

UNCLASSIFIED

United States Department of State
and the Broadcasting Board of Governors
Office of Inspector General

Report of Inspection

The International Broadcasting Bureau's Greenville, North Carolina, Transmitting Station

Report Number ISP-IB-05-69, August 2005

~~IMPORTANT NOTICE~~

~~This report is intended solely for the official use of the Department of State or the Broadcasting Board of Governors, or any agency or organization receiving a copy directly from the Office of Inspector General. No secondary distribution may be made, in whole or in part, outside the Department of State or the Broadcasting Board of Governors, by them or by other agencies or organizations, without prior authorization by the Inspector General. Public availability of the document will be determined by the Inspector General under the U.S. Code, 5 U.S.C. 552. Improper disclosure of this report may result in criminal, civil, or administrative penalties.~~

UNCLASSIFIED

TABLE OF CONTENTS

KEY JUDGMENTS	1
CONTEXT	3
History	3
Mission.....	5
PROGRAM MANAGEMENT	7
Concerns Over Transmitter Frequency Changes	7
(b) (2)(b) (2)	8
Leadership Initiatives	8
PROGRAM PERFORMANCE.....	11
Satellite Interconnect System.....	11
Commercial Power and Diesel Fuel.....	13
Equipment Upgrade and Modernization	14
HUMAN RESOURCES	15
Right Staff, Size and Mix	15
Relations Between Labor and Management	16
Training	17
MANAGEMENT CONTROLS	19
Maintenance	19
Inventory Controls	21
Information Technology.....	22
Emergency Drills.....	23
RECOMMENDATIONS	25
PRINCIPAL OFFICERS	27
ABBREVIATIONS	29
APPENDIX A	31
APPENDIX B.....	33
APPENDIX C	35
APPENDIX D	37

KEY JUDGMENTS

- Although the Greenville Transmitting Station's two sites, sites A and B, have virtually identical physical plants, they have notable differences. Historically, the two sites have been managed as if they were stand-alone facilities. As a result, differences in operational decisionmaking, particularly at the shift supervisor level, have resulted in different solutions to common problems regarding identical equipment and to differences in day-to-day use of the transmitters, which contributed to greater wear and tear on transmitters at site A.
- The current station manager deserves praise for his decisions, initiatives, and style of management. These have moved the station forward and have positively affected morale, despite the January 2005 announcement of planned budget and staff reductions.
- Additional work remains to be done to maintain and upgrade station facilities. The reductions being made by the Broadcasting Board of Governors (BBG) could mothball or close site A or site B. To avoid wasting taxpayers' money on upgrading a facility that may be put out of service, the International Broadcasting Bureau (IBB) needs to decide soon about the future of the two sites.
- Sites A and B face preventive and scheduled maintenance challenges, but site A has suffered much more wear and tear. OIG learned that much of the maintenance at both sites is corrective and reactive, rather than preventive.
- The Greenville Transmitting Station has transmitters that are serviceable but also are aging and obsolete, and require considerable maintenance. Site A or B may be a candidate for a modernization and equipment upgrade. Complete modernization and automation would allow for some cost-effective benefits, such as manpower reductions, reduced operating budget, minimized need for maintenance and parts, and reduced fuel and power costs.

UNCLASSIFIED

This inspection assessed the general operations of IBB's Greenville's Transmitting Station, including its program management, program performance, and management controls. The inspection took place in Washington, DC, between January 3 and 7, 2005, and in Greenville, North Carolina, between January 10 and 14, 2005. It was conducted in accordance with quality standards for inspections prescribed by the President's Council on Integrity and Efficiency. Louis McCall, Cassandra Moore, and Maria I. Hart conducted the inspection.

A previous OIG report that discussed the Greenville Transmitting Station was *Review of the Broadcasting Board of Governors' Transmission Delivery System* (OIG Report No. 00-IB-033, September 2000).

CONTEXT

HISTORY OF THE GREENVILLE TRANSMITTING STATION



Figure 1: Site A, Greenville Transmitting Station

The IBB's Greenville Transmitting Station, located about 300 miles from Washington, DC, includes three sites (A, B, and C). The broadcasting complex was designed with two nearly identical and independent transmission sites, sites A and B, which are both located east of Greenville, North Carolina. Site A, which

comprises 2,821 acres, is near the community of Bear Grass in Beaufort County; site B, with 2,715 acres, is near the community of Blackjack in Pitt County; and site C, which originally had 644 acres, is near Farmville, North Carolina. President John F. Kennedy formally dedicated the Greenville Transmitting Station on February 8, 1963. In 1968, the station was rededicated as the Edward R. Murrow Transmitting Station in honor of the director of the former U.S. Information Agency

(USIA). Today, the station is generally referred to as the Greenville Transmitting Station. (See Figure 2 for station locations.)



Figure 2: Map showing Greenville site locations

All of the Greenville Transmitting Station sites began operation in 1963. Sites A and B each used three General Electric 250 kilowatt (kW) transmitters, three Continental

UNCLASSIFIED

500 kW transmitters, and three Gates 50 kW transmitters and a Technical Material Corporation 10 kW transmitter. In 1985, the four small Gates transmitters were removed to make space for four 500 kW transmitters that had unique, contemporary designs and were installed to determine the requirements for the Voice of America's (VOA) new stations. The four included the Continental and Marconi transmitters that were placed at site A and the Brown Boveri and Allgemeine Elektrizitäts-Gesellschaft transmitters that were placed at site B. The four were all accepted into service in 1986 and remain in place, adding to the eclectic mix of transmitters that must be serviced by the station.

Table 1: Greenville Transmitting Station Capital Costs

Category of Cost	Current Value
Land	848,118.00
Buildings	4,320,241.00
Other Structures	1,975,230.00
Satellite Interconnect System	593,798.00
Antennas/Receivers/Communications Equipment	13,304,838.43
Power Equipment Generators Switch Gear	810,487.00
Transmitters	12,622,908.00
Total	34,475,620.43

The VOA studios in Washington, DC, are connected with the Greenville Transmitting Station via a microwave system that employs eight relay points that terminate at site C, known as the receiver site. That site closed on March 31, 1995, due to budget reductions and changes in technology.

In 1971, in response to the initiative of a local congressman, a private agribusiness firm was permitted to bury at site C the toxic waste generated from the clean up of a fire at a chemical storage warehouse, provided it agreed to pay the costs of any clean up at site C. (As the toxic waste was entombed in cells, U.S. Environmental Protection Agency representatives were present as observers.) In 1994, however, the General Services Administration sold 594 acres of the site to the state of North Carolina and to local governments, retaining 55 acres that include the toxic waste site. The BBG, USIA's successor, cannot under North Carolina regulations dispose of site C without first cleaning up the toxic waste site.

UNCLASSIFIED

In 1987, site C became a gateway earth station for the Global Satellite Interconnect System (SIS). However, USIA in 1998 placed send-and-receive satellite dishes on the roof of its Cohen Building headquarters in Washington, DC, taking over the gateway function. The Greenville Transmitting Station then became a receive-only station that can uplink to the SIS, as a backup to the headquarters site.

From January 1988 until mid 1997, the Greenville Transmitting station was the IBB network training facility for new Foreign Service officers (FSO), who spent six months in training at the station prior to being sent overseas.

STATION MISSION

The Greenville Transmitting Station provides shortwave broadcasts for U.S. government-funded, nonmilitary, international broadcasting, and it serves as a standby alternate SIS gateway to uplink programming, should the Washington, DC, gateway become inoperable or inaccessible. The station is also a backup facility for the uplinking of programming to the Atlantic Ocean Region (AOR) satellite and as a primary facility for the return link of that satellite. The main target areas for the station's shortwave broadcasts are Latin America, Cuba, the Caribbean, North Africa, and Africa. The station's broadcast customers are the Office of Cuba Broadcasting, VOA, the British Broadcasting Corporation, and Greece's Elliniki Radiofonia Tileorasi.

UNCLASSIFIED

UNCLASSIFIED

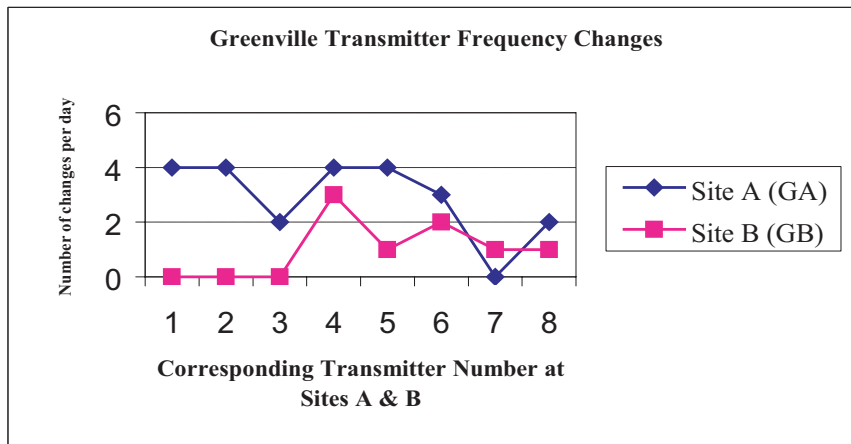
PROGRAM MANAGEMENT

Although the Greenville Transmitting Station sites A and B have virtually identical physical plants, they have notable differences and each has a different culture. Staff who transferred from one site to the other spoke of a difficulty in being accepted in their new surroundings. At the time of OIG's inspection, the upper management team of three FSOs had been at the station for less than six months.

CONCERNS RAISED OVER TRANSMITTER FREQUENCY CHANGES

Historically, the two sites have been managed as if they were stand-alone facilities. As a result, differences in operational decisionmaking, particularly at the shift-supervisor level, produced different solutions to common problems with identical equipment as well as differences in the day-to-day use of transmitters. One decision involved more frequent tuning of the transmitters at site A, which caused greater wear and tear on its transmitters. Some of the transmitters at site A handle as many as four frequency changes a day, which strains the equipment.

Table 2: Greenville Station's Frequency Changes



(b) (2)(b) (2)(b) (2)

(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)

STATION MANAGER SHOWS LEADERSHIP AND INITIATIVE

Although he had only been at the station for less than four months at the time of the inspection, the station manager has made praiseworthy decisions and taken initiatives and management actions that have advanced the station and positively affected morale. In fact, the station manager received high and nearly universal praise from staff at all levels at sites A and B. One employee said the station manager "has done more to turn this place around than [anyone] in the last 10 years." Another called the manager "exceptional." Yet another said he was "the best of all the managers we have had here." Several employees also spoke of the manager's fairness, and how he goes out of his way to show appreciation.

The station manager has also completed some projects and made progress on others that had lain dormant for years. For instance, although the station's tower lighting originally did not meet Federal Aviation Administration requirements, the needed new lighting had sat at a warehouse for 10 years. The station manager got the lights installed. In addition, new boilers for heating sites A and B sat in crates for over a year, waiting to replace the boilers that served the sites since 1963. The current station manager has moved to replace the old boilers by getting an engineering firm in November 2004 to provide the statement of work that will lead to

bidding of the installation contract, scheduled for the end of the current heating season. The station manager also took steps to reduce the station's 875-page safety plan to a size that would be practical and could be used with ease. He also solved some switching gear problems that had led employees to use some unorthodox work-a-round solutions. He did so by contracting for repairs with the local power company, which had expertise in switching.

Although the station has had labor grievances and equal employment opportunity complaints filed against its management, no new complaints have been filed since the station manager arrived. One employee, who had filed a complaint in the past, told OIG that, since the station manager arrived, "that stuff is not tolerated."

Additional work remains to be done to maintain and upgrade the station. The reduction actions being taken by BBG/IBB also could mothball or close sites A or B. To avoid wasting money on upgrades at a facility that may be put out of service, IBB needs to make a decision soon about the future of the two sites. Such a decision, made soon and communicated transparently, would also aid in determining how the post-reduction workforce should be structured and would end the uncertainty that hurts morale.

Recommendation 1: The International Broadcasting Bureau should decide on the future use of the Greenville Transmitting Station's sites A and B.
(Action: IBB)

The BBG responded to a draft of this report by saying that IBB Engineering had requested a thorough review of its staffing levels. In addition, the station manager had completed a detailed analysis of electrical energy costs at sites A and B and a comprehensive assessment of equipment and systems. As a result, IBB Engineering intended to continue to shift more transmission from site A to site B as resources permitted and in accordance with the BBG's mission.

UNCLASSIFIED

UNCLASSIFIED

PROGRAM PERFORMANCE

The Greenville Transmitting Station fulfills its mission and maintains a high availability rate, a measure of how often its transmitters are in operation. The station is an earth station for the SIS and also provides high-power shortwave transmission to Central and South America, Haiti, West and Southern Africa, Cuba, and the Northeastern United States. Although the power and fuel costs of sites A and B differ, equipment upgrades and a modernization program would reduce operating costs.

SATELLITE INTERCONNECT SYSTEM

Plans for the Greenville Transmitting Station's earth station began in December 2001, and the earth station was tested on April 2002. The earth station's software can be remotely activated and programmed. To monitor and maintain the earth station, an employee at site A has been trained as a certified earth station operator.

The earth station is a backup to the SIS gateway, but presently only downlink programs from the satellite. Condensed programming packages are transmitted to the Domstat and New Skies satellites by the Network Control Center at the Cohen building in Washington, DC, and transmissions sent down by the satellites to the Greenville Transmitting Station are automatically screened to eliminate duplicate programming. The primary program feed is a microwave link operating at 10 watts, powerful enough to travel 32 miles through early morning fog and across the Tar River from site A to site B. Also sent over this microwave link are computer functions, the Internet, programming, phone calls, and Royal Thai government programming, which is received over the Internet in Washington and sent to Greenville on a T1 (broadband) line.

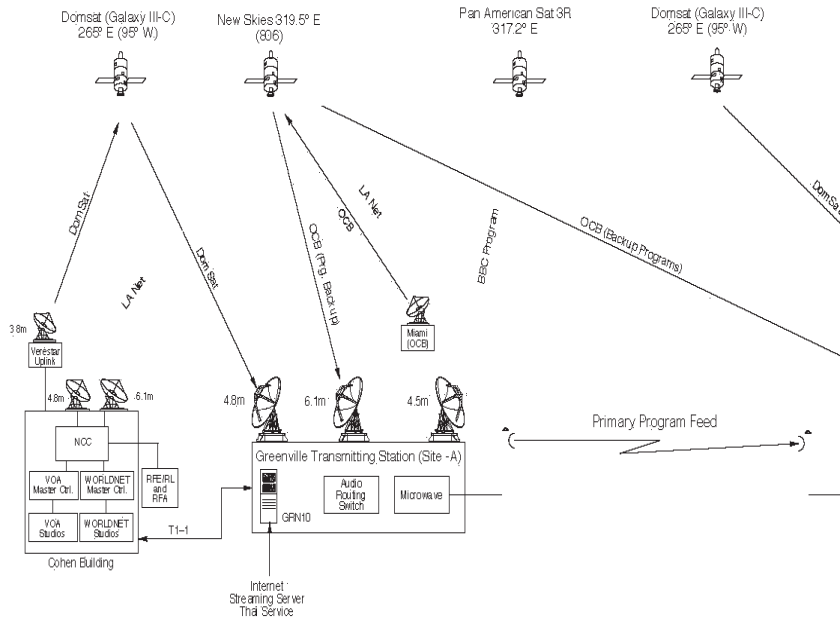


Figure 3: Transmitting Station's Primary Satellite and Program Distribution

**Greenville Transmitting Station
Primary Satellite and Program Distribution**

COMMERCIAL POWER AND DIESEL FUEL

The Greenville Transmitting Station has identical generators at sites A and B. The generators can produce 1.8 megawatts of electricity in case of a power outage or a day when the cost of electricity triples. (On such days, the power company warns the station, so that it can use the generators to operate below the price-trigger. Should the site not do so, it would pay higher rates for the rest of the year.) The generators use diesel fuel and are a money-saving option for supplementing the power for site A, which makes greater use of its generator than does site B. Each site has maintenance contracts with separate commercial power companies, contracts that were handled out of Washington, DC. (Maintenance to the site B generator is fully covered by the contract with the power company.)

The Greenville Transmitting Station is buying the generators under a lease-purchase agreement. The site A generator saved the plant as much as \$10,000 a month in electricity costs and must be used to manage the power load. However, the site B generator is only an emergency backup and is tested periodically. When contending with extended power outages, the station seeks program-substitution assistance from the Network Control Center.

Table 3: 2004 Greenville Transmitting Station Generator Statistics

Hours, Rate and Operating Costs	Site A	Site B
Operating Hours	298	4
Maintenance	\$8,000.00	\$0.00
Kilowatt Hour Rate	\$.048181	\$.041257
Kilowatt Hours	356,751	1,792
Power Cost Savings ¹	\$17,188.62	\$74.93
Fuel Oil Used (Gallons)	25,648	145
Cost per Gallon	\$1.07	0.98
Cost of Fuel	\$27,571.60	\$142.27
Total Cost	\$35,571.60	\$142.27

Source: Greenville 2004 Annual Statistics Report

¹Power cost savings are calculated at the contracted base rate. However, real savings at site A are at least three times that for kilowatt hours actually used plus much greater savings by avoiding a huge jump in the base rate for the plant site.

HUMAN RESOURCES

The President's Management Agenda addresses the strategic management of human capital and the importance of human resource planning. The Greenville Transmitting Station has staff at two locations, which calls for good employee relations and constant communication between the management team and the staff. OIG's review of the transmitting station's human resources effort looked at the size of the staff and at labor relations and training. OIG made no recommendations, but did find areas where management could make improvements. One area is balancing the workload with reduced staff and aging equipment. Another is the working relationship of the FSOs and Civil Service employees and how the relationship was affected by the 1994 reduction in force and buyouts. Finally, the Greenville Transmitting Station has provided little or no training for some of the staff, in part because of budget cuts.

STATION STRUGGLES TO ACHIEVE CORRECT STAFF, SIZE, AND MIX

Greenville Transmitting Station's authorized staffing includes a station manager, two other FSOs, and 40 technical and administrative positions. Because the station has aging, high-maintenance equipment, balancing the workload is a challenge. Site A site has three eight-hour shifts and the B site has two eight-hour shifts, where at least two individuals are on the evening and overnight shifts, the minimal number for safe operations. With reduced staff, preventive maintenance during each shift is not always done in a timely manner. The shift supervisors and radio technicians said the station does not have enough staff to get the maintenance done as quickly as it should and that the station needs to hire and train new people. However, IBB has announced a buy-out and staff reduction for the station. Further, the average age of the staff is high. Over the next five years, about 20 additional staff members, employees with about 494 years of combined experience, will be eligible for retirement.

Table 4: Resource Profile of the Greenville Transmitting Station:

Source: Greenville Transmitting Station Management

(b) (2)(b) (2)(b) (2)(b) (2)

(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)
(b) (2)(b) (2)(b) (2)(b) (2)(b) (2)(b) (2) . For example, in 2002, due to contention with the local union over documented changes to standard operating procedures, the station manager rescinded all of the standard operating procedures and directed the acting transmitter plant supervisor not to issue policy or instructions in this form. He had determined that the standard operating procedures, whose audience includes bargaining unit members, were not appropriate for instructing shift supervisors and that shift supervisors' instructions could be provided differently.

(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6)
(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6)
(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6)
(b)(2)(b)(6) the Director of the BBG Office of Civil Rights visited the station in December 2004 and presented courses in Sexual Harassment, EEO for Supervisors, and sensitivity training. (b)(2)(b)(6)(b)(2)(b)(6)
(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6)(b)(2)(b)(6) .

UNCLASSIFIED

UNCLASSIFIED

MANAGEMENT CONTROLS

The station's management controls have improved since the new management team arrived near the end of 2004. The new station manager has good relations with IBB headquarters and has placed guidance online, including station management instructions, standard operating procedures, and maintenance procedures. Efforts are underway to implement improved maintenance procedures and to foster better relations with the union representatives.

STATION FACES MAINTENANCE CHALLENGES

Sites A and B are both faced with preventive and scheduled maintenance challenges; however, site A has suffered much more wear and tear. Although site A is of about the same age and design as site B, the transmitters and other equipment at site A are in much worse shape. A senior radio technician said preventive maintenance was difficult to keep up with, in part because of the lack of manpower and because of poor relations between employees and between employees and managers. Management confirmed that preventive and scheduled maintenance is hampered by an April 29, 2002, memo from former station management rescinding the Greenville Transmitter Plant's standing operating procedures and "directed the acting transmitter plant supervisor not to continue to issue policy or instructions in this form²." As noted, management had decided that standing operating procedures were not an appropriate way to instruct shift supervisors.

²Memo of April 29, 2002, from station management in response to letter from the chief union steward, dated April 25, 2002, concerning standard operating procedures 1 through 7.

Also affecting preventive maintenance are problems in inventory controls. When parts are needed to repair much of the equipment, sometimes the parts are



Figure 4: Worn and patched shorting drum (inside of transmitter) at site A.

unavailable and technicians must wait until the part arrives. Because of the age of the equipment, parts are very hard to locate. It is not uncommon for 30 days to pass between submission of a purchase order and the part's receipt. Technicians have had to create many parts.

Much of the maintenance at both sites is more corrective and reactive, not preventive.

By examining the weekly, monthly, quarterly, semi-annual, and annual inspection and maintenance reports (I&M), OIG found evidence at both sites that the semi-annual, and annual I&Ms had generally been conducted. However, OIG also found that weekly, quarterly, and monthly I&Ms had not been completed. OIG observed a pattern of only one I&M report each in the weekly, monthly, and quarterly series for each transmitter in 2004. Two transmitters had no record of any preventive maintenance in 2004, and some transmitters had no records of weekly, monthly, or quarterly preventive maintenance going back as far as June 2001.

According to the station's 2004 program hours per transmitter report, a few of the transmitters at both sites have encountered operational problems. A transmitter at site B, transmitter GB-2, has been offline for more than four years. However, that transmitter was not placed in the transmission schedule for technical reasons, not because of operability problems. At site A, transmitter GA-7³ has not worked in over a year due to a failed high-voltage switch. Technicians said new parts arrived after six months of waiting and were used to repair the transmitter. Unfortunately, the transmitter still did not work. Additional parts were ordered and installed, but the transmitter has yet to return to operation. Plans are underway to outsource the repairs. Both sites also house three 50-kW independent sideband transmitters; however, none of them are in use because the technology to operate them is obsolete. (See Appendices C and D.)

³Subsequently, OIG learned that multiple failures led to an effort to improve GA-7's reliability.

Station management is aware of the maintenance challenges and has a proposal, to be submitted to IBB, for a separate maintenance shift that will ensure that preventive and scheduled maintenance and repairs are kept current. Given the status of some of the transmitters, site A must call upon site B to substitute broadcasts at least two to three days a week. Site A also contacted the Network Control Center for substitute program-transmission assistance twice during OIG's site visit.

Recommendation 3: The International Broadcasting Bureau should work with the Greenville Transmitting Station to reestablish a mandatory preventive maintenance program and provide the resources to implement the program. (Action: IBB)

The BBG said in its response to the draft of this report that the recent shift of more transmission capacity from site A to site B has demonstrably aided the development of a regular, preventive maintenance schedule. BBG added that the new maintenance schedule would also improve and standardize critical, core maintenance skills.

Recommendation 4: The International Broadcasting Bureau should ensure that senior management at the Greenville Transmitting Station is held accountable, should the station's preventive maintenance program break down. (Action: IBB)

The BBG responded that IBB Engineering and the station's senior management were committed to developing and maintaining an effective preventive maintenance program. The BBG also said IBB Engineering and the station's senior management would monitor and evaluate the maintenance program through periodic technical inspections.

IMPROVED INVENTORY CONTROLS NEEDED

The Greenville Transmitting Station has encountered many challenges to keeping accurate inventory records for required parts and the equipment it has in stock. One specialist maintains the inventory for sites A and B. As parts are used, technicians and riggers must submit an equipment maintenance report (EMR),

which enables reordering of the part and proper record keeping of the parts balances. Although many technicians complete the form, some do not. When the forms are submitted for inventory use, they are matched against the existing stock, for reordering and balancing. Furthermore, it can take up to two days to reconcile the parts balances. One technician noted that, because employees are not turning in the forms and the length of time involved in reconciling, discrepancies have resulted. The technician also indicated that the 30-day waiting period from ordering to receiving some parts hampers maintenance and repairs.

There are three software programs for managing inventory for the facility. Sites A and B have the Property Inventory Program, the Supply Inventory Program, and PRISM acquisition software, which is used to order supplies. The inventory specialist said some of the inventory does not fall under the same system. The inventory specialist assumed the inventory management tasks of a former employee, but the responsibilities at two large sites have proven a daunting challenge for this employee, and having to use different inventory programs adds to the difficulties.

INFORMATION TECHNOLOGY CONTROLS HAVE IMPROVED

Information technology (IT) management controls have improved since the arrival of the current station manager. According to the station's IT specialist, some of the technicians have made his work difficult for him in the past through various acts including installing and downloading personal material such as MP3s from the Internet, networking computers to Greenville's computer system without authorization, stealing memory chips out of the computer tower, and outright acts of sabotage on the computer hardware, such as disconnecting the cooling fans. The IT specialist and station management have discussed these issues and the specialist has received support from station management. A new mainframe/server plug-in has been installed to prevent downloading information from the Internet or viewing certain pornographic websites, which had been a problem. The IT specialist also noted the program provides an audit trail of the Internet sites that employees have visited and how long they have been there.

Currently, the specialist affirmed that good IT controls are in place. The plug-in, implemented nine months ago, is 75 percent complete. Employees are now aware of the IT regulations and are constantly reminded of them when they log on. This tighter IT controls regime has proven to be effective.

Because station management and the IT specialist drafted guidelines that are based on an IBB model that complies with the Federal Information Security Systems Act, disciplinary action can be taken against those who do not abide by the rules.

STATION MUST CONDUCT EMERGENCY DRILLS

The Greenville Transmitting Station has a voluminous 875-page safety plan. All employees have indicated that they are aware of the plan, but few claim to have actually read it. It is not clear whether all the employees are fully aware of what to do if they need to take action. Because of its size, the plan is not practical. It is not easy to implement, and management knows this. The station is developing a more feasible approach. The safety and evacuation plan, part of the station's network security program, reached its size, according to the IBB Engineering Office of Program Support, as a pending project for IBB, not just for Greenville. Most of the staff said they felt relatively safe at the station; however, most of the technicians expressed concerns regarding manpower coverage when conducting maintenance and repairs.

Station management said it has concentrated on things like instruction on cardiopulmonary resuscitation, rather than fire and emergency drills. No drills have been conducted at the station, although the Greenville Transmitting Station Safety Program Manual states that a variety of safety drills⁴ are to be held annually, periodically, and randomly. Current management plans to upgrade all safety procedures for the station and to develop a practical plan specific to the Greenville station's needs.

Recommendation 5: The International Broadcasting Bureau should ensure that the Greenville Transmitting Station establishes and implements procedures for quarterly fire drills. (Action: IBB)

⁴The drills indicated in the manual are fire (periodically), bomb and plant evacuation periodically, medical response (annually with training) and general awareness of all station drills during regular training.

UNCLASSIFIED

After the inspection, the BBG said Transmitting Station Instruction 110 does require fire drills, but not on a quarterly basis. Because BBG subjects itself to a certain degree of risk when it allows energized equipment to run unattended in an industrial facility, IBB's policy calls for fire drills and mandatory training on fire fighting and detecting unsafe conditions.

RECOMMENDATIONS

- Recommendation 1:** The International Broadcasting Bureau should decide on the future use of the Greenville Transmitting Station's sites A and B. (Action: IBB)
- Recommendation 2:** The International Broadcasting Bureau should conduct a review to determine whether the transmitters at the Greenville Transmitting Station should be replaced with an automated system. (Action: IBB)
- Recommendation 3:** The International Broadcasting Bureau should work with the Greenville Transmitting Station to reestablish a mandatory preventive maintenance program and provide the resources to implement the program. (Action: IBB)
- Recommendation 4:** The International Broadcasting Bureau should ensure that senior management at the Greenville Transmitting Station is held accountable, should the station's preventive maintenance program break down. (Action: IBB)
- Recommendation 5:** The International Broadcasting Bureau should ensure that the Greenville Transmitting Station establishes and implements procedures for quarterly fire drills. (Action: IBB)

UNCLASSIFIED

UNCLASSIFIED

PRINCIPAL OFFICERS

	<u>Name</u>	<u>Arrival Date</u>
Station Manager	Wilfred Cooper	Sept. 20, 2004
Transmitter Plant Supervisor	Craig Silman	Aug. 16, 2004
Facilities Supervisor	Walter Konetsco	Jan. 26, 2004

UNCLASSIFIED

UNCLASSIFIED

ABBREVIATIONS

BBG	Broadcasting Board of Governors
EEO	Equal Employment Opportunity
EMR	Equipment maintenance report
FSO	Foreign Service officer
IBB	International Broadcasting Bureau
IMR	Inspection and maintenance report
IT	Information technology
kW	Kilowatt
MOA	Manual of Operations and Administration
OIG	Office of Inspector General
RIF	Reduction in force
SIS	Satellite Interconnect System
TSI	Transmitting station instructions
USIA	United States Information Agency
VOA	Voice of America

UNCLASSIFIED

UNCLASSIFIED

APPENDIX A

BROADCAST MATRIX AT SITE A

	Broadcaster and Program Language	Target Area
GA – 01 Continental Electronics 420A 400kW, operating at 250 kW	Voice of America - Spanish	Central America, South America
	Voice of America - Creole	Haiti
	Voice of America - English	Africa
	British Broadcasting Corporation, Spanish	Central America, South America
GA – 02 Continental Electronics 420A 400kW, operating at 250 kW	Voice of America, Spanish	Central America, South America
	Voice of America, English	Africa
	Voice of America, Creole	Haiti
	Office of Cuba Broadcasting/Radio Marti Cuban Spanish	Cuba
GA – 03 Continental Electronics 420A 400kW, operating at 250 kW	Office of Cuba Broadcasting/Radio Marti Cuban Spanish	Cuba
	Voice of America - Creole	Haiti
	Voice of America - Spanish	Central America, South America
GA – 04 G.E. Corp. 4BT250A1 250kW, operating at 250 kW	Voice of America - Portuguese	Africa
	Voice of America - French	Africa
	Voice of America - Creole	Haiti
	Office of Cuba Broadcasting/Radio Marti Cuban Spanish	Cuba
GA – 05 G.E. Corp. 4BT250A1 250kW, operating at 250 kW	British Broadcasting Corporation English & Spanish	Central America, South America
	Office of Cuba Broadcasting/Radio Marti Cuban Spanish	Cuba
GA – 06 G.E. Corp. 4BT250A1 1250kW, operating at 250 kW	Voice of America - Spanish	Central America, South America
	Voice of America - Portuguese	Africa
	Voice of America - French	Africa
	Voice of America - Hausa	Africa
	Office of Cuba Broadcasting/ Radio Marti Cuban Spanish	Cuba
GA – 07 Continental Electronics 420A 450kW, operating at 250 kW	Not in operation	Not in operation
GA – 08 Marconi B6127 500kW, operating at 250 kW	Voice of America - English	Central America, South America
	Voice of America - Creole	Haiti
	Office of Cuba Broadcasting/Radio Marti Cuban Spanish	Cuba
	Elliniki Radiofonia Tileorasi - Greek	Eastern North America
GA – 09 Continental Electronics 617A Independent Side Band 50 kW PEP	Not in operation (Not Scheduled)	Not in operation (Not Scheduled)
GA – 10 Technical Material Corp GPT-40K Independent Side Band 40 kW PEP	Not in operation (Not Scheduled)	Not in operation (Not Scheduled)
GA – 11 Technical Material Corp GPT-40K Independent Side Band 40 kW PEP	Not in operation (Not Scheduled)	Not in operation (Not Scheduled)

Source: Greenville Transmitting Station, December 2004

UNCLASSIFIED

UNCLASSIFIED

APPENDIX B

BROADCAST MATRIX AT SITE B

	Broadcaster and Program Language	Target Area
GB - 01 Continental Electronics 420A 400 kW, operating at 250 kW	Operational	Operational
GB - 02 Continental Electronics 420A 400kW, operating at 250 kW	Not in operation	Not in operation
GB - 03 Continental Electronics 420A 400kW, operating at 250 kW	Operational	Operational
GB - 04 G.E. Corp. 4BT250A1 250kW, operating at 250 kW	Voice of America - English	Central America, South America
	Office of Cuba Broadcasting/Radio Marti Cuban Spanish	Cuba
GB - 05 G.E. Corp. 4BT250A1 250kW, operating at 250 kW	Office of Cuba Broadcasting/Radio Marti Cuban Spanish	Cuba
	Voice of America - English	Africa
GB - 06 G.E. Corp. 4BT250A1 250kW, operating at 250 kW	Office of Cuba Broadcasting/ Radio Marti Cuban Spanish	Cuba
	Voice of America - Portuguese	Africa
GB - 07 Allgemeine Electricitäts-Gesellschaft S4005 500kW, operating at 250 kW	Voice of America - French	Africa
	The Royal Thai Government English and Thai	Atlantic East Coast North America
GB - 08 Brown-Boveri Corporation SK55C3-2P 500kW, operating at 250 kW		
GB - 09 Continental Electronics 617A Independent Side Band 50 kW PEP	Not in operation (Not Scheduled)	Not in operation (Not Scheduled)
GB - 10 Technical Material Corp GPT-40K Independent Side Band 40 kW PEP	Not in operation (Not Scheduled)	Not in operation (Not Scheduled)
GB - 11 Technical Material Corp GPT-40K Independent Side Band 40 kW PEP	Not in operation (Not Scheduled)	Not in operation (Not Scheduled)

Source: Greenville Transmitting Station, December 2004

UNCLASSIFIED

UNCLASSIFIED

APPENDIX C

**PROGRAM HOURS PER TRANSMITTER - GREENVILLE
TRANSMITTING STATION (SITE A) FY 2000-2004**

Transmitter	2000	2001	2002	2003	2004	Total all years
GA-1	1,456.00	1,488.00	923.00	1,903.50	1,881.00	7,651.50
GA-2	3,942.00	4,204.50	3,730.00	3,910.50	2,693.50	18,480.50
GA-3	377.50	3,846.00	4,004.00	4,275.50	4,161.50	16,664.50
GA-4	4,012.50	3,362.50	3,635.00	2,803.00	2,312.50	16,125.50
GA-5	2,714.25	2,845.75	2,936.50	3,146.00	2,458.00	14,100.50
GA-6	4,224.50	6,209.50	6,165.00	5,904.50	6,671.00	29,174.50
GA-7 ⁵	2,421.00	2,852.50	2,811.75	489.75	0.00	8,575.00
GA-8	5,731.25	5,991.50	6,381.50	6,211.50	5,969.75	30,285.50
GA-9	0.00	0.00	0.00	0.00	0.00	0.00
GA-10	15.50	28.50	25.00	0.00	0.00	69.00
GA-11	15.00	29.00	25.00	0.00	0.00	69.00
Total per transmitter	24,909.50	30,857.75	30,636.75	28,644.25	26,147.25	141,195.50

Source: Greenville Transmitting Station, January 2005

⁵GA-7 Transmitter had multiple failures in 2003 and all work has been suspended until repairs can be made.

UNCLASSIFIED

UNCLASSIFIED

APPENDIX D

**PROGRAM HOURS PER TRANSMITTER - GREENVILLE
TRANSMITTING STATION (SITE B) FY 2000-2004**

Transmitter	2000	2001	2002	2003	2004	Total all years
GB-1	0.00	75.00	523.50	338.00	508.50	1,445.00
GB-2	0.00	0.00	0.00	0.00	0.00	0.00
GB-3	0.00	0.00	120.00	688.00	361.00	1,169.00
GB-4	1,466.50	1,458.50	2,062.00	1,542.00	825.50	7,354.50
GB-5	2,375.00	2,362.00	2,497.00	2,769.00	2,530.00	12,533.00
GB-6	1,726.50	1,889.00	2,087.75	2,366.00	2,094.00	10,163.25
GB-7 ⁶	553.50	852.75	34.50	0.00	330.00	1,770.75
GB-8 ⁷	1,945.50	904.50	1,206.00	0.00	363.00	4,419.00
GB-9	0.00	0.00	0.00	0.00	0.00	0.00
GB-10	0.00	0.00	0.00	0.00	0.00	0.00
GB-11	0.00	0.00	0.00	0.00	0.00	0.00
Total per transmitter	8,067.00	7,541.75	8,530.75	7,703.00	7,012.00	38,854.50
Total hours both sites	32,976.50	38,399.50	39,167.50	36,347.25	33,159.25	180,050.00

Source: Greenville Transmitting Station, January 2005

⁶ GB-07 showed a drastic decline in use in 2001 and continued to do so in 2002. It was not operational in 2003, but used minimally in 2004. OIG later learned that the transmitter failed in November 2001 due to a steam explosion of the Plate Amplifier tube, possibly caused by a faulty water flow interlock sensor or defective vacuum tube water valve. IBB Engineering funded the GB-7 repair project in 2003. Greenville Transmitting Station technicians successfully repaired the transmitter and it was returned to service.

⁷ GB-08 did not broadcast in 2003. OIG learned that the original high voltage plate transformer failed and a manufacturing firm was awarded a contract to fabricate a new transformer. The new transformer then failed due to a wiring installation error caused by the electrical contractor. The transformer was successfully repaired and GB-08 was returned to service.