
Office of Inspector General

STARS Main Display Monitors
Federal Aviation Administration

Report Number: AV-1998-169

Date Issued: July 9, 1998





Memorandum

**U.S. Department of
Transportation**
Office of the Secretary
of Transportation
Office of Inspector General

Subject: INFORMATION: Results of Review of
STARS Main Display Monitors
Report No. AV-1998-169

Date: July 9, 1998

From: 
Lawrence H. Weintrob
Assistant Inspector General for Auditing

Reply To JA-10:x60500
Attn Of:

To: Federal Aviation Administrator

On October 30, 1997, at a hearing of the Subcommittee on Transportation and Related Agencies, Committee on Appropriations, U.S. House of Representatives, we provided our observations on the Federal Aviation Administration's (FAA) Standard Terminal Automation Replacement System (STARS) Program. During the hearing, concerns were raised regarding FAA's ability to acquire Main Display Monitors (monitors) manufactured by Sony Electronics Inc. in San Diego, California. In response to these concerns, the Office of Inspector General conducted a review of FAA's process for acquiring monitors for the STARS Program. Specifically, we determined the number of monitors needed for the STARS Program, how FAA would acquire the monitors, and whether FAA budgeted and funded for the acquisition of monitors. Our limited-scope review was conducted in accordance with Government Auditing Standards prescribed by the Comptroller General of the United States.

The STARS Program has a total requirement for 2,500 monitors. To date, the Program has acquired 1,295 Sony monitors and will not need additional monitors until Fiscal Year (FY) 2001. Based on our review, we are concerned that FAA had no definitive plans to acquire the remaining 1,205 monitors needed for the STARS Program. In addition, the Sony monitors that meet FAA's requirements may not be available in the future. In our opinion, using different monitors at FAA's facilities could raise human factors issues with the controller workforce, require modifications to adapt the monitors to meet STARS requirements, and increase supply support costs because of the need to maintain two different types of monitors.

Results in Brief

We found that FAA did not adequately budget funds to acquire the remaining 1,205 monitors needed for the STARS Program. Further, FAA was unable to fund the contract options for monitors from within the overall STARS Program. As a result, FAA lost the contract vehicle to obtain the remaining monitors for the STARS Program. FAA needs to take action immediately to preserve the future supply of Sony monitors.

Budgeting and Funding for Monitors

We found that FAA did not adequately budget funds to exercise contract options previously established with Lockheed Martin Air Traffic Management to keep the production line open and preserve favorable pricing of Sony monitors. Option 1, for a total of 2,015 monitors, was priced at approximately \$57 million (approximately \$28,000 per monitor), and Option 2, for 985 monitors, was priced at approximately \$29 million (approximately \$29,000 per monitor). Options 1 and 2 included monitors for both FAA and the Department of Defense and had exercise dates of November 1, 1997, and November 1, 1998, respectively.

These firm fixed-price options required funding to be available at the time the options would be exercised. However, FAA budgeted for the monitors in the fiscal year in which the monitors would be needed (FYs 1999 - 2002). Thus, the STARS Program budget for FY 1998 did not include the entire \$33 million needed for FAA's portion of Option 1. Further, under the Department of Defense's acquisition process, it cannot fund its monitors until approval of a full production decision, which is not expected until February 2000.

For FY 1998, the Program Office budgeted approximately \$9 million of the \$33 million needed for its portion of Option 1 and expected to supplement the remainder from within the overall FY 1998 STARS budget. However, as a result of STARS development contract cost overruns, the overall FY 1998 STARS budget did not have the expected funds required to exercise Option 1. Consequently, FAA was not able to exercise the option by November 1, 1997. In an effort at cooperation, Sony agreed to extend the exercise date of Option 1 to December 31, 1997, and again to January 9, 1998. The January date was significant because it was the completion date for production of the original order of 1,295 monitors. Despite these extensions, FAA did not have the necessary funds in the STARS Program budget to exercise the option and Option 1 expired. The exercise of Option 2 was contingent on the prior exercise of Option 1. Therefore, with the expiration of Option 1, FAA and the Department of Defense

lost the contract vehicle to obtain the remaining Sony monitors for the STARS Program.

Observations

FAA could have contracted directly with Sony for the remaining 1,205 monitors it needs. This action would have saved an estimated \$5 million over the cost of acquiring the monitors through Lockheed Martin Air Traffic Management (the additional cost was primarily due to the fee charged by Lockheed Martin). Further, FAA could have contracted with Sony for the minimum production quantity of monitors, which would have kept the Sony production line open through FY 1998. However, FAA senior management elected not to reprogram an estimated \$17 million needed for Sony to keep producing the monitors for the remainder of this fiscal year. Additional contracts would be needed in subsequent fiscal years to obtain the remaining monitors.

Although FAA will not need additional monitors until FY 2001, it needs to take action immediately if it is to preserve the future supply of Sony monitors. At the time of our February draft report, FAA had no definitive plans to acquire the remaining 1,205 monitors. We are concerned that Sony monitors meeting FAA's requirements may not be available in the future. Sony Display Systems managers informed us in February that, if FAA did not make arrangements to acquire the remaining monitors, Sony would discontinue production in the United States and would not resume production once discontinued.¹ Further, it is highly unlikely that Sony of Japan would manufacture the model that meets FAA's requirements. The monitors manufactured in Japan are used in other countries; however, these monitors do not contain the hybrid video amplifier that contributes to the full-screen high resolution required by FAA. This is critical because the Sony monitor provides virtually the same resolution (e.g. clarity of aircraft data) in the outer corners of the screen as in the center.

In addition, STARS was designed to include the Sony monitor. Additional engineering may be required to incorporate a different type of monitor into the system design. In our opinion, this could involve a design change to the controller workstation as well as modifications to the software. Further, FAA would need to maintain an inventory of two types of spare parts if it elected to acquire a monitor other than Sony's. These changes could result in increased costs to the STARS Program.

¹ Sony completed its production of monitors for FAA in January 1998, and closed the production line.

Action Requested

In accordance with Department of Transportation Order 8000.1C, we requested that FAA provide us with its plans or actions for acquiring the remaining main display monitors needed for the STARS Program and the target dates for completion of these actions.

Management Position

In a June 30, 1998, response to our February 5, 1998, draft report, FAA stated that, at the time of our review, it did not consider Sony to be a viable source for monitors. Since that time, Sony has indicated a willingness to re-open their assembly line in San Diego, California, to produce monitors for FAA.

In order to achieve competition, FAA released a market survey on June 1, 1998, to gather information on monitor capabilities and availability in the marketplace using the requirements of the original specification. The results of the market survey are expected in the next few weeks. If the survey results indicate that more than one company has a product that meets the requirements of the original specification, FAA intends to initiate a competitive procurement to acquire the additional monitors. However, if the survey results indicate that only one supplier's product meets the requirements, then FAA will initiate a sole source procurement. Pending the outcome of the survey, FAA will continue to work to ensure that both near-term and future funding requirements for monitors are accommodated in the budget process. (See Attachment for FAA's response to draft report.)

Office of Inspector General Comments

FAA's response adequately addressed our concerns for acquiring the remaining main display monitors needed for the STARS Program. We would appreciate a copy of the results of the market survey for monitors when complete. Also, we would like to be kept informed of the vendor selected to provide monitors to FAA.

We appreciate the courtesies and cooperation extended by your staff. If I can answer any questions or be of any further assistance, please call me on x61992 or Alexis M. Stefani, Deputy Assistant Inspector General for Aviation, on x60500.

Attachment

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U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject: **INFORMATION:** Review of STARS Main
Display Monitors

Date: JUN 30 1998

From: Assistant Administrator for Financial
Services/CFO

Reply to
Attn. of:

To: Assistant Inspector General for Auditing

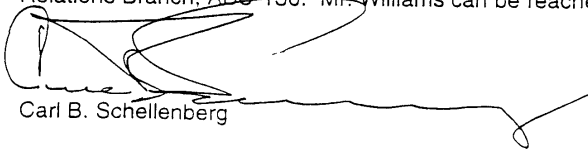
When the subject review concerning the acquisition of additional display monitors for the standard terminal automation replacement system (STARS) program was completed by the Office of Inspector General in February, the FAA did not consider Sony to be a viable candidate for supplying the additional display monitors since Sony had closed its assembly line in San Diego. Subsequently, FAA has learned that Sony is interested in re-opening its assembly line and competing as a supplier for the display monitors.

The STARS display monitor acquisition team, charged with developing and executing a plan for acquiring the additional monitors, released a market survey on June 1 to gather information on monitor availability/capabilities in the market place. The FAA will be analyzing the results of the survey shortly. If the survey results indicate that more than one company has a product which meets the requirements of the original specification, the FAA intends to initiate a competitive procurement process to acquire the additional monitors. However, if the survey results indicate that only one supplier's product meets the requirements, the FAA will initiate a sole source procurement with that supplier.

Pending the outcome of the survey, the FAA will continue to work with the Office of the Secretary and with Congress to ensure that both near term and future funding requirements for display monitors are accommodated in the budget process.

We will keep you informed about survey results, which are expected shortly.

Should you have any questions please contact Mr. Anthony R. Williams, External Relations Branch, ABU 130. Mr. Williams can be reached on 267-9000.


Carl B. Schellenberg