Civil Service Journal



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UNITED STATES CIVIL SERVICE COMMISSION

Journal

Volume 3

Number 4

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U.S. Civil Service Commission

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Shelf-Help....

JOHN W. M	IACY, Jr	Chairman
FREDERICK	J. LAWTON	Commissione
ROBERT E.	HAMPTON	Commissione
WARREN B.	IRONS F	ecutive Director

Worth Noting

AN EXPERIMENTAL regional plan for sharing unused electronic computer time and services among Federal agencies, developed in a recent pilot study by the Bureau of the Budget in collaboration with the Philadelphia Federal Executive Board, has established the feasibility of cooperative arrangements in the use of automatic data processing equipment with promise of greater efficiency and economy.

Federal Executive Boards in Atlanta, Boston, Chicago, Dallas-Fort Worth, Denver, Los Angeles, New York, San Francisco, St. Louis, and Seattle are exploring the joint use of ADP equipment.

UPDATED SALARIES for non-Federal executives whose jobs compare with civil service grades GS-16, 17, and 18 show that in December 1962 the GS-16's counterpart earned \$22,500 to \$32,500 per year with a middle rate of \$28,000; the GS-17's counterpart earned \$30,000 to \$45,000 with a middle rate of \$35,500; and the GS-18's counterpart earned \$35,000 to \$60,000 with a middle rate of \$44,500. Of the 88 positions surveyed, salaries had risen an average of \$1,711 (5.4 percent) since a survey by the Civil Service Commission in 1960. Current salary for GS-16 is \$16,000 to \$18,000; for GS-17, \$18,000 to \$20,000; and for GS-18, \$20,000.

TRIED AND TESTED: Winners of the National Civil Service League's Career Service Award for 1963 are Graeme C. Bannerman, Deputy Assistant Secretary of Defense (Procurement); Capt. Hewlett R. Bishop, Atlantic Coast Director, Maritime Administration, Department of Commerce; August C. Hahn, Deputy Assistant Postmaster General; Dr. Gregory K. Hartmann, Technical Director, U.S. Naval Ordnance Laboratory; Arthur C. Lundahl, Assistant Director for Photographic Intelligence, Central Intelligence Agency; Nicholas J. Oganovic, Deputy Executive Director, U.S. Civil Service Commission; Dr. Hildrus A. Poindexter, Chief Public Health Adviser, Agency for International Development; James J. Rowley, Chief of the U.S. Secret Service, Department of the Treasury; Frank A. Taylor, Director of the U.S. National Museum, Smithsonian Institution; and William H. Weathersby, Country Public Affairs Officer (India), U.S. Information Service. Award recipients were honored March 26 at a dinner in Washington.

UP AND COMING: Winners of the 15th annual Arthur S. Flemming Awards are Lawrence Lewis Kavanau, Defense Research and Engineering; Kevin T. Maroney, Justice; N. Thompson Powers, Labor; George Stevens, Jr., U.S. Information Agency; and John Robinson Wilkins, Agency for International Development, in the administrative category. Scientific and technical category winners were Edgar Maurice Cortright, Jr., National Aeronautics and Space Administration;

(Continued-See Inside Back Cover.)

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ESCALATION—

A Challenge to Management

by WARREN B. IRONS, Executive Director U.S. Civil Service Commission

A CASE CAN BE MADE that growth in the number of Federal positions at the higher grade levels is a sign of our times. With our exploding technology and man's expanding knowledge, the Government's mission is becoming more complex. At the same time, more people capable of mastering these complexities are entering Government service. As a result, the nature of occupations in the Government is changing.

This change is reflected in the composition of the Federal work force. The proportion of positions in the Federal service requiring the most skills and highest education has increased. The proportion requiring the least skills and education has decreased.

The fact that such a case can be validly made is not, however, a signal for complacent acceptance of escalation as a way of life. Instead it places a requirement upon management to find ways and means to counterbalance the unavoidable effect that escalation, caused by the changing nature of occupations, could have upon Government expenditures.

Management must look hard at any movement upward of grades in an agency as a whole, in the separate divisions of an agency, and in the individual programs an agency administers. It must knock down any upward movement based on reasons which smack of validity but which are not so in truth. Specific danger areas to watch are:

- Reorganizations which spread higher level duties thinly among a number of positions with resultant upgrading of more positions than necessary.
- Establishment of unnecessary organizational units which result in more high-level supervisory jobs.
- Inflated position descriptions.

IN SEEKING MEANS to hold a hard line on unnecessary upward movements of grades, management should not fall into the trap of believing that the Commission's classification standards or any part of the classification process can nullify the cause-effect relationship of everyday management decisions to escalation. Standards do not have any influence on management's judgments as to the number of high-level positions needed. Nor can the Commission's inspection program correct upgradings that are the result of unwise management decisions rather than wrong classification judgments.

Beyond combating unnecessary escalation, management must encourage increased employee productivity, eliminate obsolete, duplicate or overlapping functions, and improve the development of supervisory talent. It must also develop a philosophy down through the lowest supervisory level—indeed in the individual employee—that the judicious expenditure of public funds is an integral part of the code "Public Service Is a Public Trust."

More meaningful CSC inspections:

PERSONNEL—

Administration, Management, and Mission

THE INSPECTION PROGRAM of the Civil Service Commission has taken a new and dramatically different turn in the past year and a half. Over the years since the end of World War II, the Commission's approach to personnel inspection has matured and developed from its initial case-centered, regulatory orientation. We have developed new techniques, we have increased the depth of our reviews, and we have moved toward a positive review of agency personnel programs on a coordinated, nationwide basis. The latest change is, in our opinion, the most significant that has occurred since we got into the inspection business. We can characterize it by a very simple statement. We have stopped looking solely at personnel administration, and started to look deeply at personnel management.

Everyone concerned with management agrees with the truism that personnel management is an integral part of overall management responsibility. However, recent reappraisal has indicated that we were not always acting in full accord with this principle. Although we had long since abandoned a narrow regulatory approach, we were still concentrating most of our time on the techniques of personnel administration as practiced by the personnel specialists. Our inspection reports were tending to become report cards to management on the kind of job the personnel officer was doing. In other words, if our intention was to look at personnel management, we were spending too much time in the wrong place and we were evaluating the wrong people.

We also found that our concern with techniques and with the personnel specialist had so jargonized our communications that we were not talking in language that the manager understands. At least the connection between our inspection findings and his concern with his own mission frequently was so tenuous that he found it difficult to see any real connection between the two. We concluded that our inspection activities were not sufficiently meaningful to managers and we began to search for ways to make them more meaningful. If we are to get improvement, we have to motivate change, and this

by SEYMOUR S. BERLIN, Director
Bureau of Inspections
U.S. Civil Service Commission

means that we have to reach the manager with our findings in such a way that he becomes convinced that change is in his interest.

This realization did not come overnight. We went through some very basic soul searching and self-analysis and we asked ourselves some very simple questions:

- -What is personnel management?
- -Who is the personnel manager?
- -What is the responsibility of the manager to carry out public policy in a democratic government?
- -What is the role of the personnel officer?

and finally, from our standpoint:

—What should we evaluate and how should we go about it?

This kind of review of the basic ABC's of our business caused us to rethink our reason for being, and led to our "new look."

WHAT IS PERSONNEL MANAGEMENT?

There are a number of definitions of personnel management available, but perhaps the one that carries the most meaning in the briefest words is that personnel management is getting things done with people. In other words, it is the use of human resources in accomplishing the overall goals or mission of the organization. Still more simply, it is how the manager plans for, gets, develops, uses (and loses) the people he must have to do the job for which he is responsible. It follows then that the agency head and those to whom he has delegated his overall management authority are the personnel managers. Personnel management is an indivisible and inextricable part of the overall management job.

Management in government is different; therefore so is personnel management. The management of public enterprise entails certain formal responsibilities for the means as well as the ends. The Congress, the President, and the Civil Service Commission have imposed requirements on the way people are hired, developed, promoted, evaluated, fired, and otherwise treated in the Federal service. This adds another dimension to the program manager's job: the responsibility to adhere to public policy in the ways in which he uses human resources in getting his mission accomplished. This responsibility rests squarely on his shoulders.

The inherent authority for personnel management belongs, in our system of public administration, to the department or agency head. He delegates his authority to lower levels in the organization, holding them accountable for getting results.

Under our career merit system, however, the Civil Service Commission has the authority to control many facets of the procedures that may be used in managing people. Since 1947, following the principle expressed in Executive Order 9830, the Commission has delegated its authority in most personnel areas to the heads of agencies subject to published standards, rules, regulations, and guides. In some areas, for example the classification of positions, the law holds agency heads directly responsible for placing jobs in classes and grades under standards issued by the Commission. Here the initial responsibility belongs to the agency head, not the Commission.

Finally, the President has directed that in managing human resources Federal managers must also carry out his expressed interests in such areas as equal employment opportunity for all citizens and affirmative willingness to deal cooperatively with properly established employee organizations.

Federal managers therefore have a dual responsibility, no part of which can be delegated to others. They are responsible for getting their jobs effectively done with people and at the same time for doing this in a way that carries out public policy as it has been promulgated by appropriate authority.

JOB OF THE PERSONNEL OFFICER

In this context, the role of the personnel officer must be truly that of giving staff assistance to the manager. He may properly act for but never instead of him. He is an arm of management, not of the Commission, or of the personnel profession. He is not properly a buffer or go-between in representing employees to management and management to employees. He exists only to help the manager carry out his personnel management responsibilities. His is an important part in the process because he has the burden of helping the manager to adapt the requirements imposed from outside as closely as possible to the needs of the organization.

COMMISSION'S ROLE IN EVALUATION

Our analysis led us to the conclusion that we have three separate but closely related responsibilities for review and evaluation of personnel management in the Federal service:

First, as the central personnel agency, we have a leadership function. If we are to exercise this function so that we have an impact in terms of improving personnel management, then our job is to evaluate how personnel management is contributing to (or perhaps in some areas hindering) mission accomplishment. This is the key to our new look. We are not concerned with personnel programs per se, but with personnel programs as they have a positive or negative effect on the basic job the manager has to do.

Second, we have responsibility for assuring the Commission that the authorities that have been delegated or assigned to agency heads, either by the Commission or directly by law, are being exercised within the spirit of the requirements that apply and that employee rights embodied in law and regulation are being honored. This is a kind of review obligation which we cannot avoid. The manager is responsible for carrying out these policies and our job is to determine how he is meeting this responsibility and to require corrections on a program or case basis as appropriate.

Third, in most Federal personnel matters, we are the eyes and ears of the Administration, responsible for reviewing and reporting on how managers are carrying out the President's declared public policy objectives in equal employment opportunity, employee-management cooperation, appeals and grievances, and so on. In many respects, this very process becomes motivational.

CARRYING OUT OUR EVALUATION ROLE

The basic difference in our new approach is that we go to the manager first and from him to the personnel office rather than the reverse of this procedure. Our first step in a general personnel management inspection is to conduct semistructured interviews in depth with all levels of management people in the organization. Our approach in these interviews is to find out how managers perceive their personnel management responsibilities and the problems they encounter in meeting their overall management obligations. Our approach to them is expressed in terms of the problems they encounter that may be getting in the way of their missions, or what is needed to do a better job of mission accomplishment. We also interview and conduct questionnaire surveys of first-line supervisors and individual employees, talk to the personnel people, look at records, review cases as a means of evaluating programs, and so on.

All our reviews are centered around the three responsibilities the Commission has to meet. They occur at

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various management and administrative levels and carryout different purposes at each level.

At the individual installation, both in the field or in Washington, we try to help the responsible manager to solve his personnel problems through actions he can take locally. We are also concerned with discovering problems that are beyond the ability of the individual installation to solve so that they can receive attention at higher levels in the organization. Finally we are providing a service to higher echelons by reporting to them the results of an outside, objective review of how delegated personnel authority is being exercised.

At the bureau level, we are seeking to arrive at overall evaluations of the kind of personnel management job the bureau as a whole is doing. This is both a means of helping the bureau director to improve his personnel management, and of providing a service to the head of the department or agency by giving him our summation of the way in which the authority he has delegated to the bureau is being exercised.

Finally, in the case of a department or agency as a whole we are concerned not only with assessing the overall state of personnel management as such, but more specifically, with determining the extent to which overall responsibility is being exercised in terms of: (1) Delegating authority and assigning responsibility, (2) setting down guidelines for the exercise of this authority, (3) giving day-to-day leadership, guidance, and assistance on how best to meet the problems that continually arise, (4) getting prompt and accurate feedback on how delegated authority is being carried out, and (5) taking prompt action when problems are identified.

While doing these things as a service to agency management, we are simultaneously determining how the civil-service laws, rules and regulations are being applied, and developing information for the President and other

high officials in the Administration on how their public policy interests are being met.

WHAT ARE THE RESULTS?

One result that emerges rather clearly is that we are becoming more and more able to motivate a personal interest in our findings on the part of the program manager. Once he is made aware that in a real sense we are evaluating him as a personnel manager and not evaluating abstract personnel programs or his personnel officer, he becomes interested and personally involved.

Another result is that we now can better approach the manager regarding those aspects of personnel procedure which are designed to carry out public policy. Here we are no longer trying to sell particular programs—like the reduction-in-force system for example—on the basis that they are good management medicine. Instead, we are reminding him that he has the specific responsibility to carry out public policy requirements whether he likes them or not. At the same time, we try to help him and his staff to use the flexibilities that have been built into these programs to reach his overall objectives.

WHERE DO WE GO FROM HERE?

Our most important need now is to get more and better feedback on the real impact our evaluations are having. We are not evaluating just to have an evaluation report but to motivate specific action for improvement when we find the need for it. We hope, as we progress further with our mission and management-centered approach to evaluation, that we will find better ways of getting follow-up on the results of our evaluations. The final test of our efforts will be the degree to which we have been a positive help in getting agency missions done with the kind of human resources they need to do the job.

CSC GETS OFFICIAL SEAL

President Kennedy recently issued an Executive order which gave the Civil Service Commission its first official seal.

The new seal features a four-pointed ridged gold star over a green palm wreath with a gold tie. Heraldic symbolism of the new seal is as follows: the Pole Star (symbol of guidance to man in his search for new ways) and the palms (representing the reward of merit) are combined to depict the aspirations and achievements of the Civil Service Commission

The former unofficial seal has been used by the Commission since 1906.



THE OLD



THE NEW



LEGISLATION

MOST OF THE BILLS affecting officers and employees of the Federal Government that have been introduced in the 88th Congress since it convened on January 9 are identical or similar to those introduced in prior Congresses. A brief summary of some of the proposed legislation pending follows.

Hearings are just beginning on a few of the bills of either a technical or perfecting nature. A more substantive statement of the provisions of the bills on which action may be taken will appear in subsequent issues of the *Journal*.

All the bills mentioned are pending before the House or Senate Committee on Post Office and Civil Service or one of the subcommittees, unless otherwise indicated.

EMPLOYEE-EMPLOYER RELATIONS

Bills to provide for recognition of Federal employee unions and to provide procedures for the adjustment of grievances have been introduced in the House. The bills would base in statute a program similar to the one provided by Executive order.

HEALTH BENEFITS

Bills to amend the Federal Employees' Health Benefits Act of 1959 include those to eliminate discrimination against married female employees and those to extend the benefits to groups not now covered, such as certain retired employees entitled to deferred annuity, survivors of annuitants who died prior to April 1, 1948, and certain students up to age 21.

LEAVE

Bills to amend the Annual and Sicl: Leave Act of 1951 have been reintroduced. Most of these bills are similar to those of prior years and cover such subjects as a 26-day annual leave accrual rate for all employees, an increase in the ceiling on leave accumulations, and a raise in the sick leave accrual rate to 15 days a year. Other bills propose to credit unused sick leave toward retirement or make payment for sick leave upon retirement.

PAY

AL

Several bills to amend the Federal Salary Reform Act have been introduced. One would change the effective date of promotions of certain employees from the actual date of promotion prior to the Federal Salary Reform Act of 1962 to the effective date of such pay act. Another would restore the granting of step increases on the basis of performance ratings of satisfactory in lieu of the standard of acceptable level of competence. A third

would fix pay for Classification Act employees on the basis of prevailing rates and a fourth would adjust the salaries of postal employees in accordance with prevailing rates. The bill on back pay has been reintroduced in both House and Senate. This proposed legislation provides for the payment of compensation and restoration of employment benefits to certain Federal employees improperly deprived thereof.

Several bills have been introduced to authorize the withholding from the pay of civilian employees of the United States the dues for membership in certain employee organizations, upon consent of the employee.

A bill to permit the Federal Government to withhold from wages of Government employees taxes upon their income by municipalities which impose the duty of collecting taxes upon the employer has been reported out of the Committee on Ways and Means and is pending on the Calendar in the House.

LIFE INSURANCE

Bills have been reintroduced to amend the Federal Employees' Group Life Insurance Act to modify the decrease in the amount of insurance at age 65 or after retirement and to provide for an additional unit of insurance.

POLITICAL ACTIVITY

Two pending bills would amend the Hatch Act. One would permit all officers and employees of the Government to exercise the full responsibility of citizenship and take an active part in the political life of the United States. This bill is before the House Committee on House Administration. The other bill would permit certain political activity by Federal employees residing in Maryland or Virginia and employed in the District of Columbia or surrounding counties of such States. This bill is pending before the Senate Committee on Rules and Administration.

RETIREMENT

The bills to provide for retirement on full annuity after 30 years of service regardless of age have been reintroduced. Some of these bills have a 55-year age requirement. Among other bills introduced to amend the Civil Service Retirement Act is one to provide for recomputation of annuities where persons designated to receive annuities predecease the annuitants; another eliminates the provisions requiring termination of annuities of surviving widows or widowers upon remarriage.

A success story for the Federal career service

DEATH OF SPUTNIK IV:

Main Street, U.S.A.

The Russians hurled a 5-ton spacecraft into orbit in May 1960. Two weeks later they attempted reentry maneuvers. Something went wrong, and the wayward satellite swung into a higher orbit. Nearly 28 months later it plunged to earth over Wisconsin. Federal scientists of the Smithsonian Astrophysical Observatory, Cambridge, Mass., and volunteer Moonwatch teams were waiting for it, and retrieved what was left of the Russian prize.

The Journal presents here the story of their successful recovery and scientific analysis of the surviving fragment.

N SATURDAY, JANUARY 5, 1963, representatives of the Soviet Embassy in Washington formally accepted from the United States the last remains of Sputnik IV—a 14-pound chunk of blackened metal. The acceptance occurred only after a long series of negotiations following the initial American offer of the fragment at the United Nations.

Today the Sputnik fragment is undoubtedly back home in Russia, where by international agreement it rightfully belongs. It might even be on display in a Moscow museum—a disappointing thought to those who felt it should be turned over to one of our own museums, either to the Smithsonian or to the museum in Manitowoc, Wis. Why Manitowoc? Because the fragment, as part of the satellite, had whizzed through space for nearly 28 months and had crashed to earth in the middle of a Manitowoc street—practically in front of the community's own museum!

The Russians had hurled the 5-ton spacecraft into orbit on May 14, 1960, and had announced that this was to be a test of their life-support system. (This was

by JAMES C. SPRY
Public Information Office
U.S. Civil Service Commission

before their successful Vostok flight.) The satellite, they said, carried a dummy cosmonaut in a pressurized cabin, and was programed for reentry maneuvers. Two weeks later, the retrorockets were fired to slow the spacecraft for reentry. However, something went wrong. The retrorockets obviously fired in the wrong direction, for the vehicle broke into several pieces and swung into a higher orbit that ended more than 2 years later on a Manitowoc street.

A disappointment to the Russians, yes. But the recovery and scientific analysis of the Sputnik fragment spelled high success to the Federal career scientists of the Astrophysical Observatory of the Smithsonian Institution (SAO), Cambridge, Mass., and to their volunteer Moonwatch teams scattered around the world.

THE STORY BEGINS . . .

Many people were involved in the recovery of the Sputnik IV fragment. In terms of numbers, the members of Moonwatch comprised the largest group.

"Boy Scouts to bankers" has often been used to describe the composition of Moonwatch teams—groups of volunteer citizens who have proved themselves valuable participants in the space age. Though they come from all walks of life and represent different age groups, they all have at least three things in common: some knowledge of astronomy, a deep interest in what's going on over-

head, and a desire to participate in space adventures.

Moonwatchers, known as MW's, are scattered around the world. Today there are 94 registered teams (60 of them in the U.S.), averaging 10 members each. Their activities are directed by Richard C. Vanderburgh, Chief, Moonwatch Operations, Smithsonian Astrophysical Observatory.

The MW's put themselves on the map at the very beginning of the space age. Already organized and partially trained to help make visual observations during (and after) the International Geophysical Year, they were ready to respond when Russia caught the free world off-guard with the launching of Sputnik I on October 4, 1957. Our tracking stations were not yet fully operational, so the MW's headed for the fields and rooftops and provided our first direct information on the orbit and other characteristics of the satellite.

During the years since Sputnik I, the Moonwatchers have performed a variety of useful services. However, the growing sophistication of our electronic and camera tracking systems threatened to put them out of business. Dr. Fred L. Whipple, Director of SAO, had other ideas.

At the third annual MW Teamleaders Conference at SAO in May 1962, Dr. Whipple gave renewed emphasis to visual observations of reentering satellites as an MW project. Up to that time, the SAO-Moonwatch efforts to recover satellite fragments, supported in part by a NASA grant, had been unsuccessful. Dr. Whipple suggested an intensified effort, pointing out that with more and more satellites going up, and more and more coming down, the chances for success were getting better. He felt that MW observers would have a better chance for success than the Baker-Nunn camera stations, since skypatrols can continuously cover the entire sky. This point was strengthened by the fact that the final orbits of reentering satellites change very rapidly, making it difficult to know where and when to point the large cameras.

An all-out planned satellite recovery project seemed a natural enterprise for SAO to undertake, with their worldwide network of MW's, camera stations, and communications systems. Also, they had been engaged in recovery of meteorite fragments and had an excellent laboratory that was doing radioisotope analyses of the fragments.

Dr. Whipple's suggestion was adopted, but the MW's and SAO scientists who would work hand-in-hand on the project knew full well that the chances for early success were slim indeed.

... WITH A STACKED DECK

What were the chances for recovering a satellite fragment? Better than ever before, but not good enough to warrant hopes for an early recovery.

Four-fifths of the earth's surface is water. Of the one-fifth that is land, a large proportion is behind the Iron Curtain. Then, too, a large part of Free World

land is uninhabited, forested, mountainous, etc. All of which means, of course, that for a successful recovery, a satellite (or fragments) would have to survive the flaming plunge through the earth's atmosphere and would have to fall on inhabited Free World land. The reentry would have to be observed; the point of impact calculated; and the surviving fragments located. This would surely happen, the SAO scientists reasoned, sooner or later—probably within 1 to 10 years. Undaunted by such poor odds, they knew that a successful recovery would have great scientific value in the fields of radiation and meteoritic studies, especially since the amount of time the fragment had spent in space would be known precisely.

The U.S. had previously recovered some fragments from space, mostly pieces of rocket casings that had been up for only a few orbits, but we had never recovered any satellite fragment that had been exposed to the space environment for any length of time. It was this latter condition that interested the SAO people.

A TRIAL RUN

As an experiment, the Moonwatch Division made plans to conduct an organized skypatrol in an attempt to observe the next large reentering satellite—which happened to be Sputnik IV. The U.S. Space Detection and Tracking Center (SPADATS) had predicted reentry of this satellite to occur on or about September 6, 1962. Exact time and place of reentry: unknown.

Using their own approach to the problem, plus basic information provided by SPADATS, the Moonwatch Division outlined for the IBM-7090 computer a basic program that would produce detailed information as to when a given observation station would pass beneath

REENTRY FACTS

As an orbiting satellite begins to lose its energy, each successive orbit brings it closer and closer to earth. As this happens, atmospheric resistance removes more and more energy during each orbit. Ultimately it will reach a point where its velocity cannot offset the pull of earth's gravity, and reentry begins.

Reentering at a speed of around 5 miles-persecond, the body begins to experience sufficient air friction about 60 miles up to cause it to heat up and glow—and thus to be visible from the ground. The final, uncontrolled plunge to earth creates destructive temperatures that can vaporize the hardest steel. The distance from the first glow-point to the point where surviving fragments (if any) strike the ground can be several thousand miles.

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the satellite's orbit during its final revolutions. From the computer output, a table showing such information (called a "prediction ephemeris") was carefully prepared.

On August 29, 1962, MW headquarters airmailed instruction packets to about 750 addresses, including those of MW teams, phototrack members, observatories, colleges, universities, and other interested groups throughout the world. MW had decided to scan the skies around the clock on September 5, 6, and 7—or until it was known that Sputnik IV was down.

The prediction ephemeris was sent to all MW teams with instructions to set up shifts to monitor each pass of the satellite over their stations. A covering letter said, in part: "Our main purpose will be to try out techniques and procedures for determination of the region of impact by the pieces of the satellite which survive the plunge through the atmosphere. . . ."

A trial run, the attempt was to be. Nothing more.

DEATHWATCH AND A FIERY PLUNGE

N TUESDAY NIGHT, September 4, Milwaukee MW team leader Ed Halbach and his assistant, Gale V. Highsmith (both industrial engineers), held a brief training session at the observatory of the Milwaukee Astronomical Society (an amateur group) to prepare their team for effective reentry sky patrol. Similar sessions were the order of the day at other MW locations around the world. The ephemeris indicated that the orbital plane of Sputnik IV would be over Milwaukee at 8:25 that night. The team monitored the pass, but nothing happened.

Observers Leonard Schaefer and Raymond Zit planned to continue the Milwaukee patrol from the observatory at the next orbital pass predicted for 4:58 the next morning. Highsmith would observe independently 20 miles away from a small hill near his home in downtown Milwaukee. The MW's went home, set their alarm clocks, and were back at their stations by 4:00 a.m.

At 4:49 a.m., Wednesday, the incredible happened. Highsmith saw just what he was looking for: coming from the northwest was a bright reddish-orange starlike fireball. It appeared to split into several pieces—exactly as a disintegrating satellite might behave. The pieces streaked to the southeast—along the predicted Sputnik path—and Highsmith was able to get a compass fix on them before they vanished.

Schaefer and Zit saw much the same thing (but got no fixes), and so did Wisconsin policemen, farmers, and other early risers. Most witnesses reported seeing as many as 24 pieces, and some reported a "thunderlike noise." Still, no one reported seeing any surviving fragment hit the earth. Nevertheless, reentry had been observed and Highsmith had been able to get the compass heading of the fiery display.

Within minutes the Milwaukee Journal and local radio and TV stations swung into action, informing the public that pieces of the satellite might be down in that area. Residents finding suspicious pieces of metal were asked to rush them to the Journal. Needless to say, a strange assortment of just plain junk was collected.

DISCOVERY IN MANITOWOC

Seventy-five miles north of Milwaukee, the Lake Michigan port city of Manitowoc was beginning to stir in the early morning. Unaware of what had been seen in other sections of Wisconsin, patrolmen Ronald Rusboldt and Marvin Bausch were cruising the streets in their squad car. At 5:30 a.m. they noticed in the middle of the street a small object resembling an irregularly shaped piece of cardboard. When they passed again at about 7:00 a.m., they saw that the object was definitely metallic, so they stopped to remove it as a hazard to traffic. They were surprised to find the object imbedded in the asphalt and too hot to handle, but managed to move it to the side of the street.

There it lay until the afternoon when the same two patrolmen, having heard the news reports, went back to take another look. The object was still lying by the curb, so they took it to Inspector Francis J. Lallansach at police headquarters. Personnel from two local foundries and a shipyard were called in to inspect the object, but they could not identify it. Lallansach asked a visiting salesman, on his way to Milwaukee, to drop it off at the Milwaukee Journal.

Upon receiving the object, the *Journal* notified Moonwatcher Halbach of the Manitowoc discovery, and Halbach quickly called MW headquarters at SAO. Observer Highsmith was commissioned to fly the object to Cambridge, as local examination indicated a possibility that this 20-pound piece of metal might well be a satellite fragment.

HOAX, JUNK . . . OR FOR REAL?

Highsmith, with his mysterious cargo, arrived at SAO on Thursday afternoon, the day after Sputnik IV was known to be down, as was verified by space radars. Dr. Charles A. Lundquist, SAO's Assistant Director, and a group of SAO people were on deck to meet him.

The object was laid bare on a table in Lundquist's office, and the group gathered around. The blackened hunk of metal was obviously manmade, they could tell, but it appeared to be solid steel—far thicker than that ordinarily used in satellite construction. On the other hand, it appeared to have been subjected to great heat and a considerable amount of melting.

The initial reaction, according to Dr. Lundquist, was one of "skepticism that the fragment was authentic." The whole atmosphere, he related, was one of "amusement and curiosity." The first step was to photograph the object completely from every angle. Then careful measurements were taken—still in Lundquist's office. Suddenly hopes began to mount. All measurements figured out in the metric system—a system not used by American manufacturers but used throughout Europe (including Russia).

The object was crudely disk-shaped, approximately 20 centimeters in diameter and 8 centimeters high. It weighed 9.49 kilograms, or about 20 pounds, and the top cylinder was welded to a circular plate precisely 1

centimeter thick.

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The SAO career scientists then took the object downstairs to their machine shop and cut a pie-shaped section from it. Again, luck was very much with them. The cut exposed an embedded bolt in an irregular layer of metal that had melted and resolidified. The threads on the bolt were measured: 1 thread per millimeter—again, the standard European size.

As Dr. Lundquist said, "We then knew that if this was a piece of junk, it was a strange piece to be found on a Wisconsin street." Concluding only that the fragment was "probably authentic," Lundquist reached for his phone and called Arnold Frutkin, Director of NASA's Office of International Programs, to give him as much lead time as possible with regard to international

implications of the recovery.

Proof was still needed that the object had been exposed to the radiations of space. SAO's Dr. Edward L. Fireman and his associates spent the next two days looking for proof. They melted down a fragment of the object in a vacuum chamber to release radioactive gaseous isotopes (if any) that might have formed and been trapped in the metal. They found traces of argon 37 and manganese 54 which could have been formed only by sus-



THE "CATCH" in a king-sized ball game that stretched around the world was the above 20-pound Sputnik IV fragment that survived the reentry plunge and crashed to earth on a Manitowoc, Wis., street. (SAO photo)

tained bombardment by cosmic rays and trapped particles in the Van Allen belts.

This was indeed part of Sputnik IV!

FOLLOW-UP AND FURTHER ANALYSIS

The day after the fragment arrived in Cambridge, SAO sent Walter A. Munn, assistant supervisor of their Photographic Meteorite Recovery Project, to Wisconsin to make further inquiries and to search for additional specimens. Many smaller fragments were found, but none exceeded an inch in length.

At SAO a mineralogical analysis was made of the oxidation products (crust) that formed on the fragment during reentry. Civil servant mineralogist Ursula Mar-

MOONWATCH CHIEF Dick Vanderburgh (center) on September 19 personally delivered commendations from SAO's Director, Dr. Fred Whipple, to Milwaukee's MW team and other Wisconsinites who helped in the recovery of Sputnik IV fragments. Here team member Gale Highsmith (left) and leader Ed Halbach join in looking at chunks of still unidentified metal. (SAO photo)



vin found two minerals that are extremely rare in the earth's crust. By X-ray diffraction analysis she found wüstite, a black iron oxide that is unstable and almost nonexistent at room temperature. When wüstite is produced industrially (as a trace byproduct in steel smelting), it decomposes rapidly as the molten mass cools. Mrs. Marvin had expected the black crust to consist mainly of the stable iron oxide, magnetite.

"Luckily wüstite appeared on my first film," she related to the Civil Service Journal, "because I probably wouldn't have made a second." She also found akaganeite, another rare and unstable mineral.

After identifying these two minerals on the fragment, Mrs. Marvin reasoned that they might also occur in the crust of iron meteorites. Having been working on the meteorite recovery and analysis project, and having meteorite specimens at hand, she checked—and found both wüstite and akaganeite. These occurrences on meteorites had never before been noted. On both the Sputnik fragment and iron meteorites, Mrs. Marvin concluded, the two rare minerals were created by the extreme heating (and oxidation) conditions of reentry.

In addition to the continuing SAO analysis, specimens of the fragment were sent for metallurgical examination to the Massachusetts Institute of Technology and to the Brookhaven National Laboratory. The fragment was found to be made primarily of ordinary steel. Specimens were also sent for radioactive analysis to the Los Alamos Scientific Laboratory, the Air Force Cambridge Research Laboratories, the Carnegie Institute of Technology chemistry department, and to Brookhaven. All findings corroborated those of SAO.

FRAGMENT AT THE U.N.

By a remarkable coincidence, at the very time that the Manitowoc fragment was undergoing SAO's tests for authenticity, a not-unrelated debate was going on in the United Nations Committee on Peaceful Uses of Outer Space. An impasse had been reached—the Russians wanted to take up one thing on the agenda, the Americans another. The American position was that the committee should be considering specific questions on the legal side of space exploration—questions such as: Who would be liable if a reentering satellite fragment caused damage or personal injury? Who could claim ownership of fragments that survived the death plunge-the country that launched the satellite, or was it to be finderskeepers? The Russians did not agree with the U.S. position, and wanted the group to consider general principles rather than specific practical matters.

On September 12—just 6 days after the Manitowoc fragment had been unwrapped on his desk—Dr. Lundquist was directed to deliver the remains of Sputnik IV to the U.S. Mission to the United Nations. He did so that very night.

STARTLING DISCOVERY

SAO scientists are accustomed to making important discoveries. Here is one of their most dramatic recent findings.

For nearly 100 years astronomers have figured that the spectacular rings of Saturn are about 45,000 miles wide and around 10 miles thick. SAO astronomers Allan Cook and Fred Franklin, after 5 years of ring research—including 6 months at two South African observatories—have calculated that the rings are "probably less than 8 inches thick"! This incredible width-thickness ratio of 356,400,000 to 1 is not known to be paralleled anywhere else in nature. It may be, Cook and Franklin are now thinking, that those glorious rings, composed of dust, snow, and ice particles, are less than four inches thick.

On September 14, Francis Plimpton, American delegate to the UN Committee on Peaceful Uses of Outer Space, made a speech defending the American position. Then he produced the Sputnik fragment and offered it to Russia in the name of the United States.

P. D. Morozov, the Soviet delegate to the committee, declined to accept the fragment for his government.

The offer was left open. The Soviet refusal stuck, and the unclaimed fragment was returned to SAO for further analysis. However, early in January of this year the Soviets decided to accept the fragment, and on January 5, 1963, representatives of the Soviet Embassy in Washington formally accepted what was left (14 pounds) of their 5-ton spacecraft.

CONCLUSION

The Sputnik IV story is more than a chronology of exciting events. The scientific results were of such importance that a special session was held at the American Geophysical Union meeting last December at Menlo Park, Stanford, Calif. At the session, chaired by SAO's Dr. David D. Tilles, representatives from Federal and non-Federal organizations that had analyzed the fragment presented their findings to the scientific community.

Such success is no newcomer to SAO. This was but another in a long series of discoveries and contributions—many of which by far outrank the Manitowoc recovery in terms of pure scientific value.

Nonetheless, the Sputnik achievement did establish an important "first" in the annals of American space exploits. We can be sure there will be many more, and sure also that SAO will be in there pitching—as well as catching.

SCIENTIFIC MANPOWER:

Progress and Prospects

"Science plays a vital role in assuring continued advancement of the Nation's health, welfare, economy and security. Science activities of the Federal Government are an essential component of the national scientific effort . . .

"If the United States is to improve or even sustain its current world leadership in science, Federal laboratories must compete more effectively with other employers for scientists and engineers capable of providing imaginative leadership, effective management, and significant achievement."

THESE TRENCHANT STATEMENTS appeared in "The Competition for Quality," a report published by the Federal Council for Science and Technology and endorsed by President Kennedy in May 1962. The report, by a panel of scientists under the chairmanship of Dr. Allen V. Astin, Director of the National Bureau of Standards, contained many recommendations for constructive action.¹ The President told the heads of Federal departments and agencies that "All practicable action should be taken to implement these recommendations."

A year after publication of the Council's report, it is appropriate to assess progress to date, look at some remaining problems, and consider future prospects for scientific manpower in the Federal service.

PROGRESS IN SALARY REFORM

The "Competition for Quality" appeared in two parts. Part I dealt with the serious salary lag in Federal laboratories in comparison with pay for similar work in universities and private employment. As readers of the *Journal* know, great progress came with passage of the Federal Salary Reform Act, approved in October 1962. The Panel's recommendation that the Federal salary system should be broadly competitive with systems in private enterprise was embodied in the new salary plan, since the act provides that "Federal salary rates shall be comparable with private enterprise salary rates for the same levels of work"

Actually, full comparability was not immediately achieved. Even the second-stage salary schedule, to be effective in January 1964, lags considerably in the upper grades behind comparable pay in private enterprise. But



by HAROLD H. LEICH, Chief Program Planning Division U.S. Civil Service Commission

in his 1963 budget message to Congress, the President recorded his intention to recommend upward adjustments in career pay to bring it fully in line with the results of the 1962 Bureau of Labor Statistics survey of white-collar pay in private employment. If Congress concurs in these adjustments, the comparability principle will become fully operational with the January 1964 salary schedule.

Even with a comparable salary scale for most occupations, a problem remains in certain shortage categories where private enterprise pay is unusually high.

For some years the Commission has had authority to set entrance rates for such occupations at steps above the normal minimum. But as the Astin Panel pointed out, this increased hiring rate meant that there were fewer remaining steps within the grade for normal salary advancements. It recommended that this authority be broadened to allow the Commission to raise the entire range of rates within the grade so that new recruits would have the usual number of steps for within-grade in-

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creases. This plan was included in the Salary Reform Act and is now fully effective.

Another pay recommendation in "The Competition for Quality" was carried out by the Salary Reform Act: that the salary system recognize high-quality performance by providing for additional within-grade increases." Regulations putting this new provision into effect were issued by the Commission in February. This new plan should be of particular value in recognizing creative contributions in research and development work; it gives the science administrator a powerful motivating instrument in addition to the various ones already available to him under the Incentive Awards Act.

ONE SALARY REFORM FEATURE of the greatest interest to research and development personnel goes far beyond anything recommended in "The Competition for Quality." The top three career grades under the Classification Act-GS-16, 17, and 18-have been governed by various statutory limitations on the number of positions that could be placed in these grades ever since they were created in 1949. Before the Salary Reform Act was passed last October, only about 100 scientific and related positions had been placed in these grades out of the total of more than 2,500 authorized by Congress (since most high-level R&D positions are established under Public Law 313 and similar special authorities). In an amendment to the Salary Reform Act made by the Senate Committee on Post Office and Civil Service, the numerical limitation on these three grades was completely removed for all professional engineering positions primarily concerned with research and development and professional positions in the physical and natural sciences and medicine.

Positions of this type must still be approved by the Civil Service Commission, but removal of the arbitrary numerical limitations should open up many recruitment and promotion opportunities in Federal laboratories for top-flight scientific and related personnel. Dr. Jerome B. Wiesner and CSC Chairman Macy sent a joint letter to heads of agencies stressing the significance of this new authority and urging careful evaluation of candidates on the basis of high qualifications rather than as a reward for seniority. As the letter pointed out, individual creative scientists as well as science administrators are eligible for consideration, and the letter suggested the criterion of national recognition in the case of nonsupervisory candidates. Many recommendations for the GS-16, 17, and 18 grades have already come to the Commission; the first action with respect to an individual scientist was approved in January.

PROGRESS ON NONSALARY FACTORS

Part II of "The Competition for Quality," issued in April 1962, made 14 recommendations for improvements not related to salaries, covering such factors as recruitment, development, and retention of superior per-

sonnel for the Government's laboratories. A number of these were highlighted in Chairman Macy's article, "We Must Close the Communications Gap," in the *Journal* of October–December 1962, which included reports on progress being made to carry them out. Progress reports on some of the remaining recommendations for CSC action follow.

A key recommendation relates to the need for participation by scientists in shaping Federal personnel and other administrative policies. The Civil Service Commission was urged to obtain continuing expert advice from scientists and engineers and from R&D administrators in developing personnel policies.

In order to establish better communications with the R&D community along the lines of this recommendation, all three members of the Commission and its top staff recently met with Dr. Wiesner, the members of the Astin Panel, and other distinguished scientists from Government and industry. The meeting on January 8, 1963, covered a wide variety of topics but the need for better communications came up repeatedly, such as better understanding by administrators and laboratory directors of new flexibilities in the Federal personnel program and better understanding by the public of the achievements of Federal scientists.

The Commission plans to continue to obtain the views of scientists and engineers in shaping its personnel poli-In addition to liaison with the Federal Council for Science and Technology and its appropriate panels, the Commission keeps in touch with R&D problems through meetings of its staff members with PORDA (Personnel Officers of Research and Development Agencies) and through the Interagency Advisory Group, a periodic meeting of personnel directors with the Commission's Executive Director. Not least in importance is the network of consultation created whenever a proposed classification or qualification standard is sent out to Federal agencies for review. Thus hundreds of scientists, in and out of Government, had an opportunity to express their views on the revolutionary new standard for research and development positions when it was circulated in 1959.

CSC plans for additional means of communication with Federal scientists and engineers include the following:

- A proposed conference with laboratory directors, chief scientists, and administrative officers to discuss the present flexibilities in the Federal personnel system and to insure their full use, and to determine what further improvements are needed.
- A plan for circulating materials of interest to all persons on the Commission's Roster of Scientists and Engineers (GS-13 or equivalent and up).
 The minutes of the January 8 meeting referred to above have been sent out, and work is proceeding

on a pamphlet describing how the personnel system meets the special needs of an R&D environment.

 Reprinting series of pertinent articles from the *Journal* and inviting Federal agencies to order copies for distribution to their scientific staffs. Two reprints, "The Wondrous World of the Scientist in Civil Service" and "Civil Service Inventors," have been distributed.

PROGRESS CAN BE REPORTED on another recommendation of the Astin Panel: that R&D organizations be authorized to employ scientists and engineers for periods up to 5 years without tenure, with opportunity for the appointees to be given training to enhance their professional development. (The purpose of this arrangement would be to attract some highly qualified persons who might not apply for career appointment but who would welcome a developmental opportunity as one phase of their professional progress.) The Commission recently approved a new plan for term appointments for periods of less than 4 years when projects are not expected to extend beyond that length of time. Such nontenure appointments could include appropriate training programs. This plan in a sense serves the purpose of an extended probationary period, since the employing laboratory could urge the most promising appointees to qualify for regular positions at the end of the agreed-on The Commission hopes that Federal laboratories will make productive use of this new plan.

A somewhat related appointing authority was authorized in June 1962 when the Commission provided for 1-year appointments of university faculty members without competitive examination. This plan facilitates interchange programs between faculties and Federal laboratories, and also allows faculty members to be employed for special assignments. Similar authority has long existed for summer employment only; the new plan extends the employment period to the point where it fits in with the traditional sabbatical year for faculty members. This type of "cross-fertilization" should be of especial value in research and development work.

Two recommendations regarding travel made by the panel would require new legislation:

- Authority to pay travel expenses of candidates for R&D positions to come to Federal laboratories for interviews. This is the usual practice in private employment; the candidate can look over the work situation, and the laboratory staff has a chance to size up the candidate.
- More adequate reimbursement to Federal employees who move from one location to another in the interest of the Government.

Progress is being made in developing legislative recommendations on both of these items. On the second, the Commission obtained detailed questionnaires from

more than 5,000 employees who moved in 1962, showing the amounts they had spent in connection with the move and the extent to which expenditures had not been reimbursed. The substantial losses reported show that some type of corrective action is urgently needed if the Government service is to have a reasonable degree of career mobility.

SOME UNSOLVED PROBLEMS

The most encouraging factor that emerges from the foregoing list of actions taken to date is the assurance that top policymakers in the legislative and executive branches are aware of the need to keep the personnel system responsive to the demands of a rapidly changing technical age. While progress can be reported, much remains to be done. For example, the Astin Panel urged that authority be provided to hire a candidate with exceptional ability or a unique combination of needed skills at a salary rate above the general entrance rate of the grade. (This should be distinguished from the existing authority in section 504 of the Salary Reform Act for the Commission to raise entrance rates for all positions in a certain class.) Such authority would place Federal laboratories in a better bargaining position in bidding for outstanding candidates. The provision was included in the Administration's salary reform bill but was eliminated in Congress.

Another recommendation in "The Competition for Quality" on which no progress can be reported concerns annual leave for scientists whose first Federal employment is at a senior level. Typically such persons come from universities or private laboratories where they have enjoyed very liberal vacations. On entering the Federal service, they begin to earn annual leave at the same rate as the newest typist (13 working days a year). Not until 15 years of service do they earn leave at the maximum rate of 26 working days a year.

It is easy to sympathize with senior persons, regardless of occupation, who must undergo such a severe cut-back in vacation privileges. But the practical problems of designing a better plan in the Federal setting are formidable. To give substantially greater leave privileges to those entering the upper grades, or to those above a certain age, or to those in certain occupations, would be difficult to accomplish without creating anomalous inequities. To date no workable plan has been suggested.

A NEW PROBLEM identified by some Federal science administrators results, oddly enough, from one of the liberalizing features of the Salary Reform Act. As already described under "Progress in Salary Reform," the statutory limitations on the number of positions in GS-16, 17, and 18 no longer apply to research and development and certain other positions. But the limitations on the number of Public Law 313 and similar positions

(Continued—See MANPOWER, page 23.)

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TRAINING DIGEST

TRAINING SCIENTISTS AND ENGINEERS

Questions have been raised from time to time about the limitations of the Government Employees Training Act which appear to inhibit the training of scientists and engineers at universities and colleges. Under terms of the act, the Civil Service Commission has broad authority to waive the most important of these restrictions in the public interest.

The willingness of the Commission to grant these waivers for the training of scientists and engineers was underscored recently by an Air Force issuance. In its Civilian Personnel Letter, the Department stated: "It has come to our attention that some Civilian Personnel Offices are not submitting such recommendations in apparently justifiable situations under the mistaken impression that such waivers are very rarely approved and the process is, therefore, a waste of time and effort.

"Such an attitude defeats the purpose of the waiver provision. Recommendations for additional waivers which can be fully justified on the basis of need should be forwarded to this Headquarters. Each recommendation will be evaluated individually and reasonably within the framework of the circumstances presented in the justification. Action by this Headquarters will be predicated on a broad base in light of the need indicated in the recommendation."

The Commission has no authority to waive the provision forbidding training solely for the purpose of obtaining an academic degree. However, this provision is sometimes misunderstood by scientists and engineers, because it does not forbid training to meet specific purposes which also results in credit leading to a degree. Many agencies do, in fact, authorize employees to take courses related to their jobs which can be used in fulfillment of degree requirements.

The fact is that many scientists and engineers are being sent to credit courses in universities. Some agencies have brought education to their doorsteps by cooperating with universities to form graduate study centers. These joint efforts provide close-by facilities for graduate and undergraduate courses, seminars, and short courses in special fields of interest. In many cases, not only the students but also the instructors are employees of the sponsoring agency.

In some instances, training centers have been created primarily to meet Federal education needs. The newest of these, Brevard, which started in 1958, has students who are instructors from the Air Force Missile Test Center, Cape Canaveral. The college is completely supported by tuition, fees, and donations. It offers such unusual courses as space medicine, missile instrumentation, celestial mechanics, and missile tracking.

TRAINING FOREIGN AFFAIRS PERSONNEL

The quantity of training available to personnel of the Department of State, the Agency for International Development, and the United States Information Service "should be increased and its quality should be elevated," says the Committee on Foreign Affairs Personnel in its report, "Personnel for the New Diplomacy."

The Committee, appointed at the request of Secretary Rusk and foundation supported, also recommends the creation of a new organization as a semiautonomous agency which would conduct research, provide instruction, and offer consulting services to training staffs. Plans for such an organization, a National Academy of Foreign Affairs, were presented at the same time in a separate "Report of the President's Advisory Panel." The panel, headed by Dr. James A. Perkins, proposes that many courses now conducted by the Foreign Service Institute be transferred to the new institution.

The President has asked Congress for enabling legislation and appropriations to implement these recommendations.

TRAINING NOTES

A Basic Course in Employee Development will be conducted by the Civil Service Commission from April 29 to May 10.

An Advanced Employee and Career Development Course will be conducted by the Department of the Air Force from June 10 to 21.

An Instructor Training Course will be offered by the Civil Service Commission in June.

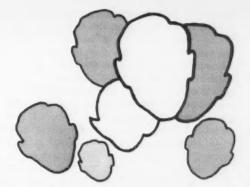
A Conference Leadership Institute will be offered by the Department of the Army in June.

More training courses for field personnel will be given in fiscal year 1963 by regional offices of the Commission. Present plans call for conducting about 150 courses in the 10 regions.

Scholarships which pay all or part of a Federal employee's tuition can be approved by agency officials in two ways: (1) as an award or contribution to the employee or (2) when given by the training institution, as reducing the rate for tuition. If a scholarship is approved as an award, the provisions of Regulation 39.501–39.506 and agency regulations on approval of awards must be followed by the employee development officer. If the scholarship is considered to reduce the tuition rate, the training can be approved under the regulations governing outside training.

-Ross Pollock

Qualification Standards—



Their Role in the Quest for Quality

THE CALL OF THE FEDERAL MANAGER for the best possible talent to staff his programs is loud and clear. This is a call which demands and deserves truly responsive answers from the personnel specialist whether he be in an agency field office or headquarters or in the Civil Service Commission.

There are many things that need to be done to respond effectively to this call. An article in the preceding *Journal*—"Performance Potential: The Fair Measure," by O. Glenn Stahl—emphasized that "proper matching of qualifications of individuals and job demands is especially important at the entrance or trainee levels of occupations." Going on from there, the following article deals more generally with qualification standards as one of the most important tools for making this matching process work in terms that serve management objectives.

Before getting into this subject, however, it should be made clear that standards by themselves are not the complete answer to the building of a high quality work force. Unlike popular detergents, a standard does not do everything. A good standard is not a substitute for careful analysis and planning of manpower needs, intelligent job design, aggressive recruiting, reasonably attractive pay and working conditions, sound placement, training, and promotion programs, and all the rest. For example, the best standard will not identify quality people from among a group of candidates unless, through good recruiting techniques, some quality people are there to begin with.

While the good qualification standard is not a panacea, it is a major and highly essential ingredient in the total mix. The well-designed standard serves as the catalytic agent which helps to build a strongly affirmative response to the manager's need for quality people. It provides the base on which the other aspects of the total quality search is built. It serves as the instrument which identifies and singles out the best of the available candidates for the consideration of the manager.

by RAYMOND JACOBSON, Chief Standards Division U.S. Civil Service Commission

How does a qualification standard do these things? First, let us examine what a qualification standard is and how it got that way.

Briefly, a qualification standard is a statement of (1) the requirements which must be met before a person can be officially assigned to a position and (2) the methods by which those who meet these requirements can be ranked in relative order of their ability to do the work.

THE MINIMUM REQUIREMENTS may be described in many different ways or combinations of ways. Examples are the passing of one or more written or performance tests; the amount, kind, and quality of experience or training needed; and the degree to which certain personal traits or qualities are needed. No matter how these requirements are stated, their objective is always the same. This objective is to insure that only those candidates who possess the knowledges, skills, and abilities needed to do the job are eligible.

We might say that the "true" requirements are the knowledges, skills, and abilities, while the "stated" requirements in the standard (test scores, education, experience, interviews, etc.) are evidences of the possession of these "true" requirements. The degree to which we can bring our "stated" requirements into close correlation with the "true" requirements of a job is the degree to which we have a really good standard.

The methodology for the ranking of eligibles in the order of their relative ability to do the job, as set forth in a standard, is primarily a refined extension of the same concepts underlying the establishment of minimum requirements. Here, the standard provides ways and means to measure the degree to which an eligible exceeds the minimum requirements, as compared to others. The same devices or "evidences" are used in this process,

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that is, education, experience, test scores, etc. Reliance is placed most heavily on those devices which tend to reliably measure relative differences between eligibles. For example, an experience requirement might play an important role in the minimum requirements part of the standard, but then be ignored completely in the ranking process in favor of using the score on a written test for that purpose. This would occur if the occupational study on which the standard was based had shown that the relative ability to succeed on the job was most directly related to the knowledge, skill, or ability measured most accurately by that test. Exactly the reverse, of course, could also be true. That is, the quality and relatedness of the experience might be used as the primary ranking device in another occupation, because of the findings of the occupational study.

IT IS IMPORTANT to spend a few moments on how a qualification standard is developed, to better see its relation to the "quest for quality." For the last several years, qualification standards have been the product of occupational studies in which there has been a careful examination of both the jobs and the people in the occupation. These studies are conducted mainly by on-thespot interviews with key supervisory and management officials in agencies, both in Washington and the field service, and with employees on the job. The object of the study is to develop both classification standards (to guide the grade level and occupational classification of jobs) and qualification standards (to guide the filling of jobs) on a completely integrated basis. Thus, all characteristics that tend to influence job success or failure as well as job level are rather fully developed and explored as part of one factfinding and analytical process.

The qualification standard that results from this process is one which is closely geared to the management needs of the employing agencies. It provides the basis for achieving some of the most important goals of any merit system. It serves the recruiter by providing him with the essence of the story he has to tell—what the work is and what is required to do it. It serves the classification program by insuring that the important work elements considered in classifying a job are ones which employees will be competent to perform. It serves the training program by identifying job requirements which need to be met by the worker for career development purposes.

Experienced personnel practitioners will recognize the above as air idealized description of qualification standards and their ability to contribute to the "quest for quality." Too many qualification standards still fall short of this ideal in one respect or another.

ADEQUACY OF EXISTING STANDARDS

Statistically, the coverage of published qualification standards for white-collar positions is quite adequate. Almost 90 percent of the occupational fields, representing 99 percent of the employees, are covered by published standards. While the currency of these standards is not completely satisfactory, it is not really too bad. Only 16 percent of the standards are more than 10 years old, and 61 percent are less than 5 years old.

The statistics may paint a bright picture, but we in the Commission believe it would be a mistake to relax and bask in their illumination. The main need, as we see it, has been to improve the *content* of these standards so that they will come closer to the ideals sketched at the

beginning of this article.

Looking at the existing body of standards from this viewpoint, what do we find? Basically, most standards have been built on a time-experience basis, that is, "so many years of general and specialized experience" as the minimum requirement for eligibility. This approach is based on a commonsense premise used by almost all employers, both private and public. This premise is: "The best evidence of the ability to do something is to have done it." Thus, as shoe stores look for persons who had previously sold shoes, so Government accounting activities look for persons with accounting experience that closely resembles the kind of accounting work to be done in the vacant job.

In a very important sense, this kind of standard reflects certain strong currents in our society. We, as a people, have always venerated age and experience. Important segments of our society have tended to equate length of experience and service with competence and

maturity of judgment.

An appealing aspect of the time-experience approach is that it gives users an impression they are applying an objective measurement. "Two years of experience as a payroll clerk" is a requirement that can be applied with apparent consistency and relative ease. The time-experience approach appeals to many users because ratings can be more easily explained to applicants. It is simpler to explain that an applicant was rated ineligible because he did not have 3 years of specialized experience than because his background did not demonstrate the capacity to make sound technical judgments in pressure situations.

Quality of experience has not been completely ignored in the past, of course. Almost without exception, every standard contains some provision that speaks to a qualitative requirement. Usually this provision is expressed by two different types of statements found in the standard. First, we require that experience be progressively responsible in nature. Second, we require that some portion of the experience (for example, 1 year) be at least equivalent to the next lower grade level in that occupation in the Federal service. Thus, concern for quality has never been absent from our standards. Our present program is not really as much a complete break with tradition as it is a focusing of effort on a few specific goals of increasing importance.

An important step in the program to improve qualification standards was to clarify our objectives by developing a set of goals against which our work products can be measured. These goals (adopted about 1½ years ago) are:

- Increase emphasis on quality of training and experience and on potential to do the work, and decrease emphasis on length of training and experience.
- Provide for a variety of ways in which persons can demonstrate required abilities, knowledges, and skills.
- Give more attention to the problem of recognizing the very able and versatile candidate who does not have "typical" qualifications.
- Devise selection techniques to identify potential and talent that applicants and employees have not had the opportunity to show in school or in previous employment.

BACKDROP FOR IMPROVEMENT

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The laying of the groundwork for the current qualification standards improvement program goes back much further than the adoption of the above goals. In my judgment, it should be traced back, at least, to the basic organizational changes made by the U.S. Civil Service Commission in 1953. This reorganization, among many other things, created the Bureau of Programs and Standards and, within it, the Standards Division. This Division was founded on the conviction that classification and qualification standards development needed to be concentrated in one organization. The new organization brought together the qualification standards specialists from the former Examining Division, the classification standards specialists from the former Position Classification Division, and the Test Development staff of the Examining Division.

The basic concept of this new Division was that studies of occupations should be conducted by looking at both job and people problems at one and the same time. Since about 1956–57, the typical standards study has been done in this way with the final products being classification and qualification standards for one occupation, prepared by one standards analyst.

This organizational shift, then, accomplished its major purpose of insuring the complete coordination of classification and qualification standards development. However, it has become obvious that coordinated development is not enough. The integrated approach now in use has served to make more apparent than ever before the need for a new kind of qualification standard, one which permits a more direct measurement of the relative abilities of individuals in terms of factors which are crucial to carrying out job responsibilities.

PROGRESS TOWARD BETTER STANDARDS

Our current efforts are directed toward two significant problems:

- 1. How can we assess better the total background of an individual in terms not only of wbat he has done, but how well he has done it? What have training and experience contributed to his growth in terms of knowledges, skills, and abilities needed in the job to be filled?
- 2. How can we identify the individual who, although lacking the specialized experience usually thought essential, has the necessary talent, ability, and knowledge to do the job to be filled?

Posing these two problems is easier than solving them. No final and definitive solutions are immediately available, nor are they likely to be. Progress, however, can be reported.

Basically, this progress has been of two general kinds. First, some broad steps have been taken which affect large groups of jobs in a variety of occupations and thus can be reported as general trends. Second, specific standards for specific occupations have been published which provide better qualitative devices. We intend that progress will continue along these two fronts.

The following lists the major actions already taken which fit into the first of these two categories:

- 1. Quality Graduate Standard. In 1958, after a legislative change in the grade definitions for the Classification Act, we decided to differentiate among college graduates at the bachelor's degree level. This broad change in standards for most professional and administrative jobs took the form of qualifying a college graduate with a superior academic record for a higher grade than one without such a record. This has had a broad and favorable impact on the Government's ability to attract high-caliber college graduates. Since 1958, this principle has been extended to the master's and Ph. D. degree levels for appropriate kinds of jobs.
- 2. Guide for Selection of Supervisors. This issuance brought together into one place the latest available information about evaluating employees in terms of their ability to supervise. It provides a variety of methods which can be used, especially in predicting the supervisory ability of people who have never been supervisors. A major contribution of this document is the way in which it relates the analysis of supervisory positions for classification purposes to the very important, but frequently neglected, task of systematically analyzing the different qualification demands of different jobs in terms of measurable qualification characteristics. While this guide applies only to supervisors in certain occupations, such as clerical, office machine, and

nursing assistant, the Commission is preparing a similar guide for other kinds of supervisors.

- Improvements in the FSEE Test. Examples are a test for report writing ability to be used as a placement device, and the use of scores on different parts of the test to spotlight special potential such as verbal facility, quantitative reasoning ability, etc.
- 4. Guide for Evaluation of Employees for Promotion. This general guidance document (Appendix A to Part II, Handbook X-118) gives current information about a wide variety of evaluation methods for use in ranking employees as to relative ability.
- 5. General Amendment to Qualification Standards. This recent amendment on evaluation of specialized experience (Handbook X-118, Part II, page 10.01-10.03) provides an avenue by which well-qualified employees who do not meet the letter of a standard, but clearly meet its spirit, can be moved into a job. (As specific standards are revised in the modern style, this general amendment will probably become unnecessary, but we felt it would be unwise to await that too-distant day.)

Many of the more recent standards for specific occupations reflect our effort to build qualitative considerations more fully into them. Each is responsive to the particular needs of the occupation covered. Therefore, any attempt to describe or illustrate these would require more space than is available. Any listing would include such varied fields as Management Analysis, Recreation, Medical Officer, Engineering, etc.

OUTLOOK FOR THE FUTURE

Basically, we are now convinced that it is feasible to write qualification standards which will meet the goals and objectives outlined earlier in this article. We have done enough work of this type to be sure not only that it can be done but also (on the basis of the reception these newer standards have received from users) that it is well worth doing. Few of today's Government programs or organizations will remain unchanged for any period of time. Especially at the middle and upper grade levels, we need employees of capacity and imagination who can adapt themselves to new problems and new methods of doing work. The selection and measurement devices available now both in and outside of Government leave much to be desired. But we feel we already know enough to do a substantially better measurement job than is reflected in most current qualification standards.

Our program is now moving into high gear to build into new standards our best knowledge about the use of qualitative concepts. We feel certain that these standards will prove of real value in helping Federal managers build the quality work force we will need to meet the ever more complex challenges ahead.



JURISDICTION OF COURTS

Did you ever wonder why so many of the decisions digested in this department involve cases decided in the District of Columbia courts?

A Federal employee who is dissatisfied with a personnel action taken against him by his agency or the Civil Service Commission has two avenues of judicial relief. If the employee alleges that he is being illegally deprived of salary, the claim must be filed in the Court of Claims, which is located in the District of Columbia. If the employee seeks to make the agency head or the Commission take certain action—for example, to reinstate him—this type of suit until recently had to be filed in the United States District Court for the District of Columbia, for two reasons.

The first reason is that in an action involving the personnel laws or regulations, the Civil Service Commission is usually an indispensable party. The Supreme Court has held that in an action against the Commission, the Commissioners must be sued in their individual capacity, and this must be done at the place of their official residence, the District of Columbia. (Blackmar v. Guerre, March 3, 1952.)

The other reason is that an order directing a Federal official to do something is in the nature of a writ of mandamus. This was a writ issued by courts under common law procedures. The common law writs were abolished when the Rules of Civil Procedure for the United States District Courts were adopted in 1937. Hence, cases like these were removed from the jurisdiction of all district courts except one.

The exception was the United States District Court for the District of Columbia. The reason for the exception was that this is the only district court that is also a "State" court, having jurisdiction in that capacity over local matters arising in the District of Columbia. As a "State" court, it inherited the authority of the courts of Maryland which formerly had jurisdiction over what is now the District of Columbia. Adoption of the Rules of Civil Procedure did not affect this "State" court jurisdiction.

Hence, the Federal employee, like Mohammed, has had to go to the mountain. The courts have recognized that this was not an ideal situation. The following quotation from an opinion of the District Court for the Northern District of Illinois is typical:

"This is but one of a number of similar cases wherein litigants who seek judicial review of essentially local administrative determinations are compelled to incur the substantial and frequently impossible expense and inconvenience of traveling to Washington, hiring new counsel there, and securing the presence of witnesses there, either because of the indispensability requirement or because the District Court of the District of Columbia is the only such court empowered by Congress to entertain original writs of mandamus or for both reasons. The problems inherent in this situation as well as possible legislative reform are discussed in a recent, excellent article in the Harvard Law Review entitled Proposed Reforms in Federal 'Nonstatutory' Judicial Review: Sovereign Immunity, Indispensable Parties, Mandamus, 75 Harv. L. Rev. 1479 (June, 1962). The adoption of remedial legislation similar to that discussed in the article would serve to rectify the existing inequities." (Wallace v. Semrow, District Court, Illinois, July 11, 1962.)

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The concentration of cases in Washington, D.C., courts is now at an end because of enactment of P.L. 87–748 on October 5, 1962. This act provides that district courts shall have original jurisdiction of any action in the nature of mandamus to compel an officer or employee of the United States or any agency thereof to perform a duty owed to the plaintiff. It provides that the action may be brought in any judicial district in which any real property involved in the action is situated, or, if no real property is involved, in any judicial district in which a defendant resides, the cause of action arose, or the plaintiff resides. It also authorizes service of the summons and complaint on the defendant by certified mail beyond the territorial limits of the district in which the action is brought.

Now the mountain must go to Mohammed. This is certain to increase the number of court cases that will be filed by Federal employees.

UNION AUTHORITY: RIGHT TO PETITION

Eustace v. Day, Court of Appeals, D.C., December 20, 1962. The Court of Appeals affirmed the District Court's decision, reported in the *Journal*, Vol. 2, No. 4. Appellant had been discharged for participating in the distribution of handbills criticizing superior officers of the Postal Service. He claimed he was engaged in authorized union activity.

APPOINTMENTS

Belle Isle v. United States, District Court, Georgia, January 8, 1963. This is one of the first cases filed in a district court outside the District of Columbia, as authorized by Public Law 87–748. Plaintiff sued for \$100,000 damages, claiming that his rights were violated by reason of the fact that he did not receive an appointment, although his name was on a civil-service register and he was notified on several occasions that he was eligible for a civil-service job. The court dismissed the complaint on two grounds: (1) The Federal Government has the unquestioned right to choose its own employees and is therefore not liable for acts done by it in

the exercise of this right; and (2) the Tort Claims Act specifically excludes from its coverage any claim based on the performance or failure to perform a discretionary function or duty on the part of a Federal agency.

VETERANS' APPEALS—HEARING

Williams v. Zuckert, Supreme Court, January 14, 1963. The Supreme Court granted certiorari in this case on May 21, 1962. The case was discussed in the Journal, Vol. 3, No. 2, and Vol. 2, No. 3. After oral argument was heard the Supreme Court dismissed the petition for certiorari as having been improvidently granted.

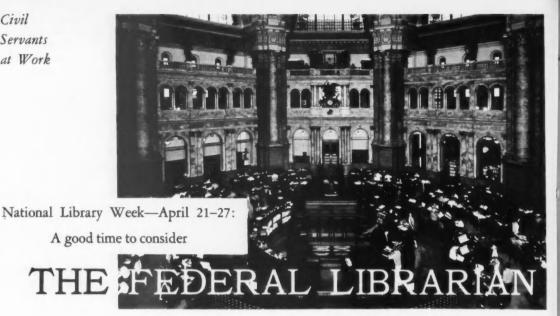
The question before the court was whether the plaintiff, at the hearing before the Commission on his appeal pursuant to section 14 of the Veterans' Preference Act, had improperly been denied a right to cross-examine witnesses whose affidavits had supplied the factual basis for his discharge. The court said: "The request for production of the witnesses, made only at the hearing by petitioner's counsel, was neither timely nor in conformity with the applicable regulations, which contemplate that the party desiring the presence of witnesses, either for direct or cross-examination, shall assume the initial burden of producing them." The opinion goes on to say, by way of obiter dictum, that the agency would have been required to produce the witnesses, upon proper and timely request, since they were readily available and under the agency's control.

BACK PAY; DEMOTION OF NONVETERAN

Foley v. United States, Court of Claims, December 5, 1962. The Court of Claims has consistently held that a nonveteran employee in the competitive service may not obtain back pay when he is restored to his former grade on a finding that his demotion was unjustifiable or unwarranted. This is because the back pay statute applies only to removals and suspensions. Plaintiff in this case was a nonveteran seeking back pay after an illegal demotion. At first blush, therefore, it looks like a run of the mill case. But, says the plaintiff, two recent Executive orders giving new and greater rights to nonveteran civil servants have changed the rules as to the right to back pay in demotion cases: Executive Order 10987, "Agency Systems for Appeals from Adverse Actions," and section 14 of Executive Order 10988, providing for the extension to all employees in the competitive service of rights in adverse action cases identical to those provided preference eligibles under section 14 of the Veterans' Preference Act. Both orders were effective as to actions commenced on or after July 1, 1962. Plaintiff's demotion was in 1957. The court, therefore, denied his claim, leaving unanswered, for the present, the question of whether nonveterans demoted after June 30, 1962, now have a right to back pay if the action is reversed.

-John J. McCarthy

Civil Servants at Work



Main Reading Room-Library of Congress

- -the scientist has an urgent need for a translated copy of a paper prepared by a German biologist
- -the agricultural economist needs quick figures on barley production in the last decade
- -the labor specialist needs facts about collective bargaining in foreign countries
- -the employee wants to know the proper form of address for an Ambassador

To whom do they turn? To the Federal librarian.

IT WOULD BE DIFFICULT to find in the Federal service a more well-versed and resourceful group of employees than the some 3,000 men and women who are Uncle Sam's professional librarians.

They are the highly trained backstoppers who often provide the "instant knowledge" upon which many a program decision is based. They are scattered around the world: from the giant Library of Congress to the USIS bookmobile that puddle-jumps in Pakistan.

Federal librarians are more than just experts in card catalogs and bibliographies. Many of them have a second (or third) specialty that is just as important in their work. In their ranks will be found professional historians, linguists, scientists, engineers, and a great variety of technicians. In short, most of them are expert in whatever it is their library offers.

Since most Government libraries are specialized, it takes specialized librarians to staff them. In Government programs, such as transportation, agriculture, land management, banking, personnel management, contracts and negotiations, weapons systems, conquest of space, etc., more often than not we find a corresponding specialized library-many of which are among the world's

The library of the Department of the Interior, for example, is fast becoming a national center for information on the use of public lands-especially for recreational purposes. To cite a few more examples: the Department of Justice has one of the Nation's most outstanding law libraries, the Federal Aviation Agency has an outstanding collection of information on civil aviation, and the Civil Service Commission has a worldfamous collection on personnel administration.



TYPICAL OF AGENCY specialized libraries is the Civil Service Commission's outstanding collection of materials on personnel administration. Shown being assisted at CSC are visitors (seated) from Canada, China, and the Philippines.

Some specialized libraries are built around collections of historical documents; some feature the very latest information in their specialties; some preserve the past on microfilm; and some are gearing up with systems of information automation. Practically all, as the librarians will attest, are hard put to keep up with the exploding technology on many fronts.

"Why the specialized library?" the uninitiated might ask. There is only one reason: to help the agency provide more efficient and higher quality service to the

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NATIONAL LIBRARIES

Perhaps the most specialized of all Federal libraries are those that are national in name and international in scope. The National Agricultural Library and the National Library of Medicine are two of the most outstanding in their fields. They are exercising leadership in far more than their subject-matter fields—they are trail-blazers in library mechanization and in developing bibliographies of all known publications in their fields (no matter in what country or language published).

most agency libraries. There are exceptions, of course, such as patients' reading rooms at VA hospitals, servicemen's libraries, and United States Information Service overseas libraries and bookmobiles. It is rather doubtful, for example, that any headquarters agency library would have a copy of "Gone With the Wind," or "To Kill a Mockingbird." Fiction, it seems, is not necessary to keep the main wheels of Government turning.

LITERARY DETECTIVES

We have touched on some aspects of the role of the Federal librarian—the expert with additional specialties, the master of the card catalog, and the compiler of valuable bibliographies. There is much more. There is the vital element of acquisitions of new materials—judging what the library should have before it is requested at the front desk. There is the important administrative role—supervising the staff to provide efficient service to the users. There is the planning ahead in all phases of the library's operations.

Research, however, is to Federal librarians the most challenging part of the job. It is a behind-the-scenes



USIS bookmobiles help tell the story of America around the world.



The new National Library of Medicine, Washington, D.C.



Library of the National Training School for Boys, Washington, D.C.

The Library of Congress, in fact (though not in name) the national library of the United States, is filled with collections of national importance and performs many national services. With its nearly 270 miles of bookshelves and over 700 professional librarians, it is probably the world's largest library. The library's staff is appointed by the Librarian of Congress, but its employees are subject to the same position classification and pay systems as are executive branch library workers.

Special libraries, though geared directly to agency programs, are supplemented in many cases by general reference collections. These ordinarily are rather limited. The scope of all Federal libraries is widened, however, by an interchange system. If an employee, for example, finds that his own agency library doesn't have a book he needs, he can ask his librarian to borrow it for him from another Federal library.

Fiction, for the most part, is noticeably absent from

undertaking, but most librarians welcome the urgent call for help from an executive, from a program planner, or from any agency employee. This is the call to action. Perhaps resource material is needed for an important speech. Perhaps it's a matter of developing a chronological history of public lands in the United States; examining union attitudes toward incentive awards; or determining the estimated value of all American industries that were nationalized by the Castro regime. But, as stated previously, the type of question the librarian might expect would be influenced by the particular mission of the agency.

No matter what the question, however—the Federal librarian will surely dig in and come up with the right answer.

—Sylvia J. Bayliss
Public Information Office
U.S. Civil Service Commission



RECRUITERS ROUNDUP

RECRUITERS

AND THE FEDERAL IMAGE

Much has been said about the importance of a good college relations program to the success of our quest for quality on the campuses. No one could argue with this, especially one who has been involved in college recruiting for some time. However, there is another reason for the importance of college relations that is not necessarily based on our recruiting needs. That reason is—image.

The image of the Federal service has been the topic of so many articles and discussions that there is little need here to rehash conclusions. It is important, however, to realize that our success on the campus is materially influenced by what the students and faculty think about us. And assuming that what they think is based primarily on what they see and know, then we must make sure that our contacts with them—and the information we supply—reflect accurately the organizations we represent. The college campus is certainly not the place where we should oversell our wares, but neither is it the place for us to be timid in telling of the excitement, challenges, and rewards of public service.

"SEE FOR YOURSELF"

A very effective approach to college relations has been "see for yourself." Programs such as summer employment of students and faculty, using faculty as consultants, research grants, Federal employees serving as lecturers and teachers—though designed on the basis of program (not public relations) need—nevertheless have reaped important college-Federal relations dividends. Following are four examples of such programs.

The Social Security Administration is putting summer or part-time employment of faculty on a business basis. Before a faculty member is approached, a plan is developed that identifies a problem, its scope, and possibility of solution. A conclusion is also reached as to how long it might take to arrive at a solution. The analysis results in a prescribed job to be done and identifies the skill necessary to do it. This "prospectus" is circulated to prospective faculty appointees along with information about salary, terms of employment, etc. There is more to the plan than can be described here, but the significant

elements are a problem, desired contribution, and a price tag. This is not only good business, but also downright attractive to a faculty man—even a skeptical one.

The Housing and Home Finance Agency has several programs, one of which concerns the caliber of the person who contacts a college or university. Regional Administrators, Regional Directors of Urban Renewal and Community Facilities, and other key personnel actively participate in college relations activities. These involve visits at schools, attendance at conferences, speaking before faculty groups, and related activities. HHFA, in a recent letter, makes this statement we all might consider.

"The yardstick we use is that a representative must be of such caliber as to make the kind of impression that we are willing to accept as representative of the entire staff of the Agency."

The Internal Revenue Service has set up a formal program to assist the colleges in effectively presenting tax and tax-accounting subjects by providing speakers for student groups and classes. The program starts with a personal letter from the Commissioner of IRS offering this assistance to colleges and universities. The program is then implemented by District Directors. A quotation from a letter outlining this program to the Civil Service Commission emphasizes the objective: "While we are sure that such a speaker service will have its impact on our recruiting effectiveness, this is considered a byproduct of the program rather than its major purpose."

The Naval Ordnance Laboratory at White Oak, Md., has a most effective program for providing lecturers to colleges and universities. The Laboratory has published an attractive and inexpensive brochure outlining topics in engineering and the sciences upon which the staff is qualified to speak. Each lecturer is identified, and a brief outline of his subject-matter field given. This brochure is sent out to schools within a reasonable distance of the Laboratory, and you may be sure the service is used.

Although these are only four examples of many outstanding programs of a similar constructive nature, they serve well to illustrate the point: good college relations are not only necessary to a successful recruiting effort, but are a good investment all the way round. Our aim is not solely to perpetuate the image of the Federal service as a good *employer*, but also as an effective and responsive instrument of the people.

-R. F. Mello, *Director* College Relations and Recruitment

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were not changed. These positions came into being in 1947 when the postwar needs to staff defense laboratories could not wait for the inadequate salary scale of the old Classification Act to catch up with reality. The new positions, first limited to a total of 45 scientists and engineers in the War and Navy Departments, carried a top salary of \$15,000 when the top of the old scale (CAF-15 and P-8) was \$10,000, and thus enjoyed a spectacular 50 percent advantage. Prestige naturally gravitated to the magic alpha-numeric symbol of "P.L. 313."

Over the years the salary advantage of P.L. 313 over the top Classification Act grade has diminished, until now the top of P.L. 313 is linked to GS-18 and is therefore identical. (The bottom of P.L. 313 is linked to the lowest rate of GS-16, and thus the entire P.L. 313 range will move automatically with the GS scale without the

need for special legislation.)

The problem, if any, is this: If a laboratory has a P.L. 313 space, it can choose between promoting or hiring a candidate under P.L. 313, or under the GS-16 to 18 scale. There is no difference as to maximum salary (assuming the Commission will approve the case whichever way it is submitted), but the intermediate steps under P.L. 313 are not fixed by law and thus offer greater flexibility than the fixed rates of GS-16 and 17. (The panel's recommendation for authority to offer rates above the minimum to individuals would provide similar flexibility for Classification Act jobs.)

This problem seems to reduce itself to an embarrassment of riches; or to mix a metaphor, formerly there was one route to follow and now there are two. As to the future of P.L. 313, no plans for change exist. Possibly experience is needed for a year or two under the present arrangement. Since its salary advantage is gone, P.L. 313 may come to share its prestige with GS-16, 17, and 18. And if top career salaries rise to the point of true comparability in line with the President's budget message, there should be enough prestige to share in both

directions.

The Astin Panel did not concentrate on training problems in its recommendations, but devoted a later meeting to discussions on this subject with officials from the Commission's Office of Career Development. Some feeling exists in the service that the limitations or safeguards written into the Government Employees Training Act of 1958 are hampering full use of training authority. These limitations are:

- No more than 1 percent of total agency salaries may be paid to persons undergoing training in non-Government facilities.
- No employee may undergo such training during his first year of employment (unless the head of the agency determines it is in the public interest).

- No more than 1 year in each 10 years of Government service may be spent in non-Government training.
- Training shall not be authorized solely for the purpose of obtaining an academic degree.

THE COMMISSION HAS FULL AUTHORITY to waive the first three restrictions. Few requests have been received, and the justifications submitted were such that all requests have been approved. Possibly the fourth restriction has caused difficulties in some agencies where administrative officials have been reluctant to authorize any outside training that could be credited toward a degree. The intent of the provision seems clear enough—an outside training program should not be shaped solely to allow the employee to work toward a degree. The interest of the Government in having its employees acquire the latest scientific or other knowledge is the primary consideration, and the law is not violated if a trainee incidentally obtains a degree. The Commission is now developing a policy statement to clarify this matter.

After a full discussion of the restrictions in the Training Act, the Astin Panel concluded that no amendments are needed; again, the problem seems to be one of better communications so that Federal officials will fully use the

flexibility provided in the law.

The Training Act specifically encourages agencies to open up their training activities to employees of other agencies. Under the leadership of the Commission's Office of Career Development some 200 interagency courses are now offered in the Washington area. Many of these are in administrative types of subjects, but to an increasing degree a scientific or technical flavor is noticeable as the semiannual catalogs of courses appear. Thus, the National Bureau of Standards Graduate School offers a number of courses in the physical sciences and 10 percent of the registration can be used for employees of other agencies. Similarly, agencies can send participants to eight courses in communicable disease control at the Public Health Service Center in Atlanta. A new offering this April is a 5-day institute for leaders of scientific programs. This is being conducted by the Civil Service Commission for 40 scientists and science administrators at GS-15 and up, in order to explore current issues in the organization and administration of Federal scientific activities.

THE PROSPECT FOR SCIENTIFIC MANPOWER

Even if all remaining problems were solved and the Federal personnel system were perfectly adapted to the R&D environment, authoritative forecasts of the national supply of scientists and engineers, when measured against expected needs, show that many vacancies would still go unfilled. While the national demand for highly qualified technical personnel grows each year, the supply

of new graduates is relatively "inelastic," as the manpower forecasters say.

To keep itself informed of the manpower outlook for the Federal service, the Commission some months ago began studies of the expected demand for engineers, physical scientists, and mathematicians by the 10 major Federal employers in the fiscal year 1963. A survey of demand in these fields was undertaken for a dual purpose: to supply data to help us administer the provision for pay above the minimum for hard-to-fill occupations under section 504 of the Salary Reform Act, and to furnish information for planning the Government-wide recruitment and examining program. Supply estimates for the occupations and period concerned were obtained from the Office of Education and Bureau of Labor Statistics. If the results of the current survey warrant it, future surveys will include many more important Federal occupations in the competitive service.

The current survey, in addition to its limited occupational coverage, extends to the end of the 1963 fiscal year only. The next effort will be to project Federal needs for about a 5-year period by tapping the vast amount of agency forecasting which goes into future budget estimates. Bureau of the Budget officials are cooperating by helping translate dollar estimates for personal services into personnel estimates by major occupations. This new program ties in with Senator Henry M. Jackson's proposals for 5-year personnel forecasting in his address to the National Civil Service League on March 13, 1962.³

With these limitations on the current forecast in mind, the following highlights may be of interest:

In Engineering:

- —Total Federal staffing needs for FY 1963 are estimated at 16,291, including 4,398 B. S. level hires. This represents a 40 percent increase over the corresponding figures of 11,700 and 2,477, the estimate of hiring in FY 1962.
- —B.S. degrees in engineering are expected to total about 33,600 in the 1962-63 school year, down 1.8 percent from the estimated 34,180 B.S. degrees granted in 1961-62.
- —In order to meet FY 1963 needs, the Government's share of the 1963 B.S. class would have to increase from the 7.25 percent level achieved in FY 1962 to 13.1 percent, with a comparable degree of increase being needed in open-market hiring. This degree of increase, barring unforeseen labor-market conditions, appears unattainable.
- —Except for a few "growing-supply" or "fallingdemand" fields, therefore, the Government is likely to fall short of meeting FY 1963 staffing needs in engineering.

In Physical Science:

- —FY 1963 staffing needs in physical science are estimated to exceed FY 1962 hires by 75 percent.
- —1962–63 B.S. degrees granted are expected to show an increase of approximately 7 percent over 1961–62 B.S. classes.
- —In the seven key fields for which full data are available, the Government's share of the B.S. graduating classes would have to more than double—would have to increase from 5.9 percent to 12.1 percent—in order to meet FY 1963 B.S. needs in these fields. Although only partial data are available in other physical science fields, the recruitment outlook there appears to be similarly difficult.
- —Overall, therefore, the Government appears to have even less chance of meeting FY 1963 needs in the physical sciences than in engineering.

In Mathematics:

- —FY 1963 needs are estimated at 845, including 281 B.S. hires, an increase of 21 percent over FY 1962 hiring levels (698 and 239, respectively).
- —1962–63 B.S. degrees granted in mathematics are estimated at 15,690, an increase of 10 percent over the 14,285 estimated for 1961–62.
- —Thanks to this growing supply, the Government's share of the 1962–63 B.S. class will have to reach approximately 1.79 percent, a growth in "market penetration" of only 8 percent over the 1.66 percent level achieved in 1961–62.
- —Overall, therefore, and assuming continued growth in the scope and effectiveness of Federal recruitment programs, the Government is likely to meet—or very nearly meet—all 1963 needs in mathematics occupations.

IF THESE PROJECTIONS are anywhere near the mark, they indicate that not even minimum Federal staffing needs in engineering and the physical sciences will be met. Thus major efforts are needed now to minimize the adverse impact of these shortages on vital Federal programs. Some measures that suggest themselves are the following:

Full use should be made of training authority to update the knowledge of scientists and engineers now on the rolls. In this connection, Dr. L. V. Berkner's views regarding the importance of the Ph. D. degree should be given full consideration.⁴ Greater use could be made of arrangements in which colleges or universities conduct courses at a nearby Federal laboratory and sometimes grant degree credit for research the employee performs in his regular job.

- Efforts should be intensified to supply professionals
 with highly trained technicians, technical aides, and
 administrative assistants so they can concentrate on
 problems at the frontiers of scientific knowledge
 rather than spend time on less vital matters. This
 calls for intensive recruitment and training programs
 for recent graduates of high schools, technical
 schools, and junior colleges.
- The climate for creative, productive research must be carefully fostered at every Federal laboratory, and the various administrative annoyances cited by the Astin and Bell reports eliminated to the greatest extent possible. Much has been written in scattered articles on the environment for creativity; maybe the time has come for official action to place a concise statement of the best thinking on this subject in the hands of Federal science administrators.

Dr. Glenn T. Seaborg, Chairman of the Atomic Energy Commission, recently stated:

"Tomorrow's citizens—in order to participate in a meaningful way in their scientific society—must have a basic understanding of the principles of science and engineering upon which their world will be built. Tomorrow's citizens must be scientifically literate! The time to start this vast educational program of all the people is today, if we are successfully to meet the challenge of tomorrow."

If only someone—20 to 30 years ago—had been able to have such foresight, and could have influenced the educational choices of today's Federal executives and staff personnel, then some of the problems discussed in this article would surely have been minimized.

MAYBE IT IS NOT TOO LATE for some "retreading" or refresher training of Federal administrators along these lines today!

REFERENCES

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¹ Other panel members were Dr. Harve J. Carlson, Assistant Director for Biological and Medical Science, National Science Foundation; Dr. Hugh L. Dryden, Deputy Administrator, National Aeronautics and Space Administration; Dr. Charles V. Kidd, Chief, Office of Research Planning, National Institutes of Health; Dr. Richard A. Weiss, Deputy and Scientific Director, U.S. Army Research Office; and Dr. J. Lee Westrate, formerly assistant to Dr. Jerome B. Wiesner and now in the Bureau of the Budget.

[†] For a discussion of this feature, see "Getting the Most from Salary Reform" by Chairman John W. Macy, Jr., Civil Service Journal, January-March 1963.

² See Civil Service Journal, Vol. 2, No. 4, April-June 1962.

"Manpower in the Technological Revolution," Civil Service Journal, Vol. 3, No. 3, January-March 1963.

³ Remarks by Dr. Glenn T. Seaborg, Chairman, U.S. Atomic Energy Commission, at the Eleventh Annual Women's Forum on National Security, Statler Hilton Hotel, Washington, D.C., January 16, 1963.



A selection from recent CSC issuances that may be of special interest to agency management:

- Bulletin 171-68, "Agency supplementation of the new Federal Personnel Manual":
 - —urges agencies who have not done so to adopt an agency policy of supplementing rather than rewriting the Federal Personnel Manual, and outlines the major advantages of doing so.
- Bulletin 531-14, "Fiscal procedures for payment of advance and evacuation payments—P.L. 87-304":
 - —advises agencies to defer the issuance of their departmental fiscal regulations until they are notified by the General Accounting Office that the necessary procedures and forms have been developed.
- FPM Letter 300-4, "Holding State or local office":
 - —provides authority for an exception from the prohibition against simultaneous holding of State or local office and Federal office. Federal employees may now hold full-time positions under a State or local government while on leave without pay, and employees of State or local governments who are on leave without pay may now be given temporary appointments to full-time Federal jobs.
- FPM Letter 531-22, "Adjustment of minimum salaries and salary ranges for professional engineers and certain scientists, GS-5 through GS-8, under section 504 of the Federal Salary Reform Act of 1962":
 - Lists the revised rates for GS-5 through GS-8 with the occupational categories to which they apply, and
 - —Constitutes authority for agencies to make necessary pay adjustments for incumbents of these positions.
- FPM Letter 531-23, "Quality increases under section 702 of the Classification Act of 1949, as amended":
 - —Transmits revisions of the Commission's pay regulations (Part 25) to permit agencies to grant additional within-grade increases for high quality performance,

-Defines "high quality performance," and

—Describes relationship of such additional increases (a) to regular within-grade increases, (b) to "Outstanding" performance ratings, and (c) to incentive awards.

-Louise A. Baldwin



STANDARDS and TESTS

PROGRESS REPORT

The following new or revised position classification standards were ordered from the Government Printing Office for April distribution. The ones marked with an asterisk are single-agency standards and were distributed selectively:

- Chaplain
- Construction Analyst*
- · Correctional Officer*
- · Geodetic Technician
- · Landscape Architect
- Medical Officer (Preventive Medicine—Occupational Medicine)
- · Medical Record Librarian.

The following qualification standards were printed for December-January-February distribution. The ones marked with an asterisk are single-agency standards and were distributed selectively. The others appear in Handbook X-118, "Qualification Standards for Classification Act Positions":

- · Cargo Scheduler
- · Cash Clerk*
- Dental Assistant
- Dispatcher
- · Editorial Assistant
- · Insurance Accounts Clerk*
- Insurance Accounts Supervisor*
- · Meteorologist
- · Navigational Information Specialist
- · Nursing Assistant
- Nursing Assistant (Practical Nurse)
- Railroad Safety and Service Inspector*
- Secretary
- Supervisory Cash Clerk.*

Tentative drafts of classification and qualification standards are now being or soon will be circulated for comment for the following positions:

- · Air Traffic Controller
- Coder
- Communications Specialist

- Construction Engineer
- Estate Tax Examiner
- · Food Inspector
- Geographer
- Geologist
- Hospital Administrator
- · Hydraulic Engineer
- Internal Revenue Collection Officer
- Photographer
- · Public Health Administrator
- Research Scientist and Engineer
- · Supervisory Grade Evaluation Guide-Part II
- Unemployment Compensation Claims Examiner
- Various Claims Examiner positions concerned with retirement, disability, and allied benefit programs.

THE CONTINUING QUEST FOR QUALITY

The Federal Government is always seeking ways to increase its supply of quality college-level candidates. In 1958, following the passage of legislation permitting the hiring of people in scientific, professional, and technical occupations at higher than the normal entry level, the Civil Service Commission established the "quality graduate" program. This program authorized the hiring of baccalaureate graduates with an overall B average, or graduates in the upper 25 percent of the class, at grade GS-7 instead of grade GS-5.

Recently the Commission adopted additional criteria for quality graduates which are considered to be of the same general quality level as those already in effect. These additional criteria permit college graduates to qualify for entry into the Federal service at grade GS-7 on the basis of:

- B+ (or 3.5 grade point) average in the major field, where such field is fully qualifying for the kind of position involved.
- (2) Election to a national college honor society meeting the minimum requirements of the Association of College Honor Societies.
- (3) Achievement of a suitable score on either part of the Graduate Record Examination, as appropriate to the major field. This examination is widely used by colleges and universities in testing senior

students for various purposes, including qualifying for entry into graduate programs. It is available to any college senior, including those in schools not using the examination.

These additions will increase the number of quality college-level eligibles available for selection by Federal appointing officers to undergo rigorous advanced training in the many administrative, professional, and scientific fields utilized by the Federal Government. Thus, the "quest for quality" continues.

BROAD CLASSIFICATION GUIDES

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The Standards Division, Bureau of Programs and Standards, Civil Service Commission, recently issued one classification guide and is working on two others which have applicability across broad occupational fields. These classification tools are: (1) A Guide for the Evaluation of Professional Interpretive Positions in the Forest Service and the National Park Service; (2) a Supervisory Evaluation Guide, Part II, covering professional and administrative type positions [Part I of this guide covers supervisors of nonprofessional, clerical, protective and custodial work, etc., and is already published and in use]; and (3) a refinement of the Guide for Evaluation of Basic and Applied Research which has been in use since June 1960.

(1) The guide which has been published relates to professional positions engaged in carrying out operating "interpretive" programs in national parks, forests, or other federally held areas of public interest. The purpose of these programs is to make available to the visiting public the benefits of knowledge and understanding gained through academic study and research in the several professional fields involved, in such a fashion as to (a) be responsive to the visitor's desire for factual information, (b) heighten his understanding and appreciation of the natural phenomena or events which are a part of the national heritage, and (c) promote understanding of both the visitor's and the Federal Government's role in the preservation of the archeological, natural, and historic values which are a basic part of our national heritage. The recently issued guide will be used in the evaluation of archeologist, geologist, forester, historian, naturalist, or other professional positions engaged in such work. It provides criteria for the classification of the "interpretive" functions across occupational lines. The technical subject-matter aspects of professional positions engaged in interpretive work will continue to be evaluated against the standards appropriate for the occupation in which the position has been classified.

(2) The Standards Division has released draft standards for classifying positions of supervisors of professional, administrative, and similar kinds of work. For

the kinds of supervisory positions covered, the classification criteria in the proposed standards would be applicable regardless of occupational lines. The proposed standards would also distinguish positions that are primarily supervisory in nature from those that are broader in scope and are considered to be "managers."

(3) The Commission is now reviewing the Guide for Evaluation of Positions in Basic and Applied Research and the frame-of-reference illustrations applicable to it. This Guide, issued in 1960, represented a major step forward in the classification of research positions and has done much to kill off the old canard that a research scientist has to become a supervisor to advance to a high grade. The review is planned to determine what changes, if any, are needed in the light of two years of experience in the application of the guide. Agencies have been requested to evaluate their experience in its application and to submit suggestions for improvement. Since the frame-of-reference illustrations need to be interpreted in terms of the current state of the art, there is probably a need to bring these up to date, or to devise other means of solving the problem. Also, in consideration of the pioneer nature of the guide, other changes and additions may be needed.

FLEXIBILITY FOR PROFESSIONALS

The Standards Division is taking a fresh look at minimum educational requirements that specify certain courses leading to a bachelor's degree. A tentative draft proposing major changes in educational requirements for about 70 professional occupations has been distributed to agencies for review and comment.

The proposal is designed to provide a flexible mechanism for qualifying persons, with a bachelor's or higher degree, whose completed education does not conform fully to the specified course requirements, but whose professional experience or graduate education clearly demonstrates possession of the required knowledges and abilities. These proposed changes are viewed as a major step forward in providing flexibility in evaluating the qualifications of scientists and other professionals.

This proposal does not alter the concept that the completion of undergraduate courses of specific subject content is essential to meet the demanding requirements of entrance-level professional positions. It recognizes, however, that completion of these courses is of less significance in meeting the requirements of positions to be filled by persons who have demonstrated full professional competence and achievement. A major purpose of the proposal is to eliminate one of the barriers to full utilization of all available professional manpower resources.

⁽For additional discussion see article, "Qualification Standards," page 15.)



READINGS IN HUMAN RELATIONS

The social sciences have been slower to develop than the physical sciences because the subject matter—man and his behavior—is more complex and varied. However, the social sciences *are* moving forward. To a foundation of theory and postulations is being added a growing body of demonstrated principles.

Early writings on human relations suffered from glibness. They exhorted the reader to do this, do that, but never to sock a man in his ego. "Easy does it" was the modus operandi, but experience proved that "easy" did very little in contributing, for example, to accomplishment of an organization's mission, or to the proper motivation of workers.

Contemporary thinking is less glib, less theoretical, and based more on actual experience. To the one interested in social science and what it offers today, the following books provide an excellent roundup.

Human Relations at Work, Keith Davis, McGraw-Hill Book Company, 1962. 642 pp.

This is a completely revised edition of Davis' earlier Human Relations in Business. Davis has taken into account the latest findings of the behavioral scientists and has provided a readable and useful text. This revision demonstrates the universality of human relations in private enterprise or in government.

Chapter 8, "Human Relations Training" and Chapter 9, "Simulation Training" are particularly recommended to the employee development officer faced with the problem of human relations training. Davis has provided not only a pattern for this kind of training but also a surefire methodology. The book should be useful at all levels of management and supervision.

Organizations, James G. March and Herbert A. Simon, with the collaboration of Harold Guetzkow, John Wiley & Sons, Inc., N.Y., 1958. 262 pp.

This book is not strictly about organizations. It is as much about the people in them, and therefore rich in human relations materials. The authors begin by discussing the classical theory of organization which regards the employee as an instrument and something of an adjunct to a machine. They amend this theory by considering the employee in a less passive role—one in which his motivations and goals affect his behavior. From here on, the authors set themselves two tasks: (1) To eliminate, one by one, the artificialities of the classical

view of the employee, and (2) to replace this abstraction with a new one that recognizes that members of organizations have wants, motives, and drives, and are limited in their knowledge and in their capacities to learn and to solve problems. This book is not easy reading, but it provides an excellent bridge between older classical theories and contemporary findings and thinking.

Human Relations in Management: A behavioral science approach, William G. Scott, Richard D. Irwin, Inc., Homewood, Ill., 1962. 442 pp.

There is nothing conventional about Scott's approach to the subject of human relations. "Human relations could incorporate everything or nothing," writes Scott, "depending on management's point of view. Nearly all matters of concern to management would fall into the area of human relations if the mere presence of the human element is the only criterion for selecting a perspective. Or there is nothing for management in human relations if the field is just a neat batch of platitudes and slogans."

This book is a synthesis of the findings of the behavioral sciences in those areas where human interaction is critical. It gives an insight into fields of human endeavor that might otherwise be neglected by a too impatient management philosophy.

Magic Short Cuts to Executive Success, George Lewis Davis, Prentice-Hall Inc., Englewood Cliffs, N.J., 1962. 258 pp.

How I Manage: A Company President's Guide to Personal Growth, Howard Begg, Prentice-Hall Inc., Englewood Cliffs, N.J., 1962. 189 pp.

These two success stories would not appear to be good sources of human relations material. The authors, both successful executives, have contributed a lot of human relations know-how that could benefit the young would-be executive. They have, through adroit illustrations of their own successes and frustrations, clearly indicated the role that good human relations plays in the climb to success. Both books are easy and fascinating reading.

Readings in Industrial and Business Psychology. Harry W. Karn and B. Von Haller Gilmer, McGraw-Hill Book Co., Inc., 1962. 515 pp.

For the searcher for basics in human relations, this book is an original source that should not be overlooked. It is a carefully selected compendium of 58 professional articles by recognized authorities in the field of industrial business psychology.

Management increasingly must turn to the psychologist as one of the many sources for help' in its problems of human relations. In these readings eminently qualified writers have provided an understanding that will remove much of the risk and guesswork from the changing patterns of management.

—Franklin G. Connor

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Worth Noting (Continued)

Norman Joseph Doctor, Army; Charles M. Herzfeld, Defense; George Michael Low, NASA; and Joseph Francis Saunders, Navy. These "outstanding young men" were honored February 14 in Washington.

PERSONNEL INTERCHANGE is moving ahead on two fronts. By September the Commission plans to have one employee from each bureau and one from each regional office on exchange with employees of other agencies. Goal is to give CSC employees the "customer view-point" and agency employees a better understanding of the Commission's operation. Interchange between Federal, State, and local government personnel moved a step closer when CSC published FPM Letter 300–4, which clears away some of the underbrush that hampered such exchange in the past. For details see the new Journal department, "CSC Checklist," on page 25.

THE CIVIL SERVICE COMMISSION has sent to the printer a new publication expected to be available this summer: Classification Principles and Policies, Personnel Management Series No. 16. The booklet will provide in a single document, for the first time, a comprehensive statement of the Commission's classification philosophy and the principles and policies endorsed by the Commission for administering Federal position classification. Designed for guidance of all officials participating in classification processes, it is written in a form suitable for use by administrative and line operating officials as well as by classification and personnel specialists. Agencies will receive a Bulletin in early summer inviting them to ride the Commission's printing requisition.

1963 EDITION of the Federal Career Outlook Letter calling attention to opportunities in Government has been furnished in bulk to CSC regional offices for distribution to all 4-year colleges in time for spring campus recruiting. Matching posters, calling attention to the availability of the letters, have been sent to college placement officers.

PRESIDENT KENNEDY has sent to Congress a proposal for establishment of a National Academy of Foreign Affairs, designed to provide foreign affairs personnel of Federal agencies with "fundamental knowledge and understanding which is indispensable to serving our Nation effectively in today's complex world."

Unlike the Foreign Service Institute, which is oriented primarily to the work of the State Department alone, the Academy will be the nucleus of Government-wide training and research in international matters, he said.

Proposed legislation calls for repeal of earlier legislation establishing the Foreign Service Institute and for transfer of appropriate facilities of the Institute to the Academy.

The Department of State, as other Federal agencies, will retain authority to provide specialized in-service training of a routine character on subjects of exclusive interest to its own personnel, the President said.

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