Text as published on gao.gov, https://www.gao.gov/products/b-61937, archived 2026-07-10. GAO published no original file for this decision. Rendered by Comptroller Desk.

B-61937, May 14, 1963

Number: B-61937

Date: 1963-05-14

B-61937, MAY 14, 1963

TO THE SECRETARY OF DEFENSE:

ON JUNE 21, 1962, AT THE REQUEST OF THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER), THE DEPARTMENT OF THE AIR FORCE WAS GRANTED APPROVAL BY THIS OFFICE TO CONDUCT A SIX-MONTH TEST OF A NEW SEMIAUTOMATED SYSTEM FOR MILITARY PAY AT ENT AIR FORCE BASE, COLORADO SPRINGS, COLORADO, USING A NEW AIR FORCE MILITARY PAY RECORD CARD DESIGNATED AS AIR FORCE FORM 470. SUBSEQUENTLY, PERMISSION WAS GRANTED TO EXTEND THE TEST PERIOD THROUGH JUNE 30, 1963. BY LETTER DATED FEBRUARY 18, 1963, THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER) REQUESTED OUR FORMAL APPROVAL OF AIR FORCE FORM 470 FOR USE AIR FORCE-WIDE. THE REQUEST FOR APPROVAL OF AIR FORCE FORM 470, THEREFORE, REPRESENTS, IN EFFECT, A REQUEST FOR APPROVAL OF A NEW MILITARY PAY SYSTEM FOR THE AIR FORCE.

APPROVAL OF AGENCY ACCOUNTING FORMS AND SYSTEMS BY THE COMPTROLLER GENERAL IS REQUIRED BY SECTION 309 OF THE BUDGET AND ACCOUNTING ACT OF 1921, 31 U.S.C. 49, AND SECTION 112 (B) OF THE BUDGET AND ACCOUNTING PROCEDURES ACT OF 1950, 31 U.S.C. 66 (B). IN OUR REVIEWS OF PROPOSED SYSTEMS, APPROPRIATE CONSIDERATION MUST BE GIVEN TO PERTINENT REQUIREMENTS AND FACTORS, SUCH AS (1) THE FIVE OBJECTIVES OF THE SYSTEMS OF ACCOUNTING AND INTERNAL CONTROL AS REQUIRED BY SECTION 113 (A) OF THE ACT OF 1950 AND (2) FINDINGS AND RECOMMENDATIONS IN GENERAL ACCOUNTING OFFICE AUDIT REPORTS, LETTERS, MEMORANDA, AND OTHER PERTINENT CORRESPONDENCE. BECAUSE OF THE INCREASING USE OF ELECTRONIC DATA PROCESSING EQUIPMENT AS AN INTEGRAL PART OF ACCOUNTING AND DATA PROCESSING SYSTEMS THROUGHOUT THE GOVERNMENT, WE NECESSARILY ARE CONCERNED WITH THE BASIC NEED, PURPOSE, AND ECONOMICAL ASPECTS OF SUCH SYSTEMS. IN ADDITION, SINCE OUR APPROVAL OF A SYSTEM MAY RESULT IN THE EXPENDITURE OF MILLIONS OF DOLLARS FOR EQUIPMENT AND TRAINING OF PERSONNEL, IT IS IMPERATIVE THAT WE CAREFULLY EVALUATE ALL ESSENTIAL ELEMENTS. CONSIDERATION MUST ALSO BE GIVEN TO THE TYPE OF VISIBLE AUDITABLE HISTORICAL DOCUMENTATION TO BE PRODUCED BY AN ELECTRONIC DATA PROCESSING SYSTEM IN THE LIGHT OF OUR STATUTORY RESPONSIBILITIES FOR THE AUDIT AND SETTLEMENT OF ACCOUNTS.

THE PROPOSED AIR FORCE MECHANIZED MILITARY PAY SYSTEM CONTEMPLATES EMPLOYING A SMALL COMPUTER AT BASE LEVEL AND PROVIDES FOR SOME MACHINE COMPUTATION OF PAY UNDER CONTROLLED PROCEDURES. IN THE LETTER FROM THE OFFICE OF THE ASSISTANT SECRETARY, WE WERE INFORMED THAT IT WILL PROVIDE FOR BETTER ACCOUNTING CONTROL OVER DOCUMENTS AND TRANSACTIONS AND FOR EARLIER REPORTS OF ACCRUED ENTITLEMENTS, AS SHOWN ON THE INDIVIDUAL PAY ACCOUNT, AS REQUIRED, EFFECTIVE OCTOBER 1, 1964, BY DEPARTMENT OF DEFENSE DIRECTIVE 7040.3, DATED OCTOBER 2, 1962.

THE ADOPTION OF THE NEW SYSTEM WILL REQUIRE THE LEASING OR PURCHASING OF SOME 144 NATIONAL CASH REGISTER (NCR) MODEL 390 COMPUTERS TO BE USED AT OVER 100 AIR FORCE BASES. ONE-TIME COSTS FOR TESTING AND TRAINING FOR THE NCR 390 SYSTEM ARE ESTIMATED TO BE $735,000. RENTAL COSTS FOR THE COMPUTERS ARE ESTIMATED TO BE ABOUT $3.6 MILLION ANNUALLY. TOTAL NET DOLLAR SAVINGS THAT WOULD RESULT FROM ADOPTION OF THE PROPOSED SYSTEM ARE ESTIMATED BY ENT AIR FORCE BASE OFFICIALS AT ABOUT $1.5 MILLION ANNUALLY. THE NCR 390 SYSTEM IS CONSIDERED BY THE AIR FORCE TO BE AN INTERIM SYSTEM TO BE REPLACED ULTIMATELY BY A LARGE-SCALE COMPUTER SYSTEM KNOWN AS IMPACT (INTEGRATED MILITARY PAY--- ACCRUED, CONTROLLED, TIMELY). IMPACT IS STILL, IN EFFECT, IN THE RESEARCH AND DEVELOPMENT STAGE. ACCORDING TO PRESENT PLANS, THE IMPACT SYSTEM COULD BECOME OPERATIONAL IN THE AIR FORCE BY JANUARY 1, 1967. ONE-TIME COSTS FOR TESTING AND TRAINING OF IMPACT ARE ESTIMATED TO BE $5.6 MILLION. EQUIPMENT RENTAL AND COMMUNICATION COSTS THEREAFTER WOULD RUN ABOUT $4.5 MILLION ANNUALLY. NET TOTAL DOLLAR ANNUAL SAVINGS RESULTING FROM THE IMPACT SYSTEM ARE EXPECTED TO BE ABOUT $3.7 MILLION.

WE HAVE CONTACTED THE OTHER SERVICES TO DETERMINE THEIR PLANS WITH RESPECT TO THE ULTIMATE MECHANIZATION OF THE MILITARY PAY SYSTEM AS WELL AS THEIR PLANS TO COMPLY WITH DIRECTIVE 7040.3. WE HAVE BEEN INFORMALLY ADVISED BY THE DEPARTMENT OF THE ARMY THAT IT HAS NO FIRM PLANS TO CHANGE ITS PRESENT MILITARY PAY SYSTEM AT THIS TIME AND THAT IT EXPECTS TO COMPLY WITH DIRECTIVE 7040.3 BY THE ACCUMULATION OF PUNCH CARDS AND OTHER INFORMATION DEVELOPED MANUALLY AT A CENTRAL POINT WHERE IT WILL BE SUMMARIZED AND FURNISHED TO THE DEPARTMENT OF DEFENSE. THE DEPARTMENT OF THE NAVY HAS ALSO BEEN TESTING THE NCR 390 COMPUTER FOR VERY LIMITED PURPOSES, BUT NOT FOR COMPLIANCE WITH DIRECTIVE 7040.3. WE HAVE BEEN INFORMALLY ADVISED BY THE NAVY THAT FIRM PLANS HAVE NOT BEEN ESTABLISHED FOR COMPLIANCE WITH THE DIRECTIVE OR FOR A MECHANIZED PAY SYSTEM AT THIS TIME. THE MARINE CORPS, WE UNDERSTAND,INTENDS TO COMPLY WITH THE DIRECTIVE 7040.3 BY USE OF A PUNCH-CARD SYSTEM AND IS PLANNING TO REQUEST APPROVAL OF THIS OFFICE FOR THE ADOPTION OF A PUNCH-CARD MECHANIZED MILITARY PAY SYSTEM SOME TIME LATER THIS YEAR.

IN PREVIOUS REPORTS TO THE CONGRESS AND TO THE DEPARTMENT OF DEFENSE, THIS OFFICE HAS POINTED OUT WEAKNESSES, INEFFICIENCIES, AND LACK OF UNIFORMITY IN THE SERVICES' ADMINISTRATION OF MANY ASPECTS OF MILITARY PAY AND ALLOWANCES. THE BASIC LEGISLATION GOVERNING PAY AND ALLOWANCES OF MILITARY PERSONNEL APPLIES, WITH FEW EXCEPTIONS, UNIFORMLY TO MEMBERS OF ALL SERVICES. THE ESTABLISHMENT OF A UNIFORM MILITARY PAY SYSTEM, IN OUR OPINION, COULD BE EXPECTED TO SIMPLIFY AND IMPROVE MATERIALLY THE ADMINISTRATION OF MILITARY PAY AND ALLOWANCES IN MANY WAYS, INCLUDING THE ELIMINATION OF THE MULTIPLICITY OF INDIVIDUAL SERVICE REGULATIONS.

HOWEVER, AS SEEN FROM THE ABOVE, EACH OF THE SERVICES IS DEVELOPING ITS OWN SEPARATE MILITARY PAY SYSTEM WITH LITTLE APPARENT CONCERN AS TO UNIFORMITY, COMPATIBILITY OF MECHANIZED EQUIPMENT, AND THE LIKE. AT THE PRESENT TIME, FOR INSTANCE, EACH OF THE SERVICES' FINANCE CENTERS HAS DIFFERENT TYPES OF LARGE-SCALE COMPUTER SYSTEMS. EACH SERVICE HAS INCURRED CONSIDERABLE COST IN THE TRAINING OF MACHINE TECHNICIANS AND IN THE DEVELOPMENT OF SEPARATE DATA PROCESSING PROGRAMS TO ACCOMPLISH THE SAME PURPOSES. FOR EXAMPLE, THE SERVICES HAVE SPENT OVER $2 MILLION FOR INITIAL NONRECURRING SITE PREPARATION, CONVERSION, INSTALLATION, PERSONNEL TRAINING AND PROGRAMMING PRIMARILY IN APPLYING THE ALLOTMENT OPERATIONS TO THEIR COMPUTER SYSTEMS. OTHER PROGRAMS EITHER HAVING BEEN OR BEING CONSIDERED BY THE SERVICES FOR ADAPTATION TO THE COMPUTER SYSTEM INCLUDE RETIRED PAY, SOLDIERS' DEPOSITS, AND EXTRACTIONS OF AMOUNTS DEDUCTED FOR TAXES. NO RECOGNITION SEEMS TO HAVE BEEN GIVEN TO THE

SIGNIFICANT SAVINGS THAT MAY BE REALIZED BY USING A SINGLE DATA PROCESSING PROGRAM TO ACCOMPLISH THE SAME BASIC OBJECTIVES OR TO THE FACT THAT THIS OFFICE WILL BE REQUIRED TO REVIEW A VARIETY OF SYSTEMS BEFORE CONSIDERATION CAN BE GIVEN FOR APPROVAL.

WE FIRMLY BELIEVE THAT DECENTRALIZED MANAGEMENT BY THE ARMY, NAVY, AIR FORCE, AND MARINE CORPS, WHICH PERMITS EACH SERVICE TO MAKE ITS OWN DECISION AS TO THE METHOD OF OBTAINING ITS EQUIPMENT, THE TYPE OF EQUIPMENT TO BE USED, AND THE SYSTEM TO BE FOLLOWED, DOES NOT PROVIDE THE EFFECTIVE COORDINATION NEEDED TO PREVENT SUBSTANTIAL UNNECESSARY EXPENDITURES. FOR EXAMPLE, IN CARRYING OUT DIRECTIVES 7040.3 AND 7220.3 (THE PURPOSE OF WHICH IS TO ESTABLISH A UNIFORM APPROPRIATIONS STRUCTURE AND A STANDARD BUDGET AND FISCAL ACCOUNTING CLASSIFICATION OF OBLIGATIONS AND DISBURSEMENTS FOR THE MILITARY PERSONNEL APPROPRIATIONS THROUGHOUT THE DEPARTMENT OF DEFENSE), THE AIR FORCE, BY THE USE OF THE NCR 390 SYSTEM, EXPECTS TO FURNISH SOME 130 ACCOUNTING CLASSIFICATIONS OF PAY AND ALLOWANCES. WE ARE INFORMED THAT THE NAVY IS THINKING OF SOME 4,000 ACCOUNTING CLASSIFICATIONS AND PROGRAM ELEMENTS, MANY OF WHICH WOULD BE FOR THE USE OF THE BUREAU OF PERSONNEL. THE ARMY EXPECTS TO CONTINUE ITS PRESENT REPORTING FORMAT OF SOME 40 ACCOUNTING CLASSIFICATIONS HAS NOT COMPLETED ITS PLANS FOR COMPLIANCE WITH 7220.3. THE MARINE CORPS PLANS ON ABOUT 80 CLASSIFICATIONS IN COMPLYING WITH THE TWO DIRECTIVES. THUS, CURRENT PLANS OF THE SERVICES WOULD SEEM TO PLACE EACH SYSTEM EVEN FURTHER APART WITH RESPECT TO COMPATIBILITY AND UNIFORMITY.

COSTLY TRIAL AND ERROR APPROACHES TO COMPUTER UTILIZATION HAVE BEEN THE SUBJECT OF SEVERAL REPORTS ISSUED BY THIS OFFICE. SPECIFICALLY, IN OUR REPORT TO THE CONGRESS ON "REVIEW OF AUTOMATIC DATA PROCESSING DEVELOPMENTS IN THE FEDERAL GOVERNMENT," DATED DECEMBER 30, 1960, WE STATED:

"EFFECTIVE LEADERSHIP BY A CENTRAL AGENCY COULD MINIMIZE WASTEFUL DUPLICATION OF EFFORT AMONG THE INDIVIDUAL AGENCIES. AT PRESENT, THERE IS NO ADEQUATE MECHANISM TO PREVENT REPETITIVE EXPLORATIONS BY DIFFERENT AGENCIES INTO THE SAME OR VERY SIMILAR APPLICATIONS * * *. MANY OF THE SAME BASIC PROBLEMS EXIST AT MORE THAN ONE LOCATION.

THE DECENTRALIZED MANAGEMENT OF COMPUTERS AND SYSTEMS IN THE MILITARY PAY AND ALLOWANCES AREA IS TYPICAL OF THIS TYPE OF MANAGEMENT DEFICIENCY.

WITH RESPECT TO THE REQUEST FOR APPROVAL OF THE PROPOSED AIR FORCE SYSTEM, WE DO NOT BELIEVE THAT A TEST AT ONE BASE PROVIDES A SUFFICIENT BASIS FOR ADOPTION OF THE SYSTEM AIR FORCE-WIDE. WE ARE OF THE OPINION THAT THE EXPENDITURE OF A SIGNIFICANT AMOUNT OF FUNDS FOR LEASING THE 144 COMPUTERS AND THE TRAINING OF OPERATING PERSONNEL AT BASE LEVEL AND AT THE AIR FORCE ACCOUNTING AND FINANCE CENTER, DENVER, ARE NOT WARRANTED WITHOUT A MORE COMPREHENSIVE TEST. THE WORK PERFORMED AT ENT AIR FORCE BASE WAS CARRIED OUT UNDER CONTROLLED CONDITIONS. TECHNICALLY QUALIFIED PERSONNEL WERE USED DURING THE TESTING PERIOD. IT IS DOUBTFUL THAT SIMILARLY QUALIFIED TRAINED PERSONNEL WOULD BE AVAILABLE AT THE APPROXIMATELY 100 AIR FORCE BASES THAT WOULD USE THE NEW SYSTEM WITHIN THE NEXT FEW YEARS. THUS, THE SAVINGS ESTIMATED ARE VERY QUESTIONABLE, PARTICULARLY WHEN CONSIDERED FROM THE STANDPOINT OF APPLYING A CONTROLLED EXPERIMENT TO APPROXIMATELY 100 AIR FORCE BASES.

ALSO, WE ARE CONCERNED THAT LITTLE EFFORT HAS BEEN MADE TO DETERMINE THE POTENTIAL OF THE PROPOSED SYSTEM TO EXPEDITE THE SYNCHRONIZATION OF STARTS, STOPS, AND DEDUCTIONS FOR ALLOTMENTS, BONDS, AND TAXES WITH PAYMENTS AT THE AIR

FORCE ACCOUNTING AND FINANCE CENTER. DEVELOPMENT OF THESE ASPECTS COULD SUBSTANTIALLY REDUCE OVERPAYMENTS OR OTHER IMPROPER ACTIONS IN THIS AREA AND RESULT IN MANPOWER SAVINGS AT THE AIR FORCE ACCOUNTING AND FINANCE CENTER.

WE SUGGEST THAT THE TESTS BE EXPANDED TO NO MORE THAN FORTY INSTALLATIONS IN SIX TO EIGHT MAJOR AIR FORCE COMMANDS IN THE CONTINENTAL UNITED STATES AND OVERSEAS TO DETERMINE HOW THE SYSTEM WILL OPERATE UNDER OTHER THAN CONTROLLED CONDITIONS AND WHETHER THE ANTICIPATED SAVINGS WILL, IN FACT, BE REALIZED. THE EXPANDED TEST SHOULD RUN AT LEAST ONE YEAR AT EACH LOCATION. AS A PART OF THE TEST, ADDITIONAL BENEFITS THAT COULD BE BUILT INTO THE SYSTEM, IN ADDITION TO THOSE MENTIONED, SUCH AS MACHINE REJECTION OF DUPLICATE PAYMENTS, AUDIT CHECKS, ETC., SHOULD BE FULLY EXPLORED.

COROLLARY TO THIS QUALIFIED APPROVAL OF THE PROPOSED AIR FORCE SYSTEM FOR FURTHER TESTS, WE BELIEVE THAT IT IS INCUMBENT UPON THE DEPARTMENT OF DEFENSE TO (1) INFORM THE SERVICES AS TO THE SPECIFIC INFORMATION TO BE FURNISHED UNDER DEPARTMENT OF DEFENSE DIRECTIVES 7040.3 AND 7220.3, WITH DUE CONSIDERATION TO THE NEED AND COSTS OF SUCH INFORMATION, (2) PLACE REASONABLE LIMITS ON THE ACCUMULATION BY THE SERVICES OF INFORMATION OVER AND ABOVE THESE REQUIREMENTS, (3) EXTEND THE DATE FOR COMPLIANCE WITH 7040.3, (4) REQUIRE THE SERVICES TO REACH AN AGREEMENT AS TO A UNIFORM MECHANIZED MILITARY PAY SYSTEM THAT WILL BE USABLE WITH THE SEVERAL TYPES OF EQUIPMENT IN USE BY OR AVAILABLE TO THE SERVICES, AND (5) ASSIGN RESPONSIBILITY IN THE OFFICE OF THE SECRETARY OF DEFENSE FOR THE DEVELOPMENT AND MANAGEMENT OF A MECHANIZED UNIFORM MILITARY PAY SYSTEM FOR ALL SERVICES.

THE DEVELOPMENT OF SUCH A MILITARY PAY SYSTEM SHOULD BE A PART OF A LONG- RANGE MASTER PLAN ENCOMPASSING THE NEED FOR AN INTEGRATED DATA PROCESSING SYSTEM TO SERVE OVERALL BASIC NEEDS FOR PERSONNEL STATISTICS, CIVILIAN PAY, ETC. THE SAME APPROACH SHOULD BE APPLIED IN ANY FUNCTIONAL AREA WHERE FINANCIAL AND NONFINANCIAL INFORMATION REQUIREMENTS ARE IMPORTANT IN PLANNING AND CONTROLLING THE USE OF DEFENSE RESOURCES. AMONG THE AREAS WHERE SUCH ATTENTION WOULD BE PROFITABLE ARE SUPPLY MANAGEMENT AND ACCOUNTING, MAINTENANCE ACCOUNTING, AND PROPERTY AND INVENTORY ACCOUNTING. PROPER SAFEGUARDS SHOULD BE BROUGHT TO BEAR IN THE DEVELOPMENT OF ANY DATA PROCESSING SYSTEM WHICH WOULD ASSURE THAT, FROM THE STANDPOINT OF EQUIPMENT, THE DEPARTMENT WOULD NOT BECOME CAPTIVE OF A SINGLE MANUFACTURER AND THAT THE ADVANTAGES OF TRUE COMPETITION COULD BE ATTAINED.

WE WILL BE PLEASED TO DISCUSS THIS MATTER FURTHER WITH YOUR OFFICE IF IT IS SO DESIRED.