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Office of Information Management and
Communications

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Vide Conferencing Program Assessment Report

063562/154239

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Abbreviations

| | |
|------|---|
| OIMC | Office of Information Management and Communications |
| TSC | Telecommunications Services Center |



United States
General Accounting Office
Washington, D.C. 20548

Office of Information Management
and Communications

February 4, 1994

Director
Office of Information Management
and Communications

This report responds to your request for an assessment of GAO's videoconferencing program during fiscal year 1993.

The assessment shows that videoconferencing has quickly become an effective means of helping GAO accomplish its mission and identifies several benefits of using videoconferencing, including significant savings in travel costs and time.

The assessment is based on surveys of participants in videoconferences held throughout fiscal year 1993 and costs compiled by OIMC. Staff from the Office of Internal Evaluation and the General Government Division assisted in the data analysis and preparation of the report.

We wish to thank all the regional offices' videoconferencing coordinators, who supervised the field office surveys, and the principal contributors to this assessment.

A handwritten signature in black ink, appearing to read 'Raymond T. Olsen'.

Raymond T. Olsen
Project Director, Videoconferencing Assessment

Videoconferencing Program Assessment Report

Results in Brief

During fiscal year 1993, GAO's Office of Information Management and Communications (OIMC) assessed GAO's use of videoconferencing. The assessment shows that videoconferencing has quickly become an effective means of helping GAO accomplish its mission. Specific findings of the assessment include the following:

- Most session leaders reported that videoconferencing was as effective as traveling to meet "in person" (see p. 12).
- About half the conferences were devoted to job performance and other mission-related purposes (see pp. 9 and 10).
- A large and diverse group of GAO staff used the network (see p. 9).
- Using videoconferencing eliminated the need for travel that would have cost more than \$400,000 (see p. 11).
- Videoconferencing eliminated the need for approximately 650 days of travel time (see p. 11).
- The estimated cost of providing videoconferencing service in 1993 was about \$327,000 (see p. 11).
- Extensive nonquantifiable benefits to work performance were realized (see pp. 12 and 13).

This report presents information on GAO's videoconferencing program, assessment methodology, and findings.

Background

Network Development

During 1991, GAO conducted a pilot test and evaluation of the potential usefulness of videoconferencing in performing its work. The pilot evaluation report documented many significant examples of ways that videoconferencing could contribute to the efficiency and effectiveness of work teams and processes.¹ Pilot participants agreed that videoconferencing improved communications by enabling more people to participate in meetings, bringing essential senior managers into discussions on a timely basis, providing a way for congressional staff to discuss jobs directly with GAO evaluators doing the work, and speeding the process by which face-to-face meetings could be held—all without the time and travel expenses of usual, in-person meetings.

¹Video Teleconferencing: GAO's Pilot Test, Office of Information Management and Communications, U.S. General Accounting Office, December 1991, GAO/OIMC-92-1.

Although the pilot was limited to a single connection between one regional office (Seattle) and headquarters via a high-speed dedicated data transmission line, the resulting benefits were promising enough to warrant implementation in other GAO offices. On October 1, 1992, GAO initiated videoconferencing service in three additional regional offices: San Francisco, Los Angeles, and Denver. "Dial-up" telecommunications service was introduced to enable all videoconference sites to confer with each other and with non-GAO parties. In response to increasing use of videoconferencing, a second site was installed at headquarters in May 1993. By the end of the fiscal year, regional videoconferencing service had expanded to include the Atlanta, Boston, Chicago, and New York offices, and all of the remaining regional offices had requested the service. As of January 1994 the GAO videoconferencing network consisted of 17 sites, including 14 regional and 3 headquarters sites.

Organization

GAO's Office of Information Management and Communications has overall responsibility for managing the videoconferencing program. OIMC's Telecommunications Services Center (TSC) is charged with operating the program and providing network management and technical assistance to headquarters and the regions. Each unit using videoconferencing has a designated coordinator, and regional office coordinators are trained to operate the system and support users.

To promote the full integration of videoconferencing technology into the work processes of GAO, OIMC sought input and direction on creative uses of this technology from GAO's mission staff. The vehicle for this collaboration is the Videoconferencing User Group. Chaired by an audit/evaluation senior executive, the User Group is composed of people who use videoconferencing services and have ideas about the future potential of the technology. Membership is drawn from divisions and regional and staff offices (e.g., the GAO Training Institute).

Assessment Methodology

The assessment methodology involved gathering data, estimating costs, and identifying benefits.

Data Gathering Methodology

Essential data were collected by schedulers from requesters at the time each videoconference was scheduled. This information included the name, unit, and phone number of the host/leader and other-unit participant; the purpose of the meeting; and the number of staff expected to participate at

each location. This information was entered into the videoconferencing management information system database by the scheduler. After the conference, the database was updated with any required revisions. Cancelled sessions were also recorded.

During fiscal year 1993, 681 videoconferences were held. Headquarters and the regions completed a total of 591 surveys. During the first three quarters of 1993, only the regions completed surveys; during the last quarter, both headquarters and the regions were asked to complete surveys.

The first videoconferencing survey (app. I), developed with assistance from the Seattle Regional Office, drew upon the experience its staff gained in their participation in the 1991 videoconferencing pilot. The survey was used by the four regional offices who had videoconferencing capability during the first 9 months of fiscal year 1993 (Seattle, San Francisco, Los Angeles, and Denver) to gather information on such topics as frequency of videoconferencing use, conference participants, conference purposes, and alternatives that might have been used if videoconferencing had not been available. At each regional office, the person who would typically have transacted the business had the videoconference not been available was asked to complete the survey at the end of the conference.

A revised survey (app. II) was developed for the fourth quarter to capture additional information, including user perceptions of the nonmonetary benefits to GAO's mission performance of videoconferencing technology and the effectiveness of videoconferencing compared with an in-person meeting. This survey was generated with input from the Users Group and General Government Division technical staff and was implemented in all eight regional offices participating in the program and in headquarters.

For cases in which data from the two surveys can reasonably be combined, this report presents findings for the entire fiscal year. In other cases, depending upon data availability, data are presented only for the first three-quarters of the year for four regions or for the fourth quarter for up to eight regions. Headquarters data are available only for the fourth quarter.

Cost Methodology

OIMC calculated the cost of providing videoconferencing service for the ten sites operational in 1993 by estimating the cost of equipment acquisition (including purchase or lease, site survey, and installation) and the cost of

operating the network (including telecommunication service charges, technical support, and equipment maintenance). The capital costs for equipment were calculated by amortizing one-time purchase and installation costs and total lease-to-ownership payments over the average 6-year useful life of the equipment. (On the basis of discussions with the Gartner Group, a GAO information technology adviser, OIMC determined 6 years to be the reasonable life of this equipment.) The cost of modifying the videoconferencing rooms and the costs of purchasing some of the auxiliary equipment are not included in the equipment cost estimate.

OIMC estimated operating costs for 1993 by analyzing invoices for telecommunications charges and technical support and service contracts for maintenance costs. Salaries for GAO staff managing and operating the system are not included in these cost estimates.

Benefits Methodology

As described above, conference leaders completed surveys on which they estimated the number of trips staff would have had to make had videoconferencing not been available. To obtain a total estimated travel savings figure, the number of trips reported in the surveys was multiplied by the estimated cost per trip, which was provided by regional staff.

In addition, OIMC calculated the average amount of time that the trips avoided would have taken using the following number of hours per trip: 12 hours for a transcontinental round trip; 6 hours for round trip travel between Washington, D.C., and the midwest; and 4 hours for round trip travel between Washington, D.C., and another site on the east coast.

Data on additional benefits of videoconferencing were derived from the survey used in the fourth quarter of the fiscal year.

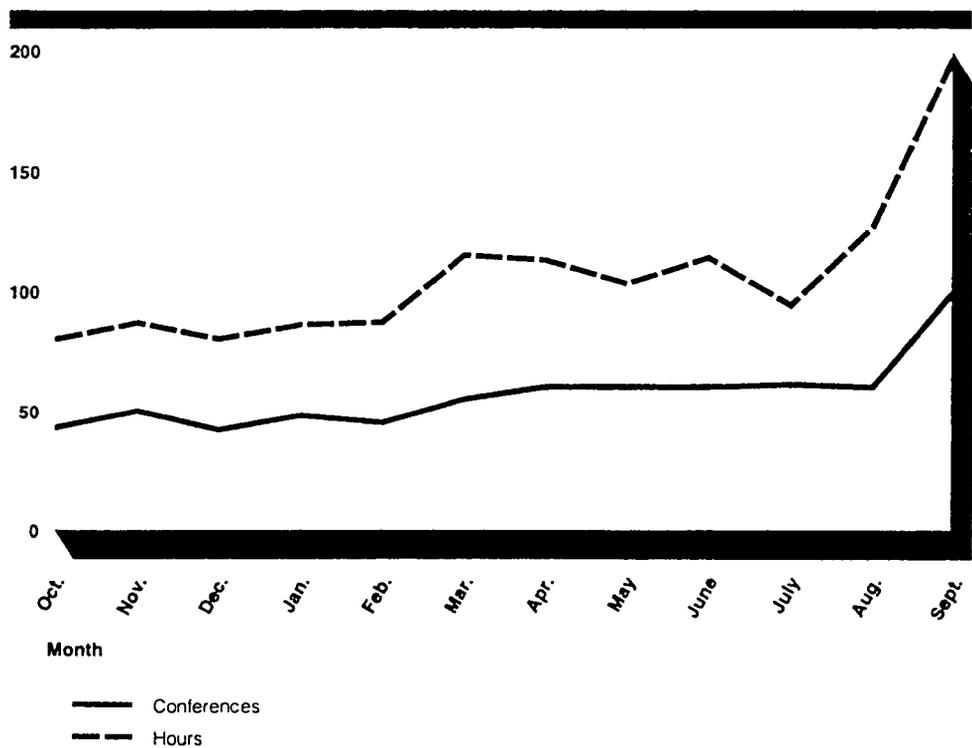
Findings

Usage Profile

During fiscal year 1993, 681 videoconferences were conducted, beginning with 43 in October 1992 and finishing with 100 in September 1993. The videoconferencing network was in use a total of 1,284 hours during the

year, with use increasing from 80 hours in the first month to 198 hours in the last month (see fig. 1). The conference business day was limited in the first 9 months to 5 to 6 hours by the 3-hour time difference between headquarters and the four connected western regional offices. With the addition of eastern and midwest regions to the network during the fourth quarter, hours available to conduct conferences increased.

Figure 1: GAO Videoconferencing Network Usage, Fiscal Year 1993



During the fourth quarter, a second videoconference room was operational at headquarters to meet increased demand for service. After this addition, 96 percent of headquarters users and 93 percent of regional users reported that they were able to get their preferred date/time for a proposed conference. Of those unable to obtain their preferred time, more than half reported they were able to achieve their objectives by accepting an alternative time.

Participant Profile

Survey data show that a diverse group of GAO staff participated in the videoconferences (see table 1). In addition, as the network expanded the number of scheduled conference participants increased, reaching a high of 769 in September 1993 and totalling more than 5,600 for the year (some users participated in multiple conferences).

Table 1: Percent of Videoconference Participants by GAO Role and Location, 4th Quarter Fiscal Year 1993

| Role | Regions | Headquarters |
|---|----------------|---------------------|
| Evaluator | 22 | 17 |
| Evaluator in charge | 17 | 9 |
| ASM/RAM/IAM (regional program manager) | 11 | 9 |
| Assistant director | 7 | 21 |
| Director/associate director for issue area | 2 | 14 |
| Regional manager/assistant regional manager | 16 | 2 |
| Evaluator-related specialist | 10 | 4 |
| Writer-editor/reports analyst | 2 | 2 |
| Attorney | 1 | 3 |
| Technical information specialist/librarian | 2 | 1 |
| Human resources staff | 3 | 3 |
| Training Institute staff/instructor | 1 | 2 |
| Office or division director/deputy director | 1 | 7 |
| Other | 5 | 6 |

Conference Purposes

Regional surveys indicated that about half the fiscal year 1993 conferences were for assignment performance or mission-related purposes. See table 2 for a breakout of conference purposes.

**Videoconferencing Program Assessment
Report**

**Table 2: Conference Purposes
Reported by Regions, Fiscal Year 1993**

| Purpose | Number of times reported | Percent of total reported |
|--------------------------------------|---------------------------------|----------------------------------|
| Job-related | | |
| Kick-off | 12 | 2 |
| Job design | 37 | 7 |
| One-third point | 11 | 2 |
| Message/report | 38 | 7 |
| Report review | 18 | 3 |
| Close-out | 3 | 1 |
| Meeting with specialist | 24 | 4 |
| Meeting with issue area director | 20 | 4 |
| Congressional staff briefing | 22 | 4 |
| Other job-related | 29 | 5 |
| Issue area planning/development | 35 | 6 |
| Other | 23 | 5 |
| Total | 272 | 50 |
| Human resources activities | | |
| HRM/personnel activities | 14 | 3 |
| Training activities | 50 | 9 |
| Total | 64 | 12 |
| Other purposes | | |
| Administrative activities | 35 | 6 |
| TQM/OIP activities | 49 | 9 |
| TAG/videoconferencing activities | 24 | 4 |
| Special interests | 4 | 1 |
| Videoconferencing project management | 46 | 8 |
| Other activities | 49 | 9 |
| Total | 207 | 38 |
| Grand total | 543^a | 100 |

^aThis total does not agree with the number of conferences held (681) or the number of surveys completed (591) because not all conferences completed surveys and some completed surveys did not report a purpose.

Cost of Providing
Videoconferencing Service

During fiscal year 1993, it cost GAO about \$327,000 to operate 10 systems, including 5 sites for the full 12 months and 5 sites for fewer than 12 months (see table 3).

Table 3: Videoconferencing Costs,
Fiscal Year 1993

| Item | Cost |
|-----------------------------------|------------------|
| Equipment | \$112,000 |
| Operations | |
| Telecommunications charges | 101,000 |
| Technical support and maintenance | 114,000 |
| Total | \$327,000 |

These figures include equipment acquisition and installation costs that are amortized over the estimated 6-year life of the equipment. When the full costs of equipment purchases are included, expenditures for the 10 sites in fiscal year 1993 rise to \$831,000.

Also, fiscal year 1993 was not typical in that maintenance costs were less than will occur in subsequent years because of contract warranty provisions. If the equipment had not been covered under warranty during fiscal year 1993, the maintenance costs for this period would have been \$50,000 rather than \$12,600. Resulting operating costs would have totalled \$364,000.

Benefits of
Videoconferencing

Travel Avoided

OIMC calculated total travel savings of about \$400,000 (see table 4). In addition to costs avoided, the 461 avoided trips saved an estimated 650 days of travel time that were then available for other purposes.

Table 4: Estimated Cost of Travel
Avoided, Fiscal Year 1993

| Number and type of trip | Estimated cost per trip | Estimated cost for all trips |
|----------------------------------|-------------------------|------------------------------|
| 414 transcontinental round trips | \$945 | \$391,230 |
| 47 east coast round trips | 450 | 21,150 |
| Total | | \$412,380 |

Table 5 shows the alternatives that respondents said they would have used to address the matter discussed in the videoconference if videoconferencing service had not been available. For about one-third of the conferences, respondents said that travel would have been the selected alternative.

Table 5: Percent of Surveys Reporting Possible Alternatives to Videoconferencing, 4th Quarter Fiscal Year 1993

| Alternatives | Regions | Headquarters |
|---|---------|--------------|
| Own staff would have traveled | 34 | 10 |
| Other staff would have traveled | 3 | 26 |
| Addressing matter would have been delayed | 5 | 6 |
| Matter would not have been addressed | 15 | 8 |
| Phone or conference call would have been used | 37 | 38 |
| Other alternatives would have been used | 6 | 12 |

Effectiveness

Most users considered videoconferencing to be at least as effective as an in-person meeting (see table 6).

Table 6: Percent of Perceived Effectiveness of Videoconferences as Compared With In-Person Meetings, 4th Quarter Fiscal Year 1993

| Effectiveness | Regions | Headquarters |
|---------------|------------|--------------|
| Much more | 11 | 9 |
| Somewhat more | 13 | 13 |
| Equally | 57 | 62 |
| Somewhat less | 13 | 14 |
| Much less | 2 | 0 |
| NA | 4 | 2 |
| Total | 100 | 100 |

Other Benefits

The survey showed that videoconferencing provided GAO extensive additional benefits. For example, table 7 shows that between 81 and 90 percent of the conferences benefitted from having key decision makers present at the same time.

Table 7: Percent of Surveys Reporting Other Benefits, 4th Quarter Fiscal Year 1993

| Benefit | Regions | Headquarters |
|---|----------------|---------------------|
| Key decision makers present at the same time | 81 | 90 |
| Developmental staff or specialist able to be present | 55 | 52 |
| Decisions reached in a more timely manner | 75 | 86 |
| Verification of decisions made or agreements reached | 62 | 72 |
| Better coordination or teamwork between sites | 74 | 77 |
| Potential rework avoided | 48 | 60 |
| Personnel or administrative matter addressed more quickly | 31 | 30 |
| More timely training delivered/received | 17 | 18 |

Outlook for the Future

GAO's experience with the expanded videoconferencing system during fiscal year 1993 indicates that videoconferencing is effective in GAO's operating environment. Also, the potential exists to realize additional benefits at low marginal cost from this system through increased use of "power conferencing" tools and repeated use for each job. The cost of increased use would be negligible, since only 10 percent of videoconferencing service is "variable cost" based upon usage, while the remaining 90 percent is fixed cost. Finally, GAO has acquired more powerful "multi-point" conferencing capabilities that will permit conferences involving multiple offices. This capability will greatly support multi-region jobs and issue area team communication and coordination. Grasping the opportunity to obtain these benefits to mission performance presents a significant challenge to GAO management and the videoconferencing User Group.

Video Conferencing Session Survey

Video Conferencing Session Survey

One member of the video session at the regional site should be selected as the session leader. If the video conference is between two regional offices, one should be designated to complete this survey. If the video conference does not involve regional staff, one member of the Headquarter's video conferencing team should be designated as the session leader. The session leader should be the person at your location who would most likely have transacted the business that occurred in the video session, if there was not a video session. The session leader should complete this survey.

1. Please enter your name, your unit and your location, the date and local time of the video conference.

Name : _____
Unit: _____
Location: _____
Date: _____
Time: _____

2. Please enter the name and location of the unit with which you are video conferencing?

Unit: _____
Location: _____

3. Did any congressional staff or people outside the GAO organization participate in today's video conference?

No

Yes Please specify the respective committees and/or organizations for the staff in attendance.

4. Which of the following best describes the alternative that would have been used if the video conferencing equipment had not been available. (Check One)

- I and possibly others from my location would have traveled to the other city for a face-to face meeting. Please specify the total number of people from your location who would have been in travel status.
Number in travel status _____
- Others from the remote location would have traveled to this city for a face-to face meeting. Please specify the total number of people from the remote location who would have been in travel status.
Number in travel status _____
- This discussion would have been delayed until a time when both parties could meet together. Please specify the number of days this meeting would be delayed.
Number of days _____
- Video conference did not replace a face-to-face meeting. Information would have been passed using telephone or conference call.
- Other. Please specify _____

(OVER)

HANDOUT FOR ANSWERING QUESTIONS 5 AND 6.

Use these numbers in response to question 5.

Use these roles in describing the participants listed in question 6 of the survey.

PURPOSE OF VIDEO CONFERENCE

GAO Roles

Job Related

- 101 Kick-off Conference
- 102 Job design agreement meeting
- 103 One-third point meeting
- 104 Message/Report conference
- 105 Report review meeting
- 106 Close-out conference
- 107 Meet with HQ specialist
- 108 Meet with Issue Area Director
- 109 Meet with HQ Editors
- 110 Issue analysis conference
- 111 Issue area development meeting
- 112 Briefings of Congressional Staff
- 113 Other job-related data gathering meetings
- 199 Other mission related activities. *Specify the purpose in the space provided at question 5.*

- 001 Evaluator
- 002 Evaluator in Charge
- 003 ASM/AM/IAM
- 004 Assistant Director for Issue Area
- 005 Director/Associate Director for Issue Area
- 006 Regional Manager/Assistant Regional Manager
- 007 Evaluator Related Specialist
- 008 Writer/Editor/Reports Analyst
- 009 Report Review Staff
- 010 Attorney
- 011 Technical Information Specialist/Librarian
- 012 Human Resources Staff
- 013 Budgeting/Fiscal Staff
- 014 Training Institute Staff/Instructor
- 015 Office or Division Director/Deputy Director
- 016 Other (*Please Specify in the space provided on question 6*)

Administrative/Human Resources

- 201 Human Resources
- 202 Budgeting
- 203 Personnel
- 298 Other administrative activities. *Specify the purpose in the space provided at question 5.*
- 299 Other human resource related activities. *Specify the purpose in the space provided at question 5.*

Training

- 301 Presentation
- 302 Training Course
- 399 Other training activities. *Specify the purpose in the space provided at question 5.*

Other

- 401 VTC Demonstrations
- 402 Issue Area Planning
- 403 Legal Activities
- 404 OIP Activities
- 405 TQM Activities
- 406 TAG/OIMC Activities
- 407 Recruiting Activities
- 408 Special Interest Group Activities
- 409 Video Conferencing Project Activities
- 499 Other activities. *Specify the purpose in the space provided at question 5.*

Video Conferencing Utilization Survey

U.S. General Accounting Office

Video Conference Utilization Survey



Instructions

The purpose of this survey is to collect information on video conference meetings about the purpose, staffing, cost savings, and benefits. This information will be used to assist OIMC and the VTC User's Group to assess the implementation of video conferencing and its benefits.

Before each video conference or training session, one person needs to be selected in each participating VTC facility to complete this survey immediately following the conference. Ideally, this person is the person who most likely would have transacted the business had the VTC meeting not occurred. For GAO jobs this would typically be the EIC or program manager in the regions (i.e., ASM/IAM/RAM) and the Assistant Director in the Divisions; for training or other purposes only one person would be identified at each VTC facility to complete a single form for the group.

This survey is to be completed for each different meeting conducted during a scheduled video conference session (e.g., a report conference and issue area planning back-to-back would each require a separate survey).

* * * * *

1. Please enter your name, division/office, VTC facility, job code, conference number, date, and local time of the video conference.

Name: _____

Division/Office: _____

VTC facility: _____

Job code (if applicable): _____

VTC Conference Number: _____
(from VTC schedule.)

Date: |_____| |_____| |_____|
MM DD YY

Start time: |_____|:|_____| |_____| A.M. or P.M.
HH MM (Circle one.)

End time: |_____|:|_____| |_____| A.M. or P.M.
HH MM (Circle one.)

2. Please enter the division/office and VTC facilities with which you are video conferencing.

Division/Office: _____

VTC facilities (Check all that apply.):

- | | |
|---|--|
| 1. <input type="checkbox"/> GAO, 6th floor | 10. <input type="checkbox"/> Detroit |
| 2. <input type="checkbox"/> GAO, 2nd floor | 11. <input type="checkbox"/> Kansas City |
| 3. <input type="checkbox"/> HRD, Mass. Ave. | 12. <input type="checkbox"/> Los Angeles |
| 4. <input type="checkbox"/> Atlanta | 13. <input type="checkbox"/> New York |
| 5. <input type="checkbox"/> Boston | 14. <input type="checkbox"/> Norfolk |
| 6. <input type="checkbox"/> Chicago | 15. <input type="checkbox"/> Philadelphia |
| 7. <input type="checkbox"/> Cincinnati | 16. <input type="checkbox"/> San Francisco |
| 8. <input type="checkbox"/> Dallas | 17. <input type="checkbox"/> Seattle |
| 9. <input type="checkbox"/> Denver | 18. <input type="checkbox"/> Europe |
| | 19. <input type="checkbox"/> Far East |

3. If you initiated this VTC session, was the scheduling system able to accommodate your original preferred meeting date/time? (Check one.)

1. Not applicable/(I did not initiate this meeting.) (Skip to Question 5.)
2. Yes -----> (Skip to Question 5.)
3. No (Continue.)

4. Due to not getting your preferred meeting date/time; to what extent, if at all, did this affect the ability to accomplish objectives set for this meeting? (Circle number.)

| | | | | | | |
|--------|---|---|---|---|---|--------|
| Little | | | | | | Very |
| or no | 1 | 2 | 3 | 4 | 5 | great |
| extent | | | | | | extent |

**Appendix II
Video Conferencing Utilization Survey**

5. For each of the following, please write in the number(s) of persons attending this video conference at your location and at all the remote location(s)? (Enter numbers. If none, leave blank.)

| PERSONS IN ATTENDANCE | Number at your location attending session (1) | Number at all remote locations attending session (2) |
|---|--|---|
| 1. Evaluator (001) | | |
| 2. Evaluator in charge (002) | | |
| 3. ASM/IAM/RAM (003) | | |
| 4. Assistant Director for Issue Area (004) | | |
| 5. Director/Associate Director for Issue Area (005) | | |
| 6. Regional Manager/Assistant Regional Manager (006) | | |
| 7. Evaluator-Related Specialist (007) | | |
| 8. Writer/Editor/Reports Analyst (008) | | |
| 9. Report Review Staff (009) | | |
| 10. Attorney (010) | | |
| 11. Technical Information Specialist/Librarian (011) | | |
| 12. Human Resources Staff (012) | | |
| 13. Budgeting/Fiscal Staff (013) | | |
| 14. Training Institute Staff/Instructor (014) | | |
| 15. Office or Division Director/Deputy Director (015) | | |
| 16. Administrative staff (017) | | |
| 17. Congressional staff (Specify Committee/Subcommittee) (018) | | |
| 18. Other (Please specify.) (016) | | |

**Appendix II
Video Conferencing Utilization Survey**

6. Please check the purpose(s) of this meeting and circle the primary purpose. (Check all that apply, circle primary one.)

| JOB RELATED | | OTHER | |
|--------------------------|---|--------------------------|---|
| <input type="checkbox"/> | 1. Kick-off conference (101) | <input type="checkbox"/> | 9. Issue Area Planning (402) |
| <input type="checkbox"/> | 2. Job design agreement meeting (102) | <input type="checkbox"/> | 10. Recruiting (407) |
| <input type="checkbox"/> | 3. One-third point meeting (103) | <input type="checkbox"/> | 11. Personnel matter (203) |
| <input type="checkbox"/> | 4. Message/Report conference (104) | <input type="checkbox"/> | 12. Training (302) |
| <input type="checkbox"/> | 5. Report review meeting (105) | <input type="checkbox"/> | 13. Presentation by a speaker (other than training) (301) |
| <input type="checkbox"/> | 6. Close-out conference (106) | <input type="checkbox"/> | 14. TQM activity (405) |
| <input type="checkbox"/> | 7. Meet with specialist (e.g., Report Review, Writer/Editor, DMTAG) (107) | <input type="checkbox"/> | 15. Management activity (201) |
| <input type="checkbox"/> | 8. Briefing for Congressional Staff (112) | <input type="checkbox"/> | 16. Other (Specify) _____ |

7. Regarding the primary purpose cited above; to what extent, if at all, did you achieve the following benefits in this video conference? (Check one box in each row.)

| BENEFITS | Little or no extent (1) | Some extent (2) | Moderate extent (3) | Great extent (4) | Very great extent (5) | No basis to judge (6) |
|--|-------------------------|-----------------|---------------------|------------------|-----------------------|-----------------------|
| 1. Having key decision makers present at the same time | | | | | | |
| 2. Enabling developmental staff or specialists to be present | | | | | | |
| 3. Reaching decisions in a more timely manner | | | | | | |
| 4. Verifying decisions made or agreements reached | | | | | | |
| 5. Having better coordination or teamwork between multiple sites | | | | | | |
| 6. Avoiding potential rework | | | | | | |
| 7. More quickly addressing a personnel or administrative matter | | | | | | |
| 8. Delivering/receiving more timely training | | | | | | |
| 9. Other (Specify) _____ | | | | | | |

**Appendix II
Video Conferencing Utilization Survey**

8. Which of the following alternatives would have been used to address this matter if video conferencing equipment had not been available and enter the number of staff and aggregate number of travel days for all staff dedicated to this matter? (Check one; and if applicable, enter number.)

1. Staff from my location would have traveled to the other location for a face-to-face meeting

A. Number of staff who would have traveled, and aggregate travel days to this matter? (Enter numbers.)

_____ : _____
(Staff) (Aggregate travel days all staff)

2. Staff from the other location would have traveled to this location for a face-to-face meeting

A. Number of staff who would have traveled, and aggregate travel days to this matter? (Enter numbers.)

_____ : _____
(Staff) (Aggregate travel days all staff)

3. This discussion would have been delayed until both parties could meet together

A. Number of days meeting would have been delayed? (Enter days.)

_____ (Days)

4. Someone else on another trip would have addressed this matter

5. The matter would have been addressed using a telephone or conference call

6. This matter would not have been addressed

7. Other (Please specify.)

9. How effective was this meeting compared to an actual face-to-face meeting in accomplishing your objectives? (Check one.)

1. Much more effective

2. Somewhat more effective

3. Equally as effective

4. Somewhat less effective

5. Much less effective

6. Not applicable/Had no face-to-face meeting for comparison

10. Which of the following types of equipment and peripheral devices were used at your VTC facility during this conference? (Check all that were used.)

| | Your location (1) |
|--|-------------------|
| 1. Fax | |
| 2. White board | |
| 3. Graphics stand/camera | |
| 4. Computer to computer | |
| 5. Auxiliary scanning camera | |
| 6. VideoShow | |
| 7. VCR | |
| 8. Other (Please specify.) _____ _____ | |

11. Please list below any problems you had with the equipment or any other suggestions on how we might improve video conferencing services. (Briefly explain. If necessary, attach additional pages.)

Thank you for your assistance.

Major Contributors to This Report

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February 1994

**Vide Conferencing
Program
Assessment
Report**

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United States
General Accounting Office
Washington, D.C. 20548

Office of Information Management
and Communications

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Director
Office of Information Management
and Communications

This report responds to your request for an assessment of GAO's videoconferencing program during fiscal year 1993.

The assessment shows that videoconferencing has quickly become an effective means of helping GAO accomplish its mission and identifies several benefits of using videoconferencing, including significant savings in travel costs and time.

The assessment is based on surveys of participants in videoconferences held throughout fiscal year 1993 and costs compiled by OIMC. Staff from the Office of Internal Evaluation and the General Government Division assisted in the data analysis and preparation of the report.

We wish to thank all the regional offices' videoconferencing coordinators, who supervised the field office surveys, and the principal contributors to this assessment.

A handwritten signature in black ink, appearing to read 'Raymond T. Olsen'. The signature is fluid and cursive, with a large initial 'R'.

Raymond T. Olsen
Project Director, Videoconferencing Assessment

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Abbreviations

| | |
|------|---|
| OIMC | Office of Information Management and Communications |
| TSC | Telecommunications Services Center |

Videoconferencing Program Assessment Report

Results in Brief

During fiscal year 1993, GAO's Office of Information Management and Communications (OIMC) assessed GAO's use of videoconferencing. The assessment shows that videoconferencing has quickly become an effective means of helping GAO accomplish its mission. Specific findings of the assessment include the following:

- Most session leaders reported that videoconferencing was as effective as traveling to meet "in person" (see p. 12).
- About half the conferences were devoted to job performance and other mission-related purposes (see pp. 9 and 10).
- A large and diverse group of GAO staff used the network (see p. 9).
- Using videoconferencing eliminated the need for travel that would have cost more than \$400,000 (see p. 11).
- Videoconferencing eliminated the need for approximately 650 days of travel time (see p. 11).
- The estimated cost of providing videoconferencing service in 1993 was about \$327,000 (see p. 11).
- Extensive nonquantifiable benefits to work performance were realized (see pp. 12 and 13).

This report presents information on GAO's videoconferencing program, assessment methodology, and findings.

Background

Network Development

During 1991, GAO conducted a pilot test and evaluation of the potential usefulness of videoconferencing in performing its work. The pilot evaluation report documented many significant examples of ways that videoconferencing could contribute to the efficiency and effectiveness of work teams and processes.¹ Pilot participants agreed that videoconferencing improved communications by enabling more people to participate in meetings, bringing essential senior managers into discussions on a timely basis, providing a way for congressional staff to discuss jobs directly with GAO evaluators doing the work, and speeding the process by which face-to-face meetings could be held—all without the time and travel expenses of usual, in-person meetings.

¹Video Teleconferencing: GAO's Pilot Test, Office of Information Management and Communications, U.S. General Accounting Office, December 1991, GAO/OIMC-92-1.

Although the pilot was limited to a single connection between one regional office (Seattle) and headquarters via a high-speed dedicated data transmission line, the resulting benefits were promising enough to warrant implementation in other GAO offices. On October 1, 1992, GAO initiated videoconferencing service in three additional regional offices: San Francisco, Los Angeles, and Denver. "Dial-up" telecommunications service was introduced to enable all videoconference sites to confer with each other and with non-GAO parties. In response to increasing use of videoconferencing, a second site was installed at headquarters in May 1993. By the end of the fiscal year, regional videoconferencing service had expanded to include the Atlanta, Boston, Chicago, and New York offices, and all of the remaining regional offices had requested the service. As of January 1994 the GAO videoconferencing network consisted of 17 sites, including 14 regional and 3 headquarters sites.

Organization

GAO's Office of Information Management and Communications has overall responsibility for managing the videoconferencing program. OIMC's Telecommunications Services Center (TSC) is charged with operating the program and providing network management and technical assistance to headquarters and the regions. Each unit using videoconferencing has a designated coordinator, and regional office coordinators are trained to operate the system and support users.

To promote the full integration of videoconferencing technology into the work processes of GAO, OIMC sought input and direction on creative uses of this technology from GAO's mission staff. The vehicle for this collaboration is the Videoconferencing User Group. Chaired by an audit/evaluation senior executive, the User Group is composed of people who use videoconferencing services and have ideas about the future potential of the technology. Membership is drawn from divisions and regional and staff offices (e.g., the GAO Training Institute).

Assessment Methodology

The assessment methodology involved gathering data, estimating costs, and identifying benefits.

Data Gathering Methodology

Essential data were collected by schedulers from requesters at the time each videoconference was scheduled. This information included the name, unit, and phone number of the host/leader and other-unit participant; the purpose of the meeting; and the number of staff expected to participate at

each location. This information was entered into the videoconferencing management information system database by the scheduler. After the conference, the database was updated with any required revisions. Cancelled sessions were also recorded.

During fiscal year 1993, 681 videoconferences were held. Headquarters and the regions completed a total of 591 surveys. During the first three quarters of 1993, only the regions completed surveys; during the last quarter, both headquarters and the regions were asked to complete surveys.

The first videoconferencing survey (app. I), developed with assistance from the Seattle Regional Office, drew upon the experience its staff gained in their participation in the 1991 videoconferencing pilot. The survey was used by the four regional offices who had videoconferencing capability during the first 9 months of fiscal year 1993 (Seattle, San Francisco, Los Angeles, and Denver) to gather information on such topics as frequency of videoconferencing use, conference participants, conference purposes, and alternatives that might have been used if videoconferencing had not been available. At each regional office, the person who would typically have transacted the business had the videoconference not been available was asked to complete the survey at the end of the conference.

A revised survey (app. II) was developed for the fourth quarter to capture additional information, including user perceptions of the nonmonetary benefits to GAO's mission performance of videoconferencing technology and the effectiveness of videoconferencing compared with an in-person meeting. This survey was generated with input from the Users Group and General Government Division technical staff and was implemented in all eight regional offices participating in the program and in headquarters.

For cases in which data from the two surveys can reasonably be combined, this report presents findings for the entire fiscal year. In other cases, depending upon data availability, data are presented only for the first three-quarters of the year for four regions or for the fourth quarter for up to eight regions. Headquarters data are available only for the fourth quarter.

Cost Methodology

OIMC calculated the cost of providing videoconferencing service for the ten sites operational in 1993 by estimating the cost of equipment acquisition (including purchase or lease, site survey, and installation) and the cost of

operating the network (including telecommunication service charges, technical support, and equipment maintenance). The capital costs for equipment were calculated by amortizing one-time purchase and installation costs and total lease-to-ownership payments over the average 6-year useful life of the equipment. (On the basis of discussions with the Gartner Group, a GAO information technology adviser, OIMC determined 6 years to be the reasonable life of this equipment.) The cost of modifying the videoconferencing rooms and the costs of purchasing some of the auxiliary equipment are not included in the equipment cost estimate.

OIMC estimated operating costs for 1993 by analyzing invoices for telecommunications charges and technical support and service contracts for maintenance costs. Salaries for GAO staff managing and operating the system are not included in these cost estimates.

Benefits Methodology

As described above, conference leaders completed surveys on which they estimated the number of trips staff would have had to make had videoconferencing not been available. To obtain a total estimated travel savings figure, the number of trips reported in the surveys was multiplied by the estimated cost per trip, which was provided by regional staff.

In addition, OIMC calculated the average amount of time that the trips avoided would have taken using the following number of hours per trip: 12 hours for a transcontinental round trip; 6 hours for round trip travel between Washington, D.C., and the midwest; and 4 hours for round trip travel between Washington, D.C., and another site on the east coast.

Data on additional benefits of videoconferencing were derived from the survey used in the fourth quarter of the fiscal year.

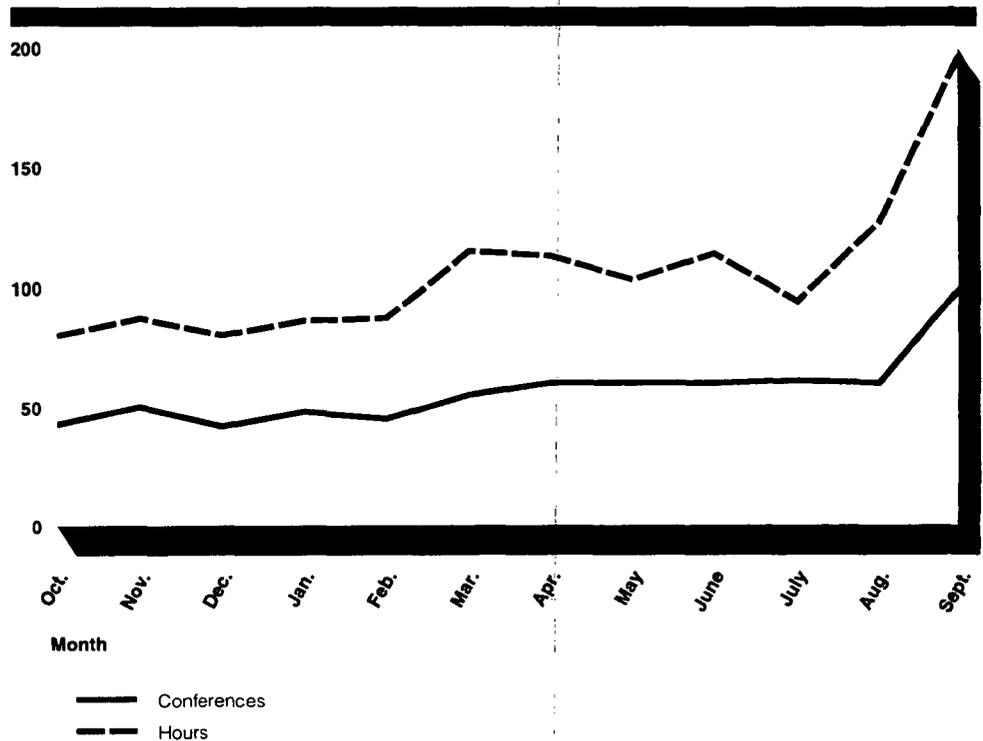
Findings

Usage Profile

During fiscal year 1993, 681 videoconferences were conducted, beginning with 43 in October 1992 and finishing with 100 in September 1993. The videoconferencing network was in use a total of 1,284 hours during the

year, with use increasing from 80 hours in the first month to 198 hours in the last month (see fig. 1). The conference business day was limited in the first 9 months to 5 to 6 hours by the 3-hour time difference between headquarters and the four connected western regional offices. With the addition of eastern and midwest regions to the network during the fourth quarter, hours available to conduct conferences increased.

Figure 1: GAO Videoconferencing Network Usage, Fiscal Year 1993



During the fourth quarter, a second videoconference room was operational at headquarters to meet increased demand for service. After this addition, 96 percent of headquarters users and 93 percent of regional users reported that they were able to get their preferred date/time for a proposed conference. Of those unable to obtain their preferred time, more than half reported they were able to achieve their objectives by accepting an alternative time.

Participant Profile

Survey data show that a diverse group of GAO staff participated in the videoconferences (see table 1). In addition, as the network expanded the number of scheduled conference participants increased, reaching a high of 769 in September 1993 and totalling more than 5,600 for the year (some users participated in multiple conferences).

Table 1: Percent of Videoconference Participants by GAO Role and Location, 4th Quarter Fiscal Year 1993

| Role | Regions | Headquarters |
|---|----------------|---------------------|
| Evaluator | 22 | 17 |
| Evaluator in charge | 17 | 9 |
| ASM/RAM/IAM (regional program manager) | 11 | 9 |
| Assistant director | 7 | 21 |
| Director/associate director for issue area | 2 | 14 |
| Regional manager/assistant regional manager | 16 | 2 |
| Evaluator-related specialist | 10 | 4 |
| Writer-editor/reports analyst | 2 | 2 |
| Attorney | 1 | 3 |
| Technical information specialist/librarian | 2 | 1 |
| Human resources staff | 3 | 3 |
| Training Institute staff/instructor | 1 | 2 |
| Office or division director/deputy director | 1 | 7 |
| Other | 5 | 6 |

Conference Purposes

Regional surveys indicated that about half the fiscal year 1993 conferences were for assignment performance or mission-related purposes. See table 2 for a breakout of conference purposes.

**Videoconferencing Program Assessment
Report**

**Table 2: Conference Purposes
Reported by Regions, Fiscal Year 1993**

| Purpose | Number of times reported | Percent of total reported |
|--------------------------------------|---------------------------------|----------------------------------|
| Job-related | | |
| Kick-off | 12 | 2 |
| Job design | 37 | 7 |
| One-third point | 11 | 2 |
| Message/report | 38 | 7 |
| Report review | 18 | 3 |
| Close-out | 3 | 1 |
| Meeting with specialist | 24 | 4 |
| Meeting with issue area director | 20 | 4 |
| Congressional staff briefing | 22 | 4 |
| Other job-related | 29 | 5 |
| Issue area planning/development | 35 | 6 |
| Other | 23 | 5 |
| Total | 272 | 50 |
| Human resources activities | | |
| HRM/personnel activities | 14 | 3 |
| Training activities | 50 | 9 |
| Total | 64 | 12 |
| Other purposes | | |
| Administrative activities | 35 | 6 |
| TQM/OIP activities | 49 | 9 |
| TAG/videoconferencing activities | 24 | 4 |
| Special interests | 4 | 1 |
| Videoconferencing project management | 46 | 8 |
| Other activities | 49 | 9 |
| Total | 207 | 38 |
| Grand total | 543^a | 100 |

^aThis total does not agree with the number of conferences held (681) or the number of surveys completed (591) because not all conferences completed surveys and some completed surveys did not report a purpose.

**Videoconferencing Program Assessment
Report**

**Cost of Providing
Videoconferencing Service**

During fiscal year 1993, it cost GAO about \$327,000 to operate 10 systems, including 5 sites for the full 12 months and 5 sites for fewer than 12 months (see table 3).

**Table 3: Videoconferencing Costs,
Fiscal Year 1993**

| Item | Cost |
|-----------------------------------|------------------|
| Equipment | \$112,000 |
| Operations | |
| Telecommunications charges | 101,000 |
| Technical support and maintenance | 114,000 |
| Total | \$327,000 |

These figures include equipment acquisition and installation costs that are amortized over the estimated 6-year life of the equipment. When the full costs of equipment purchases are included, expenditures for the 10 sites in fiscal year 1993 rise to \$831,000.

Also, fiscal year 1993 was not typical in that maintenance costs were less than will occur in subsequent years because of contract warranty provisions. If the equipment had not been covered under warranty during fiscal year 1993, the maintenance costs for this period would have been \$50,000 rather than \$12,600. Resulting operating costs would have totalled \$364,000.

**Benefits of
Videoconferencing**

Travel Avoided

OIMC calculated total travel savings of about \$400,000 (see table 4). In addition to costs avoided, the 461 avoided trips saved an estimated 650 days of travel time that were then available for other purposes.

**Table 4: Estimated Cost of Travel
Avoided, Fiscal Year 1993**

| Number and type of trip | Estimated cost per trip | Estimated cost for all trips |
|----------------------------------|------------------------------------|---|
| 414 transcontinental round trips | \$945 | \$391,230 |
| 47 east coast round trips | 450 | 21,150 |
| Total | | \$412,380 |

Table 5 shows the alternatives that respondents said they would have used to address the matter discussed in the videoconference if videoconferencing service had not been available. For about one-third of the conferences, respondents said that travel would have been the selected alternative.

Table 5: Percent of Surveys Reporting Possible Alternatives to Videoconferencing, 4th Quarter Fiscal Year 1993

| Alternatives | Regions | Headquarters |
|---|----------------|---------------------|
| Own staff would have traveled | 34 | 10 |
| Other staff would have traveled | 3 | 26 |
| Addressing matter would have been delayed | 5 | 6 |
| Matter would not have been addressed | 15 | 8 |
| Phone or conference call would have been used | 37 | 38 |
| Other alternatives would have been used | 6 | 12 |

Effectiveness

Most users considered videoconferencing to be at least as effective as an in-person meeting (see table 6).

Table 6: Percent of Perceived Effectiveness of Videoconferences as Compared With In-Person Meetings, 4th Quarter Fiscal Year 1993

| Effectiveness | Regions | Headquarters |
|----------------------|----------------|---------------------|
| Much more | 11 | 9 |
| Somewhat more | 13 | 13 |
| Equally | 57 | 62 |
| Somewhat less | 13 | 14 |
| Much less | 2 | 0 |
| NA | 4 | 2 |
| Total | 100 | 100 |

Other Benefits

The survey showed that videoconferencing provided GAO extensive additional benefits. For example, table 7 shows that between 81 and 90 percent of the conferences benefitted from having key decision makers present at the same time.

Table 7: Percent of Surveys Reporting Other Benefits, 4th Quarter Fiscal Year 1993

| Benefit | Regions | Headquarters |
|---|----------------|---------------------|
| Key decision makers present at the same time | 81 | 90 |
| Developmental staff or specialist able to be present | 55 | 52 |
| Decisions reached in a more timely manner | 75 | 86 |
| Verification of decisions made or agreements reached | 62 | 72 |
| Better coordination or teamwork between sites | 74 | 77 |
| Potential rework avoided | 48 | 60 |
| Personnel or administrative matter addressed more quickly | 31 | 30 |
| More timely training delivered/received | 17 | 18 |

Outlook for the Future

GAO's experience with the expanded videoconferencing system during fiscal year 1993 indicates that videoconferencing is effective in GAO's operating environment. Also, the potential exists to realize additional benefits at low marginal cost from this system through increased use of "power conferencing" tools and repeated use for each job. The cost of increased use would be negligible, since only 10 percent of videoconferencing service is "variable cost" based upon usage, while the remaining 90 percent is fixed cost. Finally, GAO has acquired more powerful "multi-point" conferencing capabilities that will permit conferences involving multiple offices. This capability will greatly support multi-region jobs and issue area team communication and coordination. Grasping the opportunity to obtain these benefits to mission performance presents a significant challenge to GAO management and the videoconferencing User Group.

Video Conferencing Session Survey

Video Conferencing Session Survey

One member of the video session at the regional site should be selected as the session leader. If the video conference is between two regional offices, one should be designated to complete this survey. If the video conference does not involve regional staff, one member of the Headquarter's video conferencing team should be designated as the session leader. The session leader should be the person at your location who would most likely have transacted the business that occurred in the video session, if there was not a video session. The session leader should complete this survey.

1. Please enter your name, your unit and your location, the date and local time of the video conference.

Name : _____

Unit: _____

Location: _____

Date: _____

Time: _____

2. Please enter the name and location of the unit with which you are video conferencing?

Unit: _____

Location: _____

3. Did any congressional staff or people outside the GAO organization participate in today's video conference?

No

Yes Please specify the respective committees and/or organizations for the staff in attendance.

4. Which of the following best describes the alternative that would have been used if the video conferencing equipment had not been available. (Check One)

I and possibly others from my location would have traveled to the other city for a face-to face meeting. Please specify the total number of people from your location who would have been in travel status.

Number in travel status _____

Others from the remote location would have traveled to this city for a face-to face meeting. Please specify the total number of people from the remote location who would have been in travel status.

Number in travel status _____

This discussion would have been delayed until a time when both parties could meet together. Please specify the number of days this meeting would be delayed.

Number of days _____

Video conference did not replace a face-to-face meeting. Information would have been passed using telephone or conference call.

Other. Please specify

(OVER)

Appendix I
Video Conferencing Session Survey

HANDOUT FOR ANSWERING QUESTIONS 5 AND 6.

Use these numbers in response to question 5.

PURPOSE OF VIDEO CONFERENCE

Job Related

- 101 Kick-off Conference
- 102 Job design agreement meeting
- 103 One-third point meeting
- 104 Message/Report conference
- 105 Report review meeting
- 106 Close-out conference
- 107 Meet with HQ specialist
- 108 Meet with Issue Area Director
- 109 Meet with HQ Editors
- 110 Issue analysis conference
- 111 Issue area development meeting
- 112 Briefings of Congressional Staff
- 113 Other job-related data gathering meetings
- 199 Other mission related activities. *Specify the purpose in the space provided at question 5.*

Administrative/Human Resources

- 201 Human Resources
- 202 Budgeting
- 203 Personnel
- 298 Other administrative activities. *Specify the purpose in the space provided at question 5.*
- 299 Other human resource related activities. *Specify the purpose in the space provided at question 5.*

Training

- 301 Presentation
- 302 Training Course
- 399 Other training activities. *Specify the purpose in the space provided at question 5.*

Other

- 401 VTC Demonstrations
- 402 Issue Area Planning
- 403 Legal Activities
- 404 OIP Activities
- 405 TQM Activities
- 406 TAG/OIMC Activities
- 407 Recruiting Activities
- 408 Special Interest Group Activities
- 409 Video Conferencing Project Activities
- 499 Other activities. *Specify the purpose in the space provided at question 5.*

Use these roles in describing the participants listed in question 6 of the survey.

GAO Roles

- 001 Evaluator
- 002 Evaluator in Charge
- 003 ASM/AM/IAM
- 004 Assistant Director for Issue Area
- 006 Director/Associate Director for Issue Area
- 006 Regional Manager/Assistant Regional Manager
- 007 Evaluator Related Specialist
- 008 Writer/Editor/Reports Analyst
- 009 Report Review Staff
- 010 Attorney
- 011 Technical Information Specialist/Librarian
- 012 Human Resources Staff
- 013 Budgeting/Fiscal Staff
- 014 Training Institute Staff/Instructor
- 015 Office or Division Director/Deputy Director
- 016 Other *(Please Specify in the space provided on question 6)*

Video Conferencing Utilization Survey



U.S. General Accounting Office

Video Conference Utilization Survey

Instructions

The purpose of this survey is to collect information on video conference meetings about the purpose, staffing, cost savings, and benefits. This information will be used to assist OIMC and the VTC User's Group to assess the implementation of video conferencing and its benefits.

Before each video conference or training session, one person needs to be selected in each participating VTC facility to complete this survey immediately following the conference. Ideally, this person is the person who most likely would have transacted the business had the VTC meeting not occurred. For GAO jobs this would typically be the EIC or program manager in the regions (i.e., ASM/IAM/RAM) and the Assistant Director in the Divisions; for training or other purposes only one person would be identified at each VTC facility to complete a single form for the group.

This survey is to be completed for each different meeting conducted during a scheduled video conference session (e.g., a report conference and issue area planning back-to-back would each require a separate survey).

* * * * *

1. Please enter your name, division/office, VTC facility, job code, conference number, date, and local time of the video conference.

Name: _____

Division/Office: _____

VTC facility: _____

Job code (if applicable): _____

VTC Conference Number: _____
(from VTC schedule.)

Date: | ____ | ____ | ____ |
MM DD YY

Start time: | ____ : ____ | A.M. or P.M.
HH MM (Circle one.)

End time: | ____ : ____ | A.M. or P.M.
HH MM (Circle one.)

2. Please enter the division/office and VTC facilities with which you are video conferencing.

Division/Office: _____

VTC facilities (Check all that apply.):

- | | |
|---|--|
| 1. <input type="checkbox"/> GAO, 6th floor | 10. <input type="checkbox"/> Detroit |
| 2. <input type="checkbox"/> GAO, 2nd floor | 11. <input type="checkbox"/> Kansas City |
| 3. <input type="checkbox"/> HRD, Mass. Ave. | 12. <input type="checkbox"/> Los Angeles |
| 4. <input type="checkbox"/> Atlanta | 13. <input type="checkbox"/> New York |
| 5. <input type="checkbox"/> Boston | 14. <input type="checkbox"/> Norfolk |
| 6. <input type="checkbox"/> Chicago | 15. <input type="checkbox"/> Philadelphia |
| 7. <input type="checkbox"/> Cincinnati | 16. <input type="checkbox"/> San Francisco |
| 8. <input type="checkbox"/> Dallas | 17. <input type="checkbox"/> Seattle |
| 9. <input type="checkbox"/> Denver | 18. <input type="checkbox"/> Europe |
| | 19. <input type="checkbox"/> Far East |

3. If you initiated this VTC session, was the scheduling system able to accommodate your original preferred meeting date/time? (Check one.)

1. Not applicable/(I did not initiate this meeting.) (Skip to Question 5.)
2. Yes -----> (Skip to Question 5.)
3. No (Continue.)

4. Due to not getting your preferred meeting date/time; to what extent, if at all, did this affect the ability to accomplish objectives set for this meeting? (Circle number.)

| | | | | | | |
|---------------------------|---|---|---|---|---|-------------------------|
| Little or no extent | 1 | 2 | 3 | 4 | 5 | Very great extent |
|---------------------------|---|---|---|---|---|-------------------------|

**Appendix II
Video Conferencing Utilization Survey**

5. For each of the following, please write in the number(s) of persons attending this video conference at your location and at all the remote location(s)? (Enter numbers. If none, leave blank.)

| PERSONS IN ATTENDANCE | Number at your location attending session (1) | Number at all remote locations attending session (2) |
|---|--|---|
| 1. Evaluator (001) | | |
| 2. Evaluator in charge (002) | | |
| 3. ASM/IAM/RAM (003) | | |
| 4. Assistant Director for Issue Area (004) | | |
| 5. Director/Associate Director for Issue Area (005) | | |
| 6. Regional Manager/Assistant Regional Manager (006) | | |
| 7. Evaluator-Related Specialist (007) | | |
| 8. Writer/Editor/Reports Analyst (008) | | |
| 9. Report Review Staff (009) | | |
| 10. Attorney (010) | | |
| 11. Technical Information Specialist/Librarian (011) | | |
| 12. Human Resources Staff (012) | | |
| 13. Budgeting/Fiscal Staff (013) | | |
| 14. Training Institute Staff/Instructor (014) | | |
| 15. Office or Division Director/Deputy Director (015) | | |
| 16. Administrative staff (017) | | |
| 17. Congressional staff (Specify Committee/Subcommittee) (018) | | |
| 18. Other (Please specify.) (016) | | |

**Appendix II
Video Conferencing Utilization Survey**

6. Please check the purpose(s) of this meeting and circle the primary purpose. (Check all that apply, circle primary one.)

| JOB RELATED | | OTHER | |
|--------------------------|---|--------------------------|---|
| <input type="checkbox"/> | 1. Kick-off conference (101) | <input type="checkbox"/> | 9. Issue Area Planning (402) |
| <input type="checkbox"/> | 2. Job design agreement meeting (102) | <input type="checkbox"/> | 10. Recruiting (407) |
| <input type="checkbox"/> | 3. One-third point meeting (103) | <input type="checkbox"/> | 11. Personnel matter (203) |
| <input type="checkbox"/> | 4. Message/Report conference (104) | <input type="checkbox"/> | 12. Training (302) |
| <input type="checkbox"/> | 5. Report review meeting (105) | <input type="checkbox"/> | 13. Presentation by a speaker (other than training) (301) |
| <input type="checkbox"/> | 6. Close-out conference (106) | <input type="checkbox"/> | 14. TQM activity (405) |
| <input type="checkbox"/> | 7. Meet with specialist (e.g., Report Review, Writer/Editor, DMTAG) (107) | <input type="checkbox"/> | 15. Management activity (201) |
| <input type="checkbox"/> | 8. Briefing for Congressional Staff (112) | <input type="checkbox"/> | 16. Other (Specify) _____ |

7. Regarding the primary purpose cited above; to what extent, if at all, did you achieve the following benefits in this video conference? (Check one box in each row.)

| BENEFITS | Little or no extent (1) | Some extent (2) | Moderate extent (3) | Great extent (4) | Very great extent (5) | No basis to judge (6) |
|--|-------------------------|-----------------|---------------------|------------------|-----------------------|-----------------------|
| 1. Having key decision makers present at the same time | | | | | | |
| 2. Enabling developmental staff or specialists to be present | | | | | | |
| 3. Reaching decisions in a more timely manner | | | | | | |
| 4. Verifying decisions made or agreements reached | | | | | | |
| 5. Having better coordination or teamwork between multiple sites | | | | | | |
| 6. Avoiding potential rework | | | | | | |
| 7. More quickly addressing a personnel or administrative matter | | | | | | |
| 8. Delivering/receiving more timely training | | | | | | |
| 9. Other (Specify) _____ | | | | | | |

**Appendix II
Video Conferencing Utilization Survey**

8. Which of the following alternatives would have been used to address this matter if video conferencing equipment had not been available and enter the number of staff and aggregate number of travel days for all staff dedicated to this matter? (Check one; and if applicable, enter number.)

1. Staff from my location would have traveled to the other location for a face-to-face meeting

A. Number of staff who would have traveled, and aggregate travel days to this matter? (Enter numbers.)

_____ : _____
(Staff) (Aggregate travel days all staff)

2. Staff from the other location would have traveled to this location for a face-to-face meeting

A. Number of staff who would have traveled, and aggregate travel days to this matter? (Enter numbers.)

_____ : _____
(Staff) (Aggregate travel days all staff)

3. This discussion would have been delayed until both parties could meet together

A. Number of days meeting would have been delayed? (Enter days.)

(Days)

4. Someone else on another trip would have addressed this matter

5. The matter would have been addressed using a telephone or conference call

6. This matter would not have been addressed

7. Other (Please specify.)

9. How effective was this meeting compared to an actual face-to-face meeting in accomplishing your objectives? (Check one.)

1. Much more effective

2. Somewhat more effective

3. Equally as effective

4. Somewhat less effective

5. Much less effective

6. Not applicable/Had no face-to-face meeting for comparison

10. Which of the following types of equipment and peripheral devices were used at your VTC facility during this conference? (Check all that were used.)

| | Your location (1) |
|------------------------------|-------------------|
| 1. Fax | |
| 2. White board | |
| 3. Graphics stand/camera | |
| 4. Computer to computer | |
| 5. Auxiliary scanning camera | |
| 6. VideoShow | |
| 7. VCR | |
| 8. Other (Please specify.) | |

11. Please list below any problems you had with the equipment or any other suggestions on how we might improve video conferencing services. (Briefly explain. If necessary, attach additional pages.)

Thank you for your assistance.

Major Contributors to This Report

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