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MANAGING THE CORPS WORK FORCE.(U)
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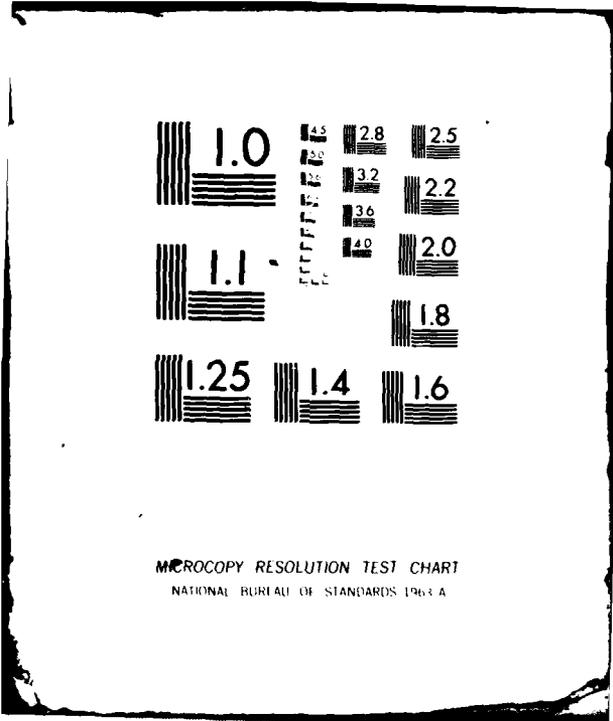
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MANAGING THE CORPS WORK FORCE



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JULY 1980

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MANAGING THE CORPS WORK FORCE

Prepared by
US Army Engineer Studies Center
Corps of Engineers

July 1980

Principal Author: Ms. Jill M. Davis

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MANAGING THE CORPS WORK FORCE

1. Purpose. This monograph presents the results of a broad examination of the US Army Corps of Engineers work force management processes and policies and assesses their suitability for preparing the organization for a healthy future. It was developed as an adjunct to the Engineer Studies Center's (ESC) future work force needs project titled Developing and Managing the Corps Work Force for Future Missions, July 1980, and is published separately to enable deeper discussion of the issue.

2. Background. In recent years, there has been increasing emphasis on enlightened management training and organizational realignment within the Corps. The ESC future work force needs study team was originally tasked to describe the current work force, project it to the future, and identify shortfalls that would affect Corps mission accomplishment. It might seem to many that ESC would do well to steer its work force analysis clear of the management conundrum. The study's charter, however, called for ESC to address training and recruitment as they relate to any shortfall of skills or capabilities. Therefore, it was almost inevitable that the analysis should delve into those areas of Corps operations which can be described only as relating to human resources management matters, such as career development, recruitment, work climate, management information systems (MIS), training, and organizational development. It was virtually impossible to separate the work being done from the workers doing it.

3. Giving Credit Where Credit is Due. The Corps Resource Management Office (RMO) is sponsoring this study--a tacit recognition that something needs (or probably needs) to be done and that the Corps is seeking the best course to follow in preparing its plans for the future. Several years ago,

ESC proposed a study similar to this effort, but Corps management was unwilling at that time to invest in such an inquiry. Last year, the impetus for this project came directly from the Chief of Engineers through an enthusiastic RMO. In the 5 years since ESC initially proposed the effort, worker demands nationwide have evolved into recognized trends that are quantified and documented in management literature and even in the Corps' own self-searching inquiry.^{1/} The question now is not "whether" to change but "how?" The nature of the work has already changed significantly. The Corps is becoming increasingly involved in other-country and other-agency work. Corps interaction with the balance of the Army has tightened considerably and will undoubtedly continue to be coordinated more carefully. Diminishing resources plus the Corps' innate suitability for such tasks have prompted the Department of Defense to look to the Corps for more detailed mobilization planning and to seek greater Corps involvement in real property management systems. The structure, procedures, boundaries, and missions of the Corps are all in a state of flux. The Chief of Engineers, the RMO, and others are looking for ways to influence events rather than letting chance or external pressures shape the future. The overall study looks at the Corps' work today and in the future, at the projected Corps work force for those periods, and at the relevant general economic and political trends. This short monograph focuses on the human resources management aspects of the Corps' future in search of opportunities and shortfalls.

^{1/} Institute for Behavioral Research in Creativity, The Development of Preliminary Performance Indicators for the Selection of Managerial Talent in the U.S. Army Corps of Engineers. By Robert L. Ellison, et. al. CERL Contract No. DACA 88-77-C-0004. Salt Lake City, Utah, September 1977. (Hereafter referred to as IBRIC, Preliminary Performance Indicators.)

4. Recruitment. Once the Corps decides what work it wishes to do, it must develop a coordinated, finalized staffing plan early on and then must staff to meet the demands of those jobs. If the work is along the lines of its traditional workload, there is relatively less of a problem in recruitment than there would be if new skills were involved. The Civilian Personnel Offices (CPOs) are better equipped to recruit in traditional skill areas because the Corps has the depth of personnel to enable assignment of current managers and journeymen from ongoing programs to positions in the expansion areas. The Corps thereby gains the time to recruit for the vacancies created in established offices. This borrow-from-Peter-to-pay-Paul technique will not work over the long haul for large expansion programs or for several similar new undertakings. The problems of effective recruitment are varied, each calling for its own approach.

a. Attractiveness/competitiveness as an employer. Where there is no shortage of the required skill in the general market, there is probably no problem recruiting from the pool of available candidates. The Corps may not be able to hire the top prospects, but it will attract some highly skilled and willing workers. However, where scarcer skills are involved, the Corps must have something to offer potential employees. The Corps is already doing a great deal to become more competitive at entry-level pay for engineering and scientific (E&S) employees. The GS grades at entry are increasing from GS-5 to GS-7. The Corps is also increasing the size of its intern and cooperative programs. The drop-out/bought-off^{2/} figures for these programs, however,

^{2/} The Corps intern and cooperative programs suffer significantly from individuals dropping out on their own and going to similar programs in private industry and from private companies repaying the Corps for its contribution to the participant's education and then hiring that individual at a starting salary higher than the Corps can grant.

continue to be disturbingly high. By developing and packaging a more credible E&S career program, the Corps could possibly sell recruits on the value of a long-term career of growth and security as opposed to a large starting salary with an early peak in earning power (as happens in private industry when the employee does not go into management work).^{3/} Clearly defined career paths (technical and managerial) with coherent training and on-the-job interactive phasing would not only appeal to potential recruits, it might increase the journeyman retention rates for current employees. As recommended in the Construction Engineering Research Laboratory's (CERL) contracted research,^{4/} "...a brief manual describing career development options and information should be prepared on a periodic basis, and disseminated throughout the Corps." The acceptance of "glamour" jobs such as in Saudi Arabia and Israel or those for the Department of Energy would certainly appeal to prospective employees who seek to be involved in large-scale construction or projects with "save the world" appeal. The Corps' recent inroads with environmental problems and its apparent victory over the National Environmental Protection Act (NEPA) paperwork hurdle should reassure recruits that the Corps is service and action oriented. These latter points should be exploited by an effective public relations program in conjunction with an aggressive recruitment program run by the local CPOs and the operational office seeking to fill its vacancies.

b. Selection/promotion of best qualified candidates. As pointed out repeatedly in the CERL contract report, selection of best qualified candidates is of prime importance to the Corps. The higher in the organization, the

^{3/} Ross, Stephen S., "Engineering: Liberal Arts of the 80's," Washington Post. 29 April 1979.

^{4/} IBRIC, Preliminary Performance Indicators.

greater the importance of such selection decisions. ESC interviews of Corps division and district personnel throughout the country indicated that a shortage of project managers would be a limiting factor to accepting new missions. Therefore, effective ongoing programs, as well as successful new missions/programs, require insightful and unbiased selection and promotion practices. A poor selection can result in years of inefficiency and perhaps even the loss of superbly qualified employees who may be forced to wait for years to replace an under-performing supervisor. Along these lines, CERL has worked with the Institute for Behavioral Research in Creativity (IBRIC) to isolate and measure those characteristics which would "...provide information for the Corps which could be used in the selection of...key managerial personnel."^{5/} Selection of nonmanagerial employees also requires serious consideration but has not been addressed to the same extent as managerial personnel. The selection-assisting products of an ongoing CERL-IBRIC project will be:

(1) A biographical inventory form useful in recognizing managerial talent. In addition to isolating generally accepted indicators of high performance, IBRIC developed 50 biographical items specifically for Corps employees seeking supervisory roles.

(2) An interview manual and guide. This document and procedure have already been drafted and tested for validation of techniques. Such an instrument would help offset the basically haphazard interview process. The questions developed in the guide all relate to previous job experience and therefore comply with Federal Office of Personnel Management (OPM) regulations. This manual and guide are offered only as parts of the overall

^{5/} IBRIC, Preliminary Performance Indicators.

selection process and not intended to replace or overshadow SKAP^{6/} ratings or other performance indicators.

(3) A validated system of peer rankings. By initiating a peer ranking system, the Corps can make great strides toward minimizing the influence of the "old-boy network." Any edge which sycophants and proteges might have over other qualified candidates for promotion/development might be largely negated by institutionalizing peer evaluations. Peers may well be the most informed and most impartial of raters.

(4) Ratings by first-level supervisory personnel. Ratings by first-level supervisors are now the predominant means by which employee performance and capabilities are measured. These ratings are reflected on the SKAP records for employees in career programs and on the performance appraisals for those not under career programs. CERL does not propose to replace the SKAP system of supervisor ratings, but to supplement it by systematically gathering and recording independent ratings by second-level supervisors as well. CERL has completed preliminary work in developing these tools. The ratings by first-level or immediate supervisors have been revised to include a diagnostic use of SKAP categories and certain dimensions relevant to the job.

(5) Ratings by second-level supervisors. Second-level supervisors would serve as another independent evaluation of managerial talent. Each employee would only be rated in five job performance dimensions, those which IBRIC has isolated as being the best indicators of managerial talent: technical competence, communications, coordination, decision making, and innovation.

(6) Identification/development of employees with high management potential. Taken together, the five products discussed above are designed to

^{6/} Skills, Knowledge, Ability, and Personal characteristics.

combine to improve the Corps' selection of managerial personnel. Use of these products would not solve the shortage of project managers cited in paragraph 4b, but would address quality of future project managers as discussed in that same paragraph and throughout the rest of this report. Clearly, current processes need to be refined if the Corps is to improve its selection/development of managerial personnel. CERL has pointedly emphasized the opportunities inherent in striving to fill the 800 top Corps positions with employees talented in the activities which collectively have come to be considered management. The responses CERL received to its Job Activities Description (JAD) Questionnaire^{7/} indicate that current management personnel devote a considerable amount of their time to activities which they realize are not managerial and which they willingly rate as being less important than the management tasks.

c. Selecting employees based on their qualifications to do a clearly defined task. CERL's research along the lines of selecting managerial talent makes no argument against methods-oriented manuals and regulations. In fact, CERL corroborates much of the methodologic guidance on job analysis and candidate evaluations provided in the new DA pamphlet on candidate evaluation.^{8/} CERL postulates the value of operating under defined, established, and comparable qualification criteria which relate the candidate's skills to the required job tasks. Extensive thought and research throughout the business community are being devoted to identifying fairly the relevant characteristics.

^{7/} Institute for Behavioral Research in Creativity and Department of the Army, Office of the Chief of Engineers, Construction Engineering Research Laboratory, jointly, The Job Activities Description (JAD) Questionnaire: An Analysis of Time Spent on and Importance of Managerial Duties. Interim Report E157 by Robert L. Ellison, et. al. Champaign, Illinois, September 1978.

^{8/} Department of the Army, Headquarters, DA Pamphlet 690-10, A Candidate Evaluation System. Washington, D.C., September 1979.

It appears that CERL and IERIC have made significant, Corps-related strides in this direction. Such tool development and Corps-unique data should be of use to those individuals responsible for implementing the Civil Service Reform Act (CSRA) throughout the Corps, especially as it calls for job analysis, rewriting job descriptions, and developing and implementing the new performance appraisal system.

d. Aggressive and efficient recruitment processing by the local CPOs. ESC's interviews with operational personnel throughout the Corps and with the CPO personnel at their conference in Galveston in the spring of 1979 combined to emphasize the need to decentralize recruitment responsibilities. The provisions and theme of the CSRA seem to indorse delegation of rating and recruitment responsibilities to the lowest level possible. The gist of these trends is that the local CPO must now respond by using all the resources available to speed the recruitment/selection processes. One requirement is to work closely with the operational elements to fully understand their needs. Another requirement is to use all means available to accurately sort through the largest possible number of candidates. Open advertising of vacancies is one way to achieve this end; another is to write the job sheets in such a way that the widest possible range of candidates can qualify for consideration. In fact, the Army Audit Agency (AAA) made a similar recommendation in its recent assessment of four civilian career programs.^{9/} The AAA recommended discontinuing use of the SKAP rating forms in the recruitment process, stating that the SF 171 would serve as well and would result in application by more candidates at less cost in terms of paperwork for both the applicant and the

^{9/} Department of the Army, United States Army Audit Agency, Report of Audit: Selected Aspects of DA Civilian Career Management. Washington, D.C., April 1979 (FOR OFFICIAL USE ONLY).

applicant's supervisor. The AAA further recommended localizing recruitment by suggesting that DA panels not be established where there are sufficient applicants at the major Army command (MACOM) level. These recommendations, of course, do not apply to the Corps-operated E&S career program; they apply to four DA-operated programs. Although the E&S program seems to be in much better shape than the four programs which AAA reviewed, the theme of localizing recruitment wherever possible appears well substantiated in their recommendations and appears transferable as a goal to Corps recruitment practices.

5. Training. The preceding lengthy discussion of recruitment should not be interpreted as unduly weighting Corps options for staffing to meet changing mission requirements. The Corps has little choice but to follow recruitment with training, cross-training, and career development to forestall critical skill shortages. Again, to its credit, the Corps has already taken giant strides to enhance its training commitment. Many policy decisions have already resulted in a much larger and more wisely directed training program under the coordinated direction of the Huntsville Division and the RMO. The new COEMIS-T&D^{10/} module (subsystem of COEMIS-PA)^{11/} which is just being implemented will allow a coherent, automated picture of training Corps-wide. It will also provide a historical perspective to both Corps and individual training programs. The problems that remain to be solved in the training field concern the proper selection and balance of courses and attendees.

a. The topic of training is broad and applies to all Corps employees. This monograph, however, only addresses those aspects of training which

^{10/} Corps of Engineers Management Information System--Training and Development.

^{11/} Corps of Engineers Management Information System--Personnel Administration.

bear on management. An ESC monograph on training, Work Force Training and Development for the 1980's, published in July 1980, addresses a broad range of training subjects at the various career levels (e.g., organizational needs, funding level commitment, course needs). The focus of this monograph is on training in management techniques and training to enhance the transition from journeyman specialist to an effective manager. It should be remembered that an employee who reaches the GS-13 level probably is aspiring to a managerial position; hence, most courses from that level upward should be management oriented.

b. The current dominance of technical courses (which comprise 75 percent of all courses taught) accurately reflects the long-time dominance of civil engineers in the Corps. This dominance has certainly ensured the technical competence of Corps work, but does not appear to have adequately filled the need for more farsighted management in the upper echelons of the civilian work force. Historically, the Corps' military leadership has not concerned itself extensively with the long-term training and development of civilian employees. However, military officers generally have a positive attitude toward career development assignments and training commitments, a less entrenched viewpoint than the local civilian staff, and are more willing to allow personnel/training innovation if desired by the employees. The Guide to Civilian Personnel Management for Key Military Personnel^{12/} identifies 14 aspects of personnel management as being supervisory responsibilities. One of these is "supporting career planning and management...where civilians in career programs are employed." As stated in the Guide, the military supervisor

^{12/} Department of the Army, Headquarters, DA Pamphlet 690-11, Guide to Civilian Personnel Management for Key Military Personnel. Washington, D.C., September 1979.

of civilians is "expected to counsel employees regarding progression in the respective career field, use of lateral assignments for self-development, and annual training needs surveys and Individual Development Plans." They are also "Expected to support upward mobility training and developmental assignments as part of career progression." These charges are no different from those to DA civilian supervisors, but certainly leave the military with a greater burden for learning to counsel subordinates from outside their realm of personal experience. Although many of these duties are delegated, officers still bear responsibility for seeing that they are performed. As another complication to military supervisors of civilians, transiency of military assignments tends to induce the military to become generalists and makes it extremely difficult for them to become expert in civilian personnel matters.

c. Responses to CERL's JAD questionnaires indicated that the Corps' management level employees spend the bulk of their time on activities which could in no way be considered managerial. The questionnaires also indicated which activities were considered by managers to be key to their positions. From one perspective, then, this research was designed to help the Corps develop the proper management training program. It also, not incidentally, revealed the widespread improper expenditure of time by Corps civilian management personnel. It did not query military managers in high Corps positions, thus missing the opportunity to see if there was any major variation in managerial attitudes between the Corps' military and civilian leadership.^{13/} The JAD Questionnaire results apparently indicate that the current civilian

^{13/} RMO Futures Branch recently recommended a re-administration of the JAD Questionnaire which would query military managers as well as civilians and isolate their replies to enable comparison of attitudes and approaches to management. Essentially, the JAD Questionnaire has served as a needs analysis to justify further refinement of management scrutiny.

training and career development practices are not adequately preparing managerial personnel to perform their jobs and also cast some doubt on the current recruitment and placement practices which place technicians in positions for which they are neither suited nor trained. There appears to be a need for training courses which more pointedly facilitate the specialist-to-manager transition and which teach incumbents to allocate their time properly. This situation is not unique to the Corps. It is, in fact, common to all technical organizations involved in project management. The specialist-to-manager transition, however, is endorsed by many experts/researchers.^{14/} This training requirement should be addressed in conjunction with appropriate career development refinements.

d. Among the other data accumulated during ESC's Developing and Managing the Corps Work Force for Future Missions project were data on the Corps' age and grade relationships as projected into the near future. The July 1980 ESC monograph describing the Corps work force profile (The Corps Work Force in Transition) addresses the age-grade progression as it influences the Corps' future leadership picture. The typical Corps leader is a middle-aged male Caucasian. Less than 4 percent of the employees above GS-13 are minorities and less than 1 percent are women; the average age of GS-14's is 48.5, GS-15's is 52.4, GS-16's is 53.5 and GS-17's is 52.7. Armed with this knowledge, the Corps should be able to capitalize on the advantages of having such a culturally similar work force. This is not to say that the Corps should strive to maintain its unassimilated composition, but that it should take advantage of its similarities until there are enough qualified women and

^{14/} Course material provided by Drs. Richard Hopeman and D.L. Wileman, Project Management Course, Advanced Management Research International, Inc., Washington, D.C., May 1980.

minorities to fill vacancies and ultimately create a more homogeneous work force. The Harvard Business Review of July-August 1969^{15/} recommends that...

There should be a different slant to executive or managerial training programs for men over 35 than for those under 35. Pre-35 programs should be geared to keeping the younger men "loose." They should be encouraged to bubble, to tackle old problems afresh. This is not the time to indoctrinate men with rules and procedures, but rather to stimulate them toward their own horizons. Training challenges should be around tasks requiring sparkle, flashes of insight, and impulsive action.

Developmental programs for men over 35 should be concentrated largely on refreshment, keeping up, and conceptualization of problems and the organization. Tasks and problems requiring reorganization, reformulation, refining, and restructuring are tasks for men whose psychological time it is to rework. Brilliant innovative departures are unlikely to come from such men, except as they are the fruition of a lifetime of ferment...

...Much of managerial training for these men should be focused on how to rear younger men.

Perhaps the Senior Executive Service (SES) established by the CSRA will assume the lead in training of this type. But, it seems that the Corps should realize the opportunities inherent in having a culturally similar work force and should develop courses to enable current managers to nurture subordinates without being threatened, to select high-potential employees who will by their very presence help energize Corps operations and who will broaden the Corps' cultural base.

e. There are many training implications in giving the Training and Career Management Branch, Office of Personnel, responsibility for developing a

^{15/} Levinson, Harry, "On Being a Middle-Aged Manager," Harvard Business Review. July-August 1969.

more carefully orchestrated career program for E&S personnel. This appears to be a desirable action and it would cause some interesting and original work in course design. Aside from causing the rethinking of technical-management training requirements for E&S careerists, it would cause other courses to be developed. Courses on career counseling for supervisors and on career assessment for journeymen careerists would be almost mandatory for all E&S participants if a dual-track E&S career program were instituted.

f. Although the Civilian Personnel Regulation (CPR) governing Army civilian careers for E&S personnel^{16/} implies that the E&S program has clearly defined dual-track career patterns, practice indicates relatively limited potential for technical experts and greater advancement potential for managerially trained and experienced individuals. A more recent and related regulation^{17/} more specifically depicts the situation. Whereas intermediate level careerists (GS-12, GS-13) are defined as having "first-line supervisory assignment and staff specialist positions," management/executive-level careerists (GS-13 or higher) have "full personnel management responsibilities." Thus, technical experts must either become managers or stop progressing once they reach GS-13. The few technical experts in the Corps who have risen to supergrade salary levels are not in the E&S program; their pay is governed by Public Law 1313 and set by Congress based on their unique technical knowledge and Corps dependence on that knowledge. Although there has been much discussion on the desirability of restructuring career patterns to give E&S technical experts greater career potential without becoming generalist

^{16/} Department of the Army, Headquarters, Civilian Personnel Center, CPR 950-18, Army Civilian Career Programs for Engineers and Scientists. Washington, D. C., April 1965. (Hereafter referred to as CPR 950-18.)

^{17/} Department of the Army, Headquarters, Civilian Personnel Center, CPR 950-1, Career Management. Washington, D. C., November 1977.

managers, the practice in government and private industry has been to develop project/program managers through the technical experts rather than from generalist business administration graduates. The Corps' own shortage of project managers^{18/} would seem to require that the specialist-to-generalist transition be more carefully monitored in terms of training and experience assignments. The Corps is working toward that goal, but progress is slow and has been inhibited by DA Personnel guidance.

g. Finally, the Management Audit Survey (MAS)^{19/} developed by IBRIC through contract with the Department of Labor and revised for Corps use through CERL contract, provides great promise for serving as a thermometer of training needs. It would help management-level supervisors develop training plans for their subordinates and themselves which are directly applicable to a work environment problem. For example, an MAS is administered at a district and reveals that a certain division has a very low score in planning and administrative efficiency. The chief of that division should be prompted by awareness of his/her score relative to others (the organizational average in that scoring area) to request training in subjects which would directly address his/her lower score areas (e.g., time management, decision making, effective administration in the office). That chief might also become aware of subordinates' training needs (e.g., team building, assertiveness, technical training). As recommended in IBRIC's final report to CERL,^{20/} training

^{18/} Department of the Army, Office of the Chief of Engineers, United States Army Engineer Studies Center, Developing and Managing the Corps Work Force for Future Missions. Washington, D.C., July 1980.

^{19/} Institute for Behavioral Research in Creativity, Applications of the Management Audit Survey (MAS) to the U.S. Army Corps of Engineers--Final Report. By Robert L. Ellison, et. al. CERL Contract DACA 88-78-C-0010. Salt Lake City, Utah, July 1979. (Hereafter referred to as IBRIC, Final Report.)

^{20/} IBRIC, Final Report.

programs for subsets of MAS scores should receive high priority for development. One result of such training would be to persuade managers that the training has relevance because it is tied to actual feedback rather than to apparently arbitrary career development requirements. It is often the situation now that some supervisors cancel their subordinates' training plans because they feel they cannot spare them long enough for training. If the training were more closely related to the work place as reflected through the MAS, this might not occur quite so frequently.

6. Career Development. The earlier paragraph on training has already developed somewhat the idea that the Corps must be prepared to "grow" the skills and leaders it will need. This paragraph addresses the narrower aspect of training which is termed "career development." Looking at training from a career development perspective, the challenge is to create a continuum of training and developmental assignments which will not only give the Corps the proper mix of skills and leaders but will give the individual employees a fulfilling career of clearly defined opportunities and milestones. This is a particularly difficult charge because the Corps now has authority over only the E&S career program--a program that encompasses about 25 percent of the Corps' employees.^{21/} This 25 percent also happens to represent the pool from which most future Corps leaders will be drawn. Therefore, it is key that the E&S career program be as effective as possible in developing employees to their maximum potential and in identifying those with the greatest potential for leadership.

a. Although CPR 950-18 clearly depicts the concepts of career management for E&S personnel, it is comprehensive and allows flexibility and

^{21/} CPR 950-18.

change, it is not without flaws. For example, in ESC interviews throughout the Corps, employees at all levels expressed dissatisfaction with the failure of SKAP rating forms (as prescribed in the CPR) to communicate individual strengths and weaknesses and with the overall concept of a one-track career program. Several young engineers at one district commented that they had received no career guidance from their supervisors. This remark did not correspond to the picture painted by the division's CPO who stated that his office had been careful to inform all recruits of the opportunities available and the qualifying prerequisites. Thus, there was a gap in the network which supports the career development program. Even where the CPO is farsighted and tries to fulfill its obligation by providing employees all the information they require to progress to their maximum potential, the individual's immediate or secondary supervisor can shortstop the process by overemphasizing the short-term aspects of their subordinates' careers. Supervisors that fail to provide career guidance, training, and assignments to develop upward mobility may be doing their job well over the short term but hurting the organization's long-term management capability. The situation calls for three approaches: teach supervisors not to be shortsighted in employee development, develop supervisory standards during the CSRA 1978 implementation that specifically include personnel development as an area to be measured,^{22/} and make the E&S career program so comprehensive that it does not require strong supervisor interaction.

b. Although the AAA report did not cover the Corps' E&S career program, many worthwhile points applicable to the Corps came out of that

^{22/} Staats, Elmer B., "Accountability for Career Development--A Must for Improved Program Management," The Bureaucrat. Fall 1979.

analysis. The AAA looked at the comptroller, materiel maintenance management, automatic data processing (ADP), and manpower career programs. These career programs represent 4 of the total 21 civilian career programs which cover 72,000 careerists. The Corps E&S career program covers about 10,000 professional careerists of the 72,000 in the DA programs. Points worth considering are:

(1) Revise appraisal systems to accommodate the OPM candidate evaluation program and CSRA 1978. In this regard, the SKAP system should be simplified, made less costly, correlated more closely to job requirements, and focused more on potential and career development.

(2) As mentioned earlier in this monograph, the AAA report calls for elimination of referral lists from MACOMs and HQDA (except for key jobs) where at least three highly qualified careerists are available locally or through voluntary application procedures. Although this concept is not approved by the recent E&S Career Planning Board, Corps adoption of such a policy would certainly have expedited filling the vacancies. It might also have perpetuated a perceived problem of "in breeding" of local perspectives, but it would have helped alleviate the more visible and production-oriented problem of long-standing unfilled vacancies.

(3) The SKAP forms are designed to measure employee skills, knowledge, ability, and personal characteristics. As stated in the AAA report, there is a very low level of confidence in the ability of these forms to differentiate among candidates and to indicate potential. The extensive interviews ESC conducted Corps-wide indicated that E&S careerists are dissatisfied with the 85 percent highly qualified rate among individuals in the program and that they desire a more personal involvement with their consideration

for transfer and promotion. The IBRIC-CERL report of September 1977^{23/} contained one good suggestion for overcoming this problem: require that the supervisors enter on the SKAP those three areas of greatest strength and greatest opportunity for improvement for each of their subordinates. (This suggestion was tested in Walla Walla and Sacramento, and proved much more diagnostic.) By thus recognizing that each employee has strengths and weaknesses, the SKAP concept can better match employee strengths with specific position requirements and also cause supervisors to thoughtfully select areas requiring development, thus contributing to the subordinate's overall training and development scheme.

(4) The Corps-administered E&S career program also has many worthwhile aspects. The automation of the Corps' 10,000-member program enables it to be more responsive than the CIVPERSINS-operated (Civilian Personnel Management Information System) programs which must manually sort 17,000 records. Based on the AAA report and recent improvements in the E&S program, feedback to considered careerists is now much better by the Corps than by CIVPERSINS. The rating categories among programs have not been compared for relevance or economy of effort to complete. One comment in the AAA report which bears on this issue is that the responsibilities of careerists differ so markedly across grade levels that rated elements are not equally appropriate. To be specific, the operational requirements of lower grade careerists do not apply to supervisory-level careerists. Therefore, the rater is faced with the problem of giving a lower rating to someone who is very capable of

^{23/} Institute for Behavioral Research in Creativity, The Development of Preliminary Performance Indicators for the Selection of Managerial Talent in the U.S. Army Corps of Engineers. By Robert L. Ellison, et. al. CERL Contract No. DACA 88-77-C-0004. Salt Lake City, Utah, September 1977.

doing a task well but whose job does not require doing that task. This shortcoming of all SKAP systems is something to be expected in any relatively new program. These points should be considered carefully if the Corps revises the SKAP in any way--especially if the revisions address the problem of differentiating between performance and potential. CSRA calls for revision of Army appraisal systems to ensure interface between performance appraisals and SKAP.

7. MIS. Managerial decisions should be based on the best information obtainable. The concept of the MIS is to provide managers with periodic, dependable, standardized, and relevant information on which to base their decisions. Of course, not all management decisions have human resources management implications. Some deal only with allocation of material resources, financial resources, and data resources. This monograph addresses only those MIS data which are dedicated to describing the human resources of the Corps with respect to their current activities, previous experience, and future traits (e.g., projected demographics).

a. Creation of a perfect MIS is still elusive. However, failure to achieve perfection should not deter the Corps from striving to achieve the most useful, complete, and economical system possible. The Engineer Automation Management Office (EAMO), backed by the Engineer Automation Support Activity (EASA), has the responsibility for programming, collecting, compiling, and producing the COEMIS--the Corps-wide management information system. However, it would be unfair to blame EAMO for the current MIS limitations--there are many other legitimate reasons why the MIS is deficient and needs to be improved. As a support element, EAMO must first be informed of managers' data needs before it can fulfill its mission with regard to those needs.

b. Research for ESC's Developing and Managing the Corps Work Force for Future Missions project revealed that present systems do not accurately and effectively account for Corps employees. As data sources, the COEMIS-PA and the aggregated DA-CIVPERSINS data bank tapes do not correlate readily, especially when it comes to locating employees and identifying their activities. The specific sources of difficulty are the many types of location data (i.e., UIC, SON, GEOLOC) and the incompleteness of the COEMIS-PA system (it does not yet contain all districts and divisions and lacks occupational series data). Office of the Chief of Engineers (OCE) data are also difficult to extract from the CIVPERSINS because as many as four different codes are used, but the data are not aggregated under any one code.

c. Another serious shortcoming with the Corps MIS is its failure to provide historical records. CIVPERSINS is now creating a historical data file. Unfortunately, the earliest data in the historical file will be for 1979 (provided the system is available on time in 1981). It should also be noted that the CIVPERSINS data are being prepared by DA, Deputy Chief of Staff for Personnel (DCSPER) and certainly do not have the Corps of Engineers management perspective. The Corps' internally generated reports (as listed in EP 335-1-1) are under constant revision and therefore have no historic continuity by which management can be influenced.^{24/} An effort should be made to manually create a history for the minimum essential indicators as revealed in ESC's monograph, The Corps Work Force in Transition, and in the Main Report,

^{24/} Department of the Army, Office of the Chief of Engineers, EP 335-1-1, Reports and Statistics--Register of Management Information Requirements. Washington, D.C., 29 December 1978. The 562 recurring information requirements listed in EP 335-1-1 reflect a highly decentralized MIS that has "just evolved" and which should be scrutinized. Its sheer bulk and expense to maintain demand that reports be reevaluated to determine what, if any, decisions are driven by the input.

Developing and Managing the Corps Work Force for Future Missions. These historical data should be plotted on graphs and at least one copy stored at RMO for ready access by Chief, RMO and other Corps executives. Each subordinate office (e.g., Personnel, Training and Development, Comptroller) should keep these data and any other they consider relevant.

d. More specifically, the type data having historical significance include data which enable the Corps to trace the accession, progress, and exit of its employees. Records before 1974 included some indication of why departing employees were leaving; e.g., private industry, other government agency, other Army agency, state government. Over the long term, such data will yield the insight required for better management. The productivity/efficiency data currently being accumulated for the COEMIS-PA reports should continue to be kept but should be enhanced by the type displays shown in the main report cited above for each of the major Corps functions (engineering, construction, real estate, operations and maintenance, and administration). The Training Module, with its historical capability, is consistent with the future needs of management. The key skill/discipline breakouts shown in the ESC monograph, The Corps Work Force in Transition, should also be fleshed out as much as possible for the past and then be maintained in the future.

e. The basic debate over MIS goals and capabilities is often subjected to heated and idealistic discussion. Some farsighted executives in the operational side of the Corps are frustrated by current MIS inefficiency and inaccuracy and are inclined to resort to contracts for all Corps ADP operations. The vision of each operational manager having a remote terminal tied into a comprehensive MIS is certainly enticing, especially in light of the

relatively out-of-date equipment available now and the Corps' conservative ADP hardware commitment for the near term. The technology, of course, is capable of accommodating vast volumes of information that would be of interest to managers at all levels. However, the expense, relevance, and accuracy of such an all-inclusive system must certainly be questioned in light of the unwieldy nature of the tool. Even if the Corps were to opt for contract-provided ADP equipment and software, the same time-consuming assessments should be made regarding data relevance, data sources, and feasibility of update. Therefore, it would seem desirable to continue maintaining the decentralized management information tools while pushing to get them to a level of accuracy and comprehensiveness that would make them useful in their resultant forms and susceptible of being transferred to a larger more centralized system in the future. Whether the Corps eventually perfects its decentralized MIS or converts it to a more centralized system, it must be willing to spend the money, time, and human resources required to make sure the MIS reflects data that are actually used in making management decisions. Otherwise, the Corps should drop the idea as being too expensive.

8. The Organization as a Whole. Assuming successful implementation of the tools, techniques, programs, and policies described earlier, the Corps would still have some formidable problems with its human resources management. The essence of those problems is the need to achieve a balanced program of organizational development which meshes the organization's mission goals with those of the individual employees. The MAS provides one way of simultaneously looking at an organization as a whole and as coherent work subelements. It measures the work climate in quantifiable, comparable, and relevant terms.

a. The MAS is a tool designed by IBRIC to measure the work climate within an organization in such a way that it can be readily compared with other organizations or the various subelements can be compared with the organization as a whole. There are 19 basic measured areas of management interest ranging from co-worker cooperation to administrative and operational efficiency. By surveying all employees within an organization and keeping their input confidential, the data can be used to assess the organization's position today and to prepare a plan for future improvements (e.g., policies, training, reorganization, work processes).

b. The Los Angeles Engineer District has hired a consultant who has used the MAS as the basis for his organizational development program. The three other Corps elements that have participated in tests of this approach (Huntsville, CERL, Omaha District) have all expressed satisfaction and a desire for re-administration of the survey so that trends can be determined and progress identified. ESC's review of this tool has resulted in a positive opinion of its utility as an indicator of current problem areas and as a guide for future actions. If applied Corps-wide, managers should be cautious to ensure that the data are not manipulated and that its applications are not corrupted. To be specific, it is important that they realize that this is not a device designed to enable subordinates to rate their supervisors; rather it is a means of accumulating evidence about the work environment in the various echelons of the organization. By inference, some of the scores indicate how effective the supervisor of a work element has been in relation to other supervisors of similar work elements. But, when these scores are kept confidential and individuals use the knowledge they gain about themselves to

concentrate their energy for improvement, the result is that each supervisor strives to improve on their previous performance and the grossly stated performance of equivalent organizational elements. This is a healthy and non-threatening approach to improving organizational performance. The several keys to an effective MAS administration and followup are: local command support, effectively trained facilitators to monitor the program, maintaining the confidentiality of the results, developing constructive action plans, followup on the plans throughout the year, and periodic readministrations of the MAS.

c. Results of testing MAS at three Corps sites. The MAS has been administered to over 40,000 employees in a number of organizations; hence, a significant amount of data is available with which the Corps can compare its results. Generally, the results obtained from the three Corps sites surveyed indicate similarity with the other organizations surveyed. This evidence supports the position that management ability across Corps sites is generally uniform. Scores of remarkable similarity were reported across the three Corps sites for fairness of management, supervisory effectiveness, climate for innovation, training effectiveness, and communication measures in general. There were highly significant differences among the scores for delegation of authority and planning and administrative efficiency. Most interesting of all responses were those for performance feedback. Employees at all three Corps locations reported receiving only a limited amount of helpful information about their job performance. These scores ranked as all-time lows for MAS administrations--most of which were to other Federal or State Government white-collar organizations. Because the CSRA requires development of new

performance appraisal programs, there is a real and imminent opportunity to upgrade this Corps weakness. If the MAS were administered Corps-wide prior to implementation of the new CSRA performance appraisal system, the Corps would have a baseline against which to measure the effectiveness of whatever system is implemented. Re-administrations of the MAS would then give concrete evidence of the new system's success or its need for improvement.

9. Conclusions and Recommendations. Human resources management is a relatively new field that abounds with opportunities for innovation, experimentation, and progress. The Corps of Engineers has earned recognition for some of the strides it has made in this vital area. Enhancement of its training program, conscientious conduct of the E&S career program, research and testing by CERL, initiation of an MIS despite vast geographic and organizational decentralization, establishment of the RMO, and an active program to implement the CSRA are all examples of the Corps' commitment to human resources management. Now is the time to progress more rapidly along the routes already being probed. The Corps cannot afford to be reticent, waiting for some other Federal agency to take the lead in areas of concern to the engineer community. Specifically, it is recommended that the Corps:

a. Revise its recruitment policy and approach to place heavy reliance on local CPOs for aggressive action. This recommendation includes open advertising of vacancies and conducting job analyses and writing job sheets to allow the widest possible range of candidates to qualify for consideration.

b. Improve the E&S career program by more clearly defining opportunities along technical and managerial tracks. The Corps should engage an

expert (on contract)^{25/} to work with the Training and Career Development Branch to:

(1) Clarify the career opportunities of E&S personnel. This clarification could be descriptive rather than prescriptive and thereby avoid changing of regulations and concomitant DA staffing requirements.

(2) Document those opportunities in a manual for distribution to all E&S careerists. (This would be in addition to CPR 950-18 which is aimed at personnel officers and supervisors of E&S employees.)

(3) Help array training and career development opportunities in a coherent sequence that is related to the career progressions along both technical and managerial tracks.

(4) Make recommendations concerning the SKAP rating items which are of most importance at each career level.

(5) Relate low SKAP ratings in certain items to training and developmental requirements.

c. Continue developing tools which will lead to better selections among applicants for vacancies, especially for managerial positions (e.g., biographical interview, inventory manual and guide, peer ranking system, and ratings by both first- and secondary-level supervisors).

^{25/} The contract approach is recommended because the OCE Training and Career Development staff is already overworked and understaffed and because this one-time task lends itself readily to expert initiation and in-house operation thereafter. The individual advising on this broad employee development issue should have knowledge of and experience in both the public and private sectors. There is much to be learned from private industry in this field. In the Fall 1979 issue of The Bureaucrat in an article titled "Accountability for Career Development--A Must for Improved Program Management," Elmer Staats says: "Private industry greatly emphasizes comprehensive career development. Private sector managers at all levels are generally held accountable for developing their personnel...Ninety-two percent of these [surveyed] companies responded that development of subordinates is part of each middle and executive level manager's performance appraisal."

d. Take advantage of the work CERL and IBRIC have already done and use these products as the basis for a vocabulary of job tasks and qualification criteria. The impetus for such an effort is the CSRA requirement to conduct a job analysis and rewrite job descriptions and then develop a new performance appraisal system.

e. Enhance the Executive Development Program now undergoing scrutiny and especially focus on communication with subordinates regarding their performance. The program should address: career counseling of subordinates, the related issues of learning how to describe job elements and discern the difference between work performance and employee potential, and the preparation of job sheets and filling of vacancies in such a way that the paperwork proceeds efficiently and that wise selections are made. The Corps should also provide some training which addresses age-group differences and how they affect Corps work force composition as well as how to cope with these differences on the job (recommend Corps-wide showing of the instructional movie "What You Are Is Where You Were When.")

f. Conduct an initial administration of the MAS for as many Corps elements as possible prior to implementation of the CSRA provisions pertaining to performance appraisals, merit pay, and revised job descriptions. The resultant data should serve as a baseline for measuring CSRA effectiveness. A re-administration should be conducted after 12 to 18 months. Periodic re-administrations should then be scheduled at 1-2 year intervals.

g. Cause an evaluation by the CSRA Implementation Team of the Corps' E&S career program in light of the AAA report to make sure that any changes to the SKAP form which are indicated are consistent with the revised performance appraisal system.

h. Vigorously revise the Corps' MIS to enable accurate headcounting and quantification of organizational elements. Allocate the time and resources required to make sure that MIS-collected and disseminated data are relevant to the decision process. This can be accomplished under the umbrella of the Corps' Command Goals and Objectives for 1980 that state: "Tailor COEMIS input and output data to reduce cost and to provide earlier and more usable information." The data provided in the Main Paper of the study (Developing and Managing the Corps Work Force for Future Missions) and in The Corps Work Force in Transition monograph should be reviewed and considered as a base of historically relevant data for future managers who are trying to chart a realistic path into the future.

LAST PAGE OF MONOGRAPH