**VRC-83(V) – Archived 10/2002**

**Outlook**

- Last order to Greece and Jordan completed
- No additional production expected
- Barring any further activity, this report will be archived in the near future

**Orientation**

**Description.** VHF/UHF Vehicular Transceiver for US Pacer Speak tactical communications network.

**Sponsor**
- US Air Force
  - Sacramento Air Logistics Center
  - McClellan AFB, California (CA)
  - USA

**Contractors**
- Raytheon Co
  - (formerly Hughes, formerly Magnavox)
  - 1313 Production Road
  - Fort Wayne, Indiana (IN) 46808
  - USA
  - Tel: +1 219 429 6000
  - Fax: +1 219 429 4442
  - Web site: www.raytheon.com
  - (Prime Contractor Development and Production)

- Harris Corp
  - RF Communications Group
  - 1680 University Avenue
  - Rochester, New York (NY) 14610
  - USA
  - Tel: +1 716 244 5830
  - Fax: +1 716 325 1572
  - Web site: www.harris.com
  - (Qualified Second Source)

**Status.** In operational service. Production for US market believed completed in September 1998, although it may continue for exports.

**Total Produced.** Approximately 1,384 VRC-83 units are believed to have been produced by 2001.

**Application.** Vehicle-mounted communications for tactical air traffic control.

**Price Range.** The VRC-83(V)3 unit cost was estimated at US$14,500 in FY92 dollars (price based on contract cost averaging).
Technical Data

<table>
<thead>
<tr>
<th></th>
<th>Metric</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size:</td>
<td>26.16 x 21.08 x 31.24 cm</td>
<td>10.7 x 8.3 x 12.3 in</td>
</tr>
<tr>
<td>Weight:</td>
<td>18.2 kg</td>
<td>40 lb</td>
</tr>
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**Dimensions (continued)**

|                   |                                             |                            |
| Frequency:        | 116.000 to 149.975 MHz (VHF), and 225.000 to 399.975 MHz (UHF) |                            |
| Channels:         | 8,360 (includes guard and 8 preset channels)          |                            |
| Primary Power:    | 28.0 vdc per MIL-STD-1275                       |                            |

**Characteristics.** The VRC-83(V) is a VHF (116 MHz to 150 MHz), UHF (225 MHz to 400 MHz) AM radio that provides modular, solid-state, anti-jam communications. Transmitter output power is operator-selectable at 2, 10 or 30 watts, while frequency spacing is 25 kHz. The radio incorporates a microcomputer, weighs approximately 39.8 pounds, and is capable of local or remote control. The VRC-83(V) set is compatible with the KY-57 secure voice device.

**Variants/Upgrades**

There are three known versions of the VRC-83(V):

- VRC-83(V)1. Standard version without electronic counter-countermeasures (ECCM).
- VRC-83(V)2. Have Quick I compatible.
- VRC-83(V)3. Have Quick II compatible.

**Program Review**

**Background.** The VRC-83(V), a member of the GRC-206 family of tactical radios, is part of the US military Pacer Speak program for all three US services that supports forward air control, air traffic control and airlift support operations. The other radios in this program are the PRC-113, TRC-176 and GRC-206.

Pacer Speak replaced tactical air control communications equipment that was obsolete, non-secureable and not able to keep up with US Army mechanized combat units.

The last known US production contract was completed in September 1998. In September 1999, Raytheon announced it had received a contract worth US$25 million for Pacer Speak Communications Systems.

The contract was awarded by the US Air Force on behalf of the Foreign Military Sales (FMS) program for Greece and Jordan.

Under this unexpected FMS contract, Greece will acquire 200 VRC-83(V) radio sets and 22 mobile radio relay sets, including two additional VRC-83 radios. The contract also states that Jordan will procure four VRC-83(V) radio sets and related equipment. This contract was completed by year-end 2000.

The VRC-83(V) system is expected to be replaced by the Multiband Multimode Radio (MBMMR) in the near future, which may then open up a secondary export market.

**Funding**

Funding breakout is not available.
Recent Contracts

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Award ($ millions)</th>
<th>Date/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raytheon</td>
<td>25.0</td>
<td>Sep 1999 – FMS contract awarded by US Air Force on behalf of Greece and Jordan for the procurement of 200 VRC-83 radio sets and 22 relay radio sets for Greece and four VRC-83 radio sets and related equipment for Jordan.</td>
</tr>
</tbody>
</table>

Timetable

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
<th>Major Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov</td>
<td>1980</td>
<td>Magnavox selected as prime contractor for Pacer Speak</td>
</tr>
<tr>
<td>FY 1983</td>
<td>First article testing initiated for VRC-83(V); deliveries of Pacer Speak radios begin</td>
<td></td>
</tr>
<tr>
<td>FY 1984</td>
<td>USAF initiates procurement of Pacer Speak radios</td>
<td></td>
</tr>
<tr>
<td>FY 1989</td>
<td>Magnavox awarded FY89 buy</td>
<td></td>
</tr>
<tr>
<td>Sep</td>
<td>1998</td>
<td>US last production order completed</td>
</tr>
<tr>
<td>Sep</td>
<td>1999</td>
<td>FMS US$25 million contract awarded for Greece and Jordan</td>
</tr>
<tr>
<td>Dec</td>
<td>2000</td>
<td>Greece and Jordan FMS contract completed</td>
</tr>
</tbody>
</table>

Worldwide Distribution

The Pacer Speak radios, including the VRC-83(V), are in service with the Greece, Jordan and US Armed Forces.

Forecast Rationale

The VRC-83(V) is a VHF/UHF radio set designed for vehicular installations. As a member of the Pacer Speak program, the VRC-83 provides modular, solid-state, anti-jam AM communications.

Contract activity for the VRC-83(V) has been virtually non-existent. Its last known contract was a foreign military sale to Greece and Jordan in 1999. Deliveries for this contract were fulfilled by December 2000.

With the US military services moving towards standardized communication equipment that incorporate flexible software programs, it is unlikely that any more US orders for the VRC-83(V) will be placed. The focus of the US standardization is the Joint Tactical Radio System (JTRS) system, which is intended to provide communication to all branches of the US military. This program is likely to replace most if not all radios currently in US military service. Other, more versatile radios that are likely to become a part of JTRS, such as the ARC-210, have been dominating the US market. These radios are also being procured by close US allies.

As the US and its allies move towards JTRS radios, demand for less flexible radios like the VRC-83(V) will become severely limited. Since new orders for the VRC-83(V) are not likely, no further production is expected. Barring any new activity, this report will be archived in the near future.

Ten-Year Outlook

The ten-year outlook has been omitted as no further production is expected.

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