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# GYQ-21(V) - Archived 06/2002

# Outlook

- GCCS, the GYQ-21 designated replacement, became operational in 1997
- Last support contract scheduled to terminate in 2001
- Barring any further activity, this report will be archived in the near future

_	0 Year Unit Production Forecast 2001 - 2010										ι _
	Units										
0		NO	PR	ODL	JCT	101	I FC	RE	CAS	ST	_
0	2001	NO 2002 0	PR(	2004 0	JCT	2006 0	2007	2008	2009	2010	_

# Orientation

Description. Intelligence data-handling system.

#### Sponsor

US Air Force Air Force Materiel Command Warner Robins Air Logistics Center Robins AFB, Georgia (GA) USA

#### Contractors

General Dynamics (Formerly GTE Government Systems Corp) 77 A Street Needham Heights, Massachusetts (MA) 02194 USA Tel: +1 617 449 2000 Fax: +1 617 466 3295 Web site: http://www.gd.com (Current contractor for support services) Status. Production complete, but maintenance services are ongoing. System due to be decommissioned in 2001/02.

Total Produced. An estimated 180 systems were delivered.

Application. World Wide Military Command and Control System (WWMCCS), National Military Intelligence Center, and other US domestic and overseas intelligence installations. The configuration of each system varies, depending on the specific needs of the user.

Price Range. Indeterminate

### **Technical Data**

Design Features. The GYQ-21(V) is a minicomputer- based data management system. The system provides on-line interactive analysis capabilities for  $C^{3}I$  and intelligence functions, including photo interpretation, indications and warning, and manipulation of verbal data and mathematical

computations. In 1977, the GYQ-21(V) was designated the World Wide Military Command and Control System (WWMCCS) standard communications network and front-end processor.

System configurations include DEC's PDP-11 series minicomputers and associated peripherals supported by



substantial combinations of hardware/software modules that have been specifically developed by the company to meet various military requirements. The GYQ-21(V) system can be used in numerous ways, including for front-end communications processing, fusion of multisource databases, data collection and management, message handling and switching, on-line remote access systems processing, source data automation, and distributed system netting, and for use as interactive analysis stations. Major components of the GYQ-21(V) include the PDP-11/70 minicomputer, the BR-1569 communications multiplexer which relieves the CPU of front-end communications processing tasks, the BR-1539 throughput optimizer which reduces disk memory access time, the BR-1589 autodin interface terminal which provides interface capability with up to 42 networks, the BR-1538 mass memory disk, and the BR-1537 disk controller.

#### Variants/Upgrades

Although the system's configuration varies according to user needs, no specific variants or upgrades have been identified.

#### **Program Review**

Background. In 1974, the US Air Force's Rome Development Center selected the Bunker Ramo Corporation Electronic Systems Division, Westlake Village, California, to supply the GYQ-21(V) data processing equipment to support its intelligence gathering and analysis requirements. The initial contract was for US\$4 million, with an undisclosed number of terminals delivered to the Defense Intelligence Agency and the intelligence branches of the three services.

In 1976, additional contracts were awarded to Bunker Ramo to install GYQ-21(V) equipment for the National Military Intelligence Center at the Pentagon. In 1978, Bunker Ramo received a US\$15.1 million contract to supply systems for the DoD's World Wide Military Command and Control System (WWMCCS). The last identified contract to Bunker Ramo was US\$3.1 million awarded in 1982 for software modifications.

Contracts for maintenance services and materials were awarded to Eaton (US\$22.9 million) and Contel

(US\$33.2 million) in 1987 and 1990, respectively. Contel signed another support contract in September 1991, this one worth US\$75.2 million and ultimately scheduled for completion in the year 2001. Since its 1992 acquisition of Contel's Federal Systems operations, GTE has provided the GYQ-21(V) support services, which are updated as yearly additions to the 1991 contract.

In June 1997, the Global Command and Control System (GCCS) – the next-generation replacement of WWMCCS – achieved full-up operation, including the transmission of top-secret and high-security information. WWMCCS was taken off-line in September 1996, one month after GCCS had achieved Initial Operational Capability.

It is believed that the GYQ-21(V) WWMCCS systems continue to receive maintenance funding as a backup to GCCS. However, all funding for the GYQ-21(V) system appears to end in 2001. This implies that the system will be decommissioned.

## Funding

Support funding specifically for the GYQ-21(V) is not broken out in US Air Force documents.

### **Recent Contracts**

Contractor GTE Award (\$ millions) 164.8

#### **Date/Description**

Sep 1997 – FVI to FFP requirements-type contract to provide for FY98 contractor logistics support for the GYQ-21(V) at various US DoD installations worldwide. Completion date is Sep 2001. (F09603-91-D-

<u>Contractor</u>	Award <u>(\$ millions)</u>	<u>Date/Description</u> 0999, P00014)
GTE	217.1	Aug 1998 – An award for an FVI of a FFPC to provide for FY99 logistical support of the GYQ-21(V) system at various locations worldwide. Completion date is Sep 2001. The contracting authority is the Warner Robins Air Logistics Center, Robins AFB, Georgia. (F09603-91-D-0999-P00017)
GTE	237.1	Aug 1999 – Modification to a firm fixed-price requirements contract, F09603-91-D-0999-P00020, to provide FY2000 contractor logistics support for the GYQ-21(V) Intelligence Data Handling System. Expected contract completion date is Sep 30, 2000. Warner Robins Air Logistics Center, Robins AFB, Georgia, is the contracting authority.

#### Timetable

Month	<u>Year</u>	Major Development
	1974	Initial award from US Air Force
	1982	Last known award to Bunker Ramo
Apr	1987	Contract to Eaton for on-site, on-call maintenance services/materials
Jul	1990	Contel contracted to provide support services
	1992	GTE acquires Contel Federal Systems operations, takes over support efforts
Sep	2001	Current contracts with GTE expected to be completed; system decommissioned

## **Worldwide Distribution**

The GYQ-21(V) is unique to the **US DoD** intelligence community.

## **Forecast Rationale**

The GYQ-21 Intelligence Data Handling System supports a variety of  $C^{3}I$  functions such as imagery exploitation, ELINT analysis, order of battlefield determination and intelligence production for strategic forces. In 1977, the GYQ-21(V) was designated the World Wide Military Command and Control System (WWMCCS) standard communications network and front-end processor.

Having been continually upgraded and in service for over 20 years, the GYQ-21 is being replaced by the Global Command and Control System (GCCS). As of June 1997, GCCS had achieved full-up operation, including the transmission of top-secret and highsecurity information. Most of the WWMCCS was taken off-line in September 1996 after GCCS was initially brought on-line in August of that year.

Large logistical support contracts were awarded in recent years, aimed at facilitating the transition from the GYQ-21 to the GCCS. Current funding for the GYQ-21 will last until midway through 2001. The GYQ-21 is expected to be decommissioned in the 2001. Although some of the GYQ-21 systems might be maintained for non-critical use, it is unlikely that large sums of money will be invested in this system now that its replacement, the GCCS, is operational. Barring any further activity, this report will be archived in the near future.

# **Ten-Year Outlook**

Program activity is limited to support and maintenance. The forecast chart has been omitted.

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