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# RECENT ADDRESS<sup>1</sup>

## LOGISTICS REQUIREMENTS

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GENERAL HENEBRY, LADIES AND GENTLEMEN :

I feel honored to share this morning's Air Force Reserve Session with so distinguished a list of speakers and panelists.

My subject is "Logistics Requirements," but to talk in a meaningful way for twenty-five minutes, it is necessary to narrow the field severely. Consequently, I shall concentrate upon only one aspect of Air Force logistics, namely, Airlift.

This is done not out of any notion that Airlift is the only or the most important part of Air Force logistics, but because time requires concentration and because many reserve activities are intimately connected with airlift.

In these remarks I propose to touch upon three things: First, some general characteristics of war-time logistics requirements; second, the implication of these characteristics for airlift in peace time; and third, I shall throw out a suggested means of more nearly fulfilling our airlift requirement.

To begin, then, some general comments about logistics requirements. Here I wish to make two points. First, logistics requirements in war-time are uncertain. More bluntly, we do not know what they will be. I would argue that no one can know and that no one should hesitate to admit that fact.

Obviously, the greatest of the uncertainties is to what extent the Air Force should prepare for a central, nuclear war as compared with a limited war. There is a serious conflict here: The logistics posture suitable for one is not ideal for the other. For example, in the central war, individual combat units should, at least early in the conflict, be able to rely entirely upon logistics support at hand; off-base support may be most difficult and unreliable. At the same time, it appears that surface forces in the earliest phases may not be critical, and they may not even play any important role until the issue is decided, and decided largely by the strategic air strength of the major powers.

In a limited or local or peripheral war or emergency, quite the opposite is true. The great weapons held in readiness to wage or, better, to deter World War III may, in fact, stand-down during the limited conflicts, while the tactical Air Forces, the Army, and the Naval Surface Forces will be committed as early as possible in various degrees, perhaps fully. These will be the forces requiring logistics support, specifically, they will require airlift for, at least, some of their deployment and resupply.

There are other elements of uncertainty. When and where will the next emergency arise? What weapons, what forces will be employed? With these major uncertainties about the kind of combat to be supported, computation of the tons of POL or of numbers of aircraft engines become rather complex. So, too, does the computation of airlift requirements. It is quite unrealistic to suppose that the Air Force or the Department of Defense can develop a single war-time airlift requirement. This is a fact of life with which the military and the public must learn to live.

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<sup>1</sup> At the National Convention of the Air Force Association's Reserve Forces Seminar and Workshop, September 25, 1958, Dallas Texas.

Now, a second major characteristic of logistics requirements: Uncertain as the future is, there is some reason to think that the most likely war-need is for support in limited conflicts. In recent months we have seen the Quemoy crisis and a major crisis in the Near East. Before them, Suez, Hungary, Indo-China, and Korea. Half a dozen major crises with actual or potential local fighting since World War II.

Unless we are to run considerable risk of losing in the end by being unable to fight effectively in limited wars, the Air Force must be able to support its own forces and those of the army in local conflicts.

Let me hasten to add two things: One, it seems clear that it is largely because of the deterrent effect of the Strategic Air Command that the local wars are more likely than general war. Two, consequently, the Air Force logistics system must as first priority provide adequate logistics support for the deterrent forces.

So far I have said only two things: namely, that logistics requirements can never be even approximately accurate (and we must learn to live with that fact); and secondly, that, while retaining the deterrence capability, the Air Force must be able to provide in limited conflicts complete logistics support for tactical air and airlift support for the Army and Navy.

What are the implications of these rather obvious points for peacetime airlift activity? First, it seems clear—although I have yet to see it proven—that speed in response may be critical in a local emergency. The preponderance of enemy ground forces in numbers appears to indicate that unless we react fast, the possibility of defeat in the local area is extremely great. Any movements of troops, equipment and supplies require enormous cargo tonnages. The fact that we are uncertain as to where the next emergency will occur means we must have ability to deploy—forward or laterally. These facts all point to a requirement that large air cargo capacity be available to the military. Since we are uncertain also as to when an emergency will arise, airlift must be kept continuously at a high state of readiness. This is costly. The reserve components and CRAF provide some means of keeping at moderate cost an ability to expand.

Do we have the required capacity?

There is good reason to believe that the quantity of airlift available for the war-time job may be inadequate. For example, in hearings last spring, Secretary Sharp stated<sup>2</sup> in part: "Recent JCS estimates of emergency airlift requirements show a steadily rising trend. The deficits \* \* \* are primarily in cargo airlift. \* \* \* Today's emergency airlift requirements must be met with today's resources, and the combined military and civilian cargo fleets fall short of the mark."

Further, it seems clear that there is a great need to modernize the military air transport fleet. There are at present only two turbine-powered aircraft in logistics use, the C-130 and the C-133. The great preponderance of the MATS fleet consists of piston-powered equipment. There appears to be wide agreement that modernizing is desirable both for reasons of military effectiveness and for economy. A few months ago, during the same hearings, Senator Symington stated<sup>3</sup> that ". . . We are building only 1¼ C-133's a month. That is the total of modern strategic airlift airplanes in the United States. Despite our commitments all over the world, we have only 16 modern airlift airplanes for military purposes. . . ."

To be ready to handle the tonnages required over the great distances involved in wars around the Communist perimeter, piston aircraft simply

<sup>2</sup> Hearings before the Subcommittee of the Committee on Appropriations, U. S. Senate, 85th Congress, 2nd Session, *Department of Defense Appropriations for 1959*; p. 1178.

<sup>3</sup> *Ibid.*, p. 1171.

are not efficient. The cost per year in money and man power of maintaining any high level of ready airlift capability can be reduced through modernization. So far as I know there is little or no argument against this proposition. Why is not the modernization carried out, and why are the economies not realized?

It appears that there are two main reasons; first, that it is difficult to dispose of the existing fleet of piston aircraft; and, second, that to achieve the savings in operating costs in future years requires very large investment now. The remainder of these remarks will deal with the second problem.

Here is the problem: The MATS operation—providing continuous readiness to perform large-scale war-time airlift—can be performed more economically in new turbine-powered equipment of the right kind than it can be with the present fleet. However, these economies require that new investments in aircraft (and facilities) be made now, or in the near future, to achieve savings in the more distant future. One reason why the problem is severe is that modernization will take a period of years. During these years, the economies of operation will be building up, but the investment in new equipment will more than offset them so that at first the total airlift budget will increase rather than decrease. The situation poses very practical sub-problems:

1. To achieve a future economy, the present overall budget must be increased,
2. That increase competes directly with the procurement of weapons,
3. The need for transports is less obvious than the need for bombers, and
4. It involves asking Congress and the Executive to appropriate or approve funds whose benefits (reduced budgets) will be reaped by their successors.

This appropriations hurdle has been one of the really significant barriers to modernization.

If some method could be found to permit net economies to appear in the first year or two of the modernization program, and especially if this could be done without requiring that the procurement of transports be at the expense of the procurement of weapons, a major obstacle to badly needed modernization could be overcome.

I would like to throw out one tentative proposal for achieving this.<sup>4</sup> The proposal is simply that the Air Force lease rather than buy transports. The opposite is a reasonably common practice, namely, for the Air Force to lease Air Force-owned transports to operators. This proposal would involve the Air Force's entering into a contract for a private company to purchase modern transports and to rent them to the Air Force under agreed conditions and at agreed rental rates. It would be the responsibility of the lessor to raise the necessary funds, say in the capital market, to finance the initial investment.

Such a contractual arrangement could take many forms. In the recent House Appropriations hearings,<sup>5</sup> Resort Airlines proposed one form. The contract could, for example, require only that the lessor furnish a complete aircraft, deliver it to the Air Force at the beginning of its life and recover it some years in the future. At the other extreme, a lessor could enter into a contract to furnish the Air Force with some specified number of good flying hours, with the lessor providing all maintenance and other logistics support

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<sup>4</sup> I believe that this idea was first suggested to me a year or so ago in conversation by Mr. Charles J. Hitch, Chief of the Economics Division, The Rand Corp., Santa Monica, California.

<sup>5</sup> Hearings before the Subcommittee of the Committee on Appropriations, House of Representatives, Eighty-fifth Congress, Second Session, *Department of Defense Appropriations for 1959*, p. 814.

including, perhaps, servicing at the home station. Intermediate types of agreements, such as one which calls for the contractor to perform major maintenance but for the Air Force to provide line maintenance and all servicing, might be considered. The purpose here is not to spell out the details of the contractual arrangements, but simply to explore the idea briefly.

Now let us consider the practicality of such a concept. I shall ignore its "politics" and concentrate on a few substantive points. In order for the scheme to be practical, at least these conditions must be fulfilled:

1. A mutually advantageous rental charge must be devised and agreed upon;
2. The lessor must have sufficient financial security over the life of the aircraft to make it worth his while to invest in the equipment;
3. The contractual arrangements must be sufficiently flexible to cope with changes through the life of the aircraft; and
4. The costs of development and tooling must be handled in a suitable manner.

Let us consider each condition in turn. First, a mutually advantageous rental must be agreed upon. Since modernization will presumably decrease the cost of operating a high level of war-ready airlift capacity, it should be possible to compute a rental which would be less than the cost of operating the existing piston fleet and still be enough to provide an adequate return to the lessor.

Second, adequate financial security for the lessor: Even with an adequate annual return, the contractor must have some assurance that the government will continue to lease long enough for him to recover at least a substantial portion of his investment as well as a return on his capital. Unless he has this or equivalent security, it is unrealistic to expect him to be able to finance the investment in a fleet of modern transports. The simplest arrangement would be for the government to enter into an agreement to lease the equipment for a period of several years. Under present law, or at least under present practice, this may not be feasible. However, the government does lease buildings and other facilities for long periods. Also, if the advantages of such lease arrangements are great enough, there is some possibility that the necessary legislative or policy changes can be made.

Third, the need for flexibility: At the beginning of this discussion, I pointed out the need for some kinds of flexibility in logistics planning. In these lease, too, it would be desirable for the Air Force to be in a position to adjust to technological and military change. Clearly it should be possible to expand the fleet; this seems to be simple. Adjustments in contractual services would obviously have to be made by new negotiations. Reduction in or termination of contracts could, apparently, be covered by adequate liquidated damages clauses in the original contracts.

Fourth, the costs of development and tooling: It is unreasonable to expect the lessor to incur the costs of development and tooling for any transport primarily of military value. Further, if any one contractor should do so, the flexibility of the government in dealing with several lessors would be impaired. It appears that the government could, as is present practice, pay for the development of military transports. Also, it could purchase the first few production aircraft—say five or six—for operational testing and possibly for special purpose in this way covering the bulk of the tooling costs.

Undoubtedly, in attempting to put such a policy actually into effect, administrative problems would be encountered, but a superficial check does not indicate that there are any major hurdles. What then would be the advantages of such a policy?

If it is practical, the leasing arrangement would appear to make the expansion as well as the modernization of the transport fleet easier in terms of legislative and budget barriers. First, during a program of modernizing and/or expanding airlift capability, fewer funds would be needed for transports than would be the case under the present procurement policies. Furthermore, as soon as the economies of modernization begin to be realized, the total airlift budget would tend to be reduced. That is, the savings would show up as reduced annual budget requirements much earlier than under the present system. Thus Congress and the Executive would not be asked to make large investments whose benefits would accrue to distant successors. Third, because the annual cost of modernization would be less in the early years of a program, there would be less competition between transports and weapons for funds.

In addition to these administrative and budgetary advantages within the government, there may be some important advantages to industry in such a policy. To the extent that it would in fact result in some additional procurement of transport aircraft, it would tend to lessen those pressures on the aircraft manufacturers to which Dr. Paul Cherington refers in his recent report on the financial problems of the airlines. Such considerations might make a policy of this sort particularly timely. However, the passenger-type transports now in production for the airlines may not be appropriate as logistics aircraft.

Lastly, the further development by the military of efficient cargo aircraft and experience in their operation promises to benefit the aviation industry as a whole. In this context, it may be well to mention that there may be some considerable advantage in having military logistics carriers certificatable as civil transport aircraft.

The Air Force must have large amounts of cargo airlift capability both to provide for the support of local conflicts which are likely to arise in the coming decades and to provide the general logistics flexibility needed to cope with the uncertainty of logistics requirements. The budgetary and financial barriers to expansion and especially to modernization of the airlift fleet can perhaps be overcome in large measure by the renting of transports from private contractors. At least the possibility of doing so seems to warrant thorough examination.