

BATTLETECH™

EXPERIMENTAL™
TECHNICAL
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Dear Readers,

Welcome to another special edition of *Modern Warrior*. This season, we bring you an educational look into the ancient history of armored warfare. No, this is not a look back at the halcyon days of the first Star League, or even the bloody chaos of the Age of War, but to a far more critical time in the history of warfare, when mankind had but one planet upon which to live, space travel was a fantasy, and it seemed the fate of the world rested in the hands of its greatest generations.

Let us go back in time to the 1940s, to the Second World War.

Historians to this very day still look to the twentieth century as perhaps the most critical time in our collective past. Technology was progressing at an ever-accelerating rate, armored warfare and air combat matured into their own, and great empires and ideologies vied for supremacy. Nowhere was this more apparent than in World War II, when virtually every industrialized nation was drawn into the conflict between the forces of fascism and the various states that opposed their tyranny. It was an age of great atrocities, long before the BattleMech. The first jet-powered aircraft and rockets arrived too late to tip the balance, but it would end with the first detonations of atomic weaponry ever devised.

The technologies you will see described in this edition pale in comparison to the modern designs seen today, but they were the cutting edge tools of war at the time, when many refinements were being learned only through desperate trial and error. Today, even the denizens of a modestly industrialized world can manufacture upgunned commercial vehicles that would not only outperform these tanks and fighters, but could last far longer with proper care.

But make no mistake: these were weapons of war, and the warriors who commanded them could use them to kill one another every bit as effectively as today's MechWarriors and aero-jocks. Millions of our ancestors perished at the hands of these war machines, in a time long before the thermographic-electromagnetic sensors, battle computers, and ambient electronic noise that characterizes today's battlefronts.

Read, enjoy, and reflect on what once was,

—Senior Editor Sean Tarkinton, *Modern Warrior Magazine*, Galatean Press, 11 February 3095

HOW TO USE THIS BOOK

The vehicles and aircraft described in *Technical Readout: 1945* provide players with a sampling of the most common or noteworthy designs employed in Terra's Second World War by the various Allied and Axis powers. The designs featured in this book reflect production-grade units, produced during the pre-spaceflight age, using the technology of the mid-twentieth century.

The rules for using vehicles and aircraft in *BattleTech* gameplay can be found in *Total Warfare*, while the basic rules used for constructing these units can be found in the Support Vehicles chapter of *TechManual*. However, the extremely primitive time covered by this volume has prompted the author to make use of certain special supplemental rules that are explained in a rules chapter at the back of this book, along with a listing of the common weapons of this era, and how they equate to the technologies presented in the "present" BattleTech timeline.

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STAR LEAGUE ERA



CLAN INVASION ERA



JIHAD ERA



SUCCESSION WARS ERA



CIVIL WAR ERA



DARK AGE ERA



TYPE 95 HA-GO

Classification: Light Tank

Primary Manufacturer: Mitsubishi Heavy Ind. (Japan)

Production Run: 1936-1943

Number Produced: 2,300 (approx.)

Weapon Analysis:

- 1x Type 98 37mm Cannon
- 2x Type 97 7.7mm Machine Gun

Overview

The Type 95 Ha-Gō was a light tank used by the Imperial Japanese Army in the Second Sino-Japanese War, Terra's Second World War, and in other combat actions against the Soviet Union. While suitable for use against hostile infantry, the Ha-Gō was largely outclassed by other tanks of the day. Nevertheless, Mitsubishi Heavy Industries and other Japanese companies produced roughly 2,300 of these units, which made the Type 95 the most common armored fighting vehicle used by the Japanese military at the time.

Notable Commanders

Toyosaku Shimada and Shiegeo Gotanda: During the 1942 Malayan campaign, Ha-Gōs from multiple Japanese regiments played a significant role in many of the key engagements. During the Battle of Slim River, for instance, a force of seventeen Chi-Has and three Ha-Gōs under the command of Major Toyosaku Shimada staged a daring night-time frontal assault that overwhelmed the Allied defenders.

Later in the same campaign, during the siege of Bakri in the Battle of Muar, Captain Shiegeo Gotanda—inspired by the tanks' success at Slim River—led an unsupported charge against an Allied position. Nine Type 95s spearheaded this attack. In this case, Gotanda's hubris got the better of him; all nine tanks were destroyed by a pair of Australian anti-tank guns.

Type: **Type 95 Ha-Gō**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 7.5 tons

Equipment	Mass	
Chassis:		2
Engine/Controls:	120 hp	2
Type	ICE	
Cruise MP:	2	
Flank MP:	3	
Heat Sinks:	0	0
Fuel:	250 km	0.05
Turret:		0.5
Armor Factor (BAR 5):	19	1.5
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	1	4
R/L Side:	1/1	4/4
Rear:	1	3
Turret:	1	4

Weapons and Ammo	Location	Slots	Tonnage
37 mm Gun	Turret	1	0.55
7.7mm Machine Gun	Turret (R)*	1	0.02
7.7mm Machine Gun	Front	1	0.02
Ammo (37mm) 80	Body	1	0.08
Ammo (7.7mm) 1,000	Body	0	0.04

Crew: 3

Cargo: 740 kg

Notes: *The 7.7mm Machine Gun in the Ha-Gō's turret always fires in the opposite direction of the turret's facing; Features Armored Chassis Modification; Features the following Design Quirks: Poor Performance, Obsolete/1950



EXPERIMENTAL

TYPE 97 CHI-HA

Classification: Medium Tank

Primary Manufacturer: Mitsubishi Heavy Ind. (Japan)

Production Run: 1938-1943

Number Produced: 2,100 (approx.)

Weapon Analysis:

- 1x Type 97 57mm Cannon
- 2x Type 97 7.7mm Machine Gun

Overview

Not to be confused with the vehicle that shared its name during the Age of War, the Type 97 Chi-Ha was a medium tank used by the Imperial Japanese Army in the Second Sino-Japanese War, Terra's Second World War, and in other combat actions against the Soviet Union. Designed to replace the Type 89 Chi-Ro, the Chi-Ha was effectively an upscaled version of the Ha-Gō light tank, with a larger frame, greater armor, and a larger engine (to maintain performance). Mitsubishi Heavy Industries and Hitachi Industries produced roughly 2,100 of these units before they were upgraded to the Kai variant (which swapped the main cannon with a 47mm gun). This made the Type 97 the most common armored fighting vehicle used by the Japanese military in this period.

Notable Commanders

Liao Yaoxiang: Liao was a general for the Republic of China during World War II, and played a role in several key battles in that conflict as commander of the New 22nd Division and the New 6th Army. In April of 1945, Liao earned the Order of the Blue Sky and White Sun after his New 6th Army defeated the Japanese at the Battle of West Hunan. After the war, Liao continued to serve the Republic until late 1948, when he was captured during the Liaoshen Campaign by forces from the People's Liberation Army during the Chinese Civil War. Chi-Has played a key part of that battle, which resulted in the fall of Manchuria, a vital step toward the ultimate victory of the communist movement.

Type: **Type 97 Chi-Ha**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 15 tons

Equipment

		Mass
Chassis:		5.5
Engine/Controls:	170 hp	3.5
Type	ICE	
Cruise MP:	2	
Flank MP:	3	
Heat Sinks:	0	0
Fuel:	210 km	0.08
Turret:		1
Armor Factor (BAR 5):	34	2.5
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	2	7
R/L Side:	2/2	7/7
Rear:	2	5
Turret:	2	8

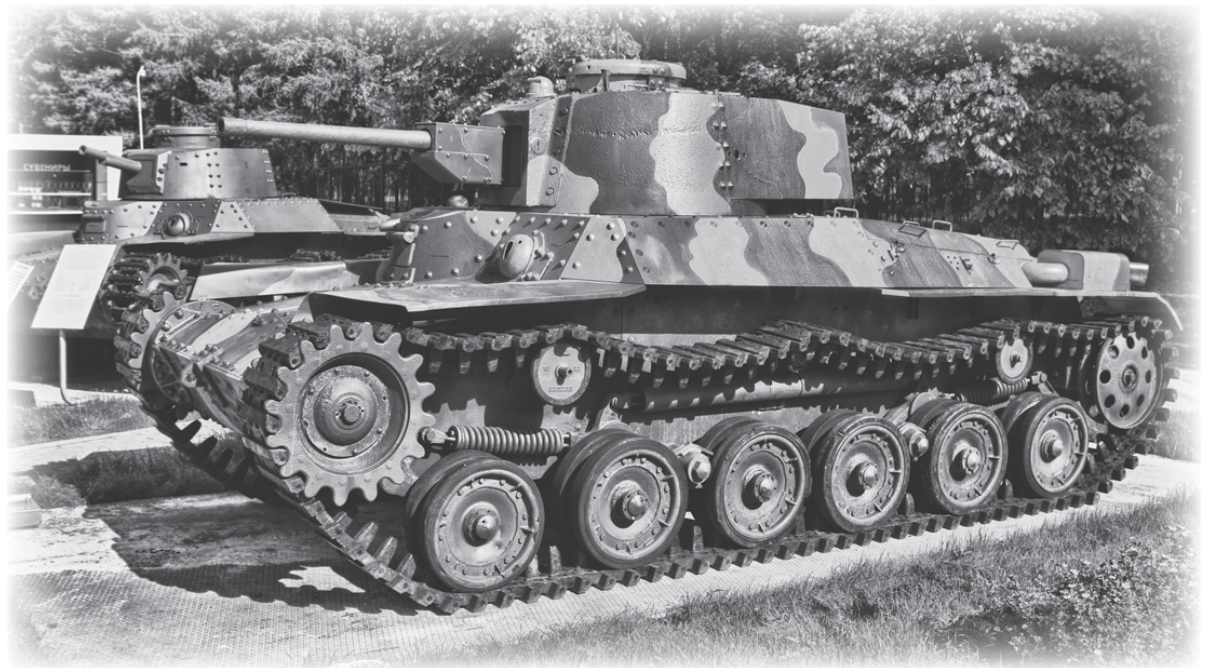
Weapons and Ammo

	Location	Slots	Tonnage
57mm Cannon	Turret	1	1.50
7.7mm Machine Gun	Turret (R)	1	0.02
7.7mm Machine Gun	Front	1	0.02
Ammo (57mm) 40	Body	1	0.08
Ammo (7.7mm) 1,000	Body	0	0.04

Crew: 4

Cargo: 780 kg

Notes: Features Armored and Tractor Chassis Modifications; Features the following Design Quirks: Low Profile, Poor Performance, Obsolete/1950



EXPERIMENTAL

T-70

Classification: Light Tank

Primary Manufacturer: Factory 37 (Soviet Union)

Production Run: 1942-1943

Number Produced: 8,200 (approx.)

Weapon Analysis:

1x Model 38 45mm Cannon

1x DT 7.62mm Machine Gun

Overview

The T-70 was a light tank used by the Red Army of the Soviet Union during Terra's Second World War. It was built to replace the T-60 scout tank as a reconnaissance vehicle and the T-50 for infantry support. Multiple Soviet factories produced roughly over 8,000 of these units across two years, making the T-70 one of the U.S.S.R.'s most common light combat vehicles. Though the dual-engine design proved troublesome, these vehicles remained in service for a few years after the war.

Type: **T-70 Light Tank**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 9.6 tons

Equipment

		Mass
Chassis:		3
Engine/Controls:	2 x 70 hp	3.5
Type	ICE	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	0	0
Fuel:	360 km	0.15
Turret:		0.5
Armor Factor (BAR 5):	23	1.5
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	1	5
R/L Side:	1/1	5/5
Rear:	1	4
Turret:	1	4

Weapons and Ammo

	Location	Slots	Tonnage
45mm Cannon	Turret	1	0.75
7.62mm Machine Gun	Turret	1	0.02
Ammo (45mm) 94	Body	1	0.15
Ammo (7.62mm) 750	Body	0	0.03

Crew: 2

Cargo: None

Notes: Features Armored Chassis Modification; Features the following Design Quirks: Poor Performance, Obsolete/1948



EXPERIMENTAL

T-34

Classification: Medium Tank

Primary Manufacturer: KhPZ Factory (Soviet Union)

Production Run: 1940-1958

Number Produced: 84,000 (approx.)

Weapon Analysis:

- 1x F-34 76.2mm Cannon
- 2x DT 7.62mm Machine Gun

Overview

The Soviet Union's T-34 medium tank, produced from 1940 to 1958, has often been described as the most effective, efficient and influential design of the Second World War. Even though its armor and armament were surpassed by later tanks of the era, Soviet manufacturers continued to refine this vehicle throughout the war, thus maintaining its battlefield relevance. Developed from the BT series of fast tanks, the T-34 was designed to replace the BT-5, BT-7, and T-26 tanks already in service, and—at the time of its debut—featured the best balance of firepower, mobility, protection, and durability.

First produced at the KhPZ factory in Ukraine, the T-34 became a mainstay of Soviet armored forces throughout World War II, and was widely exported afterwards. It was the most-produced tank of the conflict, and was the most-produced tank of all time until its successor, the T-54/55 series, was introduced in 1946. The sheer volume built all but ensured its continued survival long after newer technologies came to the fore; even in the closing years of the twentieth century, nearly thirty countries still employed T-34s in their armies.

Notable Commanders

Dmitry Fyodorovich Lavrinenko: Ukrainian-born Lavrinenko was a Soviet tank commander and the highest scoring tank ace of the Second World War, despite the fact that he was killed in 1941, when the war had scarcely started. Prior to his death, he took part in Soviet campaigns in Poland (1939) and Bessarabia (1940), but it was his destruction of some fifty-eight enemy tanks and self-propelled guns during Operation BARBAROSSA in 1941 that earned him his reputation and—posthumously—the Hero of the Soviet Union award.

Type: **Type 34 Medium Tank**
 Movement Type: Tracked (Medium)
 Equipment Rating: B/X-X-X/D
 Mass: 26 tons

Equipment		Mass
Chassis:		9.5
Engine/Controls:	500 hp	9
Type	ICE	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	0	0
Fuel:	400 km	0.36
Turret:		0.5
Armor Factor (BAR 5):	55	3.5
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	3	11
R/L Side:	3/3	10/10
Rear:	3	11
Turret:	3	13

Weapons and Ammo	Location	Slots	Tonnage
76.2mm Cannon	Turret	1	2.00
7.62mm Machine Gun	Turret	1	0.02
7.62mm Machine Gun	Front	1	0.02
Ammo (76.2mm) 20	Body	1	0.50
Ammo (7.62mm) 1,000	Body	0	0.04

Crew: 4

Cargo: 560 kg

Notes: Features Armored and Tractor Chassis Modifications; Features the following Design Quirks: Poor Workmanship, Obsolete/2015



EXPERIMENTAL

A15 CRUSADER MK III

Classification: Cruiser Tank

Primary Manufacturer: Nuffield Mechanization & Aero Ltd. (United Kingdom)

Production Run: 1940-1943

Number Produced: 5,300 (approx.)

Weapon Analysis:

1x ROQF "Six-Pounder" 57mm Cannon

1x Besa 7.9mm Machine Gun

Overview

The A15 Crusader was one of Great Britain's primary medium tanks during the early years of World War II, and was perhaps the most important British tank during their campaign in North Africa. The Crusader's mobility made it a favorite among British tank crews, and its powerful "six-pounder" main gun made it more than a match for the early Panzer III and IV model tanks that opposed it.

Despite these advantages, the Crusader was swiftly growing obsolete even as the war raged on. Earmarked for retirement, the only reason the Crusader remained on the front lines by late 1942 was because its designated replacements—including the A24 Cavalier and the A27 Cromwell—were delayed in production. By this time, many Crusaders were exhibiting overheating problems caused by the high desert temperatures. This, combined with the lack of armament upgrades and the rising presence of newer Tiger I tanks among the Germans' Afrika Korps, led to the A15 being phased out in favor of US-supplied Sherman medium tanks.

Type: **A15 Crusader Mk III**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 20 tons

Equipment

Chassis:		Mass	
Engine/Controls:	340 hp		7.5
Type	ICE		4.5
Cruise MP:	2		
Flank MP:	3		
Heat Sinks:	0		0
Fuel:	325 km		0.15
Turret:			0.5
Armor Factor (BAR 5):	44		3
	<i>Internal</i>	<i>Armor</i>	
	<i>Structure</i>	<i>Value</i>	
Front:	2		10
R/L Side:	2/2		8/8
Rear:	2		8
Turret:	2		10

Weapons and Ammo	Location	Slots	Tonnage
57mm Cannon	Turret	1	1.50
7.9mm Machine Gun	Turret	1	0.02
Ammo (57mm) 65	Body	1	0.13
Ammo (7.9mm) 5,000	Body	0	0.20

Crew: 3

Cargo: 2,500 kg

Notes: Features Armored and Tractor Chassis Modifications; Features the following Design Quirks: Obsolete/1945



EXPERIMENTAL

A12 MATILDA MK II

Classification: Infantry Tank

Primary Manufacturer: Vulcan Foundry (United Kingdom)

Production Run: 1937-1943

Number Produced: 3,000 (approx.)

Weapon Analysis:

1x Ordnance QF-2 "Two-Pounder" 40mm Cannon

1x Besa 7.9mm Machine Gun

Overview

The Matilda II was a British infantry tank used produced prior to and into the early years of the Second World War. Though this vehicle served from the start of the war to its end, it became particularly associated with the North Africa Campaign against German forces. Heavy armor for its size made the Matilda II an excellent infantry support unit, but as a result, its speed and armament were somewhat limited. This was not initially seen as a drawback due to early concepts of infantry-support tactics, but became clear in the desert terrain, where many such vehicles tended to bog down to speeds of only ten kph or less.

The Matilda II first saw combat in France, when the British army's Seventh Royal Tank Regiment opposed German forces there in 1940. Twenty-seven of the Seventh's tanks were Matilda IIs, while the rest of the British infantry tanks in the region were older A11 models. The Matilda IIs' two-pounder guns roughly matched the capabilities of other tank guns in the thirty-seven to forty-five millimeter range, and—due to the Matilda's thick armor—these vehicles proved largely immune to the German tank and anti-tank guns in play at the time. But any advantage this gave the Matilda IIs vanished when the Germans turned their eighty-eight millimeter anti-aircraft guns against these vehicles. During the counterattack at Arras, the British Matildas (I and II alike) managed to briefly disrupt German progress, but with minimal support, they were forced to fall back, with many crews abandoning their slow-moving Matildas around the city of Dunkirk.

Type: **A12 Matilda Mk II**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 25 tons

Equipment

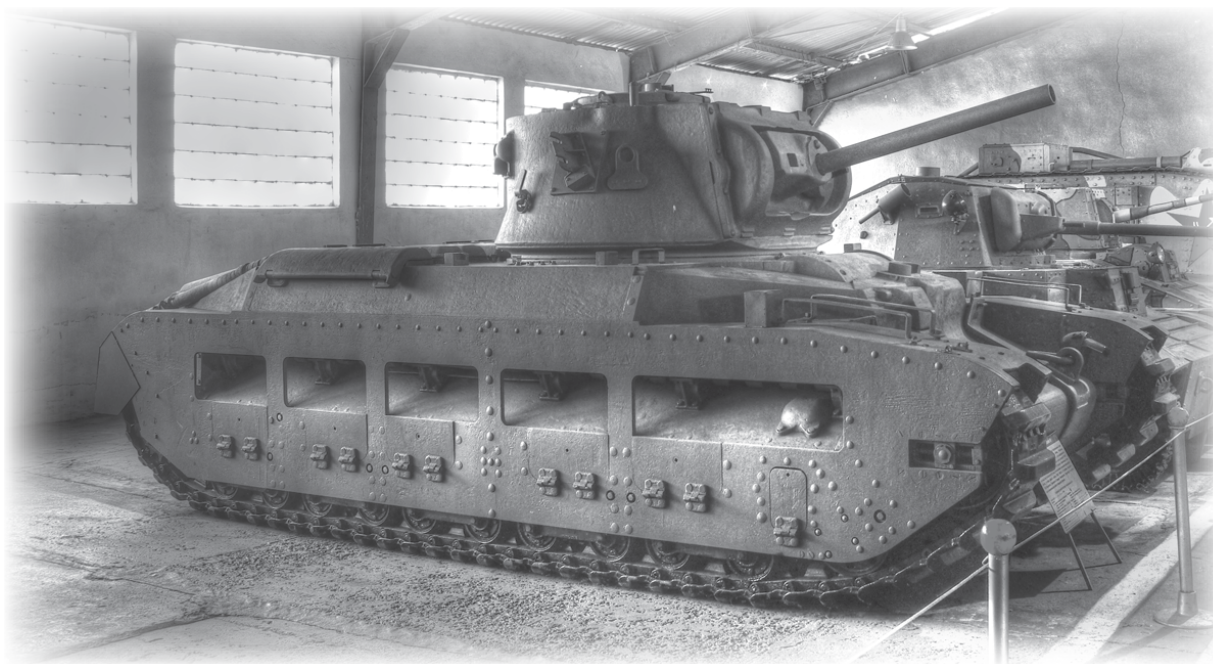
Chassis:		Mass	9
Engine/Controls:	2 x 95 hp		5.5
Type	ICE		
Cruise MP:	2		
Flank MP:	3		
Heat Sinks:	0		0
Fuel:	260 km		0.15
Turret:			0.5
Armor Factor (BAR 5):	54		3.5
	<i>Internal</i>	<i>Armor</i>	
	<i>Structure</i>	<i>Value</i>	
Front:	3		12
R/L Side:	3/3		10/10
Rear:	3		10
Turret:	3		12

Weapons and Ammo	Location	Slots	Tonnage
40mm Cannon	Turret	1	0.69
7.9mm Machine Gun	Turret	1	0.02
Ammo (40mm) 93	Body	1	0.14
Ammo (7.9mm) 2,600	Body	0	0.11

Crew: 4

Cargo: 5,390 kg

Notes: Features Armored and Tractor Chassis Modifications; Features the following Design Quirks: Difficult to Maintain, Obsolete/1945



EXPERIMENTAL

M3 STUART

Classification: Light Tank

Primary Manufacturer: American Car and Foundry Co. (United States)

Production Run: 1941-1945

Number Produced: 22,700 (approx.)

Weapon Analysis:

1x M6 37mm Cannon

3x Browning M1919A4 .30-06 Machine Gun

Overview

The M3 Stuart, was an American-made light tank introduced in World War II and supplied to British and other Allied forces under the "Lend-Lease Program" (an American effort to supply arms to nations opposing the Axis states, prior to the United States' formal entry into the war). The vehicle continued to see use throughout the war after the United States became involved, and the Stuart became the first American-crewed tank to engage an Axis tank in direct combat.

The M3 was named after General J.E.B. Stuart, a Confederacy commander from the American Civil War in the mid 1800s. This name—like many given to U.S.-made tanks at the time—was not bestowed by the vehicle's American manufacturers, but by the British who took it into battle first. Among the Americans, the Stuart was more commonly known simply as the M3 light tank or the M5 light tank. Reliable and well-liked by its crews, M3s remained in service long after the Second World War, and many nations continued to employ them well into the 1970s.

Type: **M3 Stuart**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 15 tons

Equipment

		Mass
Chassis:		5.5
Engine/Controls:	240 hp	5.5
Type	ICE	
Cruise MP:	3	
Flank MP:	5	
Heat Sinks:	0	0
Fuel:	120 km	0.07
Turret:		0.5
Armor Factor (BAR 5):	31	2
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	2	7
R/L Side:	2/2	6/6
Rear:	2	6
Turret:	2	6

Weapons and Ammo	Location	Slots	Tonnage
37mm Cannon	Turret	1	0.35
Dual .30-06 MG Mount	Turret	1	0.04
.30-06 Machine Gun	Front	1	0.02
Ammo (37mm) 174	Body	1	0.70
Ammo (.30-06) 7,500	Body	0	0.30

Crew: 4

Cargo: 20 kg

Notes: Features Armored and Tractor Chassis Modification; Features the following Design Quirks: Obsolete/1960



EXPERIMENTAL

M4 SHERMAN

Classification: Medium Tank

Primary Manufacturer: Lima Locomotive Works (United States)

Production Run: 1941-ca. 1945

Number Produced: 58,000 (approx.)

Weapon Analysis:

- 1x M3 L/40 75mm Cannon
- 1x Browning M2HB .50 Cal Machine Gun
- 2x Browning M1919A4 .30-06 Machine Gun

Overview

The M4 Sherman was the primary tank employed by the United States armed forces during World War II, and was widely distributed to the Allied powers via the Americans' "Lend-Lease Program", with the British and Soviets receiving a lion's share of them. This combat vehicle was named after General William Tecumseh Sherman, a Union commander in the American Civil War, following the British practice of naming their American-built tanks after American Civil War generals. The British name subsequently found its way into common use in the U.S., though the official American reporting name remained M4 medium tank throughout the war.

The Sherman evolved from the older Grant and Lee medium tanks (both classed as M3 mediums, as opposed to the M3 light tank that became known as the Stuart), but where those older tanks possessed an unusual side-sponson main gun, the Sherman received the first American main 75 mm cannon to be mounted on a fully traversing turret, a weapon that even featured a crude gyrostabilizer that allowed the crew to fire while on the move with reasonable accuracy. Stressing mechanical reliability, ease of production and maintenance, durability, and a standardization of parts and ammunition with a limited number of variants, the Sherman's designers produced a tank superior in some regards to the earlier German-made equivalents.

More than 50,000 M4s were manufactured throughout the 1940s, with many refinements and derivative models introduced along the way. This wartime output was exceeded only by the Soviet T-34. Even after the United States phased them out in 1955, Shermans continued to serve in armies around the world until the late 1970s.

Notable Commanders

Lafayette G. Pool: Pool was an American tank platoon commander in the Second World War, and was widely recognized as the United States' tank "ace of aces". Across twenty-one separate engagements during the war—all at the command of M4 Shermans—he scored twelve confirmed tank kills, plus an additional 258 total armored vehicle and self-propelled gun kills. During one mission, Pool lost his leg to a German artillery attack, but he returned to the Army in 1948 with a prosthetic, and went on to serve in the Korean War. He received many medals for his service, including the Distinguished Service Cross, the Legion of Merit, the Silver Star, the Purple Heart, the Fourragère, and the Légion d'honneur.

Type: **M4 Sherman**

Movement Type: Tracked (Medium)

Equipment Rating: C/X-X-X/D

Mass: 30 tons

Equipment		Mass	
Chassis:		11	
Engine/Controls:	400 hp	6.5	
Type	ICE		
Cruise MP:	2		
Flank MP:	3		
Heat Sinks:	0	0	
Fuel:	200 km	0.13	
Turret:		0.5	
Armor Factor (BAR 5):	64	4	
	<i>Internal Structure</i>	<i>Armor Value</i>	
Front:	3	14	
R/L Side:	3/3	12/12	
Rear:	3	12	
Turret:	3	14	

Weapons and Ammo	Location	Slots	Tonnage
75mm Cannon	Turret	1	3.00
.50 Cal Machine Gun	Turret	1	0.05
.30-06 Machine Gun	Turret	1	0.02
.30-06 Machine Gun	Front	1	0.02
Ammo (75mm) 90	Body	1	2.25
Ammo (.50 cal) 300	Body	0	0.02
Ammo (.30-06) 4,750	Body	0	0.19

Crew: 5

Cargo: 2,320

Notes: Features Armored and Tractor Chassis Modification; Features the following Design Quirks: Improved Accuracy/75mm Cannon, Poor Sealing, Obsolete/1978



EXPERIMENTAL

RENAULT R35

Classification: Light Tank

Primary Manufacturer: Renault (France)

Production Run: 1936-1940

Number Produced: 1,500 (approx.)

Weapon Analysis:

1x L/21 SA18 37mm Cannon

1x MAC31 Reibel 7.5mm Machine Gun

Overview

Designed from 1933 and produced from 1936, the French-made Renault R35 was intended as a light infantry support tank, allocated to individual infantry divisions to assist them in executing offensive operations. To this end, it was relatively well-armored for its size, but slow and noticeably lacking in solid anti-tank capability. At the outbreak of the war, the need for greater anti-armor weapons, in a desperate effort to stem the German advance, led to the development and eventual production of the R40, an enhanced R35 variant that would sport a longer, and more powerful gun. The French hoped to shift their manufacturing over to other, faster, tank models, but the nation's defeat in June of 1940 ended those ambitions, and the R35/40 remained the most numerous French tank of the war, with nearly 1,700 vehicles between the two types produced.

Many of these tanks found their way into the armies of Poland, Romania, Turkey, and Yugoslavia, while Germany and its Axis allies would field captured models—many of which were later rebuilt as tank destroyers.

Type: **Renault R35**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 10 tons

Equipment

Equipment		Mass
Chassis:		4
Engine/Controls:	85 hp	2.5
Type	ICE	
Cruise MP:	1	
Flank MP:	2	
Heat Sinks:	0	0
Fuel:	130 km	0.04
Turret:		0.5
Armor Factor (BAR 5):	25	2
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	1	6
R/L Side:	1/1	5/5
Rear:	1	4
Turret:	1	5

Weapons and Ammo

Weapons and Ammo	Location	Slots	Tonnage
37mm Cannon	Turret	1	0.35
7.5mm Machine Gun	Turret	1	0.02
Ammo (37mm) 100	Body	1	0.40
Ammo (7.5mm) 4,200	Body	0	0.17

Crew: 2

Cargo: 20 kg

Notes: Features Armored and Tractor Chassis Modification; Features the following Design Quirks: Obsolete/1951



EXPERIMENTAL

PANZER IV

Classification: Medium Tank

Primary Manufacturer: Krupp (Germany)

Production Run: 1936-1945

Number Produced: 8,800 (approx.)

Weapon Analysis:

1x KwK 40 L/48 7.5cm Cannon

2x Maschinengewehr 34 7.92mm Machine Gun

Overview

The *Panzerkampfwagen IV*—commonly known simply as the Panzer IV—was a prominent medium tank developed by Nazi Germany in the late 1930s and used extensively throughout World War II. Designed for infantry support, the Panzer IV was not originally intended to engage enemy armor (a function that was left to the lighter Panzer IIIs), but flaws in this pre-war doctrine become swiftly apparent soon after the start of hostilities. In the face of Soviet T-34s, Panzer IVs soon assumed the tank-fighting role of the increasingly obsolete IIIs, and became the most widely manufactured and deployed German tank of the Second World War. Thus, these vehicles were used as the basis for many other German fighting vehicles developed later, including the Sturmgeschütz IV assault gun, the Jagdpanzer IV tank destroyer, and the Wirbelwind self-propelled AA weapon.

Robust and reliable, the Panzer IV saw service in all of Germany's combat theaters, and had the distinction of being the only German tank to remain in continuous production throughout the war. Over 8,800 were produced between 1936 and 1945, with several upgrades and design modifications made in response to the appearance of newer Allied tanks. Many of these improvements involved increasing the Panzer IV's armor protection or upgrading its weapons—although the closing months of the war, and Germany's pressing need for more rapid replacements forced retrograde measures instead, to simplify and speed manufacture (in much the same way many Inner Sphere realms fell back on RetroTech during the Word of Blake Jihad).

The Panzer IV was the most widely exported tank in German service, with around 300 sold to partners such as Finland, Romania, Spain, and Bulgaria. Postwar, the French and Spanish governments sold dozens of Panzer IVs to Syria, where they saw combat in the 1967 Six-Day War.

Notable Commanders

Felix Martin Julius Steiner: Commander of the SS Division Wiking, the III (Germanic) SS Panzer Corps and eventually the 11th SS Panzer-Army, Steiner served Germany in both World War I and World War II. During the Battle for Berlin in 1945, Steiner found his command outnumbered ten to one by advancing Russian troops when he received orders from the Führer to advance and envelop the First Belorussian Front. It is said that, when Steiner reported that he was unable to do this due to his lack of forces, Hitler flew into a tearful rage and declared the war lost. Steiner himself lived to face the Nuremberg Trials for war crimes, but the charges against him were eventually dropped.

Type: **Panzer IV**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 25 tons

Equipment

		Mass
Chassis:		9
Engine/Controls:	296 hp	5.5
Type	ICE	
Cruise MP:	2	
Flank MP:	3	
Heat Sinks:	0	0
Fuel:	200 km	0.11
Turret:		0.5
Armor Factor (BAR 5):	54	3.5
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	3	12
R/L Side:	3/3	10/10
Rear:	3	10
Turret:	3	12

Weapons and Ammo	Location	Slots	Tonnage
75mm Cannon	Turret	1	3.00
7.92mm Machine Gun	Turret	1	0.02
7.92mm Machine Gun	Front	1	0.02
Ammo (75mm) 100	Body	1	2.50
Ammo (7.92mm) 5,000	Body	0	0.20

Crew: 5

Cargo: 650 kg

Notes: Features Armored and Tractor Chassis Modification; Features the following Design Quirks: Obsolete/1967



EXPERIMENTAL

TIGER I

Classification: Heavy Tank

Primary Manufacturer: Henschel (Germany)

Production Run: 1942-1944

Number Produced: 1,350 (approx.)

Weapon Analysis:

1x KwK 36 L/56 8.8cm Cannon

2x Maschinengewehr 34 7.92mm Machine Gun

Overview

Another of the tanks that became almost ubiquitous in Germany military formations, the Tiger I heavy tank was developed in 1942 and saw action for the remainder of the Second World War. Built as an answer to the unexpectedly formidable T-34 and KV-1 tanks encountered in the initial months of Germany's invasion of the Soviet Union, the Tiger I design gave the German armed forces their first tank-mounted 88-millimeter cannons dedicated to work against enemy armor. The powerful eighty-eights, previously employed to deliver anti-aircraft flak, had demonstrated their effectiveness against tank armor in numerous occasions. Thus, it was hoped that by bringing it into play as a main tank gun, the Tiger I would prove its worth against both air and ground targets. During the course of the war, Tigers saw combat on all German battlefronts, where they were commonly deployed in formidable independent tank battalions.

While the Tiger I was feared by many of its opponents, it was over-engineered. Expensive, labor-intensive materials and production methods made it exceptionally pricey and time-consuming to produce. Only 1,347 were built between August 1942 and August 1944 because of this. Worse, the Tiger was prone to certain types of track failures and immobilizations, and limited in range by its huge fuel consumption. Though generally mechanically reliable, it proved expensive to maintain, and complicated to transport. Winter weather conditions also affected these vehicles worse than others, as mud, ice and snow tended to freeze between the tank's overlapping, interleaved road wheels, often jamming them solid. In 1944, production was phased out in favor of the improved Tiger II.

Notable Commanders

Michael "the Black Baron" Wittmann: As a German tank commander during World War II, Wittmann rose to the rank of captain and was awarded the Knight's Cross of the Iron Cross for his actions during the Battle of Villers-Bocage. It was in that battle that Wittmann's tank was among the German forces that ambushed Allied positions and Wittmann was himself was credited with more than a dozen kills of enemy armor in less than fifteen minutes. At the time of his death, the "Black Baron's" score included 138 tanks, 132 anti-tank guns, and an unknown number of other armored vehicles, making him one of Germany's top scoring panzer aces.

Yet as impressive as his kill list was, Wittmann was a reckless tactical commander, who preferred to lead from the front. This led to his eventual demise against Anglo-Canadian forces near the town of Saint Aignan de Crammesnil in 1944. There, the Black Baron and his force of seven Tigers were caught in an armor ambush, but numerous conflicting stories emerged over exactly who scored the killing shot.

Type: **Tiger I**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 57 tons

Equipment

Equipment		Mass
Chassis:		29.5
Engine/Controls:	690 hp	12
Type	ICE	
Cruise MP:	2	
Flank MP:	3	
Heat Sinks:	0	0
Fuel:	195 km	0.25
Turret:		0.5
Armor Factor (BAR 5):	118	7.5
	<i>Internal Structure</i>	<i>Armor Value</i>
Front:	6	25
R/L Side:	6/6	24/24
Rear:	6	18
Turret:	6	27

Weapons and Ammo

Weapons and Ammo	Location	Slots	Tonnage
8.8cm Cannon	Turret	1	4.00
7.92mm Machine Gun	Turret	1	0.02
7.92mm Machine Gun	Front	1	0.02
Ammo (8.8cm) 120	Body	1	3.00
Ammo (7.92mm) 4,800	Body	0	0.19

Crew: 5

Cargo: 20 kg

Notes: Features Amphibious and Armored Chassis Modifications; Features the following Design Quirks: Difficult to Maintain, Gas Hog, Obsolete/1951



EXPERIMENTAL

SEMOVENTE 78/18

Classification: Self-Propelled Gun

Primary Manufacturer: Fiat Ansaldo (Italy)

Production Run: 1942-1943

Number Produced: 760 (approx.)

Weapon Analysis:

1x Obice da 75/18 modello 34 75mm Cannon

1x Breda Model 38 8mm Machine Gun

Overview

The Semovente 75/18 was a self-propelled gun (SPG) unit built for use by the Italian armored forces in World War II. Its design was particularly inspired by the German-made Sturmgeschütz III, and its chassis was derived from the Italian-made M13/40 and M14/41 medium tanks. While intended to be an interim vehicle, pending the debut of the heavier Carro Armato P40 tank, but Italy's fall to the Allied powers came before the later vehicle could fully supplant the Semovente model.

Semovente 75/18s were widely deployed in the North African campaign, and used in defense against the Allied invasion of Sicily, often backed up by M13/40 tanks for additional firepower. In North Africa, they proved quite effective against the American-made M3 Grant and M4 Sherman tanks, and their fully enclosed design (versus open-hull artillery platforms) made them deployable as front-line units.

Nevertheless, the Semovente had its flaws. In addition to the lack of a turret (a common feature among SPGs in that era, its main gun had a lower-than-average muzzle velocity, which impaired its effectiveness at long range. In addition, its forty-four round magazine was considered quite limited in extended actions, often forcing the Italians to deploy armored munitions transports just to keep vehicles like the Semovente adequately supplied.

Type: **Semovente 78/18**

Movement Type: Tracked (Medium)

Equipment Rating: B/X-X-X/D

Mass: 14.4 tons

Equipment

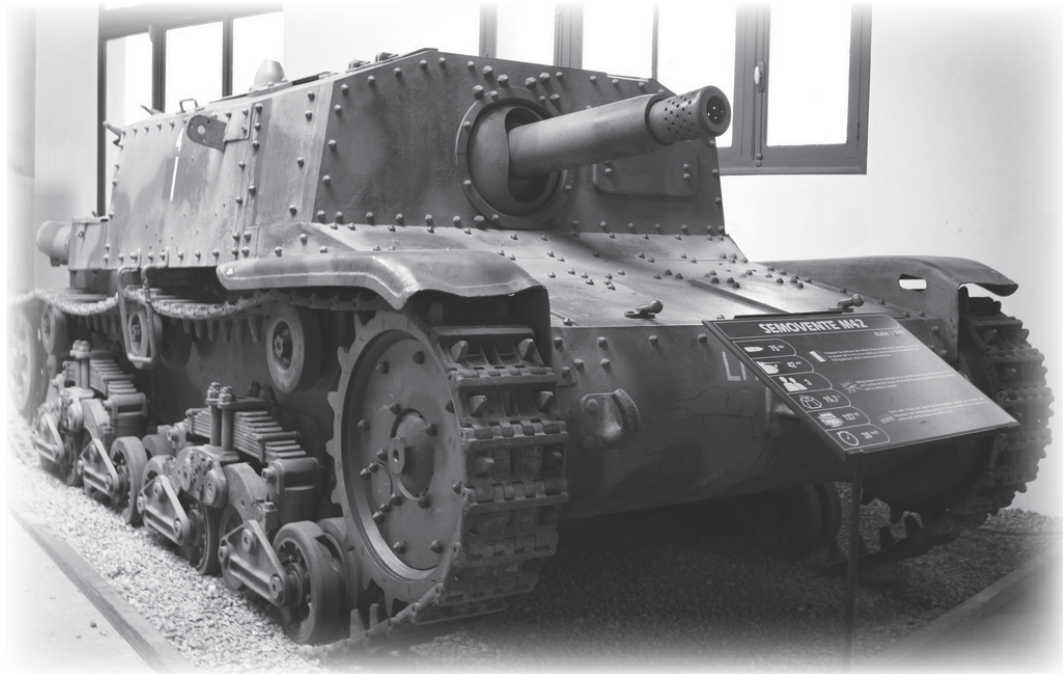
Chassis:		Mass	5.5
Engine/Controls:	145 hp		3
Type	ICE		
Cruise MP:	2		
Flank MP:	3		
Heat Sinks:	0	0	
Fuel:	230 km	0.13	
Turret:		0	
Armor Factor (BAR 5):	23	1.5	
	<i>Internal Structure</i>	<i>Armor Value</i>	
Front:	1	6	
R/L Side:	1/1	6/6	
Rear:	1	5	

Weapons and Ammo	Location	Slots	Tonnage
75mm Cannon	Front	1	3.00
8mm Machine Gun	Front	1	0.02
Ammo (75mm) 44	Body	1	1.10
Ammo (8mm) 1,110	Body	0	0.05

Crew: 3

Cargo: 100kg

Notes: Features Armored and Tractor Chassis Modification; Features the following Design Quirks: Poor Performance, Poor Targeting/Long Range, Obsolete/1945



EXPERIMENTAL

MITSUBISHI A6M ZERO

Classification: Light Fighter

Primary Manufacturer: Mitsubishi Heavy Industries (Japan)

Production Run: 1940-1945

Number Produced: 11,000 (approx.)

Weapon Analysis:

2x Type 99 20mm Cannon

2x Type 97 7.7mm Machine Gun

Overview

The Mitsubishi A6M Zero was arguably the most famous fighter aircraft employed by the Imperial Japanese Navy Air Service during World War II. Produced from 1940 to 1945, the A6M—known by a few designations among the Imperial Japanese—gained the “Zero” moniker from the year in which the aircraft entered service, though the official Allied reporting name was actually “Zeke”.

At the time it was introduced, the Zero was considered the most capable carrier-based fighter in the world, combining excellent maneuverability and long range operation thanks mainly to an ultra-light airframe. In early combat operations, it gained a legendary reputation as a dogfighter, with an outstanding kill ratio as high as twelve to one. By mid-1942, however, a combination of new tactics and improved equipment enabled Allied pilots to engage the Zero on more equal terms. By 1943, further progress in Allied technology left the Zero increasingly outclassed by aircraft that boasted greater firepower, armor, and speed.

Although the Mitsubishi A6M was ultimately outdated by 1944, it was never totally supplanted by the newer Japanese aircraft types, and more Zeros were built than any other Japanese aircraft. Nevertheless, the final years of the Pacific War saw these fighters increasingly employed as a kamikazes—using their speed, range, and maneuverability together simply to deliver one last suicidal strike against Allied ships.

Notable Pilots

Hiroyoshi Nishizawa: Nishizawa was possibly the most successful Japanese fighter ace of World War II. He personally claimed to have had eighty-seven aerial victories at the time of his death, but uncertainty of this number exists due to the Japanese habit of recording victories for pilots’ units, rather than the individual, after 1941, as well as the often-exaggerated claims of aerial kills that were frequently accepted. Some sources credit Nishizawa with over 100 victories.

During the Battle of Layte Gulf in 1944 (the same battle where Takeo Kurita commanded a sizable portion of the Imperial Japanese fleet), Nishizawa’s squadron was tasked with escorting kamikaze fighters to attack American forces. Having had a premonition of his own death, Nishizawa allegedly volunteered to join the kamikazes, but was refused. Ironically, he would die soon after when American fighters shot down the transport plane carrying him and several other squadron-mates over Mindoro Island.

Type: **Mitsubishi A6M Zero**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 2.5 tons

Equipment

		Mass
Chassis:		156kg
Engine/Controls:	950 hp	325kg
Type	ICE	
Safe Thrust	3	
Max Thrust	5	
Structural Integrity:	3	
Fuel:	53	1,193kg
Armor Factor (BAR 3):	4	152kg
	<i>Internal Structure</i>	<i>Armor Value</i>
Nose:	1	1
R/L Wing:	1/1	1/1
Aft:	1	1

Weapons and Ammo	Location	Slots	Mass
2 7.7mm Machine Guns	Nose	2	40kg
20mm Cannon	R. Wing	1	130kg
20mm Cannon	L. Wing	1	130kg
Bomb Hardpoint	Body	1	200kg
Ammo (20mm) 120	Body	0	120kg
Ammo (7.7mm) 1,000	Body	0	40kg

Crew: 1

Cargo: 14 kg

Notes: Features Ultra-light and Prop Chassis Modifications; Features the following Design Quirks: Atmospheric Flyer, Obsolete/1948



EXPERIMENTAL

AICHI D3A "VAL"

Classification: Carrier Bomber

Primary Manufacturer: Aichi Kokuki KK (Japan)

Production Run: 1940-1943

Number Produced: 1,500 (approx.)

Weapon Analysis:

3x Type 97 7.7mm Machine Gun

Overview

The Aichi D3A (dubbed "Val" by the Allies) was the Imperial Japanese Navy's principal dive bomber in the early years of World War II. The D3A was the first Japanese aircraft to bomb American targets in World War II, starting with the Pacific Fleet moored at Pearl Harbor and against U.S. bases in the Philippines. Though newer and better fighters and bombers would eventually come to the fore during the course of the Second World War, Vals sank more Allied warships than any other Axis aircraft.

During the course of the war, Val dive bombers had to frequently combine their attacks upon enemy warships in conjunction with the IJN Kate torpedo bomber. As a result, many enemy vessels were often sunk by a combination strike of bombs and torpedoes. Much like the Zero, however, advancing technology soon rendered the Val obsolete, and by the end of the war, the aircraft had been rotated out of front line service, and many ended their careers as training planes and kamikazes.

Type: **Aichi D3A "Val"**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 3.5 tons

Equipment

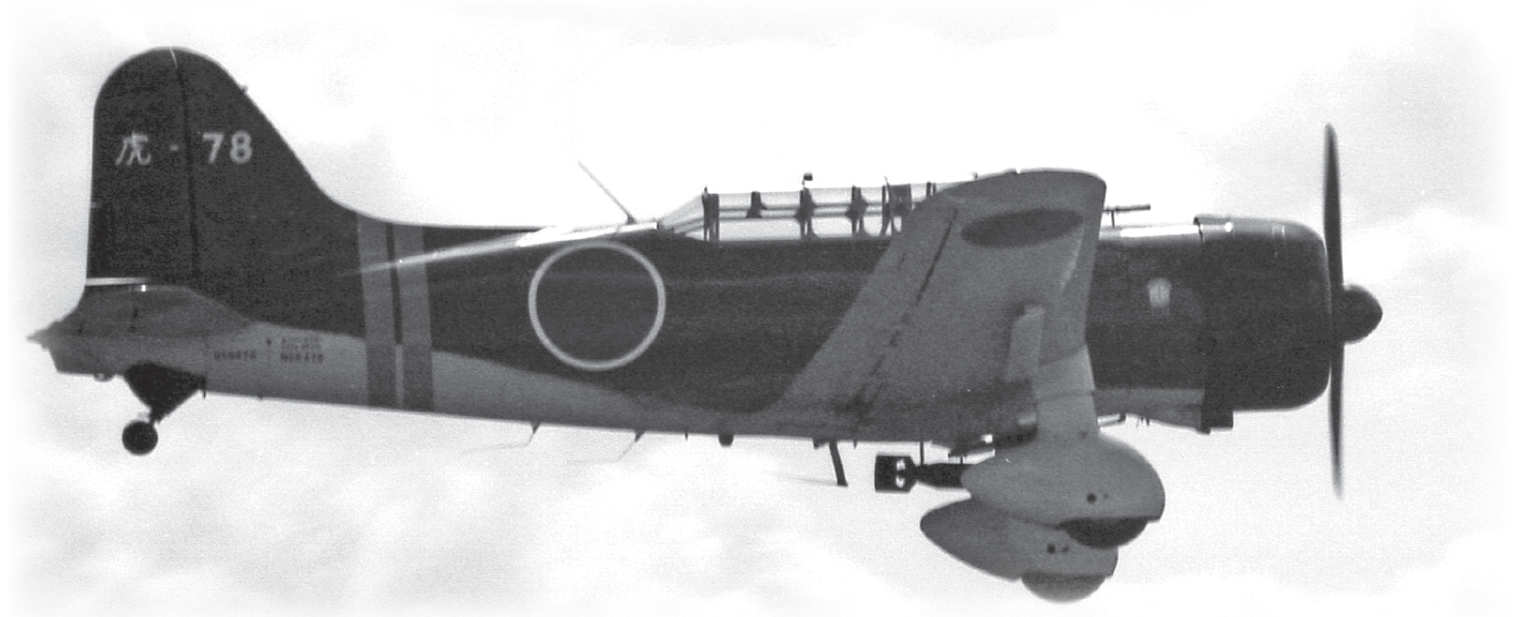
		Mass
Chassis:		437kg
Engine/Controls:	1,070 hp	280kg
Type	ICE	
Safe Thrust:	2	
Max Thrust:	3	
Structural Integrity:	2	
Fuel:	84	1,890kg
Armor Factor (BAR 4):	7	350kg
	<i>Internal</i>	<i>Armor</i>
	<i>Structure</i>	<i>Value</i>
Nose:	1	2
R/L Wing:	1/1	2/2
Aft:	1	1

Weapons and Ammo	Location	Slots	Mass
Dual-7.7mm MG Mount	Nose	1	40kg
Bomb Hardpoint	R. Wing	1	200kg
Bomb Hardpoint	L. Wing	1	200kg
7.7mm Machine Gun	Aft	1	20kg
Ammo (7.7mm) 1,500	Body	0	60kg

Crew: 2

Cargo: 3 kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Poor Performance, Obsolete/1944



EXPERIMENTAL

YAKOLEV YAK-1

Classification: Fighter

Primary Manufacturer: Yakolev OKB (Soviet Union)

Production Run: 1940-1944

Number Produced: 8,700 (approx.)

Weapon Analysis:

1x ShVAK 20mm Cannon

1x Berezin UBS 12.7mm Machine Gun

Overview

The Yakovlev Yak-1 was a lightweight fighter produced from early 1940 for the Soviet Union. With a composite structure and wooden wings, this single-seat monoplane was extremely maneuverable, fast and well armed for its size. Just as importantly, it was easy to maintain and reliable, which led the Yakolev bureau to use its design as the basis for subsequent developments in fighter technology. For this reason, though only 8,700 Yak-1s were built during the war, the Yak "family" of aircraft would number 37,000 before new technologies rendered them obsolete. Indeed, so impressed was the Soviet leadership in the Yak-1's performance, they awarded its designer, Aleksandr Yakolev, with the Order of Lenin—the highest decoration bestowed by the state.

Notable Pilots

Lydia Vladimirovna Litvyak and **Yekaterina Vasylievna Budanova:**

Litvyak and Budanova were both Yak-1 pilots who served in the Soviet Air Force during World War II. In addition to being close friends, the two were also the world's first female fighter aces. Across sixty-six combat missions, Litvyak scored an estimated twelve solo victories and two (or four) shared kills before she was shot down by German fighters in August of 1943.

Budnova herself scored eleven air victories in her career, which included numerous missions flown together with Litvyak. Like Litvyak, she also perished—albeit a month earlier—in combat against Luftwaffe fighters. In that final battle, she engaged three Messerschmitt Bf 109s, downing one and crippling another before suffering mortal wounds. Though she managed a forced landing outside the village of Novokrasnovka, the locals who came to her aid arrived too late to save the flyer's life.

Type: **Yakovlev Yak-1**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 3.0 tons

Equipment

		Mass
Chassis:		375kg
Engine/Controls:	1,180 hp	600kg
Type	ICE	
Safe Thrust:	4	
Max Thrust:	6	
Structural Integrity:	4	
Fuel:	45	1,013kg
Armor Factor (BAR 4):	7	350kg
	<i>Internal Structure</i>	<i>Armor Value</i>
Nose:	1	2
R/L Wing:	1/1	2/2
Aft:	1	1

Weapons and Ammo

	Location	Slots	Mass
20mm Cannon	Nose	1	130kg
12.7mm Machine Gun	Nose	1	30kg
Ammo (20mm) 200	Body	0	400kg
Ammo (12.7mm) 150	Body	0	75kg

Crew: 1

Cargo: 27 kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Easy to Maintain, Easy to Pilot, Obsolete/1950



EXPERIMENTAL

ILYUSHIN II-2 SHTURMOVIK

Classification: Ground Attack Fighter

Primary Manufacturer: Ilyushin (Soviet Union)

Production Run: 1941-1945

Number Produced: 36,000 (approx.)

Weapon Analysis:

- 2x Vya-23 23mm Cannon
- 2x ShKAS 7.62mm Machine Gun
- 1x Berezin UBT 12.7mm Machine Gun

Overview

The Ilyushin Il-2 Shturmovik was a powerful ground-attack fighter manufactured in large numbers for the Soviet Air Force in World War II. In combination with its successor, the Ilyushin Il-10, over 43,000 of these aircraft were built. This made it the single most produced military aircraft design in the history of twentieth century aviation.

The Shturmovik also widely regarded as the best ground attack aircraft of World War II, and was a prominent aircraft for tank killing with a combination of dive-bombing capability and a quartet of guns that proved lethal against the relatively thin armor that topped most of the era's armored vehicles.

Notable Pilots

Nelson Stepanyan: Lt. Col. Stepanyan flew an Il-2 and (according to Soviet sources) participated in no less than 239 combat sorties, during which he was credited with destroying twenty-seven enemy aircraft, eighty tanks, 600 armored vehicles, and fifty-three ships. He was shot down once but managed to return to the Soviet lines. On his final sortie, off the coast of Latvia in December of 1944, his plane was hit by anti-aircraft fire. Though critically wounded, Stepanyan was still able to steer his plane and rammed it into a German warship.

Type: **Ilyushin Il-2 Shturmovik**
 Movement Type: Fixed Wing (Medium)
 Equipment Rating: B/X-X-X/D
 Mass: 6.2 tons

Equipment		Mass
Chassis:		1.5
Engine/Controls:	1,720 hp	2
Type	ICE	
Safe Thrust:	3	
Max Thrust:	5	
Structural Integrity:	3	
Fuel:	35	1.01
Armor Factor (BAR 4):	10	0.50
	<i>Internal Structure</i>	<i>Armor Value</i>
Nose:	1	4
R/L Wing:	1/1	2/2
Aft:	1	2

Weapons and Ammo	Location	Slots	Mass
Dual 23mm Gun Mount	Nose	1	0.28
7.62mm Machine Gun	R. Wing	1	0.02
7.62mm Machine Gun	L. Wing	1	0.02
12.7mm Machine Gun	Aft	1	0.03
Dual-Bomb Hardpoint	Body	1	0.40
Ammo (23mm) 300	Body	0	0.30
Ammo (7.62mm) 1,500	Body	0	0.06
Ammo (12.7mm) 150	Body	0	0.08

Crew: 2

Cargo: None

Notes: Features Armored and Prop Chassis Modifications; Features the following Design Quirks: Inaccurate Weapon/Bomb Hardpoint, Obsolete/1955



SUPERMARINE SPITFIRE MK. XIV

Classification: Fighter

Primary Manufacturer: Supermarine Aviation Works (United Kingdom)

Production Run: 1938-1948

Number Produced: 20,350 (approx.)

Weapon Analysis:

- 2x Hispano Mk II 20mm Cannon
- 4x Browning 7.7mm Machine Gun

Overview

Supermarine Aviation's Spitfire was arguably the most successful and famous fighter to serve in Great Britain's Royal Air Force (and the armored forces of many other Allied nations) throughout the Second World War. The only British aircraft produced for the entire length of the war, the Spitfire continued to see use as both a front-line fighter and in secondary roles into the 1950s.

Designed as a short-range, high-performance interceptor, the Spitfire was built for speed and maneuverability to take on bombers. Its thin cross-section and elliptical wing gave it an edge over several contemporary fighters, including the Hawker Hurricane, and even though Hurricanes played a greater role against the German Luftwaffe during the Battle of Britain, Spitfire units had a lower attrition rate and a higher victory-to-loss ratio, making them the darlings of the RAF throughout the war.

Notable Pilots

James Edgar "Johnnie" Johnson: J. E. "Johnnie" Johnson was perhaps the highest scoring ace in Great Britain's Royal Air Force during World War II. Over the course of 700 operational sorties over Europe, Johnson was credited with thirty-four individual victories over enemy aircraft, seven shared victories, and three shared probable victories, plus one fighter destroyed on the ground. Included in his kill list were fourteen Messerschmitt Bf 109s and twenty Focke-Wulf Fw 190s—making him the most successful RAF ace against the Fw 190.

This record is especially impressive as Johnson was initially denied when he tried to enlist in the British air force due to medical issues, and these same issues precluded his flying in some of the greater air battles that took place earlier in the war. Postwar, Johnson remained in the RAF and even served in the Korean War, before eventually retiring in 1966 at the rank of Air Vice Marshal.

Type: **Supermarine Spitfire Mk XIV**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 3.9 tons

Equipment

Chassis:		487kg
Engine/Controls:	2,050 hp	780kg
Type	ICE	
Safe Thrust:	4	
Max Thrust:	6	
Structural Integrity:	4	
Fuel:	55	1,238kg
Armor Factor (BAR 4):	7	350kg
	<i>Internal</i>	<i>Armor</i>
	<i>Structure</i>	<i>Value</i>
Nose:	1	2
R/L Wing:	1/1	2/2
Aft:	1	1

Weapons and Ammo	Location	Slots	Mass
20mm Cannon	R. Wing	1	130kg
Dual-7.7mm MG Mount	R. Wing	1	40kg
20mm Cannon	L. Wing	1	130kg
Dual-7.7mm MG Mount	L. Wing	1	40kg
Dual-Bomb Hardpoint	Body	1	400kg
Ammo (20mm) 240	Body	0	240kg
Ammo (7.7mm) 1,400	Body	0	56kg

Crew: 1

Cargo: 9 kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Obsolete/1961



EXPERIMENTAL

DH.98 MOSQUITO B MK. XVI

Classification: Bomber

Primary Manufacturer: De Havilland Aircraft Company (United Kingdom)

Production Run: 1940-1950

Number Produced: 7,800 (approx.)

Weapon Analysis:

None (Internal bomb bay)

Overview

De Havilland Aircraft's DH.98 Mosquito was a two-man, multi-role combat aircraft built for the British air force during and after the Second World War. The Mosquito was one of the few operational, front-line aircraft to be constructed almost entirely of wood and as such, was often nicknamed "The Wooden Wonder".

Though originally conceived as an unarmed fast bomber, the Mosquito was also adapted to many other roles during the war. As one of the fastest planes in production in 1941, it first operated as a high-speed, high-altitude photo-reconnaissance aircraft, and continued to serve in this role throughout the war. From mid-1942 to mid-1943 Mosquito bombers—such as the type represented here—were used in high-speed, medium- or low-altitude missions, attacking factories, railways and other pinpoint targets within Germany and German-occupied Europe. From late 1943, Mosquito bomber units were formed into the Light Night Strike Force and used as pathfinders for heavy-bomber raids. They were also used as "nuisance" bombers, often dropping 1,800-kilogram "Cookies" in high-altitude, high-speed raids that German night fighters were almost powerless to intercept.

Notable Pilots

John Randall Daniel "Bob" Braham: Braham was a British pilot and one of the most highly decorated airmen in the RAF during World War II. Over 318 operational flights he claimed twenty-nine enemy aircraft destroyed, another probable, and six damaged fighters—a third of them while flying a Mosquito Mk. VI fighter-bomber variant. This record made him the top scoring RAF ace flying a twin-engine fighter, and was fifth-highest scoring among RAF fighter pilots in all theatres of war.

Type: **DH.98 Mosquito B Mk XVI**

Movement Type: Fixed Wing (Medium)

Equipment Rating: B/X-X-X/D

Mass: 8.3 tons

Equipment		Mass
Chassis:		1.5
Engine/Controls:	2 x 1,710 hp	3.5
Type	ICE	
Safe Thrust:	4	
Max Thrust:	6	
Structural Integrity:	4	
Fuel:	35	1
Armor Factor (BAR 3):	12	.50
	<i>Internal</i>	<i>Armor</i>
	<i>Structure</i>	<i>Value</i>
Nose:	1	3
R/L Wing:	1/1	3/3
Aft:	1	3

Weapons and Ammo **Location** **Slots** **Mass**
None — — —

Crew: 2

Cargo: 1,800kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Internal Bomb Bay, Obsolete/1961



EXPERIMENTAL

NORTH AMERICAN P-51D MUSTANG

Classification: Fighter

Primary Manufacturer: North American Aviation (United States)

Production Run: 1942-1946

Number Produced: 15,000 (approx.)

Weapon Analysis:

6x 0.50 cal Browning M2 Machine Gun

Overview

North American Aviation's P-51 Mustang was an American long-range, single-seat fighter/fighter-bomber that debuted during World War II, but proved so reliable and effective that it remained in service through the Korean War and other conflicts. Initially ordered by the British, the P-51 served the American air forces as a bomber escort and air superiority fighter, while the British employed them as fighter-bombers.

Mustangs saw widespread service with Allied commands in the North African, Mediterranean, and Italian theaters, and even saw action against the Japanese in the Pacific theater. In total, roughly five thousand enemy aircraft were reportedly shot down by Mustang pilots throughout the war. Even after the advent of jet fighters towards the end of the global conflict, the United Nations continued to employ P-51s as their main fighter at the start of the Korean War, phasing them out only after jets like the F-86 Sabre came into play. Even then, Mustangs remained in action as specialized fighter-bombers, and many air forces around the world continued to use them until 1980s. Postwar Mustangs also became a favorite of civilian aficionados, many of whom lovingly maintained these planes into the early decades of the twenty-first century.

Notable Pilots

Ivan Hasek: Hasek was an American pilot who flew P-51s and P-47s over Europe during WWII. While flying as part of the Ninth Air Force's "Pioneer" Mustang group, he was credited with scoring four Me 109 kills (plus one assist) during an air battle near Linburg, Germany, in which four P-51s engaged an estimated thirty-plus German Messerschmits. In that battle, the Americans downed a total of nine German planes at a loss of just one P-51.

Type: **North American P-51D Mustang**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 4.2 tons

Equipment		Mass
Chassis:		525kg
Engine/Controls:	1,490 hp	840kg
Type	ICE	
Safe Thrust:	4	
Max Thrust:	6	
Structural Integrity:	4	
Fuel:	72	1,620kg
Armor Factor (BAR 4):	8	400kg
	<i>Internal Structure</i>	<i>Armor Value</i>
Nose:	1	3
R/L Wing:	1/1	2/2
Aft:	1	1

Weapons and Ammo	Location	Slots	Mass
Triple-.50 cal MG Mount	R. Wing	1	150kg
Bomb Hardpoint	R. Wing	1	200kg
Triple-.50 cal MG Mount	L. Wing	1	150kg
Bomb Hardpoint	L. Wing	1	200kg
Ammo (.50 cal) 1,800	Body	0	108kg

Crew: 1

Cargo: 7 kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Obsolete/1985



EXPERIMENTAL

LOCKHEED P-38 LIGHTNING

Classification: Heavy Fighter

Primary Manufacturer: Lockheed (United States)

Production Run: 1941-1945

Number Produced: 10,000 (approx.)

Weapon Analysis:

- 1x Hispano M2 (C) 20mm Cannon
- 2x Browning MG53-2 12.7mm Machine Gun

Overview

Lockheed's P-38 Lightning was a fighter plane built for the United States Army Air Corps, and the only such aircraft produced for the entire duration of America's involvement in World War II. With a distinctive twin-boom design and a single, central pod for the cockpit and armament, it became known among the Luftwaffe as *der Gabelschwanz-Teufel* ("fork-tailed devil"), while the Japanese dubbed it *Ni hikōki, ippairotto* ("two planes, one pilot"). Though built mainly as a fighter, the P-38 was employed in multiple roles, including bombing, ground-attack missions, night fighting, photo-reconnaissance, and bomber escort.

The P-38 was extremely forgiving to its pilots, making it easy to handle, and the way its superchargers muffled the fighter's exhaust noise made it unusually quiet. This helped make the Lightning one of the Americans' most successful fighters in the Pacific and Asian theaters of the war, and it was flown by several of their top aces.

Type: **Lockheed P-38 Lightning**

Movement Type: Fixed Wing (Medium)

Equipment Rating: B/X-X-X/D

Mass: 9.8 tons

Equipment

		Mass
Chassis:		2
Engine/Controls:	2 x 1,725 hp	4
Type		ICE
Safe Thrust:		4
Max Thrust:		6
Structural Integrity:		4
Fuel:	40	1.16
Armor Factor (BAR 5):	13	1
		<i>Internal Armor</i>
		<i>Structure Value</i>
Nose:	1	4
R/L Wing:	1/1	3/3
Aft:	1	3

Weapons and Ammo	Location	Slots	Mass
20mm Cannon	Nose	1	0.13
Dual-12.7mm MG Mount	Nose	1	0.06
Dual-Bomb Hardpoint	R. Wing	1	0.40
Dual-Bomb Hardpoint	L. Wing	1	0.40
Ammo (20mm) 150	Body	0	0.15
Ammo (12.7mm) 1,000	Body	0	0.50

Crew: 1

Cargo: None

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Obsolete/1965



EXPERIMENTAL

MORANE-SAULNIER M.S. 406

Classification: Fighter

Primary Manufacturer: Morane-Saulnier (France)

Production Run: 1938-1947

Number Produced: 1,200 (approx.)

Weapon Analysis:

- 1x Hispano-Suiza HS.404 20mm Cannon
- 2x MAC 1934 7.5mm Machine Gun

Overview

Introduced in 1938 for use by the Armée de l'Air, the Morane-Saulnier M.S. 406 was—numerically, at least—the most important fighter plane employed by the French nation during the opening years of World War II.

While it was sturdy and highly maneuverable, holding its own in the early stages of the conflict, the M.S. 406 proved under-powered and weakly armed when compared to contemporary German fighters like the Messerschmitt Bf 109. This became painfully apparent when the war started in earnest in 1940, when enemy aircraft and ground fire destroyed roughly 250 of these fighters both in the air and on the ground. An additional 150 were deliberately destroyed by French military personnel as their country fell, in an effort to prevent the fighters from falling into enemy hands intact. Even so, these fighters achieved nearly 200 confirmed victories of their own in the same period, with another eighty possible victories credited to French-flown 406s.

Curiously, after the fall of France, the Germans resumed limited production of the fighter—albeit under scrutiny—making them available to nominally allied nations such as Finland. Other nations, including Switzerland, developed their own indigenous models as well.

Notable Pilots

Urho Sakari Lehtovaara: Lehtovaara was one of the few ace pilots to emerge in the Finnish Air Force during the Second World War, earning the Mannerheim Cross in 1944 for his impressive combat record. He flew over 400 missions—mostly against Soviet forces—and scored fifteen of his estimated forty-four career kills while flying an M.S. 406.

Type: **Morane-Saulnier M.S.406**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 2.5 tons

Equipment

		Mass
Chassis:		312kg
Engine/Controls:	860 hp	325kg
Type	ICE	
Safe Thrust:	3	
Max Thrust:	5	
Structural Integrity:	3	
Fuel:	48	1,080kg
Armor Factor (BAR 4):	6	300kg
	<i>Internal</i>	<i>Armor</i>
	<i>Structure</i>	<i>Value</i>
Nose:	1	2
R/L Wing:	1/1	1/1
Aft:	1	2

Weapons and Ammo

	Location	Slots	Mass
20mm Cannon	Nose	1	130kg
7.5mm Machine Gun	R. Wing	1	20kg
7.5mm Machine Gun	L. Wing	1	20kg
Ammo (20mm) 240	Body	0	240kg
Ammo (7.5mm) 1,400	Body	0	56kg

Crew: 1

Cargo: 17 kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Obsolete/1941



EXPERIMENTAL

FOCKE-WULF FW 190 WÜRGER

Classification: Fighter

Primary Manufacturer: Kurt Tank (Germany)

Production Run: 1941-1945

Number Produced: 20,000+

Weapon Analysis:

2x MG 131 13mm Machine Guns

4x MG 151/20 E 20mm Cannons

Overview

Kurt Tank of Germany designed the Focke-Wulf Fw 190 *Würger* (Shrike) in the late 1930s, but the single-seat multi-role fighter did not enter service with the Luftwaffe until 1941, two years after the start of World War II. When introduced over France in August 1941, the Fw 190 quickly proved itself to be superior in all but turn radius to the British Spitfire Mk. V, and with this fighter the Germans were able to wrest air superiority away from the Allies in Europe until the introduction of the vastly improved Spitfire Mk. IX in 1942. On the Eastern Front, Fw 190s made a significant impact against the Russian air forces, even though Soviet pilots continued to see the Messerschmitt Bf 109 as the greater threat.

The Fw 190's effectiveness made it the backbone of the German fighter forces alongside the older Bf 109, and the *Würgers* proved versatile enough to use both as dogfighters and as ground attack craft against Soviet ground forces. As an interceptor, the Fw 190 underwent several improvements throughout the war, mainly to make it more effective at high altitudes against the more elusive Allied planes.

The Fw 190 was well liked by its pilots throughout its service history, and some of the Luftwaffe's most successful fighter aces made many of their kills piloting these warplanes.

Type: **Focke Wulf Fw 190 Würger**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 4.9 tons

Equipment

		Mass
Chassis:		612kg
Engine/Controls:	1,750 hp	980kg
Type	ICE	
Safe Thrust:	4	
Max Thrust:	6	
Structural Integrity:	4	
Fuel:	65	1,463kg
Armor Factor (BAR 4):	8	400kg
	<i>Internal</i>	<i>Armor</i>
	<i>Structure</i>	<i>Value</i>
Nose:	1	2
R/L Wing:	1/1	2/2
Aft:	1	2

Weapons and Ammo	Location	Slots	Mass
Dual-13mm MG Mount	Nose	1	30kg
Dual-20mm Gun Mount	R. Wing	1	260kg
Dual-20mm Gun Mount	L. Wing	1	260kg
Ammo (13mm) 950	Body	0	108kg
Ammo (20mm) 780	Body	0	780kg

Crew: 1

Cargo: 7 kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Obsolete/1949



EXPERIMENTAL

MESSERSCHMITT BF 109

Classification: Fighter

Primary Manufacturer: Bayerische Flugzeugwerke Messerschmitt (Germany)

Production Run: 1937-1945

Number Produced: 34,900 (approx.)

Weapon Analysis:

- 1x MK 108 30mm Cannon
- 2x MG 131 13mm Machine Gun
- 2x MG 151/20 20mm Cannon

Overview

The Messerschmitt Bf 109 (also identified as the Me 109) was one of the primary German aircraft flown in the Second World War, and—by all accounts—one of the finest examples of aerospace engineering of its day. Despite being designed in the mid-1930s, the 109 was seen by many as “one of the first truly modern fighters of the era”, incorporating such features as all-metal monocoque construction, a closed canopy, and retractable landing gear. This use of cutting-edge technology and techniques kept the fighter relevant in an age where many nations struggled to keep up with one another.

The first Bf 109s saw action during the Spanish Civil War, and many remained in service at the dawn of the jet age near the end of World War II. For much of that time, they served as the backbone of the Luftwaffe’s fighter forces, often supplemented by the Focke-Wulf Fw 190. Other Axis states also made extensive use of the Bf 109, and many retained them for years after the war. By the close of the twentieth century, the Bf 109 was considered the most produced fighter aircraft in history—a record that would stand for nearly a century.

Notable Pilots

Erich Alfred “Bubi” Hartmann: Though known as “Bubi” (“young boy”) to his comrades, Hartman was better known to his Soviet adversaries as “The Black Devil”. As a German fighter pilot in World War II, he claimed 352 kills across 1,404 combat missions, earning himself the distinction of being the highest-scoring fighter ace in the history of twentieth century aerial warfare.

During the course of his career, Hartmann was forced to crash-land his damaged fighter fourteen times, but never due to enemy fire. Indeed, his forced landings came invariably due to mechanical failure or damage sustained from parts of enemy aircraft he had just shot down or mechanical failure. Hartmann was never shot down or forced to land due to fire from enemy aircraft. Hartmann went on to serve in the West German air force after the war, and—after retiring early from that service—became a civilian flight instructor.

Type: **Messerschmitt Bf 109 G-6**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 3.5 tons

Equipment

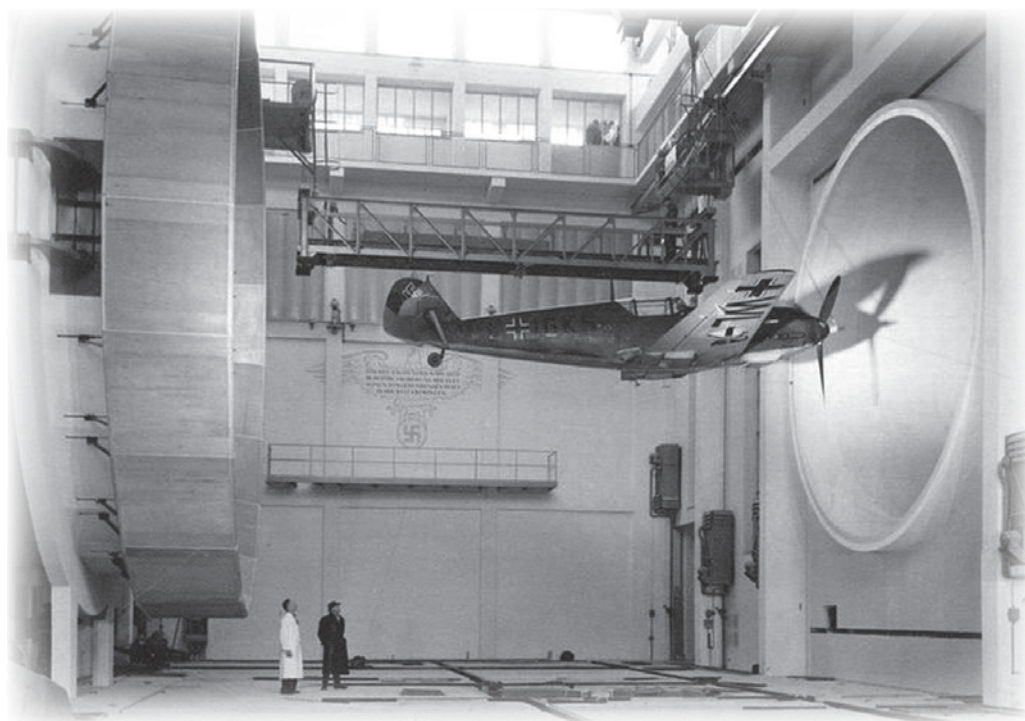
Chassis:		Mass	437kg
Engine/Controls:	1,455 hp		455kg
Type	ICE		
Safe Thrust:	3		
Max Thrust:	5		
Structural Integrity:	3		
Fuel:	45	1,013kg	
Armor Factor (BAR 4):	7	350kg	
	<i>Internal</i>	<i>Armor</i>	
	<i>Structure</i>	<i>Value</i>	
Nose:	1	2	
R/L Wing:	1/1	2/2	
Aft:	1	1	

Weapons and Ammo	Location	Slots	Mass
30mm Cannon	Nose	1	250kg
Dual-13mm MG Mount	Nose	1	60kg
20mm Cannon	R. Wing	1	130kg
20mm Cannon	L. Wing	1	130kg
Ammo (30mm) 65	Body	0	85kg
Ammo (20mm) 270	Body	0	270kg
Ammo (13mm) 600	Body	0	300kg

Crew: 1

Cargo: 20 kg

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Obsolete/1965



EXPERIMENTAL

MACCHI C.202 FULGORE

Classification: Fighter

Primary Manufacturer: Aeronautica Macchi (Italy)

Production Run: 1941-1947

Number Produced: 1,200 (approx.)

Weapon Analysis:

2x Breda-SAFAT 12.7mm Machine Gun

2x Breda-SAFAT 7.7mm Machine Gun

Overview

The Macchi C.202 *Fulgore* ("Thunderbolt") was a World War II fighter aircraft built for the Regia Aeronautica. An upgrade of the earlier C.200 *Saetta*, the *Fulgore* featured a heavier airframe, a more powerful engine, and additional weaponry. Despite several defects that became apparent in its service history—including machine guns that easily jammed, unreliable communications equipment, and an occasional tendency to go into a dangerous spin—the C.202 nevertheless earned a reputation as one of the best wartime fighters to serve in the Italian air forces.

The *Fulgore* operated on all fronts in which Italy was involved, and proved to be an effective and deadly dogfighter. Australian ace fighter pilot Clive Caldwell, who fought a broad range of Axis aircraft between 1941 and 1945, called the C.202 "one of the best and most undervalued of fighters". Virtually all of the most noteworthy Italian aces of the war flew this model aircraft, and the fighter remained in service even after the war, with many employed as trainers as late as 1948.

Type: **Macchi C.202 Fulgore**

Movement Type: Fixed Wing (Small)

Equipment Rating: B/X-X-X/D

Mass: 3.0 tons

Equipment

Chassis:		Mass	375kg
Engine/Controls:	864 kW		600kg
Type	ICE		
Safe Thrust:	4		
Max Thrust:	6		
Structural Integrity:	4		
Fuel:	38	857kg	
Armor Factor (BAR 3):	6	228kg	
	<i>Internal</i>	<i>Armor</i>	
	<i>Structure</i>	<i>Value</i>	
Nose:	1	3	
R/L Wing:	1/1	1/1	
Aft:	1	1	

Weapons and Ammo	Location	Slots	Mass
Dual-12.7mm MG Mount	Nose	1	60kg
7.7mm Machine Gun	R. Wing	1	20kg
Bomb Hardpoint	R. Wing	1	200kg
7.7mm Machine Gun	L. Wing	1	20kg
Bomb Hardpoint	L. Wing	1	200kg
Ammo (12.7mm) 800	Body	0	400kg
Ammo (7.7mm) 1,000	Body	0	40kg

Crew: 1

Cargo: None

Notes: Features Prop Chassis Modification; Features the following Design Quirks: Bad Reputation, Obsolete/1951



EXPERIMENTAL

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Design Quirks

Every unit described in this Technical Readout has one or more listed positive and/or negative Design Quirks (see p. 193, *SO*). These quirks are included to give each design a unique flavor based upon its history and use during the years before, during, and soon after Terra's Second World War. Use of these quirks is optional and should be agreed upon by all players before play begins.

General Construction Notes: Technical Readout 1945

The majority of the units built in this *Technical Readout* were designed based on their real-world specs concerning the total mass, mobility, and crew requirements. These rules were reinterpreted to meet the Support Vehicle construction rules presented in *TechManual*, as follows:

Technology Rating and Structural Concerns

To fit as best as possible with the technical sophistication of the era, these units were built using a Tech Rating of B for the chassis, engine, fuel, and armor features.

Fighter Engines: While engine MPs were computed based on real-world capabilities translated directly to BattleTech (where 1 MP = 10.8 kph), fighter engines in World War II delivered far less speed. Rather than resort to fractional Thrust Points, the warplanes in this book received 1 Thrust Point per every 100 kph they could produce. This translates to roughly one-half of a hex worth of movement at the Low-Altitude level of play where these units operate. This is discussed further in the *General Gameplay Notes*.

Fire Control: None of the units in this book feature fire control systems. Virtually all weapons of the day tended to be iron-sights only; what sensor and communications technologies did exist in the era simply had no significant impact that can be measured in game terms.

Hybrid Accounting

Although chassis, engine, armor, and turret weights on the tanks and medium-sized fighters were rounded to the nearest half-ton per the standard Support Vehicle construction rules for medium-sized vehicles, the weight of such components on small-sized Support Vehicles (in this case represented by most of the warplanes) was rounded up to the nearest kilogram. As ever, the BattleTech setting uses the metric system when measuring mass, so 1 ton equals 1,000 kilograms (and, conversely, 1 kilogram equals 0.001 tons).

For all other components—including fuel, weaponry, and ammunition—fractional accounting was used, but rounding up to the nearest 10 kilograms for medium-sized vehicles. Using this approach, ammunition and fuel for all units was purchased by the shot (or fuel point).

Weapon Items and Restrictions

While many weapon weights were adjusted to match those of the real-world equivalents (or, in some cases, used the weight of a BattleTech analog as a guide where no hard numbers could be determined), the fact remains that these were the result of playing "fast-and-loose" with the construction rules in the name of forcing these designs closer to historical accuracy. Furthermore, an effort to stick within the equipment slot limits of each Support Vehicle led to the creation of dual-, triple-, and quad-mount items, which all occupy one "slot" but combine multiple items of the same type.

The 1945 Weapon and Equipment Weights and Equivalency Tables provided here define the item and per-shot ammo weights for all of the items featured on the tanks and warplanes in this volume, as well as their equivalent weapon range and damage effects if used against any BattleTech unit (including those made using Primitive technology) published for use in scenarios set in the Age of War era or later.

Given the weights of the weapons and items used in this period, all Tank Cannon weapons were treated as Heavy Weapons for construction purposes, while all Fighter Cannons and Machine Guns were treated as Medium and Light Weapons, respectively. In contravention to the standard Support Vehicle rules, Light and Medium Weapons were mountable on medium-sized units as well as small-sized units, their weights tracked in accordance with the fractional accounting rules as noted above. As a result, only ammunition for the Tank Cannons counted against a unit's slot space; ammunition for Fighter Cannons and Machine Guns were counted as intrinsic to the slots allocated to the weapons themselves.

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1945 WEAPON AND EQUIPMENT WEIGHTS AND EQUIVALENCY

Weapon Class	Item Weight	Ammo Wt. (per Shot)	BattleTech Equivalent Weapon [Source]
<i>Tank Cannons</i>			
37mm	550kg	1kg	Medium Recoilless Rifle [TM]
40mm	690kg	1.5kg	Medium Recoilless Rifle [TM]
45mm	750kg	1.5kg	Medium Recoilless Rifle [TM]
47mm	1,000kg	1.5kg	Medium Recoilless Rifle [TM]
57mm	1,500kg	2kg	Heavy Recoilless Rifle [TM]
75mm	3,000kg	25kg	Light Rifle (Cannon) [TO]
76.2mm	2,000kg	25kg	Light Rifle (Cannon) [TO]
8.8cm	4,000kg	25kg	Medium Rifle (Cannon) [TO]
<i>Fighter Cannons</i>			
20mm	130kg	1kg	Light Recoilless Rifle [TM]
23mm	140kg	1kg	Light Recoilless Rifle [TM]
30mm	250kg	1kg	Medium Recoilless Rifle [TM]
<i>Machine Guns</i>			
7.5mm	20kg	0.04kg	Vintage Machine Gun [AToWC]
7.62mm (European)	20kg	0.04kg	Vintage Machine Gun [AToWC]
.30-06 (U.S.)	20kg	0.04kg	Vintage Minigun [AToWC]
7.7mm	20kg	0.04kg	Vintage Machine Gun [AToWC]
7.9mm	20kg	0.04kg	Vintage Machine Gun [AToWC]
7.92mm	20kg	0.04kg	Vintage Minigun [AToWC]
8mm	20kg	0.04kg	Vintage Minigun [AToWC]
12.7mm (European)	30kg	0.50kg	Vintage Minigun [AToWC]
.50 cal (U.S.)	50kg	0.06kg	Support Machine Gun [TM]
13mm	30kg	0.50kg	Vintage Minigun [AToWC]
<i>Miscellaneous</i>			
Bomb Hardpoint	200kg	1x Bomb	5-point Cluster Bomb
Dual-Bomb Hardpoint	400kg	2x Bomb	2x 5-point Cluster Bombs
<i>Weapon Modifiers</i>			
Dual-Mount	x2	*	*
Triple-Mount	x3	*	*
Quad-Mount	x4	*	*

*These multi-weapon mounts use the same ammo as the single-mounted weapons, but expend ammo at a rate equal to the number of guns in the mount. The weapons placed in each mount may be fired together and resolved using the appropriate Cluster Hits column to determine number of hits, or fired individually.

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General Gameplay Notes: Technical Readout 1945

Having been largely built to BattleTech specs, the units featured in this *Technical Readout* can be played largely in accordance with BattleTech gameplay rules, but with the following modifications. These rules changes are designed to reflect the very different reality of the era, and its complete removal from the tactical realities of the BattleTech setting during and after the Age of War.

Ground Movement

All ground units featured in this book function in accordance with their standard BattleTech rules and restrictions for their motive type. Note that some may have special abilities based on chassis modifications or Design Quirks.

Aerospace Movement

The warplanes featured in this book reflect aircraft designs typical of the days of propeller-driven flight, and as such cannot operate in space or on the high-altitude map (indeed, the maximum altitude most period aircraft could attain was around 10,000 meters), the middle range of Altitude 10 on the Low-Altitude scale (see pp. 80-81, *TW*). Thus, none of the rules for High-Altitude or Space movement may be employed by these aircraft.

Furthermore, the airspeed of these vehicles was far less than provided by the thrusters of BattleTech-era craft, but rather than assign them Thrust Points in fractions, the units designed in this book were given 1 Thrust Point for every 100 kph their real-world likenesses produced. (This technically means that each of these warplanes would move at only half their listed Thrust rate when compared with BattleTech units from the Age of War and beyond.) To reflect this, simply treat each hex of movement on the Low Altitude Map as 250 meters, rather than 500 meters, and retain the same 10-second turn scale.

Facing Changes/Special Maneuvers: Although the rules in *Total Warfare* place restrictions of Fixed-Wing Support Vehicles when it comes to making facing changes and executing special maneuvers (see pp. 84-85, *TW*), any of the warplanes featured in this book that weigh less than 5 tons and have the Thrust Points to spare may execute these maneuvers as if they were Conventional Fighters.

Horizontal Liftoff: None of the warplanes featured in this product are capable of VTOL or VSTOL flight. Nevertheless, for purposes of executing horizontal liftoff (see p. 88, *TW*), all of these aircraft may lift off as long as they possess at least 2 Thrust Points to do so—whether or not the Thrust used is Safe or Maximum.

Fuel Consumption: If using the tactical fuel efficiency rules from *Strategic Operations*, the 1945 warplanes featured in this book consume fuel at half the rate of a Conventional Fighter. In other words, each point of Thrust spent at or below the fighter's Safe Thrust rating costs 0.25 points of fuel, while each Thrust Point over the aircraft's Safe Thrust costs 0.5 points of fuel.

Iron Sights Gunnery (Air and Ground Combat)

Despite the lack of targeting technologies and advanced sensors, gunners and pilots in the days of World War II remained quite capable of hitting each other in battle. In fact, this kind of iron-sights targeting—for which all pilots and tank crews were trained—combined with the lack of targeting technologies and ambient electromagnetic interference to generate the ability to deliver attacks at far greater ranges than weapons of the ages to come.

To reflect this, the 1945 Gameplay Weapons Table provides the effective combat ranges for all featured weapons, including Short, Medium, Long, and Extreme range. (The Aerospace Max Range applies only when such weapons are mounted on airborne units, though it should be noted that tank cannons may not be mounted on airborne units, and bombs have no aerospace range as they are used only for air-to-ground attacks.)

The special LOS Range (see p. 85, *TO*) can even be used by gunners of particularly fearsome skill. Furthermore, since all military units built for this era are treated as though they have no intrinsic sensor technology, the usual +2 to-hit modifier for possessing No Fire Control does not apply.

GAME RULES

1945 GAMEPLAY WEAPONS TABLE

Weapon Class	Damage (vs. BAR 5)	Range (Min/S/M/L/E)	Max Range (Aerospace)	Special Notes
Tank Cannons				
37mm	4	5/26/52/78/130	NA	
40mm	4	5/26/52/78/130	NA	
45mm	4	5/25/50/75/125	NA	
47mm	5	4/24/48/72/120	NA	
57mm	6	2/22/44/68/110	NA	
75mm	7	0/18/36/54/90	NA	-1 to-hit
76.2mm	8	1/20/40/60/100	NA	
8.8cm	9	5/26/52/78/130	NA	+1 to Critical Hit roll
Fighter Cannons				
20mm	2	0/20/40/60/100	Short	
23mm	2	0/30/60/90/150	Short	
30mm	3	0/18/36/54/90	Short	
Machine Guns				
7.5mm	1	0/14/28/40/135	Short	
7.62mm (European)	1	0/14/28/40/135	Short	
.30-06 (U.S.)	1	0/14/28/42/140	Short	
7.7mm	1	0/12/24/36/120	Short	
7.9mm	1	0/13/26/39/130	Short	
7.92mm	1	0/12/25/37/125	Short	
8mm	1	0/12/24/36/120	Short	
12.7mm (European)	2	0/12/25/37/125	Short	
.50 cal (U.S.)	2	0/15/29/44/145	Short	+1D6 damage vs. Conv. Infantry
13mm	2	0/12/25/37/125	Short	
Miscellaneous				
Bomb Hardpoint	5A	NA	NA	
Dual-Bomb Hardpoint	5A/Bomb	NA	NA	Bombs may be dropped individually
Weapon Modifiers				
Dual-Mount	+C2	*	*	*
Triple-Mount	+C3	*	*	*
Quad-Mount	+C4	*	*	*

*Resolve hits by multi-mounted weapons by first determining the number of hits using the appropriate Cluster Hits Table, then assigning damage for each hit scored individually.

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1945 vs. BattleTech: Remember, that the above benefits only apply as long as these units face one another with none of the “modern” conveniences of BattleTech technology present. If these units are employed in games set during the Age of War and later, none of these benefits will apply, and—in addition to suffering the gunnery modifiers for lacking fire control systems—all of the weapons featured in this book will behave in accordance with their BattleTech Equivalent Weapon as noted in the construction tables.

Weapon Damage

The damage values for each weapon given in the 1945 Gameplay Weapons Table reflects the effectiveness of these weapons against other 1945 units with an armor BAR of 5. When used against vehicles with a BAR of less than 5, add 1 point of damage to each hit for every point of BAR the target has below 5. Thus, an attack that would deliver 3 points of damage to a BAR 5 target would deliver 4 points against a BAR 4 target, and 5 points against a BAR 3 target. Armor stronger than BAR 5 simply did not exist in the World War II era.

Against any target with a BAR of 6 or greater, treat the damage effects of these weapons as equivalent to their BattleTech Equivalent Weapon as noted in the construction tables.

Ammunition and Bomb Critical Hits

Any hit to the ammunition or bomb hardpoints that have not yet released all of their bombs on a 1945 era unit must be treated as an internal explosion in accordance with the standard BattleTech rules for an internal ammunition explosion. Exploding bombs are treated as 10-point explosives per each bomb in the hardpoint.

BATTLETECH

ARMOR DIAGRAM

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: Type 95 Ha-Go

Movement Points: **Tonnage:** 7.5
Cruising: 2 **Tech Base:** Pre-Spaceflight
Flank: 3 **Era:** World War II
Movement Type: Tracked
Engine Type: I.C.E.

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	7.7mm Machine Gun	FR	1 [S]	-	12	24	36
1	37mm Cannon	T	4 [S]	5	26	52	78
1	7.7mm Machine Gun	T	1 [S]	-	12	24	36

Cargo Space - 0.740 tons
 Chassis Modifications: Armored Chassis

Ammo: [37mm] 80, [7.7mm] 1000

CREW DATA

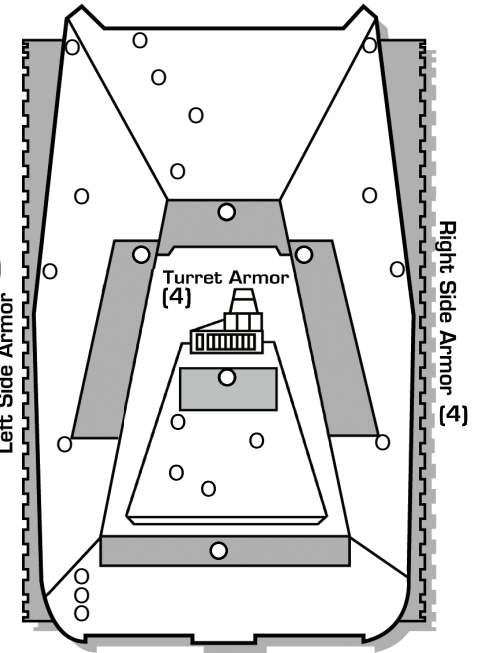
Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit [+1] Driver Hit [+2]
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits +1 +2 +3 D
 Motive System Hits +1 +2 +3
 Stabilizers
 Front Left Right
 Rear Turret

BAR: 5

Front Armor (4)



Rear Armor (3)



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.

**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH™

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: Type 97 Chi-Ha

Movement Points:
 Cruising: 2
 Flank: 3
Movement Type: Tracked
Engine Type: I.C.E.

Tonnage: 15
Tech Base: Pre-Spaceflight
Era: World War II

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	7.7mm Machine Gun	FR	1 [S]	-	12	24	36
1	57mm Cannon	T	6 [S]	2	22	44	68
1	7.7mm Machine Gun	T	1 [S]	-	12	24	36

Cargo Space - 0.780 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: [57mm] 40, [7.7mm] 1000

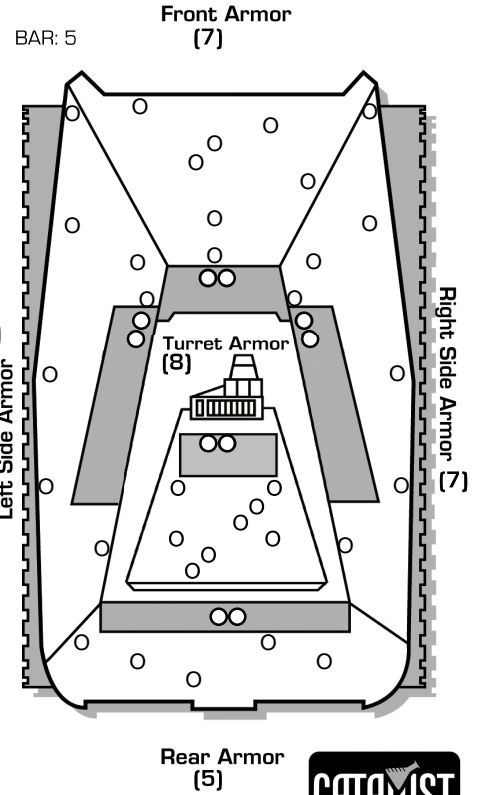
CREW DATA

Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit [+1] Driver Hit [+2]
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits +1 +2 +3 D
 Motive System Hits +1 +2 +3
 Stabilizers
 Front Left Right
 Rear Turret

ARMOR DIAGRAM



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.

**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: T-70

Movement Points:

Cruising: 3

Flank: 5

Movement Type: Tracked

Engine Type: I.C.E.

Tonnage: 9.6

Tech Base: Pre-Spaceflight

Era: World War II

CREW DATA

Crew: _____

Gunnery Skill: _____ Driving Skill: _____

Commander Hit **+1**

Modifier to all Skill rolls

Driver Hit **+2**

Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit

Sensor Hits **+1 +2 +3** **D**

Motive System Hits **+1 +2 +3**

Stabilizers

Front Left Right

Rear Turret

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	45mm Cannon	T	4 [S]	5	26	50	75
1	7.62mm Machine Gun	T	1 [S]	-	14	28	40

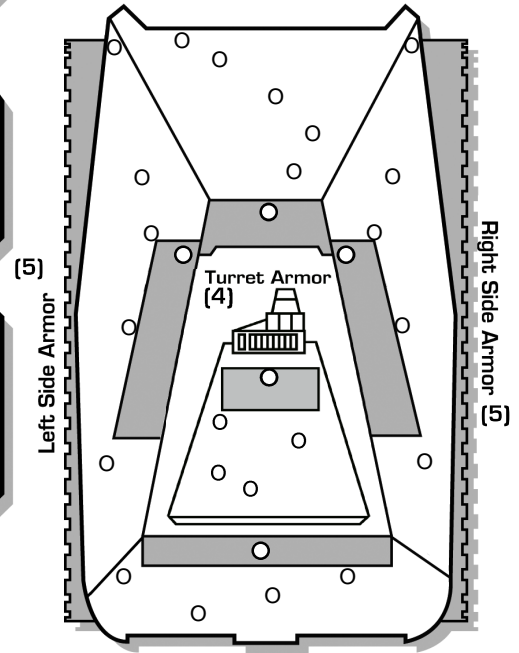
Chassis Modifications: Armored Chassis

Ammo: (7.62mm) 750, (45mm) 94

ARMOR DIAGRAM

BAR: 5

Front Armor (5)



Rear Armor (4)



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:

Hit from rear	+1
Hit from the sides	+2

Vehicle Type Modifiers:

Tracked, Naval	+0
Wheeled	+2
Hovercraft, Hydrofoil	+3
WICE	+4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.

** If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: T-34

Movement Points: **Tonnage:** 26
Cruising: 3 **Tech Base:** Pre-Spaceflight
Flank: 5 **Era:** World War II
Movement Type: Tracked
Engine Type: I.C.E.

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	7.62mm Machine Gun	FR	1 [S]	-	14	28	40
1	7.62mm Machine Gun	T	1 [S]	-	14	28	40
1	76.2mm Cannon	T	8 [S]	1	20	40	60

Cargo Space - 0.560 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: (7.62mm) 1000, (76.2mm) 20

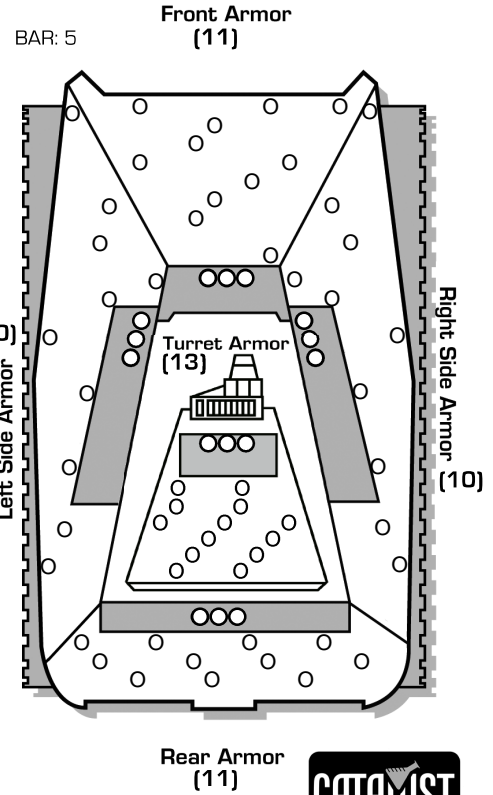
CREW DATA

Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit **+1** Driver Hit **+2**
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits **+1** **+2** **+3** **D**
 Motive System Hits **+1** **+2** **+3**
 Stabilizers
 Front Left Right
 Rear Turret

ARMOR DIAGRAM



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicle Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.

**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: A15 Crusader Mk III

Movement Points: **Tonnage:** 20
Cruising: 2 **Tech Base:** Pre-Spaceflight
Flank: 3 **Era:** World War II
Movement Type: Tracked
Engine Type: I.C.E.

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	57mm Cannon	T	6 [S]	2	22	44	68
1	7.9mm Machine Gun	T	1 [S]	-	13	26	39

Cargo Space - 2,500 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: (7.9mm) 5000, (57mm) 65

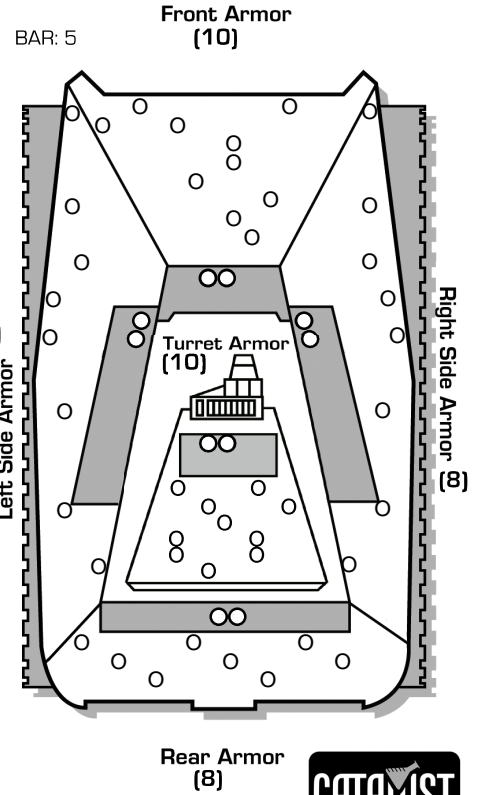
CREW DATA

Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit +1 Driver Hit +2
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits +1 +2 +3 D
 Motive System Hits +1 +2 +3
 Stabilizers
 Front Left Right
 Rear Turret

ARMOR DIAGRAM



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
 **If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: A12 Matilda Mk II

Movement Points:
 Cruising: 2
 Flank: 3
Movement Type: Tracked
Engine Type: I.C.E.

Tonnage: 25
Tech Base: Pre-Spaceflight
Era: World War II

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	40mm Cannon	T	4 [S]	5	26	52	78
1	7.9mm Machine Gun	T	1 [S]	-	13	26	39

Cargo Space - 5.390 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: (7.9mm) 2600, (40mm) 93

CREW DATA

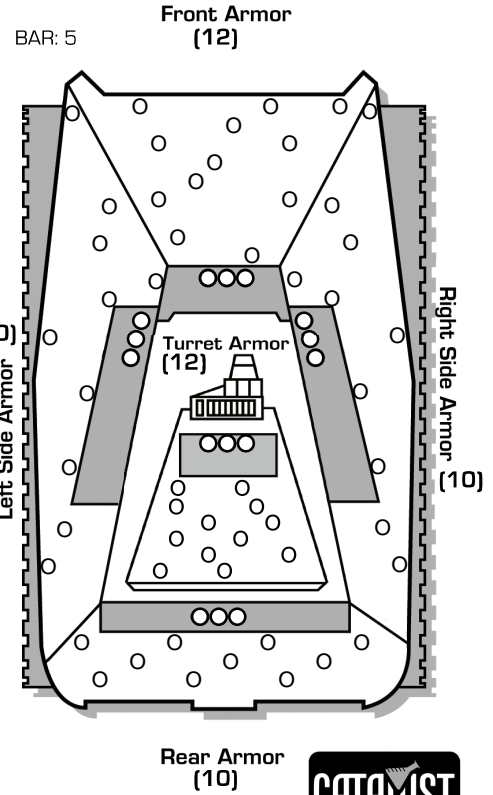
Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____

Commander Hit +1
 Driver Hit +2
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits +1 +2 +3 D
 Motive System Hits +1 +2 +3
 Stabilizers
 Front Left Right
 Rear Turret

ARMOR DIAGRAM



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
 **If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

ARMOR DIAGRAM

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: M3 Stuart

Movement Points: **Tonnage:** 15
 Cruising: 3 **Tech Base:** Pre-Spaceflight
 Flank: 5 **Era:** World War II
Movement Type: Tracked
Engine Type: I.C.E.

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	.30-06 Machine Gun	FR	1 [S]	-	14	28	42
1	37mm Cannon	T	4 [S]	5	26	52	78
1	Dual .30-06 MG Mount	T	1 [S]	-	14	28	42

Cargo Space - 0.020 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: [.30-06] 7500, [37mm] 174

CREW DATA

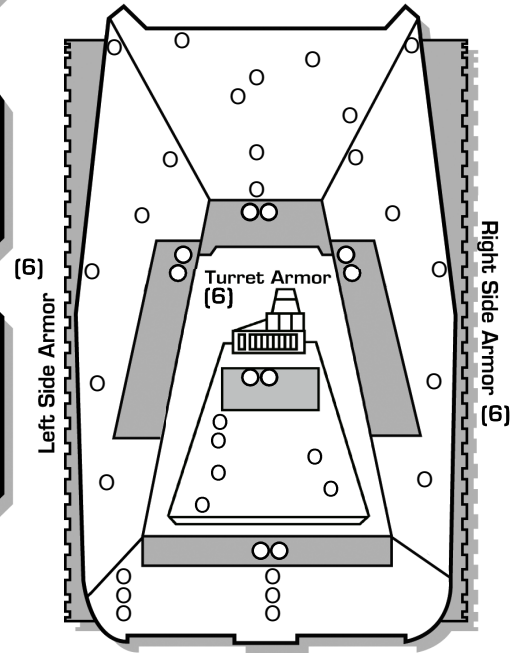
Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit **+1** Driver Hit **+2**
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits **+1** **+2** **+3** **D**
 Motive System Hits **+1** **+2** **+3**
 Stabilizers
 Front Left Right
 Rear Turret

BAR: 5

Front Armor (7)



Rear Armor (6)



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.

**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

ARMOR DIAGRAM

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: M4 Sherman

Movement Points: **Tonnage:** 30
Cruising: 2 **Tech Base:** Pre-Spaceflight
Flank: 3 **Era:** World War II
Movement Type: Tracked
Engine Type: I.C.E.

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	.30-06 Machine Gun	FR	1 [S]	-	14	28	42
1	.30-06 Machine Gun	T	1 [S]	-	14	28	42
1	.50 cal Machine Gun	T	2 [S]	-	15	29	44
1	75mm Cannon	T	7 [S]	-	18	36	54

Cargo Space - 2.320 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: (.30-06) 4750, (.50 cal) 300, (75mm) 90

CREW DATA

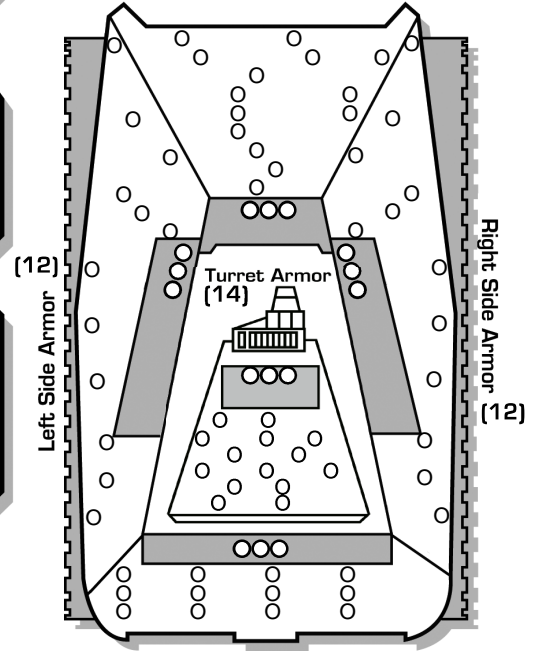
Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit +1 Driver Hit +2
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits +1 +2 +3 D
 Motive System Hits +1 +2 +3
 Stabilizers
 Front Left Right
 Rear Turret

BAR: 5

Front Armor (14)



Rear Armor (12)



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicle Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
 **If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

ARMOR DIAGRAM

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: Renault R35

Movement Points:
 Cruising: 1
 Flank: 2
Movement Type: Tracked
Engine Type: I.C.E.

Tonnage: 10
Tech Base: Pre-Spaceflight
Era: World War II

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	37mm Cannon	T	4 [S]	5	26	52	78
1	7.5mm Machine Gun	T	1 [S]	-	14	28	40

Cargo Space - 0.020 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: [37mm] 100, [7.5mm] 4200

CREW DATA

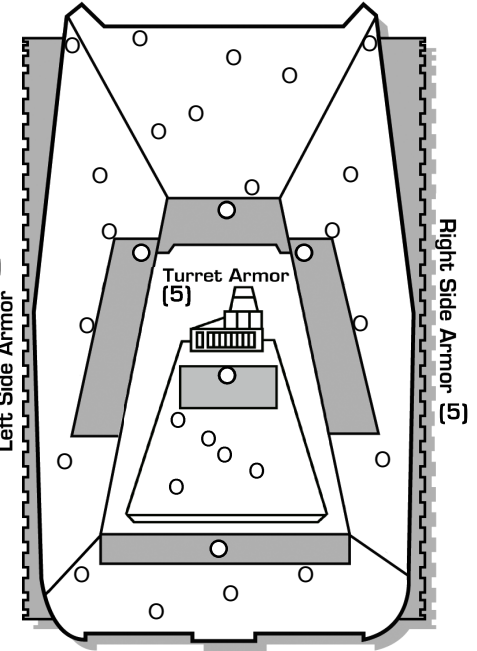
Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit +1 Driver Hit +2
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits +1 +2 +3 D
 Motive System Hits +1 +2 +3
 Stabilizers
 Front Left Right
 Rear Turret

BAR: 5

Front Armor (6)



Rear Armor (4)



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
 **If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: Panzer IV

Movement Points:

Cruising: 2

Flank: 3

Movement Type: Tracked

Engine Type: I.C.E.

Tonnage: 25

Tech Base: Pre-Spaceflight

Era: World War II

CREW DATA

Crew: _____

Gunnery Skill: _____ Driving Skill: _____

Commander Hit **+1**

Modifier to all Skill rolls

Driver Hit **+2**

Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit

Sensor Hits **+1** **+2** **+3** **D**

Motive System Hits **+1** **+2** **+3**

Stabilizers

Front Left Right

Rear Turret

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	7.92mm Machine Gun	FR	1 [S]	-	12	25	37
1	7.92mm Machine Gun	T	1 [S]	-	12	25	37
1	75mm Cannon	T	7 [S]	-	18	36	54

Cargo Space - 0.650 tons

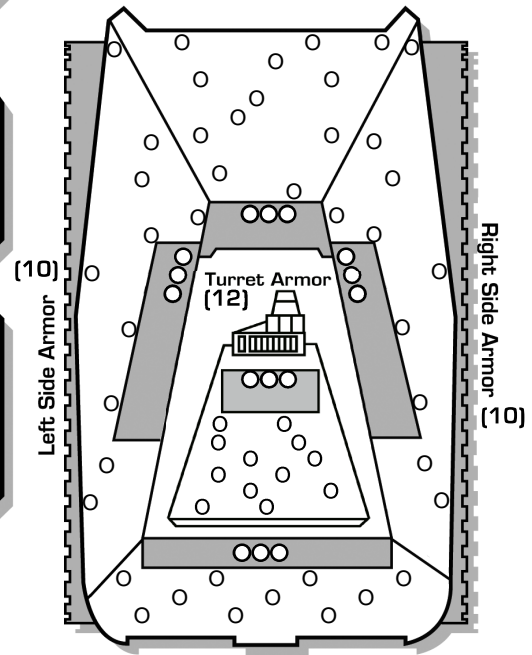
Chassis Modifications: Armored Chassis, Tractor

Ammo: (7.92mm) 5000, (75mm) 100

ARMOR DIAGRAM

BAR: 5

Front Armor (12)



Rear Armor (10)



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicle Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:

Hit from rear	+1
Hit from the sides	+2

Vehicle Type Modifiers:

Tracked, Naval	+0
Wheeled	+2
Hovercraft, Hydrofoil	+3
WICE	+4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.

**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: Tiger I

Movement Points: _____
Tonnage: 57
Crusing: 2 **Tech Base:** Pre-Spaceflight
Flank: 3 **Era:** World War II
Movement Type: Tracked
Engine Type: I.C.E.

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	7.92mm Machine Gun	FR	1 [S]	-	12	25	37
1	7.92mm Machine Gun	T	1 [S]	-	12	25	37
1	8.8cm Cannon	T	9 [S]	5	26	52	78

Cargo Space - 0.020 tons
 Chassis Modifications: Armored Chassis, Amphibious

Ammo: [8.8cm] 120, [7.92mm] 4800

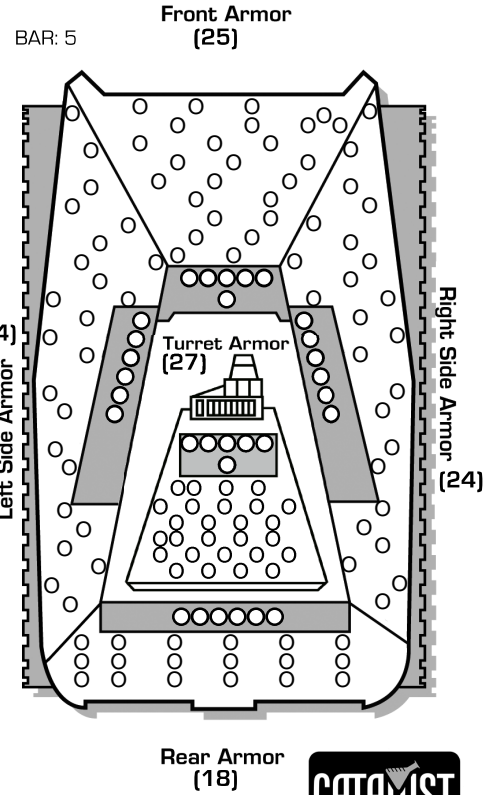
CREW DATA

Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit +1 **Driver Hit** +2
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked **Engine Hit**
Sensor Hits +1 +2 +3 D
Motive System Hits +1 +2 +3
Stabilizers
 Front Left Right
 Rear Turret

ARMOR DIAGRAM



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.

**If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH



GROUND VEHICLE RECORD SHEET

VEHICLE DATA

Type: Semovente 78/18

Movement Points:
 Cruising: 2
 Flank: 3
Movement Type: Tracked
Engine Type: I.C.E.

Tonnage: 14.4
Tech Base: Pre-Spaceflight
Era: World War II

Weapons & Equipment Inventory (hexes)

Qty	Type	Loc	Dmg	Min	Sht	Med	Lng
1	75mm Cannon	FR	7 [S]	-	18	36	54
1	8mm Machine Gun	FR	1 [S]	-	12	24	36

Cargo Space - 0.100 tons
 Chassis Modifications: Armored Chassis, Tractor

Ammo: [8mm] 1110, [75mm] 44

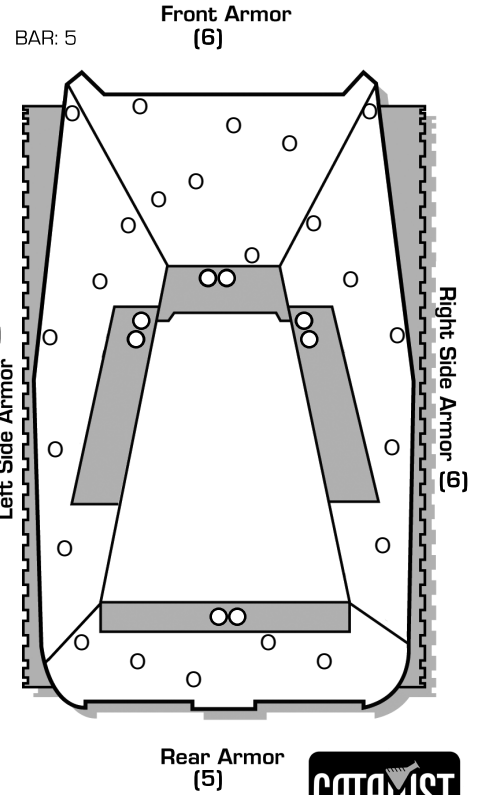
CREW DATA

Crew: _____
Gunnery Skill: _____ **Driving Skill:** _____
 Commander Hit **+1** Driver Hit **+2**
Modifier to all Skill rolls Modifier to Driving Skill rolls

CRITICAL DAMAGE

Turret Locked Engine Hit
 Sensor Hits **+1** **+2** **+3** **D**
 Motive System Hits **+1** **+2** **+3**
 Stabilizers
 Front Left Right
 Rear

ARMOR DIAGRAM



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GROUND COMBAT VEHICLE HIT LOCATION TABLE

2D6 Roll	ATTACK DIRECTION		
	FRONT	REAR	SIDES
2*	Front (critical)	Rear (critical)	Side (critical)
3	Front†	Rear†	Side†
4	Front†	Rear†	Side†
5	Right Side†	Left Side†	Front†
6	Front	Rear	Side
7	Front	Rear	Side
8	Front	Rear	Side (critical)*
9	Left Side†	Right Side†	Rear†
10	Turret	Turret	Turret
11	Turret	Turret	Turret
12*	Turret (critical)	Turret (critical)	Turret (critical)

*A result of 2 or 12 (or an 8 if the attack strikes the side) may inflict a critical hit on the vehicle. For each result of 2 or 12 (or 8 for side attacks), apply damage normally to the armor in that section. The attacking player then automatically rolls once on the Ground Combat Vehicle Critical Hits Table below (see *Combat*, p. 192 in *Total Warfare* for more information). A result of 12 on the Ground Combat Vehicles Hit Location Table may inflict critical hit against the turret; if the vehicle has no turret, a 12 indicates the chance of a critical hit on the side corresponding to the attack direction.
 †The vehicle may suffer motive system damage even if its armor remains intact. Apply damage normally to the armor in that section, but the attacking player also rolls once on the Motive System Damage Table at night (see *Combat*, p. 192 in *Total Warfare* for more information). Apply damage at the end of the phase in which the damage takes effect.
 ‡Side hits strike the side as indicated by the attack direction. For example, if an attack hits the right side, all Side results strike the right side armor. If the vehicle has no turret, a turret hit strikes the armor on the side attacked.

MOTIVE SYSTEM DAMAGE TABLE

2D6 Roll	EFFECT*
2-5	No effect
6-7	Minor damage; +1 modifier to all Driving Skill Rolls
8-9	Moderate damage; -1 Cruising MP, +2 modifier to all Driving Skill Rolls
10-11	Heavy damage; only half Cruising MP (round fractions up), +3 modifier to all Driving Skill Rolls
12+	Major damage; no movement for the rest of the game. Vehicle is immobile.

Attack Direction Modifier:	Vehicle Type Modifiers:	
Hit from rear	+1	Tracked, Naval +0
Hit from the sides	+2	Wheeled +2
		Hovercraft, Hydrofoil +3
		WICE +4

*All movement and Driving Skill Roll penalties are cumulative. However, each Driving Skill Roll modifier can only be applied once. For example, if a roll of 6-7 is made for a vehicle, inflicting a +1 modifier, that is the only time that particular +1 can be applied; a subsequent roll of 6-7 has no additional effect. This means the maximum Driving Skill Roll modifier that can be inflicted from the Motive System Damage Table is +6. If a unit's Cruising MP is reduced to 0, it cannot move for the rest of the game, but is not considered an immobile target. In addition, all motive system damage takes effect at the end of the phase in which the damage occurred. For example, if two units are attacking the same Combat Vehicle during the Weapon Attack Phase and the first unit inflicts motive system damage and rolls a 12, the -4 immobile target modifier would not apply for the second unit. However, the -4 modifier would take effect during the Physical Attack Phase. If a hover vehicle is rendered immobile while over a Depth 1 or deeper water hex, it sinks and is destroyed.

GROUND COMBAT VEHICLE CRITICAL HITS TABLE

2D6 Roll	LOCATION HIT			
	FRONT	SIDE	REAR	TURRET
2-5	No Critical Hit	No Critical Hit	No Critical Hit	No Critical Hit
6	Driver Hit	Cargo/Infantry Hit	Weapon Malfunction	Stabilizer
7	Weapon Malfunction	Weapon Malfunction	Cargo/Infantry Hit	Turret Jam
8	Stabilizer	Crew Stunned	Stabilizer	Weapon Malfunction
9	Sensors	Stabilizer	Weapon Destroyed	Turret Locks
10	Commander Hit	Weapon Destroyed	Engine Hit	Weapon Destroyed
11	Weapon Destroyed	Engine Hit	Ammunition**	Ammunition**
12	Crew Killed	Fuel Tank*	Fuel Tank*	Turret Blown Off

*If Combat Vehicle has ICE engine only. If Combat Vehicle has a fusion engine, treat this result as Engine Hit.
 **If Combat Vehicle carries no ammunition, treat this result as Weapon Destroyed.

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BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Mitsubishi A6M Zero

Thrust: Tonnage: 2.5
 Safe Thrust: 3 Tech Base: Pre-Spaceflight
 Maximum Thrust: 5 Era: World War II

Weapons & Equipment Inventory

Qty	Type	Loc.	Ht	(0-6)	(6-12)	(13-20)	(21-25)
				SRV	MRV	LRV	ERV
2	7.7mm Machine Gun [S]	N	0	1	-	-	-
1	20mm Cannon [S]	LW	0	3	-	-	-
1	20mm Cannon [S]	RW	0	3	-	-	-
1	Bomb Hardpoint [E]	BD	0	-	-	-	-

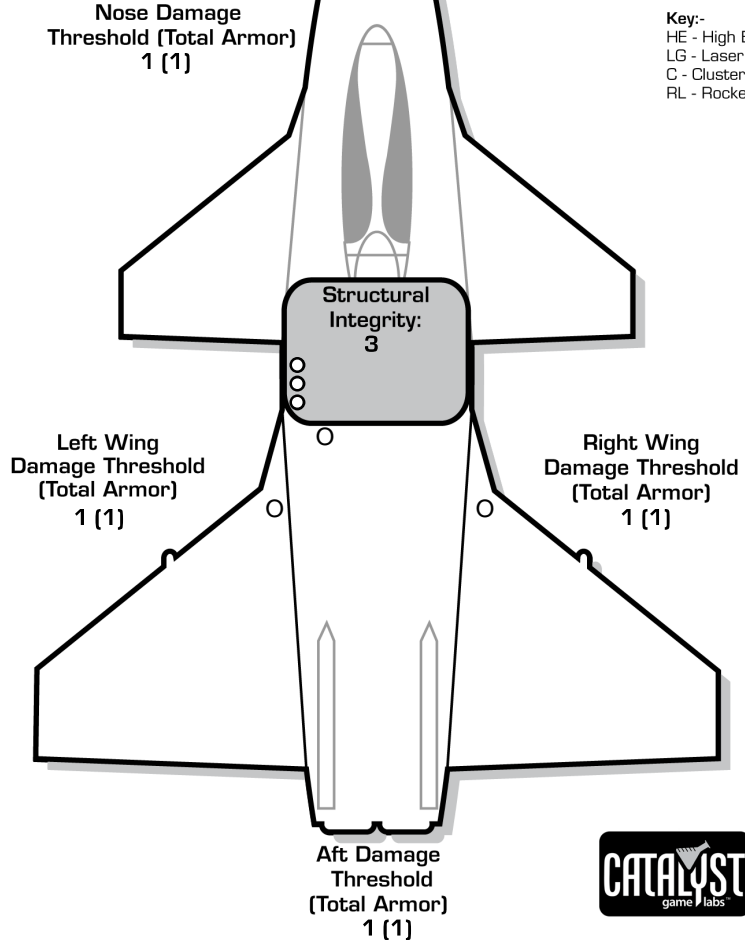
Chassis Modifications: Prop, Ultra-Light

Cargo:
 Cargo Space - 0.014 tons

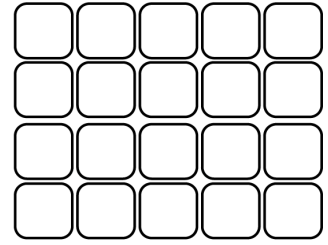
Ammo: [20mm] 120, [7.7mm] 1000
 Fuel: 53 Points

ARMOR DIAGRAM

BAR: 3



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics	+1	+2	+5	Engine	2	4	D
FCS	+2	+4	D	Gear	+5		
Sensors	+1	+2	+5	Life Support	+2		

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____

Hits Taken	1	2	3	4	5	6
Consciousness #	3	5	7	10	11	Dead
Modifier	+1	+2	+3	+4	+5	

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										
Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Aichi D3A "Val"

Thrust: Tonnage: 3.5
 Safe Thrust: 2 Tech Base: Pre-Spaceflight
 Maximum Thrust: 3 Era: World War II

Weapons & Equipment Inventory

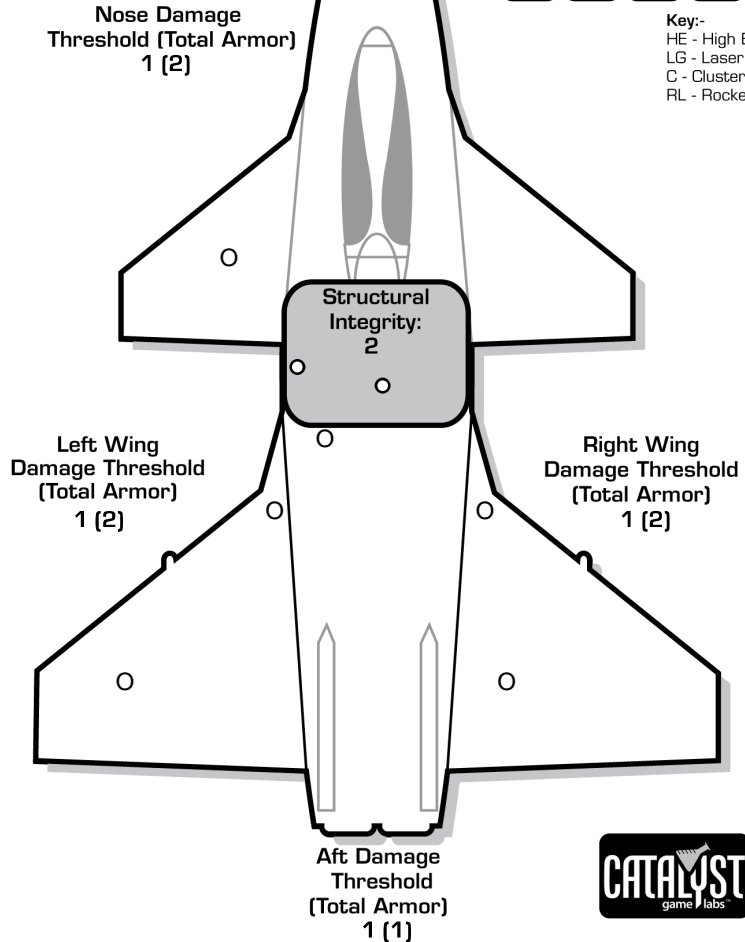
Qty	Type	Loc.	Ht	SRV	MRV	LRV	ERV
1	Dual 7.7mm MG Mount [S]	N	0	1	-	-	-
1	Bomb Hardpoint [E]	LW	0	-	-	-	-
1	Bomb Hardpoint [E]	RW	0	-	-	-	-
1	7.7mm Machine Gun [S]	A	0	1	-	-	-

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 0.003 tons

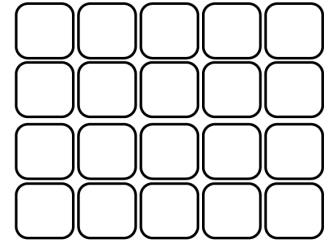
Ammo: [7.7mm] 1500
 Fuel: 84 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D

FCS +2 +4 D Gear +5

Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____

Hits Taken	1	2	3	4	5	6
Consciousness #	3	5	7	10	11	Dead
Modifier	+1	+2	+3	+4	+5	

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Yakovlev Yak-1

Thrust: Tonnage: 3
 Safe Thrust: 4 Tech Base: Pre-Spaceflight
 Maximum Thrust: 6 Era: World War II

Weapons & Equipment Inventory

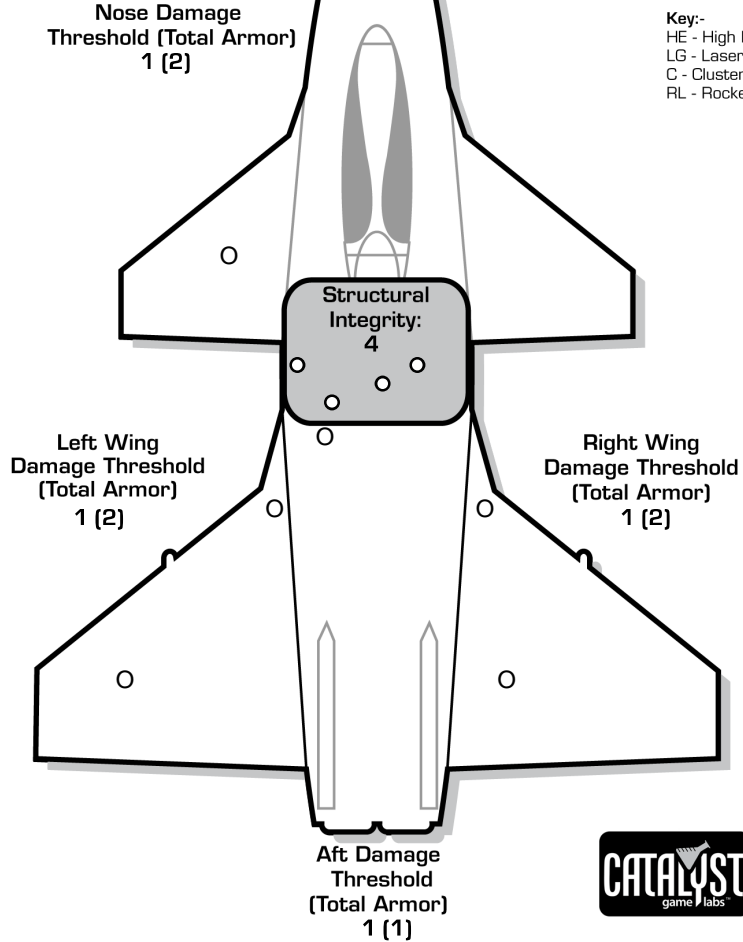
Qty	Type	Loc.	Ht	SRV	MRV	LRV	ERV
1	12.7mm Machine Gun [S]	N	0	2	-	-	-
1	20mm Cannon [S]	N	0	3	-	-	-

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 0.027 tons

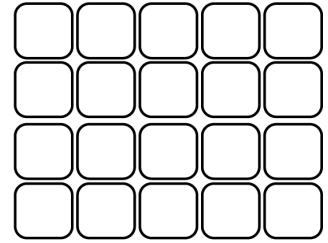
Ammo: [20mm] 200, [12.7mm] 150
 Fuel: 45 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D
 FCS +2 +4 D Gear +5
 Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken 1 2 3 4 5 6
 Consciousness # 3 5 7 10 11 Dead
 Modifier +1 +2 +3 +4 +5

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										
Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Ilyushin Il-2 Shturmovik

Thrust: Tonnage: 6.2
 Safe Thrust: 3 Tech Base: Pre-Spaceflight
 Maximum Thrust: 5 Era: World War II

Weapons & Equipment Inventory

Standard Scale		(0-6)	(6-12)	(13-20)	(21-25)	
Qty	Type	Loc. Ht	SRV	MRV	LRV	ERV
1	Dual 23mm Cannon Mount [S]	N 0	3	-	-	-
1	7.62mm Machine Gun [S]	LW 0	1	-	-	-
1	7.62mm Machine Gun [S]	RW 0	1	-	-	-
1	12.7mm Machine Gun [S]	A 0	2	-	-	-
1	Dual Bomb Hardpoint [E]	BD 0	-	-	-	-

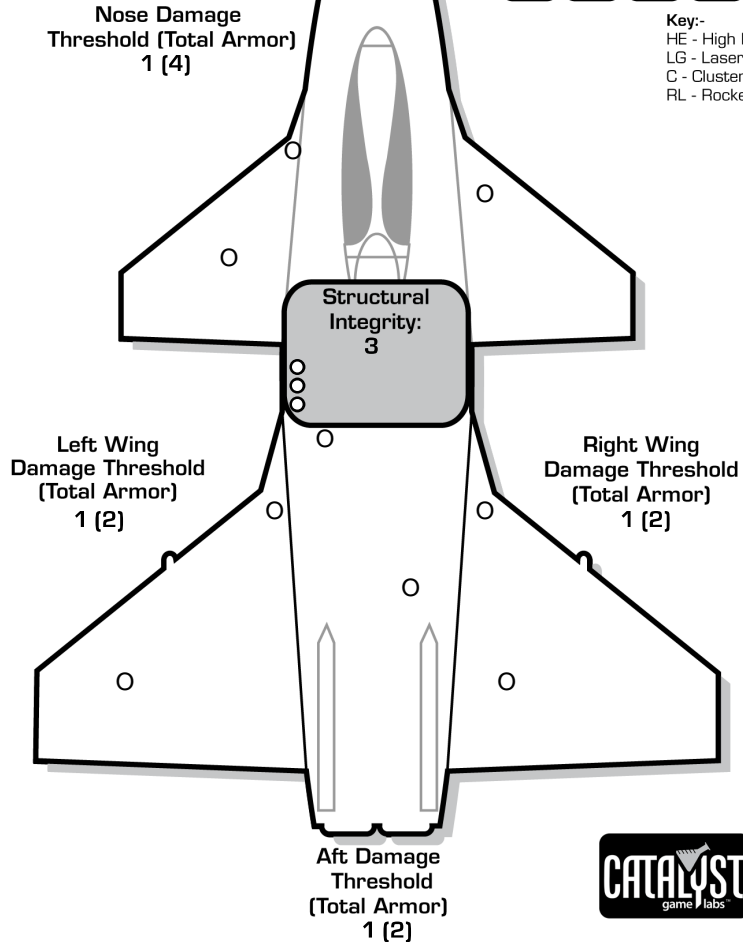
Chassis Modifications: Armored Chassis, Prop

Ammo: (7.62mm) 1500, (12.7mm) 150, (23mm) 300

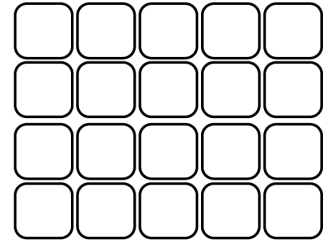
Fuel: 35 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D

FCS +2 +4 D Gear +5

Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____

Gunnery Skill: _____ Piloting Skill: _____

Hits Taken	1	2	3	4	5	6
Consciousness #	3	5	7	10	11	Dead
Modifier	+1	+2	+3	+4	+5	

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Supermarine Spitfire Mk XIV

Thrust: Tonnage: 3.9
 Safe Thrust: 4 Tech Base: Pre-Spaceflight
 Maximum Thrust: 6 Era: World War II

Weapons & Equipment Inventory

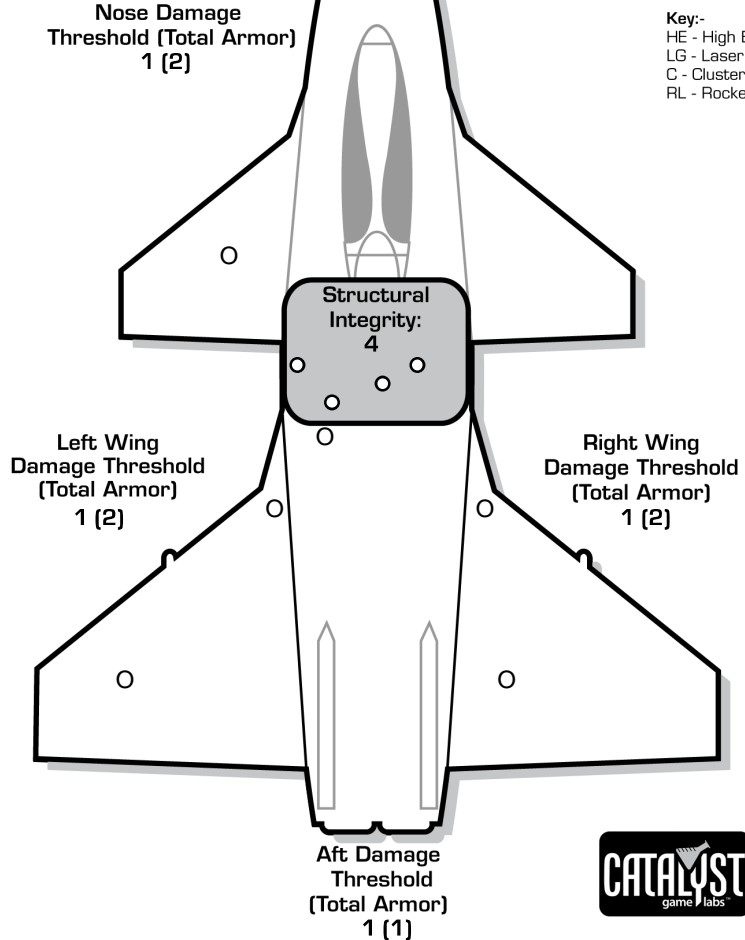
Standard Scale			(0-6)	(6-12)	(13-20)	(21-25)
Qty	Type	Loc. Ht	SRV	MRV	LRV	ERV
1	20mm Cannon [S]	LW 0	3	-	-	-
1	Dual 7.7mm MG Mount [S]	LW 0	1	-	-	-
1	20mm Cannon [S]	RW 0	3	-	-	-
1	Dual 7.7mm MG Mount [S]	RW 0	1	-	-	-
1	Dual Bomb Hardpoint [E]	BD 0	-	-	-	-

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 0.009 tons

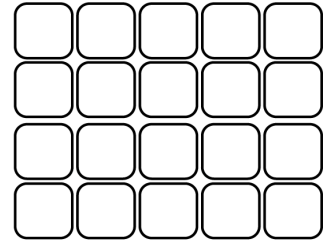
Ammo: [20mm] 240, [7.7mm] 1400
 Fuel: 55 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D
 FCS +2 +4 D Gear +5
 Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken 1 2 3 4 5 6
 Consciousness # 3 5 7 10 11 Dead
 Modifier +1 +2 +3 +4 +5

GROUND MAP STRAIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										
Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: DH.98 Mosquito B MK XVI

Thrust: Tonnage: 8.3
 Safe Thrust: 4 Tech Base: Pre-Spaceflight
 Maximum Thrust: 6 Era: World War II

Weapons & Equipment Inventory

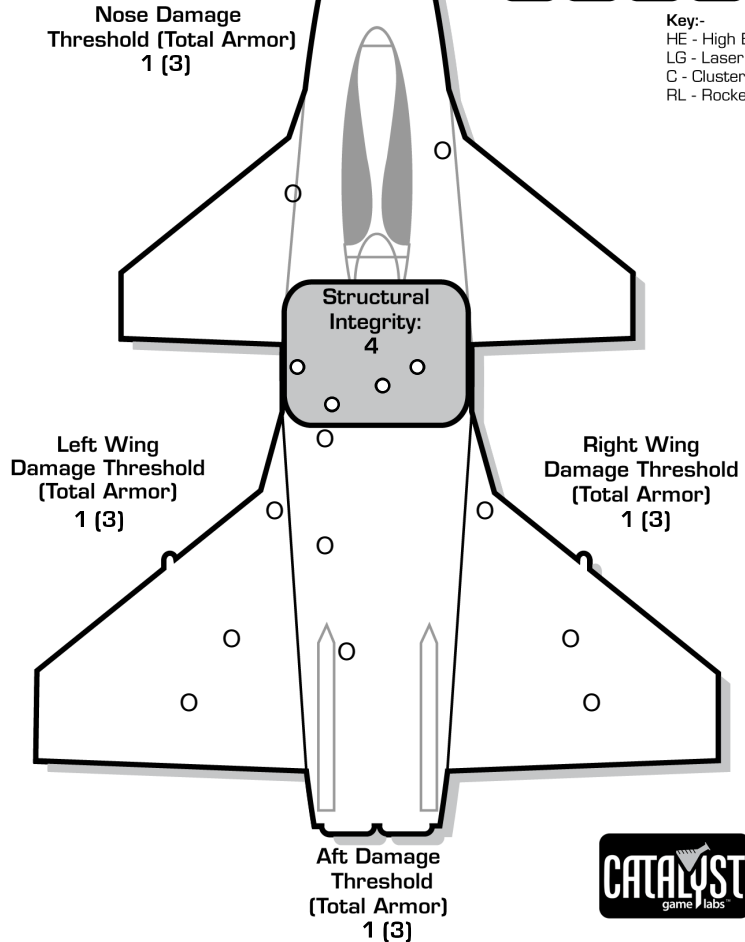
Standard Scale (0-6) (6-12) (13-20) (21-25)
 Qty Type Loc. Ht SRV MRV LRV ERV

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 1.800 tons

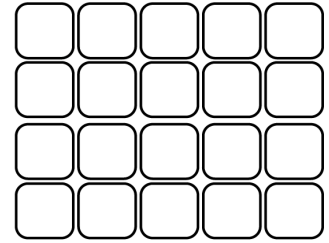
Fuel: 35 Points

ARMOR DIAGRAM

BAR: 3



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D
 FCS +2 +4 D Gear +5
 Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken 1 2 3 4 5 6
 Consciousness # 3 5 7 10 11 Dead
 Modifier +1 +2 +3 +4 +5

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)

VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										
Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: North American P-51D Mustang

Thrust: Tonnage: 4.2
 Safe Thrust: 4 Tech Base: Pre-Spaceflight
 Maximum Thrust: 6 Era: World War II

Weapons & Equipment Inventory

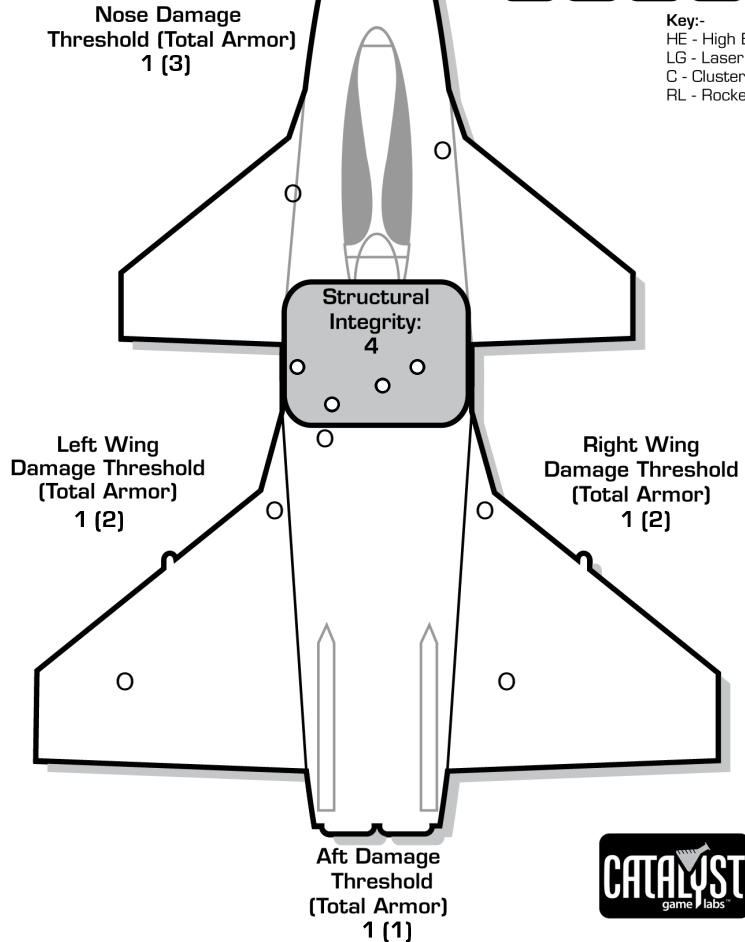
Standard Scale			(0-6)	(6-12)	(13-20)	(21-25)
Qty	Type	Loc. Ht	SRV	MRV	LRV	ERV
1	Bomb Hardpoint [E]	LW 0	-	-	-	-
1	Triple .50 cal MG Mount [S]	LW 0	2	-	-	-
1	Bomb Hardpoint [E]	RW 0	-	-	-	-
1	Triple .50 cal MG Mount [S]	RW 0	2	-	-	-

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 0.007 tons

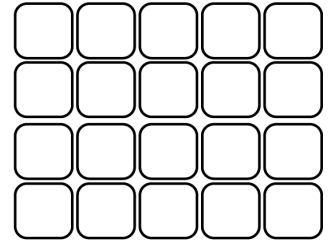
Ammo: (.50 cal) 1800
 Fuel: 72 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D
 FCS +2 +4 D Gear +5
 Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken 1 2 3 4 5 6
 Consciousness # 3 5 7 10 11 Dead
 Modifier +1 +2 +3 +4 +5

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										
Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Lockheed P-38 Lightning

Thrust: Tonnage: 9.8
 Safe Thrust: 4 Tech Base: Pre-Spaceflight
 Maximum Thrust: 6 Era: World War II

Weapons & Equipment Inventory

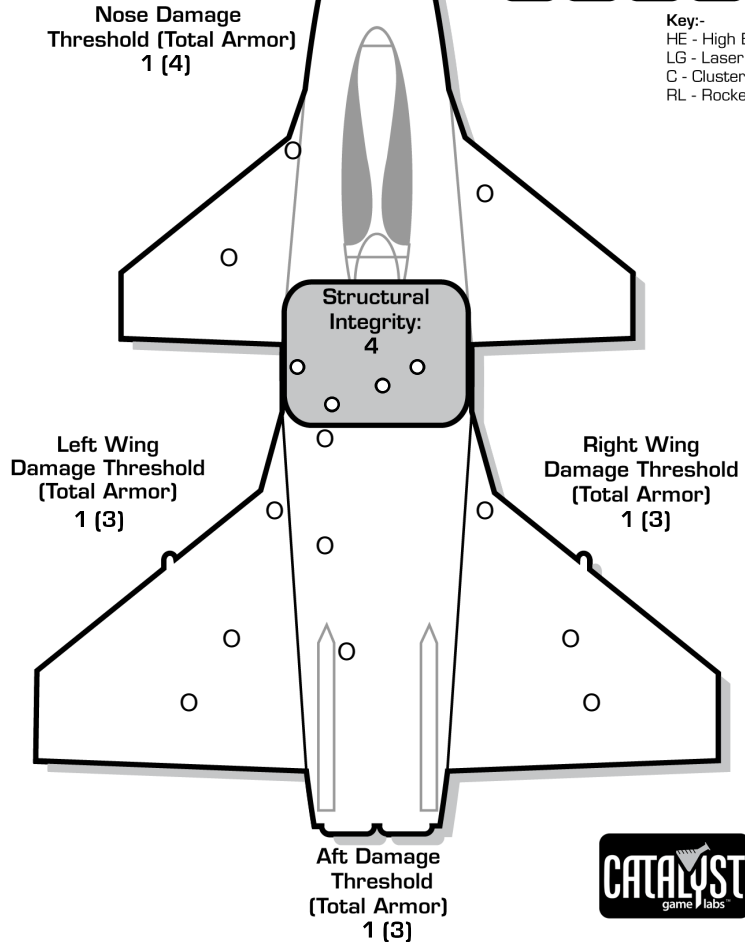
Standard Scale			(0-6)	(6-12)	(13-20)	(21-25)
Qty	Type	Loc. Ht	SRV	MRV	LRV	ERV
1	20mm Cannon [S]	N 0	3	-	-	-
1	Dual 12.7mm MG Mount [S]	N 0	2	-	-	-
1	Dual Bomb Hardpoint [E]	LW 0	-	-	-	-
1	Dual Bomb Hardpoint [E]	RW 0	-	-	-	-

Chassis Modifications: Prop

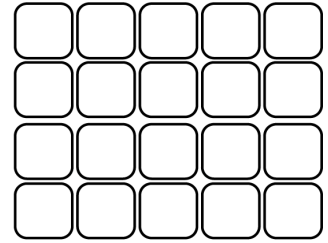
Ammo: (20mm) 150, (12.7mm) 1000
 Fuel: 40 Points

ARMOR DIAGRAM

BAR: 5



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics (+1, +2, +5) Engine (2, 4, D)
 FCS (+2, +4, D) Gear (+5)
 Sensors (+1, +2, +5) Life Support (+2)

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken: 1 2 3 4 5 6
 Consciousness #: 3 5 7 10 11 Dead
 Modifier: +1 +2 +3 +4 +5

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										
Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Morane-Saulnier M.S. 406

Thrust: Tonnage: 2.5
 Safe Thrust: 3 Tech Base: Pre-Spaceflight
 Maximum Thrust: 5 Era: World War II

Weapons & Equipment Inventory

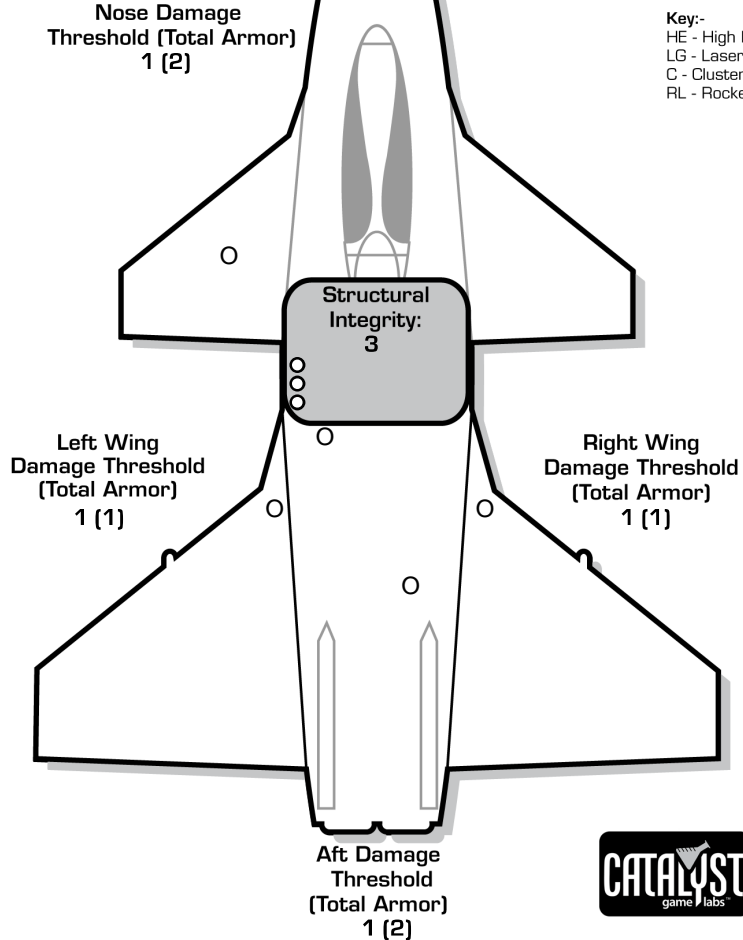
Standard Scale			(0-6)	(6-12)	(13-20)	(21-25)
Qty	Type	Loc. Ht	SRV	MRV	LRV	ERV
1	20mm Cannon [S]	N 0	3	-	-	-
1	7.5mm Machine Gun [S]	LW 0	1	-	-	-
1	7.5mm Machine Gun [S]	RW 0	1	-	-	-

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 0.017 tons

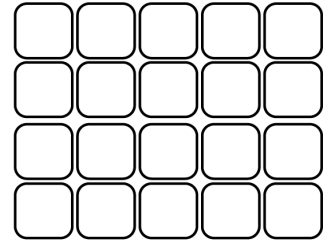
Ammo: [20mm] 240, [7.5mm] 1400
 Fuel: 48 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D
 FCS +2 +4 D Gear +5
 Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken

1	2	3	4	5	6
---	---	---	---	---	---

 Consciousness #

3	5	7	10	11	Dead
---	---	---	----	----	------

 Modifier

+1	+2	+3	+4	+5
----	----	----	----	----

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Focke Wulf Fw 190 Würger

Thrust: Tonnage: 4.9
 Safe Thrust: 4 Tech Base: Pre-Spaceflight
 Maximum Thrust: 6 Era: World War II

Weapons & Equipment Inventory

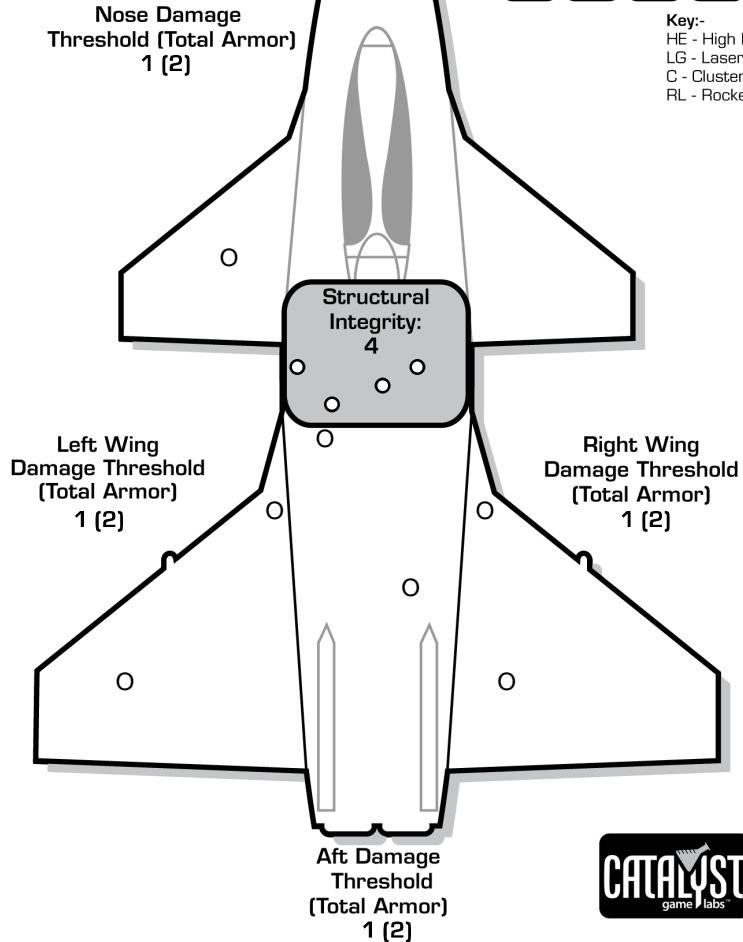
Standard Scale		(0-6)	(6-12)	(13-20)	(21-25)		
Qty	Type	Loc.	Ht	SRV	MRV	LRV	ERV
1	Dual 13mm MG Mount [S]	N	0	2	-	-	-
1	Dual 20mm Cannon Mount [S]	LW	0	3	-	-	-
1	Dual 20mm Cannon Mount [S]	RW	0	3	-	-	-

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 0.007 tons

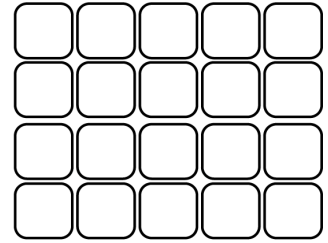
Ammo: (20mm) 780, (13mm) 950
 Fuel: 65 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics +1 +2 +5 Engine 2 4 D
 FCS +2 +4 D Gear +5
 Sensors +1 +2 +5 Life Support +2

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken

1	2	3	4	5	6
---	---	---	---	---	---

 Consciousness #

3	5	7	10	11	Dead
---	---	---	----	----	------

 Modifier

+1	+2	+3	+4	+5
----	----	----	----	----

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: Messerschmitt Bf 109 G-6

Thrust: Tonnage: 3.5
 Safe Thrust: 3 Tech Base: Pre-Spaceflight
 Maximum Thrust: 5 Era: World War II

Weapons & Equipment Inventory

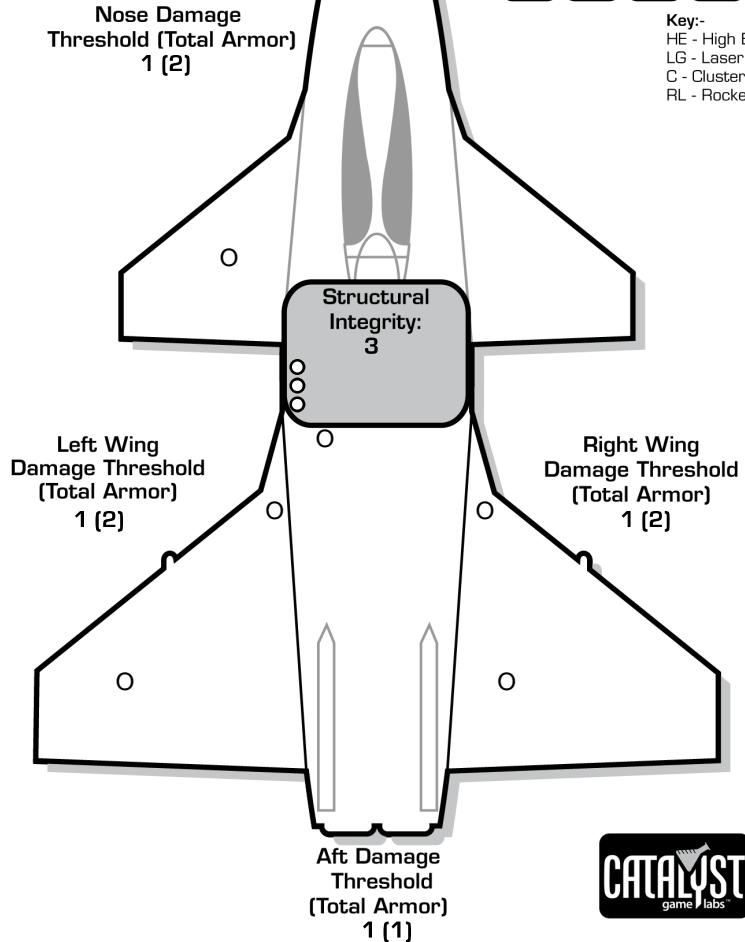
Standard Scale			(0-6)	(6-12)	(13-20)	(21-25)
Qty	Type	Loc. Ht	SRV	MRV	LRV	ERV
1	30mm Cannon [S]	N 0	3	-	-	-
1	Dual 13mm MG Mount [S]	N 0	2	-	-	-
1	20mm Cannon [S]	LW 0	3	-	-	-
1	20mm Cannon [S]	RW 0	3	-	-	-

Chassis Modifications: Prop
 Cargo:
 Cargo Space - 0.020 tons

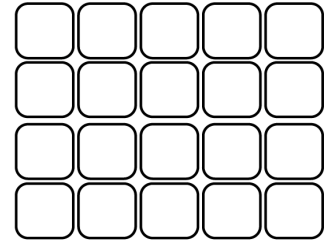
Ammo: [20mm] 270, [13mm] 600, [30mm] 65
 Fuel: 45 Points

ARMOR DIAGRAM

BAR: 4



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics	+1	+2	+5	Engine	2	4	D
FCS	+2	+4	D	Gear	+5		
Sensors	+1	+2	+5	Life Support	+2		

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____

Hits Taken	1	2	3	4	5	6
Consciousness #	3	5	7	10	11	Dead
Modifier	+1	+2	+3	+4	+5	

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										

Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0

BATTLETECH

FIXED WING SUPPORT VEHICLE RECORD SHEET

FIGHTER DATA

Type: **Macchi C.202 Fulgore**

Thrust: _____ Tonnage: 3
 Safe Thrust: 4 Tech Base: Pre-Spaceflight
 Maximum Thrust: 6 Era: World War II

Weapons & Equipment Inventory

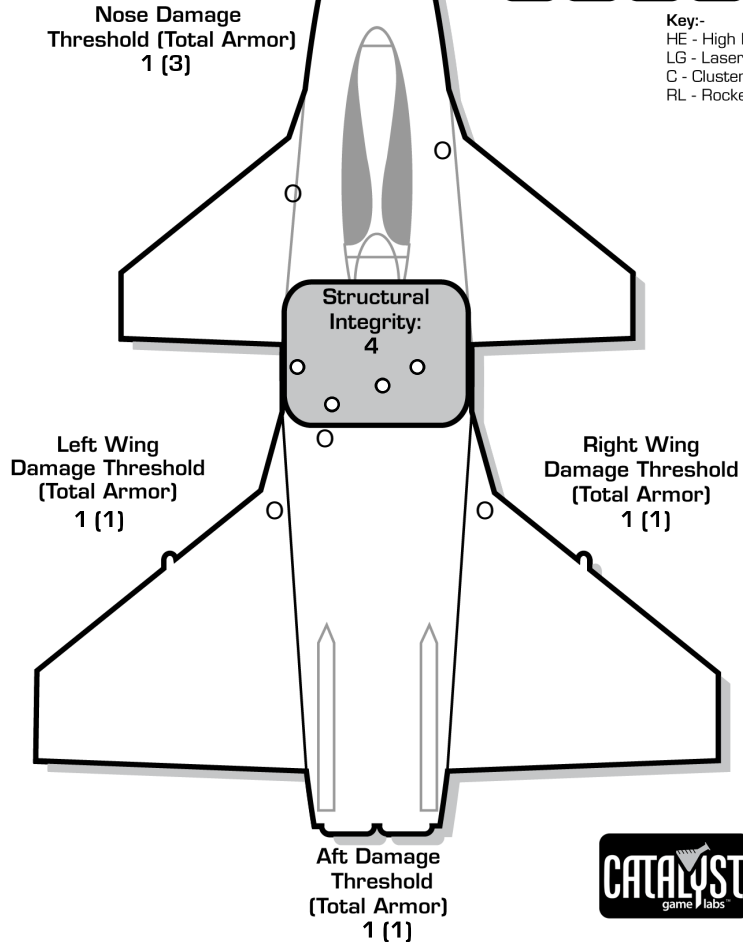
Qty	Type	Loc.	Ht	SRV	MRV	LRV	ERV
1	Dual 12.7mm MG Mount [S]	N	0	2	-	-	-
1	7.7mm Machine Gun [S]	LW	0	1	-	-	-
1	Bomb Hardpoint [E]	LW	0	-	-	-	-
1	7.7mm Machine Gun [S]	RW	0	1	-	-	-
1	Bomb Hardpoint [E]	RW	0	-	-	-	-

Chassis Modifications: Prop

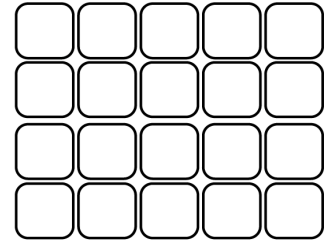
Ammo: (12.7mm) 800, (7.7mm) 1000
 Fuel: 38 Points

ARMOR DIAGRAM

BAR: 3



EXTERNAL STORES/BOMBS



Key:-
 HE - High Explosive
 LG - Laser Guided
 C - Cluster
 RL - Rocket Launcher

CRITICAL DAMAGE

Avionics (+1, +2, +5) Engine (2, 4, D)
 FCS (+2, +4, D) Gear (+5)
 Sensors (+1, +2, +5) Life Support (+2)

PILOT DATA

Name: _____
 Gunnery Skill: _____ Piloting Skill: _____
 Hits Taken: 1 2 3 4 5 6
 Consciousness #: 3 5 7 10 11 Dead
 Modifier: +1 +2 +3 +4 +5

GROUND MAP STRIGHT MOVEMENT

MINIMUM STRAIGHT MOVEMENT (IN HEXES)		
VELOCITY	FIGHTER	SMALL CRAFT AND FIXED WING SUPPORT VEHICLES
1	8	8
2	12	14
3	16	20
4	20	26
5	24	32
6	28	38
7	32	44
8	36	50
9	40	56
10	44	62
11	48	68
12	52	74

Velocity above 12 is not possible on ground maps.

VELOCITY RECORD

Turn #	1	2	3	4	5	6	7	8	9	10
Thrust										
Velocity										
Effective Velocity										
Altitude										
Turn #	11	12	13	14	15	16	17	18	19	20
Thrust										
Velocity										
Effective Velocity										
Altitude										

FIGHTER RETURN TABLE

SAFE THRUST	TURNS BEFORE RETURN
1-4	3
5-8	2
9-12	1
13+	0