REPORT TO THE CONGRESS

Need For Improvement In Management of Mission Support Aircraft

B-163453

Department of the **Army**

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

MAY 10, 1968

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

The management of nearly 500 (mission support) aircraft used by Department of the Army personnel to maintain readiness proficiency for combat flying and for administrative purposes has been evaluated by the General Accounting Office.

The accompanying report points out specific management weaknesses which we believe were responsible for:

--authorization generally of 25 percent more aircraft than were actually needed at the locations we reviewed, and

--use of the aircraft contrary to the transportation and traffic management policies of the Department of Defense.

We believe further that the Army's inadequate criteria and procedures used for determining aircraft requirements, plus insufficient evaluation of aircraft justifications submitted by user organizations, were basic causes for the overauthorizations of aircraft.

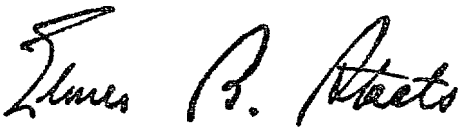
Moreover, in our opinion, the lack of effective procedures at the installation level relating to the use of Army aircraft for administrative purposes resulted in the use of mission support aircraft where commercial airlines could have provided satisfactory services more economically.

Because the Army has a basic responsibility to compute its equipment requirements as accurately as possible to keep its needs to a minimum, we believe that it should improve its management of mission support aircraft. Accordingly, the accompanying report presents a series of recommendations (see pp. 23 and 24) which, in our opinion, if carried out by the Army, will achieve the needed improvements.

Army officials agreed, in general, with our recommendations for improvement and cited actions which they had already taken, and were taking, toward that end. At a later date, we plan to evaluate the effectiveness of these actions.

We are reporting this matter to advise the Congress of our findings and of the Department of the Army's efforts to achieve improvement.

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of Defense; and the Secretary of the Army.



Comptroller General
of the United States

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REPORT ON

NEED FOR IMPROVEMENT IN

MANAGEMENT OF MISSION SUPPORT AIRCRAFT

DEPARTMENT OF THE ARMY

INTRODUCTION

The General Accounting Office has made a review of the management of mission support aircraft in the Department of the Army. Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67). The scope of the review is described on pages 25 and 26 of this report

Our review was directed to evaluating the system for managing and controlling mission support aircraft. In performing the review, we focused primary attention on matters relating to the authorization, assignment, and utilization of mission support aircraft that appeared to need attention. We did not make an overall review.

BACKGROUND

The term "Mission Support Aircraft" (MSA) in the Department of the Army denotes all fixed-wing and rotary-wing aircraft assigned under Tables of Allowance (TA) for use in (1) providing combat readiness flying (CRF) for those personnel not assigned to crew positions or for those who do not meet proficiency flying requirements by the use of any other assigned aircraft and (2) accomplishing administrative, executive, and inspection functions, including airlift of personnel and materiel.

MSA are thus distinguished from aircraft assigned for the other specified categories of utilization; namely, combat; combat support; combat service support; formal aviator training; and research, development, test, and test support functions. At the time of our review nearly 500 aircraft were authorized for mission-support purposes.

Army regulation 95-32 dated October 1, 1959, prescribes that Army aviators must fly a minimum of 80 hours and a maximum of 100 hours during each fiscal year to maintain their combat readiness. It also provides that combat readiness flights--in line with the Army policy that flying time exclusively for the maintenance of individual proficiency be held to a minimum--be combined, wherever possible, with flights for official business.

Pursuant to a directive from the Deputy Secretary of Defense to the Secretaries of the Army, Navy, and Air Force dated December 19, 1964, the Chief of Staff of the Army on January 4, 1965, ordered that a study be made and completed by June 15, 1965, encompassing an entire "new look" and verification of aircraft requirements, including MSA. This study was to be used as the basis for budgeting for fiscal year 1967.

On April 15, 1965, the Deputy Secretary of Defense issued terms of reference for the study which included using the annual aircraft utilization rates applicable to the most efficient operation of categories of aircraft. For computing requirements for rotary-wing aircraft a standard utilization rate of 420 hours a year was prescribed and for fixed-wing aircraft the directive stated that normally the most efficient rate would fall between 600 and 1,200 hours a year.

The Army study was completed on schedule, and new authorizations for MSA were made substantially in accordance with the findings. The study concluded with the opinion that the requirements developed in the study for MSA at Army establishments constituted a valid basis for procurement of aircraft.

FINDING AND RECOMMENDATIONS

REVIEW OF AUTHORIZATION AND USE OF MISSION SUPPORT AIRCRAFT

There is a need for improving the management of aircraft for mission-support purposes. In our opinion the system used during our review has resulted in inflated authorizations for aircraft, assignment of more aircraft than are needed to field organizations and establishments, and use of aircraft contrary to the transportation and traffic management policies of the Department of Defense.

On the basis of flying performed for mission-support purposes during fiscal years 1965 and 1966 by the organizations we reviewed, of known changes in support responsibilities, and of aircraft utilization criteria established by the Department of Defense and the Department of the Army, our review of the justifications and authorizations for about 170 of the aircraft approved for use for mission-support purposes for fiscal years 1966 and 1967 indicated that the number of aircraft authorized was about 25 percent more than the justifiable requirements of the using organizations.

We believe that the incomplete criteria and procedures prescribed and used for determining aircraft requirements and insufficient evaluation of the justifications for aircraft submitted by user organizations were basic reasons for authorizing more aircraft than were needed.

Currently the management of aircraft for mission-support purposes is segregated into two basic functions, (1) the authorization and assignment of aircraft and (2) the utilization of aircraft. The first function is the responsibility of the Assistant Chief of Staff for Force Development, Headquarters, Department of the Army, and the second function is the responsibility of individual commanders of field organizations and establishments. The following sections of this report deal with these segments of management.

Management weaknesses in the authorization and assignment of aircraft

Our review of the authorization and assignment of aircraft for mission-support activities revealed that (1) the prescribed criteria for determining aircraft requirements were incomplete, (2) procedures did not provide for considering readily available data on past experience of mission-support flying as a contributory means for determining that the estimated aircraft flying hours submitted by using organizations in support of their requested requirements for aircraft were realistic, and (3) insufficient evaluation was made of justifications for aircraft submitted by the using organizations.

In March 1965, the following criteria for determining aircraft requirements were distributed by Headquarters, Department of the Army, to commands and thence to subordinate installations for use in preparing organizational justifications and in developing the Army's recommended program for MSA which had been requested by the Deputy Secretary of Defense in December 1964.

"a. ***(1) CRF aircraft will be authorized only at installations where no other assigned aircraft are available for CRF.

(2) Annual aircraft utilization rates will be 600 hours for fixed wing and 420 hours for rotary wing aircraft.

(3) Instrument flying proficiency requirements which are included in the annual minimum CRF requirements will not provide a basis for authorizations of additional CRF aircraft.

(4) CRF aircraft authorizations at an installation will be based on number of assigned Army aviators in a proficiency flying status (CRF) to accomplish flying the required number of hours to satisfy the minimum annual flying hour requirement."

"b. ***(1) Administrative support aircraft will be based on operations utilizing 75% of available passenger seats or cargo space as recorded in historical seat/mile workload data and annual utilization rates of 600 hours per fixed wing aircraft or 420 hours per rotary wing aircraft.

(2) Administrative support aircraft will be required on a continuing basis and will not duplicate other capability existing at the same installation.

(3) Administrative support aircraft will be authorized at an installation only where no other MSA aircraft are authorized to support CRF and could provide administrative support by virtue of aircraft type and availability.

(4) Administrative support aircraft will be authorized only where no other means of transportation is available to accomplish the mission as effectively as MSA based on a cost-effectiveness analysis.

(5) Administrative support aircraft will be authorized for travel to and from installations served by scheduled commercial aircraft only where time loss or security considerations involved in commercial travel can be shown conclusively to impede mission effectiveness."

Prior to the issue of the above criteria, the policy and guidance for authorizing Army aircraft for mission-support purposes was set forth in Army Regulation 310-34 dated December 26, 1963. The guidance in the regulation was broad and provided only (1) that TA--listings of items and quantities of items authorized for use by specified units, organizations, activities--include aircraft for

performing combat-readiness training when justified by the merits of each individual case and (2) that authorizations of multipassenger aircraft for staff transportation be justified on the basis of an existing supportable requirement for the rapid transportation of personnel on high-priority missions, the urgency and importance of which would warrant the use of specially provided military air transportation in lieu of commercial air or surface transportation.

No criteria or guidance was furnished setting forth the information that should be included in the required justifications so that realistic decisions could be made on the number of aircraft that should be authorized to perform the mission-support activities of field organizations and establishments for which military aircraft may properly be used,

Incomplete criteria

The criteria and guidance prescribed for developing requirements for MSA contained no provisions for taking into account:

1. That very frequently one aircraft flying hour will provide 2 or 3 CRF hours because a copilot and/or an instructor pilot often participate with the pilot on individual flights, and perform duties which qualify them, in addition to the pilot, to log CRF time.

2. That a significant portion of the CRF requirements of many aviators is accomplished during flights for administrative purposes.

3. The past experience of organizations and establishments in performing mission-support activities with military aircraft,

With respect to flights with two or more aviators aboard, Army Regulation 95-4 specifies eight types of aircraft which normally, or frequently, are required to be manned by two pilots and other crew personnel. Several of

these types of aircraft are authorized and assigned to field organizations for mission-support purposes.

This regulation also provides that instructor pilots, in addition to other pilots who fly with them, log flying time while participating in flights for instructing or checking the qualifications of other pilots. Also, Army Regulation 95-2, dated March 6, 1964, states that copilots are mandatory on all flights where weather conditions necessitating the use of flying instruments are forecast, except for flights made in OV-1 type of aircraft which the Army possesses in a relatively small number. Also, major commanders are authorized to prescribe circumstances when aircraft under their command must be manned with a copilot.

As a result of these requirements, MSA are frequently flown with two or more aviators aboard performing duties that qualify each of them to log all, or a part of, the aircraft flying time against the annual minimum/maximum CRF time of 80 and 100 hours per aviator, respectively. However, this important consideration was omitted from the criteria prescribed for determining aircraft requirements for performing CRF.

Concerning CRF time accomplished during flights made for administrative purposes, Army Regulation 95-32, dated October 1, 1959, requires that, in the interest of obtaining maximum training benefit from available resources, CRF be combined with flights for official business whenever possible and that aviators whose primary duty is not flying be used to the maximum in performing flights for administrative purposes. Consequently, a significant portion of CRF requirements logged by aviators is accomplished while performing administrative flights. This important consideration also was omitted from the criteria prescribed for determining aircraft requirements.

Because the criteria issued for determining how many aircraft flying hours would be required to accomplish CRF at Army installations were incomplete, many of the justifications for MSA submitted by organizations and establishments did not make allowance for the fact that ordinarily it takes less than 80 hours of aircraft flying time to

provide each assigned aviator with the 80 hours of flying time they need to meet the minimum CRF time requirements. Also, some estimates of aircraft flying hours included in justifications for aircraft did not make allowance for the CRF time that would be accomplished in performing administrative flights.

For example, one organization we reviewed estimated that each assigned aviator would require an average of 85 aircraft flying hours a year for CRF, notwithstanding that the flying hours requested by the organization for administrative, supervisory, and inspection duties were almost twice as much as that requested for CRF and that nearly 90 percent of the time flown by aircraft assigned to the organization was performed with two aviators aboard the aircraft.

The large number of aircraft flying hours required for administrative purposes and flights made with two aviators aboard would automatically provide a large portion of the flying time needed for CRF requirements by the organization. Nevertheless, on the basis of the justification, all 10 of the aircraft requested by the organization for activities designated by Headquarters, Department of the Army, as mission-support activities were authorized. On the basis of the prescribed aircraft utilization criteria, past experience in using more than one aviator for flights for mission-support purposes and in using other modes of transportation where this appeared to be practicable and more economical, we estimate that, at the time of our review, the number of aircraft authorized was about double the number actually required by the organization.

Another organization included in its justification for MSA an average of over 87 aircraft flying hours for each aviator to perform the required CRF time. Although additional aircraft flying hours were included in the justification for making flights for administrative purposes, no allowance was made for the fact that a large portion of the CRF requirements would be accomplished in performing these flights or that aircraft assigned to the organization were usually flown with two or more aviators on board. Between 80 and 90 percent of the time flown by aircraft assigned to

the organization during the 2 months we reviewed was accomplished with two or more aviators aboard.

This organization was also authorized the total number of aircraft--12--that it requested for mission-support purposes. On the basis of prescribed aircraft utilization criteria, past experience in using more than one aviator for flights for mission-support purposes, and the number of hours flown for mission-support purposes, we estimate that, at the time of our review, the organization was authorized nearly twice as many aircraft than it needed.

In a letter dated September 12, 1967, commenting on our draft report, the Department of the Army stated that, although it agreed that there was a need for improving the system for managing aircraft for mission-support purposes, the extreme turbulence in both personnel and aircraft due to the build-up in aviation capability in Southeast Asia about the time of our review resulted in a much lower requirement for CRF than had been anticipated.

The letter stated also that preliminary analysis of the results of the study of flights performed by organizations and establishments for the 6-month period August 1966 through January 1967 confirmed that the number of aircraft authorized for seven of the nine installations where we made our review were in excess of requirements and that a net reduction of *24* aircraft at the nine stations appeared to be appropriate.

During our review we noted that aircraft were being transferred to Vietnam. In our estimates of excess aircraft, we made allowances, where appropriate, for aircraft transferred from the installations where we made our review.

With respect to aviators, at eight of the installations we reviewed, the variation between the number of aviators assigned for mission-support purposes at the time of our review and the number included in the justifications for aircraft did not exceed 12 in any individual case and the overall difference at these installations was a net decrease of only 19 aviators. At another installation where the number of aviators assigned was significantly more--about 470--than the number included in the installation's

justification for aircraft, our estimate of the number of aircraft required was based upon the increased number of aviators which were assigned at the time of our review. At the other installation we visited, there was a material reduction in the number of aviators assigned, about 90 less than the number on which the justification for aircraft was based.

Irrespective of the movement of aircraft or the number of assigned aviators, the prescribed guidance and criteria for determining requirements for MSA did not ensure that the aircraft flying time for CRF would be developed (1) giving due allowance for flights that would be made with two or more aviators aboard, with each of them crediting flight time against their minimum CRF requirements, or (2) taking into consideration that a portion of the CRF could be expected to be performed in carrying out flights for administrative purposes.

In this respect, the Department of the Army comments state that it is developing new management procedures which will include a review and analysis of installation requirements for MSA based upon actual performance, monthly by installation commanders, quarterly by intermediate commanders, semiannually by major commands, and annually by Headquarters, Department of the Army.

The Army states also that--in a comprehensive study of flying activities during the 6-month period August 1966 through January 1967, which it undertook to establish more comprehensive management and more valid criteria and to develop new authorizations for aircraft--the standard of no more than 60 aircraft flying hours would normally be needed to perform 80 aviator hours of CRF was adopted. The criteria for this study also required that each observation and utility-type helicopter assigned to tacticaland administrative units would be available for 8 hours a month for performing CRF and that each fixed-wing aircraft assigned to such units would be available 12 hours a month for CRF.

The evaluation of the results of this study is currently being considered by the Chief of Staff, Department of the Army, but the criteria used for the study have not

yet been approved for future use in evaluating the utilization of, or determining the need for, aircraft.

Prescribed procedures for determining aircraft requirements did not include considering recent flying experience

In the absence of significant prospective changes in missions or volume of activity, the most recent flying experience of an organization is generally the most realistic basis for determining its requirements for MSA.

Each organization assigned or holding Army aircraft is required to prepare and submit to the U.S. Army Aviation Materiel Command a monthly report entitled "Army Aircraft Inventory, Status, and Flying Time." Included in this report is the number of hours flown during the month by each assigned aircraft which are categorized according to the purpose and functions for which they are assigned, including mission-support activities. Thus, information on the flying experience of all organizations is readily available.

We found nothing in the prescribed criteria and related procedures requiring organizations to submit information in their justifications for aircraft regarding their recent flying experience or for the Assistant Chief of Staff for Force Development, Headquarters, Department of the Army, to obtain and consider such information in determining the number of aircraft to be authorized.

We found several instances during our review where past flying experience was not furnished and apparently not considered in establishing aircraft requirements or in making timely adjustments in the number of aircraft assigned because of significant increases or decreases in flying activity. Our review indicated that, had the experienced flying time of organizations been obtained and used, more realistic authorizations of aircraft should have resulted,

For example, the estimated flying-hour requirements of one organization was stated as 10,800 hours for fiscal year 1966. This estimate represented an increase of some 3,800 hours over the prior year's actual experience. The need

for the increased requirement was not fully explained. However, it was approved, apparently without question, and all the 22 aircraft requested to perform the estimated flying time were authorized. Actually, the organization flew only 5,750 hours in fiscal year 1966. On the basis of prescribed aircraft utilization criteria, we estimate that this organization was authorized about double the number of aircraft it actually needed for fiscal year 1966.

Another organization estimated that its flying-hour requirements for mission-support purposes for fiscal year 1966 would be from 12,500 to 15,000 hours. This estimate represented an increase of from 2,700 to 5,200 hours more than the prior year's actual experience, but the need for the increased requirements was not fully explained. The estimated requirements for aircraft were substantially approved, apparently without question, because 24 of the 25 aircraft requested to perform the increase flying-hour requirements were duly authorized.

Actually, the organization flew less than 8,500 hours for mission-support purposes during fiscal year 1966, On the basis of this utilization and prescribed aircraft utilization criteria, it appeared that the number of aircraft this organization was authorized for mission-support purposes was about a third more than actual needs.

Some organizations did not furnish information on the estimated aircraft flying hours they expected to perform for mission-support purposes in their justifications. On the basis of the prescribed aircraft utilization criteria, flying performed during 6 months in fiscal year 1966, and the use of other modes of transportation where this appeared to be practicable and more economical, we estimate that in one of these cases the eight aircraft authorized were more than double the number the organization actually required.

In its comments on our draft report, the Department of the Army stated that the determination of aircraft authorizations which it was currently making would be based upon the report on the recent comprehensive review titled "U.S. Army Mission Support Aircraft Requirements for 1969-1972."

The Department stated that this study was based upon a compilation of actual performance data for each flight made during the 6-month period August 1966 through January 1967, prepared by all users of MSA, and that the new aircraft authorizations will therefore be based upon valid past experience.

Although the study provides for developing adequate information on recent flying experience for consideration in making the aircraft authorizations now being formulated, there does not yet appear to be any provision for using such data in future evaluations of aircraft requirements.

We believe that, ordinarily, recent flying experience is an important factor for consideration in determining future aircraft authorizations for organizations and establishments and that a specific requirement should be included in pertinent instructions to ensure that accurate data on recent flying experience are furnished by organizations and establishments for consideration in future evaluations of aircraft requirements.

Insufficient evaluation of justifications for aircraft submitted by user organizations

Our review of the Army's study supporting authorizations of MSA for fiscal years 1966 and 1967 indicated that the use by several organizations of incomplete criteria for computing requirements for aircraft flying hours and overstated estimates of future flying requirements served to increase the number of aircraft requested.

By letter dated March 12, 1965, the Adjutant General, Department of the Army, requested senior officials of Headquarters, field commanders, commandants, Chiefs of Military Assistance Advisory Groups, and U.S. Army Missions and Attaches to determine their aircraft requirements for fiscal years 1966 through 1970 on the basis of accompanying criteria and to submit their justifications to the Office of the Assistant Chief of Staff for Force Development by April 15, 1965. Upon receipt by the addressees, the request was distributed to about 200 subordinate organizations having a requirement for aircraft.

The justifications submitted by these organizations for review and evaluation frequently included requirements for several of the six categories of utilization used by the Army for authorizing and managing aircraft. A time limit of 2 months was allowed to review and evaluate the mass of data included in the justifications.

It appears that much of the data included in the justifications was accepted at face value when limited inquiries would have shown that the data were unrealistic, overstated, or not typical; that it failed to show past usage of assigned MSA or the estimated prospective use of the aircraft requested; that in some cases it was inconsistent with, or did not give effect to, the criteria issued for use in computing the aircraft requirements, such as experienced seat-mile, cargo-mile, and cost-effectiveness data and aircraft utilization factors.

Although the study apparently resulted in a reduction of the number of MSA previously authorized, certain organizations were authorized more aircraft then they needed, Our review, which was conducted shortly after the Army study and the development of new aircraft authorizations and after the withdrawal of substantial numbers of assigned MSA from units for transfer for combat use, shows that the authorizations of MSA based upon the study and the assignments of MSA in effect during our review were still high at many locations. The overauthorizations were generally confirmed by the Department of the Army in its comments on our draft report.

It appears to us that, for the limited number of personnel involved, the time limit set for reviewing the mass of data included in the justifications may have been insufficient for making thorough evaluations.

Management weaknesses in utilization of aircraft for mission-support purposes

Fundamental to an effective management system for MSA is sound control over the utilization of aircraft to ensure that (1) they are used only for authorized purposes and (2) they are not used where other more economical means of transportation could be used to meet requirements. Such control is basic to authorizing the proper number of aircraft needed by organizations to perform their authentic mission-support requirements.

Department of Defense (DOD) policy on the use of military-owned transportation facilities is included in DOD Directive *4500.9,* dated January *6, 1956.* This directive provides that "Commercial transportation service will be employed for the movement of personnel or things when such service is available or readily obtainable and satisfactorily capable of meeting military requirements."

The procedures in effect at the time of our review for utilizing *Army* aircraft for mission-support purposes did not ordinarily require a determination of whether the use of other means of transportation would be practicable and more economical. Generally, cost effectiveness data and seat-mile and cargo-mile data were not being maintained or used in managing the utilization of MSA. Also, we noted that action taken at some locations to keep the CRF time of aviators within the limits of 80 to 100 hours a year prescribed by Army Regulation *95-32* was ineffective.

As a result of these weaknesses, the utilization of some military aircraft was uneconomical and inconsistent with the transportation and traffic management policies of the Department of Defense. At most of the locations where we made our review, effective management and control over the use of aircraft for mission-support purposes was, in our opinion, lacking.

The basic *Army* policies for utilizing aircraft for mission-support purposes provide that:

1. Flying time for the maintenance of individual proficiency will be combined wherever possible with

flights for official business. Flights exclusively for individual proficiency will be held to the minimum.

2. Where weather conditions necessitating the use of flying instruments are forecast, all flights in certain types of aircraft must be performed with a copilot aboard.

3. Army aircraft not be used for personal convenience or recreation. Also, Army aircraft not be used to transport passengers between points serviced by a commercial carrier, unless (a) commercial schedules will not permit the accomplishment of the mission within a reasonable period of time and/or (b) commercial aircraft cannot be used because of the military requirements of the mission. Where flights are made under these circumstances, however, passenger seats and cargo space may be used as available to effectively use aircraft capacity.

Within these basic policies, organizational commanders are responsible for all matters concerning the operation and use of Army aircraft assigned to their command. They are also responsible for effective utilization of the aircraft and for prescribing related instructions. In these circumstances the system for utilizing aircraft at individual locations can, and does, vary.

Generally, we found that controls over the use of MSA were limited to local instructions dealing with:

1. How requests to use aircraft should be made--generally by telephone or in writing.

2. The amount of advance notice required for routine flights.

3. Provision of details of the times, destination, and itinerary of flight, number, names, and grades of travelers, and the purpose of flight.

4. Flight priorities.

Inherent in the *Army's* policy for using MSA is the requirement to be able to show that administrative or service flights made by military aircraft could not have been made on a more timely basis by commercial aircraft or other means of transportation or that they were necessary due to military considerations, such as urgency or security. It is also necessary to effective management--e.g., selection of the most economical type of aircraft for particular requirements and the possible use of alternative modes of transport--that current information on the cost of flights by various types of Army aircraft assigned to organizations and experienced costs per seat mile and cargo mile be readily available to personnel responsible for authorizing use of military aircraft.

We found, however, that *Army* personnel generally were unaware of aircraft operating costs or of the need for considering such data in utilizing MSA. At only one location that we visited was information of this nature available, and it was incorrect and resulted in gross underestimates of cost.

The travel coordinator at this location used for cost-comparison purposes a flying-hour rate for the type of aircraft assigned and used for administrative flights, which was about 50 percent of the rate furnished us by Headquarters, Department of the Army, for the cost of fuel, maintenance and repair, repair parts, and pilot salary at the time we started our review and less than *35* percent of the estimated cost per flying hour used in a study made in 1965 by a research firm for the Department of the Army for comparing the costs of using different types of aircraft for mission-support purposes.

At some of the locations we visited, responsible personnel informed us that, prior to receiving the Department of the Army letter of March 12, 1965, requesting the determination and justification of requirements for aircraft, they knew of no requirement for maintaining historical cargo-mile and seat-mile data or for making cost analyses of flights. In the absence of such data the organizations we reviewed were unable to make reliable cost-effectiveness comparisons with commercial airlines or other modes of transportation.

During our review of flights recorded as having been made for administrative purposes, we noted that numerous flights had been made where the use of other modes of transportation would have been more economical. For example, we noted several flights by Army aircraft from San Antonio, Texas, to Fort Polk, Louisiana; Houston, Texas; Fort Sill, Oklahoma; and Fort Worth, Texas; from San Francisco, California; to Tacoma, Washington; and Long Beach, California; and round-trip shuttle flights made three times a day for general officers and their aides between Fort Sheridan and Chicago, Illinois, where, in our opinion, other modes of transportation would have been less expensive.

At one location where we analyzed 228 flights made by MSA during 3 months, we found that 133 of them were made for administrative purposes. Of these 133 flights, 32 were for transporting a total of 56 passengers to four destinations frequently serviced on a round-trip basis by commercial airlines, On the basis of the Army's flying-hour costs for the aircraft used, the flights cost the Government about $4,600. The cost of airline fares for these trips would have been less than $2,000. Some of these flights were made by aviators who had previously flown several hundred hours in the same fiscal year and had met the minimum of 80 hours flying time before making the flights.

In none of these examples was there a demonstrated or implied justification that the use of military aircraft was due to urgency, security, or other military necessity. It therefore appears that the use of aircraft in the cases cited above was inconsistent with DOD and Army policies for use of Government-owned transportation.

Our discussions with Army personnel indicated that flights were made in military aircraft because the aircraft were available and convenient to use and that flights could be made on a more timely basis. Also, there was a general feeling that, if military aircraft were not used, additional travel funds would be required. The primary factor considered in processing and approving requests for use of Army aircraft appeared to be whether an aircraft could be made available. Relatively little review was made of the purpose of the proposed flights, as to whether use of military

aircraft would be economical, and as to whether the flight could be justified under regulations.

In the letter commenting on our draft report, the Department of the Army pointed out that the revised Army Regulation *310-34*, dated September 1966, issued about the time when the fieldwork for our review was being completed, provides that administrative aircraft be authorized at stations served by commercial aircraft only where loss of time or lack of security would impede mission effectiveness.

The letter also states that the regulation will be further revised to incorporate guidance consistent with the matters contained in our report and that new management procedures being developed will (1) ensure that other means of transportation are first considered and that Army flights are authorized only where it is more logical to use Army aircraft and (2) require that CRF pilots who have not yet completed their mandatory minimum flying requirements be used on administrative-support flights before those pilots who have met their minimums.

Since the revised regulation and new management procedures have not yet been issued, we are unable to comment on their adequacy. In our opinion, however, provision should be made for periodic reviews of the implementation of the guidance and procedures to ensure that the related intent and objectives are being conscientiously carried out.

Observations on current study of requirements for mission support aircraft

On July 13, 1966, while our review was in progress, the Department of the Army directed that a much more comprehensive study of aircraft requirements be conducted because of the need to adapt to changing world conditions, primarily in Southeast Asia, to accommodate new concepts in the utilization of Army aircraft, and to deal at one time with cases of dissatisfaction that had arisen due to the aircraft authorizations based upon the 1965 study. The current study includes the compilation of statistical data from a day-by-day analysis of MSA operations for a period of 6 months for use in support of the Army's requirements for aircraft for mission-support activities.

Completion of the fieldwork for this study was scheduled for March 1, 1967, and finalization of the study, at Headquarters, Department of the Army, was scheduled for July 1967. A report dated June 1967 was issued on the study. The Department of the Army comments on our draft report states that the preliminary analysis of the results of the study tends to confirm, if not increase slightly, the requirements for MSA.

The instructions prescribed for computing aircraft requirements for CRF, which are included in the report, provided: (1) that only 60 aircraft flying hours will normally be needed to provide an aviator with the 80 hours of CRF time he is required to fly each fiscal year and (2) that 8 hours a month for each observation and utility helicopter, and 12 hours a month for each fixed-wing aircraft, assigned to tactical and administrative units at each establishment or installation be made available for accomplishing CRF requirements and be taken into account in computing aircraft requirements for accomplishing CRF.

The aircraft flying hours specified for accomplishing 80 aviator flying hours may be subject to question in particular instances because it can be shown that appropriate amounts at particular locations can be more or less than 60 aircraft flying hours, due to many factors, such as the type of mission, types of aircraft and aviators assigned and attached, and the proper utilization of synthetic trainers which can be credited to the extent of one eighth, or 10 flying hours, against the annual CRF requirements. It appears, however, that the instructions do take cognizance of some of the basic deficiencies which we found in the 1965 aircraft requirements study and that, if they are properly implemented, a more realistic basis for authorizing and assigning MSA should result.

Internal audit

We inquired into the extent of internal audit of the authorization, assignment, and utilization of aircraft for mission-support purposes at the organizations we visited. We found that it had been reviewed, to a limited degree, at one organization--the U.S. Army Electronics Command, Lakehurst, New Jersey.

A comprehensive review of the U.S. Army Aviation Detachment, U.S. Army Electronics Command, was made by the Army Audit Agency early in 1966. It was the initial audit of the detachment and was completed in a relatively short period of time. It covered virtually all the detachment's activities--including its ability to perform its mission effectively and its requirements for aircraft for mission-support; training; and research, development, and testing purposes.

Based primarily on the fact that the detachment had determined in June 1965 that it had nine aircraft in excess of its various needs--e.g., for research, development, and testing; training; and mission-support purposes--and had been holding, maintaining, and using them, instead of declaring them excess for redistribution, the Army Audit Agency reported that, on an overall basis, nine aircraft were excess. It was recommended that these aircraft be reported immediately to higher authority for redistribution. The audit report states that the excess aircraft comprised types required for use in Vietnam and other high-priority needs and that they were subsequently diverted to these requirements.

Our review of aircraft requirements dealt only with those needed for mission-support purposes. In this relatively limited area, however, our review was made in greater depth than the internal audit of the U.S. Army Aviation Detachment. We used the criteria prescribed by the Department of the Army for aircraft utilization in determining aircraft requirements, and our review also covered a later time period. Our review indicated that additional aircraft were authorized and assigned for mission-support purposes to this organization in excess of its justified needs.

In view of the differences in the scope and timing of the review performed by the Army Audit Agency and the review made by our Office, we believe that the internal auditors could not have reasonably been expected to identify the matters revealed by our more penetrating examination pertaining to aircraft authorized and assigned only for mission-support purposes. We believe, however, that consideration should be given to making more frequent internal audits of the system for managing aircraft for mission-support purposes including evaluating the reasonableness of the number of aircraft authorized and assigned for such services and the effectiveness with which the aircraft are being used.

Conclusions

Army officials have a basic responsibility to compute their equipment needs as accurately as possible and to manage their resources in such a manner as to keep their needs to a minimum. With respect to MSA, however, we found that the system for managing these aircraft did not prescribe adequate criteria to enable realistic determinations of requirements for aircraft, nor did it include adequate controls over the utilization of such aircraft. As a result, more aircraft than were justified by prior flying experience and subsequent actual use were authorized and assigned to Army organizations for mission-support purposes.

We found, also, that insufficient evaluations were made of the justifications for aircraft submitted by using organizations. The recent study of Army aircraft requirements currently being evaluated appears to have provided for obtaining valid data, for using more realistic criteria, and for sufficient time for making effective evaluations of the requirements for the using organizations.

We found that the utilization of MSA at the locations we visited was generally well below the aircraft utilization standards prescribed by the Department of Defense and the Department of the Army, and, at several places, a substantial number of flights made were uneconomical and inconsistent with the transportation and traffic management policies of the Department of Defense. The low utilization

appears to have been caused, in part, by the overassignment of aircraft, and the improper utilization stemmed from lack of control and weaknesses in the system for approving flights by military aircraft.

Recommendations

In accordance with the purpose of the President's Cost Reduction Program--to attain improved and economical management of operations at all levels of government--we recommend that the Secretary of the Army have the Assistant Chief of Staff for Force Development, Department of the Army, establish an effective integrated system for managing aircraft for mission-support purposes on a regular basis. We recommend also that the system include:

1. The use of more realistic criteria for determining the number of aircraft authorized using organizations, incorporating the use of past experience where appropriate.

2. Procedures and controls to ensure that:

   a. Before using Government aircraft a determination will be made as to whether it is reasonably practicable and economical to perform required transportation by commercial airlines or other means.

   b. Aviators who have met the minimum CRF requirements are not utilized for further flights until other assigned aviators have met their flight requirements or a determination has been made that these aviators cannot be made available to make needed flights,

In its comments on our draft report, the Department of the Army stated that it was developing new management procedures for MSA and referred to a special study, recently completed, in which more realistic criteria was used in developing proposed requirements for MSA. The Army stated that this study would be used as a basis for establishing more comprehensive management and more valid criteria.

During December 1967 we met with Army personnel to determine the status of the new management procedures. We were advised that the procedures were being developed but that additional time would be required to complete them, obtain necessary approvals, and issue them to field organizations for implementation via appropriate regulations, instructions, and directives.

We recommend also that the Secretary of the Army have the Chief of Staff, Department of the Army, take into account the matters found in our review in evaluating recent proposed aircraft authorizations and that, in view of the overauthorization of MSA at the locations where we made our review, the number of MSA authorized as a result of the study of requirements made in 1965 not be used, as intended, as a basis for procuring additional MSA.

In addition, we recommend that the Secretary of the Army have the Army Audit Agency consider making more frequent audits of the system of the management of MSA, including evaluations of the numbers of aircraft authorized and assigned for mission-support purposes and the effectiveness with which they are being used. The Department of the Army, in its letter commenting on our draft report, stated that the district offices of the United States Army Audit Agency were being instructed to include the management of MSA for increased attention in its comprehensive mission-oriented audits of installations where such aircraft are assigned.

The Department of the Army, in its letter commenting on our report, also advised us that its analyses of the review of aircraft requirements made in 1967 were taking into full account the matters found in our review. The letter also stated that the Office of the Secretary of Defense was taking action to ensure consideration of our findings and that it would make a detailed review of these matters in connection with the preparation of the Department of Defense budget for *1969.*

SCOPE OF REVIEW

Our fieldwork was conducted at the following organizations:

Headquarters, 6th U.S. Army, The Presidio, San Francisco, California
Headquarters, 4th U.S. Army, Fort Sam Houston, San Antonio, Texas
U.S. Army Infantry Center, Fort Benning, Columbus, Georgia
U.S. Army Armor Center, Fort Knox, Lexington, Kentucky
U.S. Army Infantry Training Center, Fort Ord, Monterey, California
U.S. Army Aviation Center, Fort Rucker, Enterprise, Alabama
U.S. Army Electronics Support Command, Lakehurst, New Jersey
Student Detachment, University of Omaha, Omaha, Nebraska
Headquarters, 5th U.S. Army, Chicago, Illinois
U.S. Army Garrison, Fort Leavenworth, Leavenworth, Kansas

Our fieldwork covered flying performed for mission-support purposes during fiscal years 1965 and 1966 and justifications submitted for use in determining requirements for MSA for fiscal years 1966 through 1971.

Also, at Headquarters, Department of the Army, we reviewed many of the justifications for MSA submitted by other organizations and the related determination of requirements made at that level.

At the field locations we reviewed the justifications submitted to higher headquarters for the authorization and assignment of mission-support aircraft, the utilization of these aircraft, and the applicable Army regulations and controls. On the basis of current and past flying experience, known changes in support responsibilities, aircraft utilization criteria furnished by the Department of Defense and the Department of the Army, and use of other modes of transportation where this appeared to be practicable and economical, we estimated the number of aircraft to which each organization was entitled.

Also, we reviewed the use of military aircraft in circumstances where it appeared that commercial aircraft or other modes of transport might be used more economically and without detriment to the requirements of the mission of the flights.

APPENDIXES

PRINCIPAL OFFICIALS OF THE DEPARTMENT OF DEFENSE AND THE DEPARTMENT OF THE ARMY RESPONSIBLE FOR ADMINISTRATION OF THE ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
DEPARTMENT OF DEFENSE		
SECRETARY OF DEFENSE:		
Clark M. Clifford	Mar. 1968	Present
Robert S. McNamara	Jan. 1961	Feb. 1968
DEPUTY SECRETARY OF DEFENSE:		
Paul H. Nitze	July 1967	Present
Cyrus R. Vance	Jan. 1964	June 1967
Roswell L. Gilpatric	Jan. 1961	Jan. 1964
ASSISTANT SECRETARY OF DEFENSE (Installations and Logistics):		
Thomas D. Morris	Sept. 1967	Present
Paul R. Ignatius	Dec. 1964	Aug. 1967
Thomas D. Morris	Jan. 1961	Dec. 1964
DEPARTMENT OF THE ARMY		
SECRETARY OF THE ARMY:		
Stanley R. Resor	July 1965	Present
Stephen Ailes	Jan. 1964	June 1965
Cyrus R. Vance	July 1962	Jan. 1964
ASSISTANT SECRETARY OF THE ARMY (Installations and Logistics):		
Dr. Robert A. Brooks	Oct. 1965	Present
Daniel M. Luevano	July 1964	Oct. 1965

PRINCIPAL OFFICIALS OF

THE DEPARTMENT OF DEFENSE AND

THE DEPARTMENT OF THE ARMY

RESPONSIBLE FOR ADMINISTRATION OF THE ACTIVITIES

DISCUSSED IN THIS REPORT (continued)

	Tenure of office	
	From	To
DEPARTMENT OF THE ARMY (continued)		
ASSISTANT SECRETARY OF THE ARMY (Installations and Logistics) (continued):		
A. Tyler Port (acting)	Mar. 1964	June 1964
Paul R. Ignatius	May 1961	Feb. 1964
CHIEF OF STAFF, UNITED STATES ARMY:		
General Harold K. Johnson	July 1964	Present
General Earle G. Wheeler	Oct. 1962	June 1964
ASSISTANT CHIEF OF STAFF FOR FORCE DEVELOPMENT:		
Lt. Gen. Arthur S. Collins, Jr,	Jan. 1967	Present
Lt. Gen. James H. Polk	Mar. 1966	Dec. 1966
Lt. Gen. T. J. Conway	July 1965	Mar. 1966
Lt. Gen. Ben Harrell	Feb. 1963	June 1965

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON. D.C.

12 SEP 1967

Mr. Robert G. Rothwell
Acting Director, Defense Division
General Accounting Office
Washington, D. C. 20548

Dear Mr, Rothwell:

This is in response to your letter, dated 29 June 1967, to the Secretary of Defense forwarding copies of your draft Report to the Congress, titled: "The Need for Improvement in the System for Managing Aircraft for Mission Support Purposes. DA" (OSD Case #2631).

The Department of the Army position with respect to the report is inclosed. This reply is made on behalf of the Secretary of Defense.

Sincerely,

Roland B. Anderson

ROLAND B. ANDERSON
Major General., USA
Director of Materiel
Acquisition

1 Incl
Army Position
Statement

DEPARTMENT OF THE ARMY POSITION

ON

GAO DRAFT REPORT, DATED 29 JUNE 1967,

"THE NEED FOR IMPROVEMENT IN THE SYSTEM FOR

MANAGING AIRCRAFT FOR MISSION SUPPORT PURPOSES. DA"

(OSD CASE #2631)

I. POSITION SUMMARIES

A. GAO Position Summary

According to the GAO, there is a need for improving the system for the management of Mission Support Aircraft (MSA), which has resulted in the establishment of inflated requirements for aircraft, the assignment to field organizations of more aircraft than are needed and the use of aircraft for purposes not intended.

The GAO is recommending that:

1. The Army establish an effective integrated system for managing MSA on a regular basis that will include (a) the use of realistic criteria for determining the number of aircraft to be authorized to using organizations incorporating, where appropriate, the use of past experience; (b) procedures and controls to assure that (i) a determination is made that it is not reasonably practicable and economical to perform required transportation by commercial airlines or other means before authorizing the use of Government aircraft, and (ii) aviators, who have met minimum combat readiness flying (CRF) requirements, are not utilized for further flights until other aviators in, or assigned to, an organization for flight requirements, have met their flight requirements, or cannot be made available to make needed flights.

2. That the review of aircraft requirements currently being made by the Army Assistant Chief of Staff for Force Development take into account the matters found in the GAO review in revising the current authorizations.

3. That the Army Audit Agency (AAA) consider making more frequent audits of the system for managing aircraft for mission support purposes.

4. That since the number of aircraft authorized for mission support purposes for the organizations reviewed appears to exceed their valid requirements, DOD has been asked to insure that current authorizations not be used as the basis for procuring additional aircraft for mission support purposes for the Army.

B. Army Position Summary

The Army agrees that there is a need for improving the system for the management of aircraft for MSA purposes. However, it is noted that during the period covered by the GAO report, the Army experienced extreme turbulence in both personnel and aircraft due to a rapidly expanding aviation build-up in Southeast Asia. The shift of the bulk of aviators to Vietnam or the CONUS training base, and the virtual elimination of non-flying career development and school assignments for aviators resulted in a far lower requirement for CRF than had been anticipated.

In the foregoing context, the GAO recognizes that the Army, on 13 July 1966, directed that a comprehensive study of aircraft requirements be conducted because of the need to adapt to changing world conditions, primarily in Southeast Asia.

II. BACKGROUND FOR ARMY POSITION

As previously stated, in July 1966, the Army initiated a comprehensive review of aircraft requirements. The data collection and operational research phases were completed on 1 July 1967 and the results of the study are currently being evaluated. Preliminary analysis tends to confirm, if not increase slightly, the Army's requirements for Tables of Allowance (TA) aircraft. This is due to increases at some stations and recognition that certain stations not previously authorized aircraft should have them authorized. However, there is a reduction in MSA at 7 of the 9 installations reviewed by the GAO for a net reduction at those 9 stations of 24 aircraft. Additionally, at the time of the GAO review, DA policy regarding MSA authorizations was embodied in the 26 December 1963 version of AR 310-34. On 22 September 1966, DA revised AR 310-34 (Incl 1) replacing the broad provisions which GAO objected to in the 1963

version with specific criteria for CRF and administration aircraft authorizations as follows:

1. No CRF aircraft will be authorized at installations where other aircraft are available for CRF. Instrument proficiency requirements will not serve as the basis for additional CRF aircraft. CRF aircraft at an installation will be based on the number of assigned CRF aviators.

2. Administrative aircraft will be based on 75% utilization of passenger seats or cargo space as recorded in historical seat/mile workload data. Administrative aircraft must be required for continuous use and will not duplicate other capability at the same station. Administrative aircraft will not be authorized where CRF aircraft can perform the same missions or where other means of transportation can be used more economically. Administrative aircraft will be authorized at stations served by commercial aircraft only where time loss or lack of security would impede mission effectiveness. AR 310-34 will be further revised to incorporate additional guidance consistent with appropriate matters contained in the GAO report.

3. Annual utilization rates for either CRF or administrative aircraft will be 600 hours for fixed-wing and 420 hours for rotary-wing aircraft.

III. ARMY POSITION ON GAO RECOMMENDATIONS

The Department of the Army generally concurs with the recommendations cited in the draft report and has taken initial action to develop mission support aircraft authorizations based on past experience and more realistic criteria.

1. The Army is now in the process of developing new management procedures for mission support aircraft which will include the following significant features: (a) Review and analysis of installation requirements based on actual performance, monthly by installation commanders, quarterly by intermediate commanders, semiannually by major commands, and annually by DA; (b) Procedures for review, correlation and approval of CRF and administrative support flights to achieve maximum cost effectiveness at installation level. This will insure that other means of transportation are first considered and Army flights are authorized only when it is more logical to use Army aircraft than the other means. Further it will insure that as many missions as

possible are combined for maximum benefit from each Army flight hour; (c) Require that, on administrative support flights, CRF pilots who have not met their minimums are used before those who have,

As a basis for establishing more comprehensive management and more valid criteria, the Army, during the six-month period, August 1966-January 1967, required all users of Army TA aircraft to compile actual performance data on each flight., A private research organization, acting for the Army, then conducted a cost-effectiveness analysis of this data to determine how many and what type aircraft are required for support at each installation, The analysis considered such factors as mission distance, mission flight hours, personnel and cargo carried, mission dollar costs, and special requirements for aircraft (i,e., time urgency, security considerations, and nonavailability of commercial or other Government-owned transportation), The criteria used in determining CRF aircraft requirements tcok into consideration that: (a) no more than 60 flying hours would be normally required to accrue 80 hours of CRF time by efficient scheduling of pilots and co-pilots; (b) aircraft assigned to tactical and administrative units would be made available for CRF missions for periods of eight hours each month for each observation and utility helicopter and twelve hours each month for each fixed-wing aircraft assigned, These capabilities were to be used fully before additional CRF aircraft were requested,

Through the use of these criteria and the cost-effectiveness analysis of installation requirements new authorizations will be developed for each user of mission support aircraft. The contractor's analysis of the data collected, and recommended aircraft authorizations have been received and are currently being reviewed by the Army Staff. Preliminary results of his analysis show a slight increase in TA requirements and tend to confirm current requirements. It is the Army's position that aircraft authorizations, based on the results of this most recent study, do make use of realistic criteria, and valid past experience.

GAO recommendations concerning full use of cornmercial airlines or other means before authorizing use of Government aircraft have already been incorporated in the revision of AR 310-34; however, normal practice would dictate the use of space available capacity on military flights before authorizing commercial travel (Para, 42c(2), (d) and (e)).

2. The current **DA** analysis of the most recent TA aircraft review is taking into full account the matters found by GAO. Specifically, AR 95-1 requires a determination of whether other means of transportation would be more practicable so that the Army is not in competition with commercial airlines. Cost-effectiveness data and seat-mile and cargo-mile data are not yet being maintained on a continuing basis at installation level. One of the more obvious lessons of the current TA review is that the Army must continually collect this data if a historical base is to be developed. Consequently, a change in regulations will require this in the near future. Along with maintenance of data will be a tighter control over CRF flying in excess of 100 hours for a **CRF** pilot. Basically most CRF pilots, due to the demands of their desk jobs, have a hard time meeting their minimum 80 hours a year.

3. The review of systems for managing aircraft for **MSA** purposes is part of the Army Audit Agency program. However, in view of the GAO report, USAAA district offices are being instructed to include the systems for managing aircraft for military support purposes as an area for increased consideration in all comprehensive mission-oriented audits of installations to which such aircraft are assigned.

4. The Office of the Secretary of Defense is currently taking action to insure consideration of these findings as appropriate, and will make a detailed review in connection with the preparation of the 1969 DOD budget. The Army will be directed to make appropriate adjustments based on these findings after evaluation of their present Table of Allowance Aircraft Study.

U.S. GAO Wash., D.C.