



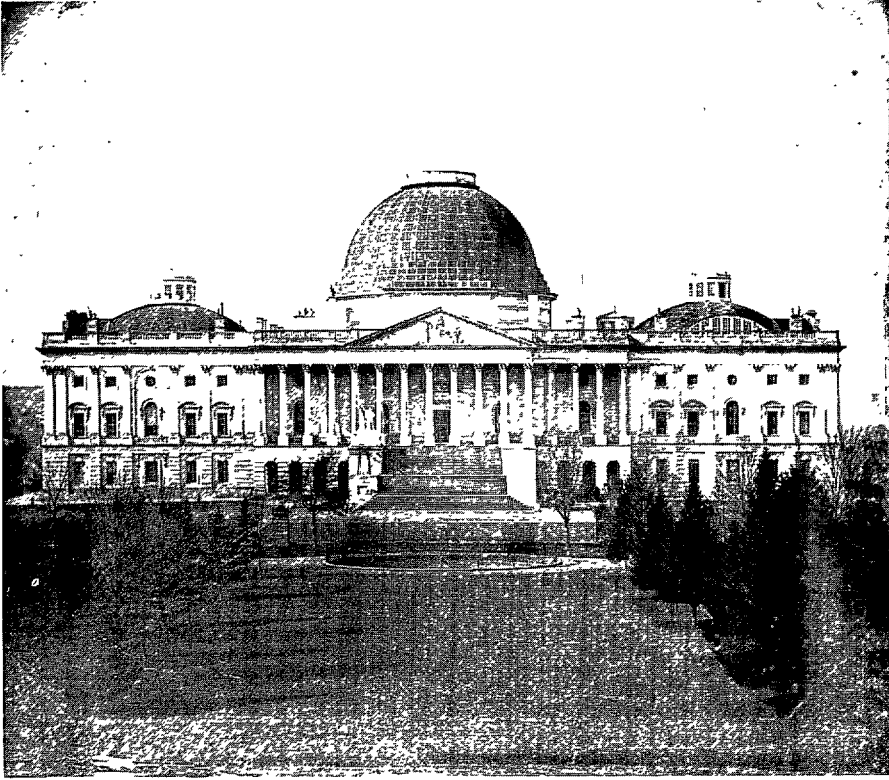
# THE GAO REVIEW

721538-721594

WINTER 1974

72/200

## Capitol of the United States—1846



*This picture is the earliest known photographic image of the U.S. Capitol Building, home of the national legislature, the Congress of the United States.*

*It was made originally on a daguerreotype plate about 1846 and is attributed to John Plumbe, Jr., of Washington, D.C. The view was taken from the east. The statue on the north side of the portico is not in place. The building is capped with Bullfinch's dome. The Potomac River and a few buildings in southwest Washington are faintly visible at the left.*

*The original daguerreotype of the Capitol and others of the White House, the old Patent Office, the General Post Office Building in Washington, and one of the Battle Monument in Baltimore were discovered last year in a flea market in San Francisco. They were purchased by the Library of Congress.*

**THE  
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## The Proposed Alaska Pipeline— A Survey From the Air

*The author relates his experience on  
a somewhat unusual preliminary survey.*

What would you do if you believed you might be called upon to make a study directed toward determining the optimum route for a \$3.5 billion to \$10 billion oil pipeline, considering in your evaluation such factors as national security, economic cost, and environmental impact? Would your action be different if the time constraints were in the order of 6 months or less? How would you assess the prospective assignment to determine the scope and depth of coverage, audit staff requirements, outside expertise needs, and the overall coordination and management necessary to insure a timely, accurate product?

Up for consideration would be the economic feasibility of at least two separate pipeline routes, the cheaper of which was expected to cost about \$3.5 billion. Other vital factors for consideration would be the potential adverse effect that a pipe 4 feet in diameter full of hot oil might have on moose and caribou migration routes;

the possible consequences of a rupture in such a pipe in the event of an earthquake or other catastrophe; the environmental impact caused by the sheer magnitude of the construction project; the effect of a network of construction roads and pumping stations spanning the wilderness; and the comparative hazards and benefits of a transportation system composed of a high-pressure pipeline plus complementing oil tankers as contrasted with an all-overland route through the territory of another sovereign nation.

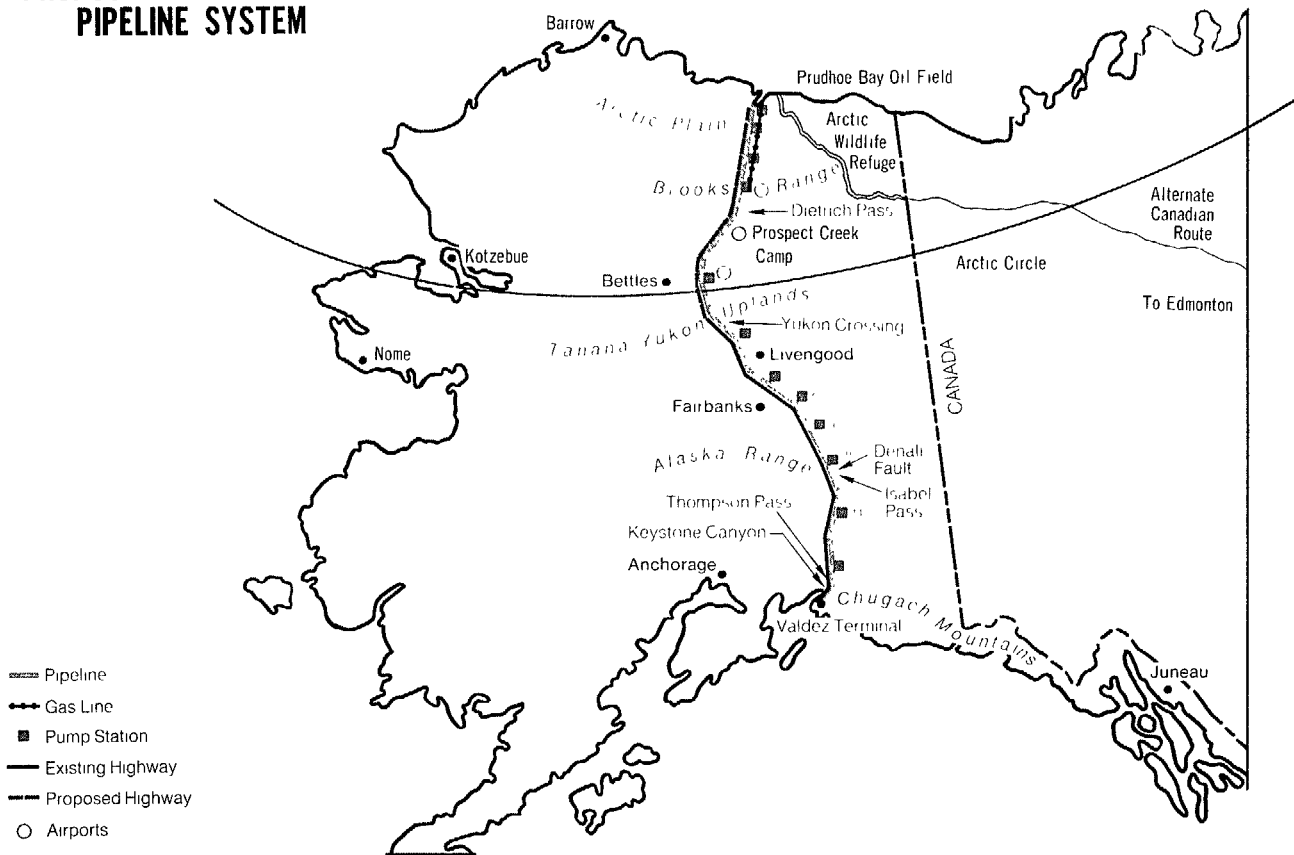
Such was the possibility confronting our Office when two pieces of legislation, H.R. 8477 and H.R. 8561, were introduced in the Congress in June 1973. Either bill would have required the General Accounting Office to make the somewhat Herculean series of analyses and evaluations in a time frame that can best be described as nominal and to conclude with a Solomon-like decision which would be binding unless specifically overturned by the

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# PROPOSED TRANS ALASKA PIPELINE SYSTEM

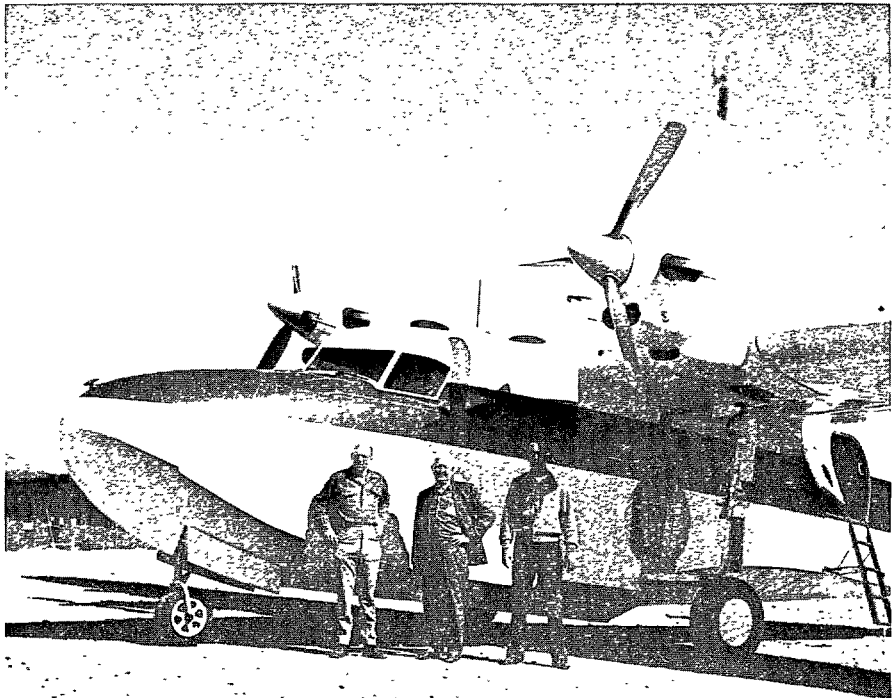


Congress. The magnitude of the impending task was underscored by our lack of information as to the data available, factors considered in selecting the proposed route, or the importance attached to each of the various factors. How would you decide how or where to start preparing?

We concluded that a logical first step would be to go to Alaska and meet with representatives of the Bureau of Land Management, which has the licensing and policing authority over the proposed pipeline. We also wanted to see the project site first

hand. Our goal would be to identify what information was available and how it could be verified and evaluated and what data was missing and how it could be gathered. We also wanted to determine the extent to which GAO staff could be utilized and to identify those portions of the problem which could best be solved by calling in outside expertise. Finally, we needed to decide how such an undertaking could be coordinated and controlled so as to insure completion in time to be of value to the Congress.

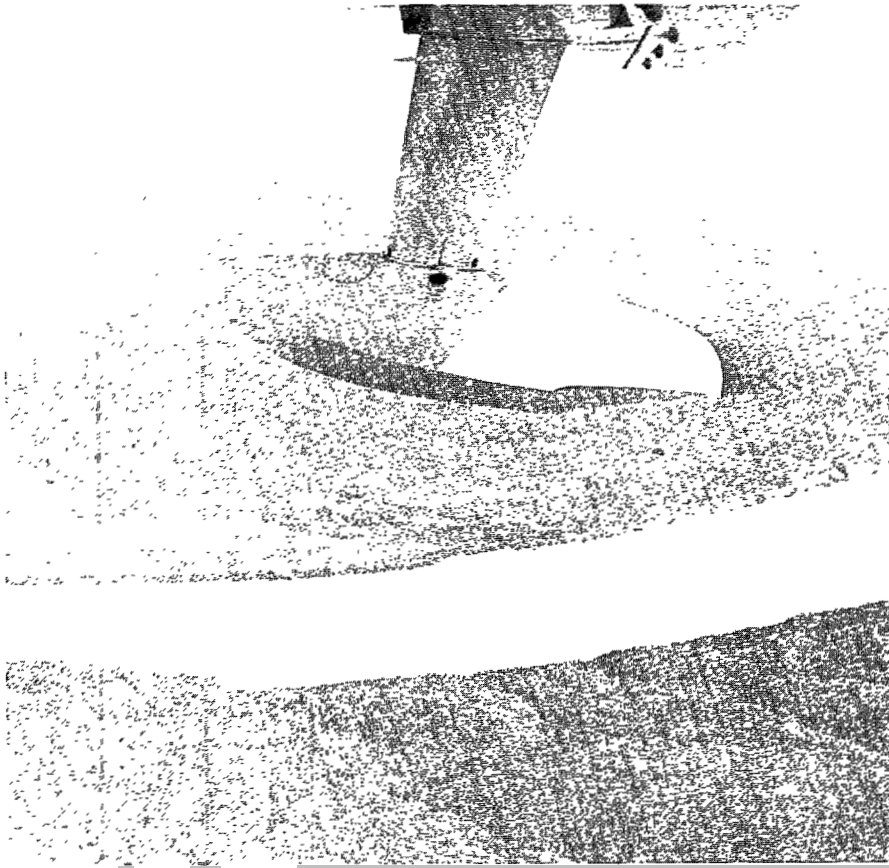
We started in Anchorage. The pre-



*Our method of transportation from Anchorage along the proposed pipeline route. From the left: the author and Messrs. Samuelson and Bernstein.*

liminary survey was conducted by A. T. Samuelson, Assistant Comptroller General; P. A. Bernstein, regional manager, Seattle; and myself. At first glance, Anchorage would appear to be a most illogical place to begin, inasmuch as not only is it not at either end of the proposed pipeline, but it is not even on the pipeline route. Anchorage is, however, headquarters for BLM in Alaska and probably the best place to inquire about the records we may need. As BLM representatives

pointed out, weather in Alaska is predictably unpredictable. By starting our survey from Anchorage, we had the option to fly first to where the weather was best, knowing that good weather would probably be swiftly followed by bad. The plan worked. We were able to cover the entire route, plus the Alaskan portion of the potential Canadian route, called the Canadian corridor, enjoying perfect visibility and dazzling blue skies over all except the vicinity of the Valdez terminus.



*Looking north across the Yukon River.*



In Anchorage we were given an overall briefing by Jack Turner, Chief of the BLM Division of Pipeline Management, and his staff. Here the magnitude of the pipeline undertaking was driven home. The statistics are impressive: 789 miles of 4-foot diameter pipe constructed to withstand minimum pressures of 60,000 pounds per square inch, through which ultimately will flow as much as 2 million barrels per day of hot crude oil; passing over three mountain ranges; across or along 700 streams, including the mighty Yukon, one of the world's major rivers; through a known major earthquake zone, including the Denali fault; across a vital caribou migration route; and finally down to the seaport of Valdez, where 20 tankers a week would load the oil and move it on to refining centers. The oil is hot when it comes from the earth—almost the boiling point of water—and friction keeps it hot as it is driven through the pipeline at a rate of 1,500 barrels each minute.

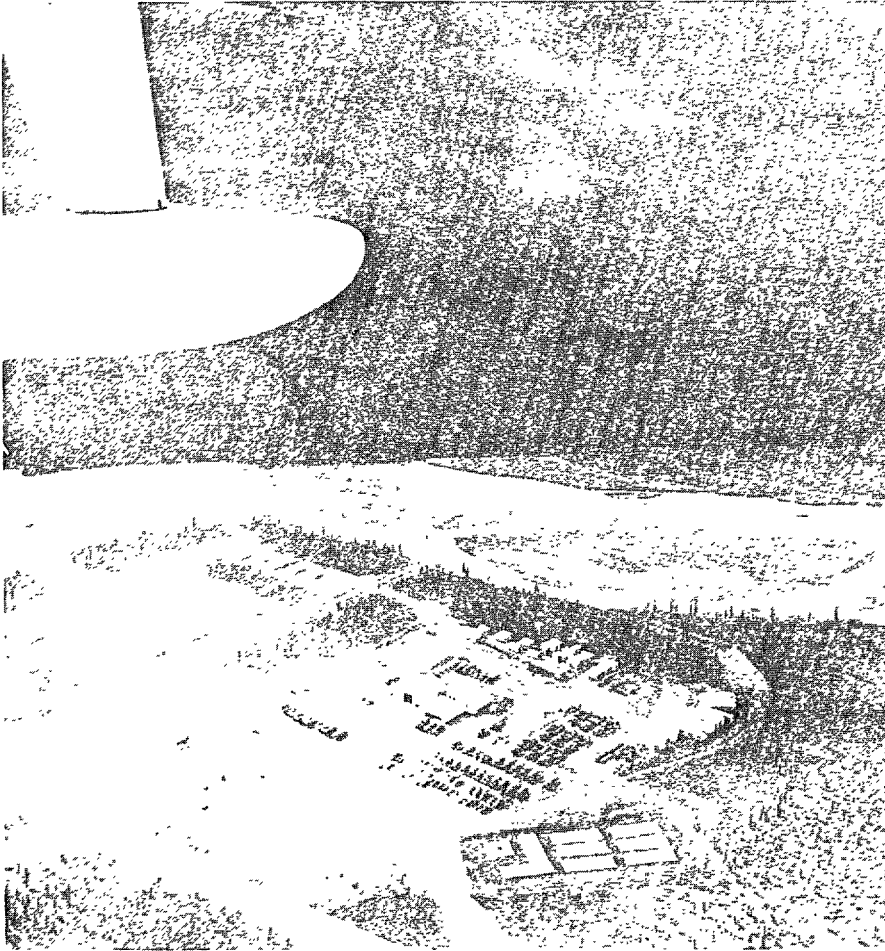
It has been estimated that 26,000 construction-related jobs would be created in Alaska alone and that 73,000 man-years would be required for tanker construction to accommodate the sea leg of the oilfield to market route. BLM and pipeline company representatives estimate that between 80 million and 100 million cubic yards of gravel will be required to complete the project. Almost three-fourths of the 800-mile route is over permanently frozen ground, or permafrost, interlarded in many places with large ice masses. Ice-rich permafrost is stable only until it melts. A pipeline carrying

hot oil can melt it; so can the sun if the surface layer of moss is disturbed. Consequently, roads, trails, and even buildings must be constructed in such a way as to minimize the harmful side effects. Eight major construction camps have been built north of Fairbanks along the proposed route from Prudhoe Bay.

The weather was promising as we left Anchorage in a BLM-chartered Grumman Mallard. We were provided aeronautical charts by which we could follow our course and relate the observed terrain to the proposed pipeline route. We headed out of Anchorage over the Cook Inlet oilfield, where monopod and tripod drilling platforms were in use, then swung inland and north over the Toyonek Indian Reservation, past Mount McKinley, the highest mountain in North America, to Fairbanks. At Fairbanks we saw 250 miles of stored pipe ready to be installed.

We headed north from Fairbanks, flying at low elevation, and followed the proposed pipeline route to Prudhoe Bay. On the way, we passed over a unique white spruce forest containing almost 3 billion board feet on 1 million acres of BLM land and believed to be the largest stand of its kind in the Western Hemisphere.

We crossed the Arctic Circle and landed at Prospect Creek camp, one of the remote construction camps built in 1970 before the pipeline construction was halted by court order. On the south slope of the Brooks Mountain Range, Prospect Creek camp is a fully manned installation equipped with modern facilities, including living

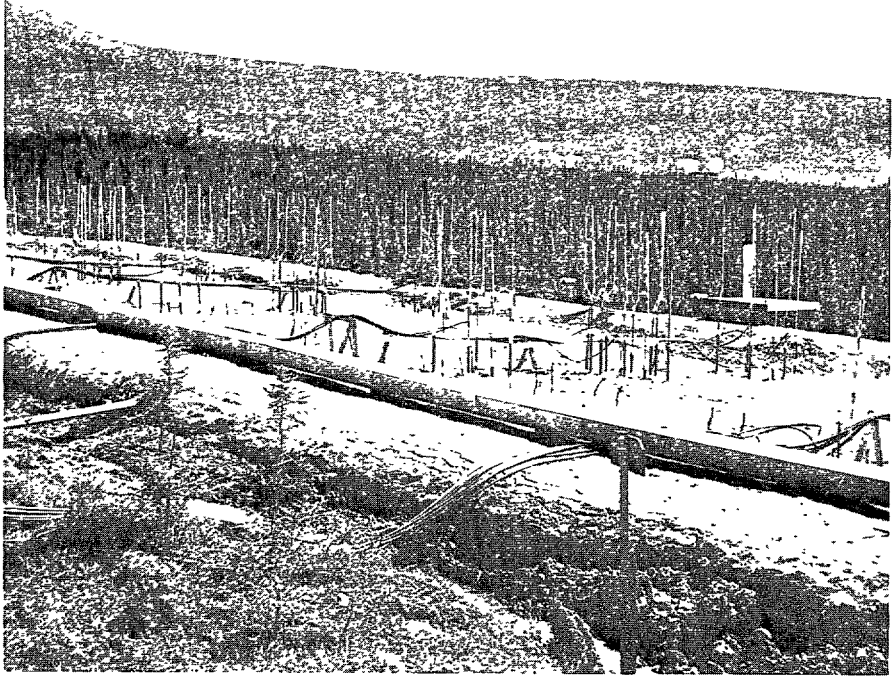


*A typical pipeline construction camp north of the Arctic Circle.*

quarters, dining facilities, a modern sewage treatment plant, plus heavy and light construction equipment of all kinds brought in over snow-covered tundra in early 1970. Here also is a "thaw settlement" test site, where the effect of underground heat on ice-rich permafrost is being studied. The test was in process, and we were able to observe the differential settling that re-

sulted as heat was introduced in the permafrost at different depths. Data from such tests becomes input in finalizing details of the designed pipeline installation.

We left Prospect Creek camp, passed over the Continental Divide in the rugged Brooks Range to where the streams flow north to the Arctic Ocean, and landed at Prudhoe Bay.

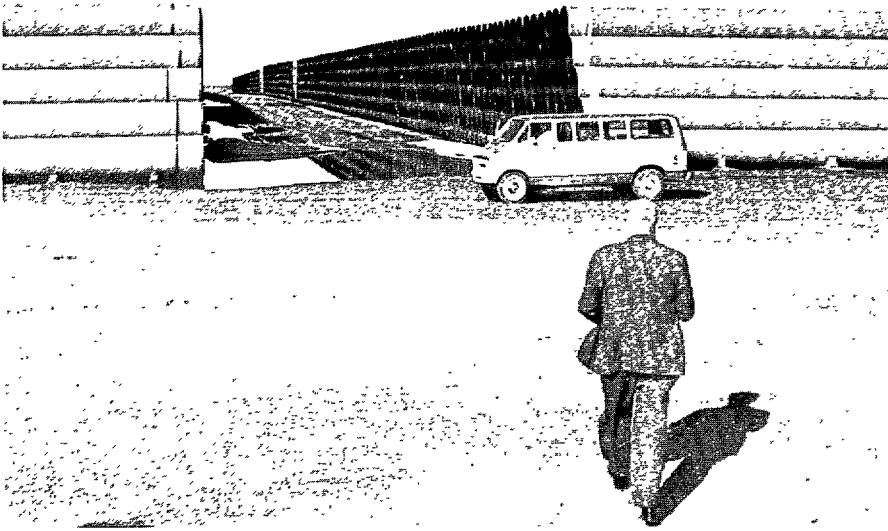


*Thermal blanket heat test at Prospect Creek—probes are used to measure settlement.*

Here also was stored pipe, 165 miles of it, all brought in by ships and barges and then treated to prevent corrosion. Here also were mosquitoes by the countless millions. As voracious as they were numerous, they represented a genuine threat to survival. A liberal treatment with insect repellent was the first order of business when our plane landed. Then we inspected the oilfield, studied construction techniques, and toured the facilities before going to dinner.

After dinner, we met with represen-

tatives of BLM, the pipeline company, and the oil industry for an in-depth discussion of the history of the Prudhoe Bay situation, the pros and cons of pipeline construction, the nature and probable impact of proposed safeguards, possible alternate routes, problems posed by permafrost (at Prudhoe Bay the ground is frozen 1,850 feet deep), protection of wildlife, and myriads of other matters. We pored over maps, charts, and tables of data. We asked questions. The answers led to more questions. Finally, we called it



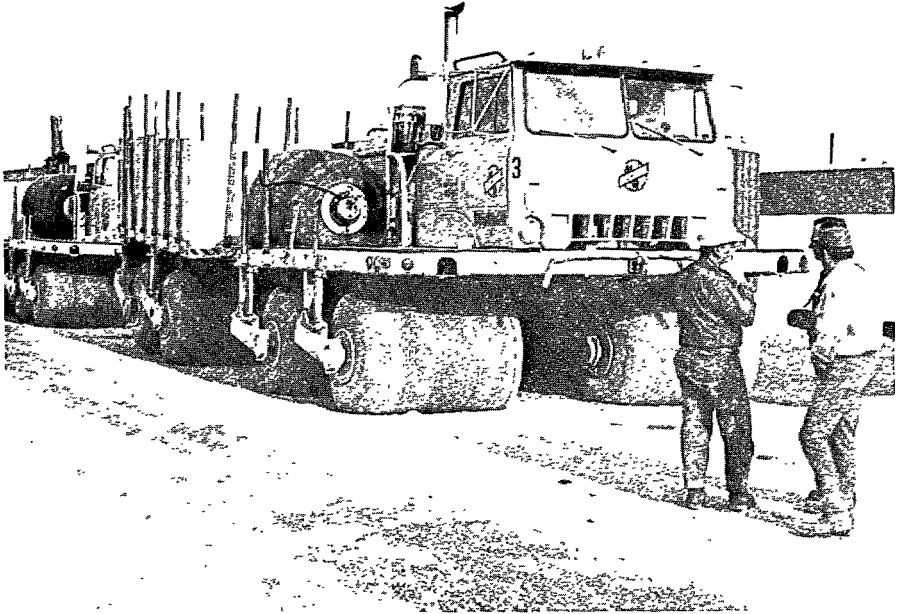
*One hundred and sixty-five miles of 48 inch pipe stored at Prudhoe Bay.*

quits for the day. At midnight I went outside and verified that, in truth, the sun did not set.

The following morning we flew southeast down the Canadian corridor, following the boundary of the fantastically rugged Arctic Wildlife Refuge. This potential pipeline route would head into Canada to the Mackenzie River and hence down to Edmonton, Alberta, and ultimately the midwest. We studied our maps and the terrain, making mental comparisons with what we had observed and heard the day before. Near the Canadian border, we

turned and went southwest to land once more at Fairbanks. At Fairbanks we examined a "highway insulation" test site and observed the insulating and cushioning value of varying thicknesses of gravel, earth, and man-made insulation. Again, the data gathered will become input in designing and constructing the pipeline pumping stations and roadways. We also inspected a "hot pipe" test section, where scientists at the University of Alaska have been studying the effect on vegetation of a buried hot-oil pipe.

From Fairbanks we flew south, fol-



*Soft terrain vehicles for use on fragile tundra.*

lowing the proposed pipeline route across the Alaska Range, over the Denali earthquake fault zone, down the Copper River watershed, and finally through beautiful Keystone Canyon to the southern terminus at Valdez. Valdez is a deep-water, all-weather port located on Price William Sound. Here, we had to be content with an aerial view because an incoming weather front threatened to keep us on the ground if we landed. We therefore made several passes by the various sites, including the 390 miles of stored pipe, the 800-acre terminal area, and the proposed tank farms and

loading docks, before we turned back past Columbia and Portage Glaciers to Anchorage.

What did we learn? We learned by first-hand observation the incredible vastness of a State that can span the combined breadth of the "South 48." We learned how infinitesimally small a 4-foot pipeline is in comparison with such an area. We learned of the extensive research effort that has been expended on the project and of some of the research prompted by vocal opposition from persons and organizations concerned about the possible environmental consequences of overly hasty



This is to certify that on July 9, 1973

Neil Ruthenford

crossed the

# Arctic Circle

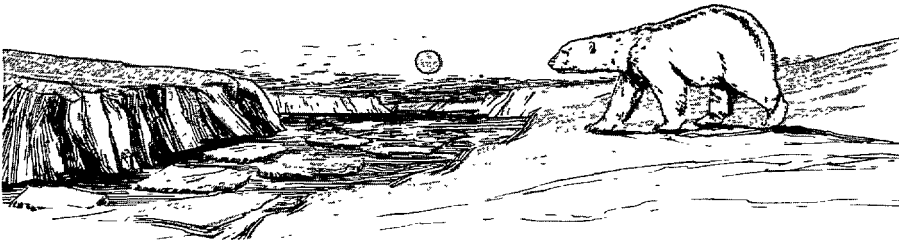
aboard **BLM Airlines** flight number one

Aircraft type and number Mallard N2974

Earth contact was made at Prospect Creek Camp, Alaska

Tom Bellan  
Pilot

Curtis W. McLean  
State Director



construction. We learned about caribou migration and how it may be affected by the project, about the beautiful white Dall sheep and how a road through the heart of their range might affect them, about oil spills, check valves, and seismic monitors, and about "Jones Act" (American-built) vessels and foreign bottoms.

We also learned the magnitude of the job we might be asked to do, and we carefully considered the extent to which we could and should call in outside expertise in the event the call materialized.

We learned where the information is and where the knowledge is. To our surprise, we also learned that no other pipeline route has been formally proposed and no other construction right-of-way has ever been requested, so that, to a certain extent, part of the question is academic at this time. We

returned to our respective offices prepared to act in the event that either H.R. 8477 or H.R. 8561 became law, prepared to do what is necessary, but very painfully aware of the magnitude of the undertaking and the potential drain on our staff resources.

At the time of this writing, the substitute bill authorizing the construction of the Alaska Pipeline, S. 1081, had been passed by the Senate and the House and was in conference. S. 1081 does not provide for the evaluation studies by the Comptroller General of the kind described at the beginning of this article, but the information we obtained in the survey will be very useful in our overview of construction activities of the pipeline in Alaska.

The breathtakingly beautiful scenery and the moose, sheep, bear, and caribou that we saw along the way were purely bonuses.

# The Professional Woman in GAO

*This article discusses a female auditor's impression of her first year's experience with GAO.*

A year ago when I was interviewed for a position with GAO, I had a vague idea of the type of work to expect. I was aware of GAO's "Watchdog" image but uncertain as to what it did to deserve the title and how I would fit in the organization.

## Characteristics I Looked for in a Job

While I was preparing for interviews I decided there were two ingredients I was looking for in a job. First, I wanted work that was nonrepetitive. Having worked as a clerk in an office prior to attending college, I had found little challenge in a work situation that involved doing the same thing day after day. Although there was a tendency to become proficient, it also was a static situation and my work was performed automatically, almost without thinking. Also, I felt that this had led to channeling the rest of my activities in the same pattern. Therefore, my primary concern in se-

lecting my new job was avoiding this situation.)

The second aspect I wanted in a job was an occasional change of scene. This desire was born not only of my previous work experience but also from the freedom and mobility I had while attending college. Therefore, I wanted to travel as part of my work.

## Apprehensive About My New Job

When I decided to accept a job with GAO, my basic motivation was the opportunity for work involving not only various locations but also a variety of subjects. I was a little apprehensive, however, about two things. My major concern was centered on car trouble while away from home. A flat tire upsets me, not to mention what a mechanical problem does. After being on the road for a year though, I have changed my thinking and put the problem more in perspective. Cars are repairable anywhere, and someone is usually available to help a stranded female traveler.

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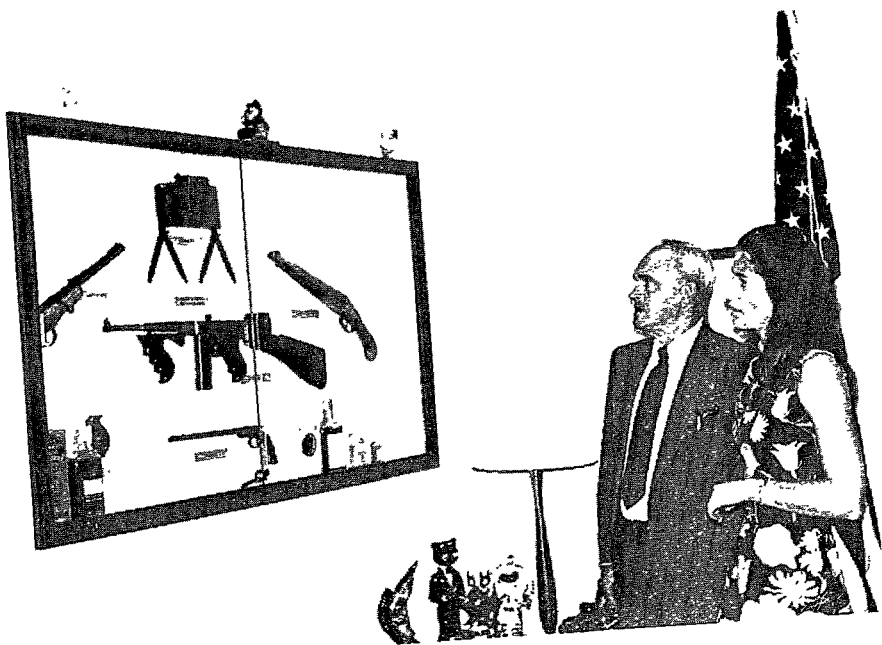
Miss Johnson joined GAO in April 1972 and is currently an auditor with the Cincinnati regional office. She received a B.S. degree, with a major in accounting, from Indiana State University.

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*“\* \* \* our ‘office’ was in the back room of a county jail.”*



*“[GAO] has provided an opportunity to learn the operations of various Federal programs, such as those carried out by the Cincinnati office of the Bureau of Alcohol, Tobacco and Firearms, Treasury Department, \* \* \*.”*

My other concern was working with a predominantly male staff. I wondered if I would be accepted as another auditor and given the same responsibility as my male peers. Although I will probably be answering this question as long as I work for GAO, the first year's experience has indicated few problems in this respect. Whether I am working for the Government or in private industry, I'm sure there will always be a few who think a woman's place is as a secretary, or in the home.

### My Travel Experiences

Working for GAO involves the expectation of frequently traveling. I have been to State capitals and small towns; each has its points of interest and attractions. Along with the changing work locations, there is a change of work conditions. With GAO there is a possibility of being in places you never dreamed of being, such as the time our "office" was in the back room of a county jail. Every morning we heard the cell doors open and close. Although the work conditions left something to be desired, it was still interesting because I had never been in or near a jail before.

Another side of travel is getting from home to the job site, which sounds easy enough with today's interstate highways. However, some jobs may take you to out of the way places, such as the counties in Appalachian Kentucky. This would normally be a scenic drive, except when you encounter a 60-mile detour over a mountain,

on a narrow, winding, washed-out road. When this happened to me, I must truthfully say that, by the time I arrived at the job site, I was literally shaking and wondering why I chose a traveling job.

As it probably is with any job in-



*“\* \* \* when you encounter a 60-mile detour over a mountain, on a narrow, winding, washed-out road.”*

volving travel, there are some disadvantages. When I moved to Cincinnati I didn't know anyone in the area and being on the road has made meeting people a very slow process. Even though I do not have family considerations, the weekends are always filled with activities and errands that have to be done before going on the road again. I have weighed these negative aspects of my job against those of a



*"I wondered if I would be accepted as another auditor and given the same responsibility as my male peers."*

more sedate job, and I believe GAO's combination has the most to offer.

### **What My First Year Has Meant to Me**

Throughout this first year I have been very satisfied with all phases of my job. The periodic change of assignments is the most rewarding benefit of working for GAO. It has provided an opportunity to learn the operations of various Federal programs, such as those carried out by the Cincinnati office of the Bureau of Alcohol, Tobacco and Firearms, Treasury Department, and uses made of the tax dollar. Each assignment varies as to subject matter and depth of review, therefore providing a broad basis for work that might come in the future. At the same time, each assignment is simi-

lar in some respects and you are acquiring the basic tools of how to approach a job, beginning with the first assignment. This practical experience is the best teacher to prepare you for future responsibilities. While on the job, there is a great deal of information to collect and it is a continual learning process that keeps the mind active and alert.

An added bonus that I never expected to find in a work situation is a change of coworkers on each assignment. Whenever I am reassigned, I know there will be a new set of faces and people I probably haven't worked with previously. I think this is a much better situation than seeing the same faces day after day.

During my first year I have worked with male staff members on each assignment. This has given me an oppor-

tunity to view the agency personnel's reaction to a female on the GAO audit staff. In every case they seem to be pleasantly surprised, particularly since GAO has previously had an all male auditing staff. Also, I believe certain situations are more easily handled with the presence of a female auditor. As an example, one of my assignments involved interviews with female welfare recipients. In discussing the interviews with other staff members, all agreed that the persons being interviewed were more receptive to the idea of an interview and were more cooperative when another female was present.

GAO has given me an opportunity to develop personally and profession-

ally. The various assignments have expanded my knowledge of Government operations. Of necessity, the art of conversation and meeting people has to be developed to successfully carry out an assignment. The opportunity for professional development is always available with GAO. Supervisors have been a source of knowledge and guidance and I have benefited from their past experience in the field.

Although I am just beginning a career with GAO, I feel I have already contributed something to the "Watchdog" image. At this point my contribution may be small compared to the total picture, but it has been a rewarding and interesting experience.

### **Big Business**

Any outsider who attempts \* \* \* to master the immensity and complexity of the U.S. Postal Service can only be awed that it works at all. Consider 90-billion pieces of mail annually processed in 40,000 offices by some 680,000 employees, many still using the pigeonhole sorting device invented by Ben Franklin, and you wonder how the mail gets through.

*Ben Faulkner*  
*Business Week,*  
October 20, 1973

## Learning to be a Watchdog— My First Year With GAO

*As a part of GAO's efforts to inform college instructors and placement officials of its objectives and functions as a Federal Government organization, GAO held a 2-day seminar in Cocoa Beach, Florida, in March 1973 with representatives from colleges and universities primarily in the southeastern United States. At the seminar the author gave the following account of his experience with GAO.*

My past 11 months with the General Accounting Office have been quite an education for me. For one thing, I've learned that my original notion about the business of GAO was not entirely correct. For another, I've found my present notion of the Office to be still changing as I move from assignment to assignment.

While an accounting senior at Alabama State University, I made up my mind from the placement office brochures and the 20-minute interview with a recruiter that GAO was for me. I felt I would have a chance to use my accounting—for which Fred Berry had invested 4 years of his life in learning—and also, as the recruiter had told me, I would have an opportunity to do some management auditing.

*Management auditing*—although the phrase escaped me then, it certainly sounded interesting.

In spite of what I had read and heard, I could not help but think that GAO was concerned solely with the financial end of programs and operations. Perhaps my college major caused me to place great mental emphasis on the "accounting" in the General Accounting Office. Thus I came to Falls Church, Virginia, in April 1972 expecting all of my fellow workers to be accountants. I could not help but picture myself and the other accountants sitting behind desks 8 hours a day, fighting adding machines, and beating deadlines on financial jobs.

I learned very quickly—in fact,

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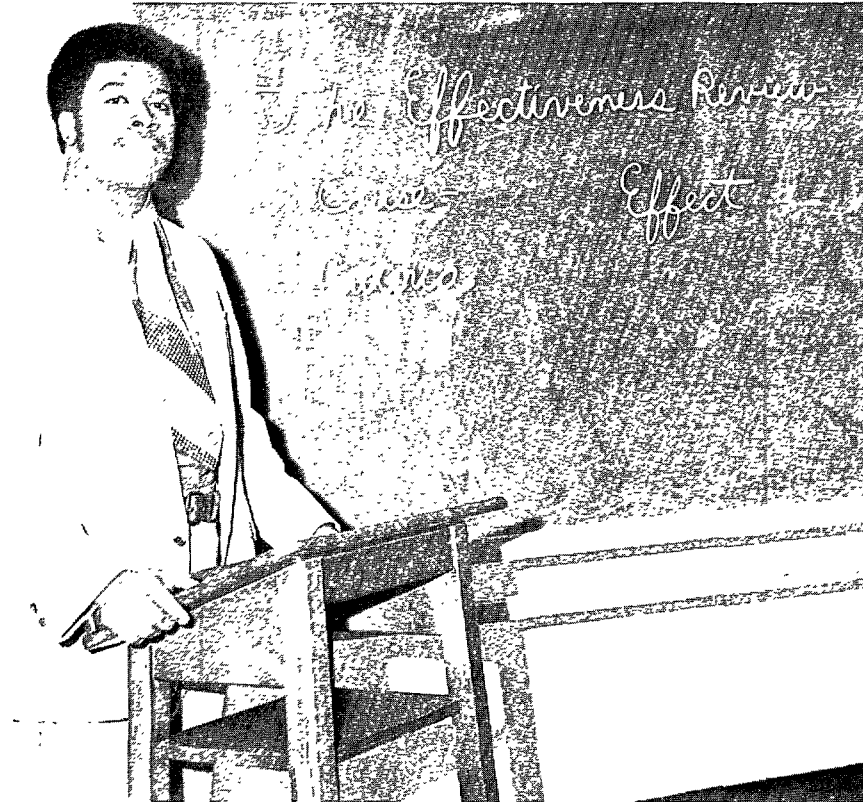
Mr. Berry is an auditor with the Washington regional office. He joined GAO in 1972 after receiving a B.S. degree from Alabama State University in Montgomery, Alabama.

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during my first week—that debit cash, credit bonds payable is not the name of the game at GAO. During that first week I was oriented, in depth, in the authority, responsibilities, and objectives of GAO. I was instructed in my duties as a professional staff member and exposed to some of the tools and techniques of auditing. I learned the GAO auditors' three magic words—*criteria, cause, and effect*; the elements of a management finding. I also learned that during my first year I would have three assignments coordinated to give me a cross section of

GAO's work. During that first week I was given my initial, and I must comment, most interesting assignment of the first three—a management review of unclaimed benefits in the civil service retirement fund.

When I arrived at the Civil Service Commission, I was met by my audit manager and directed to the staff's quarters. This manager was quite young and I soon learned that in his 8 years with the Office he had become a CPA and had earned an M.B.A. and the respect of regional management for his fine work. He informed me of



*The author discusses the GAO auditors magic words—Criteria, Cause, and Effect.*

the objectives of our job: to determine the extent of unclaimed retirement benefits and the reasons benefits had gone unclaimed and to identify solutions to the problem. A tall order! Our staff had already sampled civil service retirement records and estimated that 338,000 ex-Federal workers were entitled to about \$26 million in benefits. Under the rules that the Commission was following, most of the benefits probably never would be paid and the Commission would be required to keep records on the unpaid benefits forever.

My role in this effort was defined as analyzing sample data, projecting sample results to a universe, and developing cost figures for locating the approximate 338,000 people due benefits. I was also charged with providing written, factual accounts of interviews with Commission officials and former Federal workers. My initial task on the assignment was to assist in taking an additional subsample of Federal retirement records. These records, however, were in Boyers, Pennsylvania—a small town near Pittsburgh—stored in a mine consisting of over 700 miles of damp, gloomy, underground tunnels. This was quite an experience. I had no idea that during my first 3 weeks with GAO I would be in a tunnel shaft mining retirement records.

With the help of the Internal Revenue Service and the Social Security Administration, we obtained addresses for many people due benefits. We sent letters informing them of their entitlement and questioning why they had not applied. The staff was anxious to receive these replies and, I must say, I

found our making communication with these people to be personally rewarding. Many replies were from folks well over 70—who needed the money—thanking us for our extra effort and stating that they had no knowledge of their entitlement. I felt I had done something here to help other people, and I felt good about it.

Getting behind the reasons for unclaimed funds called for a lot of interviewing. Because of my inexperience, my participation was limited to taking notes and later converting them into a narrative record for our working papers. I enjoyed being present at these interviews and relished the respect shown GAO by top management in Government. So far as writing the interviews, I learned that the GAO way of expressing one's self in interviews, summaries, or reports is an art mastered through experience—quite different from what one does while in college. For the duration of this assignment my interest and enthusiasm did not wane. I was counseled by my supervisor when needed and I felt a part of the team. Our findings and recommendations on the job, which I will not go into at this time, were reported to the Congress in GAO's report on "Unclaimed Benefits In The Civil Service Retirement Fund" (B-130150, Dec. 20, 1972.)

After 3 months at the Civil Service Commission, I was reassigned to an audit at the Government Printing Office. This was a financial review, and my accounting background served me nicely. I was responsible for reviewing cash transactions and accounts payable and for discussing

these accounting procedures with agency personnel. My interviewing function expanded from mere note taking to actually conducting interviews on my own. I had time on this audit to concentrate on preparing written accounts of my findings and summarizing audit work of a purely financial nature.

During this assignment two very satisfying events took place. First, I attended the first of a series of training seminars held for new auditors. Second, I was given an opportunity to return to my alma mater and participate in the GAO recruiting drive there.

At the training seminar we were exposed to standup lectures and roundtable discussions on such subjects as "GAO's Impact on Public Policy Making," "Management Auditing vs. Financial Auditing," "The Effectiveness Review," and "Interviewing Theory and Practice." The seminar was broadening and offered me new perspective. I had much to learn. A large benefit of the training session was my chance to meet the members of my peer group. The mix of disciplines these young men and women represented was surprising—economics, mathematics, management, computer science, etc.—both bachelor's and master's degree holders. Their views on the training topics were understandably varied and most interesting. I felt a sort of allegiance to the accounting profession and was proud to defend my own views from the accountant's perspective.

My chance to participate in recruiting was a pleasure I had not expected

after being with the Office for such a short time. I was sincerely eager, however, to tell others of the variety, challenge, and opportunities I had found with GAO. For the 2 days in October 1972 that I spent on the campus of Alabama State University, that is exactly what I did. My role was public relations. I met professors, gave classroom presentations, counseled individual students, and renewed old friendships and made new ones. I really enjoyed myself and felt I was providing a valuable service to the graduating seniors at Alabama State.

On the second day of my visit I was joined by the rest of the recruiting team—three gentlemen—one of whom was our Atlanta regional manager. These three men made the actual recruiting decisions. My role was to put each student at ease before his interview.

I learned from this experience that it is quite difficult to portray for the college student the real character of GAO's work—but I tried very hard. I also learned what it feels like to be on the other side of the recruiting table and I liked it.

After spending 5 months at the Government Printing Office, I was given my third and final assignment of the first-year cycle. This was a review specifically requested by the House Select Committee on Small Business. It concerned the Department of Defense's reporting procedures for procurements not awarded to small business. The Committee was interested in finding out why a particular group of contracts, awarded during fiscal year 1972, were denied small business. The



Department had given miscellaneous reasons—making our job, then, one of identifying and evaluating the reasons. We plan to do this by visiting Army, Navy, and Air Force procurement centers in and around the Washington, D.C., area.

Yes, the past 11 months have been a real education for me. My original notions about the business of GAO have changed overwhelmingly. GAO's client, the Federal Government, is the largest and most diversified business

in the world. GAO's business, therefore, is as large and as diversified. My part in that business is to gather, analyze, and report information to the Congress for its decisionmaking and by doing so provide important feedback to executive agencies concerning the effectiveness, efficiency, and economy of their programs. I am proud of my role and look forward to an even more challenging, fruitful future with the Office.

### The Auditor's Job

The auditors are to determine whether laws, contracts, policies and procedures have been properly observed and whether all business transactions were conducted in accordance with established policies and with success. In this connection, the auditors are to make suggestions for the improvement of existing facilities and procedures, criticisms of contracts with suggestions for improvement, etc.

Audit Manual of  
 Krupp Armament Works (Germany)  
 1875—quoted by *Aaron Schneider*,  
 Manager of Corporate Auditing,  
 Monsanto Company of St. Louis  
*The Internal Auditor*, September/October 1973

## An Experiment in Making GAO Better Known

*GAO's college recruiting is often handicapped because students lack knowledge about the Office and its role in the Government. In December 1972 and May 1973, members of the Detroit regional office staff participated in a unique communications experiment which, as this brief article brings out, helped students to better understand GAO audit operations.*

At the suggestion of Dr. Michael H. Granof, assistant professor, College of Business Administration, University of Texas, we shared with about 200 students in his auditing classes in Austin, Texas, our study of the progress made by the Department of Housing and Urban Development in achieving the Nation's housing goal—a decent home and a suitable living environment for every American family. This experiment in communications with students was carried out using a telephone-microphone hookup between our office in

Detroit and the university classroom in Austin.

Our study had focused on HUD's efforts to:

- Stimulate communities to adopt and enforce adequate housing codes and
- Use Federal funds to help communities combat housing deterioration and blight.

Briefly, in sharing our study with the students, we explored with them: our objectives; problems encountered

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Lawrence L. Charron and Ronald A. Vieregge are supervisory auditors with the Detroit regional office. Mr. Charron joined GAO in June 1962 after receiving a B.S. degree from the University of Detroit. Mr. Vieregge joined GAO in October 1966. He received a B.A. degree from Western Michigan University, and an M.B.A. degree from Wayne State University.

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and how they were resolved; and the overall results of our effort, including HUD's actions based on our report to the Congress ("Enforcement of Housing Codes: How It Can Help to Achieve Nation's Housing Goal," B-118754, June 26, 1972).

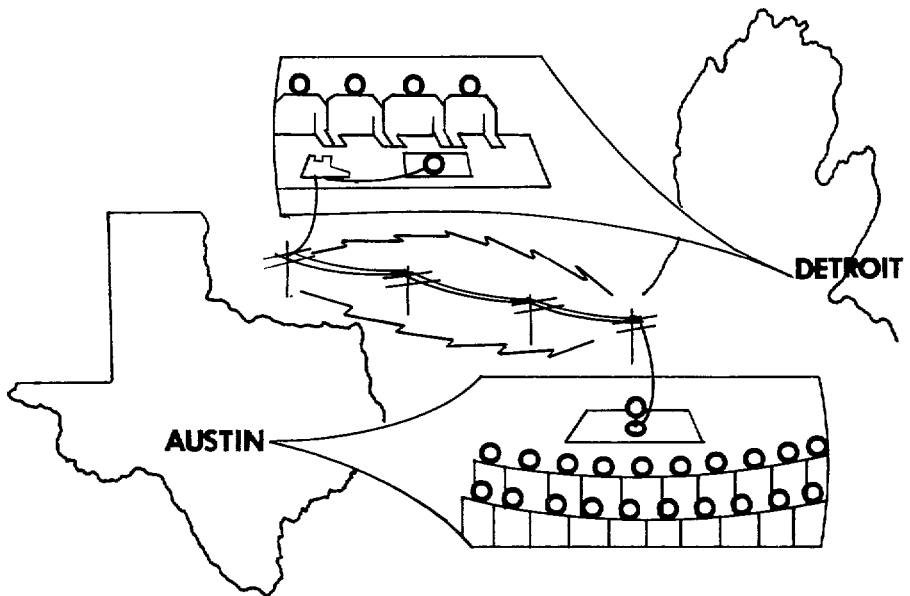
Before talking with the students in four 50-minute sessions (two class periods on each of 2 days), we arranged for them to become directly involved in how we went about doing the study. A few days before the sessions, we gave them written highlights of our early study observations. We then asked them to prepare their own plan of action to evaluate the success of the HUD program. After this, the students discussed their plan with Dr. Granof and prepared questions for us on various aspects of the study.

As a springboard for specific, detailed discussions of our study, we be-

gan the sessions with introductory remarks on GAO's overall aims and responsibilities, together with how the Detroit regional office "fits and functions" in the GAO as a whole. We next discussed our operating philosophy and practice to tie together for the students not only what we did on a single study but also our frame of reference for all assignments.

Against this background, we then described our study approach, discussed difficulties encountered, and answered students' questions about the case in particular. The questions were incisive and thought provoking. To mention a few:

- What are GAO's credentials for evaluating a complex, "non-accounting" subject such as housing?
- How much independence does GAO really have?



- Are GAO staff members biased toward the programs audited and, if so, does this affect the way GAO develops or fails to develop various aspects of its cases?
- What problems were encountered during the audit and how were they handled?
- What actions did HUD take as a result of our audit?

Some lively debate about these questions—we explored and answered them fully—gave us new insight into how others view our sphere of influence in and out of Government.

Since our sessions were totally unrehearsed, we had an opportunity to better appreciate the sensations experienced by some of our best “clients” (other Government agencies) when they are confronted by *our* questions.

Obviously, there was significant mutual benefit from this experiment. The students are now more aware of

GAO—its responsibilities and functions. Moreover, they have a better understanding of how classroom theory and professional practice interrelate. We, on the other hand, discovered a convenient and more effective means of promoting student interest in the Office and improving our knowledge of student viewpoints and concerns—in short, a new tool to assist our college recruiting efforts.

As we look back on our venture and adventure, we see more than the admittedly important matters of bridging gaps between theory and practice and improving recruiting efforts. Today, as never before, the “accounting community” is challenged to help resolve growing national problems—health, crime, education, pollution, and *housing*. We would like to believe that in some small way our experiment stimulated interest in how auditors can and must become dynamically involved in national issues and priorities.

### On Spending

It is easy to spend someone else's money. But officials on a public payroll should lean over backward, if necessary, to stick to budgets and confine spending to necessities.

*Cleveland Plain Dealer,*  
August 25, 1973

## Relationship Between Internal Auditors and Independent Auditors

*Over the years, GAO has repeatedly stressed the importance of internal auditing in Federal agency management systems. The following remarks were delivered at the ceremony for presentation of certified internal auditor certificates, Washington, D.C., chapter of the Institute of Internal Auditors, October 15, 1973.*

Internal auditors are—or they should be—an important part of the management control system of the organization they serve, providing independent evaluations of performance of all kinds within the organization for the benefit and use of management officials.

In nongovernment organizations they are also important to owners, investors, directors or trustees, creditors—and even to taxpayers, whether they know it or not.

Finally they are important to independent auditors. Practicing CPAs make good and full use of the work of internal auditors as a simple matter of generally accepted auditing procedures.

GAO, as an independent audit agency in the legislative branch of our Government, has as its biggest job the responsibility for auditing the affairs of almost all Federal agencies and providing the Congress with information on how well Federal agencies are carrying out their financial, management,

and program responsibilities. Carrying out this responsibility in this day and age of a \$270 billion Federal budget can be no slight task. A very important factor in our decisions on specific audits to be made—and the extent of the audits made—is the adequacy of the internal auditing being performed in the many Federal agencies.

Internal auditing in the Federal Government—like the girl in the cigarette ads—has come a long way since the 1940s when the first great strides toward modernization of the Government's financial management system were taken. The caliber of internal audit staffs and their stature within their agencies have vastly and steadily improved. Their constructive contributions to improved management and increased efficiency across the wide spectrum of Federal Government operations are numberless and immeasurable but substantial nevertheless.

Many factors have contributed to this progress—such as enlightened management concepts, legislative

expressions, congressional committee interest, and the aggressiveness and persistence of individual practitioners. Another important factor has been the almost constant drumming of GAO for stronger and stronger internal audit systems in all Federal agencies.

### Examples of GAO Support

This activity began in earnest with the modernization of the accounting and auditing operations of GAO which began right after the ending of World War II.

Some examples can best show the nature and degree of persistence of this activity—and here I delve into some history.

- One of the first major GAO reports sent to the Congress under Government corporation audit legislation enacted in 1945 was on the old Reconstruction Finance Corporation. This report—a modest 10 volumes—highlighted a lot of problems as GAO then saw them in the way this corporation was being managed, and operated and one of them was the internal audit system. In language much less polite and restrained than we use nowadays, the report stated that the internal auditing

was administered unaggressively, without adequate imagination, and with considerably less useful over-all result than the Corporation would have been justified in expecting.

We urged a major redirection of the internal auditing effort and it did take place.

- Another of the big Federal corporations of that era—and still going strong—was the Commodity Credit Corporation. GAO's first audit report on this corporation under the 1945 legislation chided it for immersing its internal auditors in administrative details. One result was that they spent too little time on checking operating and accounting procedures and the system of internal control and, as the report stated, they gave "scant attention" to finding out whether "program activities were being carried out in accordance with the intent of the board of directors."
- 1949 was the year the Joint Financial Management Improvement Program was launched by Comptroller General Lindsay C. Warren, Secretary of the Treasury John Snyder, and Director of the Bureau of the Budget James Webb. The basic philosophy of this program has always included recognition of the principle that a good accounting system must be subject to internal audit review in order to check compliance with established policies and procedures, evaluate reliability of financial reports, and identify improvement possibilities. This concept is still a vital part of this cooperative program.
- In 1950, the Comptroller General's comprehensive report on the old Maritime Commission came out. Among the many management problems described was the complete lack of internal au-

diting. The report emphasized that

the internal auditors must possess the inherent ability to appraise the adequacy and effectiveness of the internal records and procedures and to appraise performance under the Commission's policies, plans, and procedures.

- In 1952, the Comptroller General published an important circular to the heads of Federal agencies on the contribution of accounting to better management. Among the basic tenets stated was this one: A broadly constituted internal audit program provides the administrator and his subordinates *not only* with the auditor's findings on financial transactions but also with objective views of the manner in which policies and procedures, whatever their nature, have been carried out along with recommendations for improvements.
- In 1953 occurred one of the little known and now almost forgotten incidents involving GAO's strong support of an internal audit organization. It occurred soon after the first Eisenhower administration took office in January 1953. The then new Secretary of Agriculture, Ezra Benson, asked that GAO make an audit of all of the corporations and lending agencies of the Department of Agriculture as of January 31, 1953—representing about the date of change-over in administrations. He listed nine different organizations in the Department whose assets were measured in the billions of dollars.

This was an impossible task for GAO to perform with the re-

sources then available and because of other audit responsibilities. We took the position that the assurances that the Secretary was looking for could be just as satisfactorily obtained *if* he used the not inconsiderable internal audit resources of his own Department. We told him frankly that in carrying out our audits we placed great reliance on the work done by the Department's own audit and investigative staffs. We pointed out that we had found such reliance generally to be justified and that one of our major criticisms was that management officials did not always take proper advantage of the findings reported to them by their auditors and investigators.

The Secretary accepted our alternative suggestion that the auditing he wanted done be done by departmental internal auditors, with some GAO oversight. We have been told that this incident helped greatly in improving the stature of internal auditing in this Department, which subsequently developed into one of the best internal audit organizations in the Federal Government.

- In 1957, during the tenure of Comptroller General Joseph Campbell, GAO published a comprehensive statement of basic principles and concepts of internal auditing in Federal agencies. This statement was widely distributed and used within the Federal Government in training programs

and in acquainting management officials, Members of Congress, and internal audit staff members with the elements of strong internal audit systems.

In 1963 the House Committee on Government Operations came out with a vigorous call for a further strengthening of Federal agency internal audit systems, endorsed the 1957 GAO statement, and stated its own version of the fundamental requirements of satisfactory internal auditing.

- In 1968, the GAO statement of basic principles and concepts for internal auditing in Federal agencies was substantially revised to reflect the experience gained in the 10 years since the original statement was published.
- From 1966 to 1969, during the first years of the term of the present Comptroller General, Elmer B. Staats, GAO made special reviews of all major internal audit systems in the Federal Government. One review covered five of the major internal audit organizations of the Department of Defense and the report concluded that these systems were generally satisfactory. All in all, a total of 35 formal reports on this work during this period were prepared and almost all of these contained recommendations of one kind or another for improvement.
- Right now, in 1973, we are in the midst of a major survey of the adequacy of internal audit and other internal review systems of

all of the principal departments and agencies who make grants of Federal funds. This work is nearing completion and reports will be published within the next few months. A major purpose of this survey is to provide the Congress with up-to-date and evaluated information about these systems and their capacity to provide effective audit services in programs which involve grants of Federal funds of around \$40 billion a year.

### Auditing Standards

Last year—in 1972—another landmark statement on auditing by the Comptroller General was released. This one dealt with standards for auditing governmental operations irrespective of who makes the audits or what level of government is being audited.

The statement is not prescriptive but it does point the way to the future of governmental auditing, including internal auditing, particularly with respect to the scope and objectives of audit. In brief, it calls for audits not only of financial operations including compliance with legal requirements, but evaluations of the efficiency and economy with which operations are carried out and of progress or accomplishments in achieving established objectives. These standards have been integrated into our earlier statement on internal auditing concepts and a new version will be published in the near future.



## GAO Use of Internal Audit Work

Our interest and concern with the quality and usefulness of internal auditing in all Federal agencies has to be unflagging, if we in GAO are to do our job properly. As a matter of our own audit policy, we keep in close touch with internal audit organizations to keep abreast of their plans and programs, their findings and recommendations, and their problems. We use the results of their work when appropriate and by referring to it in published reports we add visibility not only to the existence of internal auditors (whose reports are seldom made public) but to the concept that they are an important part of a management control system.

Some recent examples:

- In June 1973, the Comptroller General reported to the Congress on progress and problems in achieving the objectives of the School Lunch Program—an important nationwide program administered by the Department of Agriculture and involving annual Federal expenditures of well over \$1 billion. The report referred to findings of the Department's Office of Inspector General a year earlier on the limited efforts being made by the Department to extend the School Lunch Program to private schools.
- In July 1973, a GAO report to the Secretary of Health, Education, and Welfare on the need for better management of health research equipment by grantees described earlier findings by the HEW Audit Agency on inadequate monitoring of grantee property control systems.
- Also in July 1973, the Comptroller General's report to the Congress on the foreign aid program in Brazil mentioned a report by the AID Inspector General which recommended suspending U.S. loans for school construction until the borrower assured a satisfactory level of performance.

Not always do we find internal audit performance to be all that we judge it should be. And true to our place in the scheme of things, we can usually be depended upon to say something about what we found and to make recommendations for improvement. A couple of examples:

- Earlier this year, in auditing the financial operations of the National Bureau of Standards, we found that there had been no recent internal audits of payroll operations and, with one minor exception, no audits of accountable officer functions. We regard these omissions as serious and in this case we suggested to the Director of the Bureau that the management participate more actively in the internal audit planning to provide better assurance that internal auditors would cover all Bureau activities and thus be a more effective part of the Bureau's management control system.
- Our report on the audit of the Student Loan Insurance Fund for 1971 and 1972 contained somewhat of a rarity in audit opin-

ions. It stated that the financial statements did *not* present fairly the financial position and results of operations of the Fund. The reasons were many as were our recommendations for improvement. We also suggested that the HEW Audit Agency be directly involved in resolving the problems encountered and advise on progress being made to improve, provide technical assistance, and propose recommendations on additional financial and operational matters where improvements were called for.

### Suggestions for Internal Auditors

We in GAO never quite leave the subject of internal auditing for very long. Before leaving it for now, however, I would like to register a few suggestions for internal auditors to include in their long list of concerns.

- They should make sure, as best they can, that they really have the ears of the top management and that they are given every opportunity to participate in planning their audit program. In addressing the Society of Experimental Test Pilots not long ago, the Comptroller General called attention again to this most important point. He remarked that the internal auditor must have the ear of his company president—or the top man in his government agency—if his information and advice are to be effective.
- Although independence of operation is essential, the internal auditor must not be so detached as to be above constructively helping officials at all levels to improve their performance. The name of the internal audit game is to provide *constructive* as well as protective assistance to the organization and management served.
- Internal auditors should take a dim view of waste and inefficiency and ineffectiveness in any form in the organization served.
- They must not overlook the need to provide a constant check on financial operations, on the adequacy of accounting systems and related control procedures, and on the reliability of financial and other reports used by managers in conducting their affairs. These are all important grist for the internal auditor's mill.
- Internal auditors should develop all the necessary technical proficiency to review the use and operation of electronic computer systems. The notorious Equity Funding Life Insurance Company scandal, which involved over 60,000 bogus insurance policies, would probably not have gone undiscovered so long if the auditors, both internal and external, had really checked out how the computer system was being used.

The Federal Government is a large user of computers and has many large, complex systems. They must be no less subject to expert audit testing for adequacy

of controls and propriety of use than other types of systems.

These suggestions definitely are not a complete inventory of all the matters that internal auditors must worry

about. But to me they stand out as special concerns for all internal auditors—and particularly for those who are adding the mantle of certified internal auditor to their other distinctions and accomplishments.

### Good Reason for Agency Program Evaluation

Certainly, Government executives can refine their techniques for performance budgeting, and any new over-all management system must include the concept of management by objectives. A chapter to the HEW handbook on Operational Planning System might be added to provide for use of economic analysis in determining alternatives to accomplish objectives. Another chapter could be added to provide for independent evaluation. Otherwise, some day a GAO report might shock the Secretary into realizing that his Bureau and Agency heads did not tell him the complete story.

*William O. Harris*

“Improving Federal Program Performance,”

*Government Executive*,  
September 1973

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**Management of the  
Capital Investment Process**

*One way to improve productivity in Government operations is through greater use of capital equipment. This article discusses essential techniques and processes for effectively planning and implementing capital outlays to improve productivity.*

### **Introduction**

The trend of rising prices and the need to reduce operating costs because of budget constraints make it imperative that managers throughout the Government strive to identify ways and means to make their operations more effective. Although their efforts take many forms, often wise selection of capital acquisitions is the primary means available to achieve improved

effectiveness by increasing labor's productivity.

Fund limitations, a problem in both Government and industry, should not preclude agencies from establishing programs to identify facility and equipment needs. To the contrary, restrictions on the funds available for capital investment make it even more important that a good investment program be established to promote the most efficient use of the limited financial resources.

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<sup>1</sup>The authors participated in the capital investment phase of the joint CSC, GAO, and OMB study concerned with measuring and increasing productivity in the Federal Government. The details of this phase of the study are reported in "Analysis of Productivity Enhancing Capital Investment Opportunities" (September 1973) and summarized with the overall study results in "Measuring and Enhancing Productivity in the Federal Government" (June 1973).

The potential benefits available to the Government through productivity increasing capital investments are demonstrated by some statistics gathered during a recent study on productivity in the Federal sector.<sup>1</sup> Fifteen selected cabinet departments and agencies submitted lists of unfunded pro-

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ductivity investment proposals having an estimated payback of 5 years or less. The lists included 392 projects costing \$242 million which would amortize the initial investment costs in only 2.7 years.

Although the potential shown was substantial, doubtlessly there is even greater potential because many Government organizations do not have aggressive investment programs to actively search for investment opportunities to improve productivity and reduce costs. To test this belief, a team of engineers from one Federal agency, a part of the joint study team, took several weeks studying the potential for additional investments at two Federal activities. They identified a number of investment opportunities that would increase employee productivity, including five projects costing a total of \$590,000 that would produce savings estimated at \$363,000 annually. The team calculated that if

these investments were made, the capital outlay would be completely recovered in about 1.6 years.

The work at these two activities, as did the overall study results, demonstrated that all operational elements of an investment program must function well if the overall program is to be effective. The essential operational elements are:

- Identification of opportunities to reduce cost through capital acquisitions.
- Justification on the basis of established criteria.
- Evaluation of identified beneficial investments and scheduling on a priority basis.
- Implementation of approved projects on a planned basis.
- Followthrough with postaudits to assess the actual benefits realized and to provide feedback that will help future project evaluations.

The first step in assuring proper management of these operating elements is to establish a good investment organization to provide management with timely and comprehensive information on investment opportunities.

### **Organizing for Capital Investment Management**

The investment organization is usually a separate group of specialized individuals operating within the industrial engineering or accounting departments. In addition to providing the organizational framework necessary for timely identification and processing of capital investment proposals,



the investment staff should play a major role in motivating all personnel to constantly search for possible investment opportunities.

The investment analysis staff should serve a centralized function. Specifically, it should be responsible for evaluating and coordinating all sugges-

tions, whether received from operating personnel or top management, and for making the formal analysis when appropriate. Since investment analysis is a demanding and difficult job, only qualified personnel should be assigned to the investment organization. The investment analysis staff should have sound knowledge of accounting, incremental analysis, and budgeting. It should also be well versed in matters relating to budget limitations and overall investment plans.

Because projects identified by operating personnel will not include all available investment opportunities, the investment staff should have the authority to originate studies and proposals. This will provide organizational flexibility to search out areas of technological advancements and methods improvements that might otherwise not be identified or considered.

Ideally, the investment staff should



have the confidence and cooperation of agency executives in a position to furnish guidance in areas that may have investment opportunities. Again, given sufficient time to pursue these areas, the staff should be able to discover many opportunities which otherwise would not be developed.

The supervisors of the investment analysis staff should be sufficiently knowledgeable of the organization to anticipate the effect of future plans on capital requirements and to participate in formulating an appropriate expenditure program. They should also communicate organization objectives and plans to the investment staff to help maintain the flow of well-conceived proposals. Maximum effectiveness will be achieved only when the investment staff's time is directed to those opportunities fully consistent with management's long-range goals.

### **Identifying Investment Opportunities**

The identification process is probably the most important aspect of an investment program because the program is only as good as the projects identified. For the identification function to be fully effective, it must operate within a framework of firm agency goals and long-range investment plans. These provide the investment organization with a frame of reference for planning and directing its particular efforts toward identifying sound and necessary investments.

The need for an aggressive identification function is apparent from re-

cent rapid increases in the state of the art in virtually all fields. The many innovations and technical breakthroughs offer a constant yield of opportunities to an aggressive, search-oriented organization. Conversely, the alternative to an aggressive, systematic identification program would be to risk a "firefighting" approach to capital investments.

The search for investment opportunities is often viewed as a creative process where procedures are not applicable. But certain phases of the identification function can be formalized. For example, manuals on organization and management policy can pinpoint those components of the organization responsible for product development and methods improvements. Individual job descriptions can stress responsibility for ideas and activities which lead to new investments. Also management can, and should, fully publicize the investment program—encouraging employees at all levels to participate by making meaningful suggestions. In fact, management should in every way remove restrictions and provide quick feedback to foster wide participation.

To help identify investment opportunities, management information systems should be designed to provide such data as extent of equipment utilization, maintenance cost trends, or excessive downtime. Inquiry into such indicators may frequently reveal cost reducing investment potential.

But management must not fall in the trap of using an information system as the sole means of project identifica-

tion. Such practice may result in replacement-oriented programs which fail to consider improvements through process changes and obsolescence. So that improvements of this type may be adequately considered, special studies and observations of existing operations and alternatives should be made.

### Justifying Proposals

An aggressive program will produce numerous investment proposals; many will have merit; and others will be replacement-oriented suggestions with little prospect of providing real payoff in terms of increased productivity. It follows that the project justification function must soundly establish the need and probable benefits of each

proposal. This requires accurate estimates of acquisition, construction and or installation, and related break-in or training costs.

The project justification process requires competent personnel and frequently the process can be time consuming. But the time and cost invested at this stage can be invaluable. If justifications are not reliable, there can be no confidence that the best possible use will be made of available funds, and the entire investment program may lose credibility if postaudit results reveal that projected savings frequently fail to materialize.

But the cost of project justification often can be reduced. Rough estimates can be prepared for the purpose of preliminary assessment and for culling





and ranking as to tentative priority. The most favorable projects identified in this manner may then be selected for more in-depth study and preparation of a formal justification. The formal justifications should be prepared in a standard format to facilitate comparative review and final ranking by top management.

### Evaluating Investment Opportunities

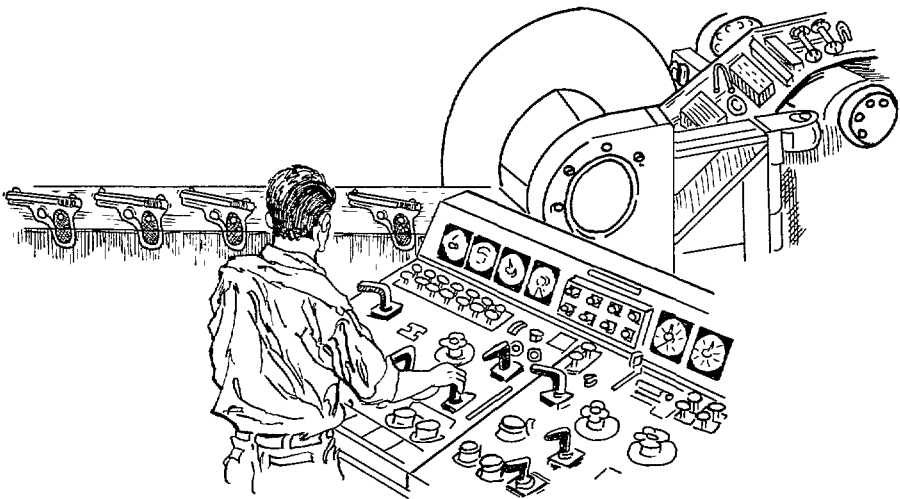
Justifications should be subjected to a rigorous, unbiased evaluation to insure that all relevant factors are considered and that the proposal is a valid requirement compatible with organizational objectives. Normally, this review is performed by the supervisor of the investment analysis staff.

In evaluating the justifications of those projects meeting the organization's economic criteria, the investment staff supervisor should raise questions on areas that the investment

staff has failed to consider and should challenge any stated or implicit assumptions contained in the economic analysis. Also, the review should insure that the proposal conforms with overall agency plans.

Because funding constraints prevent financing all proposals passing final review, the investment staff should prepare a capital acquisition budget with a recommended ranking as to priority of acquisition. This process entails continually reevaluating previously recommended budgets as new productivity increasing projects are identified and justified.

The recommended capital budget with priority ranking and subsequent revisions should be forwarded to higher management for final review and approval of specific capital projects. After giving consideration to those investments that are required by law or for employee safety and morale, top management should approve projects according to their ranking by eco-



conomic desirability until available funds are exhausted.

### Implementing Approved Capital Expenditures

Management's responsibility for capital investments does not end with the approval of specific investment projects. After approval, management must exercise sufficient control to insure that projects are implemented within projected time schedules and estimated costs.

The most effective method of control is to assign the responsibility for project implementation to a competent individual who has a thorough knowledge of the project. This individual should use a systematic approach in planning the interrelated activities of equipment purchasing, installation, troubleshooting, and break-in. Also, progress reports should be used to

monitor the status of projects in the implementation process to reveal trouble spots in time for corrective action.

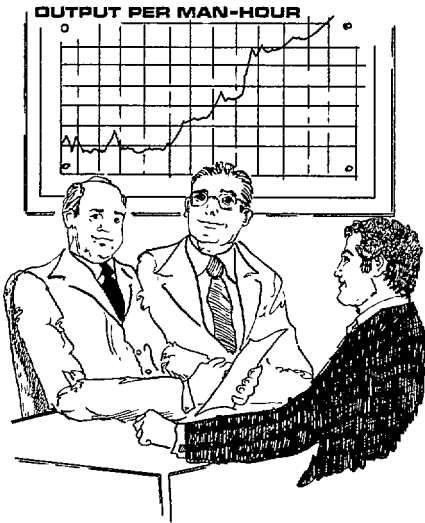
In addition to assuring that projects are implemented as scheduled, management should make certain that investment funds are spent as intended. Cost control is most often achieved by analyzing periodic cost reports showing expenditures and variances on an individual project basis. This procedure will facilitate followup investigations to determine the reasons for cost overruns and a search for corrective measures.

### Following Up Completed Projects

After projects have been operating for a reasonable period of time, post-audits should be performed to determine whether planned benefits are being realized. These evaluations (1) provide an overall framework of control so that project origination, approval, and implementation are a disciplined management process and (2) advise those involved that their work is subject to review.

Because careful followup evaluations are time consuming and expensive, many companies in the private sector evaluate only major projects meeting a specified criteria, such as expenditures greater than \$10,000. In an effort to obtain broader coverage, other companies employ random sampling of all projects.

To facilitate objectivity, the audit team should be independent of the group which identified, justified, or



approved the project. As a general rule, postaudits are performed only once. However, if an initial evaluation discloses serious shortcomings, a second evaluation may be desirable after corrective action has been taken.

Management should be careful to avoid problems associated with the misuse of postaudits. If postevaluations are used to "place the blame" rather than give credit for good performance and point out weaknesses needing improvement, they will discourage initiative, decrease morale, and create an atmosphere of overcaution. Another danger is that the investment analysis staff, when preparing justifications, will limit its estimates to only those items it feels can be closely verified later. Management should not allow the postanalysis requirements to dictate what information can be contained in the justifications.

### Summary

Although the benefits available

through wise investment in modern, efficient, laborsaving equipment and facilities has been demonstrated; effective, well-managed investment programs are needed before these benefits can be fully realized by Federal agencies.

The administration of the capital investment process is functional in nature. Projects should be aggressively pursued to improve operations and efficiency through replacement of deteriorated and obsolete equipment. Investment proposals should be justified on the basis of economic return and should be ranked according to desirability. They should be subjected to a thorough evaluation designed to screen out undesirable proposals. Approved projects should be closely monitored during the implementation phase to insure that projects are implemented in a timely manner within estimated costs. Finally, completed projects should be scrutinized to determine the actual benefits obtained.

72/590

## What To Look for in Auditing Cost-Benefit Studies

*Because of increased emphasis on program evaluation and requirement analyses in GAO audits, the likelihood of an auditor having to review and evaluate a cost-effectiveness or cost-benefit study is greater. This article describes the important aspects of such studies and shows by examples the key attributes that mark a good study.*

A cost-benefit study examines one or more alternative ways (or systems) for performing a certain function and compares the cost and benefits (effectiveness) of the various alternatives. Such a study is required by the military as part of the justification for developing or procuring major weapons systems. Increasingly, it is also being made in the civil sector for examining or evaluating various actual or proposed programs.

If an auditor is involved in a program review in which it is necessary to evaluate the adequacy of the program's justification, very likely he will have to examine a cost-benefit study. In reviewing such a study, he should examine several basic features. These are discussed below, using for illustra-

tion a cost-benefit study I supervised while I was with a private company.

The study<sup>1</sup> examined Army systems for bulk delivery of fuel to the field army in the 1970 to 1985 time frame. It was a 2 year, 40-man-year effort finished in 1969. It examined the many different components, such as pipe, pump engines, storage tanks, filters, and valves, as well as various systems using different combinations of components.

### Key Items

Eight key items to look for in eval-

<sup>1</sup> "Bulk Petroleum Facilities & Systems (BPFS), 1970-1985," CORG-M-355, Combat Operations Research Group, Technical Operations, Inc., November 1969.

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uating cost-effectiveness studies follow.

1. *Objectives*: Are the objectives clearly stated and appropriate to the problem? Are there quantifiable measures identified which will adequately show the degree to which the various alternatives meet the objectives?

2. *Alternatives*: Are all the major, viable alternatives treated or are the alternatives to the recommended system merely straw men?

3. *Assumptions*: Are the major assumptions explicitly identified? Are they assuming away an important part of the problem?

4. *Future environment*: Is only one threat, scenario, or future environment specified and used, or are several alternative situations treated to address the uncertainty of the future?

5. *Key factors*: Are all the key factors identified and treated, or are some held fixed or ignored?

6. *Appropriate model*: Does the model used in the analysis treat all the key factors, handle the environment and alternatives adequately, and employ the proper measures of effectiveness and cost?

7. *Sensitivity analysis*: Are values of key factors varied to identify the sensitivity of the system choice to variables whose future values are particularly uncertain?

8. *Comparisons*: Are alternatives compared either holding cost constant and measuring effectiveness or holding effectiveness constant and measuring cost?

## Objectives

Matching the objectives of the effort

with the real problem at hand is often very difficult because the problem is large and the study must be kept in reasonable bounds. This requires sub-optimization, which we can hardly ever avoid, but carefully choosing and defining the study are necessary so that the objectives of the analyzed portions are compatible with the total objectives. Too often the problem is divided by jurisdictional considerations, which often causes poor system definition.

The petroleum study encountered a jurisdictional problem which affected the choice of objectives. The Army engineers are responsible for the bulk petroleum system (pipelines and storage tanks) and the supply corps is responsible for delivering the fuel from the pipehead to the ultimate consumer. The engineers and the supply corps were planning to study their distribution systems. It was suggested that the two studies be combined, because the advent of new materials (and consequently costs) showed a need for determining the best place to end the pipeline and switch to trucks. Efforts to combine the studies failed, however, and the engineer study proceeded with the fixed assumption that pipelines would end at the rear of the corps areas.

Objectives must also be stated clearly so that quantitative measures can be chosen that directly measure the ability of the alternatives to meet the objectives. The petroleum study was to design a system that could carry and store the required fuel quantity and quality and be constructed in a certain time with mini-

mum cost. Selecting adequately sized components in sufficient numbers would meet the fuel goals; the use of enough men and equipment would meet the construction time requirement. Minimizing the cost is thus the principal objective. But how is it to be measured? We used a broad definition of cost as the use of scarce resources. In peacetime, dollars are a scarce resource to the Army, but in wartime trained manpower and shipping space are apt to be the scarce resources. Therefore, in comparing the systems, we measured the investment cost (dollars), the number of construction and operating personnel required, the weighted average training time, and the volume (for shipping).

### Alternatives

Too often the preferred new system and the current system will be the only alternatives presented in a study, and the current system may be quickly discarded because it cannot meet the requirements. More often alternatives are excluded because they belong to another organization. Army air defense studies often ignore the contribution of Air Force interceptors: The Strategic Air Command ignores Polaris in its bomber analyses. If this jurisdictional problem sounds familiar, it is. In GAO, an audit may examine only part of the problem and suggest certain improvements (alternatives) and may ignore other aspects of the problem and other alternatives because they fall in other divisions' jurisdictions.

The task force concept examines a problem from all aspects and treats all the viable alternatives. It has often been said that a good systems analysis/cost-benefit study will not only examine all the proper alternatives but may also develop a new best alternative.

BPFS tended to follow that course. The old World War II system using steel pipe was inadequate in meeting the fuel quality (cleanliness) standards demanded by the Air Force and was very expensive. On the other hand, there were so many new pipe materials, joining methods, types of pump engines, storage tanks, etc., that our problem was to sort through these to define some likely candidate systems.

### Assumptions

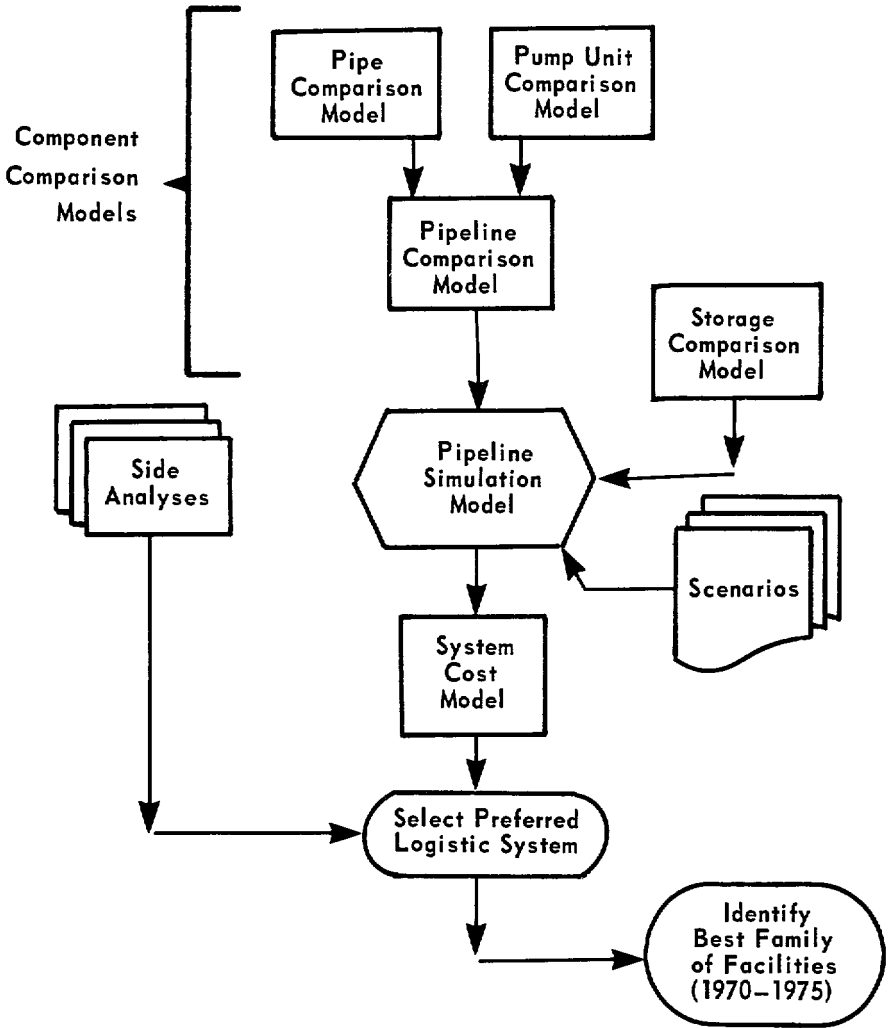
Any large study requires a multitude of assumptions. The most important ones apply to the other key areas discussed, such as the alternatives that are assumed. The threat characteristics, the details built into the model, and the system requirements all contain important assumptions. In the BPFS study, the Army required that pipe sections be capable of being handled by four men, two at each end. There was some difference of opinion about how much a man can lift in construction operations; we assumed 70 pounds per man.

### Future Environment

Any future environment is an as-

Figure 1

COST – EFFECTIVENESS ANALYTICAL PROCEDURES



sumption, but hopefully it is based on current data and a rational way to extrapolate into the future. The prime point to remember is that the future is uncertain; the postulated environment has very little chance of occurring.

Thus it is important to consider a variety of possible threats. Beware the study that treats only one threat (environment); it may be chosen to show off the preferred system to the best advantage. It is better to design a sys-

tem that will act reasonably well in most situations than to optimize the design for one situation and have it flounder or fail in other likely, but not examined, situations.

The BPFs study avoided most of the problem, since the Army supplied four scenarios. Two scenarios were dropped, however, for logical reasons: one was in an area with an indigenous oil supply and the other required a simple system with modest fuel requirements which were very similar to part of the system of the third scenario.

The third scenario required an extensive pipeline network with wide variations in fuel flow and storage requirements in various locations. This scenario was used to evaluate the candidate systems. The fourth scenario was used, as a check, to compare the best system from the third scenario against the current system to determine the cost advantage.

In domestic studies, the principle of examining a spectrum of future situations still holds. Will consumer acceptance of certain types of housing change and in what way? What if traffic forecasts, inflation rates, life styles, and distribution methods are different from those postulated? The more likely they are to change, the more important it is to evaluate the alternatives in several different environments.

### Key Factors

A key factor is any parameter of a system or the environment that has an

important effect on one of the measures of cost or effectiveness. It is difficult to know in advance what the key factors are, but the study should identify them, after determining their effect by treating them either in the main model or in a side analysis.

The BPFs has a large number of key factors—the pipe's material, length, weight, operating pressure, and friction coefficient. When the key factors of pumping stations and storage tanks are considered, the number of combinations becomes astronomical. All the key factors were covered at least to some degree. The methods used are discussed below.

### Appropriate Model

Seldom does a single model handle all the key factors, alternatives, and measures of cost and benefit or effectiveness. Usually there is at least a cost model that is separate from the benefit or effectiveness model. The large number of parameters in BPFs forced us to use a whole family of models and analyses, as shown in figure 1.

Even this chart is over simplified, because it deals only with the "logistic" system and the "permanent" pipeline system. We also had to examine components of an "assault" system, a temporary "over the beach" system designed for rapid installation and operation until the logistic system was constructed.

The initial phase of the analysis consisted of analyzing alternative pipe and joining methods by using the pipe



comparison model. Various grades of steel, aluminum, and plastic were considered, and from these the best candidates were identified. A similar analysis was made for pumps driven by gasoline, diesel, and turbine engines. The best candidates were identified by using the pump comparison model. The results of these separate analyses were used as inputs to the pipeline comparison model. Using this model, each pipe candidate was examined for a range of pressures, diameters, and throughput requirements using the least-cost pump required. From this model, a set of cost and performance curves (fig. 2) was developed for each of the primary material categories.

The installation of a number of storage tanks in a tank-farm complex was considered by using the storage tank comparison model. The number of each type of storage tank needed to satisfy the storage requirements was determined by considering the capacity of each tank. The top tank candidates were further considered in the simulation, along with the best pipeline candidates.

The selected pipeline and storage tank candidates, the scenario requirements, and ancillary data on system installation provided the inputs to the pipeline simulation model. On the basis of the scenario requirements for pipeline construction and the layout of the pipeline system for various ports of origins and delivery point destinations, the simulation model was run to determine the length of time required to construct each candidate system. Other runs were made in which the

manpower and equipment levels were adjusted to achieve the scenario construction-time goals (i.e., obtain equally effective systems). The system cost model was then used to calculate the significance of these differences and to show which system was economically preferable.

Analyses of the system cost model outputs and the assault system provided the basis for selecting the best family of facilities for the engineers to construct and maintain.

Along with the main study effort, a number of side analyses were made on pipe section weight and length, fluid velocities, reliability and maintainability, automated trunkline pumping stations, fuel quality, operating hours, and vulnerability. The results were used as constraints or operating criteria in the pipeline system analysis. For instance, automating the pumping stations was found to be too expensive. Only manned stations were used in the alternative systems.

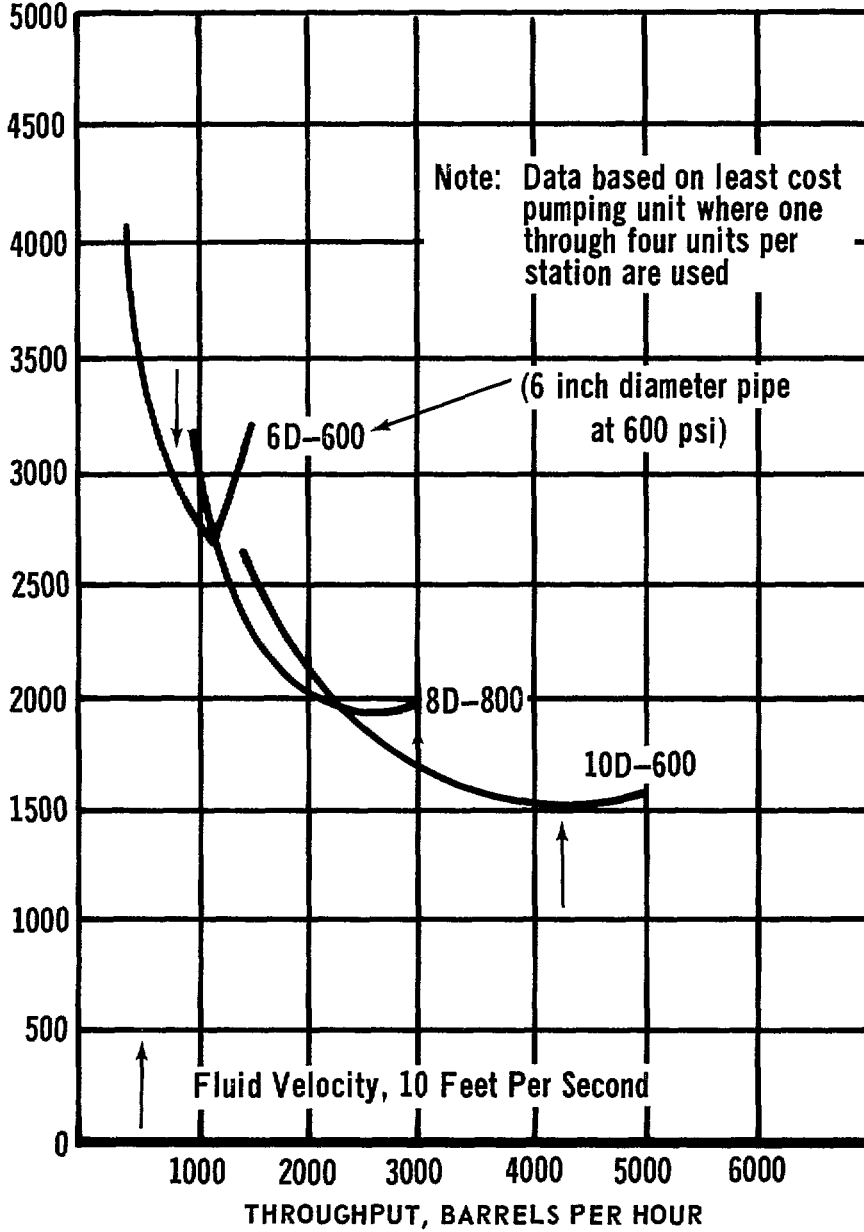
### Sensitivity Analyses

A sensitivity analysis is one wherein a potential key factor, or set of factors, is varied to determine the effect on the measures of cost or effectiveness. It may be done running the main model, submodels, or side analyses. For instance, in BPFs, the pipe diameter, operating pressure, type material, and throughput requirement all interact to affect the cost, particularly since the spacing (and thus cost) of the pumping stations is affected. Figure 2 shows the interrelationship for alumi-

Figure 2

### ENVELOPE FOR THE ALUMINUM FAMILY PIPELINE SYSTEM FOR VARIOUS THROUGHPUTS

COST, DOLLARS PER BARREL PER HOUR



num pipe. Only the lowest cost curve for each diameter is shown; the curves of other pressures are higher. This represents a double variable plot in which pipe diameter and pressure are traded off. There is an optimum operating pressure for a given diameter and an optimum diameter for a given flow.

### Comparisons

If both cost and effectiveness vary among alternatives, it is more difficult to make a choice. Is the extra performance worth the extra cost? The analysis should be designed, if at all possible, to hold either cost or effectiveness constant. A one-to-one comparison (e.g., one new ship v. one current ship) is misleading because the new ship is better but also is more costly. A comparison of two equal-cost ship forces (new design v. old) has more meaning. For BPFS, effectiveness was held constant by requiring that each system (considered in the simulation model) carry the required throughput and be constructed in the required amount of time. Thus the lowest cost system is preferred.

The men and equipment required to meet the specified construction time were input to the cost model to determine the cost in dollars, the number of construction personnel and operating personnel, the average training time,

and the volume. The plastic pipe system required the fewest men and the least equipment but dollar costs were considerably higher. Aluminum was the recommended material.

### Concluding Remarks

We have identified eight key aspects of cost effectiveness and have illustrated them by discussing a study of a rather complex hardware system. These key aspects, and the principles of application, are of general validity, however, whether the subject is a weapon system, software package, social program, or organization. If all questions asked in the key items section can be answered in a positive sense for a given study, it is a good one. If one or two aspects are negative, it does not necessarily mean the study is poor; it may be only incomplete in a small area or inadequately documented. The importance of the deficiency has to be assessed. A beautifully written and fully documented study may have all the key attributes, except it fails to consider one prime alternative.

One can always find something to object to in a study. The question to ask yourself is "Would corrections to these errors or omissions significantly change the results of the study or the recommendations it supports?"

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## Intergovernmental Audit Forums

*This article discusses the intergovernmental audit forums being organized by GAO in cooperation with Federal, State, and local audit organizations. These forums are designed to provide the means through which new intergovernmental audit relationships can be developed and to improve usefulness of auditing at each level of government.*

Recently, two instances of cooperative action occurred that would not have been possible a year ago. First, a State auditor was concerned regarding the interpretation of a provision of Office of Management and Budget Circular A-87. He did not believe that the Federal Government was giving full consideration to some State activities. The State auditor telephoned the chairman of the Southeastern Intergovernmental Audit Forum, *Marvin Colbs*, manager of the GAO Atlanta regional office, and asked him to set up a meeting to discuss the issue. The meeting took place and the matter was resolved to the satisfaction of both State and Federal participants.

Second, a Federal agency under pressure to develop and issue an audit guide on a new, broad, far-reaching program was advised, through the Na-

tional Intergovernmental Audit Forum, on how to best obtain State auditor recommendations on the draft concept and controls. As a result, the agency agreed to: (1) distribution of the draft to forum members to obtain a consensus of forum comment, (2) distribution to all State auditors by the forum executive secretary for direct comment to the agency, and (3) an extension of 30 to 45 days for the time of planned issuance of the guide.

### The Intergovernmental Audit Forum Concept

These two examples illustrate the potential value of the intergovernmental audit forum concept. The idea evolved from a series of actions. In December 1970, Edward W. Stepnick, the Director of Audits of the Depart-

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ment of Health, Education, and Welfare, wrote to *Ellsworth H. Morse*, then director of the GAO Office of Policy and Special Studies, suggesting that the Audit Standards Work Group organize such a body to coordinate the development of Federal agency audit guides, somewhat after the fashion of the AICPA industry audit guides.

In October 1971, a group of State auditors meeting with the Comptroller General mentioned that one of their problems was the lack of a receptive audience to hear their suggestions, comments, and complaints. Also, the Audit Standards Work Group in its plans for the implementation of the audit standards felt the need for such an organization to act as a catalyst to resolve problems that were anticipated as the audit standards were put to work in the Federal, State, and local governments.

These three activities were considered by GAO management, and the Audit Standards Group of the Financial and General Management Studies Division was directed to take the lead in organizing a national forum and a pilot test forum in Federal Region IV with headquarters in Atlanta, Georgia. At this time both forums are organized and meeting regularly on a quarterly basis. The organizing phase of the two groups was generally comparable. A series of organizing meetings was held followed by the adoption of a charter and the consideration of an agenda of items originating at all three levels of government.

## The Southeastern Intergovernmental Audit Forum

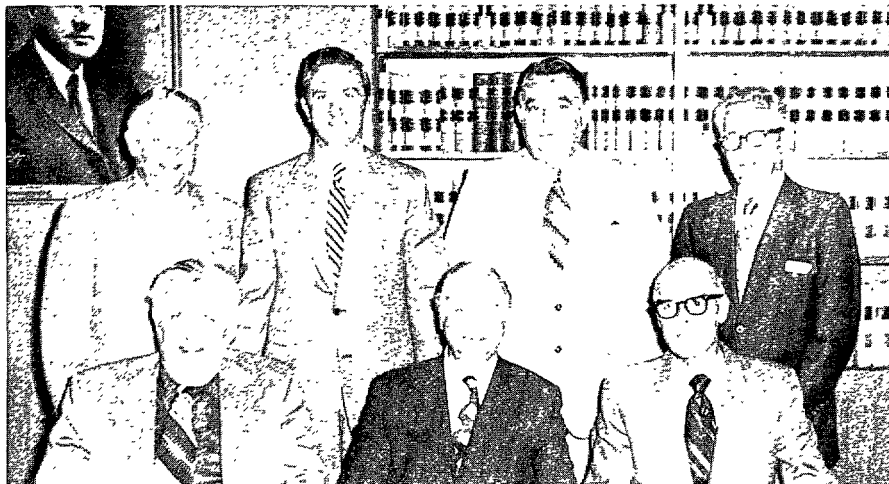
The Southeastern Intergovernmental Audit Forum first met in Atlanta in early December 1972. Attendees were invited by the GAO regional manager and included the directors of the Federal regional audit offices and the auditors of the eight States in the region. Alabama, Kentucky, and Mississippi, which have both elected and legislative auditors with postaudit responsibilities, are represented by both auditors. There are currently 17 Federal members and 11 State members and there will be 8 local representatives. Following are several of the basic characteristics of the forum as described in its charter.

1. The objective of the forum is to secure better communication in the governmental audit community and to achieve approved coordination and expansion of the usefulness of Federal, State, and local audits.

2. Functions of the forum are to:

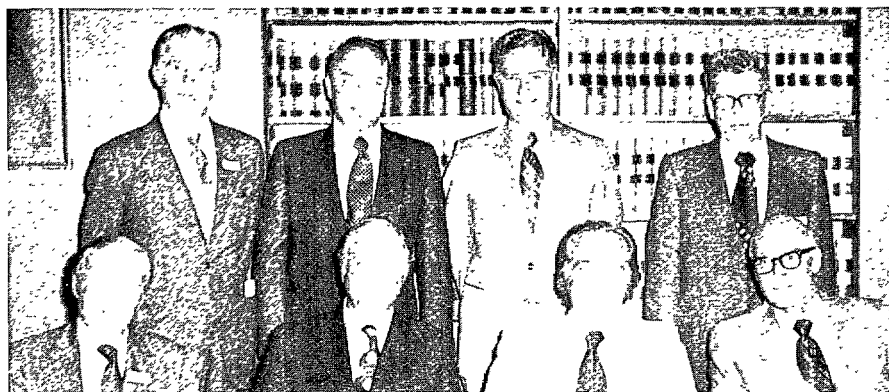
- Develop procedures to facilitate cooperation and exchange information between members.
- Identify and select problems or projects that will, when resolved, contribute significantly to efficiency and usefulness of intergovernmental auditing.
- Develop strategies and mechanisms for resolution of these problems.
- Facilitate discussion and resolution of interagency conflicts relating to audits.
- Attempt to remedy areas of no

**Charter Signing Ceremonies  
National Intergovernmental Audit Forum  
GAO Building, Washington, D.C., November 5, 1973**



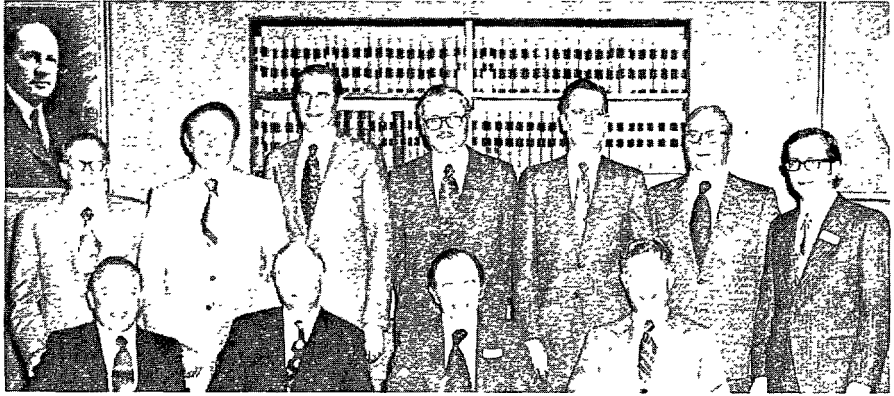
*From left, seated: Robert R. Ringwood, State Auditor, Wisconsin; Elmer B. Staats, Comptroller General; William R. Snodgrass, Comptroller of the Treasury, Tennessee.*

*From left, standing: John P. Proctor, State Auditor, Colorado; David B. Thomas, Auditor General, Illinois; Pierce J. Lambdin, Legislative Auditor, Maryland; and Ernest B. Davis, State Auditor, Georgia.*



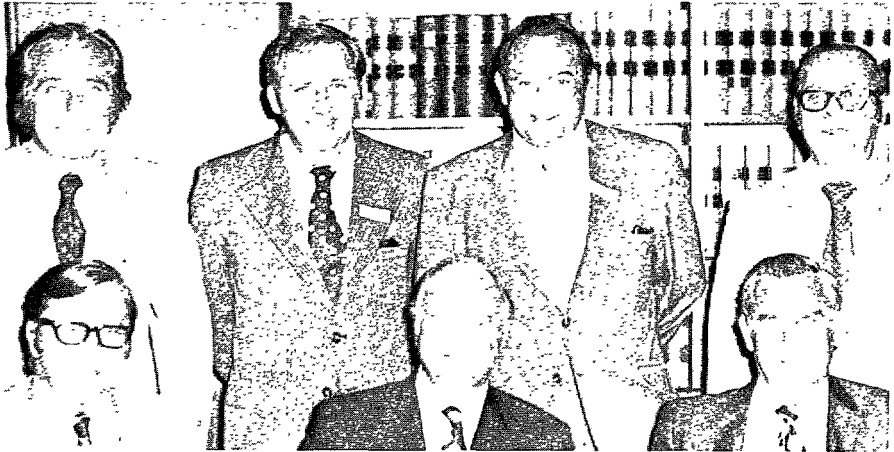
*From left, seated: William R. MacDougall, Executive Director, Advisory Commission on Intergovernmental Relations; Elmer B. Staats, Comptroller General; Bernard F. Hillenbrand, Executive Director, National Association of Counties; William R. Snodgrass, Comptroller of the Treasury, Tennessee.*

*From left, standing: Mark E. Keane, Executive Director, International City Management Association; Donald L. Scantlebury, Director, Financial and General Management Studies Division; E. H. Morse, Jr., Assistant Comptroller General; and Mortimer A. Dittenhofer, Assistant Director, Financial and General Management Studies Division.*



*From left, seated: Donald L. Scantlebury, Director, Financial and General Management Studies Division; Elmer B. Staats, Comptroller General; William Boleyn, Deputy Assistant Director of Intergovernmental Relations Division, Office of Management and Budget; E. H. Morse, Jr., Assistant Comptroller General.*

*From left, standing: Edward W. Stepnick, Director, HEW Audit Agency; Sidney S. Baumash, Director, Office of Audits, Department of Commerce; Allan L. Reynolds, Director of Survey and Review, Department of the Interior; Benjamin F. Robinson, Assistant Inspector General, Department of Agriculture; Harry Shepherd, Director, Office of Internal Audit, Department of Justice; Elmer W. Muhonen, Assistant Inspector General for Audit, Department of Housing and Urban Development; and John Lordan, Director, Office of Financial Management, GSA.*



*From left, seated: Gerald R. Hansen, County Auditor, Salt Lake City, Utah; Elmer B. Staats, Comptroller General; C. Robert Green, Treasurer, Maryland National Capital Park and Planning Commission.*

*From left, standing: Bernard F. Hillenbrand, Executive Director, National Association of Counties; Hugh J. Dorrian, City Auditor, Columbus, Ohio; Daniel Paul, City Auditor, Baltimore, Maryland; and Gerald J. Lonergan, Auditor and Controller, County of San Diego, California.*

audit coverage or duplicate coverage.

- Encourage other groups to contribute to advancement of forum purposes and activities.

3. The member representing GAO is permanently the chairman of the forum. A vice chairman is elected at large. Although it is not mandatory, it is assumed that the vice chairman will be a State auditor. GAO acts as the executive secretariat of the forum.

4. The quarterly meetings alternate between Atlanta and the member States.

5. Although the regional forum has no direct relationship with the national forum it will (a) provide information to the national forum on accomplishments, current work, and plans, (b) recommend to it courses of action, (c) refer problems that should be resolved on a national scale, and (d) receive and react to recommendations of the national forum.

6. The forum operates through a series of standing committees, namely:

- Executive Committee,
- Committee of State Auditors,
- Committee on Federally-Assisted Programs,
- Committee on Defense-Oriented Programs, and
- Committee on Auditor Training and Professional Development.

Two of the current projects are: the development of a directory and profile of the audit operations of each of the member Federal agencies and State organizations and the development of an inventory of Federal audit requirements. The first project is complete

and the directory has been issued, and the second project is still in process.

The forum is also considering the best means of incorporating local government participation. Future projects include development of training opportunities for audits of all member governments, maintenance of communication, and establishment of a central repository of audit report listings.

There seems to be a general feeling of optimism on the part of both Federal and non-Federal members that the future holds much good in store. The prevailing tenor of the meetings has been one of cooperation, assistance, and good will. As William R. Snodgrass, the Comptroller of the Treasury of Tennessee, stated: "We have asked for this forum so as to air our problems. We must now make good use of the forum or stop complaining that no one will listen to us."

### **The National Intergovernmental Audit Forum**

The national audit forum has had three meetings, although they were preceded by a series of meetings that covered plans for the development of the intergovernmental group and discussed related audit topics. Original membership in the national forum was at the invitation of the Comptroller General. The plans were to involve local government representatives from the beginning. Selection of non-Federal members was made for the State members by the Council of State Governments; for the local government



members by the Municipal Finance Officers Association. The present members of the national forum are shown below.

Federal members were drawn from

the Federal agencies with substantial grant programs, from the Department of Defense, and from the central agencies, Treasury, OMB, GSA, and GAO.

The charter for the national forum

## National Intergovernmental Audit Forum Membership

### Federal Government Members

Sid Baurmash, Director, Office of Audits, Department of Commerce

William A. Boleyn, Deputy Assistant Director, Intergovernmental Relations Division, OMB

Wilbur R. Dezerne, Director, Office of Audit, Department of the Treasury

John Lordan, Director, Office of Financial Management, GSA

Edward J. McVeigh, Associate Assistant Secretary for Program Review and Audit, Department of Labor

Ray Mondor, Director, Office of Management and Analysis, Civil Service Commission

Elmer W. Muhonen, Assistant Inspector General for Audit, Department of Housing and Urban Development

Raymond F. Randolph, Director, Internal Audit Division, Small Business Administration

Allan L. Reynolds, Director of Survey and Review, Department of the Interior

Benjamin F. Robinson, Assistant Inspector General, Department of Agriculture

Donald L. Scantlebury, Director, Financial and General Management Studies Division, GAO

Harold E. Sellers, Director of Audits, Department of Transportation

Harry Shepherd, Director, Office of Internal Audit, Department of Justice

Edward W. Stepnick, Director, HEW Audit Agency

### State Government Members

Ernest Davis, Legislative Auditor, Georgia

Pierce J. Lambdin, Legislative Auditor, Maryland

John Proctor, State Auditor, Colorado

Robert R. Ringwood, Legislative Auditor, Wisconsin

William R. Snodgrass, Comptroller of the Treasury, Tennessee

David B. Thomas, Auditor General, Illinois

### Executive Committee

Donald L. Scantlebury, Chairman

John Lordan, Vice Chairman

Edward W. Stepnick

Pierce J. Lambdin

Daniel Paul

Mortimer A. Dittenhofer, Secretary

### Local Government Members

Lamont Burger, City Auditor, Colorado Springs, Colorado

Hugh J. Dorrian, City Auditor, Columbus, Ohio

C. Robert Green, Treasurer and Director of Administration and Finance, Maryland National Park and Planning Commission

Gerald R. Hansen, County Auditor, Salt Lake County, Utah

Gerald J. Lonergan, Auditor and Controller, County of San Diego, California

Daniel Paul, City Auditor, Baltimore, Maryland

was formally signed on November 5, 1973, at the General Accounting Office at a ceremony chaired by the Comptroller General. Also present and participating were William R. MacDougall, Executive Director of the Advisory Commission on Intergovernmental Relations, William R. Snodgrass, Chairman of the National Legislative Conference (and a forum member), Bernard F. Hillenbrand, Executive Director of the National Association of Counties, and Mark E. Keane, Executive Director of the International City Management Association.

One of the basic issues relative to the charter was the approval of a method of selecting a chairman and vice chairman of the forum. The method chosen was that the first chairman would be from GAO and the vice chairman from GSA. Thereafter the offices would rotate back and forth. A permanent executive secretariat would be established in GAO.

The objectives of the national forum are to:

1. Provide a meeting place for the exchange of views and solution of common problems.
2. Promote acceptance, uniform interpretation, and implementation of the standards for audit of governmental organizations, programs, activities, and functions that were promulgated by the Comptroller General in 1972.
3. Coordinate audits and standardize audit guides.
4. Develop satisfactory solutions to mutual audit problems.
5. Promote the kind of understand-

ing and communication that will result in cooperative auditing and mutual reliance on each other's audits.

These objectives are to be accomplished through: (1) general meetings, committee activities, and technical group discussions, (2) development and promulgation of position papers, and (3) providing an effective means of communication between the forum and comparable groups, organizations, or councils. The committee structure is substantially the same as that of the regional forum except that a Committee on Practices and Standards is established. Meetings will be held quarterly.

It has also been agreed that observers from professional associations—such as the American Institute of Certified Public Accountants, the Federal Government Accountants Association, the Municipal Finance Officers Association, and the Institute of Internal Auditors—will be invited to attend and observe forum meetings.

### Conclusion

While these forums are an innovation, the need for such a device seems clearly established. Their success will be dependent on the commitment to cooperative action on the part of all the members. The early meetings of both the regional and national groups have been conducted in a harmonious yet spirited manner with a free, candid exchange of views. The psychological impact of knowing each other's positions and ideas can turn a normal adversary position into one of mutual consideration and assistance.

## On Doing Your "Homework"

*Before entering the audit premises on a difficult assignment, spend some time with the relevant literature. Unlike starting out "cold" at the site, you can be thrice-armed; knowledgeable about the subject and issues beforehand; well versed to lead productive interviews; and on the way to a well-supported quality report.*

The need for preparatory reading before beginning an audit assignment—doing the "homework," that is—varies with the difficulty of the subject and your own particular background.

Standardized audits of finances, inventories, settlement of accounts, and other routine reviews require little or no preparatory study. Other audits on an unusual terrain, in an expanding technology, or addressing a complex subject can be expedited considerably by literature review beforehand. "Proposal studies," a new kind of assignment concerned with before-the-fact emphasis, require homework. Investing some time in reading up on the subject can reap rich returns on the audit trail.

A number of reviews in recent years, some of which were GAO mile-

stones, benefited from such literature research. Thorough, objective, and discriminating, the reports manifested a resourceful understanding of their subjects and a competent grasp of the issues.<sup>1</sup>

### Standardized Audits

On familiar ground and in straightforward reviews in which criteria are clear cut, the experienced GAO profes-

<sup>1</sup> See, for example, GAO reports to the Congress, "Potential for Reducing Hospital and Administrative Costs under the Civilian Health and Medical Program of the Uniformed Services" (B-133142, Apr. 16, 1971) and "Need to Control Discharges from Sewers Carrying both Sewage and Storm Runoff" (B-166506, Mar. 28, 1973). The latter is one of a series of fine reports on the complexities of water pollution control.

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sional has little need for special preparation or literature research before the opening conference. In most such assignments the documents of the audit trail are the only literature needed. Intercommunication with agency people is seldom a problem. General business knowledge and sound auditing practice are quite enough to get the job done expeditiously and well.

### Special Terrains and Complex Subjects

There are many reviews, though, in which a substantial supplementary knowledge is half the battle, for example, reviews of program content where criteria are ambiguous or nonexistent and when the subject transcends "standards" or is itself inherently complex. A good acquired background in a technology or program evaluation methodology—major systems acquisition, hospital administration, aeronautics, wildlife management, etc.—can save us from false starts, blind alleys, and extensive orientation at the agency. On the other hand, if we start out "cold" on the audit site we have to learn the "ABCs" of the subject the hard way—the inefficient way. If you cannot distinguish the authentic jargon from diversionary static, you will be in for many a frustrating interview.

"Let your fingers do the walking," as the telephone company advises, at least for the first leg of the audit trail; a few weeks devoted to reviewing the literature, books, reports, hearings, journals, etc., about the audit subject can save considerable time and effort

in the field and can enhance one's self-confidence and capability.

With the homework under your belt, you will negotiate the audit trail more knowledgeably and quickly and will bring a more sophisticated understanding to the audit trail documents. And, to win acceptance on the audit site, GAO auditors can absorb most of the jargon before the opening conference. Then too, it is a courtesy to agency officials to be conversant with their specialty at the opener. We would be imposing on agency officials if we expected them to teach us rudiments we can learn on our own.

One audit team that did its homework before beginning a recent difficult assignment felt that its acquired background gained quick respect from the "insiders." Because the auditors had "boned up" on the subject, studied the major issues, and learned most of the nomenclature beforehand, the working relationship was more cooperative with much less feinting and sparing. Your interrelationship with the officials and experts, if you prepare yourself similarly, will be much more productive, and you will save their time as well as your own. The point is, you will be communicating on the same frequency from the start.

### Proposal Studies

Although many audit reviews can be expedited by preliminary research of the literature, it is not always a compelling phase. But in another field of endeavor now expanding on the GAO agenda, such background researching is usually essential. The

scope of these new assignments, termed "proposal studies" here,<sup>2</sup> is before-the-fact evaluation rather than review in retrospect as in our other audit work.<sup>3</sup>

What is this new field of GAO endeavor, the so-called proposal study? The Congress is now asking our help in analyzing and understanding proposed new programs of great complexity in major weapons, space, pollution control, energy, and other programs. The Congress wants to know, before acting on such executive branch proposals, whether they are soundly conceived and will be ultimately worthwhile. Or is a proposed new program likely to duplicate existing capabilities or improve on them only by an insignificant margin? Have proven program alternatives been fully considered and set forth objectively?<sup>4</sup>

These are momentous issues. There are huge sums, usually in the billions, to be risked downstream on final development and production of major systems. In some of them, too, the Nation's well-being and security will be affected.<sup>5</sup>

<sup>2</sup> See "A Method of Format for Proposal Studies." *The GAO Review*, Winter 1972.

<sup>3</sup> To avoid awkward language construction in this article, both audit and proposal study actions are couched in the present tense.

<sup>4</sup> This is one of several inevitable questions which the Comptroller General anticipates. See the "U.S. General Accounting Office: Purposes, Functions and Services," July 1973, pp. 1 and 2.

<sup>5</sup> "Required reading" for the auditors and proposal analysts who address major systems is "Acquisition of Major Systems," in the "Report of the Commission on Government Procurement," vol. 2, pt. C (Government Printing Office, Dec. 31, 1973).

In analyzing such proposed programs, you will be dealing largely in futures. Of course the past cannot be neglected since the past is indeed prologue; the documented history of predecessor and alternative programs can be quite instructive. The main thing about proposal study subjects, though, is that they are dynamic and ongoing, as is their literature.

### Scope of Research

To develop a comprehensive but discriminative report about a complex audit subject or an executive branch proposal, you will find it helpful or even essential to gain understanding of a technology or program evaluation methodology; the kinds of issues and their purport; how practice compares with theory; what the mission's history can teach; and how the environment and scope of operations interrelate. If the subject is a major weapon system, for instance, you need to learn about the possible threat which the weapon is to counter, expected tactics, the weapon's coordination with other mission-capable systems, and possibly enemy countermeasures as envisaged by the Department of Defense. The idea is to present your subject not in an isolated way but in its total environment—to give the Congress a three-dimensional view, as it were.

In proposal studies and in complex audits where standards are elusive or nonexistent, you will want to pull together from a number of sources information about alternative options that might be used. You would have to

research not only the salient pros and cons about the alternatives but also a spectrum of experts' views as well. You will scan many documents and other readings. You should interview officials of rival institutions and outside experts, as well as the sponsors, to unearth suppressed problems. Perhaps you will work with consultants and GAO's own in-house specialists.<sup>6</sup>

### Research Sources

The literature in a field of study consists of official documents (including those of the audit trail), reference works, books, theses, journals, and the press. The sources are Government agencies (don't forget Allied Governments whose reports may be more dispassionate on certain programs), contractors, "think tanks," university study groups, publishers, and private authors—opposers as well as proponents. Their quality and objectivity vary; your basic auditor's skepticism should by no means be suspended however distinguished the sponsor or author of the information may be.

The first task is to assemble a select bibliography or list of readings that bear on your subject. There are three principal sources: the library at GAO or at the regional-office city library, the sponsoring and rival agencies, and

<sup>6</sup> A particular assignment, audit, or proposal study may have so many facets that a project management or task force approach may be most effective. To illustrate, the purchase of a major system from abroad would justify teaming together economists and foreign trade specialists with system analysts and weapon engineers.

the research information centers. You should probably consult all three, perhaps in the sequence discussed below if the subject is very new to you.

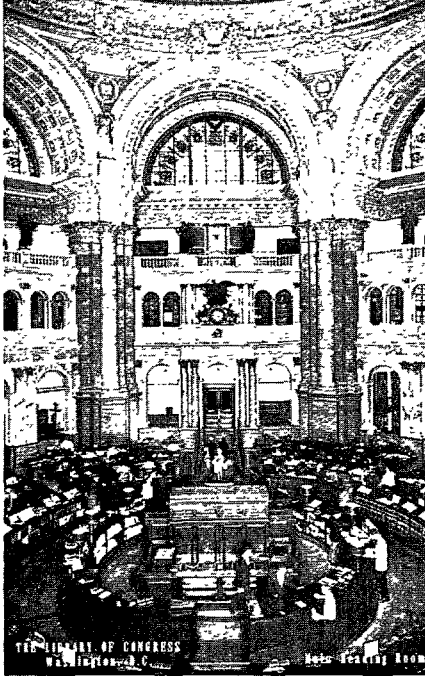
### The Library

You will often find it very useful to discuss your subject and scope with a librarian. "Library Science" is an apt designation; a trained librarian can save you much futile searching. The librarian can identify catalogs, references, and special collections that you might otherwise never learn about.

You may want to browse through "Books in Print," "Business Periodicals Index," "Bibliographic Index," "Book Review Digest," and other such reference works found on the shelves of practically all libraries. They list, by subject matter, works which you might want to review for general insight, but there will be writings by distinguished authorities in your assignment field too. The learned journals, such as *Foreign Affairs* and *American Political Science Review*, if they relate to your subject, can be consulted for authoritative book reviews.

In constructing your bibliography of books and journals you would be wise to rely on authors eminent in their field and whose works are sponsored by leading universities and reputable publishing houses. Their footnotes, too, are likely to be additional reliable sources.

Although the GAO library's collection of literature is limited, as it always will be because of the very broad GAO coverage, our library is an excel-



lent source. It can get practically any book or journal extant, within a few days of your request, from the Library of Congress or from the many Federal agency libraries across the country. Generally, such materials may be kept for 2 weeks and some may be renewed for a like period.

What are our customers' views? You will want to review hearings and committee reports to gauge congressional interest in your subject and to get a preview of the major issues as they might be seen from the Hill. Depending on their recency, these documents can be found in the GAO library or the Legislative Digest section.

#### Government Agencies as Sources

To identify the internal documents

of interest, you will, of course, scan the sponsoring agency's directives, instructions, and procedure manuals. The documents of the audit trail will be the focus of your work. In the more complex assignments, before seriously tackling the internal documents, you should become well read in the "extramural" literature. In the documents of the sponsoring agency and from its adherents, though, you will be hard put to find negative views and suppressed problems. A rival agency's documentation of its preferences or alternatives could be more illuminating.

#### Research Information Services

There are a number of nonprofit research centers, governmental and private, that will produce bibliographical lists customized to particular needs. You will find the main research information services described in a very welcome, useful brochure, "Program Evaluation: Legislative Language and User's Guide to Selected Sources," published for GAO use by the Financial and General Management Studies Division (June 1973).

If your assignment concerns defense systems, for instance, this guide directs you to the Defense Documentation Center (p. 13) which has organized over 1 million documents by finely detailed subject matter. If your subject is hospital administration or transportation-urban land use, the Cooperative Information Center for Hospital Management Studies (p. 23) and the Highway Research Information Service (p. 31) are described.

The guide lists over 20 research in-

information services along with directories to other research centers. Many of these services are free to GAO. They can be thought of as added valuable resources to be commanded for many different assignments.

To obtain a bibliography from one of these information services, send a succinct statement of your assignment scope, the timespan of interest (e.g., documents published from 1969 to date), and a list of "descriptors" or key words which characterize your subject. Any one document may be in the computer memory bank under a dozen or more descriptors which stake out the document's scope. If your subject is a NASA space program, for example, you might choose such descriptors as:

- space probes,
- manned spacecraft,
- navigation satellites,
- space navigation, and
- navigation computers.

It is hard to predict how large a bibliography your chosen descriptors will retrieve from the computer. To avoid one of unmanageable size, you could start off with three or four very specific descriptors. You can reorder later with additional descriptors when you are deeper into the subject.

Most information services deliver a customized bibliography within a few days. The bibliography lists the titles and addresses of all works subsumed by your descriptors and assignment scope. Each entry, too, contains an abstract or resume of the document. (See illustration on p. 61.) You then choose those entries that appear prom-

ising and request them by their assigned numbers. The requested documents usually become your property since most information services do not want them returned.

### Research Mechanics

As you receive the various books, reports, and journals, you can quickly scan them to weed out those that are irrelevant, or not directly helpful. Many works will not live up to their promising titles and abstracts: they are either too broad or too narrow in scope or discrepant in their information. (Said Francis Bacon (1561-1626), "Some books are to be tasted, others to be swallowed, and some few to be chewed and digested.")

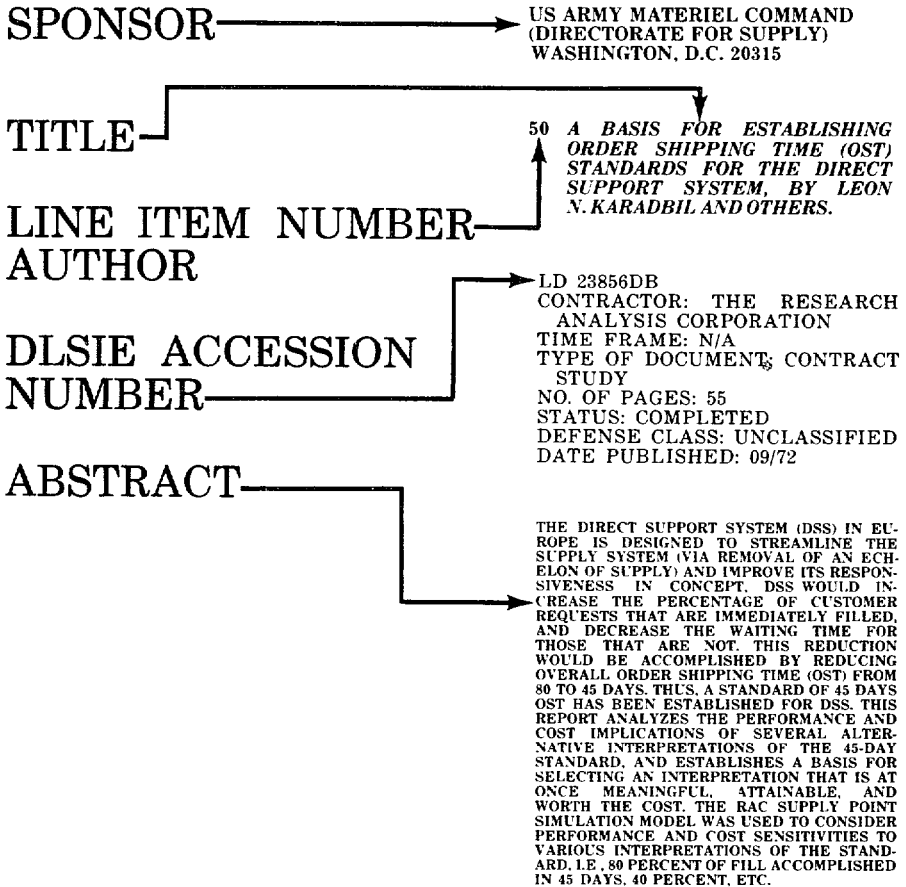
It is not unusual to find dozens of works which bear fruitfully on your subject. To keep a grasp on the information, make notes of the salient points in each work and also head up each set of notes with the document's abstract or summary.

Each of us has his own style of notation for interviews and readings. Some prefer index cards, others like notebooks or bound journals. The page numbers of each notation should be identified. Then as report development begins, you can easily review the basic document and index your report for the referencer. A good idea is to reproduce a complete set of notes for each audit team member. The notes should be reviewed at frequent intervals by each member to keep on top of the subject.

Whatever are your mechanics, you



## TYPICAL CITATION AND ABSTRACT



must bring your research to a stop at some point and get on with the review; this is not always easy. Any subject may appear endless as you get deep into it, but you can get lost in a thicket of trivial issues. You must discipline yourself to call a halt after a reasonable period even though you might still be intrigued and feel unsatisfied with your coverage.

### What to Look for

“\* \* \* in research as in life, one is far more likely to find what one looks for than what one neglects.”<sup>7</sup>

<sup>7</sup> Jacques Barzun and Henry F. Graff, “The Modern Researcher” (Harbinger Books; New York, Harcourt, Brace & World, Inc., 1962), p. 160.

How to choose information offered in the literature? The choice depends on the completeness and objectivity of the sources, the nature of the subject, and the assignment scope. Your maturing hypothesis will also guide the facts and perspectives you make note of. In the beginning, you must be imaginative in your notetaking since you are not yet sure of what is wheat and what is chaff. As your report outline firms up and interviews begin, you will be isolating the major issues and discarding the trivial ones. The main thing to seek in your reading and interviews is intelligence that can be synthesized into a truly useful report to the Congress (you do not want to rehash what is already well known).

Some of the information characteristics to consider and questions to resolve from your readings and interviews are:

—*Emphasis*: Is there important information that has been slid over or not presented explicitly to top agency officials or the Congress? What problems appear downplayed? Can the data be amalgamated in other ways to suggest different inferences?

—*Objectivity*: Is the information self-serving of the advocates or proponents? Are the assumptions and promises realistic? Where are the biases and doctrinaire views? Whose ax is for grinding, or whose ox is to escape going?

—*Candor*: Is the information straightforward or equivocal? Must you read between the lines to get the true import? What

seems to be the intent? Can the apparent import be validated?

—*Conflict*: Are interagency or intra-agency views at odds with each other? How do rationales compare? How do other experts' views differ and on what grounds?

—*Sensitivity*: What are the principal variables (e.g., cost, performance factors, and schedule)? How would each one react to the movement of the others?

—*Unknowns*: What are the likely uncertainties and risks? Which are recognized and what unanticipated unknowns could occur? Are they to be dealt with in an orderly and timely manner?

—*History*: Was a similar program tried before and, if so, with what results? What are the lessons learned? Is the present program significantly and justifiably different? Have important objectives or features changed since inception and with what effects?

—*Background*: How does the program fit into the agency's charter, the national scheme of things, and congressional policy? What are the variables in the system's environment and intended use?

—*Costs*: What are the cost vectors? Are there cost-effectiveness implications? How good is the cost estimating and tracking? Will the Government get a good return on its money from this particular program?

## Overview

The bulk, but not all, of the literature review should be done before starting the fieldwork, conducting the interviews, or seriously analyzing the issues. After you acquire a good background in the issues, your investigation should become an iterative process. That is, you leaven your literature findings (including those of the audit trail documents) by what you learn in the interviews and vice versa, until the issues are satisfactorily defined.

This process is like circumscribing a cone to arrive at the point (issue).

You may, of course, return more than once to conflicting documents and interviewees to narrow the sphere of disagreement. You will hardly find close agreement among your sources except perhaps on accomplished facts. It is the inferences from facts upon which honest men differ. You can condense the grounds for these differences, however, by the depth and scope of your research, the care with which you identify unknowns and uncertainties, the clarity with which you segregate inferences from facts, and the rigorous objectivity of your report.

## Analysis of the Management Scientist

\* \* \* it is standard operating procedure for most management science people to strip away so much of a real problem with "simplifying assumptions" that the remaining carcass of the problem and its attendant solution bear little resemblance to the reality with which the manager must deal. The time constraints, the data-availability questions, the people problems, the power structures, and the political pressures—all the important, nasty areas that lie close to the essence of management—are simplified out of existence so that a technically beautiful, and useless, resolution may be achieved.

*C. Jackson Grayson, Jr.*

"Management Science and  
Business Practice,"

*Harvard Business Review*,  
July-August 1973

## GAO'S Contribution to the Federal Budgetary Process

*This article summarizes the efforts of the audit staff assigned to the National Institutes of Health to respond to a data-gathering request from an appropriation committee and suggests more specific ways in which GAO might obtain and analyze budgetary data for congressional committees.*

In the article "Improving Congressional Control Over the Federal Budget" in the Summer 1973 issue of *The GAO Review* the Comptroller General discussed traditional methods of GAO assistance to congressional committees concerned with the annual authorization and appropriation processes. In addition, he suggested several other ways for GAO to assist these committees, including responding to requests to obtain information or analyze data.

Four audit staffs of the Manpower and Welfare Division recently responded to such a data-gathering request from the Senate Appropriations Subcommittee for the Departments of Labor and of Health, Education, and Welfare. This article summarizes the efforts of the staff assigned to the National Institutes of Health to meet that request and suggests more specific ways in which GAO might obtain and

analyze budgetary data for the committees.

In contrast with the administration's fiscal year 1973 budget, the budget for fiscal year 1974 contained substantial reductions in the amounts requested for several health programs including funding for certain research, research training, and health manpower programs administered by the National Institutes of Health, Department of Health, Education, and Welfare. Members of the Senate were concerned with the impact of the cutbacks and requested GAO's assistance in supplying the appropriations subcommittee with information that could be used to show the impact.

### GAO's Role

The scope of GAO's work was refined in later discussions with the Subcommittee staff. The specific request

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Mr. Rabkin, a supervisory auditor in the Manpower and Welfare Division, joined GAO in 1969. He has a B.S. degree from the University of Scranton and has recently completed requirements for an M.S.A. degree from The George Washington University.

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was to gather factual data from agency records, interviews, and other sources that either would show the impact of the cuts or could be analyzed by the Subcommittee staff to show impact. The impact that the Subcommittee staff was interested in primarily was the effect that the budget cuts would have on (1) the health of the public, (2) the financial condition of universities that performed biomedical research, and (3) the future supply of health professions and biomedical research personnel.

The decision to limit GAO participation to a fact-gathering exercise was found to be necessary because of the time constraints which only allowed GAO about a month and a half to collect and deliver a substantial quantity of data. At the time the discussions took place with the Subcommittee staff to define GAO responsibility, the House had already reported out the Labor-HEW appropriation bill—which called for \$2.5 billion more than the amount included in the President's budget request—and the hearings were being held in the Senate and were almost complete. The Subcommittee staff needed additional information to assist it in preparing data for the Subcommittee members.

It was quite evident from the outset that the Subcommittee needed staff assistance to do fact gathering. Although the Subcommittee would have preferred to have GAO make staff analysis of the data gathered, time did not permit; consequently the division of responsibility required that GAO take on a massive fact-gathering responsi-

bility and the Subcommittee staff would perform the analysis and draft the Subcommittee report. GAO was to provide the material to the Subcommittee staff informally, without conclusions or recommendations.

The Congressional Research Service of the Library of Congress was also involved in this request. Its Education and Public Welfare staff prepared legislative histories for each of the programs of concern to the Subcommittee. They analyzed the areas of budget cuts and the administration's rationale for those cuts.

The three programs affected at NIH were administered by no less than 16 organizational components. Because NIH operates under a strongly decentralized management, the GAO staff at NIH had to obtain the needed data from each of those components, as well as seek overall information from the Director of NIH and his staff.

Because of the time constraints and the general nature of the programs involved, the audit staff developed a simple questionnaire that was informally distributed to the heads of the NIH components. The purpose was to establish a frame of reference for the types of data we were seeking. The questionnaire asked for reports, studies, analyses, or other information that had been prepared either showing impact of the administration's budget or showing how program results would be affected by different funding levels.

For example, one question related to the number of research grants each of the Institutes would be able to award under different funding levels. The

questionnaire also asked for qualitative information, such as the effect of different funding levels on the ability to attract new investigators into the biomedical research field.

The GAO staff solicited the assistance of the NIH Director's office in distributing the questionnaires. Within 2 days after their distribution, the GAO staff contacted the heads of the constituent agencies to discuss the request and to receive any data or opinions on impact.

Arrangements were made with Department officials to work with a specified official at each constituent agency in order to facilitate obtaining the material and to allow the agency the opportunity to know of the material being gathered.

The variety of data the staff received was exceeded only by its volume. The GAO staff assembled the data by organizational unit (National Cancer Institute, National Heart and Lung Institute, etc.) rather than by program area (research, research training, and health manpower). All totaled, there were about 200 documents gathered which filled some 20 volumes. While collecting the data, the GAO staff sorted it out, selected the important parts, and arranged it by subject matter into the volumes. Each volume was tabbed, and pertinent paragraphs were highlighted with underscoring. A table of contents was furnished for the Subcommittee staff's quick reference to the most important parts of the material.

After accumulating the data and before turning it over to the Subcommit-

tee, in accordance with the agreement with the Department officials, the NIH data was presented for review to the central NIH official named as liaison on this project.

Realizing that the Subcommittee staff would be under even tighter time constraints than the GAO staff had experienced, the audit staff selected about 25 documents which clearly indicated the impact to be caused if the administration's budget were passed. These reports, plans, memos, etc., were placed in a "highlight" volume for the Subcommittee staff's easy reference.

The only problem with that approach was the unevenness of the highlight volume. Certain of NIH's organizational components had gone to great lengths to document the impact of cuts in their research budgets or manpower programs. Other components did not have such information, and, on the surface, a reader of the highlight volume could assume that funding cuts for those organizations' programs would have no impact.

To prevent such misleading assumptions, the GAO staff briefed the Subcommittee staff on what information had been gathered, how it was organized, and how it could be used. Before GAO's briefing, the Congressional Research Service reported on each program's legislative history, legislative intent, and the administration's rationale for the proposed budget cuts.

Considerable discussion among the congressional staff, the Congressional Research Service, and GAO followed. The Subcommittee staff was impressed with the amount of work done, the

material presented, and the ability of the staff to intelligently discuss the subject matter.

### **Future Role**

With proper timing and planning, GAO's contribution can go beyond mere data collection. In the exercise described in this article, the audit staff could have performed analyses which would have given the Subcommittee staff better insight into the actual impact of the funding reductions without requiring the Subcommittee staff to make such analyses. Further, with a more realistic time frame, GAO could have verified, on a sample basis, some of the data supplied by the agencies in an effort to determine its completeness and authenticity for use in justifying certain budget allocations.

The appropriations committees recognize the importance of the non-Federal contribution to the decision-making process. Likewise, GAO can appraise the arguments raised by the public interest groups or lobbies after the administration's budget has been announced.

As has been done in the past, GAO can contribute significantly to the ap-

propriations hearings by assisting the committee staff in preparing questions for the agencies to clarify issues raised in support of the budget. After the hearings, GAO input can be effectively used in producing the committee's report to accompany the appropriations bill.

### **Conclusions**

GAO definitely has a role to play in the appropriations process. The extent of that role and the benefits to be derived from such a contribution are, of course, subject to the request and control of the Congress.

If GAO should become more involved in the budgetary process, it is obvious from the work done in this case that GAO can contribute substantially. It is also obvious, as in other assignments, that timing and planning for such work will determine in large measure the actual contribution GAO is able to make.

There is good reason to have GAO collect, analyze, and digest data relative to budget requests as part of the congressional process of taking an independent and objective look at those requests.

## GAO—A Valuable Resource

*The ranking minority member of the House Government Operations Committee finds GAO to be a valuable source of information for the Congress. He recently informed the Comptroller General that "You and your people are nothing short of miraculous in your ability to ferret out information in the political atmosphere of Washington."*

With increasing frequency, GAO reports have broken into the national spotlight focusing public attention on failures of both parties to comply with provisions of the Federal Election Campaign Act of 1971, cost overruns in the development of military weaponry, the management of the United Mine Workers pension fund, etc. Most people draw a blank, however, at the mention of the U.S. General Accounting Office, not realizing that it is one and the same as the GAO. The decision to have GAO investigate the costs of making Presidential homes safe, in addition to the inquiry which my own Committee will begin shortly on the same subject, will undoubtedly erase more of the public's unfamiliarity with GAO.

The General Accounting Office is not a Federal bookkeeping service. It was created by Congress in 1921 to serve as Congress' check on the job Federal agencies are doing in implementing legislation as well as providing Congress with information concerning agency operations and

expenditures. Employing nearly 5,000 workers, 4,826 of whom are professionals (lawyers, accountants, auditors, engineers, economists, mathematicians, statisticians, public administrators, etc.), the agency's chores range from investigating the management of Penn Central Railroad to examining the expenditure of tax dollars by Federal agencies.

Even in cynical, political Washington, there is tremendous respect for the objectivity and thoroughness of GAO "products." I have had ample opportunity to view firsthand GAO's expertise since my Government Operations Committee is charged with overseeing the agency's operations. The reputation which GAO enjoys in Washington has been won over a period of many years under the direction of several different men. GAO's current director, Elmer Staats, who has a long history of public service, served with me for four years on the Government Procurement Commission and exhibited an outstanding knowledge of what procurement policies in



the Federal Government are and what they should be.

GAO's responsibilities have been broadened by Congress several times, most recently in 1970 with the passage of the Legislative Reorganization Act which asks the Comptroller General to assist Congressional committees in evaluating Federal programs and making cost benefit studies to determine how well those programs are able to achieve the objectives set for them by Congress. To accomplish such tasks, GAO investigators are given broad access to the records and files of government agencies. GAO investigations can be initiated by request from Congressional committees or individual members. Other studies of Federal agencies are made on a periodic basis and the results reported to Congress. GAO's efforts can best be evaluated by a quick look at some of its less publicized, recent inquiries.

For instance, the Food and Drug Administration is required to provide assurance that food products shipped across state borders which include most of the foods consumed by Americans are processed under sanitary conditions and are completely safe and wholesome. After an exhaustive, three year investigation, GAO concluded that sanitary conditions in the U.S. food industry have deteriorated and that FDA did not know how extensive these unsanitary conditions were. FDA therefore could not provide the protection which the law required. GAO recommended that the Congress consider the adequacy of FDA's inspection coverage of food plants with the resources available under its current appropria-

tion. Hearings on this subject have just begun before a subcommittee of the Senate Education and Labor Committee.

In another GAO study, 13 weapon systems with an estimated cost of \$46 billion were examined to determine if the testing procedures were sufficient. GAO's observations included the following:

- Practices used to establish objectives for testing generally were adequate
- Most weapon systems did not have adequate plans for conducting tests
- Testing and evaluation for most weapon systems were not accomplished in a timely manner
- Most test reports were adequate, but their value was diminished due to inadequate test planning and actual test procedures
- Complete and valid test and evaluation data was not available prior to those times in the acquisition cycle when decisions had to be made.

Members of the House and Senate have made ample use of the GAO report in the debate over military appropriations.

In another report GAO found that the Postal Service was not collecting substantial revenues to which it is entitled because it permitted nonprofit organizations which were ineligible to mail at reduced postage rates.

With the seemingly endless array of Federal agencies and programs, GAO is able to provide Congress with the objective information it needs to de-

termine how our tax dollars are to be used and to pinpoint needless expense and programs which don't work. Without GAO, Congressional oversight ac-

tivities would be much more difficult. With it, Congress has an invaluable tool to check on the efficiency and economy of the Federal government.

### GAO's Bid Protest Business

Whatever the exact range of its authority the history of the GAO, now a mature 50 years of age, reflects an increasing recourse to the GAO for bid protest rulings. The certifying or disbursing officers may seek the advantage of an estoppel against future GAO questioning of payments. As for the bidder the GAO was viewed for years as the sole forum "filling the vacuum left by judicial abandonment of the contract formation process."

The GAO has established a corps of officials concerned with compliance by procurement officials with provisions of applicable statutes and regulations. Its rulings provide review by an agency that is independent of the executive departments engaged in the procurement. The volume of its bid protest business has been substantial, and while the proportion of rulings recommending cancellations of executed contracts is small, there is a not insignificant record of "corrective action" required by the GAO, in addition to corrective action stimulated within the Executive Departments to obviate future recurrence of the problems.

*Wheelabrator Corporation v. Chafee*  
U.S. Court of Appeals,  
District of Columbia Circuit,  
455 F. 2d 1306 (1971)

# The Watchdog Reports

*The following items from past issues of The Watchdog, the monthly newspaper of the GAO Employees Association, are republished for the interest of GAO's present professional staff.*

## **Why Don't They?**

November 1954

Q. Why don't they change the name of the U.S. General Accounting Office to the United States Government Accounting Office?

A. This idea seems to have some merit. It requires, however, an act of Congress to make the change. Whether this Office would request legislation for this purpose would be up to the Comptroller General to decide. The term "General Accounting Office" was agreed to in conference on the bill which ultimately became the Budget and Accounting Act, 1921. The House bill had proposed the term "Accounting Department" and the committee report stated that the change was made in view of the special significance which attaches in Government terminology to the word "department."

## **J. Campbell Nominated GAO Head**

November 1954

Joseph Campbell, member of the Atomic Energy Commission, has been nominated by President Eisenhower to be Comptroller General of the United

States. The nomination of Mr. Campbell was submitted to the Senate on November 9.

Born in New York City on March 25, 1900, Mr. Campbell is on leave from his position as vice president and treasurer of Columbia University. Mr. Campbell resides at Cooperstown, N.Y., and received his education at Public School 132, Townsend Harris Hall, and Columbia University, all of New York City.

Appointed a member of the Atomic Energy Commission in July 1953, he is a certified public accountant in New York and Connecticut.

## **Regional Managers 1954 Conference**

January 1955

The annual conference in Washington of all Division of Audits regional managers was abandoned this year in favor of meetings of smaller groups at three locations: Old Point Comfort, Chicago, and Denver.

The regional managers from Chicago, Dayton, St. Louis, Kansas City, Cleveland, Detroit, and St. Paul met in Chicago for discussions throughout the week of September 19. From

October 11 through 15, meetings were held in Old Point Comfort with regional managers from Philadelphia, New York, Richmond, Boston, and Atlanta participating. During the first week of November, Denver was the scene of a meeting of the regional managers from New Orleans, Denver, Portland, Seattle, San Francisco, Los Angeles, and Dallas.

The director of audits, the assistant director, Field Operations, and the administrative officer of the Division of Audits attended all three meetings.

Present at the Chicago meeting were Robert F. Keller, assistant to the Comptroller General; Ellsworth H. Morse, Jr., associate director of audits; Messrs. McDowell and Stovall, assistant directors of audits; and R. L. Rasor.

Messrs. Keller, Morse, Stovall, and Rasor also attended the meeting at Old Point Comfort. They were joined at this meeting by I. S. Decker, associate director of audits; Mr. Piper, assistant director of audits; and L. V. Denney, assistant general counsel.

Owen A. Kane, Jr., and J. E. Welch represented the Office of the Comptroller General and the Office of the General Counsel, respectively, at the Denver meeting. Also in attendance at this meeting were Mr. Denney; Messrs. Samuelson, Piper, and Stovall, assistant directors of audits; J. H. Hammond; and Mr. Rasor.

No "speeches" were made at the meetings. Instead, roundtable discussions of administrative and technical problems were held. Questions that had been referred to Washington dur-

ing the course of the year by some of the regional managers were answered for the benefit of all. Other questions were raised during the progress of the meetings, which were conducted in a most informal manner.

### GAO's New CPAs Honored by Office

February 1955

The associate directors, assistant directors, and supervisors of the Division of Audits, were hosts at a dinner at the Officers Mess, Naval Gun Factory, February 4, which honored its new CPAs.

Annually, since December 1948, a dinner has been given in honor of our new CPAs. Including the present group, the Division of Audits has paid tribute to a total of 114 men who have received their certificates.

James L. Thompson, Jr., systems accountant, Accounting Systems Division, was among the top 10 men in a field of 18,798 candidates in the spring examination. He was presented with a special award.

Robert M. Gartner, Division of Audits, received the highest average score given in the District of Columbia for the November 1953 examination, and Stanley S. Warren, Division of Audits, received the highest average score given in Virginia for the May 1954 examination.

Among GAO officials who attended the dinner were: William L. Ellis, chief, Office of Investigations; John F. Feeney, administrative officer; T. A. Flynn, director of personnel; Walter F. Frese, director, Accounting Systems

Division; Harrell O. Hoagland, director, Transportation Division; Robert F. Keller, Assistant to the Comptroller General, and Robert F. Brandt, head, Planning Staff.

#### Accounting Systems New Appointments

January 1955

Lawrence J. Powers was promoted from assistant director to a position of associate director. Mr. Powers came to Accounting Systems Division in August 1952 from the Office of Comptroller, U.S. Army where as a lieutenant colonel he was Chief of the Industrial Facilities Branch. Previous to this military assignment Mr. Powers was associated with the Department of Agriculture. In 1950, he was appointed Deputy Director, Fiscal Branch, PMA. Mr. Powers holds a degree from the University of Maryland.\* \* \*

The responsibility for the immediate direction of specific phases or projects within the broad functional areas will be that of assistant directors on a flexible assignment basis. The following, Lowell B. Collins, James H. Flynn, Lloyd A. Nelson, Alvin R. Rosin, and Philip C. Ward, continue in positions of assistant director.

William J. Wilson was promoted from the staff of supervisory systems accountants to an assistant directorship in the reorganization. Mr. Wilson, a graduate of the University of Kansas, served with the Air Force in World War II and held important accounting positions in the Department of Agriculture prior to his joining the

Accounting Systems Division in May 1954.

An Assistant Directorship for Principles, Standards and Research has been established to provide special staff assistance to the director and deputy director in coordinating the development and standards of accounting and directing the research activities of the division, including supervision of its Accounting Research Staff. Raymond Einhorn, an assistant director with the division since February 1954, will fill this position.

Mr. Einhorn, a graduate of the University of Illinois and certified public accountant, transferred to the division from Foreign Operations Administration where he was chief of the Internal Audit Branch. His first assignment in the division was to serve with the Technical Staff of the Advisory Committee on Fiscal Organization and Procedures, Department of Defense (Cooper Committee).

Cooperative systems developmental and accounting improvement work with executive agencies will be conducted generally by the staff of systems accountants under the immediate direction of the assistant directors.

Stan Hargey, formerly with Division of Audits, GAO, has been appointed to the position of staff manager, recently vacated by Harley Climpson. Mr. Climpson is now with the Deputy Chief of Staff/Comptroller, Department of the Air Force.

Joseph M. Sullivan, a new and valuable addition to the Accounting Systems Division, becomes an assistant director under the plan of re-

organization. Mr. Sullivan is a graduate of Connecticut College of Commerce, New Haven, Conn., and is a certified public accountant. He was employed as staff member and partner of various firms of CPAs until 1934, when he became associated with the Farm Credit Administration.

During World War II he was an executive accountant and auditor in Navy's Cost Inspection Service and civilian assistant to the director of that Service. From 1946 to 1951 he was associated with Seidman and Seidman, CPAs. He has served as Special Assistant to the Assistant Secretary of Defense (Comptroller) and recently was staff director of the Budget and Accounting Task Force of the Hoover Commission.

#### Public Purse Doctrine

February 1955

W. L. Ellis, chief of investigations, received a signal honor recently from his alma mater, the Hillsdale (Mich.) College. Mr. Ellis was invited to attend the annual alumni banquet to receive its much coveted Alumni Achievement Award.

After the award was bestowed on Mr. Ellis, he addressed the group on the subject of the congressional

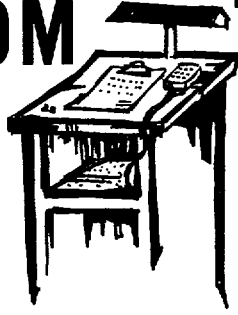
"power of the purse" and the GAO's function in support of it.

In his remarks, Mr. Ellis noted that "It is our doctrine that this is Congress' first business, the one real power upon which all other legislative work depends for its effectiveness\* \* \*." He pointed out that this function did not spring "full blown from the mind of the law giver," but became settled after centuries of conflict.

He traced the development through the English Middle Ages and how parliamentary control of "the spending of the royal revenue" did not come about until the 17th century. Later the "English colonists in the New World, in their colonial assemblies, used effectively the power of the purse in their struggle for power with the royal governors."

Mr. Ellis went on to say that the "Government's accounting office has been in business since 1789 \* \* \* but always subject to the direction of the Secretary of the Treasury until 1921." It was at this later date that "the accounting office was removed from the executive branch, put under a new officer, the Comptroller General of the United States." Accounting and auditing activities were further strengthened by the act of 1950.

# FROM



# GAO

# SPEECHES

## **Cost Accounting Standards**

Elmer B. Staats, *Comptroller General*, spoke on "The Role of the General Accounting Office and the Cost Accounting Standards Board in the Evolution of Accounting Principles and Standards," before the *International Conference of the Financial Executives Institute*, New York, N.Y., October 22, 1973.

A controversial issue \* \* \* was raised by the question, "What is a Cost Accounting Standard?" Some have said that certain standards are too procedural or rigid. Others, however, have said that our standards are too flexible and recommend that they be explicit and detailed to simplify, as much as possible, determinations on how to comply.

In considering this issue, the Board looked first to its objectives derived from its authorizing legislation. The Board's primary objective is to issue clearly stated standards, to increase uniformity in accounting practices among Government contractors and consistency in accounting treatment of costs by individual Government contractors.

To meet this objective, standards will (1) enunciate a principle or principles to be followed, (2) establish practices to be applied, or (3) specify criteria to be used in selecting alternative principles and practices.

As we began to develop individual standards, we found that the subject matter primarily determined whether the Board's objectives could be accomplished with a standard stated in general or specific terms. The Board does not seek to establish absolute uniformity of accounting treatment for all the complex and diverse businesses engaged in defense contract work. At the same time the Board, considering proposed standards, has sought to attain uniformity appropriate for the circumstances.

## **Paperwork Management**

David S. Glickman, *assistant director, Logistics and Communications Division*, spoke on "GAO's Involvement in Paperwork Management" at the meeting of the Washington chapter of the *Association of Records Executives and Administrators*, October 30, 1973.

GAO has made and will continue to make direct reviews—started either on our own initiative or in response to congressional requests—of specific aspects of agency systems of paperwork management; such as NARS' overseer role, records storage and disposal, use of copying equipment, or internal reporting. In addition, all GAO audit

staffs—those involved in review of agency programs and functions as well as those responsible for reviewing the design and operation of financial management systems—are instructed to keep alert for and report on possibilities for reduction of paperwork costs and simplification of the paperwork processes.

### Analysis of the Management Scientist

\* \* \* it is standard operating procedure for most management science people to strip away so much of a real problem with "simplifying assumptions" that the remaining carcass of the problem and its attendant solution bear little resemblance to the reality with which the manager must deal. The time constraints, the data-availability questions, the people problems, the power structures, and the political pressures—all the important, nasty areas that lie close to the essence of management—are simplified out of existence so that a technically beautiful, and useless, resolution may be achieved.

*C. Jackson Grayson, Jr.*

"Management Science and  
Business Practice,"

*Harvard Business Review*,  
July-August 1973



The amendment to the Defense Production Act of 1950 passed in August 1970 which provided for the establishment of the Cost Accounting Standards Board designated the Comptroller General as Chairman and authorized him to appoint the other four members. The law further specified that two of the additional members are to be from the accounting profession; one is to be representative of industry; and one is to be from a Federal department or agency.

On January 21, 1971, the Com-

Accounting Standards Board (Public Law 91-379) was passed by the Congress following an 18-month study by the General Accounting Office undertaken by previous direction of the Congress. In this study GAO found that such standards were both feasible and desirable. The committee established the Board was then incorporated in the amendments to the Defense Production Act, approved August 15, 1970. Funds for the establishment of the Board were approved recently by the Congress.

The Board will have the responsi-

On March 5, 1971, Mr. Staats, Chairman of the Board, announced that the Board had selected Arthur Schoenhaut as Executive Secretary.

Mr. Schoenhaut has served the Federal Government since 1950. Until 1967 he was with the General Accounting Office and served as Deputy Director of the Civil Division from 1964 to 1967. Since 1967 he has been Deputy Comptroller of the Atomic Energy Commission.

Mr. Schoenhaut received his B.B.S. degree from the City College of New York.

# News & Notes

## Sixty-Six Million Dollars Almost Under Water

How long does it take to develop a finding so convincing that the agency takes final action on a GAO recommendation? Sometimes it takes years. Here's how persistence paid off in at least one case.

In 1966 GAO was looking at the acquisition program of a Navy sonar system. At that time the auditors in the Washington regional office noted that several of the ships scheduled to receive the sonars in 1970 were also scheduled to be retired from the active fleet at the same time. During the next 5 years, a continuing look by GAO at this sonar acquisition program disclosed the need to further reduce the planned procurement quantity.

Although some reductions in the planned procurement quantity had taken place during this period, GAO felt that more significant savings would be available to the Navy if a thorough analysis were made to determine the need for sonar systems scheduled to be installed in the active fleet. GAO wrote to the Navy in October 1972 pointing out that ships on which the sonar systems were to be installed would be in the active fleet only a

short period after the planned installation date of the sonar. GAO suggested that savings could be made by appropriately reducing the number of remaining procurement options under the sonar contract. The Navy agreed with GAO's suggestion and reduced the quantity of sonar systems by 27 units; this reduction resulted in a net saving of about \$66 million.

## Timber

An article in *The Washington Post* for November 3, 1973, by a member of the President's Advisory Panel on Timber discussed the panel's recently released report and in doing so referred to a GAO report. The author, Ralph Hodges, Jr., executive vice president of the National Forest Products Association, stated:

These old forests, containing so many dead and dying trees, are not contributing to the nation's wood products needs. Their plight, in fact, was the subject of a very significant report issued two weeks ago by the General Accounting Office, the agency of Congress that reviews federal agency performance.

The GAO report stated that " \* \* \* about 6 billion board feet of Forest Service saw-timber—timber suitable in size and quality for manufacturing lumber and plywood—

dies each year. This is equivalent to about 50 per cent of the total volume of timber harvested from Forest Service land in fiscal year 1972 \* \* \*. Only a small portion of the dead timber is salvaged. For example, Forest Service data showed that on its land in Oregon, Washington and California, where 3.2 billion board feet of sawtimber is killed annually, only about 10 per cent was harvested."

This is about one-eighth of the national softwood sawtimber harvest and is documentation of only a portion of losses our country suffers annually because federal forest management is inadequately funded.

The GAO report referred to was entitled "More Usable Dead or Damaged Trees Should Be Salvaged To Help Meet Timber Demands" (B-125053, Oct. 5, 1973).

### **Congressional Use of GAO Report on Highway Safety**

At hearings on June 21, 1972, before the Subcommittee on Investigations and Oversight, House Committee on Public Works, the Comptroller General discussed GAO's May 26, 1972, report on "Problems in Implementing the Highway Safety Improvement Program" (B-164497(3)). He stressed the need for legislatively setting aside a specific part of Federal-aid highway funds for the elimination or correction of hazardous highway locations. Although the House passed a bill which included provisions for the elimination of hazardous locations, compromise legislation entitled "Federal-Aid Highway Act of 1972" did not come to a vote in the House before the end of the session.

On March 7, 1973, *Henry Eschwege*, director, Resources and Eco-

nomie Development Division, testified before the Subcommittee on Transportation, House Committee on Public Works, on a bill to authorize appropriations for certain highway safety projects and reiterated the views expressed in GAO's May 1972 report and the Comptroller General's June 1972 testimony regarding the need to set aside funds for highway safety work.

This safety bill included two sections dealing with the improvement of high-hazard highway locations and the elimination of roadside obstacles. These sections, with some modification, were enacted into law on August 13, 1973, as part of the Federal-aid Highway Act of 1973. The act authorizes a total of \$375 million from the Highway Trust Fund to make improvements at high-hazard locations and to eliminate roadside obstacles over a 3-year period.

The report of the House Committee on Public Works on the bill that became the 1973 act acknowledges the impetus given by GAO's May 1972 report to the new safety legislation. Also a July 1973 report of the Subcommittee on Investigations and Review, House Committee on Public Works, regarding highway safety design and operations discusses the light shed by GAO's report and testimony on the highway safety problem.

GAO's report pointed out that it has been demonstrated that 4.78 lives could be saved and that 86.96 injuries could be avoided for each \$1 million spent for highway safety improvement projects, compared with an average of 0.93 of a life saved and 27.59 injuries

avoided for each \$1 million spent for highway construction on the Federal-aid system. The difference in benefits resulting from proper application of \$375 million to highway safety work, instead of regular highway construction, would be about 1,450 lives saved and 22,250 injuries avoided.

### GAO Energy Projects Staff

GAO has established the Energy Projects Staff to support GAO audit activities related to the national energy problem. The energy staff is a part of GAO's Resources and Economic Development Division under *Henry Eschwege*, director. This division is responsible for auditing Federal programs and activities relating to agriculture, environment, housing, and transportation, as well as energy.

About \$4 billion in Federal funds was spent for energy or energy-related programs and activities in 1972. These programs and activities were carried out by 23 different Federal departments and agencies involving about 64 offices, bureaus, commissions, and administrations.

The new Energy Projects Staff will undertake Government-wide studies and reviews of Federal energy activities. In announcing creation of this staff, the Comptroller General, *Elmer B. Staats*, said:

In creating the Energy Projects Staff, our objective is to recommend ways of making both proposed and ongoing Federal programs work better and to make the results of GAO's studies available as decisions are reached. This is especially important because of the growing problems in meeting energy

requirements and because of wide variety of approaches being explored.

The new staff unit is headed by *J. Dexter Peach*, an associate director of the Resources and Economic Development Division.

### Records Management Practices

The Comptroller General reported to the Congress on August 13, 1973, on the effectiveness of the National Archives and Records Service of the General Services Administration in improving records management programs in the Federal Government (B-146743). The report noted the limited success this agency had had in persuading Federal agencies to correct weaknesses in their records management and offered several recommendations for strengthening its operations.

One member of Congress, Bill Archer of Texas, in taking note of the report wrote to the Comptroller General that the information in the report was "eye-opening, to say the least" and expressed his appreciation for GAO's "direct and thorough examination of the problem." He also said that he was urging the head of each Federal agency to study the report and to do something about improvement. His letter to agency heads stated:

I have had an opportunity to review the Comptroller General's August 13th Report to the Congress, "Ways to Improve Records Management Practices in the Federal Government." If you have not personally examined this report I strongly urge you to do so. I for one am alarmed to see that the cost of paperwork in Federal agencies has increased an average of almost \$1 billion per year since 1955.

The National Archives and Records Service (NARS) is authorized by Public Law 90-620 to "provide for the efficient and economical management of records of Federal agencies." This includes analyzing, developing, promoting, and coordinating methods to insure that agency records of continuing value are preserved and that those no longer of value are systematically destroyed. Our Federal records centers contain over 11.5 million cubic feet of records; this volume is equal to 11½ times that of the Washington Monument. Obviously, storage space is critically short, and NARS is now faced with a choice between spending an estimated \$33 million to expand center storage space by 30 percent by 1985, or convincing agencies to reduce retention periods to minimize the need for future expansion.

The choice is clear, in my opinion. I am writing the head of each of the 73 Independent Agencies listed in the current CONGRESSIONAL DIRECTORY, as well as the Secretary of each of the 14 Departments listed therein, urging that they designate a member of their staff to confer with the Comptroller General or his representative in a wholehearted attempt to get a handle on this situation. If your agency already has a designated NARS representative, I hope you will implore him to find immediate ways to reduce the volume of paperwork from your agency.

The report was prepared by the Logistics and Communications Division, assisted by the Seattle regional office.

### GAO Cooperation

In its day-to-day activities, GAO cooperates in many different ways with Federal agencies. The following letter exemplifies one form of such cooperation. On September 21, 1973, the president of the Overseas Private Investment Corporation, Marshall T. Mays, wrote to the Comptroller General:

I would like to express through you my appreciation for the splendid cooperation OPIC has received from Mr. Frank Zappacosta and from his Staff in expediting the audit of our financial statements for Fiscal Year 1973. Your timely Opinion Letter has enabled us to present our financial picture to Congress at the earliest date ever following year end, a particularly significant achievement in a year of concentration of legislative overview on our operation.

Instances of such excellent interface between government agencies are rarely recognized and I hope you will see fit to commend the concerned GAO personnel on our behalf.

### New Magazine on Evaluation

A new magazine, *Evaluation, A Forum for Human Service Decision-Makers*, was launched in 1973, and copies of initial trial issues are available at no charge to people interested in the delivery of human services.

The magazine is published by the Program Evaluation Project, which is part of the Minneapolis Medical Research Foundation. Supported by a grant from the National Institute of Mental Health, *Evaluation* focuses on who is evaluating human service programs, how it is being done, what the findings are, and how to base decisionmaking on the results.

The third issue of this new magazine contains an article by the Comptroller General, *Elmer B. Staats*, entitled "The Challenge of Evaluating Federal Social Programs."

Persons interested in receiving a trial issue of *Evaluation* at no charge should write to Laurence Kivens, Editor, *Evaluation*, 501 South Park Avenue, Minneapolis, Minnesota, 55415, Attention Box A.



*Shown in the picture from the right are: Dawn Davies, GAO's Federal Women's Program Coordinator; Shirley E. Smith of the GAO Printing Section and Margaret E. Carr of the Illustrating Section, who received awards for the outstanding contributions of their sections to the Women's Day Program; and Lou Perkins of the Women's Day Program Committee, who presented the awards.*

### **Federal Women's Day at GAO**

November 7, 1973, was Federal Women's Day at GAO. A program chaired by the Comptroller General, *Elmer B. Staats*, in the morning in the GAO Auditorium featured five speakers who were introduced by *Nancy Rollins* of the General Counsel's office. The speakers were: U.S. Representatives *Shirley Chisholm* and *Martha Griffiths*, *Frankie Freeman* of the U.S. Commission on Civil Rights, *Mary Jackson* of the Civil Service Commission, and *Carol Watkins* of the Equal Employment Opportunity Commission.

### **New Director for Equal Employment Opportunity**

*William N. Conrardy* was designated GAO's new director for Equal Employment Opportunity in September 1973. He also continues as director, Office of Program Planning.

Mr. Conrardy had served as the chairman of the GAO Task Force for the Development of New Job Classifications which, under his direction, developed an innovative program for creating new jobs to bridge the gap between nonprofessional and professional positions in GAO.

*Milton J. Socolar*, deputy general counsel, had been serving as acting director, Equal Employment Opportunity, since June 30, 1971. In announcing Mr. Conrardy's appointment, the Comptroller General, *Elmer B. Staats*, stated that Mr. Socolar had contributed tremendously to the work of the Office in this important area and expressed his appreciation and that of the Office for his great assistance during the period in which he served in this position.

### Bill Newman Dies

The *Review* records with regret the death on November 18, 1973, of Bill Newman, former GAO official, who retired in May 1971.



Mr. Newman began his Federal civilian service in 1942 as assistant district auditor of the Eastern Audit District, Army Air Force. He served in the Army Air Force from 1943 to 1946 as district auditor for Los Angeles and as assistant chief, Contract Audit Division, at the Headquarters, Army Air Force, attaining the rank of lieutenant colonel.

William A. Newman, Jr., joined the General Accounting Office as an accountant in the Corporation Audits Division in 1946. In 1956, he became deputy director of the Defense Accounting and Auditing Division and director in 1959. On July 15, 1968, he was designated as special assistant to the Comptroller General to head the GAO study on the feasibility of developing and applying uniform cost accounting standards for defense contracts.

Mr. Newman received the Meritorious Service Award in 1959 and in June 1970 he was the head of the group that received the Meritorious Service Award for its conduct of the uniform cost accounting standards feasibility study. He was a CPA (New York) and a member of the American Institute of CPAs, the New York State Society of CPAs, the American Accounting Foundation, and the Federal Government Accountants Association in which he served as national president in 1957-58.

## Property of the U.S. Government

(in millions of dollars)

Classification	June 30, 1972	June 30, 1970 <sup>1</sup>	June 30, 1968 <sup>1</sup>
<b>PERSONAL PROPERTY</b>			
Cash:			
With Treasurer of the United States . . . . .	11,310	9,016	6,694
On hand and in banks outside the Treasury . . . . .	3,618	2,755	3,448
Investments (other than public debt) . . . . .	4,498	6,182	4,623
Accounts and notes receivable . . . . .	7,490	7,022	5,870
Commodities for sale . . . . .	1,523	2,292	1,308
Work in process . . . . .	1,221	1,594	1,531
Materials and supplies . . . . .	6,875	7,095	7,592
Loans receivable . . . . .	61,678	56,906	59,186
Machinery and equipment . . . . .	16,884	16,704	15,474
Other assets . . . . .	21,095	22,943	18,643
Department of Defense (equipment, supplies, stock inventories, etc.) . . . . .	176,617	172,537	162,138
Corps of Engineers (equipment, etc.) . . . . .	423	378	348
Total, personal property . . . . .	313,232	305,424	286,860
<b>REAL PROPERTY</b>			
Departments and agencies (other than Department of Defense) . . . . .	30,904	28,818	26,137
Department of Defense (including Corps of Engineers, civil functions) . . . . .	52,445	50,641	47,614
Architect of the Capitol <sup>2</sup> . . . . .	519	515	511
Other (including construction in progress, etc.) . . . . .	14,363	10,519	11,244
Realty donated or otherwise acquired at no cost <sup>2</sup> . . . . .	278	267	236
Public domain acreage and mineral resources <sup>2</sup> . . . . .	42,742	39,418	27,127
Total, real property . . . . .	141,251	130,178	112,869
Total, all property . . . . .	<sup>3</sup> 454,483	<sup>3</sup> 435,602	<sup>3</sup> 399,729

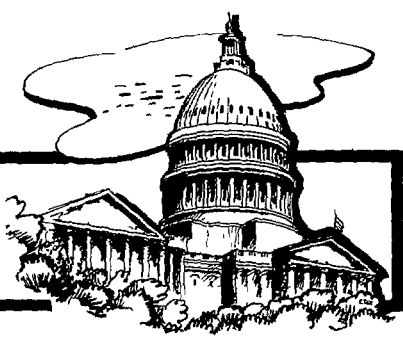
<sup>1</sup> Figures as of June 30, 1969, and 1971, were not compiled.<sup>2</sup> Computed at estimated present-day evaluation.<sup>3</sup> Includes assets of trust funds.

Note: All properties reported are shown in gross amounts without deductions for allowances for losses and depreciation. Interagency assets, including public debt securities owned, are excluded. The properties have been valued at acquisition cost or estimated cost when the actual costs were not known. Public domain, donated property, and properties under supervision of the Architect of the Capitol are shown at estimated present-day values. Properties acquired as gifts or without cost to the Government are shown at estimated present-day values.

From page 7 of the Federal Real and Personal Property Inventory Report as of June 30, 1973; House Committee on Government Operations, August 1973.

721594/

# HEARINGS *and* LEGISLATION



BY JUDITH HATTER

*Assistant Chief, Legislative Digest Section, Office of the General Counsel*

“\* \* \* there is no agency, in my opinion, that has higher respect and is held in better esteem for objectivity and being fair, as well as being competent, than the General Accounting Office.”

Hon. William L. Dickinson  
of Alabama <sup>1</sup>

## **Audit of the Federal Reserve by GAO**

On October 2, 1973, the Comptroller General appeared before the House Banking and Currency Committee to discuss that portion of H.R. 10265 which would require GAO to audit the Federal Reserve Board, banks, and branches. GAO concluded that there should be such an audit in view of the highly important part the Federal Reserve System plays in the Nation's system of money and credit. Three alternatives to be considered in determining the scope of these audits were discussed.

It was suggested that the Federal Advisory Council and the Federal Open Market Committee be subject to GAO audit and that the audit be conducted on other than an annual basis as proposed by the bill. (Other participants: Messrs. Morse, Moore, McAuley, and Bowlin)

On October 12, 1973, when the House Banking and Currency Committee favorably reported the bill, it was amended to adopt these suggestions. Congressman Wright Patman, a proponent of the measure, called the reporting of the bill “\* \* \* a major step forward in requiring accountability by the Nation's monetary managers.”<sup>2</sup> However, on November 6, 1973, the House Rules Committee tabled a motion to reconsider the bill, thus precluding further consideration by this Congress.

## **Federal Paperwork Burden**

The Select Committee on Small Business issued a report entitled “The

<sup>1</sup> *Congressional Record*, vol. 119 (Oct. 17, 1973), p. H9210.

<sup>2</sup> *Congressional Record*, vol. 119 (Oct. 9, 1973), p. H8698.



Federal Paperwork Burden" which is an updated assessment of the impact of paperwork on small business. The Committee, among other things, recommended that the Congress remove authority for the administration of the Federal Reports Act of 1942 from the Director of the Office of Management and Budget and vest this responsibility in the Comptroller General and that the Internal Revenue Service be included under the provisions of the act. Further, whether or not Congress vests this responsibility in the Comptroller General, the report recommended that " \* \* \* the Comptroller General under his existing authority should conduct an examination of the Office of Statistical Policy of OMB and report to the Congress on the efficacy of OMB administration of this act with recommendations where necessary to upgrade OMB activities in this area. Further study and examination should be conducted by GAO during the course of its auditing and examinations of Federal agencies to insure better management practices on the part of such agencies, thereby eliminating unnecessary paperwork and achieving consolidation of reporting systems where possible."<sup>3</sup>

Senator Thomas J. McIntyre of New Hampshire introduced S. 1812 to give control and authority over paperwork to the Comptroller General and place final supervision of all Federal tax forms under his jurisdiction.

On September 11, 1973, *Victor L. Lowe*, director, General Government Division, appeared before the Senate Government Operations Committee to

<sup>3</sup> S. Rept. 93-125 (Apr. 17, 1973), p. 65.

discuss this measure. GAO does not believe the assignment to it of essentially executive functions proposed in S. 1812 is appropriate. (Other participants: Messrs. *Landicho*, *Keleti*, *Heyl*, and *Sperry*)

#### **Alien Personnel Contracting Practices by U.S. Embassy in Laos**

*Frank C. Conahan*, associate director, International Division, appeared before the Government Information Subcommittee of the House Government Operations Committee on October 30, 1973, to discuss the propriety of certain U.S. Embassy contracts for alien personnel in Vientiane, Laos, and the controls exercised over receipts and expenditures of funds under those contracts.

It was determined that U.S. Embassy personnel did not comply with State Department regulations in entering into contracts for guard services and general labor services because they directly supervised the contractor personnel and retained the right to hire and fire individual employees. However, with certain exceptions, reasonable steps were taken to insure accountability. GAO suggested that the contracts be terminated and alternative arrangements be made. (Other participants: Messrs. *Keller*, *Monsma*, and *Sperry*)

#### **Protection of Presidential Residences**

On October 10, 1973, the Comptroller General and *Irvine M. Crawford*,

associate director, General Government Division, appeared before the Subcommittee on Government Activities of the House Government Operations Committee to present information GAO had gathered on the costs of protection at private residences of past Presidents Johnson, Kennedy, Eisenhower, Truman, and Roosevelt. In addition to presenting the cost data, GAO representatives reviewed the history of Presidential protection and gave some general thoughts on the matter. (Other participants: Messrs. *Varholy* and *Sperry*)

### Naval Petroleum Reserves

At hearings on October 17, 1973, before the Subcommittee for Armed Services Investigations of the House Armed Services Committee on the operation and use of Naval Petroleum Reserve No. 1, Elk Hills, California, *Robert G. Rothwell*, deputy director, Logistics and Communications Division, discussed the GAO report, "Capability of the Naval Petroleum and Oil Shale Reserves to Meet Emergency Needs." (Other participants: Messrs. *Oberson*, *Schulz*, and *Fitzgerald*)

### Vehicle Use in Government

The Comptroller General appeared before the Special Ad Hoc Subcommittee on Vehicle Use in Government of the Senate Appropriations Committee on September 18, 1973, to discuss Government-owned or leased passenger motor vehicles.

The legislative authority for the procurement of passenger motor vehi-

cles is contained in the annual appropriation acts and in the Administrative Expenses Act of 1946 (31 U.S.C. 638a), but GAO believes that the intent of the Congress with respect to the use of limousines and heavy sedans should be amplified by the enactment of additional legislation.

The Comptroller General also described current reviews by GAO in the general area being pursued by the Subcommittee. (Other participants: Messrs. *Shafer*, *Connor*, *Moore*, and *Fitzgerald*)

### Congressional Control Over the Budget

On September 13, 1973, the Comptroller General appeared before the House Rules Committee to discuss the improvement of congressional control over the Federal budget.

With respect to staff support for the proposed legislative budget committee, GAO prefers creation of a joint staff to function as the current Joint Internal Revenue Taxation Committee staff. GAO, the Congressional Research Service, and the executive agencies could lend effective support through the joint staff. (Other participants: Messrs. *Scantlebury*, *Hunter*, and *Fitzgerald*)

### Export-Import Bank Extension

On October 29, 1973, *J. Kenneth Fasick*, director, International Division, made observations based on recent GAO reviews concerning the management of the Export-Import Bank in

connection with consideration by the Subcommittee on International Finance of the Senate Banking, Housing and Urban Affairs Committee of S. 1890, which would extend for 4 years the period within which the Export-Import Bank is authorized to exercise its functions. (Other participants: Messrs. *Milgate*, *Zappacosta*, and *Ferri*)

### **Public Financing of Federal Elections**

*Phillip S. Hughes*, director, Office of Federal Elections, appeared before the Subcommittee on Privileges and Elections of the Senate Rules and Administration Committee on September 20, 1973, to discuss public financing of Federal elections.

Based on experience in auditing and investigating campaign financing practices during the 1972 Presidential election campaign, GAO believes present laws are inadequate to rectify the abuses that have been observed. Public financing would strengthen the political process by equalizing the opportunity for competing candidates to gain exposure to the voter. (Other participants: Messrs. *Thompson*, *Higgins*, and *Fitzgerald*)

### **Medicare/Medicaid Hospital Discrimination**

On September 12, 1973, *Gregory J. Ahart*, director, Manpower and Welfare Division, appeared before the Subcommittee on Civil Rights and Constitutional Rights of the House Ju-

diciary Committee to discuss a July 1972 report dealing with compliance with the antidiscrimination provisions of the Civil Rights Act by hospitals and other facilities under the Medicare and Medicaid Program. Statistical and certain other information had been updated for the presentation. (Other participants: Messrs. *Iffert* and *Griffith*)

### **Coal Mining Near Federal Reservoir Projects**

The results of a GAO review on problems caused by coal mining near Federal reservoir projects of the Corps of Engineers were summarized for the Conservation and Natural Resources Subcommittee of the House Government Operations Committee on October 24, 1973, by *Henry Eschwege*, director, Resources and Economic Development Division. (Other participants: Messrs. *Charam*, *Riche*, *Kallmeyer*, *Wray*, *Irish*, and *Sperry*)

### **Federal Coal Mine Health and Safety**

*Henry Eschwege*, director, Resources and Economic Development Division, testified on October 31, 1973, before the Conservation and Natural Resources Subcommittee of the House Government Operations Committee on Interior Department activities under the Federal Coal Mine Health and Safety Act of 1969. (Other participants: Messrs. *Hirschhorn*, *Rother*, *Cahalen*, and *Sperry*)

**Baltas E. Birkle**



Baltas E. Birkle was designated deputy director of the Resources and Economic Development Division, effective September 4, 1973.

He attended the University of Maryland, receiving his Bachelor of Science degree with a major in accounting in 1951 and his Master of Arts degree with a major in economics in 1953. He served in the U.S. Navy from 1953 to 1956 and joined GAO in 1956.

Since coming to GAO, he has had widely diverse audit assignments, which included the Department of the Interior, Tennessee Valley Authority, United States Postal Service, National Aeronautics and Space Administration, General Services Administration, Veterans Administration, and Department of Housing and Urban Development. In addition, he served 2 years on the former Accounting and Auditing Policy Staff.

In 1964 he attended the Program for Management Development at the Harvard Business School. He received the GAO Career Development Award in 1968.

Mr. Birkle is a CPA (Maryland) and a member of the American Institute of CPAs and the District of Columbia Institute of CPAs.



**Smith Blair**

Smith Blair was designated director of the Office of Congressional Relations on October 3, 1973.

Mr. Blair served as manager of the Dallas regional office, 1959-64, as director of the European Branch, 1956-59, and with the former Office of Investigations, 1952-54. During 1964-68 he was with the Office of Inspector General, Department of Agriculture, returning to GAO in February 1968 as a legislative attorney.

Before joining GAO in 1952, Mr. Blair served with the Hardy Subcommittee of the House Government Operations Committee and the Senate Agriculture Committee. These assignments followed 9 years as a special agent for the Federal Bureau of Investigations during 1942-51.

Mr. Blair is admitted to practice to the Supreme Court of the United States, the U.S. Court of Appeals for the District of Columbia, and the U.S. District Court for the District of Columbia.

He attended The George Washington University, Benjamin Franklin University, and received his LL.B. degree from the Washington College of Law, American University, in 1941. He completed the Executive Development Program at Stanford University in 1962.

Mr. Blair is a past president of the Paris, France, chapter, Federal Bar Association. He has been chairman of the Dallas chapter of the Society of Former Special Agents of the FBI, president of the Dallas chapter of the Federal Government Accountants Association, and a national vice president of FGAA. He received the Comptroller General's Award in 1968 and the GAO Meritorious Service Award in 1959.

**Wilbur D. Campbell**



Wilbur D. Campbell was designated as associate director in the Resources and Economic Development Division, effective September 4, 1973. In this position, he is responsible for audit assignments involving housing programs of the Department of Housing and Urban Development.

Mr. Campbell served in the U.S. Army from 1954 to 1956. He received a Bachelor of Arts degree with a major in accounting from Old Dominion University in 1959.

Since coming to GAO, he has had widely diverse audit assignments including the National Aeronautics and Space Administration, Bureau of Public Roads, Department of the Interior, and Corps of Engineers.

In 1973 Mr. Campbell attended the Program for Management Development at the Harvard Business School. He is a CPA (Virginia) and a member of the American Institute of CPAs.



**Edward A. Densmore, Jr.**

Edward A. Densmore, Jr., was designated as associate director in the Manpower and Welfare Division, effective October 28, 1973. In this position, he is responsible for the GAO audits of health financing and regulation programs at the Department of Defense, Civil Service Commission, Social and Rehabilitation Service, Social Security Administration, Food and Drug Administration, Consumer Product Safety Commission, and Occupational Safety and Health Administration.

Since joining GAO in 1958, he has had a wide variety of experience in the former Civil Division and in the Resources and Economic Development Division, where he most recently had responsibility for the Environmental Protection Agency audit site.

He received a Bachelor of Science degree in business administration from Boston College in 1958. He is a CPA (Massachusetts) and a member of the American Institute of CPAs and the Massachusetts Society of CPAs.

Mr. Densmore received the GAO Career Development Award in 1969, the Meritorious Service Award in 1973, and the William A. Jump Memorial Award in 1973.

**Donald L. Eirich**



Donald L. Eirich was designated associate director in charge of the Communications and Data Management Group, Logistics and Communications Division, effective October 28, 1973.

He joined GAO in August 1957, after serving in various accounting capacities for a number of years in public accounting and in private industry. He was assigned to the Defense Division until the reorganization of GAO in April 1972.

Mr. Eirich graduated from the Johns Hopkins University (with honors) with a Bachelor of Science degree having majored in business and economics, and he also received an associate degree in accounting from the Baltimore College of Commerce. He completed the Management Program for Executives at the University of Pittsburgh in 1967.

He served in the U.S. Army from 1941 to 1946 and from 1951 to 1952; he was awarded the Bronze Star Medal in 1945.

Mr. Eirich is a CPA (Maryland) and a member of the American Institute of CPAs and the Federal Government Accountants Association. He received the GAO Meritorious Service Award in 1960.



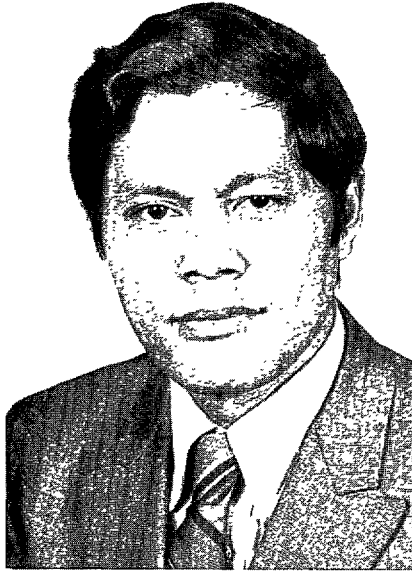


**John D. Heller**

John D. Heller was designated deputy director of the General Government Division and assumed these responsibilities on September 4, 1973. He had been the associate director for health activities in the Manpower and Welfare Division.

Mr. Heller joined GAO in 1959. He received his Bachelor of Science degree in accounting from King's College in 1959 and attended the Program for Management Development at Harvard in 1968. He is a CPA (Virginia) and a member of the American Institute of CPAs and the National Association of Accountants. In 1961 and 1972 he received the GAO Meritorious Service Award, and in 1967 he received the William A. Jump Memorial Award.

**John Landicho**



John Landicho was designated as associate director in the General Government Division, effective October 28, 1973. In this position he will be responsible for GAO audits of the activities of the United States Postal Service, Department of Commerce, Small Business Administration, and the Appalachian Regional Commission.

He joined GAO in December 1957 after serving in the U.S. Army. He was an assistant director of the Logistics and Communications Division in the former Defense Division before moving to the General Government Division in October 1973.

Mr. Landicho graduated from San Jose State College in 1954 with a Bachelor of Arts degree, having majored in accounting. He completed the Program for Management Development at the Harvard Business School in 1969.

Mr. Landicho is a member of the Federal Government Accountants Association. He received the GAO Career Development Award in 1972.



**James D. Martin**

James D. Martin was designated as associate director in the Manpower and Welfare Division, effective October 28, 1973. In this position he is responsible for GAO audits of health research, resources, and services programs at the Department of Defense; Veterans Administration; and National Institutes of Health, Health Services Administration, Health Resources Administration, Center for Disease Control, and Alcohol, Drug Abuse and Mental Health Administration of the Department of Health, Education, and Welfare.

Mr. Martin served in the U.S. Navy from 1952 to 1956. He received a Bachelor of Science degree in accounting from Central Missouri State College in 1958 and attended the Program for Management Development at the Harvard Business School in 1967. He is a CPA (Virginia) and a member of the American Institute of CPAs and the Federal Government Accountants Association.

Since joining GAO in 1958, Mr. Martin has had a wide variety of experience in the former Civil Division, the European Branch of the International Division, and the Manpower and Welfare Division. He received the GAO Career Development Award in 1967 and headed the task force on health facilities construction costs which received the Comptroller General's Award in 1973. He also received the Federal Government Accountants Association's (Washington chapter) Outstanding Achievement Award for 1973 and the Federal Government Accountants Association's Achievement of the Year Award for 1973.

**William D. Martin, Jr.**



William D. Martin, Jr., was designated deputy director for operations in the Manpower and Welfare Division, effective October 28, 1973. From 1971 until his new appointment, he served as director of the Organization and Management Planning Staff of the Office of Administrative Planning and Services. Before that he had varied experience in the former Civil Division.

Mr. Martin served in the U.S. Army from 1953 to 1955. He received a Bachelor of Business Administration degree with a major in accounting from Wake Forest College in 1959 and a Master of Science degree in financial management from The George Washington University in 1971. He is a CPA (Virginia) and a member of the American Institute of CPAs and the National Association of Accountants. He received the GAO Career Development Award in 1968.



**J. Dexter Peach**

J. Dexter Peach was designated as associate director of the Resources and Economic Development Division, effective October 28, 1973.

Mr. Peach is heading the new Energy Projects Staff which is responsible for overall planning and monitoring of GAO work related to the Nation's energy problems and for conducting major Government-wide studies related to energy.

Mr. Peach joined GAO in 1960, after receiving a Bachelor of Science degree in business administration with a major in accounting from the University of South Carolina.

His diverse experience in the audit of Government programs has included assignments at the Departments of Agriculture, the Interior, and Treasury; the District of Columbia Government; the Virgin Islands Government; and the Report Review Staff of the former Civil Division. More recently, Mr. Peach served as the assistant to the director for planning, Resources and Economic Development Division.

Mr. Peach received a Master of Science in Administration degree from The George Washington University in 1973 and attended the Program for Management Development at the Harvard Business School in 1972. He received the GAO Career Development Award in 1969 and GAO's award for significant contribution to financial management literature in 1971.

He is a CPA (Virginia) and a member of the American Institute of CPAs and the National Association of Accountants.

**David P. Sorando**



David P. Sorando was designated deputy director of the Federal Personnel and Compensation Division, effective October 28, 1973.

Mr. Sorando joined GAO in the New York regional office in 1953. He spent 19 years in field operations in New York, Syracuse, and Cincinnati and served as regional manager in Cincinnati from January 1967 until June 1972. He then transferred to Washington where he served as deputy director for operations in the Manpower and Welfare Division until August 1973, when he assumed his new duties in the Federal Personnel and Compensation Division.

## Other Staff Changes

### New Assistant Directors

**Manpower and Welfare Division**

Robert V. Farabaugh  
Murray Grant

**Procurement and  
Systems Acquisition Division**

Jack S. Heinbaugh

**Office of  
Administrative Planning and Services**

B. Douglas Hogan  
William J. McCormick

**Resources and  
Economic Development Division**

Oliver W. Krueger

### Senior Attorneys

**Office of the General Counsel**

Ms. Rollee H. Lowenstein

# PROFESSIONAL ACTIVITIES

## Office of the Comptroller General

The Comptroller General, *Elmer B. Staats*, addressed the following groups:

American Society of Public Administration, National Capital Chapter Panel Discussion, Washington, D.C., on "The Federal Service in the Spotlight," September 14.

White House Fellows Orientation Program—1973, the Brookings Institution Center for Advanced Study, Washington, D.C., on the General Accounting Office, September 25.

The Society of Experimental Test Pilots 17th Annual Symposium, Beverly Hills, California, on "Building Confidence in Weapons Systems Acquisition—The Role of the General Accounting Office," September 28.

International Conference of the Economic Models Group of Companies, New York City, October 1.

Financial Executives Institute Annual International Conference, New York City, on "The Role of the General Accounting Office and the Cost Accounting Standards Board in the Evolution of Accounting Principles and Standards," October 22.

Following are recently published articles of the Comptroller General:

"What To Expect From GAO Auditors" (from speech before the Annual Conference of Municipal Finance Officers Association in Kansas City, June 4) in *Nation's Cities*, August 1973.

"The GAO—How Its Work Affects Local Government" (address before the Annual Conference on Municipal Finance Officers Association in Kansas City, June 4) in *Governmental Finance*, August 1973.

"The Information Needs of Congress" (address before the 22d Annual Symposium of the Federal Government Accountants Association in Washington, D.C., June 15) in *The Federal Accountant*, September 1973.

"The Challenge of Public Service" (remarks before the National Capital Conference of the Washington, D.C., metropolitan area chapters of the International Personnel Management Association on the occasion of the presentation of the 1972 Stockberger Award to Mr. Staats, May 25) in *Public Personnel Management*, September/October 1973.

"The Common Interests of Government and Schools of Business and Administration in Improving Man-



agement in Government" (address presented at the Annual Meeting of the American Assembly of Collegiate Schools of Business, April 3) in *AACSB Bulletin*, October 1973.

Mr. Staats was designated an honorary certified internal auditor by the Washington, D.C., chapter of the Institute of Internal Auditors on October 15.

*E. H. Morse, Jr.*, Assistant Comptroller General, addressed the following groups:

American Management Association seminar on operational auditing applications, New York City, on "Operational Auditing and Auditing Standards," September 24.

American University accounting class about the GAO and the importance of accounting, September 28.

Washington chapter of the Institute of Internal Auditors, Washington, D.C., on the relationship between internal auditors and independent auditors, October 15.

Seminar of the Iowa Society of Certified Public Accountants, Des Moines, Iowa, on "The Role of the Auditor in an Accountability System," October 29.

Civil Service Commission executive seminar on public program management, Oak Ridge, Tennessee, on the role of the General Accounting Office, November 1.

Mr. Morse chaired a panel at the conference sponsored by the National Academy of Public Administration and the GAO on "Evaluation of Fed-

eral Economic Assistance Programs," October 13.

Mr. Morse was recently appointed as a member of a task force on evaluation of efficiency and program results of the Management Advisory Services Division of the American Institute of CPAs.

An article by Mr. Morse entitled "Evaluating Results of Government Programs" appeared in the January 1974 issue of *The Bureaucrat*.

*A. T. Samuelson*, Assistant Comptroller General, spoke before the New Jersey chapter, Financial Executives Institute, New Brunswick, New Jersey, on October 29.

*Thomas D. Morris*, Assistant Comptroller General, addressed the following groups:

The National Capital Area chapter, American Society for Public Administration's annual conference on "Administering the New Federalism," Washington, D.C., October 4. Mr. Morris chaired a panel on "Federally Funded Social Services—Their Purposes, Uses, and Misuses."

Meeting of the National Leadership Symposium, Nashville, Tennessee, October 22.

The University of Maryland chapter of the national accounting fraternity, Beta Alpha Psi, on "What Is the United States General Accounting Office and How Does It Operate?" College Park, Maryland, October 29.

*Joseph Lund*, assistant to Assistant Comptroller General Morris, was noti-

fied in November that he passed the District of Columbia Bar Examination taken in July of this year.

### Office of the General Counsel

*Paul G. Dembling*, general counsel:

Spoke before the Federal Bar Association annual meeting on "GAO Views the Recommendations of the Commission on Government Procurement," Chicago, September 13.

Participated in a panel discussion on "Discretionary Justice" at the Federal Bar Association annual meeting, Chicago, September 14.

Spoke before the Civil Service Commission Institute for New Government Attorneys on "GAO and the Office of the General Counsel," September 19.

Spoke on "Competitive Negotiated Procurement—Source Selection" at the 14th Annual Western Briefing Conference on Government Contracts, San Francisco, October 14 to 17.

Participated in the annual meeting of the National Academy of Public Administration, November 8 and 9.

Spoke before Tau Epsilon Rho Legal Fraternity on "New Dimensions of GAO," Philadelphia, November 8.

Spoke before the National Security Industrial Association Legal Committee on "The GAO Bill—S. 2049," November 15.

Spoke to Brookings Accountants Roundtable Forum on "The Growing Role of GAO," November 15.

*Milton J. Socolar*, deputy general counsel, spoke to a group of 15 super-grade participants of the Federal Executive Institute on "How GAO Deals With Access to Records Issues," November 9.

*Paul Shnitzer*, associate general counsel:

Spoke on "Should GAO Remain the Bid Protest-Resolving Forum" at the 14th Annual Western Briefing Conference on Government Contracts, San Francisco, October 14 to 17.

Participated in a course on "Contract Formation" sponsored by The George Washington University National Law Center, October 22 to 26.

Participated in a procurement seminar for the Military Traffic Management and Terminal Service contracting offices in Brooklyn, October 25 to 27.

*Seymour Efros*, assistant general counsel, addressed the Long Island chapter of the National Contract Management Association on "Source Selection," September 20 to 21.

*Robert H. Rumizen*, assistant general counsel, spoke before the annual program of the National Council of University Research Administrators on "Legal Perils of Grantsmanship," November 8.

*Vincent A. LaBella*, deputy assistant general counsel, spoke to a Government contracts seminar on "The Role of GAO in Deciding Bid Protests," Hartford, Connecticut, September 19 and 20.

*Thomas F. Williamson*, senior attorney, spoke on "The Report of the Commission on Government Procurement" before the 14th Annual Western Briefing Conference on Government Contracts, San Francisco, October 16 and 17.

*Martin L. Glass*, attorney-adviser:

Participated in programs at the Federal Bar Association Annual Meeting, Chicago, September 10 to 15.

Participated in the 14th Annual Western Briefing Conference on Government Contracts, San Francisco, October 14 to 18.

*Ronald Wartow*, attorney-adviser, spoke before the Long Island chapter of the National Contract Management Association on "Handling of Bid Protests by GAO Under Interim Bid Protest Procedures and Standards," October 18 and 19.

#### Office of Congressional Relations

*Martin J. Fitzgerald*, legislative attorney, and *Joseph Lund*, assistant to Assistant Comptroller General Morris, participated in the Institute in the Legislative Function, sponsored by the Civil Service Commission in Washington, D.C., for a group of civilian and military personnel of the Department of the Army, November 9. They discussed "Congressional Operations: Role of the General Accounting Office."

#### Office of Program Planning

*William N. Conrardy*, director, lec-

tured on "Organizational Development Through Management by Objectives for Results" at the Civil Service Commission Management Training Center, September 25.

*Ray S. Hausler*, assistant director:

Participated as discussion leader at the Civil Service Commission Management Training Center on the subject of "Management by Objectives," November 6.

Discussed with the audit staff of the Agency for International Development the system of management by objectives for results used in GAO's Seattle regional office, December 6.

#### Office of Personnel Management

*Albert Shanefelter*, associate director, spoke at the Management of Organizations Seminar sponsored by the Civil Service Commission on "Understanding Planning and Control Systems," November 14, Executive Seminar Center, Kings Point, New York.

#### Federal Personnel and Compensation Division

*Forrest R. Browne*, director, addressed the Civil Service Commission Executive Seminar, Oak Ridge, Tennessee, on "GAO: Its Mission and Its Programs," August 28.

*David P. Sorando*, deputy director, spoke at the Executive Seminar Center, Oak Ridge, Tennessee, on "The Evolving Role of GAO in Improving the Effectiveness of Government

Operations," August 2 and October 15.

*Donald G. Boegehold*, assistant director, addressed the Aerospace Industries Association of America, Inc., Cleveland, Ohio, October 26, on two recent GAO reports dealing with the implementation by Federal agencies of Office of Management and Budget Circular No. A-76.

### Financial and General Management Studies Division

*Donald L. Scantlebury*, director:

Addressed the DOD Comptroller Seminar, Fredericksburg, Virginia, October 18, on "GAO-DOD Relationships." He then joined a panel with *John Moundalexis*, assistant director, to discuss governmental productivity with the seminar participants.

With *John Moundalexis*, assistant director, addressed a meeting of the Washington Public Affairs Center, University of Southern California, in Washington, D.C., on auditing under GAO audit standards and productivity measurement.

*Edward J. Mahoney*, deputy director, spoke on July 2 and 3, to the Institute of Internal Auditors 32d Internal Conference, Washington, D.C., on the subject of computer audit work and audit retrieval packages. Related presentations were made by *Ken Pollock* and *Joe Boyd*, assistant directors.

*Keith E. Marvin*, associate director, and *Charles W. Thompson*, operations research analyst, were chairman and

cochairman, respectively, of a Working Group on Cost-Measurement and Analysis at the 32d Military Operations Research Society Symposium, Monterey, California, November 14 to 16.

*Wallace M. Cohen*, assistant director, chaired a technical papers session at the 44th National Meeting of the Operations Research Society of America, San Diego, California, November 12 to 14.

*Mortimer A. Dittenhofer*, assistant director:

Attended and participated in the annual meeting of the National Association of State Auditors, Comptrollers and Treasurers, Sun Valley, Idaho, August 19 to 23.

Presented lectures at the monthly meeting of the Shreveport chapter of the Institute of Internal Auditors, Shreveport, Louisiana, September 4 and 5. Lecture topics were "Audit Standards and Internal Auditing" and "Performance Auditing and Management."

Discussed the "Development and Use of the Audit Standards" at the FGAA seminar in St. Paul, Minnesota, September 13.

Gave a talk on audit standards before the Virginia Society of CPAs, Williamsburg, Virginia, September 14.

Presented a talk on audit standards and participated in a discussion session on performance auditing at the ICMA Annual Conference, Boston, Massachusetts, September 23 to 25.

Addressed the Association of Col-

lege and University Auditors on "College and University Performance Auditing," San Francisco, October 2.

Addressed the Baltimore chapter of the Institute of Internal Auditors on "Professionalism in Internal Auditing," Baltimore, Maryland, October 17.

Addressed the Tidewater chapter of the Institute of Internal Auditors, Norfolk, Virginia, October 23 and 24.

*Ernest H. Davenport*, assistant director:

Gave a talk on audit standards at a meeting of the Palmetto chapter of the Institute of Internal Auditors, Columbia, South Carolina, September 19.

Attended the International City Management Association Conference and gave a talk on audit standards, Boston, Massachusetts, September 24.

*Ken Pollock*, assistant director, is serving on the computer audit subcommittee of the American Institute of Certified Public Accountants.

*Earl M. Wysong, Jr.*, assistant director:

Is serving on the following professional committees: FGAA, Washington Chapter—ADP Committee, D.C. Institute of CPAs—Membership Committee, and AICPA—EDP Subcommittee of the Auditing Standards Executive Committee.

Is teaching in a special extension

program of the Golden Gate State University of San Francisco.

Published an article entitled "Managing Federal Finances" in *Journal of Systems Management*, October 1973.

*Rodney E. Espe*, audit manager:

Spoke on the "Use of Operational Auditing in State Agency Management" at the 4th Annual Conference of the Texas State Agency Business Administrators' Association, Corpus Christi, Texas, August 23.

Made a presentation on evaluating a government audit organization's compliance with GAO audit standards to a regional seminar of the National Legislative Conference, Denver, Colorado, September 28.

*Heber D. Bouland*, operations research analyst, presented a paper on program evaluation at the Conference on Multi-Level Decision-Making: The Challenge of New Federalism, Nashville, Tennessee, September 10 to 11.

*Gary F. Clark*, management auditor, received his M.S.A. degree from The George Washington University, September 1973. An abstract of his paper "Survey of Audit Retrieval Packages," prepared as part of his work toward a master's degree, appeared in the *EDP Audit, Control and Security Newsletter*, October 1973.

### General Government Division

*Victor L. Lowe*, director, became an honorary member of Beta Alpha Psi and spoke at the fall initiation, November 26, University of Georgia.

*John Landicho*, associate director, participated as a panelist at a conference conducted by the National Academy of Public Administration, October 13. The conference was concerned with evaluation of Federal economic assistance programs.

*Albert M. Hair, Jr.*, assistant director, addressed the following groups:

State and local government officials of California, Nevada, and Arizona on "The GAO Looks at Revenue Sharing" at a seminar held in San Diego, California, June 21.

Southeastern Regional Conference of the American Society for Public Administration, October 23, Nashville, Tennessee, on "Evaluating the Impact of Revenue Sharing."

Mr. Hair also represented GAO at the annual conference of the International City Management Association, September 23 to 27, Boston, Massachusetts, and participated as a panelist in a workshop session on revenue sharing.

*William J. Anderson*, assistant director, attended the Executive Development Program at Cornell University in June and July.

*Bill W. Thurman*, supervisory auditor, participated as a panelist in a series of seminars on revenue sharing held during October and November by the Municipal Financial Officers Association, Houston, Texas; Hartford, Connecticut; Washington, D.C.; and Atlanta, Georgia.

## Logistics and Communications Division

*Fred J. Shafer*, director, spoke on Air Force-GAO relationships to a class of Air Force comptrollers at the Air University, Maxwell Air Force Base, Alabama, September 10.

*Mathew Gradet*, assistant director, was appointed a member of the Management Services Committee of the D.C. Institute of CPAs for the 1973-74 year.

*David S. Glickman*, assistant director, explained "GAO's Involvement in Paperwork Management" at a meeting of the Washington chapter, Association of Records Executives and Administrators, October 30. He also served as a judge for the association's Ninth Annual Federal Government Paperwork Management Awards, November 6.

*Bernard W. Sewell*, assistant director, addressed the Joint Surplus Property Conference, Atlanta, Georgia, November 1, on Department of Defense Property Disposal Operations and the Federal Surplus Property Donation Program.

*Richard Helmer*, audit manager, addressed the Joint Surplus Property Conference, Williamsburg, Virginia, on Department of Defense Property Disposal Operations and the Federal Surplus Property Donation Program, October 29.

*Howard Manning*, supervisory auditor, spoke at the Institute of Navigation symposium, November 13, on the responsibility of the General Account-

ing Office and its role in evaluating the development of and adherence to a National Radio Navigation Program.

### Manpower and Welfare Division

*Morton E. Henig*, associate director:

Participated in a panel discussion on educational program evaluation sponsored by the National Advisory Council on Education Professions Development, Washington, D.C., September 12.

Participated in the annual fall meeting of the Council for Educational Development and Research, Inc. (CEDaR), Washington, D.C., November 20. He was a member of a panel that discussed evaluation of educational research and development and presented a summary of GAO's report on the Department of Health, Education, and Welfare's educational laboratory and research and development center programs.

*Morton A. Myers*, assistant director:

Spoke on shellfish regulation at the National Shellfish Sanitation Program, Interstate Seafood Seminar, Virginia Beach, Virginia, September 26.

Participated in a panel discussion of careers in accounting, that was sponsored by the Accounting Society of Quinnipiac College, Mount Carmel, Connecticut, October 11.

*Robert J. Tice* and *James F. Walsh*, supervisory auditors, spoke at the University of Virginia Consortium for

Comprehensive Health Planning, Arlington, Virginia, October 25. Their topic was the GAO study of health facilities construction costs.

### Procurement and Systems Acquisition Division

*Richard W. Gutmann*, director, spoke at the Electronics Industries Association's Procurement Committee Seminar on "GAO Plans and Programs on Prime Procurement," Dallas, October 24.

*Jerome H. Stolarow*, deputy director, spoke at the Defense Systems Management School, Fort Belvoir, Virginia, on the acquisition of major weapon systems before the students and faculty in the senior management course, September 20, and before the students in the general officers course, October 18.

*Ozmond T. Fundingsland*, assistant director:

Gave a luncheon address on "The GAO's Interest in Public Technology Innovation" at the National Technology Transfer Colloquium sponsored by the Department of the Navy, the American University, the Department of Commerce, and the National Science Foundation, Washington, D.C., September 6.

Spoke on "Technology Utilization and the Role of the Auditor" at a dinner meeting of the Federal Government Accountants Association, Los Angeles chapter, September 12.

*Robert B. Hall, Jr.*, assistant director, spoke at the Aerospace Industries

Association's Materials Management Meeting, Boston, October 2. He discussed the recent reorganization of the GAO and GAO's work in monitoring the response of the executive branch of the Government to the recommendations of the Commission on Government Procurement.

*Donald E. Day*, assistant director, spoke on the acquisition of major systems by the Government at the regular meeting of the National Contract Management Association, Albuquerque, New Mexico chapter, September 26.

*Joseph C. Bohan*, assistant director, spoke on the role of GAO in major weapon systems acquisitions at the Navy Logistics School, Washington, D.C., in October and November.

*Charles A. Kezar*, operations research analyst, gave a talk on analysis of build and charter acquisition at the Military Operations Research Symposium at Monterey, California, November 16.

### Resources and Economic Development Division

*Richard W. Kelley*, associate director, participated in the Brookings Institution conference on "Business in Contemporary Society," Los Angeles, California, October 28 to November 2.

*J. Kevin Donohue*, supervisory auditor, participated in the Executive Seminar on Environmental Quality and Natural Resources, Oak Ridge, Tennessee, September 9 to 24.

*Robert Southworth*, sanitary engineer, participated in the Value Analysis

Workshop, Dallas, Texas, October 14 to 19.

### Transportation and Claims Division

*T. E. Sullivan*, director:

Attended the annual meeting of the Accounting Division, Association of American Railroads, Phoenix, Arizona, October 24 to 27. He addressed the Revenue Committee on the status of the new Government bill of lading, Senate bill 2049, as it concerns the transfer of the transportation audit function from GAO, Public Law 92-550 providing for prepayment of freight charges by Government agencies, and problems related to the settlement of rail carrier accounts with the Government.

Attended the American Trucking Association's Regular Common Carrier Conference meetings, Miami, Florida, November 3 to 5. He addressed the RCC Government and Defense Liaison Committee regarding the Transportation Payment Act of 1972, Public Law 92-550, providing for prepayment of freight charges by Government agencies; the status of Senate bill 2049, concerning the transfer of the transportation audit function from GAO; the present position of GAO on legislation relating to transportation rates filed under section 22 of the Transportation Act of 1940; and GAO work relating to Postal Service shipping costs.

On November 20, Mr. Sullivan and *J. R. Nicholson*, supervisory traffic



management specialist, attended the General Services Administration Inter-agency and Carrier Seminar on the new Government bill of lading, San Francisco. Mr. Sullivan was the principal speaker for the seminar, and both participated as advisors to those attending from other executive agencies and the carrier industry.

Mr. Nicholson also attended the General Services Administration Inter-agency and Carrier Seminar on the new Government bill of lading, New York City, October 25. He participated as an advisor to those attending from other executive agencies and the carrier industry.

*W. F. McDade*, supervisory transportation specialist, and Mr. Nicholson attended the semiannual meetings of the Cargo and Passenger Revenue Accounting Committees of the Airline Finance and Accounting Conference, Air Transport Association of America, Bloomington, Minnesota, September 18 and 19. They reported on the proposed blanket-type certification procedure wherein air carriers could certify as to delivery of shipments on the revised Government bill of lading and on the proposed date of January 1, 1974, as the effective date of the new Government bill of lading. They also discussed with both committees, the pending Senate bill 2049, as it concerns the transfer of the detailed transportation audit function from GAO.

*Charles C. Loomis*, chief, motor audit branch, and *Charles R. Comfort*, assistant director, Logistics and Communications Division, participated as

guest lecturers at the Defense Advanced Traffic Management Course, U.S. Army Transportation School, Ft. Eustis, Virginia, September 26.

Mr. Loomis participated as a guest lecturer at the Western Area, Military Traffic Management and Terminal Service, General Traffic Management/Container Conference, Oakland, California, December 12 to 14.

### Field Operations Division

*Stewart D. McElyea*, deputy director, spoke at the Third Annual Accounting Appreciation Day, University of Auburn, Auburn, Alabama, on "Accounting for Social Responsibility," November 15.

*Marvin Colbs*, regional manager, Atlanta, spoke to members of the North Carolina State audit staff in Raleigh, September 11, and to the Tallahassee chapter, Florida Institute of Certified Public Accountants, October 9, on the role of GAO and its audit mission.

*Roderic W. Worth*, audit manager, addressed the Joint Surplus Property Conference, Atlanta, Georgia, November 1, on "Department of Defense Property Disposal Operations and the Federal Surplus Property Donation Program."

*Stewart O. Seman* and *James J. Finn*, supervisory auditors, Chicago, were elected treasurer and membership chairman, respectively, of the Chicago chapter of FGAA for fiscal year 1974. Mr. Seman is also assisting in the Chicago chapter's training program for minority businessmen.

*Paul I. Wilson, Verne J. Gilles, and Darrell J. Rasmussen*, supervisory auditors, St. Paul, were elected treasurer and directors, respectively, of the Minneapolis-St. Paul chapter of FGAA for fiscal year 1974.

On October 18, *Donley E. Johnson*, audit manager, St. Paul, spoke before the Twin Cities chapter of the American Society of Women Accountants on GAO activities in government.

*Clement F. Preiwisch*, audit manager, Chicago, spoke at a Municipal Finance Officers' Association workshop on revenue sharing, Chicago, November 1, covering "GAO's Role in the Revenue Sharing Program."

*Daniel L. McCafferty*, audit manager, Cincinnati, is the president-elect of the Cincinnati chapter of FGAA for the 1974-75 program year. *James B. Dawson*, supervisory auditor, Indianapolis, has been elected president of that city's FGAA chapter for the 1973-74 year. *Estle L. Wesley*, supervisory auditor, Dayton, was elected treasurer of the Dayton chapter of FGAA and *Roy E. Ross*, supervisory auditor, Oak Ridge, has been elected a director of the East Tennessee chapter of FGAA.

*Robert P. Koontz*, supervisory management analyst, Cincinnati, was selected for inclusion in the 12th edition of the American Men and Women of Science.

*Nander Brown, Jr.*, ADP group manager, Cincinnati, addressed an EDP Auditor's Association seminar, October 26, on "Developing EDP Audit Standards." *Anthony M. Csicseri*, supervisory systems analyst, discussed

"The Auditor's Role During System Design and Implementation," and *Paul E. Cox*, auditor, presented a case study entitled "EDP Auditing—How To Do It."

*John R. Dial*, audit manager, Cincinnati, addressed the East Tennessee chapter of the Institute of Internal Auditors on "Management Surveys and Reviews," Knoxville, Tennessee, November 1.

Fiscal-year 1974 officers for the Detroit chapter of FGAA include supervisory auditors *Charles D. Allegrina*, president; *Donald R. Schmidt*, vice president; *Robert T. Rogers*, treasurer; *Joan A. Bigler*, secretary; *Hiawatha H. Barber*, membership chairman; and *Robert J. Piscopink*, director.

Fiscal year 1974 officers for the Cleveland chapter of FGAA include supervisory auditors *Mary Beth Celebrezze*, vice president; *Albert A. Simonik*, treasurer; and *Theodore F. Boyden*, director.

Mr. Rogers spoke to the Saginaw Valley chapter of NAA, September 19, on "GAO's Challenge for Tomorrow: Improving Government Through Better Management."

*Terry G. Tillotson*, supervisory auditor, Kansas City, participated in career day activities, Kansas State College, Pittsburg, October 25. He spoke to a group of accounting students on opportunities in Government auditing and accounting.

*Edward D. Paul*, supervisory auditor, and *Jeffrey G. McGowan*, auditor, Los Angeles, participated in a "Meet the Firms Night" at California State

University, Fullerton, October 1973. Mr. McGowan spoke before the accounting association of California State University, Fullerton, October 30. His topic was GAO operations audits.

On August 30, *Walter H. Henson*, regional manager, Norfolk, addressed the graduating class of the DOD Joint Defense Integrated Management Engineering System basic analysts course, Richmond, Virginia. He spoke on the multiagency study on "Measuring and Enhancing Productivity in the Federal Sector."

*Ernest W. Taylor*, assistant regional manager, Norfolk, addressed the North Carolina Society of Accountants, September 25, at Raleigh on "Standards for Audits of Governmental Organizations, Programs, Activities, and Functions."

*George J. Anthony*, audit manager, Norfolk, spoke to the Tidewater Virginia chapter, Institute of Internal Auditors, October 23, on "Operational Auditing by the GAO."

Norfolk staff members were appointed as officers of the following committees of the Hampton Roads chapter of NAA for fiscal year 1974: Mr. Henson, director of professional development; *Thomas C. Stevenson*, associate director of professional development; *Ronald J. Maccaroni*, director of education; *Douglas Mills*, director of communications; and *Richard G. Payne*, associate director

of communication. Also, *Paul M. Gaskill* was appointed coordinator for employment, Virginia Council, NAA, for fiscal year 1974.

*Robert J. Gentile*, supervisory auditor, New York, was selected for the award of one of the Outstanding Young Men of America for 1973, an annual biographical history published to honor young men between the ages of 21 and 35. He was also elected an honorary member of Delta Mu Delta, a national honor society in business administration, and received the achievement award for 1973 from the Long Island chapter of FGAA.

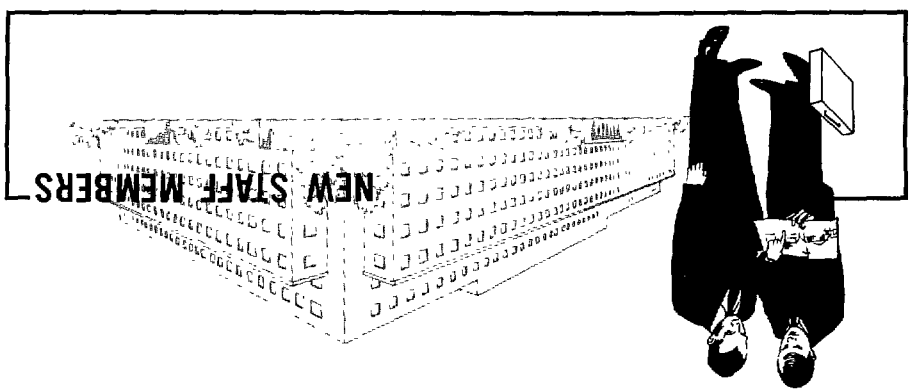
*Gary D. McGill*, *L. Neil Rutherford*, and *Charles M. Novak*, supervisory auditors, Seattle, comprised a panel of speakers at the nineteenth western regional conference, sponsored by the Puget Sound chapter of the Institute of Internal Auditors, Seattle, Washington, August 31. Their topic was "Audits of Management Performance."

*D. P. Leary*, assistant regional manager, Washington, lectured at the Operational and Performance Auditing course conducted in Guam by the Interagency Auditor Training Center, November 5 to 9.

*Janis Combs*, who joined the Washington staff on June 4, 1973, was selected as one of the winners in the annual Federal Government Accountants Association Student Honors Program, May 10.

<p><b>Office of Administrative Planning and Services</b></p>	<p>Romero, Jose G.</p>	<p>New Mexico Oil and Gas Accounting Commission</p>
<p><b>Logistics and Communications Division</b></p>	<p>Prescott, John C. Shaw, Dennis R.</p>	<p>Department of the Army U.S. Marine Corps</p>
<p><b>Office of the General Counsel</b></p>	<p>Wolmer, Brent G. Turner, Frank S. Stanford, James J. Pugh, Elizabeth Y. Paster, Paula L. Murray, Steven E. Goddard, Victor B. Faulkner, Douglas A. Epstein, Donald A. Cambosos, Richard T. Burns, John M. Boyle, Michael J. Belkin, Alan N.</p>	<p>College of Law American University, Washington School of Law University of North Carolina Hastings Law School University Law School North Carolina Central Northwestern Law School Howard University School of Law George Washington University &amp; Summers Kisselman, Deighan, Montana Boston University School of Law Howard University School of Law Center Georgetown University Law College of Law Florida State University School of Law Catholic University, Columbus</p>
<p><b>Financial and General Management Studies Division</b></p>	<p>Kearns, Jack D. Weinberger, Michael S.</p>	<p>Department of Health, Education, and Welfare Department of the Army</p>

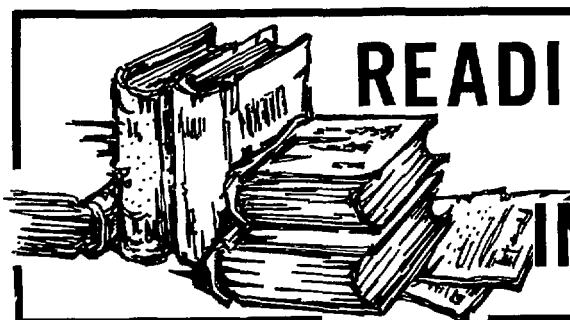
The following new professional staff members reported for work during the period August 16 through November 15, 1973.



<b>Resources and Economic Development Division</b>	Dixon, Nathaniel R.	National Reading Center Foundation
<b>Transportation and Claims Division</b>	Dinsmore, Paul F., Jr.	Army and Air Force Exchange Service
<b>Washington Headquarters Divisions Career Group</b>	Byrom, Mary L. Feldsott, Stuart J.	University of Tennessee State University of New York at Buffalo
	Johnston, Dan L. Karpink, Thomas A. Kincaid, Lamont J.	Brigham Young University Pennsylvania State University Middle Tennessee State University
	La Femina, Jean M. Mac Neely, Thomas J. Miller, Dale W. Reid, Douglas E. Roof, Bradley M. Savereno, George M. Ware, David E. Yacura, Michael M. Young, Herman C.	Bowie State College King's College University of Iowa Federal City College Thunderbird Graduate School Fairmont State College Virginia State College Pennsylvania State University Old Dominion University

**REGIONAL OFFICES**

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<b>Chicago</b>	Dostart, Paul J.	Iowa State University
<b>Dallas</b>	Arnold, James E. Hynek, Dolores J.	U.S. Air Force North Texas State University
<b>Detroit</b>	Hairston, Moses J., Jr.	Department of the Treasury
<b>Los Angeles</b>	Hilsabeck, Anne Lum, Seo Jun Martin, Gary L. Rytel, Thaddeus S.	California State University California State University California State University California State University
<b>Norfolk</b>	Mathers, William L.	Old Dominion University
<b>San Francisco</b>	Mahan, Richard C. Thomson, James R.	California State University Massachusetts Institute of Technology
<b>Seattle</b>	Broom, Cheryle A. Taylor, Samuel A.	University of Washington University of Washington
<b>Washington (Falls Church)</b>	Binder, Michael J. Heisler, Joseph G. Kline, Robert D. Martin, Cornelia L. Stapleton, Alan M.	George Washington University George Mason University University of Maryland George Mason University University of Maryland



# READINGS *of* INTEREST

*The reviews of books, articles, and other documents in this section represent the views and opinions of the individual reviewers, and their publication should not be construed as an endorsement by GAO of either the reviewers' comments or the books, articles, and other documents reviewed.*

## **Accounting and the Evaluation of Social Programs: A Critical Comment**

By M. E. Francis, Statistical Consultant, World Health Organization; *The Accounting Review*, April 1973.

In this article, Mr. Francis challenges the capability of accountants to perform meaningful evaluations of the various types of social programs directed toward improving the overall social well-being of our society. He contends that neither the training nor the experience of accountants equip them to perform such evaluations and that other disciplines, such as statistics, are much better equipped to perform such evaluations.

Accounting literature indicates that at least some members of the accounting profession believe that the accountant can and should contribute to existing efforts directed toward (1)

improving the methods of assessing the state of society and social programs and (2) the application of evaluation procedures in the allocation of resources to our efforts to improve social well-being. Mr. Francis contends, however, that a number of statements made to justify these beliefs would seem to suggest that the accountant is ill-equipped to contribute in a constructive way to either of the above objectives.

Mr. Francis summarizes into three broad categories the areas where it has been suggested accountants can make contributions:

1. The attestation function.
2. The design of detection and recording systems.
3. Improving the accuracy of economic data.

Although Mr. Francis acknowledges that problems exist in each of these areas, he concludes that accountants

have neither the training nor the experience to contribute to the solution of these problems in the area of "social reporting."

### **Attestation Function**

The article points out that some have proposed that some professional group be society's watchdog to insure the integrity of reporting and measurement activities relating to social programs. Mr. Francis states that, contrary to these opinions, the accountant is not the professional to perform this function. He maintains that, since social reporting is based on statistics, there are people whose training and experience make them infinitely more qualified to speak on the subject of the fairness of the statistical series which are collected, what data ought to be collected, and how the data should be collected. In Mr. Francis' words—

The question is not whether there should be an independent audit of all or some statistics and statistical series. The question is, given that independent auditing bodies should be established, does the accountant possess the training or experience to qualify him over others to audit in the social arena? The evidence seems to indicate that the answer to this question is negative.

### **Design of Detection and Recording Systems**

Mr. Francis maintains that the accountant's experience with the design of detection and recording systems is based on a deductive form of logic that is not applicable to social reporting. He indicates that the accountant's

system is deduced from the basic "Assets=Equities" axiom and is mainly a system of classification and rearrangement of facts already contained in the axioms. On the other hand, Mr. Francis states that, in the social area, there are no known facts to begin with. The researcher's goal is to observe, in the most efficient and effective way he knows, in order to discover or uncover what unquestionable truths there may be or to test certain basic premises or theories.

To illustrate Mr. Francis' analysis, perhaps the diagrams on the following page will help.

Mr. Francis states that to contend that the accountant's experience qualifies him to design detection and recording systems for measuring the effectiveness of social programs is to contend either (1) that the design of a system to detect and record events is, on the whole, independent of the reasons for observing and measuring those events or (2) that the ability to design a system to detect the logical consequences of the available initial facts implies an ability to design a system that can uncover the basic truths that give rise to the observations. In his opinion, both propositions are totally without foundation. The first is rejected because no one, including accountants, believes that the rationale for measuring and observing does not affect the measurement process. The second is rejected for lack of evidence indicating its truthfulness; Mr. Francis says that, in fact, even individuals experienced in the use of induction find it difficult to collect the right data.

*Deductive Method*  
*Underlying Assumption*

Assets =  
Equities

*1st Level of Deduction*

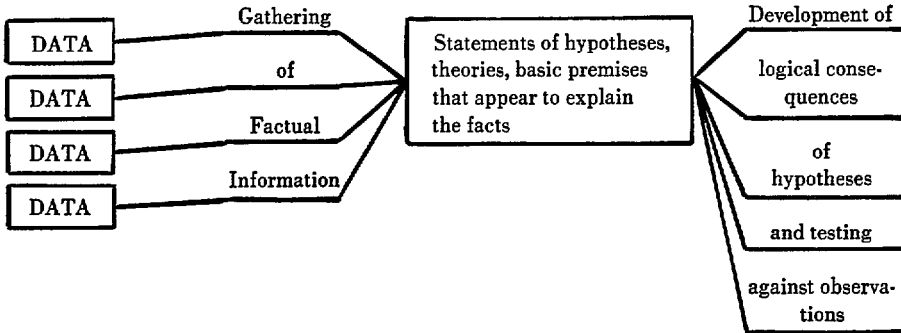
Asset and  
Equity  
Classifications  
(e.g. fixed v. current,  
liability v. proprietor-  
ship)

*2nd Level of Deduction*

- Revenue Accounts
- Expense Accounts
- Cost Accounting Systems
- System of Closing Entries

Assets = things owned, or having value for sale or use  
Equities = claims against and/or sources of the assets

*Inductive Method*



**Improving Accuracy of Economic Data**

This is the weakest point of the author's position concerning the contributions of accountants to social reporting. Although Mr. Francis does point out some weaknesses in the traditional accounting approach to the reporting of economic data, he makes no convincing argument that any other discipline could do any better. The article points out that there are many inaccuracies in economic data called "response errors" and "nonsampling errors"—errors arising from de-

liberate lies or deliberate attempts to hide information, evasive answers, and sloppily gathered statistics. Mr. Francis expresses doubt that accountants can help overcome these errors since they apparently are not even aware that these types of errors are also a problem in accounting. He also asserts that the available accounting literature indicates a lack of appreciation by the accountant for the reasons why the economists consider certain types of data inadequate or weak. Mr. Francis concludes this section by emphasizing the need to recognize the existence of errors, to eliminate as many as possi-



ble, and to begin to deal with those remaining. In his opinion, it is very unlikely the accountant can make any significant contributions to efforts in these areas.

### Author's Concluding Remarks

The article indicates that the assumptions of "social accounting" are to:

1. Assess the state of society.
2. Assess the performance of a social program.
3. Anticipate the future.
4. Indicate control mechanisms.
5. Guide social knowledge.

Mr. Francis acknowledges that accountants are helpful in improving the accuracy of data, but only in a narrow sense, and are of little use in improving the relevance and reliability of the data necessary for social planning. The importance of statistics—as opposed to accounting—is indicated by the concluding paragraph of the article.

Furthermore, since (a) practically all data needed for decision making in the social arena are statistics and results from statistical sampling, and (b) the interpretation of statistical data, the analysis of that data, and the method of its collection cannot be separated from one another, a knowledge of statistics is essential for "social reporting." Statistics is the science and art of dealing with variation in such a way as to obtain reliable results. To apprehend the rationale of a piece of statistical arithmetic is not synonymous with understanding statistics. Accountants lack that understanding.

### Implications for the GAO

Since Mr. Francis is a statistician,

the professional accountant in GAO could write off his article as "sour grapes" complaints about some other profession "invading his territory." In this reviewer's opinion, that would be a dangerous and self-defeating attitude for GAO auditors to adopt, however. There probably are few auditors within the GAO who haven't felt inadequate at some time or another to grapple with the complexities of evaluating social programs. Mr. Francis has suggested some telling reasons for these feelings of inadequacy. Having acknowledged the possibility of inadequacy, what should we do? Should we restrict ourselves to only those areas for which we have been trained and equipped? Or should we accept the challenges of the author and meet them head-on?

GAO has elected to accept the challenge. GAO has devoted increasing amounts of its resources over the past few years to the evaluation of the accomplishments of various federally supported social programs. But we still have a long way to go. We are hiring more of the types of individuals that Mr. Francis says we need, thus not restricting ourselves to accountants only. More and more of our accountant-auditors are receiving special training in statistics, operations research, systems analysis, and other disciplines so that we now have staff members who are able to speak both languages, assuring us of communication links between our accountants and the other disciplines. We are showing an increasing willingness to use consultants from special areas of expertise when assignments require

special capabilities not possessed by our regular professional staff. A few examples of how we have already used consultants may indicate our commitment in this area.

1. An engineer consultant on a review of water pollution control programs.
2. An educational statistician in the review of an OEO educational experiment.
3. An economic analysis firm in a

- review of the justification of the proposed space shuttle program.
4. An operations research expert in health matters in a review of bed needs for a VA hospital.

The Congress has shown an increasing interest in the evaluation of the accomplishments of the social programs it has approved. Therefore the more the GAO avails itself of the special skills needed to perform appropriate evaluation, the better servant to the Congress it will be.

*Dale W. Harrison*  
Operations Research Analyst  
Financial and General Management  
Studies Division

### Potential Economy

Over the long haul we must find a cheaper way of subsidizing housing. In my view, that means substituting the ability of the Government to borrow funds for the ability of the private market to borrow. The General Accounting Office indicates that we could save from \$2 to \$5 billion in carrying out the housing goals if that were done.

*Senator William Proxmire*  
*Congressional Record*, October 1, 1973

## Annual Awards for Articles Published in The GAO Review

Cash awards are available each year for the best articles written by GAO staff members and published originally in *The GAO Review*. Each award is known as the Award for the Best Article Published in The GAO Review and is presented during the GAO awards program held annually in June in Washington.

One award of \$250 is available to contributing staff members 35 years of age or under at the date of publication. Another award of \$250 is available to staff members over 35 years of age at that date. For articles written by more than one author, the age of the oldest will determine the age category for judging purposes.

Staff members through grade GS-15 at the time of publication are eligible for these awards.

The awards are based on recommendations of a panel of judges designated by the Comptroller General. The judges will evaluate articles from the standpoint of the excellence of their overall contribution to the knowledge and professional development of the GAO staff, with particular concern for:

Originality of concepts.

Quality and effectiveness of written expression, including use of graphic arts where appropriate.

Evidence of individual research performed.

Relevancy to GAO operations and performance.

### Statement of Editorial Policies

1. This publication is prepared for use by the professional staff members of the General Accounting Office.
2. Except where otherwise indicated, the articles and other submissions generally express the views of the authors, and they do not necessarily reflect an official position of the General Accounting Office.
3. Articles, technical memorandums, and other information may be submitted for publication by any professional staff members. Submissions may be made directly to liaison staff members who are responsible for representing their offices in obtaining and screening contributions to this publication.
4. Articles submitted for publication should be typed (double-spaced) and range in length between 5 and 14 pages. The subject matter of articles appropriate for publication is not restricted but should be determined on the basis of presumed interest to GAO professional staff members. Articles may be submitted on subjects that are highly technical in nature or on subjects of a more general nature.

# THE GAO REVIEW

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