sees Vought F5U's first flight attempt (L1946 V2 #10)  
 Feb 14, 1945: Dora and Gus see Flugelrad IIB's first flight (L1946 V2 #10)  
 Apr 06, 1945: Yamato leaves Hiroshima Bay for Okinawa (WW2 #7)  
 Apr 07, 1945: Ens. Shiro Mikasa attacks USS Enterprise near Okinawa (ToT V1 #2)  
 Apr 29, 1945: J.J. and Norbert Pearl's converted P-40's attack Tokyo (WW2 #4)  
 Apr 30, 1945: Hitler wakes from dream, gives Hanna Reitsch JG-500 (L1946 V2 #9)  
 May 08, 1945: JG500 activated (WW2 #1)



May 10, 1945: Lt. King dies while flying captured Me-262 (*ToT V2 #19*)  
 May 13, 1945: Dora's Fw-190D meets Reimar's Me-262 (*L1946 V2 #1*)  
 May 15, 1945: Reimar teaches Dora with German P-51B (*L1946 V1 #1*)  
 May 27, 1945: Dora meets Maulidi for first time (*Der Adler #1*)  
 Jun 01, 1945: Oberst Amsel's "Göring" division activated (*L1946 V2 #9*)  
 Jun 22, 1945: Kate Soyuz sees Dora's photo in *Der Adler* (*WW2 #3*)  
 Jun 27, 1945: Maulidi gives blood to Dora after air combat (*WW2 #8*)  
 Aug 06, 1945: B-29 "Double Exposure" meets Japanese B-29 (*ToT V1 #12*)  
 Aug 15, 1945: Hitler views "unknown" craft at "Atlantis" base (*L1946 V1 #4*)  
 Aug 17, 1945: Japanese I-400 class launch of chemical attack over US fails (*L1946 V2 #5*)  
 Aug 27, 1945: Reimar's Me-262 and Dora's He-162 fight US P-47's (*ToT V1 #4*)  
 Sep 13, 1945: Major Nomura shows Gus the Tachikawa Ki-162 at Fussa (*L1946 V2 #1*)  
 Oct 31, 1945: Hitler watches *Projekt: Mars* film with Goebbels (*ToT V2 #8*)  
 Nov 13, 1945: Gus meets Dora at Tachikawa, Japan (*L1946 V2 #2*)  
 Nov 14, 1945: Reimar talks with Hartmann about joining JG8 at Leck (*L1946 V2 #3*)  
 Nov 15, 1945: Dora and Gus meets Major Kurusu at Fussa (*L1946 V2 #3*)  
 Nov 16, 1945: Dora teaches Goro Mikasa to fly Ki-262B (*L1946 v2 #3*)  
 Nov 30, 1945: Goro departs for Kyushu (*L1946 V2 #3*)  
 Dec 01, 1945: Goro crashes Ki-262 on his first Kamikaze mission (*L1946 V2 #3*)  
 Dec 04, 1945: Dora meets Goro for the last time (*L1946 V2 #3*)  
 Dec 07, 1945: Goro's Ki-262 destroyed over US fleet (*L1946 V2 #3*)  
 Dec 31, 1945: J.J. talks with Roosevelt. Germans invade Madagascar (*L1946 V2 #10*)  
 Jan 01, 1946: Bv238/Hs132 Mistel reaches "Atlantis" base (*L1946 V1 #1*)  
 Mar 01, 1946: Comrade Birdboy flies MiG-13 against Ju-88's (*WW2 #3*)  
 Mar 10, 1946: Dora makes secret maiden flight of Japanese Triebflügel (*WW2 #1*)  
 Mar 18, 1946: Dora and Gus fly off IMS Ryukaku on Stuka (*L1946 V2 #4*)  
 Mar 19, 1946: Hitler orders Himmler to stop suicide tactics (*L1946 V2 #4*)  
 Mar 21, 1946: Dora flies Ta-152T for carrier Europa over "Altmark" (*L1946 V1 #2*)  
 Mar 22, 1946: J.J. meets Roosevelt for USS Hunley activation (*L1946 V1 #2*)  
 Mar 23, 1946: U7007 and I-404 subs reach "Atlantis" base (*L1946 V1 #2*)  
 Mar 27, 1946: Hitler is informed of Allies' discovery of "X" Fleet (*L1946 V1 #2*)  
 Apr 01, 1946: Operation "Jupiter" begins, von Braun meets Hitler (*L1946 V1 #2&3*)  
 Apr 02, 1946: Carrier Hindenburg explodes, A9/A10/A11 rocket launch (*L1946 V1 #3*)  
 Apr 02, 1946: Jennifer Dare meets German bombers over US coast (*L1946 V1 #4*)  
 Apr 03, 1946: US & Soviet air forces launch major attack against Luftwaffe (*L1946 V2 #5*)  
 Apr 04, 1946: Hauptsturmführer Wagner shot down by Kate Soyuz (*L1946 V1 #4*)  
 Apr 06, 1946: Operation "Saturn" begins in Panama (*WW2 #5*)  
 Apr 07, 1946: Carrier Potsdam lost, J.J. recruits "X" Company (*WW2 #6*)  
 Apr 13, 1946: Dora and Gus return to Germany (*L1946 V2 #4*)  
 Apr 13, 1946: Mika's U800 is rescued by Japanese I-999 sub-carrier (*WW2 #7*)  
 Apr 15, 1946: USS Hunley returns to US (*L1946 V2 #4*)  
 Apr 17, 1946: J.J. meets Kate Soyuz at Archangel, USSR with B-36 (*WW2 #6*)  
 Apr 18, 1946: J.J.'s B-36 attacks saucer-bombers over Prague (*L1946 V2 #10*)  
 Apr 20, 1946: J.J. confronts Hitler at Prague (*L1946 V2 #10*)  
 Apr 21, 1946: Hitler views "Entity", Japan's "Iron Fortress" revealed (*L1946 V2 #11*)  
 Apr 27, 1946: Dora and Gus fly AS9/V2 over US (*L1946 V2 #11*)  
 Apr 29, 1946: Sgt. Morrow's X-Company rescues Amelia Earhart (*WW2 #7*)  
 Apr 30, 1946: Hitler sees Coanda saucer's first flight (*L1946 V2 #11*)  
 May 02, 1946: Reitsch's Focke-Wulf saucer nearly rams US M5 tank (*L1946 V2 #11*)  
 Jun 06, 1946: Emily Oberlicht born in Breslau, Silesia

Jun 13, 1946: Hitler sees first "time-disk" demonstration (WW2 #10)  
 Jun 27, 1946: Mika returns to "National Redoubt" to report to Himmler (L1946 V2 #11)  
 Jul 01, 1946: Warfortress Germania is launched (L1946 V2 #11)  
 Jul 02, 1946: US Fortress America is launched (L1946 V2 #11)  
 Jul 04, 1946: Himmler explodes A-bomb, Germania and America crash (L1946 V2 #12)  
 Jul 13, 1946: Gus makes first flight with Triebflügel (ToT V2 #2)  
 Aug 06, 1946: Three Tiger-III sonderpanzers challenge Soviet tanks (ToT V2 #11)  
 Aug 09, 1946: Jennifer Dare killed in action over Washington D.C. (WW2 #6)  
 Aug 15, 1946: Wolfgang Ritter introduces "Barriere" bomber to Oberst Adler (ToT V1 #10)  
 Aug 27, 1946: Hitler launches last attack against America, his double killed (L1946 V1 #4)  
 Aug 27, 1946: Dora says good-bye to Gus before her last sortie (L1946 V1 #4)  
 Aug 27, 1946: Reitsch flies "Barriere" bomber and dies in space (ToT V2 #8)  
 Oct 31, 1946: Joint German/Japanese "Mars" project-ship dissapears (WW2 #10)  
 Nov 07, 1946: The Montana-class USS Arizona meets IMS Musashi (ToT V2 #16)  
 Jul 02, 1947: Gus' Flugelrad III lands at Roswell, NM (L1946 V2 #12)  
 Oct 14, 1947: Capt. Yeager officially breaks sound barrier aboard Bell X-1 (L1946 V2 #7)  
 Aug 01, 1951: J.J. and Mika conduct joint mission over Tibet (WW2 #6)  
 Aug 09, 1951: J.J. shows young Jeannie Dare her mother's grave (WW2 #6)  
 Mar 25, 1958: Avro CF-105 Arrow II (RL25206) makes maiden flight (ToT V1 #8)  
 Oct 27, 1962: Colonel Joe "Comrade Birdboy" Soyuz encounters B-70's (ToT V1 #9)  
 Jan 27, 1967: Young Jehu Condorcet and Terry Mikasa plan moonship (ToT V2 #7)  
 Sep 14, 1968: Malcolm Maulidi meets Jeb Condorcet in Vietnam (ToT V2 #7)  
 Sep 14, 1968: Jehu reveals to Terry the Phoenix-1 rocket at Zaire (ToT V2 #7)  
 Sep 14, 1968: Emily Oberlicht shows recon photo to Col. Vought (ToT V2 #7)  
 Dec 20, 1968: Jehu, Terry and Jeannie Pearl make mock test on Phoenix-1 (ToT V2 #7)  
 Dec 21, 1968: US and USSR launch manned moonlanding ships (ToT V2 #7)  
 Dec 21, 1968: Phoenix-1 launches from Zaire (ToT V2 #7)  
 Dec 24, 1968: Three lunar landers successfully land on the Moon (ToT V2 #7)  
 Dec 24, 1968: Jed Condorcet dies in Vietnam (ToT V2 #7)  
 Feb 21, 1969: Martin Maulidi born in Watts, CA  
 Jul 20, 1979: Arthur Bulwark born in London, England  
 Aug 13, 1982: Mars-1 crew discovers German/Japanese "Mars" ship of 1946 (WW2 #10)  
 Oct 29, 1982: A-11 lands on USS Enterprise, encounters lost IMS Shinano (ToT V1 #9)  
 Aug 15, 1985: Major Maulidi and Colonel Soyuz fly F-117A's (ToT V1 #10)  
 Jan 27, 1990: Malcolm Maulidi leads first UN moonbase mission (ToT V2 #7)  
 Jan 27, 1991: Iraqi Su-27 and US F-117 encounter "Wurfscheibe-III" disc (ToT V2 #23)  
 Nov 10, 1991: Boris Konig born in Linz, Austria  
 Jun 04, 1994: LAPD officer Deanna Pearl chases "Lab 731" (ToT V2 #4)  
 Jun 11, 1994: USAFR Lt. Deanna Pearl's KC-135 encounters VZ-13 saucer (ToT V2 #5)  
 Sep 04, 1994: Valerie Konig meets C-9 Spindrift II crew (ToT V2 #6)  
 Aug 06, 1995: LAPD officer Hashim Maulidi killed by "Lab 731" (ToT V2 #13)  
 Aug 08, 1995: Deanna Pearl reassigned to Las Vegas MPD (ToT V2 #14)  
 Oct 31, 1995: J. Pearl and T. Mikasa meets Jehu Condorcet on Moonbase-X (ToT V2 #15)  
 Nov 06, 1995: Deanna Pearl meets MJ-5 "Designator" (ToT V2 #17)  
 Nov 07, 1995: Vatican's "Shadow Crusaders" activated (ToT V2 #22)  
 Aug 27, 1996: Gus Adler meets Deanna Pearl in Berlin (L1946 V1 #4)  
 Aug 30, 1996: Gus and Deanna meets Diana Spencer in London (L1946 V2 #12)  
 Dec 07, 1996: All-female carrier USS C. Weinberger reaches N. Africa (ToT V1 #5)  
 Jun 06, 1999: Boris Konig meets Amy Curtiss in Houston, TX (ToT V2 #3)  
 Aug 15, 2001: Russian "Nomad" shuttle discovers lost "Barriere" bomber (ToT V1 #10)

Jun 12, 2003: "Area 51" abandoned, Spindrift II goes missing (ToT V2 #6)  
 Aug 06, 2008: Jiro Mikasa born in Hiroshima, Japan  
 Jun 25, 2010: James Joseph Condorcet IV born in Austin, TX  
 Jul 21, 2010: Molly Macchi born in Apple Valley, CA  
 Feb 09, 2011: Noelani Pearl Vought born in Pearl City, HI  
 Sep 01, 2011: Jed Ritter born in Hannover, Germany  
 Aug 27, 2013: SS Arizona research spaceship discovers "Akuma 4" (ToT V2 #14)  
 Dec 24, 2013: Reina Siddeley born in Vancouver, Canada  
 Feb 12, 2015: Amani Maulidi born in Johannesburg, Republic of Africa  
 May 01, 2015: Katerina Irma Soyuz born in Kiev, Ukraine  
 Jun 04, 2017: Teresa Curtiss born in Monterey, CA  
 May 27, 2018: UN forces attack renegade Chinese ICBM base at Sheng-Ti (ToT V1 #6)  
 Aug 27, 2038: Lt. Jill Hawker of IVS listed missing flying Avro Arrow (ToT V1 #8)  
 Aug 27, 2039: New EVG Captain Noelani Pearl makes ace status (ToT V1 #1)  
 Aug 28, 2039: J.J. Condorcet IV arrives on EVG Jouett base (ToT V1 #2)  
 Aug 31, 2039: Reina and Jed leaves for ESS Princeton (ToT V1 #8)  
 Sep 01, 2039: Viragonians launch major attack against EVG (ToT V1 #8)  
 Sep 02, 2039: Reina Siddeley discovers the lost Bonaventure shuttle (ToT V1 #10)  
 Oct 02, 2039: Reina faces altered Jill Hawker in Viragonian guise. (ToT V2 #1)  
 Oct 02, 2039: Maj. Pearl recruits B.M. Wulf for recovery mission (ToT V2 #2)  
 Oct 04, 2039: Teresa "Terri" Curtiss brings Harley XLCR to "Chiang" base (ToT V2 #3)  
 Oct 07, 2039: Tycho-7 moonbase dedicates Phoenix-III landing site (ToT V2 #7)  
 Oct 14, 2039: Terran battleship Defiant blown-up by torpedoes (ToT V2 #9)  
 Oct 31, 2039: Jed Ritter and 2 kids return to EVG "Chiang" base (ToT V2 #9)  
 Apr 07, 2040: Space battleship ESS Arizona discovers SS Arizona's pod (ToT V2 #14)  
 Apr 08, 2040: Space destroyer ESS Glenville ambushed by Viragonian ships (ToT V2 #15)  
 Apr 10, 2040: 5 UEDF destroyers battle with 10 Viragonian ships (ToT V2 #17)  
 Apr 13, 2040: Viragonian Rocket Fleet withdraws from battle (ToT V2 #17)  
 Apr 14, 2040: J.J. Condorcet IV resigns from UEDF and joins CMSF (ToT V2 #17)  
 May 10, 2040: Viragonians launch major offensive against Terran Forces (ToT V2 #25)  
 Aug 06, 2045: Reina (MJ7) "Sabre" meets Athena (MJ6) and Hitler (MJ4) (ToT V2 #21)



## FAMILIES OF ALTERED WARS ISSUE LIST

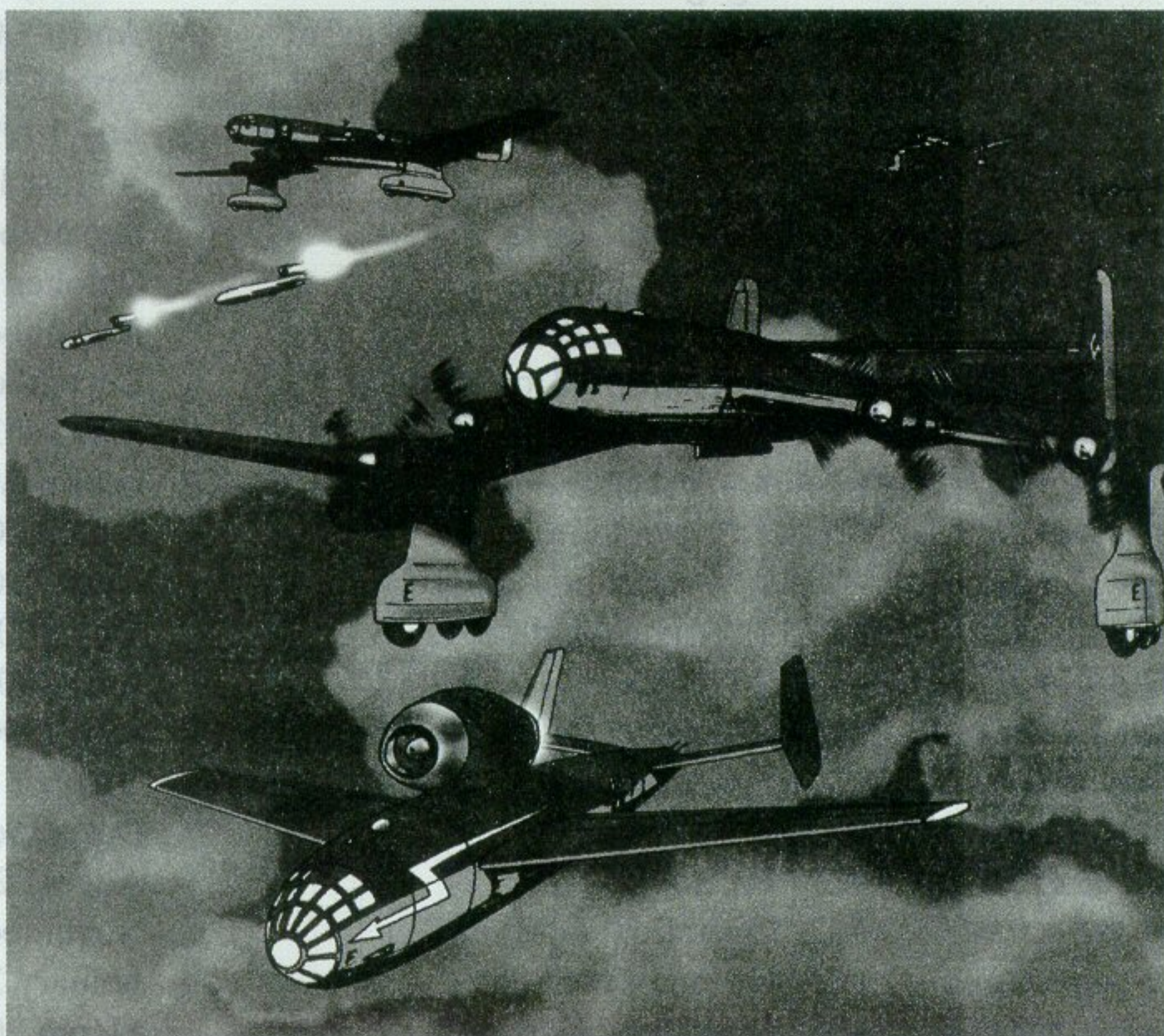
The following FoAW issue list was compiled for the benefit of dedicated readers who like to keep track of the complex story or who joined us late and would like to find out what issue contains what subjects. The list does not contain “specials” or other related items like the *Tech Manuals*. Issues starting from FoAW #74 (the new *Tigers of Terra* series) are projections as of January 2000 and are subject to change due to schedule changes and/or artist’s other commitments.

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FOAW #	Issue	Date
01	<i>Tigers of Terra</i> V1 #01 “The Flying Cosmotigers”	November 1986
02	<i>Tigers of Terra</i> V1 #02 “Perils of Survival”	April 1987
03	<i>Tigers of Terra</i> V1 #03 “Miscarriage of Life”	August 1987
04	<i>Tigers of Terra</i> V1 #04 “Reminiscence of Teamwork”	December 1987
05	<i>Tigers of Terra</i> V1 #05 “Time of Tensions”	April 1988
06	<i>Tigers of Terra</i> V1 #06 “Sorcery of Chaos”	August 1988
07	<i>Tigers of Terra</i> V1 #07 “Sky in Flames”	January 1989
08	<i>Tigers of Terra</i> V1 #08 “Unsettling Peace”	August 1989
09	<i>Tigers of Terra</i> V1 #09 “The Manifest Destiny”	April 1990
10	<i>Tigers of Terra</i> V1 #10 “Deception of Humanity”	December 1990
11	<i>Tigers of Terra</i> V1 #11 “Baptism of Fire”	April 1993
12	<i>Tigers of Terra</i> V1 #12 “Revising the Future”	July 1993
13	<i>Tigers of Terra</i> V2 #00 “Reflections”	August 1993
14	<i>Tigers of Terra</i> V2 #01 “The Cycle of Destinies”	November 1993
15	<i>Tigers of Terra</i> V2 #02 “Recovering the Past”	January 1994
16	<i>Tigers of Terra</i> V2 #03 “Promises to Keep”	February 1994
17	<i>Tigers of Terra</i> V2 #04 “Angels 750”	April 1994
18	<i>Tigers of Terra</i> V2 #05 “Ladies 750”	July 1994
19	<i>Tigers of Terra</i> V2 #06 “Valerie in Dreamland X”	September 1994
20	<i>Tigers of Terra</i> V2 #07 “Moonvision”	December 1994
21	<i>Tigers of Terra</i> V2 #08 “Projekt: Mars”	January 1995
22	<i>Tigers of Terra</i> V2 #09 “Tiger-III” Part 1	March 1995
23	<i>Tigers of Terra</i> V2 #10 “Tiger-III” Part 2	April 1995
24	<i>Tigers of Terra</i> V2 #11 “Tiger-III” Part 3	May 1995
25	<i>Tigers of Terra</i> V2 #12 “Tiger-III” Part 4	June 1995
26	<i>Tigers of Terra</i> V2 #13 “Angels 1000”	July 1995
27	<i>Tigers of Terra</i> V2 #14 “Battleship <u>Arizona</u> ” Part 1	August 1995
28	<i>Tigers of Terra</i> V2 #15 “Battleship <u>Arizona</u> ” Part 2	September 1995
29	<i>Tigers of Terra</i> V2 #16 “Battleship <u>Arizona</u> ” Part 3	October 1995
30	<i>Tigers of Terra</i> V2 #17 “Battleship <u>Arizona</u> ” Part 4	November 1995
31	<i>Tigers of Terra</i> V2 #18 “Dreidecker Wars”	January 1996
32	<i>Tigers of Terra</i> V2 #19 “Black Eagles of Steel”	February 1996
33	<i>Tigers of Terra</i> V2 #20 “Rabaul: 1942”	March 1996
34	<i>Tigers of Terra</i> V2 #21 “Trouble with Tigers” Part 1	May 1996
35	<i>Tigers of Terra</i> V2 #22 “Trouble with Tigers” Part 2	July 1996
36	<i>Tigers of Terra</i> V2 #23 “Trouble with Tigers” Part 3	September 1996

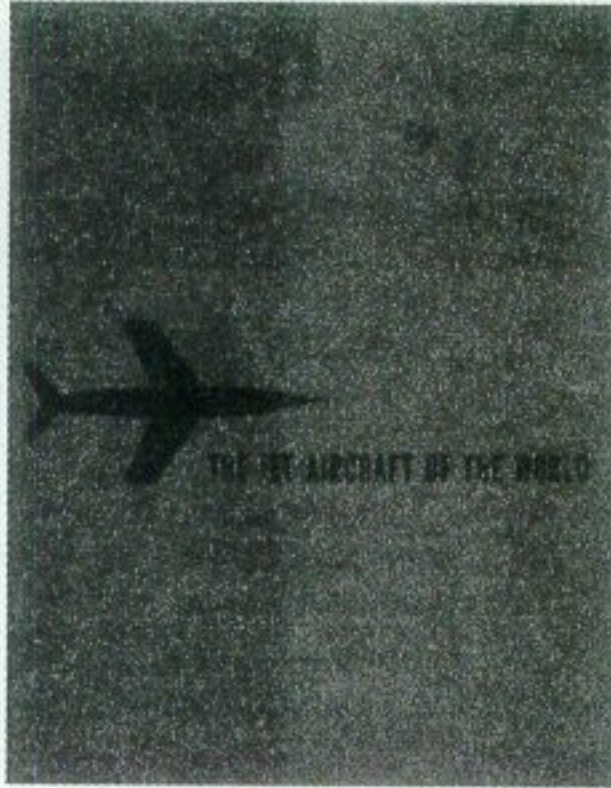
37	<i>Tigers of Terra</i> V2 #24 Prototype issue Special	November 1996
38	<i>Tigers of Terra</i> V2 #25 "Revelation"	January 1997
39	<i>Luftwaffe: 1946</i> V1 #01 "Fires of Faith"	July 1996
40	<i>Luftwaffe: 1946</i> V1 #02 "Clash of the Neptunes"	September 1996
41	<i>Luftwaffe: 1946</i> V1 #03 "Conquest of Space"	November 1996
42	<i>Luftwaffe: 1946</i> V1 #04 "Victory or Death"	January 1997
43	<i>Luftwaffe: 1946</i> V2 #01 "Luftsturm" Part 1	March 1997
44	<i>Luftwaffe: 1946</i> V2 #02 "Luftsturm" Part 2	April 1997
45	<i>Luftwaffe: 1946</i> V2 #03 "Luftsturm" Part 3	May 1997
46	<i>Luftwaffe: 1946</i> V2 #04 "Luftsturm" Part 4	July 1997
47	<i>Luftwaffe: 1946</i> V2 #05 "Luftsturm" Part 5	August 1997
48	<i>Luftwaffe: 1946</i> V2 #06 "Projekt: Saucer" Part 1	October 1997
49	<i>Luftwaffe: 1946</i> V2 #07 "Projekt: Saucer" Part 2	November 1997
50	<i>Luftwaffe: 1946</i> V2 #08 50th issue Special	January 1998
51	<i>Luftwaffe: 1946</i> V2 #09 "Projekt: Saucer" Part 3	April 1998
52	<i>Luftwaffe: 1946</i> V2 #10 "Projekt: Saucer" Part 4	May 1998
53	<i>Luftwaffe: 1946</i> V2 #11 "Projekt: Saucer" Part 5	June 1998
54	<i>Luftwaffe: 1946</i> V2 #12 "Projekt: Saucer" Part 6	July 1998
55	<i>Luftwaffe: 1946</i> V2 #13 "Jagdgeschwader: Wings of Fire"	August 1998
56	<i>Luftwaffe: 1946</i> V2 #14 "Jagdgeschwader: Flying Circus"	October 1998
57	<i>Luftwaffe: 1946</i> V2 #15 "Jagdgeschwader: Condor Legion"	February 1999
58	<i>Luftwaffe: 1946</i> V2 #16 "Jagdgeschwader: Blitzkrieg"	March 1999
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102	<i>Families of Altered Wars #102 "World War II: 1946 Part 1"</i>	February 2003



## PRODUCT REVIEW

Another installment of my favorite section, depicting books and comics that more or less influenced the development of the current *Luftwaffe/World War II:1946* series. Some are excellent resources, while others are included for similar features. One important thing: none of the books/comics featured in this Product Review section are for sale!



### BOOKS

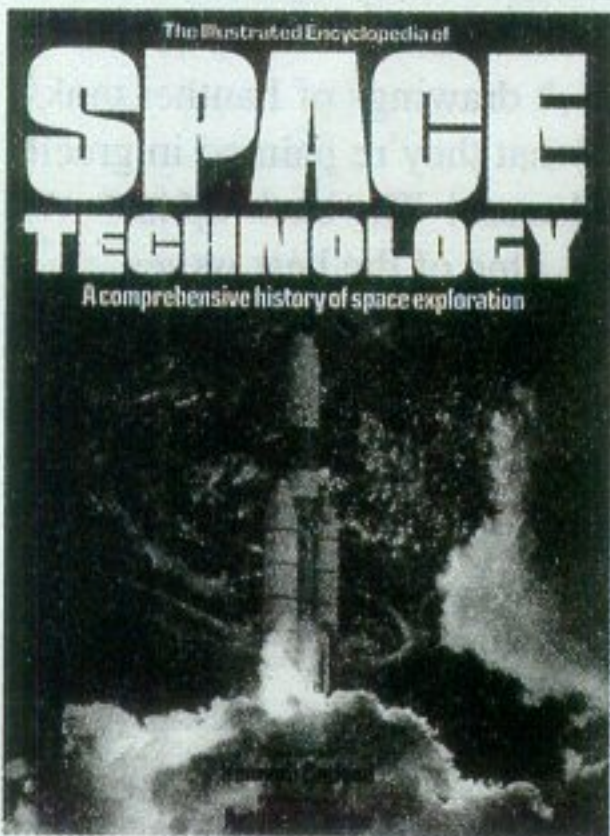
*The Jet Aircraft of the World*

by William Green and Roy Cross

Published by Hanover House

Book size: 11.5" x 8.75", 176 pages

Originally published in 1956, this book was purchased by the author in a used book store as a \$5.75 as-is item. The cover jacket, if there was any, was missing, but the interior is so rich in detail and information that this author considered this purchase to be one of his best buys. Extensive data on pre-war jet engine development is included, but the real gem is a large list of all jet-powered aircraft up to the late 1950s, complete with photos and data. An interesting note is that in this book, the MiG-15's Nato code-word is listed as "Falcon" in until it was later replaced by the more insulting name of "Fagot". An excellent book that this author still uses.



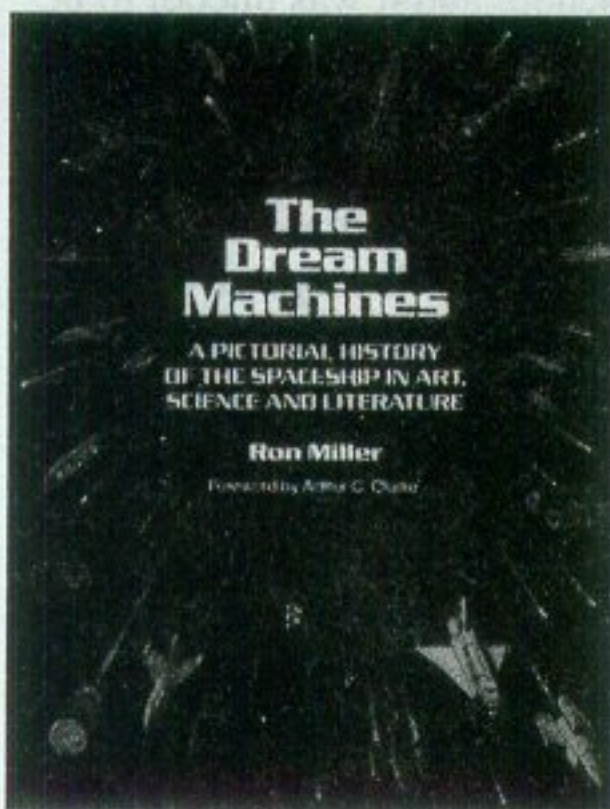
*The Illustrated Encyclopedia of Space Technology*

by Kenneth Gatland

Published by Harmony Books

Book size: 12" x 8.75", 290 pages

Published in 1981, this excellent book about the chronology of space travel is foreworded by space authoring pioneer Arthur C. Clarke himself. The book contains a massive amount of information, complete with colorful diagrams and drawings. Sections in this author's particular interest were the pre-war and A9/A10 rocket development and American and British early spaceflight studies. In addition, the then-secret Soviet "G-1" (now known by its correct designation of "N-1") moon rocket, the American 1981 Mars flight profile and interstellar ramjet propulsion are explained in detail. A bible for this author's *Tigers of Terra* series development.



*The Dream Machines*

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Published by Krieger Publishing Company

Book size: 11.25" x 8.6", 714 pages

This massive book cost this author over \$100! But if your interest is the entire known human chronology of space fantasy and travel, this book is for you. Incredibly well-researched, it contains a chronological list of all related events, starting from Biblical times to the present (1994). One interesting section is, of course, on World War II, in which lists of Allied and Axis advanced technology events are explained, including fantasy ones like the feared "Nazi space-mirror." It helped this author greatly in researching events in the far past and coming to the conclusion that our ancestors may have been far smarter (and maybe even more technologically advanced) than we're led to believe.

### BOOKLETS

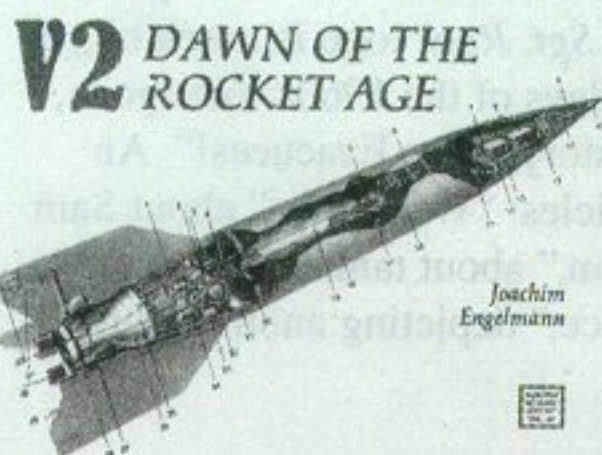
*V2: Dawn of the Rocket Age*

by Joachim Engelmann

Published by Schiffer Publishing Ltd.

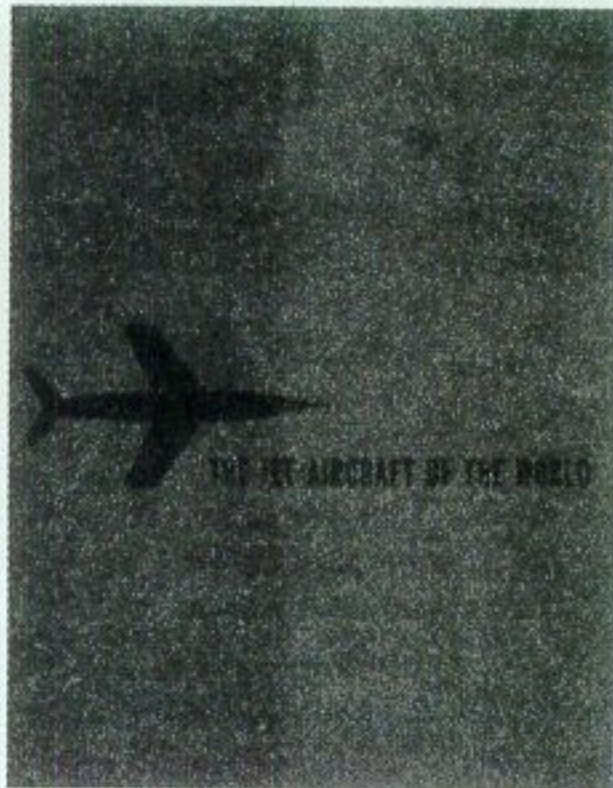
Book size: 8.1" x 11", 48 pages

Published in the popular "Squadron in Action" format, this booklet was originally published in Germany under the title *V2 Aufbruch zur Raumfahrt* in 1985. The English-language version has an excellent short story about the V-2's development, along with many pictures. A lot of maps and good diagrams of other types like the A5 and A3 are shown. The most interesting part (and one of the reasons why this author purchased this) is a short but good article covering the A9/A10 rocket, complete with diagrams, unsurpassed until Justo Miranda released his own dossier. A good buy.



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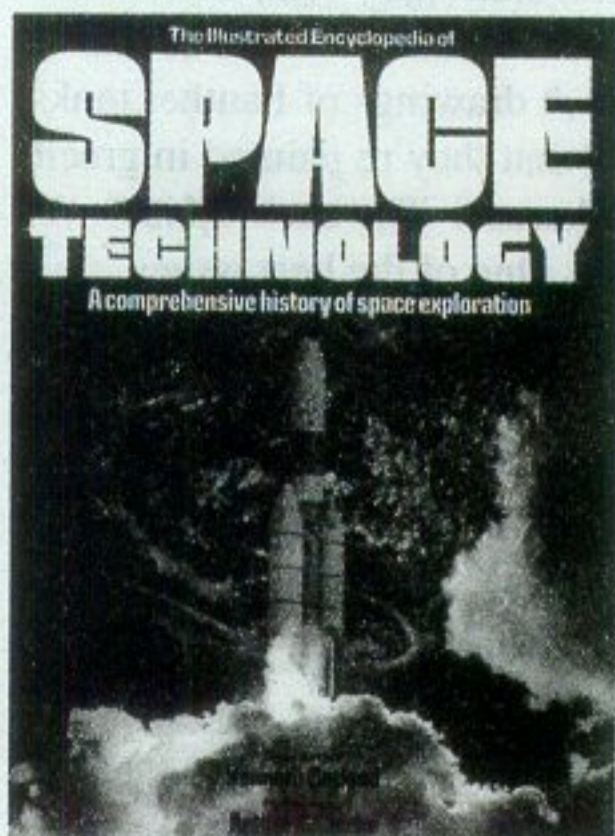
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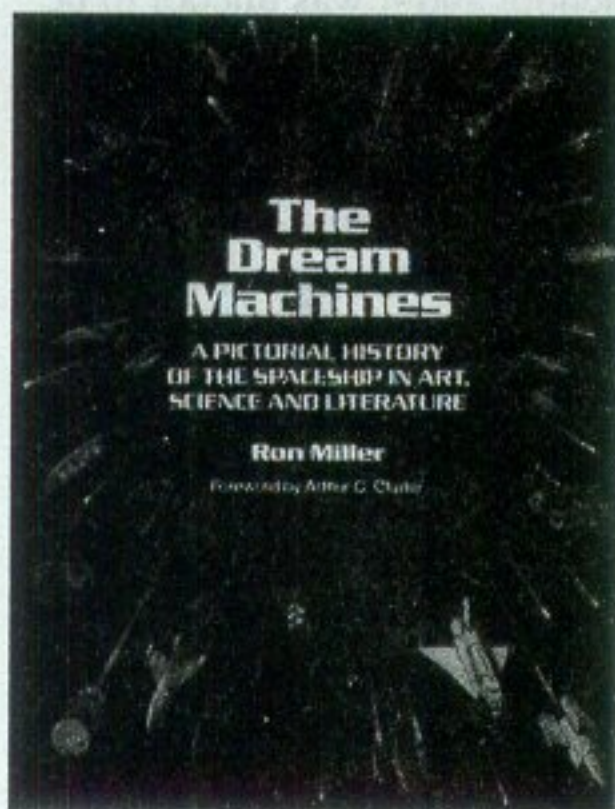
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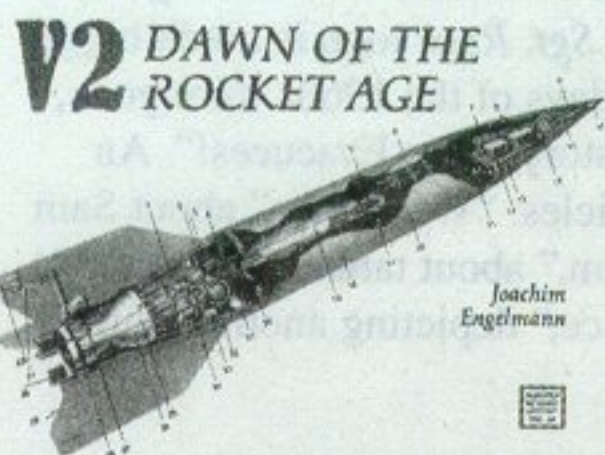
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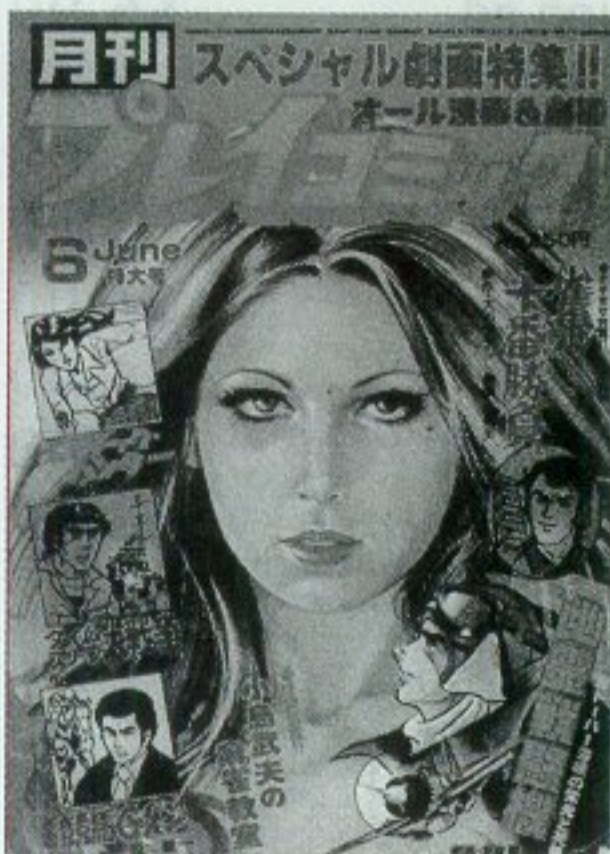
*G.I. Combat* #126 (November 1967)

DC's excellent *G.I. Combat* series was this author's favorite war comic during his childhood years, especially when it was drawn by Russ Heath. This issue was one of those. In the main story, entitled "Tank Umbrella," the crew of the little M3 Stuart "haunted" tank fights the desert heat and thirst while trying to find out what knocked out their companion M3. It turns out to be a squadron of desert Tiger tanks hidden under a cover. As usual, his drawings of the Fw190 (different from cover's Bf-109) and B-17 are expertly done. The back-up story, titled "Not Even the Dead Can Sleep" and drawn by Jack Abel, is a *Twilight Zone*-type tale about an unknown soldier protecting the son of an officer that was killed in World War I. A great story.



*War Heroes* #24 (May 1967)  
Published by Charlton Comics Group

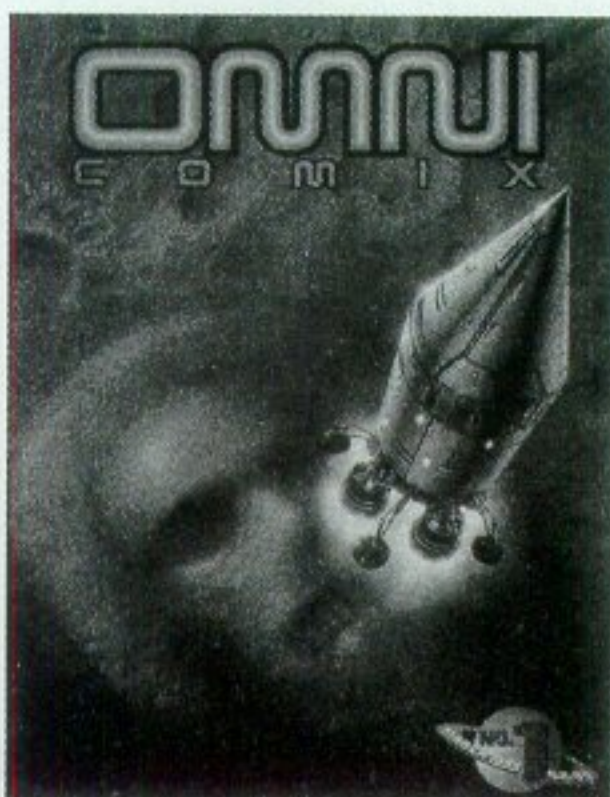
The cover reflects the Vietnam War that was going on and tries to explain why the Americans were burning villages. But the main attraction for this author is the first story, titled "Mighty Hunter," about an American F-86 fighter confronting Chinese MiG-15 and even MiG-17 fighters in the Korean skies. The uncredited artist drew superbly, at the same caliber as Russ Heath. Only the usual poor coloring and printing paper of that time period degrades this masterpiece. The second story, "The Enemies," is the usual WWII drama about a US sergeant trying to outsmart his German opponent. Then there's a 4-page WWI story called "Over There 1917," and finally the main feature, "Why", about a US soldier facing war protestors back home while trying to figure out his role in Vietnam.



*Playcomic Monthly* (June 1977)  
Published by Jumbo Comic

This monthly Japanese anthology comic book for adults has many interesting titles, from a female X-rated 007-type agent in "Erotic Hunter" to stories about a horse-racing gambler and a *go* player. But the two main interests for this author were "Time-Slip Daisensô" (Time-Slip Great War) and "Yûrei Sentôki" (Ghost Fighter). The first story is about a crisis due to an unexplained event that's transported the entire country of Japan back to 1941, where they face "aggressive" Americans and are forced to use the Japanese A-bomb. (Pretty much like the *Final Countdown* movie that came several years later, only in reverse.) The other one is about a Japanese Zero joining the Luftwaffe, competing against the Bf-109G.

*Omni Comix* #1 (March 1995)  
Published by Penthouse Publications



When this author found this book in the back-issue bins at the local comic book store, King Arthur's Comics (AP's earlier store, now succeeded by much bigger Excalibur) the cover alone was enough to get him to snatch it up, unaware that the publisher was Mr. Bob Guccione of *Penthouse* fame himself. However, the author found the interior was somewhat of a disappointment, as most of the stories were similarly to ones already included in the *Tigers of Terra* series that he was working on at the time. The first story, "High Guard," is about a secret moonrace (a similar story was done as a joke in *Tigers of Terra* V2 #7). The next is "Mission to Mars," about a secret expedition to the red planet (done in *Tigers of Terra* V2 #8). The back cover is an ad for a future story titled "Men in Black" (I used the Blues Brothers in my "Totenkopf Police" story, again as a joke). This author actually preferred the *Penthouse Comix* version that featured the "Space: 1939" story. Sex and Space Nazis, yeah! Anyway, as the Power that May Be, Mr. Guccione must have good connections, because the *Men in Black* movie was a hit and the new movie *Mission to Mars* looks great in previews. What we need is more 2001-type epics!

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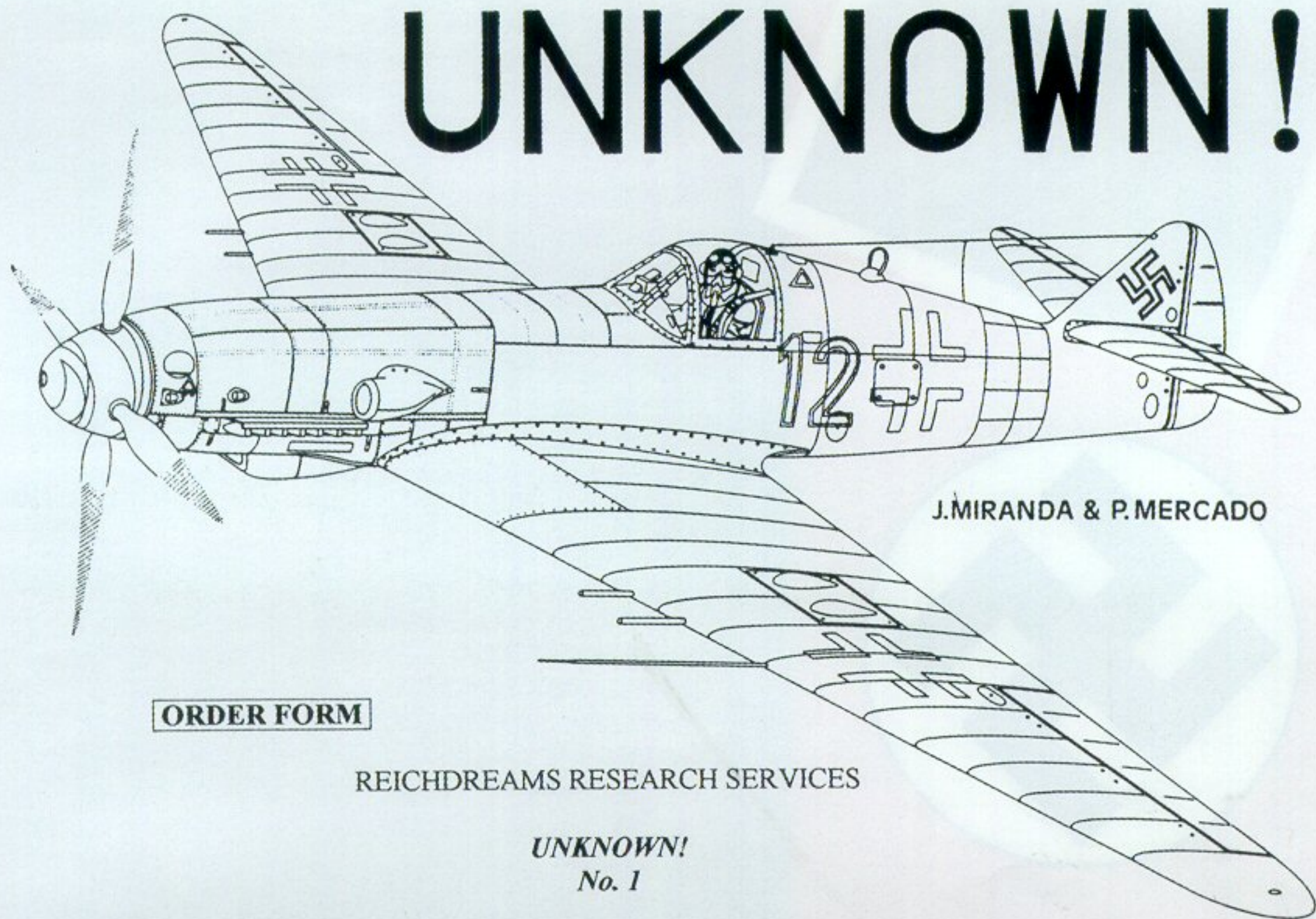
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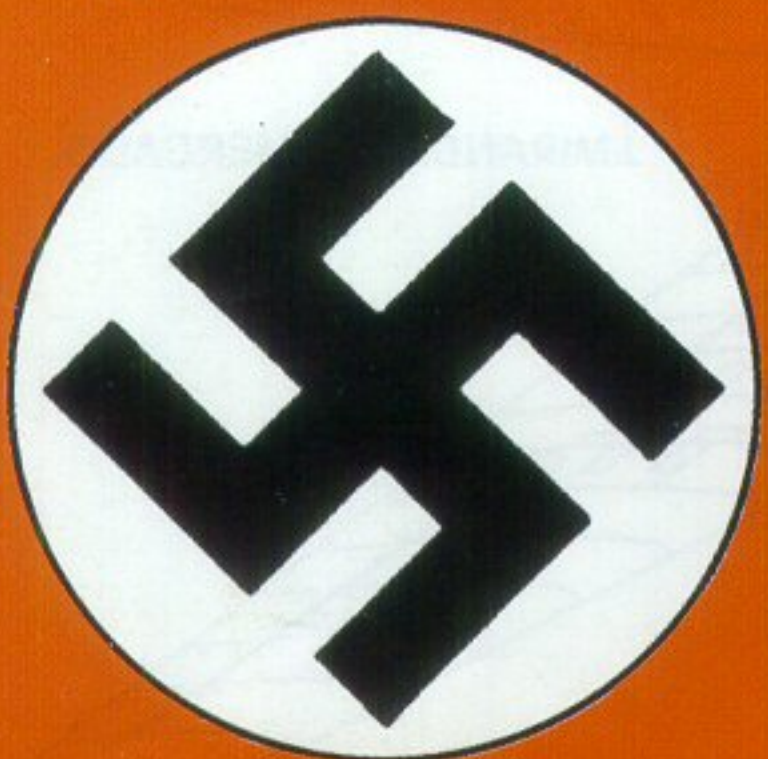
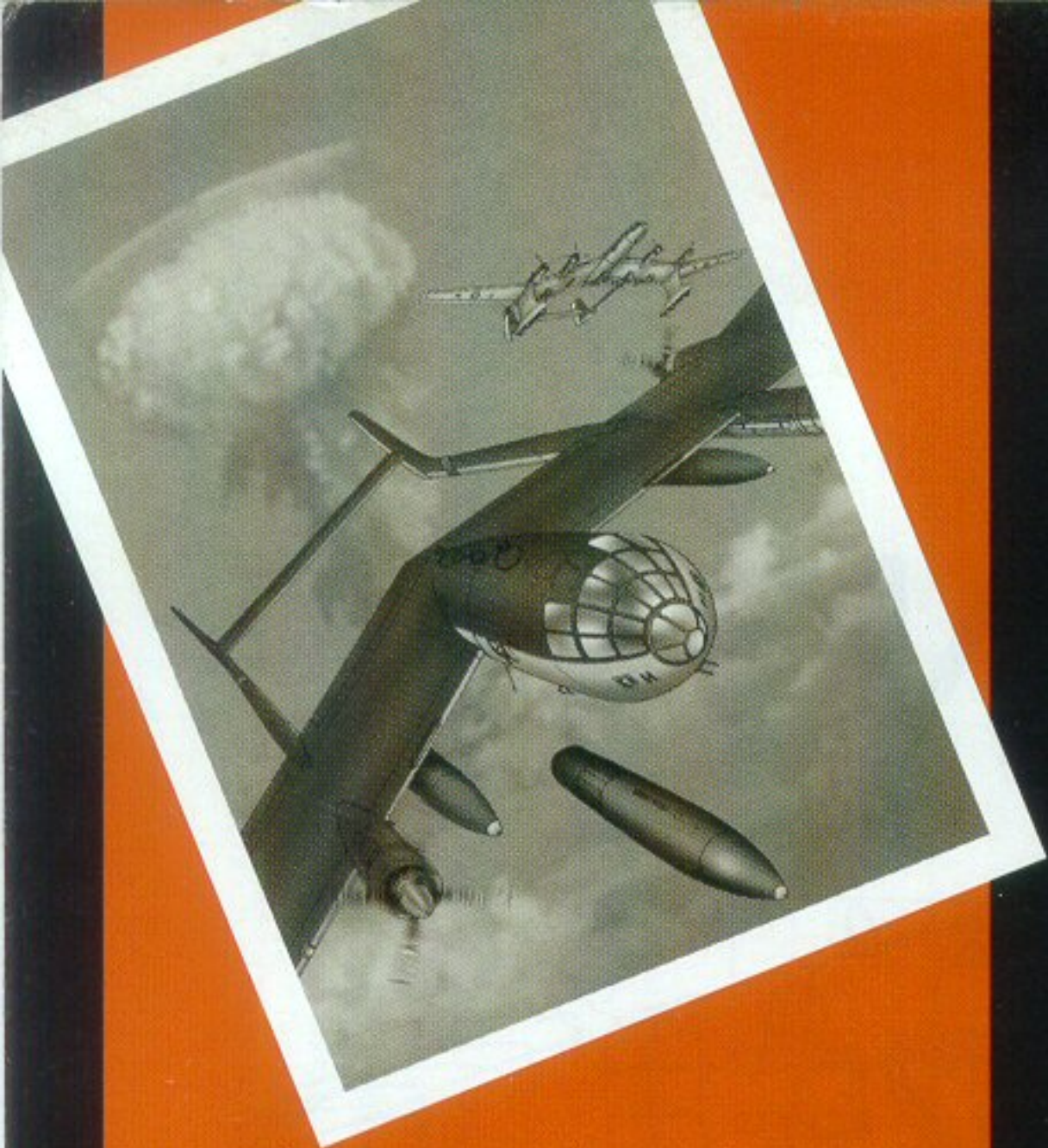
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The "Amerika bomber" was a contradiction in terms—the last place Hitler wanted to bomb was America!

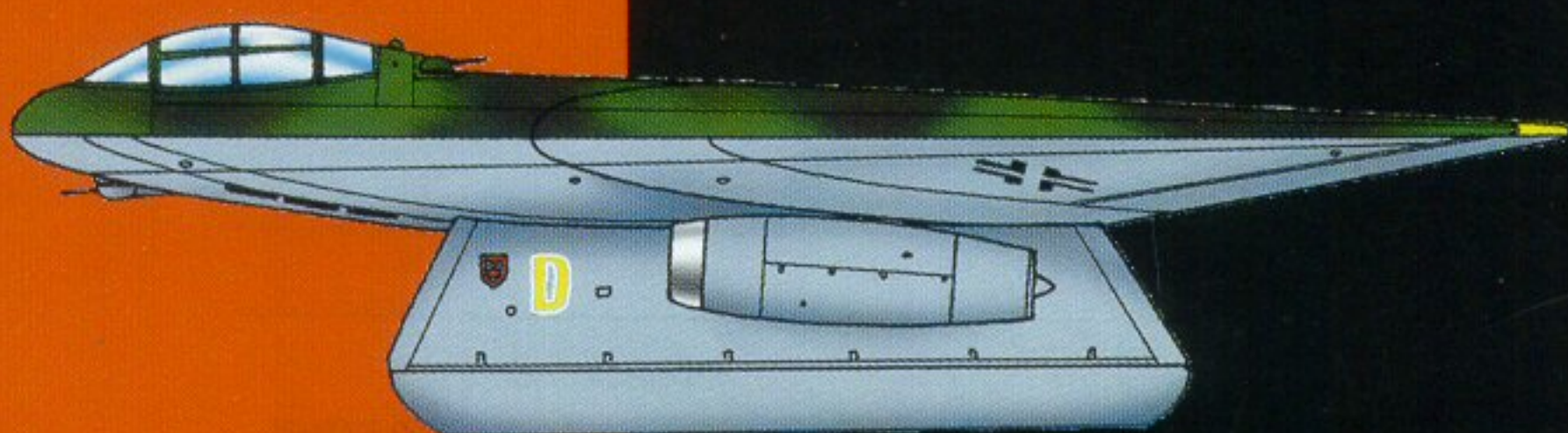
Before the Anglo-France alliance declared Hitler's invasion of Poland (half of which was taken by the Soviet Union shortly after) as the beginning of the Second World War, Hitler considered England and especially America as his biggest potential allies against Communism, a belief he held until it was too late.

While the concept of the "Ural bomber" was considered for those who read Hitler's *Mein Kampf* and knew his future intentions, it only became the "Amerika bomber" project after Hitler declared war against the United States in December 1941, five years earlier than he ever expected to confront even England!

His new global mission was totally against his earlier land-hopping campaign, and a long-range strategic force had to be created almost from a scratch. Advancement in German technology made it possible to be not totally reliant on a time-consuming bomber aircraft flight profile, while supersonic rockets and atmosphere-skipping configurations made it possible to bomb from outer space!

But the mad scramble to commit to total war in 1943 made it impossible to catch up with reality until the war was over. The world was thus spared from a space war in 1946.

As with the earlier issues of the *Luftwaffe: 1946 Technical Manual*, this fourth volume will include the usual well-researched and profiled data from the famous team of **Justo Miranda** and **Paula Mercado**, who have also provided materials for other aviation books and magazines all over the world. In addition, extra information is provided from **Ted Nomura** who created the first "World War II: 1946" stories in 1986, the *Luftwaffe: 1946* series in 1996 and the current, full-color *World War II: 1946* series in 1999, including the first-ever chronology of this alternate version of World War II.



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