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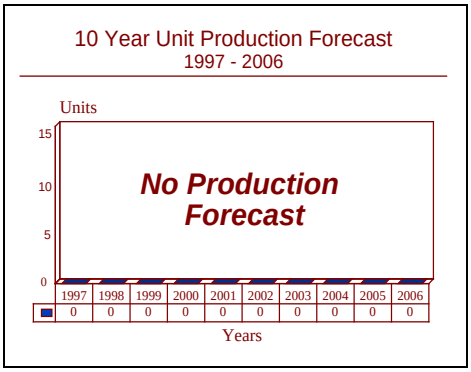
Regency Net - Archived 7/98

Outlook

- Fielding completed in 1993
- No further funding requested
- This report will be dropped next year



Orientation

Description. Regency Net is a US Army high frequency (HF) communications network.

Sponsor

US Army Communications-Electronics Command
Fort Monmouth, New Jersey (NJ)
USA

Prime Contractors

Magnavox Electronic Systems Co
1313 Production Road
Fort Wayne, Indiana (IN) 46808
USA
Tel: +1 219 429 6000
Telex: 023 2695
(Prime contractor)

Contractors

Computer Tek
San Diego, California (CA)
USA
(Subcontractor, HF security link upgrade)

Datametrics Corp
Chatsworth, California (CA)
USA
(Spares)

Ferranti International (previously Elmer SpA, div. ISC)
Lancaster, Pennsylvania (PA)
USA

Pomezia
Italy
(HF/SSB radio and accessories)

Mission Research
Santa Barbara, California (CA)
USA
(Subcontractor, HF security link upgrade)

Northrop Grumman Corp
(formerly Westinghouse Electric Corp
Norden Systems
Norwalk, Connecticut (CT)
USA
(Subcontractor, HF security link upgrade/militarized computers)

Status. Production completed. Final fielding completed in FY93.

Total Produced. No information available.

Application. Regency Net provides the US European Command and the United States Forces in Korea with a survivable and secure HF radio communications system.

Price Range. No information available.

Technical Data

Design Features. Regency Net provides the military commanders-in-chief of US forces in Europe and Korea with an independent, agile, survivable, and fully supportable High Frequency (HF) data and voice communications system. One of the missions of Regency Net is to provide secure communications for US/NATO theater nuclear forces. New Electronic Counter-Countermeasures (ECCM) technology allows Regency Net to perform when other HF systems cannot. Regency Net replaces the existing nonsecure Cemetery Net HF communications network that provides C^3 for these theater nuclear forces.

The TRC-179(V)1 (Force) Terminal is the primary component of the Regency Net architecture, and consists of the following: HF radio/transmitter equipment; computer hardware (Norden's PDP-11/44M computer, also apparently nomenclatured as the UYK-42); modems; power supplies; communications security (COMSEC); input/output devices; and environmental control units housed in a modified S-280C shelter (S-711/TRC-179(V)). The ARC-179(V)1 (Force) Terminal can be housed in either a fixed shelter or 5-ton truck and uses an AS-3781/G antenna with a 2 to 30 MHz range. Power is supplied by a mobile PU-794/G.

The TRC-179(V)2 Ground Launch Control Missile Terminal is configured to meet Air Force requirements. The TRC-179(V)3 version is configured for split-site use by the Air Force and Navy.

The GRC-215, also known as the Regency Net Team Terminal, is configured for rack installation on jeeps and similar vehicles. The Regency Net Manpack, an integral part of the Team Terminal, can be removed from the Terminal and used for remote voice operations.

Variants/Upgrades

There are no known variants. Regency Net itself can be considered as an upgrade to existing communications capabilities.

Program Review

Background. In May 1979, the ASDC^{3}I expressed the urgent requirement to upgrade CINCEUR communications. An upgrade was directed and the Army was assigned the role of Lead Service. The USCINCEUR Regency Net Baseline Requirements Document was approved by the JCS in February 1982. In December 1983, after a competitive solicitation, Magnavox Electronics Systems Co was awarded an US$82.6 million contract for production of Regency Net radios. Regency Net itself was designed as a non-developmental item (NDI) acquisition of commercial equipment.

Within in a year of the production contract (FY84) program accomplishments included development of a frequency-hopping compatible modem for the Advanced Narrowband Digital Voice Terminal (ANDVT), which replaces the initial COMSEC for the following: Regency Net; work on an HF Steerable Null Antenna Processor (SNAP); an improved frequency standard clock; and a Near Vertical Incident Skywave Antenna.

In June 1985 Magnavox was awarded another US$37.5 million contract for initial provisioning items for Regency Net. Norden then was chosen by Magnavox to supply part of the PDP-11 44M militarized computer and received a US$4.4 million award from the Army on June 28, 1985. Other FY85 efforts included site surveys for the Pilot Network System Testing and HF testing between San Diego and Hawaii, Seoul and Hawaii, and Pusan and Seoul.

The Army completed Pilot Network System Testing (PNST) testing in FY86. It fabricated and then tested two nuclear-hardening kits for Environmental Control Units (ECU). It also began SNAP tests and finished initial advanced channel simulators to include Blackout Modeling. It finished integration of Regency Net into Automated Battlefield Spectrum Management and Engineering (ABSME), and began testing of a Frequency Standard Clock.

By the end of FY87 Regency Net program accomplishments included the completion of the Pilot Network Systems Test I. FY88 work focused on the development and testing of frequency-agile HF couplers and auxiliary devices. Regency Net R&D efforts were scheduled to be completed in FY89; however, in July 1991 Magnavox was awarded a US$5.2 million contract for research and development for the Staff Regency Net Information Management System (SRIMS). Magnavox completed production in 1992. All installation and fielding was completed in FY93.

Funding

Except for the July 1991 contract increase to Magnavox for research and development on the SRIMS, no recent additional funding can be specifically pinpointed. Any work such as maintenance and support is likely being funded from other budget line items.

Recent Contracts

No recent contracts have been specifically identified for this program.

Contractor	Award ($ millions)	Date/Description
Magnavox	0.2	Apr 1989 + SCN 19, retrofit power cables Regency Net system (DAAB07-84-C-D001)
Magnavox	9.6	Jul 1990 + FFP for Regency Net initial provisioning spare parts for communication system (DAAB07-84-C-D001, P00214)
Magnavox	5.2	Jul 1991 + CPFF SS increment for research and development effort for the Staff Regency Net Information Management Systems (SRIMS) (DAABO7-91-C-G252)

Timetable

May	1979	ASC³I expressed urgency of upgrade requirement for CINCEUR communication, directed upgrading, and assigned the Army as the lead service
Jun	1980	PM, DCS (Army) assigned material development/acquisition task by Commander, AMC
Mar	1982	ASDC³I directed services to plan, program, and budget for acquisition of equipment to satisfy validated Requirements Document
Dec	1983	Competitive solicitation, contract awarded to Magnavox
May	1987	PM Regency Net assignment to PEO Communications Systems
4Q	FY89	Production deliveries commenced
Jan	1990	Training material release for Ft. Gordon approved
Feb	1990	All Regency Net equipment and support packages to Ft. Gordon completed
Sep	1990	IOT&E completed
2Q	FY91	Fielding commenced
Jul	1991	Approved funding for R&D on SRIMS
	1992	Production completed
	FY93	Fielding completed

Worldwide Distribution

While it is a system specifically intended for use by US Armed Forces, the location of Regency Net assets in Europe and the Pacific (especially South Korea) means that there may be some Allied input, either through NATO or with South Korea's military.

Forecast Rationale

Primarily due to communications security issues, only very general information has been available on the Regency Net over the span of the program. It is known, however, that the network is fully operational. According to the original plan, the emphasis for Regency Net was on Europe; however, for a while there was talk of fielding the program somewhere in the Pacific, such as North Korea. Some of the equipment earmarked for Europe still has the potential of being fielded in South Korea, as the Pacific Rim is becoming more of an international hot spot. However, as more time passes, enthusiasm for this application will likely peter out.

One of the main objectives of the European Regency Net is the provision of HF anti-jam communications to support the use of nuclear weapons, such as Pershing missiles. These missiles are being dismantled incrementally as part of the nuclear weapons reduction agreements made with the Commonwealth of Independent States.

Serious thought was given to the removal of much of the Regency Net equipment from Europe, since lessening tensions there lowered many Regency Net requirements, especially with the planned troop withdrawals. When the situation heated up in the Balkans, specifically Bosnia-Herzegovina, however, the idea of removing Regency Net was nullified.

No future funding or production for Regency Net is anticipated. Ongoing maintenance and spares activities are being handled through existing service contracts or are being funded through other C^{3}I programs.

Ten-Year Outlook

The forecast chart has been omitted. No further production is anticipated for this system. This report will be dropped next year.

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