

# Yugoslavian Armor Fleet Is a Mix of New and (Some Very) Old

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Following the break-up of the Former Yugoslavia, the Yugoslavian Army reorganized in 1992 to reflect the territorial changes and loss of equipment that had taken place.

The active force is now 85,000-90,000. Half of these troops are conscripts doing their 15-month national service. In addition, the trained reserves and paramilitary forces increase the size of the army to 550,000.

The basic doctrine of the army is combined arms, multiple company/battalion groupings of light infantry and tanks supported by artillery. Their former doctrine stressed attacking lines of communication and support facilities. Yugoslavian forces seek to concentrate quickly for offensive operations, attack, and quickly disperse. Their standard doctrinal plan is to use the terrain in a defensive war of attrition. This doctrine is from a tradition of planning for a partisan war.

Yugoslavia is unique in that it is an arms producer/supplier. In the past, they have sold arms, ammunition, equipment, and sub-systems around the world, most notably the sale of M-84s to Kuwait. Some of the first M-84s delivered prior to Saddam's invasion in 1990 ended up in the Iraqi inventory. The remaining tanks ordered arrived in time for the Kuwait Army to use in Desert Storm. Other known M-84 sales were to the Yugoslavian Army and possibly to Libya and Syria.

On paper, the Yugoslavian armor corps is very impressive, with some 41 tank battalions, each with 31 tanks. They are currently 10 battalion sets short of this goal. Of their tank fleet of 983 tanks, only 283 are modern tanks (i.e. M-84, T-72), with the majority being T-55s.

Unique is the reserve forces' use of ancient T-34s and M-18s (Hellcats) from the antitank units as tank support.

The most modern tank in the inventory is the Yugoslavian-made M-84. It is modeled after the T-72, and the exterior resembles the T-72, but with the addition of a wind sensor and an improved gunner's sight housing.

The fire control system has been described as like an M60A3 minus a thermal sight. The system consists of a gunner's control handle, ballistic computer, cross wind sensor, gunner's day sight, gunner's night sight, and two-plane stabilization. The night sight used by the M-84 is a second-generation passive system.

Sales flyers claim a first-round probability of hit higher than 60 percent for their 125mm gun system. This system was originally designed for their T-55 fleet. Like the T-72, the M-84 fires HEAT, HE-FRAG and HVAPDS-FS. The on-board load is 22 rounds in the carousel and 23 rounds stored around the inside.

The M-84 has a crew of three, with an autoloader that feeds the 125mm main gun at a maximum rate of six to eight rounds per minute. The gun, which is stabilized, can also be loaded manually at two rounds per minute. There are 2,000 rounds of 7.62mm ammunition on board for the coax machine gun and 300 rounds of 12.7mm ammunition for the tank commander's weapon.

The M-84 sales brochure describes the tank's armor protection as "achieved by low profile of optimum shaping and a multi-layer 'sandwich' armor with equivalent penetration resistance exceeding 600mm."

A 12-cylinder, V-12 supercharged diesel powers the M-84.

The M-84's rangefinder is a Nd YAG laser integrated into the day/night sight. The night sight channel is a second-generation image intensifier, not a thermal viewer.

Sales brochures claim that the T-84 can shoot on the move, with built-in target tracking features and a capability for TC to gunner target hand-off.

The brochure also claims NBC protection with a system that automatically



**Exterior of the Yugoslavian T-84 appears similar to the T-72, on which it was based, but many internal changes were developed by the Yugoslavians when they adopted the design.**

makes the fighting compartment airtight. The fire extinguishers are also automatic.

The M-84 weighs 42 metric tons.

An ironic aspect of the T-84's production history is that the major parts of the vehicle were manufactured in different locations in the former Yugoslavia. With the break-up of the federation, and the loss of Bosnia-Herzegovina, Croatia, Slovenia, and Macedonia, the factories under the control of the remaining Serbs and Montenegrians manufactured only 23 percent of the tank's parts. *Janes* notes that this problem may have been overcome and has received reports that production is underway again.

The bulk of the Yugoslavian armor force is about 600 T-55s. Some 50 T-72s were purchased from the Soviet Union after the decision was made to make the T-84 in Yugoslavia, but these tanks were purchased to train tankers until the T-84 began to emerge from the factories.

Armored infantry fighting vehicles include over 500 M80s, a locally produced APC, and six YPR-765s which were seized from Dutch UN peacekeeping troops at Srebrenica in 1995. *Janes* points out that these captured vehicles have appeared in Kosovo. In addition, there are 66 BRDM2 armored reconnaissance vehicles.

Some World War II-era equipment has been seen in film clips on the evening news. They include U.S.-supplied M-18 Hellcat tank destroyers, the fastest armored vehicle of WWII, speeding down a road in Kosovo, and also about 100 Soviet-supplied T-34-85s.

Sources: *Janes Armor and Artillery, 1998-99*; *Janes World Armies, 1999*; The Yugoslavian Federal Directorate of Supply's 1991 brochure on the T-84, and the DoD Fomer Yugoslavia Handbook, 1993.



Although similar to a T-72, close-up of T-84 turret roof shows two differences: the wind sensor tube at center, above gun mantlet, and the sighting head of the fire control system seen directly above the smoke grenade launchers.



## Museum Pieces, Still in Service

The Serbs seem to have preserved every armored vehicle that has ever been in their inventory. Following World War II, the Yugoslavians received surplus Western equipment, some of it still in service. An M-18 tank destroyer like the one at upper left, seen fighting in France in 1944, was spotted rolling through Kosovo on the evening news late in March.

There are still 100 Soviet T-34-85s in their inventory like the one above

Most of the fleet, however, is composed of T-55s, some modified with add-on armor packages, like the suite mounted on the East German T-55 at left.