

## **TOWED GUNS**

**Argentine Towed Guns**

**Austrian Towed Guns**

**Belgian Towed Guns**

**British Towed Guns**

**Bulgarian Towed Guns**

**Chinese Towed Guns**

**Czech Towed Guns**

**Dutch Towed Guns**

**Finnish Towed Guns**

**French Towed Guns**

**International Towed Guns**

**Israeli Towed Guns**

**Italian Towed Guns**

**Romanian Towed Guns**

**Russian Towed Guns**

**Singapore Towed Guns**

**South African Towed Guns**

**South Korean Towed Guns**

**Spanish Towed Guns**

**Swedish Towed Guns**

**Swiss Towed Guns**

**US Towed Guns**

**Yugoslavian Towed Guns**

## CALA 30/2

Notes: This is the newest Argentine towed howitzer, entering production in 1997. It is of conventional construction, with a split trail and wheels for towing. However, for short movements, the CALA 30/2 may be moved using its auxiliary power unit; this also assists in bringing the gun into action.

Twilight 2000 Notes: This gun does not exist.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm L/45 NATO Howitzer	8	3 minutes	10.9 tons	None	\$62,700 (R/-)

  

Tr Mov	Com Mov	Fuel Cap	Fuel Cons
30/6	7/1	100	30

## CITEFA Model 77

Notes: This is the standard Argentine towed howitzer. It is basically the gun of the French Mk F3 self-propelled howitzer mounted on a ground mount. The wheels are raised clear of the ground when firing and the weapon rests on a firing base and the trails.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm L/33 NATO Howitzer	8	5 minutes	8 tons	None	\$36,800 (R/-)

**N-45**

Notes: This weapon is a product of Austria. It is similar to the Type GC-45, but the weapon has been improved in the areas of reliability, handling, and ease of manufacture. The gun can be fitted with an APU for short movements. The N-45 is in use by China, Thailand, Iran, and Iraq.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm L/45 NATO Howitzer	6	5 minutes; (with APU) 3 minutes	10.1 tons; (with APU) 12.38 tons	None	\$46,500; (with APU) \$71,200 (R/S)

  

<b>Tr Mov</b>	<b>Com Mov</b>	<b>Fuel Cap</b>	<b>Fuel Cons</b>
60/12	13/3	60	30

## **GC-45**

Notes: This Belgian-made howitzer had sales only to Thailand (Marines). The GC-45 of its designation stands for Gun Caliber 45, meaning the length of the barrel. The GC-45 is of standard construction for a howitzer, with a split trail and 4-wheeled carriage. The breech opens automatically after a shot and closes automatically when loaded. The carriage is very robust and stable, enabling it to be towed at very high speeds. The trails have rubber tires to ease emplacement.

Twilight 2000 Notes: A Swiss company also purchased the manufacturing rights to the weapon before the war, and during the Twilight War manufactured the weapon for Switzerland. It was also pressed into use by the Belgians themselves during the Twilight War.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm L/45 NATO Howitzer	8	5 minutes	8.22 tons	None	\$37,800 (S/R)

## 5.5-Inch Gun

Notes: This weapon was designed as a gun/howitzer in World War 2. These weapons were quite old by the time of the Twilight War, but still used in some Third World nations. It is primarily a support weapon and has little used as an antiarmor weapon.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
5.5" (140mm) Gun	10	6 minutes	5.9 tons	None	\$26,800 (R/R)

## 6-Pounder Gun

Notes: This World War 2 relic is still used by some Southeast Asian and African nations. There is an American copy of this weapon known as the 57mm M-1 that is also used in many Third World nations. This weapon introduced the use of the Armor Piercing Discarding Sabot (APDS) round. It is ineffective against modern tanks, but is usually effective against the types of vehicles that the users of this weapon face.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
6-Pounder (57mm) Gun	5	4 minutes	1.1 tons	2	\$5,000 (R/R)

## 17-Pounder Gun

Notes: This is another World War 2 relic, still used in many Third World nations. It is a ground-mounted version of the 76.2mm gun found on many of the tanks of the period, and though it is unable to match the present-day tanks, it is useful as a support weapon and against light armor.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
17-Pounder (76.2mm) Gun	7	4 minutes	2.9 tons	2	\$13,200 (R/R)

## 25-Pounder Gun

Notes: This weapon is another World War 2 veteran, still used throughout Africa, Latin America, and Asia. It was one of the first guns designed as a gun/howitzer, combining the best features of both. It is primarily used today as a support weapon or a light howitzer, though it has some utility against light armor.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
(25-Pounder (88mm) Gun	6	4 minutes	1.8 tons	2	\$8,200 (S/S)

### L-118 Light Gun

Notes: This British gun is also used by the US Army as the M-119A1, and by many other countries, including Abu Dhabi, Australia, Bahrain, Dubai, Netherlands, New Zealand, Portugal, Spain, Brazil, and several African nations. It is of conventional construction, with split trails and hydraulic controls. It may be split into two loads for transport, the elevating mass (1.07 tons), and the carriage (0.79 tons).

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
105mm L/32 NATO Howitzer	5	3 minutes	1.86 tons	None	\$8,600 (C/R)

### Ultralightweight Field Howitzer

Notes: This weapon was developed by the British company of Vickers in response to the US need for a howitzer that was more air-portable. It is designed for use by US Army airborne and air assault divisions and light divisions as well as the Marines. It was also acquired by the UK for its light, airborne, and air assault units. Most of the weapon is built from lightweight titanium, which contributes to cost, but keeps weight down. The breech opens automatically after each shot and has a loading tray to ease loading. The UFH can be transported by light helicopters in two loads of 2.41 and 1.33 tons. It can also be airdropped whole or in parts.

Twilight 2000 Notes: This weapon began production in 1996 just before the Twilight War, and few were available during that conflict.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm L/39 NATO Howitzer	7	2 minutes	3.74 tons	None	\$25,800 (-/-)

## **BPTU-73**

Notes: This is basically a 73mm gun of the same type as on the BMP-1 and BMD-1, mounted on the carriage of the ZPU-23 anti-aircraft gun. This was done to make use of guns on BMP-1s otherwise made inoperable due to age or other mechanical problems. The BPTU-23 retains the sights of the BMP-1 (+1), and has an AV2 gun shield to the front to protect the crew. When in use, the wheels are raised off the ground and the gun rests on jacks. The gun is fed from a 12-round drum that is manually actuated.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
73mm Bloc	3	1 minute	1.2 tons	2	\$5,400 (-/R)

### Type 54-1

Notes: This Chinese howitzer is basically an updated version of the old World War 2 Russian M-30 howitzer. It was the first large caliber weapon to be produced by the People's Republic, as early as 1953. It is the same gun as on the Type 54-1 self-propelled howitzer. It has been exported to various Chinese allies and former allies.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
122mm L/23 Bloc Howitzer	8	4 minutes	2.5 tons	1	\$11,500 (R/S)

### Type 59-1

Notes: This is an upgraded version of the Type 59 gun, which is a copy of the Russian M-46. It uses lighter components and a smaller gun shield than the Type 59, and does not require a limber for towing. It's lighter weight means that it is more easily manhandled for large changes in deflection. This gun is in use by China, Albania, Bangladesh, Cambodia, Cameroon, Egypt, Iran, Iraq, North Korea, Lebanon, Oman, Pakistan, Somalia, Sri Lanka, Sudan, Thailand, UAE, Vietnam, and the Congo.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
130mm L/58 Gun/Howitzer	8	7 minutes	6.3 tons	2	\$28,900 (R/S)

### Type 83

Notes: This is a Chinese 152mm gun/howitzer also supplied to Iraq and Iran. It replaced the Type 66 (D-20) gun/howitzer in production in China. The weapon has an AV2 gun shield to the front; this shield is small and only protects the gunner and loader 50% of the time. When firing, the limber wheels are removed and the carriage wheels are jacked off the ground on a pivot platform. The gun includes a telescopic gunsight for direct fire shots (+1).

Twilight 2000 Notes: A number of these weapons were captured from Iraq during Desert Storm; these weapons later showed up in use by US units in the American southwest, using locally manufactured ammunition.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
152mm L/34 Gun/Howitzer	8	6 minutes	10.5 tons	2	\$48,200 (-/S)



## Type 86

Notes: This Chinese weapon is primarily an antitank gun, but it has limited use as an indirect fire weapon. Unlike a normal 100mm gun, however, indirect fire range is limited to 13,650 meters due to limited elevation range of the weapon. The Type 86 has an AV2 gun shield in front of the weapon. This weapon has a telescopic gun sight (+1) and can be fitted with night vision devices.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
100mm Gun	8	5 minutes	3.66 tons	2	\$16,800 (-/S)

## Type 97

Notes: This Chinese towed howitzer is based on the howitzer mounted on the US M-110 self-propelled howitzer. When the gun is fired, a baseplate is jacked into position between the carriage wheels, raising the wheels off the ground.

Twilight 2000 Notes: Volume production of this weapon had just begun at the time of the Twilight War and few had been built by the time of that war.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
203mm NATO Howitzer	12	6 minutes	16.4 tons	None	\$74,500 (-/-)

## Type GM-45

Notes: This is a conversion of the Type 59-1 or Type 66 guns to the 155mm ordinance of the WA-021. The weapon is fired with its traveling wheels on the ground and a flick rammer is used to ease loading.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm L/45 NATO Howitzer	8	5 minutes	8.8 tons	2	\$40,400 (-/R)

## Type WA-021

Notes: This is one of the newest towed howitzers in Chinese service, and is also used by Iran. It fires NATO-compatible ammunition, and may also fire Western-made ammunition. The carriage uses a pivot for firing so the weapon can be quickly relaid by its crew.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm L/45 NATO Howitzer	8	5 minutes	9.5 tons	None	\$43,600 (-/R)

### Type XP-52

Notes: This is a newer version of the WA-021. It is basically the same as the WA-021, but uses a longer barrel for extended range.

Twilight 2000 Notes: Very few of these guns were available for service in the Twilight War.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm L/52 NATO Howitzer	8	5 minutes	10.5 tons	None	\$48,200 (-/-)

## **M-52**

Notes: This Czech field gun had been long out of production by the time of the Twilight War, and was in service only with reserve formations. It may be fitted with a variety of sights and night vision devices. In addition to Czechoslovakia, this weapon is used by Austria.

Twilight 2000 Notes: With the Twilight War, the M-52 was pressed into service, usually as a support weapon for infantry formations rather than as an antitank weapon.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
85mm	4	4 minutes	2.13 tons	2	\$9,800 (R/R)

## **M-53**

Notes: This is a Czech antitank field gun that can also be used for indirect fire. The weapon has a greater indirect fire range than its Russian counterpart, the M-1944, because it may be raised to approximately twice the elevation of that weapon. Its indirect fire range is thus 15,400 meters. The M-53 may be fitted with a variety of sights and night vision devices.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
100mm Gun	4	4 minutes	4.28 tons	2	\$19,700 (-/S)

### **RDM M-101/33**

Notes: This is a Dutch upgraded version of the US M-101 105mm howitzer, with a new, longer barrel to bring it up to NATO standard, and new traverse, elevating, and mounting mechanisms to provide for the longer and heavier barrel. The breech is modified to allow for the use of RAP, base bleed, and hollow base ammunition. The recoil mechanism is also modified to allow for more modern ammunition. Besides the Netherlands, this weapon is used by Canada.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm NATO Howitzer	8	5 minutes	2.38 tons	2	\$11,000 (S/-)

### **RDM M-101/37**

Notes: This is the same as the M-101/33 above, with a 37-caliber barrel instead of a 33-caliber barrel, and appropriate changes in the mechanism. This weapon is used by the Netherlands, UK, and Canada, but is not as common.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm L/37 NATO Howitzer	8	5 minutes	2.4 tons	2	\$11,100 (R/-)

### **RDM M-114/39**

Notes: This is another conversion of the old US M-114 howitzer, re-barreled for a 39-caliber barrel, with an appropriate update in elevation, traverse, and mounting mechanisms. This modification is by the Netherlands and new guns with this configuration are also made, under the designation M-139. The jack and float assembly have also been moved forwards to accommodate the change in center of gravity. There is a pneumatic power rammer powered by an air compressor to ease loading. In addition to the Netherlands, this weapon is used by Denmark, Norway, Brazil, and Canada.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
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155mm NATO Howitzer	11	6 minutes	7.8 tons	None	\$35,900 (S/-)
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## **GH-52 APU**

Notes: This is a newer Finnish towed howitzer put into production just prior to the Twilight War. It features a long 52-caliber barrel for more range, and an APU for short movements. The APU may move the howitzer at a combat speed of 4 and uses 5 liters per period. The weapon also has a pneumatic rammer to ease loading, and the weapon has good sights (+1).

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm L/52 NATO Howitzer	8	4 minutes	13.5 tons	None	\$77,600 (R/R)

  

<b>Tr Mov</b>	<b>Com Mov</b>	<b>Fuel Cap</b>	<b>Fuel Cons</b>
30/6	7/1	50	30

## **M-83**

Notes: This is the standard towed howitzer of the Finnish Army, and is similar in many respects to the Russian M-1976. It has a power rammer fed by an air compressor, and good sights (+1). The weapon is very easy to handle and requires only a relatively small crew.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	5	5 minutes	9.5 tons	None	\$43,700 (R/R)

## LG-1 Mk II

Notes: This French-made gun howitzer was not used by France, but was used by Belgium, Canada, Indonesia, Singapore, and Thailand, usually in light divisions or Marine divisions. It is a very light weapon, able to be towed by small vehicles, and fast to bring into action. It is otherwise a conventional weapon that is raised on a baseplate before firing.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
105mm NATO Howitzer	7	30 seconds	1.52 tons	None	\$7,000 (S/R)

## M-101A1 Modernized

Notes: This is the US M-101A1 howitzer, which was getting long in the tooth, modernized by France. The key improvements are the replacement of the barrel with the same one as on the LG-1 Mk II, and improvement of the elevating and traversing gear. These howitzers are in use by the Philippines and Thailand, normally as upgrade kits supplied to the countries.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
105mm NATO Howitzer	7	3 minutes	2.26 tons	None	\$10,400 (R/-)

## Model 50

Notes: This French howitzer was developed after World War 2 and used for a number of years in front line service before being relegated to reserve status. This howitzer was also used by Israel, but most of these were modified to be carried on the L-33 self-propelled howitzer. They were also used by Sweden, in reserve status before the war and front-line after the war intensified. They are also known to be used by Lebanon, the PLO, and Ecuador. They are short-barreled weapons with less range than newer pieces. Before firing, the weapon is raised on a baseplate.

Twilight 2000 Notes: In the Twilight War, they were returned from reserve status and used once again in front-line service, especially by the Foreign Legion, who likes their light weight.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
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155mm L/33 NATO Howitzer	11	8 minutes	9 tons	None	\$41,400 (S/ R)
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### TR-39

Notes: This French howitzer has been developed to meet the demands of French motorized infantry and Rapid Action Forces. It is also in use by Cyprus. It was first used in combat during Desert Storm with French Foreign Legion forces. The gun has an APU to move the weapon short distances and power the mechanisms. The TR-39 is otherwise of the conventional split trail construction, and has good sights (+2).

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm NATO Howitzer	8	2 minutes	10.75 tons	None	\$61,900 (S/-)
Tr Mov		Com Mov		Fuel Cons	
18/4		4/1		20	

### TR-52

Notes: This is a version of the TR-39 with a 52-caliber barrel. It is otherwise the same as the above weapon.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm L/52 Howitzer	8	2 minutes	11 tons	None	\$63,250 (R/-)
Tr Mov		Com Mov		Fuel Cons	
18/4		4/1		20	



## **FH-70**

Notes: This howitzer is a joint product of Germany, Italy, and the UK, with some research being provided by the US in the initial phases. It is also used by Japan, Malaysia, Morocco, Netherlands, and Saudi Arabia. It is an advanced towed howitzer, with advanced sights (+2), a fire control computer for firing solutions, an APU, an automatic flick rammer, and otherwise conventional construction. It is strong enough to be airdropped, and may be airloaded on a large enough aircraft without preparation.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	8	4 minutes	9.3 tons	None	\$53,500 (S/R)

  

<b>Tr Mov</b>	<b>Com Mov</b>	<b>Fuel Cap</b>	<b>Fuel Cons</b>
30/6	7/1	100	30

### **Soltam M-46S**

Notes: This is a Russian made M-46 130mm field gun, re-barreled and re-breeched for a 155mm NATO howitzer. Israel had captured hundreds of M-46 field guns over the years, and instead of scrapping them, made them able to use standard 155mm ordinance. A defect in the gun, where the weapon can be fired without the breech being totally closed and locked, was corrected. A pneumatic rammer, driven by an air compressor, was added to ease loading. Finally, a muzzle brake is added that clears the crew of blast and overpressure, something lacking on the original M-46 gun.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	8	6 minutes	8.85 tons	2	\$40,800 (R/-)

### **Soltam M-71**

Notes: This is a standard-format towed howitzer; with a compressed air-driven rammer to ease loading that has a rechargeable battery mounted on the right trail. A version of this weapon was developed to mount on a modified Centurion chassis, but this vehicle never reached production. In addition to Israel, this weapon is in service with Singapore, Thailand, South Africa (where it is known as the G-4), and three other undisclosed countries.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	8	6 minutes	9.2 tons	None	\$42,400 (S/R)

### **Soltam M-114S**

Notes: This is the US M-114 howitzer, updated by Soltam, as these howitzers were left over from World War 2. Key improvements include replacement of the barrel and muzzle brake, addition of a pneumatic rammer driven by an air compressor, new elevation, traverse, and mount, and a telescopic sight for direct firing (+1). The crew requirements are also reduced.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm L/33 NATO Howitzer	6	5 minutes	5.9 tons	None	\$27,200 (R/-)

### **Soltam Model 845P**

Notes: This is an Israeli towed howitzer with an APU for short movements and opening the trails. The

APU can move the gun or power the mechanisms. The weapon cannot be double-loaded, and loading is assisted by a power rammer. The elevation and traverse may be done by hand, by a battery, or by the APU. The gun may be lifted off its travel wheels by a battery or the APU. The weapon is otherwise conventional, though a GPS system and firing computer is fitted, as well as a telescopic sight for direct firing (+1). A version of this weapon, using a 52-caliber barrel (as opposed to the 45-caliber barrel shown here) is used on the Slammer self-propelled howitzer.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm L/45 NATO Howitzer	4	4 minutes	10.85 tons	None	\$62,400 (R/-)

  

<b>Tr Mov</b>	<b>Com Mov</b>	<b>Fuel Cap</b>	<b>Fuel Cons</b>
35/7	8/2	85	25

## **155/39 TM**

Notes: This is an Italian update of the US M-114 howitzer, which was supplied to Italy after World War 2. This same gun is used on the Italian version of the M-109 (the M-109L). It is an M-114 re-barreled for a 39-caliber gun, and with elevation, traverse, and mount modified to cope with the increased weight. The firing platform is moved forward.

Twilight 2000 Notes: The 155/39 TM was originally developed for the export market and for the M-109L, but was taken into Italian service with the start of the Twilight War.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	11	6 minutes	7.85 kg	None	\$36,100 (-/R)

## **Model 56**

Notes: This is an Italian pack howitzer designed for mountain units. It can be disassembled into 11 subunits for movement and can be lifted whole by light helicopters. This weapon has been built for over 30 countries in South America, Africa, Asia, Europe, and the Middle East, and was copied by China and produced there.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm NATO Howitzer	7	4 minutes	1.29 tons	1	\$5,900 (C/C)

### **M-1977**

Notes: This is an antitank gun used by Romania in place of Russian guns such as the M-1944. The ammunition is identical to that gun and the gun on the T-54/55. The gun is very light and easy to set up, but is otherwise conventional.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
100mm Gun	8	1 minute	3.2 tons	2	\$14,800 (-/R)

### **M-1981**

Notes: This is a more standard sort of howitzer for the Romanian Army, used in place of the D-20 or M-1976 by Romanian units. The carriage is very similar to the M-1982 gun, but the weapon is of conventional construction.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
152mm Gun/ Howitzer	7	6 minutes	8 tons	2	\$36,900 (-/R)

### **M-1982**

Notes: This is a Romanian field gun/antitank gun, used in place of the M-1946 by Romanian forces. It is of a completely different design and has no relationship to the Russian weapon, other than firing the same ammunition.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
130mm Gun	7	5 minutes	6.2 tons	2	\$28,600 (-/R)

### **M-1985**

Notes: This is a Romanian gun/howitzer of standard construction. The carriage is similar to that of the Russian D-20, but uses a longer barrel for a maximum range with a standard projectile of 24 kilometers.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
152mm L/53 Gun/Howitzer	8	5 minutes	7.55 tons	2	\$34,800 (-/R)

### **Model 93**

Notes: This Romanian weapon is used by mountain divisions, and comes in a unique caliber -- 98mm. This weapon was developed to be a light weapon and to avoid arms treaties that force the user to declare weapons 100mm or larger. It is similar to the Model 56 Pack Howitzer in construction, and may have been based on that weapon. However, this weapon may be disassembled into only three loads. The weapon is otherwise of conventional construction.

Twilight 2000/Merc 2000 Notes: This weapon does not exist.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
98mm Howitzer	8	3 minutes	1.5 tons	None	\$6,900 (-/R)

### **Romanian Mountain Gun**

Notes: This is a Romanian antitank gun designed to be used by mountain troops. It is very light and easily portable, but has limited use these days against tanks, and is mostly used for direct support of infantry. It may be disassembled into eight loads for packing on animals.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
76.2mm Gun	7	(Towed) 1 minute; (Packed) 6 minutes	746 kg	None	\$3,450 (-/R)

## **2A61**

Notes: This is a new Russian howitzer, brought into production just before the Twilight War. It is designed to be a light gun for use by Russian airborne and air assault divisions, both in place of heavier weapons and as a replacement for the D-30 howitzer. It uses a modified carriage of the D-30, and has a power rammer to ease loading. The muzzle brake is large and distinctive to help absorb the recoil on such a light carriage. The weapon may be easily pivoted on its carriage 360 degrees.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
152mm Gun/Howitzer	7	4 minutes	4.35 tons	None	\$20,000 (-/R)

## **2A65 (M-1987)**

Notes: This is the newest Russian towed howitzer, with a longer 53-caliber gun barrel for extended range. It is the same gun as mounted on the 2S19 self-propelled howitzer. It has good gun sights for direct fire (+1), but is otherwise of conventional construction.

Twilight 2000 Notes: This weapon does not exist.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
152mm L/53 Gun/Howitzer	8	5 minutes	7 tons	2	\$31,500 (-/R)

## **FH-88**

Notes: This is a more standard towed howitzer for the Singapore military, in use since 1988. It uses a standard NATO howitzer, with a breech that opens automatically after a shot and a power rammer. The gun is equipped with an APU for mechanical use as well as short moves. The gun is equipped with a fire control computer and a telescopic sight (+2).

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	6	2 minutes	12.8 tons	None	\$73,600 (R/-)
<b>Tr Mov</b>	<b>Com Mov</b>	<b>Fuel Cap</b>	<b>Fuel Cons</b>		
30/6	7/1	50	25		

## **FH-2000**

Notes: This is Singapore's newest towed howitzer, also a mercenary favorite. It is a long-barreled howitzer of modern construction with an APU for short moves (combat movement 4, 5 liters per period). The breech opens automatically after a shot and the gun is equipped with a power rammer. The mechanisms may be powered by the APU or by manual means. The weapon is equipped with a fire control computer and a telescopic sight (+2).

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm L/52 NATO Howitzer	6	2 minutes	13.2 tons	None	\$75,900 (R/-)
<b>Tr Mov</b>	<b>Com Mov</b>	<b>Fuel Cap</b>	<b>Fuel Cons</b>		
30/6	7/1	50	25		



**G-5**

Notes: This is South Africa's standard towed howitzer, also in use by Iran, Iraq, and Qatar. It is a modern artillery system with an APU. The gun is helped in loading by a pneumatic rammer powered by an air compressor. The APU also assists in bringing the gun into or out of action and may be used with the operating mechanism. This weapon is the gun used on the G-6 self-propelled howitzer.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	5	2 minutes	13.75 tons	None	\$79,100 (S/ R)
<b>Tr Mov</b>	<b>Com Mov</b>	<b>Fuel Cap</b>	<b>Fuel Cons</b>		
30/6	7/1	102	30		

## **KH-178**

Notes: This is the standard light towed howitzer of the South Korean Army and Marines, and is a blend of the British Royal Ordnance Light Gun and the German upgrade of the US M-101 105mm howitzer. Another version of this weapon is a straight upgrade of the US M-101 to the KH-178 standard. The sights are illuminated for night use.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm NATO Howitzer	6	5 minutes	2.65 tons	2	\$12,200 (R/-)

## **KH-179**

Notes: This is the standard heavy towed howitzer of South Korea, a conversion of the US M-114 to a 39-caliber barrel. The elevation and traverse mechanisms and the mount have been strengthened to cope with the increased weight. The sights are illuminated for night use, and a telescopic sight is incorporated for direct firing (+1). The gun shield has been removed to reduce weight.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	8	7 minutes	6.89 tons	None	\$31,700 (R/-)

## **SB 155/39**

Notes: This Spanish howitzer came into service in 1996, replacing old US-made M-114 howitzers. However, it never fully replaced those weapons. The SB 155/39 can be helicopter-slung or air dropped. The trails have castors to aid in bringing the weapon into action. The wheels are raised off the ground before firing and the weapon supported on a baseplate. The weapon has a power rammer to aid loading.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	6	6 minutes	9.5 tons	None	\$43,900 (R/-)

## FH-77A

Notes: This gun was replaced in production by the FH-77B. It is basically similar to the FH-77B, but is towed at a lower speed, does not have the ammunition-handling crane, and uses semi-combustible cases for the charges. The sights are not as efficient (+1), and the fire control computer is not integrated into the system. It does have a power rammer for loading. It is equipped with an APU.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm NATO Howitzer	6	4 minutes	11.5 tons	None	\$66,100 (R/-)
Tr Mov	Com Mov	Fuel Cap	Fuel Cons		
14/3	3/1	50	15		

## FH-77B

Notes: This is the newer of the Swedish towed howitzers. Changes were made to handling, cross-country mobility, and a mechanized ammunition handling system was introduced. This weapon is also used by Nigeria, and India, who is actually the largest user of this weapon. The FH-77B differs from the FH-77A in the length of the barrel, the use of bag charges, and a new hydraulic loading system using a grab crane to lift projectiles off the ground and into the gun. The weapon has a fire solution computer, a telescopic sight (+2), and a fitting for a night sight. The gun is fitted with an APU for short moves and to assist in bringing the gun into action and to power the mechanisms.

Gun	Crew	Set Up Time	Weight	Gun Shield	Price
155mm NATO Howitzer	6	3 minutes	12 tons	None	\$69,000 (S/-)
Tr Mov	Com Mov	Fuel Cap	Fuel Cons		
14/3	3/1	50	15		

## Type 4140

Notes: This is a Swedish light howitzer in use since shortly after the Second World War. It is of standard construction, and has a loading tray that aids in loading. Controls are hydraulic, and the is jacked up on a four piece platform that allows 360 degrees of traverse, before firing.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm NATO Howitzer	4	5 minutes	3 tons	2	\$13,600 (R/-)

## **Model 46**

Notes: This is the standard Swiss light howitzer, first built in 1946, based on a Swedish design. The versions in service at the Twilight War have been upgraded, with a new, longer barrel, double-baffle muzzle brake, and improved mechanisms. This weapon is practically the only field gun employed by the Swiss Army.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm NATO Howitzer	7	3 minutes	2.25 tons	2	\$10,350 (R/-)

## **M-101**

Notes: This US howitzer was first designed shortly before World War 2, as the M-2A1 howitzer. It was used by the US until 1985, when it was replaced by the M-102 (which was itself replaced by the British 105mm Light Gun). The M-101 is still used by a number of third world countries, and many countries, including those in NATO and the Middle East, have them in reserve stocks. It is a conventional short-barreled howitzer.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm L/32 NATO Howitzer	8	4 minutes	2.26 tons	2	\$10,400 (C/ S)

## **M-102**

Notes: This is an older US howitzer, still in service in the US and with Brazil, Cambodia, El Salvador, Greece, Guatemala, Honduras, Israel, Jordan, South Korea, Laos, Malaysia, Saudi Arabia, Turkey, Uruguay, Vietnam, and Yemen. It is a conventional howitzer with split-trail construction, and is raised on a baseplate before firing.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm L/32 NATO Howitzer	8	4 minutes	1.5 tons	None	\$6,900 (C/S)

## **M-114**

Notes: This weapon was first produced by the US in World War 2 as the M-1. It is a short-barreled weapon with limited range. The M-114 was not in active US service by 2004, but was still in service with dozens of countries worldwide, including Austria, Bosnia, Canada, Cambodia, Denmark, El Salvador, Greece, Iran, Iraq, Israel, Italy, South Korea, Norway, Netherlands, Saudi Arabia, Spain, Taiwan, Turkey, and several other South American and Asian nations. It is of conventional, if primitive, construction.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
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155mm L/30 NATO Howitzer	11	7 minutes	5.8 tons	None	\$26,700 (C/ S)
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### **M-114F**

Notes: This is a modernization of the M-114 Howitzer, which was over 50 years old by the turn of the century, but still in use by many countries. Improvements include replacement of the barrel, new equilibrators, addition of a loading cradle, improvement of the tow couplings, raising of the firing jack, addition of castors to the trail legs, and the change to one handwheel for elevation and traverse. Crew requirements have been reduced, and time into action has also been reduced.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
155mm NATO Howitzer	7	3 minutes	7.3 tons	None	\$33,600 (S/ R)

### **M-115**

Notes: This weapon was originally produced by the US in World War 2 for heavy bombardment. Due to its weight and short range, it was taken out of service in the US in the late 1970s, but remains in service worldwide with many countries. However in most countries, the M-115 was replaced by the M-110 self-propelled howitzer or by 155mm howitzers that have longer range.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
203mm L/25 Howitzer	14	8 minutes	14.52 tons	None	\$67,200 (R/ R)



### **M-48**

Notes: This is a Yugoslavian antitank gun designed for use by mountain troops. It is short barreled, leading to a range of only 115. It is obsolete as an antitank weapon, but is still a good general support weapon. It is otherwise a standard-format split-trailed gun. This weapon is also in use by Burma, Guatemala, India, Indonesia, Iraq, Romania, and Sri Lanka.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
76.2mm Gun	6	2 minutes	0.72 tons	2	\$3,300 (S/S)

### **M-56**

Notes: This is a 105mm howitzer of local Yugoslavian manufacture. The weapon is of conventional construction, with split trails and a gun shield. In an emergency, the M-56 can be fired from the traveling configuration and limbered, so low is its recoil. The weapon has a telescopic sight (+1) for direct fire. This gun is also used by Burma, Cyprus, El Salvador, Guatemala, Indonesia, Iran, Iraq, Mexico, Peru, and Syria.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
105mm NATO Howitzer	7	4 minutes	2.1 tons	2	\$9,700 (S/S)

### **M-84B2**

Notes: This Yugoslav weapon is a mating of the D-20's carriage and an elevating mass with a barrel of significantly longer proportions than the D-20, to give it extended range. The result, along with some improvements, is a weapon with a short recoil length that is easy to load and maintain. The weapon is equipped with a power rammer fed by a compressed air bottle good for 120 shots. This weapon was never exported and is not found out of the hands of Yugoslav forces and former Yugoslav forces.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
152mm L/53 Howitzer	9	4 minutes	6.88 tons	2	\$31,600 (-/R)

### **M-87**

Notes: This Yugoslavian weapon is basically a 100mm T-12 cannon mounted on a D-30 carriage. The result is an antitank gun that can be quickly traversed onto different targets 360 degrees. The fire control system has a laser rangefinder with ballistic computer (+4), and is one of the most accurate towed guns on the market.

<b>Gun</b>	<b>Crew</b>	<b>Set Up Time</b>	<b>Weight</b>	<b>Gun Shield</b>	<b>Price</b>
100mm Gun	6	5 minutes	3.65 tons	2	\$21,800 (-/R)