

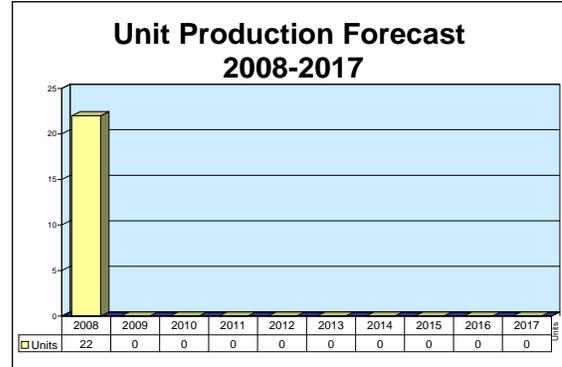
ARCHIVED REPORT

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Type 96

Outlook

- In final year of low-rate serial production, exclusively for JGSDF procurement
- No market impact; Japanese law precludes export sales
- No modernization or retrofit potential outside of Japan
- Production forecast reflects expected completion of projected 250-unit JGSDF procurement objective by the end of this year



Orientation

Description. A wheeled armored vehicle.

Sponsors. The Japan Ministry of Defense, through the Japan Ground Self-Defense Force (JGSDF), sponsors the development and procurement of the Type 96.

(Note that on January 9, 2007, the JDA officially became the Japan Ministry of Defense.)

Licensees. None

Status. Development through serial production.

Total Produced. Through 2007, we estimate the prime contractor produced 230 Type 96 vehicles.

Application. A wheeled armored personnel carrier, optimized for transporting infantry during offensive and defensive operations.

Price Range. In 2008 U.S. dollars, we estimate the Type 96 APC carries a unit price of \$660,931.

Contractors

Prime

Mitsubishi Heavy Industries (MHI) Ltd

<http://www.mhi.co.jp>, 16-5 Konan 2-chome, Minato-ku, Tokyo, 108-8215 Japan,
 Tel: + 81 3 6716 3111, Fax: + 81 3 6716 5800, Prime

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Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com

Technical Data

Type 96

Crew. Two: commander/gunner and driver, plus eight fully equipped infantrymen.

Configuration. 8x8

Dimensions. The following data for the Type 96 APC is estimated, based on photographic evidence.

	<u>SI Units</u>	<u>U.S. Units</u>
Length	6.84 m	22.44 ft
Width	2.48 m	8.14 ft
Height	1.85 m	6.07 ft
Combat weight	14.50 tonnes	15.98 tons
Fuel capacity	510 liters	135.64 gal

Performance. The speed and range data reflect use on a paved road.

	<u>SI Units</u>	<u>U.S. Units</u>
Maximum speed	100 kmph	62.5 mph
Maximum range	500 km	310.69 stat mi
Step	60 cm	1.97 ft
Trench	1.80 m	5.91 ft
Slope	35%	35%
Gradient	60%	60%
Fording	95 cm	3.11 ft

Engine. An unspecified water-cooled, four-cycle, six-cylinder diesel engine. This powerplant generates 268.56 kilowatts (360 hp), with a power-to-weight ratio of 18.52 kilowatts per tonne (22.53 hp/ton).

Gearbox. An unspecified automatic gearbox.

Suspension and Running Gear. Most likely an independently sprung suspension system, with a coil spring and hydro-pneumatic shock damper at each wheel station. Powered steering controls the front four wheels. The vehicle features a central tire pressure system.

Armor. Data currently unavailable. The Type 96 reportedly offers protection against 12.7mm ball projectiles and ballistic fragments.

Armament

Main Armament. Roof-mounted 12.7x99mm (.50 caliber) M2HB heavy machine gun or an indigenous 40mm automatic grenade launcher. The commander can operate the weapon station from within the vehicle.

Secondary Armament. One 7.62x51mm NATO (.308 Winchester) Type 74 machine gun. The onboard infantrymen can fire their individual weapons through the firing/observation ports on the sides and rear. Four smoke grenade launchers mount on top of each side of the vehicle at the rear.

Program Review

Background. In 1993, the Japan Ground Self-Defense Force (JGSDF) initiated a program to replace its tracked Type 73 and obsolete SU 60 armored personnel carriers with a more modern design. Two developmental prototype vehicles were rolled out in 1996. Following the initial evaluations and some minor modifications, the JGSDF type-classified the new armored personnel carrier as the Type 96 in 1998.

Japan's Shroud of Secrecy

The Japan Ministry of Defense (formerly known as the Japan Defense Agency) has maintained strict security concerning this program, to the extent that the MoD has yet to release the identity of the prime contractor. Our research indicates that Mitsubishi is the prime contractor for the Type 96. Based on historical inventory levels, the Forecast International Weapons

Group expects the JGSDF to maintain a procurement objective of about 250 vehicles.

Description. Very little detailed information concerning the Type 96 has trickled out of Japan, limiting our ability to evaluate this vehicle. We base much of the technical data on photographs of the prototype vehicle.

Making Do with Scant Information

The driver sits at the right front of the hull; the power pack mounts at the left front. The driver's station features a single-piece hatch cover and three day periscopes; the center periscope is interchangeable with a night vision device. The commander, who also acts as the gunner, sits to the rear of the driver. The commander's station features a raised cupola with periscopes for all-around vision; the main armament

Type 96

mounts at the front of the cupola. A pintle-mounted 7.62x51mm NATO (.308 Winchester) Type 74 machine gun is also an option.

The troop compartment occupies the rear of the vehicle. A power-operated ramp provides primary troop access/

egress; five circular hatch covers (three on the left; two on the right) on the roof provide secondary access. The troop compartment features at least two firing ports with vision blocks along each side of the hull; the rear ramp also reportedly features a firing port and vision block.

The Type 96 mounts a laser warning device at the left front of the hull roof. An overpressure nuclear, biological, and chemical (NBC) protective suite is standard.

Related News

New Security Body for Asia/Pacific Region? – The Australian government is enthusiastic about a U.S. proposal to expand the six-party peace talks on the Korean Peninsula into a wider security agreement and expanding the membership. Under the proposal, the six states involved in the Korean peace talks, the U.S., China, Russia, Japan and North and South Korea, would form a permanent security body and later other nations in Asia would be invited to join.

The proposed new security body would complement the existing ASEAN agreement. ASEAN is primarily an economic cooperation body whose members have been highly reluctant to expand into a security agreement. In a way, the new organization proposed by the U.S. can be seen as a replacement for the long-defunct South East Asia Treaty Organization (SEATO), which was dissolved over 30 years ago. (*The Australian*, 4/08)

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Funding

The Japan Ministry of Defense, through the Japan Ground Self-Defense Force, funds the development and JGSDF procurement of the Type 96.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
	1993	Development begins
Mid	1996	First developmental prototype vehicles rolled out
	1996-1998	Evaluations of first developmental prototype vehicles
Late	1998	Serial production begins
	2008	Serial production in final year for JGSDF procurement

Worldwide Distribution/Inventories

Export Potential. None. The Japanese Constitution precludes the export of military hardware.

Country. Japan (230).

Forecast Rationale

Type 96

The Type 96 armored personnel carrier is in its final year of serial production, exclusively for the Japan Ground Self-Defense Force (JGSDF).

Our research indicates that serial production of the Type 96 occurs at a significantly higher rate than is the norm for Japanese armored vehicle programs. This higher production rate reflects the desire to replace the 341 obsolete Type SU 60 tracked armored personnel carriers in JGSDF service as soon as possible. Based on historical production and JGSDF structure trends, the Forecast International Weapons Group expects the JGSDF to maintain a procurement objective of about 250 Type 96 vehicles.

Dodging the Budget Bullet?

The Japan Ministry of Defense (formerly known as the Japan Defense Agency) has maintained strict security concerning this program, to the extent that the MoD has yet to release the identity of the prime contractor. Our research indicates that Mitsubishi is the prime contractor for the Type 96. As with the Type 87 scout/reconnaissance vehicle, the Type 96 APC may survive the ongoing budget reductions relatively unscathed.

Could Be Competitive

As Japan's constitution precludes the export of Japanese military hardware, the Type 96 has no direct impact on the international light wheeled vehicles market. Oddly

enough, the Type 96 could actually be competitive in terms of unit price on the international market – a rare occurrence indeed for a Japanese military vehicle. The Centauro VBC, Transportpanzer 1 Fuchs and Fuchs 2, Piranha/LAV/Stryker series, and VBCI (Véhicule Blindé de Combat d'Infanterie) all carry unit prices significantly higher than that of the Type 96.

Maintaining the Schedule

Our 10-year production outlook reflects ongoing production of the Type 96 for JGSDF procurement. The serial production rate of the Type 96 is now about two vehicles per month. At this rate, we expect the contractor will complete the initial projected production run of 250 vehicles sometime in 2008.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Mitsubishi Heavy Industries (MHI) Ltd												
Type 96												
	230	22	0	0	0	0	0	0	0	0	0	22
Total	230	22	0	0	0	0	0	0	0	0	0	22



JGSDF Type 96 Armored Personnel Carrier

Source: Japan Ministry of Defense