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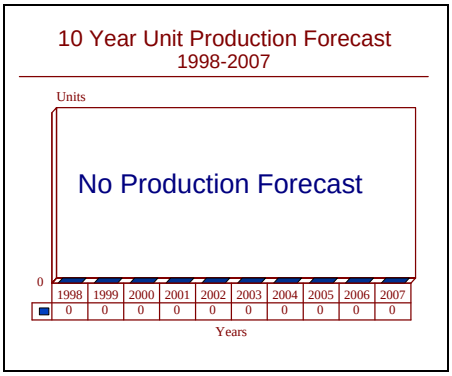
PRC-126(V) - Archived 7/99

Outlook

- Production for US Army completed in 1992; spare-parts procurement ongoing for remanufacture program
- Expected to stay in US Army service until 2012
- Surplus systems will remain available for foreign/civilian sales
- **This report will be dropped in 1999**



Orientation

Description. VHF/FM hand-held radio.

Sponsor
US Army
Communications & Electronics Command (CECOM)
Ft Monmouth, New Jersey (NJ)
USA

Contractors
Raytheon Systems Company
PO Box 92426
Los Angeles, California (CA)
USA
Tel: +1 310 334 4727
Fax: +1 310 334 6278

Note: Magnavox was the sole manufacturer of the PRC-126(V). Since the radio went out of production, Magnavox was acquired by Hughes, then Raytheon bought Hughes. The address of the Raytheon Systems Company is provided only as the current location of the defense operations formerly run by Magnavox.

Status. In service; production complete.

Total Produced. An estimated 25,250 units were produced.

Application. Tactical communications.

Price Range. Unit cost was estimated at US$5,450.

Technical Data

	Metric	US
Dimensions		
Size (including battery case):	25.4 cm x 9.6 cm x 3.8 cm	10 in x 3.8 in x 1.5 in
Weight (including BA-5588/U battery):	1.2 kg	2.6 lb
Range (long antenna):	3.2 km	2.0 mi
(short antenna):	0.5 km	0.3 mi

Frequency Range:	30.000 MHz to 87.975 MHz	
Channel Spacing:	25 kHz	
Available Channels:	2,320	
Modulation:	frequency modulation	
	Metric	**US**
Dimensions		
Preset Channels:	10 (stored in nonvolatile memory)	
Operational Modes:	clear voice; secure voice; whisper capable; half duplex	
Primary Power		
(Battery):	BB-588/U NiCad; BA-5588/U Lithium	
(Vehicular):	12 or 24 VDC (when powered from OF-185/PRC vehicular adapter	
Battery Life:	70 hr (using BA-5588/U at a duty cycle of 8 minutes standby/1 minute receive/1 minute transmit)	
Operating Temperature:	-40°C to +55°C	-40°F to 131°F
Storage Temperature:	-57°C to +71°C	-71°F to 160°F

Design Features. The PRC-126 is a short-range, hand-held tactical radio for use primarily at the squad/platoon level. The system includes a transceiver with battery box, 7-inch or 36-inch antenna, handset, and belt or chest pouch. It provides access to all frequencies in the VHF-FM range (30 MHz to 88 MHz). Its 2,320 channels are easily accessible through selection of one of 10 external presets. A liquid crystal display (LCD) indicates the frequency of each preset. Frequency spacing is 25 kHz. The unit weighs 2.6 lb including the BA-5588/U battery and has a nominal range of 3,000 meters through rolling, slightly wooded terrain. The PRC-126 is capable of interoperating with the VRC-12, PRC-77, and SINCGARS families of radios. Original manufacturer Magnavox claimed a mean time between failures (MTBF) of more than 13,000 hours.

Variants/Upgrades

Vehicular Adapter. The PRC-126 can be adapted to light vehicles, such as scout motor bikes or reconnaissance vehicles using the OF-185/PRC vehicular adapter kit. The kit consists of the adapter, speaker, microphone, power cables, and provisions to mount the PRC-126. The radio adapter also recharges the PRC-126's battery when the hand-held radio is seated into the adapter, and provides the user with a "jerk and run" capability of removing or reinstalling the radio within 20 seconds.

PRC-128. This variant of the PRC-126, also called Scope Shield, was procured under a 1987 contract for use at US Air Force bases. Two interchangeable modules provide operation at either 30 to 88 MHz or 130 to 174 MHz. The number of channels available is thus doubled (to 4,640).

Redesign Through Spare Parts. An effort to redesign/ remanufacture the PRC-126 is ongoing as part of the Flexible Computer Integrated Manufacturing (FCIM) program for CECOM. This involves the re-engineering of the system's three critical spare parts, with the new modules manufactured at Tobyhanna Army Depot. The use of computer-aided design, engineering and manufacturing tools has enabled a reduction in the unit cost of each spare module, from about US$2,000 to US$500. These items may become the subject of competitive reprocurement rather than continued procurement on a sole-source basis.

Program Review

Background. The Army initiated development of the PRC-126 as a replacement for its older Magnavox PRC-68 hand-held radios. With its experience in producing the PRC-68, Magnavox was able to win selection as prime for the follow-on PRC-126(V) program in July 1986. The first production contract of US$10.7 million was awarded that year, for 4,603 units. Several options were subsequently exercised, bringing the production run to about 25,000 before its completion in 1992.

The *Commerce Business Daily* issued a Sources Sought Synopsis in March 1993. This was not a solicitation of bids, proposals, or quotations, but rather a survey of manufacturers who could make the device or one just like it. All contacts were due the following month, but

no evidence ever surfaced that anyone but Magnavox responded, nor is there indication that Magnavox (or its acquirers, Hughes and then Raytheon) has received any further work orders after production ceased.

Funding

Procurement funding is complete. Funding for support of fielded systems is not broken out in current budget documents, but the US Army Materiel Systems Analysis Activity (AMSAA) has provided a figure for the projected expenditure on spare parts between 1997 and 2012: US$48.8 million.

Recent Contracts

The last known contracts for the PRC-126(V) were issued in 1990:

Contractor	Award ($ millions)	Date/Description
Magnavox	1.8	Mar 1990 – PRC-126 radios (DAAB07-86-C-T035)
Magnavox	1.2	Jun 1990 – PRC-126 radios (DAAB07-86-C-T035)
Magnavox	1.6	Sep 1990 – PRC-126 radios (DAAB07-86-C-T035)
Magnavox	1.9	Dec 1990 – PRC-126 radios (DAAB07-86-C-T035)

Timetable

Month	Year	Major Development
May	1985	Army decision to replace PRC-68 with new radio
Jul	1986	Magnavox selected to develop PRC-126
Fall	1992	Production for US Army completed
May	1993	Phase II fielding completed
	1993	Sources Sought Synopsis issued for PRC-126 radios
	2012	Projected retirement from US Army service

Worldwide Distribution

The PRC-126 is in service with **US** Army infantry, Ranger, and Special Forces units. Foreign Military Sales have not been identified.

Forecast Rationale

The original contract for the US Army cited four options that would bring total PRC-126(V) procurement to 22,437 units by the mid-1990s. This effort was completed in the fall of 1992, with an estimated 25,250 radios produced. An effort to revive the program appears to have been abandoned in favor of new designs, such as Racal's PRC-139 with embedded COMSEC.

Recent activity for this program has consisted of improvements through the procurement of re-engineered spare parts. More of this – amounting to tens of millions of dollars – can be expected, with the goal of maintaining the PRC-126(V)'s viability until it retires from US Army service; the target date is 2012, according to an Army Materiel Systems Analysis Activity (AMSAA) projection.

The PRC-126(V) remains on the market for foreign military, commercial and/or private use. These, however, are only surplus units.

Ten -Year Outlook

With production having been completed in 1992, and no future production expected, the forecast chart is omitted. This report has been reissued to include final corrections and updates, and will be dropped from future supplements.

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