

Ruhrstahl FX-1400 Fritz

Country: Germany

Service Entry Date: August, 1943

A/C Type: Radio-controlled Glide bomb
 Engine(s): None
 Eng. Pwr: None
 A/C Crew: Piloted by bombardier

Maximum Speed: 650 mph at Sea Level
 Maximum Ceiling: 22,200 ft.

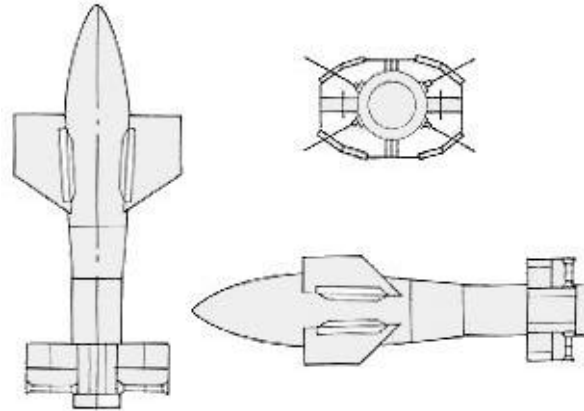
Defense factor: 7 Size Modifier: -1
 Damage Factor: 2/3 Endurance: --
 Dud Rate: 3 Guidance: RG/R

Protection: Cockpit +0 Fuel +0 Engine +0

Climb Decel/ Dive Accel: 5.0 / 1.5

Weight and Load Limit: None

Wpn Stations Weight Allowed Loads



Class: X

Victory Points: 2-4

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(8)	Min HT(-)	Min BT(-)	Min ET(-)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	--	--	--	--	31-36	VH	--
25-30	HI	--	--	--	--	--	--	--	25-30	HI	--
19-24	MH	5.0	7.0	15.5	9.5	--	--	--	19-24	MH	--
13-18	ML	5.0	7.0	15.5	9.0	--	--	--	13-18	ML	--
7-12	LO	5.0	7.0	15.5	8.5	--	--	--	7-12	LO	--
1-6	VL	5.0	7.0	15.0	8.0	--	--	--	1-6	VL	--

FLIGHT NOTES

Drop requirements: To drop, the parent aircraft minimum speed = 5.0. Max drop altitude: 22,200 (usually 19,000 ft).

Flight Profile: When dropped, the Fritz dives 300 feet the first turn; the parent aircraft climbs 300 feet to keep it in sight. Parent aircraft must keep the weapon in its front arc. Usually kept in shallow dive until close to target, then dove very steeply onto target. Going supersonic does not cause any issues for the weapon.

High Climb Decel: Fritz's wings were straight and did not provide lift.

Damage to weapon: Any critical hit to destroys the weapon as follows: 1-7 explodes; 8-10 out of control; remove from play.

If the Allies have jamming equipment available and use it successfully, the weapon goes out of control and is removed from play.

WEAPON DAMAGE

Wgt: 3100 lbs. Ld: 10.0 Sft/hd Att: 50/100

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	--	--	--	--	HI
19-24	MH	--	--	--	--	MH
13-18	ML	--	--	--	--	ML
7-12	LO	--	--	--	--	LO
1-6	VL	--	--	--	--	VL
Banking FPs		--	--	--	--	
Side Slip FPs		6	8	11	15	

NOTES AND VARIANTS

FX-1400 Fritz: Available August 1943. Guided glide bomb based on the warhead of a 500 kg. armor piercing bomb. Dropped from 18,000 ft height (maximum), it was guided to its target over a radio link by the bombardier, who must keep the bomb in sight, aided by a flare attached to the tail of the bomb. EZ transitions or turns only. Rolling not required for turning. Used against hard targets, like warships.

Criticals: Armor piercing warhead. Critical hits to naval targets are Internal criticals.

Parent Aircraft: Do217E-5, Do217K-2/3, He177A-5/R2

Henschel Hs293A

A/C Type: Anti-shipping RC Missile
 Engine(s): One Walter HWK 109-507B rocket
 Eng. Pwr: 600 kg rocket thrust
 A/C Crew: Radio-controlled by Bombadier

Maximum Speed: 450 mph at 13,120 ft
 Maximum Ceiling: 229500 ft./31,200 ft/26,000 ft

Defense factor: 8 Size Modifier: -1
 Damage Factor: 2/3 Endurance: --
 Dud Rate: 3 Guidance: RG/R

Protection: Cockpit +0 Fuel +0 Engine -1

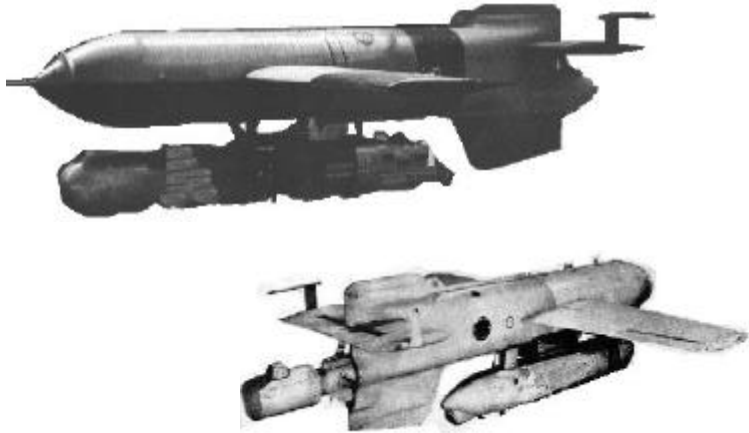
Climb Dece/ Dive Accel: 3.0 / 1.5

Weight and Load Limit: None

Wpn Stations Weight Allowed Loads

Country: Germany

Service Entry Date: August, 1943



Class: X

Victory Points: 2-4

AIRCRAFT PERFORMANCE CHART

Altitude		Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(7)	Min HT(9)	Min BT(-)	Min ET(-)	Altitude		Average Rate of Climb
Levels	Bands								Levels	Bands	
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	--	--	--	--	31-36	VH	--
25-30	HI	--	--	--	--	--	--	--	25-30	HI	--
19-24	MH	--	--	--	--	--	--	--	19-24	MH	--
13-18	ML	4.5	9.0	12.0	7.0	9.0	--	--	13-18	ML	--
7-12	LO	4.5	9.0	12.0	7.0	9.0	--	--	7-12	LO	--
1-6	VL	4.5	9.0	12.0	7.0	9.0	--	--	1-6	VL	--

FLIGHT NOTES

Drop Requirement: To drop, the parent aircraft minimum speed = 4.5.

Flight Profile: When dropped, the Hs293 dives 300 feet the first turn; the parent aircraft climbs 300 feet to keep it in sight. Weapons must be kept in the parent's front arc. 1st turn the engine supplies only half thrust (7 accel). For the next nine turns, the engine fires normally. On the 10th turn the engine shuts down.

On 5th turn after launch, +1 to turn numbers. After engine shuts down, +2 to turn numbers, +1 to bank and slip values.

Damage to weapon: Any engine, cockpit, or fuel critical hit to the missile destroys it as follows: 1-8 explodes; 8-10 out of control; remove from play. Treat other criticals normally. If the radio is destroyed, treat as jammed (see below).

If the Allies have jamming equipment available and use it successfully, the weapon goes out of control and is removed from play.

WEAPON DAMAGE

Wgt: 2300 lbs Ld:9.0 Sft/Hd Att: 80/50

POWER VERSUS SPEED CHART

		(per engine)				
Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	--	--	--	--	HI
19-24	MH	--	--	--	--	MH
13-18	ML	13	11	9	7	ML
7-12	LO	13	11	9	7	LO
1-6	VL	13	11	9	7	VL
Banking FPs		5	7	10	13	
Side Slip FPs		6	8	12	15	

NOTES AND VARIANTS

Hs293A: First guided missile used in combat. Used against allied naval and cargo vessels in the Bay of Biscay and the Med. Guided over radio link by the launching aircraft's bombardier, who tracked a flare on the tail of the missile. Allies soon learned to jam the signal. Used in 1945 over land in an attempt to destroy some bridges. About 2500 built.

Hs293B: Available October 1943. Wire-guided. Roll 1D10 each combat turn; on 1, the wire snaps. Can't be jammed. About 2590 built.

Hs293D: Guided by TV camera in the nose. Roll 1D10 each combat turn; on 1-2, the TV picture stops. About 200 built.

Criticals: Critical damage done to naval targets are Surface criticals.

Parent Aircraft: Do217K-2/K-3/M-3, He177A-5, FW200C-6/C-8

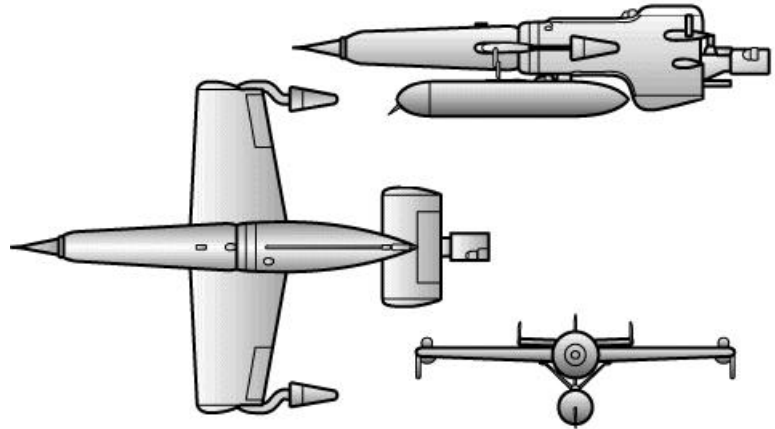
Henschel Hs294A

Country: Germany

Service Entry Date: Sep-44

A/C Type: rocket torpedo
 Engine(s): 2x Walter HWK 109-507D rockets
 Eng. Pwr: 1300 kg rocket thrust
 A/C Crew: Radio-controlled by Bombadier

Maximum Speed: 538 mph
 Maximum Ceiling: 20,100 ft. / 22,500 ft
 Defense factor: 8 Size Modifier: +0
 Damage Factor: 2/3 Endurance: 3
 Dud Rate: 4 Guidance: RG/R
 Protection: Cockpit +0 Fuel +0 Engine -1
 Climb Dece/ Dive Accel: 3.0 / 1.5
 Weight and Load Limit: None
 Wpn Stations Weight Allowed Loads



Class: X

Victory Points: 3-5

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(6)	Min HT(7)	Min BT(9)	Min ET(10)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	--	--	--	--	31-36	VH	--
25-30	HI	--	--	--	--	--	--	--	25-30	HI	--
19-24	MH	--	--	--	--	--	--	--	19-24	MH	--
13-18	ML	4.5	10.5	12.0	6.0	7.5	9.5	--	13-18	ML	--
7-12	LO	4.0	10.5	12.0	6.0	7.0	9.0	--	7-12	LO	--
1-6	VL	4.0	10.0	12.0	5.5	7.0	9.0	--	1-6	VL	--

FLIGHT NOTES

Drop Requirement: To drop, the parent aircraft minimum speed = 4.5.

Flight Profile: When dropped, the Hs294 dives 300 feet the first turn; the parent aircraft climbs 300 feet to keep it in sight. Weapons must be kept in the parent's front arc. 1st turn the engine supplies only half thrust (7 accel). For the next nine turns, the engine fires normally. On the 10th turn the engine shuts down.

Extremely good glider. Once engine is shut down, it can glide in level flight, losing 1 increment/turn, and incurring 2 decel (no decel if diving).

Damage to weapon: Any engine, cockpit, or fuel critical hit to the missile destroys it as follows: 1-8 explodes; 8-10 out of control; remove from play. Treat other criticals normally. If the radio is destroyed, treat as jammed (see below).

If the Allies have jamming equipment available and use it successfully, the weapon goes out of control and is removed from play.

WEAPON DAMAGE

Wgt: 4530 lbs Ld: 16.0 Sft/Hd Att: 100/80

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	--	--	--	--	HI
19-24	MH	--	--	--	--	MH
13-18	ML	--	--	--	--	ML
7-12	LO	13	11	9	7	LO
1-6	VL	13	11	9	7	VL
Banking FPs		4	5	7	9	
Side Slip FPs		5	6	9	13	

NOTES AND VARIANTS

Hs294: Available Sept-44. Air launched rocket. Glided toward target. When it hit the water, it launched a homing torpedo. Developed when need seen for Hs293 to strike below the water line. Few built: 40-80 Hs294A-0 (radio guided), 20 Hs294D (television/wireguided: roll 1D10 each combat turn; on 1-2, the TV picture stops).

Criticals: The missile strikes the vessel's torpedo protection. Critical hits to naval targets are Seaworthiness criticals.

Parent Aircraft: Do217K-2/K-3/M-3

Henschel Hs298A

A/C Type: Guided Air-to-Air Missile
 Engine(s): 1 Schmidding SG32 109-543 rkt
 Eng. Pwr: 150 kg rocket thrust
 A/C Crew: Radio-controlled by Pilot

Maximum Speed: 455 mph
 Maximum Ceiling: 40,000 ft

Defense factor: 8 Size Modifier: +0
 Damage Factor: 2/3 Endurance: 16 hex
 Dud Rate: 5 Guidance: RG/R

Protection: Cockpit +0 Fuel +0 Engine -1

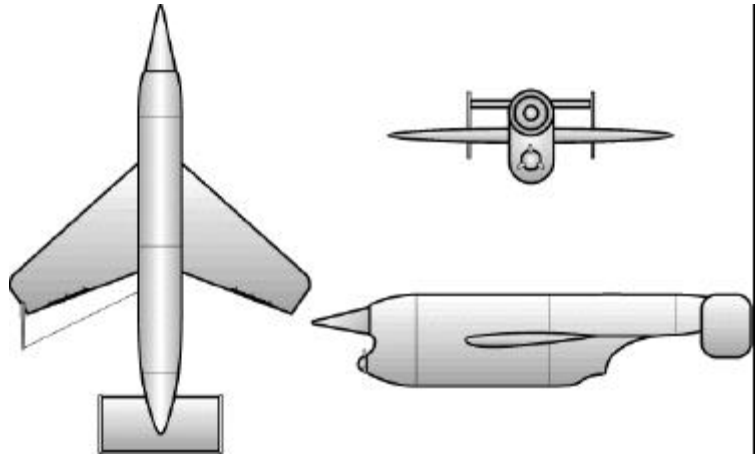
Climb Dece/ Dive Accel: 3.0 / 1.5

Weight and Load Limit: None

Wpn Stations Weight Allowed Loads

Country: Germany

Service Entry Date: planned May-45



Class: X

Victory Points: 1-2

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(5)	Min HT(6)	Min BT(7)	Min ET(8)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	--	--	--	--	31-36	VH	--
25-30	HI	--	--	--	--	--	--	--	25-30	HI	--
19-24	MH	--	--	--	--	--	--	--	19-24	MH	--
13-18	ML	4.5	9.0	12.0	6.0	7.5	9.5	--	13-18	ML	--
7-12	LO	4.0	9.0	12.0	6.0	7.0	9.0	--	7-12	LO	--
1-6	VL	4.0	9.0	12.0	4.0	5.0	6.0	7.0	1-6	VL	--

FLIGHT NOTES

Drop Requirement: To drop, the parent aircraft minimum speed = 4.0, in non-turning flight.

Flight profile: Accelerates up to launch speed +3.0 SP on launch. Guided by pilot to target. EZ or TT turns or transitions only. Parent aircraft must keep missile in front arc and within 1 attitude and can perform EZ turns or transitions only during flight, or the missile performs a random turn and a random transition. If it no target reached at the end of 16 hexes, it is removed from play.

Attack procedure: Must attack from rear arc. When the Hs298 flies into the same hex/altitude as a target, roll a die to determine the attack used (due to just when the proximity fuse goes off).

DR	Attack	
1-2	10-1	(-1 to die roll on the attack.)
3-6	6-1	(-1 to die roll on the attack.)
7-8	3-1	
9-10	Not detected. Missile continues to fly and may attack another aircraft.	

WEAPON DAMAGE

Wgt: 209 lbs Ld: 1.5 S/H Att: N/A

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	31	29	27	24	VH
25-30	HI	31	29	27	24	HI
19-24	MH	31	29	27	24	MH
13-18	ML	34	32	30	27	ML
7-12	LO	34	32	30	27	LO
1-6	VL	34	32	30	27	VL
Banking FPs		4	5	7	9	
Side Slip FPs		5	6	9	13	

NOTES AND VARIANTS

Hs298: Air-to-air missile still in development at the war's end. First flown 24-Dec-44. The pilot would guide the missile near the target; a proximity fuse would set off the 25 kg warhead. Used same radio controls as Hs293, so would have been jammed by sae equipment. 300 built for testing.

Kranich acoustical fuse: Activated on detecting bomber (aircraft) engine at 40 m (131 ft); delayed explosion to allow time to close to within 5 m (16 ft).

Test Aircraft: Ju88A, Ju88G, Ju388L, FW190A

Ruhrstahl X-4

A/C Type: Guided Air-to-Air Missile
 Engine(s): BMW 109-548 rocket
 Eng. Pwr: 1000 kg thrust
 A/C Crew: Pilot

Maximum Speed: 716 mph @21,325 ft
 Maximum Ceiling: 31,300 ft.

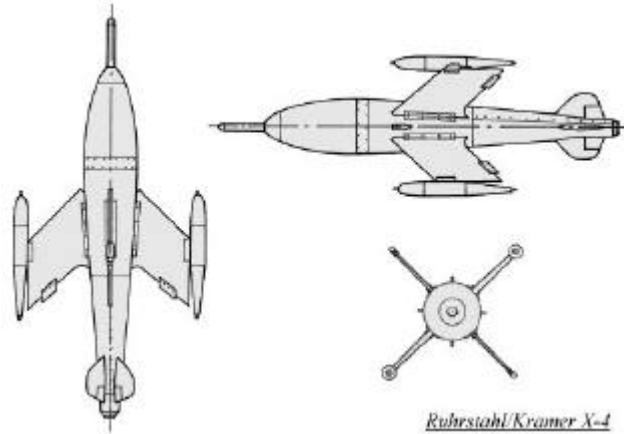
Defense factor: N/A Size Modifier: -3
 Damage Factor: N/A Endurance: 30 sec
 Dud Rate: 3 Guidance: RG/W

Protection: Cockpit +1 Fuel +0 Engine +0
 Climb Decel/ Dive Accel: 3.0 / 1.5
 Weight and Load Limit: N/A

Wpn Stations Weight Allowed Loads

Country: Germany

Service Entry Date: planned March 1945



Ruhrstahl/Kramer X-4

Class: F

Victory Points: 4-7

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(7)	Min HT(5)	Min BT(6)	Min ET(7)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	8.0	14.0	14.0	14.0	--	--	--	37-42	EH	--
31-36	VH	8.0	14.0	14.0	13.5	--	--	--	31-36	VH	--
25-30	HI	8.0	14.0	14.0	13.5	--	--	--	25-30	HI	--
19-24	MH	8.0	14.0	14.0	13.0	--	--	--	19-24	MH	--
13-18	ML	8.0	14.0	14.0	13.0	--	--	--	13-18	ML	--
7-12	LO	7.5	14.0	14.0	12.5	--	--	--	7-12	LO	--
1-6	VL	7.5	14.0	14.0	12.5	--	--	--	1-6	VL	--

FLIGHT NOTES

Drop Requirement: To drop, the parent aircraft minimum speed = 8.0, in non-turning flight.

Flight profile: Accelerates to 14.0 on launch. Guided by pilot to target. EZ or TT turns or transitions only. Parent aircraft must keep missile in front arc and within 1 attitude and can perform EZ turns or transitions only during flight, or the control wire breaks and the missile is removed. If no target reached at the end of 7 turns, it explodes.

Attack procedure: Must attack from rear arc. When the X-4 flies into the same hex/altitude as a target, roll a die to determine the attack used (due to just when the proximity fuse goes off). With the seeker, the missile flies straight for 11 hexes, then can turn toward aircraft within 11 hexes in its front arc. **Pudel seeker:** Seeker dud rate = 6. The parent aircraft is free to maneuver after launch.

DR	Attack
1-2	10-1
3-5	6-1
6-8	2-1
9-10	Not detected. Missile continues to fly.

WEAPON DAMAGE

Wgt: 132 lbs Ld: 1.0 S/H Att: N/A

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	55	53	51	49	EH
31-36	VH	4	1	--	--	VH
25-30	HI	6	3	--	--	HI
19-24	MH	7	4	1	--	MH
13-18	ML	7	4	1	--	ML
7-12	LO	8	5	--	--	LO
1-6	VL	8	5	--	--	VL
Banking FPs		2	3	4	5	
Side Slip FPs		3	5	7	9	

NOTES AND VARIANTS

Ruhrstahl X-4: Wire-guided air-to-air missile to be fired from single-engine fighters. The pilot guided the missile toward bombers with a joy stick. The X-4 had a proximity fuse that caused it to explode when it was near a target. If it reaches no target at the end of powered flight (7 turns), it explodes. Simple production. 1000-1300 airframes built by Jan-45 when BMW's factory was bombed, destroying all engines. Range: 1500m - 3500 m (.93 - 2.2 mi)

Kranich acoustical fuse: Activated on detecting bomber (aircraft) engine at 40 m (131 ft); delayed explosion to allow time to close to within 5 m (16 ft).

Pudel seeker: Under test was an acoustic seeker with a 1000m range that would kick in after 1000m (10 hexes) of flight. Seeker field: 112 degrees wide.

Parent Aircraft: P.1101, Ta183, Me262A-2, Do335, FW190 (test)

ETC-70/71 launch rack: Wgt: 30 lbs Ld: 0.5 holds 1 X-4

Fiesler FZG.76 V-1

A/C Type: Self-Guided missile
 Engine(s): Argus 109-014 impulse jet
 Eng. Pwr: 660 lbs Turbo-jet thrust
 A/C Crew: Gyro-guided auto pilot

Maximum Speed: 400 mph at 3000 ft
 Maximum Ceiling: 8,840 ft.

Defense factor: 8 Size Modifier: -1
 Damage Factor: 3/4 Endurance: 30
 Dud Rate: 1 Guidance: S (gyro)

Protection: Cockpit +0 Fuel +0 Engine -1

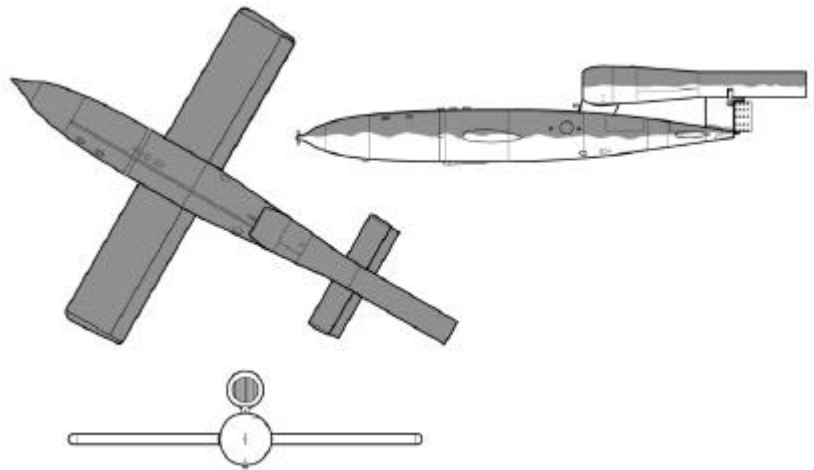
Climb Dece/ Dive Accel: 3.0 / 1.0

Weight and Load Limit: None

Wpn Stations Weight Allowed Loads

Country: Germany

Service Entry Date: May-44



Class: F

Victory Points: 3-5

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(7)	Min HT(-)	Min BT(-)	Min ET(-)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	--	--	--	--	--	--	--	31-36	VH	--
25-30	HI	--	--	--	--	--	--	--	25-30	HI	--
19-24	MH	--	--	--	--	--	--	--	19-24	MH	--
13-18	ML	--	--	--	--	--	--	--	13-18	ML	--
7-12	LO	4.0	8.0	12.0	--	--	--	--	7-12	LO	4,500
1-6	VL	4.0	8.0	11.5	--	--	--	--	1-6	VL	2,800

FLIGHT NOTES

Drop Requirement: Usually launched at about 1,500 ft from an He111H-22. The V-1 dives 300 ft the first turn of flight, then pulls out into a Shallow Dive.

Due to vulnerability of the parent aircraft, they fell in line directly behind the missile to produce one radar image, and then after a few minutes turned away (hopefully after any interested parties were paying attention to the missile).

Flight Profile: Once launched, the missile settled into its flight path (preslected by Gyroscope) and altitude (3-500 ft) and flies straight at its target, with no deviation.

Uses a shallow dive or climb to change altitude. EZ transitions or turns only. Missile accelerates to maximum speed.

WEAPON DAMAGE

Wgt: 4500 lbs. Ld:16.0 S/H Att: 80/50

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	--	--	--	--	HI
19-24	MH	--	--	--	--	MH
13-18	ML	--	--	--	--	ML
7-12	LO	5	3	1	--	LO
1-6	VL	5	3	1	--	VL
Banking FPs		4	6	8	11	
Side Slip FPs		6	8	10	13	

NOTES AND VARIANTS

V-1 Buzz bomb: The V-1 was a terror weapon used to try to bring the Allies to peace terms instead of total surrender. The V-1 used a gyroscope guidance system to fly straight along a preset course for a preset distance - then dove on the target. First used in the Spring of 1944, they bombarded London and other british cities. RAF Meteor jets (and other aircraft) defended against V-1s. In the fall of 1944, they were used against Antwerp in an attempt to close that advanced port to allied supplies.

After their initial launch sites in northeastern France and northern Belgium were destroyed or taken, V-1s were air-launched against England (usually at night) from the North Sea mounted on He111H-22s of KG53 based in Vielun, Holland. The last V-1s were air-launched in March, 1945.

Flew very steadily; very susceptible to AAA (-2 to AAA rolls against V-1s).

Bv246 Hagelkorn

Country: Germany

Service Entry Date: Nov. 1944

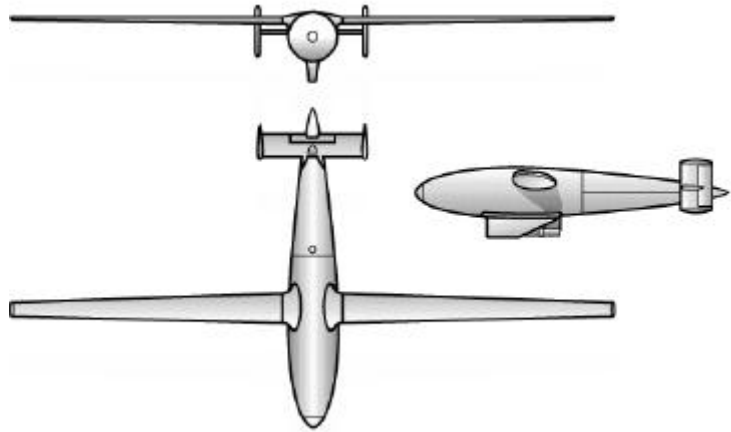
A/C Type: Air-to-Ground Guided Glider
 Engine(s): None
 Eng. Pwr: N/A
 A/C Crew: Self-Guided (Radar Homing)

Maximum Speed: 280 mph
 Maximum Ceiling: 32,810 ft.

Defense factor: 5 Size Modifier: -3
 Damage Factor: 1/2 Endurance: --
 Dud Rate: 5 Guidance: S/RH

Protection: Cockpit +1 Fuel +0 Engine +0
 Climb Decel/ Dive Accel: 3.0 / 1.5
 Weight and Load Limit: N/A

Wpn Stations Weight Allowed Loads



Class: F

Victory Points: 4-7

AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(7)	Min HT(-)	Min BT(-)	Min ET(-)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	2.5	4.0	5.5	--	--	--	--	31-36	VH	--
25-30	HI	2.5	4.0	5.5	--	--	--	--	25-30	HI	--
19-24	MH	2.5	4.0	5.5	--	--	--	--	19-24	MH	--
13-18	ML	2.0	3.5	5.5	--	--	--	--	13-18	ML	--
7-12	LO	2.0	3.5	5.5	--	--	--	--	7-12	LO	--
1-6	VL	2.0	3.5	5.5	--	--	--	--	1-6	VL	--

FLIGHT NOTES

Drop Requirement: To drop, the parent aircraft minimum speed = 2.0, in non-turning flight. The parent aircraft must detect an active (ground) radar source before launching.

Flight profile: Weapon flies level, heading toward the detected radar. Drops .1 alt per turn until target is more than 15 degrees vertical. then moves to steeper dive. Suffers no extra decel from gliding. Uses slides and skids for later movement only. Use the self-guided weapon rules to govern flight path and maneuvering.

Parent aircraft can climb or turn the turn after launch.

POWER VERSUS SPEED CHART

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	--	--	--	--	VH
25-30	HI	--	--	--	--	HI
19-24	MH	--	--	--	--	MH
13-18	ML	--	--	--	--	ML
7-12	LO	--	--	--	--	LO
1-6	VL	--	--	--	--	VL
Banking FPs		--	--	--	--	
Side Slip FPs		6	--	--	--	

WEAPON DAMAGE

Wgt: 1608 lbs. Ld: 7.0 S/H Att: 70/40

NOTES AND VARIANTS

Bv246 Hagelkorn (Hailstone): Self-guided glide bomb. First developed in 1943 as unguided ordinance with very efficient glide ratio. Wings of formed concrete around a steel core. Development was stopped after several experiments with different guidance systems due to the ease of British jamming advances. 1100 built by 1944 when production ended. Several dozen launched en masse against Soviets (to little avail).

A few fitted with a Radieschen (Radish) radar seeking sensor in early 1945. Of the 8 flight tests, 8 failed - but 2 hit within 2 m of their targets. This ADC assumes that more work was done on the seeker head.

Flew very steadily; very susceptible to AAA (-2 to AAA rolls against Bv246s).

Parent Aircraft: FW190A-6 (test), FW190F-8 (1), He111H-6 (3)