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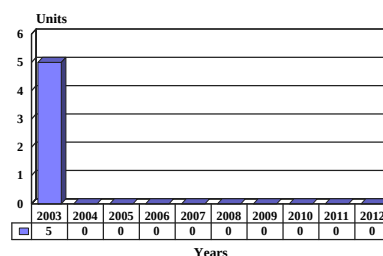
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Type 82 - Archived 8/2004

Outlook

- Production of the Type 82 is nearing completion for the domestic requirement
- No export is forecast
- No modernization or retrofit potential is forecast for many years, and then only for Japanese firms

10 Year Unit Production Forecast
2003 - 2012



Orientation

Description. A wheeled vehicle.

Sponsors. The development and procurement of the Type 82 are sponsored by the Japan Defense Agency, Bureau of Equipment through the Technical Research and Development Institute, Setagaya-Ku, Tokyo, Japan; and by the Japan Ground Self-Defense Force.

Contractor. This vehicle was developed and is being manufactured by Mitsubishi Heavy Industries, Tokyo, Japan.

Licensees. None

Status. The Type 82 is in serial production at a very low rate for the domestic requirement. The vehicle is in service with the Japan Ground Self-Defense Force.

Total Produced. As of January 1, 2003, a total of 249 Type 82 vehicles had been manufactured.

Application. A command, control and communications vehicle designed for use in forward areas.

Unit Price. In equivalent 2003 United States dollars, the fully outfitted Type 82 vehicle has a unit price of \$513,000. The high unit price is a result of its low production rate, as is typical of Japanese defense products.

Technical Data

Crew. Eight: commander, gunner, driver, and five radio operators.

Armor. Although sensitive, the Type 82 is probably armored up to the 7.62 millimeter armor piercing level.

Configuration. 6x6

Dimensions. The following data are for the latest production standard vehicle.

	<u>SI units</u>	<u>US units</u>
Length:	5.72 meters	18.77 feet
Width:	2.48 meters	8.14 feet
Height:	2.38 meters	7.81 feet
Combat weight:	13.6 tonnes	14.99 tons
Fuel capacity:	410 liters	109.04 gallons

Performance. The maximum speed and range figures assume use on a metaled road.

	<u>SI units</u>	<u>US units</u>
Maximum speed:	100 kilometers per hour	62.5 miles per hour
Maximum range:	500 kilometers	310.5 statute miles
Step:	60 centimeters	1.97 feet
Trench:	1.5 meters	4.92 feet
Slope:	35%	35%
Gradient:	60%	60%
Fording:	95 centimeters	3.11 feet

Engine. This vehicle uses the Model 10PBI liquid-cooled, 10-cylinder diesel engine provided by Isuzu Motor Company. This engine is rated at 229.77 kilowatts (308 horsepower) at 45 revolutions per second (2,700 revolutions per minute). The power-to-weight ratio is 16.89 kilowatts per tonne (20.55 horsepower per ton). Details of the electrical system have not been released.

Gearbox. An automatic gearbox with one reverse and six forward gear ratios is used in this vehicle.

Suspension and Running Gear. The 6x6 Type 82 has an independently sprung suspension system with a coil

spring and hydropneumatic shock damper at each wheel station. It is fitted with 14.00x20 run-flat radial tires.

Armament. The main armament is a M2HB 12.7 millimeter machine gun with shield, pintle-mounted on the roof. A 7.62 millimeter Type 74 machine gun can be mounted on a pintle in the forward portion of the vehicle. More recent production vehicles have the M2HB machine gun mounted on a larger cupola. Individual weapons can be aimed and fired through the firing/observation ports located on the sides and rear of the vehicle.

Variants/Upgrades

Variants. The only variant of the Type 82 that has been developed is a dedicated nuclear, biological, and chemical reconnaissance vehicle. The specifications for this variant have not been released.

Modernization and Retrofit Overview. This is not applicable at this time. Any future work in this area will most likely be undertaken by Japanese firms.

Program Review

Background. In the early 1970s, the Japan Ground Self-Defense Force began to examine augmenting its forces by replacing those Type 73 and SU 60 armored personnel carriers used as reconnaissance and patrol vehicles and as command communications vehicles. Initial development funding was allocated for the program in 1973, and the 1974 defense budget authorized funding for the construction of four prototypes – two in the 4x4 configuration and two in 6x6 configuration. Following competitive evaluations, it was decided to concentrate on the 6x6 version. In 1978, funding was provided for the fabrication of four definitive prototypes of the command and communications vehicle. Following additional evaluations and minor modifications, the vehicle was classified in 1982 as the Type 82. The initial contract was then awarded, and the Type 82 entered serial production in 1983. Based on the historical inventory of this type of vehicle, 250 baseline Type 82 vehicles are expected to be procured.

Description. The Type 82 hull is of all-welded steel alloy construction, affording protection from small arms

projectiles up to at least 7.62 millimeters in caliber as well as ballistic fragments. The driver is seated to the right front and is provided with a single-piece hatch with an traversing periscope and night vision devices. A second crew member is seated to the left of the driver, and is also provided with a hatch cover having a periscope. In front of the second member's hatch cover is a pintle-mounted Type 74 7.62 millimeter machine gun. Armored shutters can be placed over the windcreens provided at both positions. The engine compartment of the Type 82 is to the rear of the forward two crew members, with an aisle connecting the front and rear of the vehicle to the right of the vehicle. The rear compartment, housing the communications gear, is under a raised roof. Two circular hatch covers are mounted in the roof; the left one has six periscopes, and the right one has a M2HB machine gun on a pintle mount with shield. More recent production vehicles mount the M2HB machine gun on a larger cupola. In the rear of the hull is a large door provided with a firing and observation port; similar doors plus additional observation and firing ports are located on each side of the hull.

Operational Analysis. The Type 82 is a well-designed and robust vehicle that easily meets the needs of its designated mission area. Aside from its rather high unit price, the only real criticism of the Type 82 is that it is

somewhat large and has a fairly high profile compared to other vehicles designed for the command, control and communications mission.

Funding

Funding for the development and procurement of the Type 82 has been provided by the Japan Ground Self-Defense Force through the Technical Research and Development Institute.

Recent Contracts

Not available, as contractual information is not released.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Early	1973	Concept definition begun
Mid	1974	First funding authorized for 4x4 and 6x6 evaluation vehicles
	1975-1977	Evaluations of first vehicles
	1978	Contract for definitive prototypes awarded
Late	1978	First two prototypes fabricated
	1982	Type classification
	1982	Production contract awarded
Mid	2003	Production continues

Worldwide Distribution

Export Potential. No export of the Type 82 is expected, as the Japanese Constitution places restraints on the export of military hardware.

Countries. **Japan** (249, including four prototypes)

Forecast Rationale

The Type 82 remains in production toward a 250-unit procurement objective, which should be met by the end of the year. Thereafter, we expect no additional production of the Type 82.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR PRODUCTION

<u>Vehicle</u>	<u>(Engine)</u>	<u>High Confidence Level</u>				<u>Good Confidence Level</u>				<u>Speculative</u>			<u>Total 03-12</u>
		<u>through 02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	
MITSUBISHI HEAVY INDUSTRIES													
TYPE 82 (a)	10PBI	249	5	0	0	0	0	0	0	0	0	0	5
Total Production		249	5	0	0	0	0	0	0	0	0	0	5

(a) The through 2002 production figure includes four prototype/development vehicles.