



## LOGISTICS MANAGEMENT IN THE DEPARTMENT OF DEFENSE

Honorable Thomas D. Morris

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Reviewed by Col E. J. Ingmire, USA on 4 February 1964.

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Logistics Management in the Department of Defense

30 January 1964

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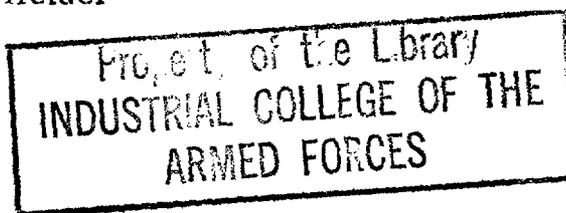
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Reviewed by Col E. J. Ingmire, USA Date: 4 February 1964

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INDUSTRIAL COLLEGE OF THE ARMED FORCES

Washington 25, D. C.

# LOGISTICS MANAGEMENT IN THE DEPARTMENT OF DEFENSE

30 January 1964

ADMIRAL ROSE: As you all certainly know, the last few weeks we have been hearing from people on one side or the other, of the management business, in various specialties. Today we are most fortunate to have with us the man who occupies one of the most important positions in the management business in the Department of Defense. He is the man responsible for the Defense Department's multiple logistics support and management functions. Such things as procurement, production, distribution and requirements are only a few of the items that come within Mr. Morris' area of responsibility.

More than any other one man he is responsible for the subject of our lecture, which is "Logistics Management in the Department of Defense." It is appropriate that we should hear from him today.

It's a real pleasure to welcome Mr. Morris back to our platform. He is an old friend of the school. Mr. Secretary, we're glad to have you back.

MR. MORRIS: Thank you, Admiral Rose. I always find it a lot of fun to come back and meet with this group. I usually find myself filled with envy over the opportunity that you gentlemen have to spend a period of months devoting yourselves to many of these very important <sup>national</sup> questions. This morning I'm not going to read a prepared text, but rather use a series of slides which I hope will be of interest to you in conveying the task of

logistics management with which many of you in this room are concerned; the scope of that job; how it's being administered today; and some of our principal objectives and problems. If I may have the first slide, please.

Just by way of a refresher at the outset, let's look at the task that we call "Materiel Logistics" in the Department of Defense. This wheel on the far side of the chart spells out the principal functions in somewhat of the sequence of their occurrence. The job of logistics is to furnish the physical assets required by the operating forces. That starts with the planning of requirements. We on the business side of logistics do not actually set the foundation for requirements, but rather, make the translation from the assumptions which the military logistics planners lay down.

Having planned those requirements we are then responsible for the contracting process. And here in the last year there were some 10 million contractual actions, resulting in the placement of some \$29 billion of contracts.

Thirdly, we come to the administration of those contracts through our field agencies which number some 440 locations at this time, employing about 43,000 people in the field activities.

Then we come to the transportation of these goods into our depots and thence to their storage and issuance. And these depot activities last year had some 100 receipt and issue transactions. We come, then, to the repair and maintenance of the repairable components and the end items. Today there are some 2,000 repair locations around the world, employing about

one million personnel just in that function alone.

We come to cataloging and standardization which, in effect, cuts through many of the other operations. In this area we add about 45,000 new items a month to the catalog; over 500,000 per year.

Lastly, is the less pleasant task of having to dispose of the inevitable excess and surplus which generates out of this entire cycle. Now, the assets today as shown on this side of the chart, are valued at some \$166 billion, of which, over half - 86% - is in capital equipment - our planes, ships, missiles, and heavy hardware. About \$40 billion are in parts and supply inventories. And the remainder, \$37 billion, represent our real estate assets; our lands, buildings, family housing, etc.

The next slide will indicate further, some of the magnitude indexes. I've mentioned a few of these; I won't try to read them all. Just to give you a further perspective of size, in the requirements planning area we're dealing with some 4 million items currently cataloged, of which about 2 million we re-buy each year. This re-buy activity is carried out at the inventory control points, of which there are some 48 principal locations today. Contracting, as I mentioned, involved over 10 million transactions last year. This activity is carried out at about 887 purchasing offices throughout the world.

The administration of contracts I did summarize. In the transportation field we spend about \$2 billion per year. We transport over 27 million tons of cargo on defense ships and planes.

Storage and Issue. There are 212 principal locations of depots throughout the world, currently occupying about 342 million square feet. Repair and maintenance, as I mentioned, at 2,000 locations; some \$12 billion spent in this function, employing one million people.

Cataloging and standardization we've covered, and excess and disposal.

The next chart very simply summarizes the present structure of organization for administration of this vast function. The Office, Secretary of Defense, and in the DOD-wide area, as shown at the top of the chart, is the basic policy-making responsibility carried out by the Secretary and his Assistants, and importantly, by the Joint Chiefs; and in the logistics area, by the J-4.

At the department level there is a counterpart to the OSD level in terms of the Secretarial side and the military logistics Chiefs. The actual design development computation of net requirements of the contracting function then becomes the responsibility of the third tier which is composed of the Navy Bureaus, the Army Commodity Commands, as they are known today, and the Air Force Systems and Logistics Commands. As you note, the Defense Supply Agency occupies also that third tier with respect to the common supply activities.

The field has the actual job of maintaining the inventories - storing them, maintaining them, and executing contracts; all of this in support of some 6,700 consuming activities, and 9 unified and specified commands around the world.

I'm often asked by my friends who don't know a great deal about this governmental process, how in the world it's possible for this top-side structure to deal with such a vast and dispersed organization. My answer is that it's simply a matter of ingenuity. And I'm always reminded of the story of the immigrant who came to this country and became a small business operator. On one occasion this immigrant was witnessed driving down the street in a truck, by officers in a police car also traveling down the same street. And the policemen noticed that each time the truck stopped at a red light the truck driver would get out, run to the back of the truck, get a board and beat on the back of the truck.

This happened for several blocks and the policemen became suspicious. So, they stopped the driver and said, "What's this all about? Why are you beating on the back of your truck?" He said, "Boss, it's very simple. I'm carrying a ten-ton load of canaries in this truck and the truck is only five-ton capacity; so, I have to keep half the canaries in the air all the time." That's the way we feel sitting back in the Pentagon, as most of you know.

I'd like to spend the next few minutes talking about the current program of effort that we've been engaged in since 1961 especially, to cope with this vast logistics responsibility. The next slide, please.

Secretary McNamara, early in Calendar 1961, spent a great deal of his personal time examining the opportunities for more effective logistics management. He finally boiled down the objectives which he's holding all of us responsible for today, into three key simple phrases. The first is

to make sure that we buy only what we need. Secondly, that we buy what we need, at the lowest sound price. And thirdly, that we take every feasible step to reduce the overhead and operating costs in this huge area. I'd like to take each of these themes and further subdivide them to indicate some of the actions that have been taken and the objectives that lie ahead. The next slide, please.

With respect to buying only what we need, we've set out four principal projects which every department has been engaged in for some time and for which there are very concrete objectives established. The first of these is to refine our requirements calculations. I'll come back to each of these and illustrate them.

The second is to make increased use of our excess and long-supply inventories. The third is to eliminate unnecessary qualitative features from our materiel. And the fourth is to reduce this 4 million item inventory that we have, to the extent that that is possible.

Now, taking each of these briefly, the next slide quickly illustrates some of the steps that have been taken with real dramatic results in refining requirements calculations. The Army, two years ago, began re-examining its pipeline assumptions under mobilization conditions. Originally, it had assumed, based on World War II and Korean experience, that the pipeline should be provided to provide an average of 120 days from the factory door to the troops in the field. By studying each of its principal items in relation to its own transport characteristics it was found possible to tailor the

pipeline to individual items. Today the average pipeline is about 55 days, but the range is from a few days to many months, depending upon the nature of the item.

For example, in the case of the Army field telephone, a small, compact, light-weight item, which is now planned for airlift under a mobilization emergency, the time has been reduced to the extent of eliminating about 33,000 items from mobilization stockage, and saving on that one item alone some \$2 million in the requirement.

The Navy has taken aggressive action, resulting in cutting its requirement for spare parts for its aircraft carriers, by 50%. This applies to the high-demand high-value spares in the Navy inventory. The Air Force has made tremendous strides in many directions. One of the most dramatic has been that of cutting the repair cycle time for repairable items, by 50%, from 90 to 45 days on high-value items.

DSA, during its two years of operation, has cut inventory investment by some 10%. The significance of these actions to date has been reduced procurement requirements of over \$700 million since 1961. The goal by 1965 is to further take such steps which will produce annual reductions and requirements of over \$1 billion. The next slide, please.

The second principal way in which we're trying to refine requirements and buy only what we need, is to make maximum use out of our excess inventories. This is a very fruitful field because today 30% of our supply inventories are in excess of current needs. That means about \$12 billion

of excess. In 1961 we re-used out of that excess about \$975 million. Goals were set to progressively increase this rate of re-use, resulting in the year just ended - 1963 - of the improved re-use of about \$183 million, and steps are now in process which we hope will lead by 1965 to re-use of over \$450 million. A big part of this success is attributable to the inter-service supply support arrangements among the services, and more recently to the Defense Supply Agency Project Plus at Battle Creek, Michigan, where, on computers, we are now keeping a record of all of this excess so that we can match requirements as they emerge from the inventory control points against the excesses available.

Let me show you on another slide, one example of the very rich potential for the re-use of excess. Many of you may have seen this example which Secretary McNamara used last July in his press conference. It is an extremely dramatic one. It's a case of the 2 3/4" rocket which the Air Force has stocked in quantity for some years for use on a number of its aircraft. Due to the phase-out of some older models the Air Force found that it had generated an excess of over one million warheads and rocket motors. At the same time, the Army in its newer missions and counter-insurgency efforts found that it could make use of this rocket with some adaptation, on aircraft such as Iriquois helicopters.

By transferring a million of these items to the Army and spending about \$10 per item to make the item suitable for the Army's use, it has been possible to avoid new procurements of over \$40 million. This, of course, is

an unusual case, but it's illustrative of the importance of constant vigilance over the use of our excess inventories. The next slide, please.

A third key way in which we are trying to buy only what we need is by eliminating unnecessary qualitative characteristics from parts components and end items. Secretary McNamara calls this "eliminating gold-plating." Today half of our major contractors have special staffs which are working on ways to simplify designs and avoid over-costly materials and specifications. We have been saving at the rate of better than \$1 million per week as a result of the efforts of our contractors, as well as our own design staffs, and the goal by 1965 is triple this rate of savings to about \$145 million per year.

Let me take one or two simple examples illustrative of the opportunities here. Next slide, please.

This shows a series of rather small parts illustrations, but they illustrate so well the very great payoff that can occur. At the top of the chart is the cap for the M-21 Mine. This cap was originally made of aluminum. It was stamped out of aluminum. By re-design it was reduced to a machine piece and a rubber O-ring, and the original design was eliminated. The cost reduction, as you can see, was \$1.27 for the original item, to 42¢ for the revised item; saving in 1963 alone over \$123,000. With 45,000 new items coming into inventory every month, many designed before we have actual operating and usage experience, it's easy to imagine that there are literally thousands and thousands of cases where simple changes of this

type can produce very rich savings.

The next slide, please. Finally, this is illustrative of the opportunities for reducing unnecessary varieties, types, sizes and colors among the 4 million items in our inventory. On the far side is an illustration of electric drills. DSA found eight in stock and discovered that one would suit the purpose of all requirements that were known. On your right side is an illustration of reflectors such as are found on marking posts around airfields and other places. We found we had 67 of these in stock and it was discovered that seven would perform all requirements.

These are very simple illustrations. One of the most dramatic recent cases that we've seen is in the hand-tools area where we have some 25,000 items in stock. By a continued examination and simplification of that variety we've been able to eliminate, so far, about 1/3 of those 25,000 items, and the job is far from finished.

Now, let's take the second theme of Secretary McNamara's objective for improving logistics. The next slide, please.

This is to buy at the lowest sound price. Please note the use of the word "sound price," and not the lowest possible price, because it's frequently possible to get a low price on one buy only to generate excess cost in the supply system which far outruns the immediate short-range price reduction. There are two key ways that we've been concentrating on to make sure that we get the lowest sound price in our procurements. The first of these is to make maximum use of price competitive procurement.

The second is to shift away from the open-ended cost-plus type of contract into higher risk forms of contract, either fixed-price or price incentive. I'd like to discuss briefly each of these and the progress that has been made thus far. The next slide, please.

We found, back in 1961, that less than 33% - 32.9% of our dollars were being spent under price-competitive forms of contracting. Somewhat arbitrarily we set a goal of raising that level to 40% by the end of Fiscal Year 1965. While the number of percentage points appears very small, for each point of improvement we're talking about swinging some \$250 to \$350 million into the competitive arrangement that was formerly sole-source.

As the solid line indicates, through 1963 we had achieved about 37.3% of our buys under price competition, an improvement of about \$1 billion in placements, competitively, which, at the rate of savings which seems to be typical, some 25¢ on the dollar, returned savings in prices, of about \$237 million in that fiscal year.

Looking out through 1965 we hope to convert about \$1.6 billion to price competition, or savings of \$400 million. I might digress for a moment to say that recently we've been working closely with major defense contractors who spend half of their dollar at the sub-contract level, to determine whether it is not possible for them too to improve upon the amount of competitive contracting which they engage in. If so, we think we can expand substantially the placements by price competition, and hence, the ultimate savings to the government.

The next slide shows some simple illustrations of the very great savings that can come when it's possible to convert from sole-source to competitive procurement. I'll just take one of these items. Let's take the M-1-1080 Howitzer, up in the corner. This was a new Army-developed item, which, when purchased from the original developer at the sole-source price, cost \$68,000 per unit. When competition was first invited after the drawings and specifications became available, there were some 27 bidders. The winning bidder in this case quoted a price of \$41,000. And on the basis of 295 vehicles he produced a savings to the Army of over \$7 million on one buy.

Now let me go to the next chart and deal with an even more dramatic case. This is the case of an Army-developed man-packed radio known as a PRC-25. This radio took about five years to develop. We were unable to obtain price competition until late in Fiscal 1963, for the simple reason that that huge stack of paper - the drawings, specifications, test specs, etc., just weren't available, and until they were we couldn't hope to invite others to bid upon the item. When the Army finally developed the drawings and specs required, it found over 100 prospective manufacturers of the item, of whom about 25 actually submitted bids.

The results shown were these. The sole-source price was \$2,278. The competitive procurement price was \$843. And the net savings on one annual buy was over \$10 million. The interesting thing here is that the winning bidder on the competition was also the sole-source producer-developer.

When we saw the results we wanted to be sure that we understood what had happened here and we asked the producer if he would work with us to analyze how it was possible for him to write that price from \$2,200 to \$843. He was happy to do this, and working together we discovered that about half of the price reduction was due to normal learning-curve experience. Presumably he would have been able to reduce the cost to the government to the extent of about half of this net difference.

However, he admitted the remaining half was due to just sharper planning; the forecasting of costs; better procurement and subcontracting methods induced under the pressure of competition. So, he and we agreed that competition saved the government quite a bit of money in this particular case. The next item, please.

The second way in which we're trying to assure procurement at the lowest sound cost, and especially in the great field of development contracting, is by departing from the use of the various loose, open-ended cost-plus-fixed-fee arrangements. As you'll see, starting back in 1955 this curve began to climb very steeply as we did more and more research and development contracting. Between 1955 and 1961 we almost doubled the dollars placed under these contractual forms, going from some 19% up to 38% of all contracts awarded on a dollar basis.

Secretary McNamara directed that we set goals to sharply reduce this form of contracting. This goal was to come down to a level of 12.3% by the end of 1965. The results have been perhaps the most dramatic and

spectacular of any phase of our efforts to improve logistics management. By the end of '63 we were down to 20.7%. Through the first five months of this fiscal year - as of last December, in other words - we're down to our long-term goal of 12%. Whether we'll be able to hold that level we're not certain at this point, but the outlook is very encouraging.

The significance here is that our best evidence indicates that for every dollar we shift out of a cost-plus arrangement into a fixed-price or a price incentive we save about 10¢ in terms of avoiding cost over-runs. This means that through 1963 when we had shifted over \$4 billion out of cost-plus arrangements, we had saved approximately \$400 million in prospective cost over-runs. The ultimate goal here is a shift of about \$6.8 billion with potential savings of around \$680 million.

Let me take one illustration just to illustrate the significance of this. The next slide, please. Perhaps you can't read this in detail, but it's the contractual arrangement that has been developed with the Martin Company, on the Titan III Booster Program on which they have a prime system contract. This is an incentive arrangement under which a target fee has been negotiated based upon performance factors, time and delivery factors, and cost factors. The target percentage, if everything were normal, would be 7%. And under the value of this contract would return to the contractor about \$20 million profits.

However, if their failures in respect to meeting these various criteria for performance time and cost occur, the contractor could earn as little

2 1/4%, or only \$6 million instead of \$20 million. On the other hand, if he excels in all of these factors he might earn as much as 12 1/4%, or \$35 million, with \$15 million in the target profit. So, the contractor here has quite a swing of incentives available to him to meet these various, well thought-out requirements. These requirements were laid down after considerable research and study by the Air Force and the contractor, covering a matter of many months. I think about 12 months were spent in actually planning this program and finally negotiating the parameters that went into the incentive contract.

The next slide further illustrates one of the control devices which are being applied to the effort. These things are of particular interest. There are some 12,000 individual events which are reported to the Air Force under this contract, every two weeks. And these indicate whether the program is on schedule and within the budget as planned. They are analyzed by computers, and in the first nine months we are told with some 125 time and cost problems were identified through this bi-weekly reporting which enabled action to be taken and largely to be corrected, in order to be able to keep on schedule within the budget.

Some 711 incentive milestones have been established in the case of the total program, over its four-year cycle. If a contractor misses any one of these milestones he forfeits a part of his fee. For example, Martin in its first six months missed two milestones and forfeited some \$3,500 on each of them. However, they achieved most of their milestones and are

quite proud of their performance. A monthly joint review of the total program is conducted by the Air Force and the several contractors concerned.

This simply illustrates the very sophisticated type of control which is now being generated as we move away from the cost-plus environment into a highly detailed and planned environment employing either fixed-price or incentive contracts. The next slide, please.

The third and last of the key objectives which the Secretary set up for us is to reduce operating costs. And here there are three principal projects involved. The first is to terminate unnecessary overhead operations. The second is to standardize and simplify procedures. And the third is to consolidate and increase efficiency of operations. Let me quickly illustrate each of these. The next slide, please.

One of the most widely discussed, I guess, of all the efforts that we've been talking about is the closure or reduction of bases and installations. These always generate much visibility and much emotion. But the actions taken have been tremendous in the past three years. Over 400 actions have been completed, which are resulting first, in the release of some 645,000 acres of real estate, with improvements in many cases. These include some 58 industrial plants being made available for sale to private users.

Importantly, the release for reassignment or actual reduction in payroll of over 71,000 personnel, about half military and half civilian; the equivalent annual savings from these actions to date is \$479 million. The goal by

1967 which the Secretary has set, is to complete actions which will result in annual savings of \$600 million. There is indeed a rich potential here. After all, we have 6,700 installations and activities around the world, many built in World War I and prior, and many therefore no longer suited to today's operations. It takes a lot of courage, however, to follow through on these very difficult steps. The next slide, please.

In the area of standardization and simplification a number of things are being done; one of the most interesting is in the shipping and transportation field where a group, after over one year of work, found it possible to reduce from some 81 documentation elements required to effect shipment from the CONUS to overseas, down to a single standard system. The clerical savings alone that are expected in this area are about \$30 million annually when the program is finally completed. We started this last October and it will take about two years to finally implement the full use of this scheme. The next slide, please.

Perhaps the most interesting overhead savings and inventory reduction has been through the efforts of the Defense Supply Agency which began business in January 1962. Let me call your attention only to the last column here, the Fiscal 1965 projection for DSA. These projections have actually been built into the budget that's currently before the Congress. DSA will manage about 1,500,000 items by 1965. They will procure about \$3.3 billion of materiel, and make sales of some \$1.8 billion from its own stocks. The important thing is that they will perform these activities with 7,800 fewer

people than were required under the previous unintegrated arrangement. This will mean a savings in overhead costs alone of about \$55 million annually, and they will reduce the inventories formerly required, by some \$500 million; indeed, a creditable achievement in which all of the services have made a major contribution.

DSA could never have come into being had it not been for the predecessor single manager arrangement which the Navy, Army and Air Force so well conducted in the years preceding DSA's development. The last slide, please.

In summary, gentlemen, this chart tries to portray where we've been and where we hope to go in terms of improved management as measured in dollar respects. In 1963 the recorded savings which had been audited and validated are \$1.4 billion. We'd originally estimated a year prior that the savings would be \$750 million. We almost doubled the estimate. As a result of actions taken in '63 and 1962, the two-year period, the savings will ultimately reach on an annual basis about \$2.4 billion. This compared with an earlier estimate of \$1.9 billion.

Because we have been able to exceed the estimates set out in 1963 the Secretary increased the savings objective which he had originally set, to \$4 billion; the original goal had been \$3.4 billion. And he is committed to the President by 1967 - and each year thereafter - to achieve savings at the rate of \$4 billion per year through increases in efficiency and operation; not by force reductions.

Well, gentlemen, this is all I'd like to cover up to this point. I'll be very happy, if you'd like, to answer some questions and discuss any aspects of this effort.

QUESTION: Sir, we've heard a lot about in-house savings, standardization, cost reduction programs; we've seen these columns of savings; but I've never seen any cost figures. How much is it costing us to accomplish these savings in-house?

MR. MORRIS: That's a good question, but I think the answer is in two parts. First, we endeavor wherever we can, to net out the cost of achieving a saving. Let's take price competition, for example. The procurement people and the auditor who goes over and validates a major savings like PRC-25, attempts to identify the direct costs which were needed, such as procurement of the data package.

However, we have not netted out, and I don't imagine we have actually identified in toto the manpower costs that take place at hundreds of locations on the part of people who are planning and carrying out these cost reduction efforts. I would hazard a guess that there is the equivalent of at least 2,000 people involved full-time in this effort. This is a cost we might have anyhow, and I think it's probably making it possible for these people and for their managements, to do the job that they would most want to do more effectively.

I think the cost would be miniscule, however, in relation to the gains

which we've been able to document thus far.

QUESTION: Mr. Secretary, my question relates to the DSA's role in inventory management. Your charts show that there are about 200 depots and about \$40 billion of inventory in the services. Well, as I understand it, DSA has only about a dozen depots that they're using, and they have about \$2 billion of inventory according to your chart. Now, this leads me to believe that the DSA really isn't getting very deeply into inventory management. Is there any chance of the DSA moving from the wholesale level and really getting into inventory management of military supplies?

MR. MORRIS: Well, there are many ways in which to appraise the DSA effort. It's handling about 1 1/2 million out of 4 million items, and percentage-wise that's a pretty good chunk of items. Admittedly it has been assigned the management of the fast-moving, less technical, or highly stabilized items for which we do not need to maintain the high inventory investment because turnover can take place so quickly.

The objective has been to code the DSA up to this point; those items which can be managed by separate organizations and which are susceptible to normal good business management practice, as opposed to the highly technical items that require technicians, that are unstable in design; that are intimately related to the operation of critical weapon systems. DSA is a service and support organization and not a control organization; it's not a development or design organization.

So, those are the primary restrictions that will continue to exist, I believe, around its growth. I expect to see some continued modest growth as we're able in the departments to continue to identify the items the departments themselves do not need to manage. That's the key test that Secretary McNamara feels we must apply. The department shouldn't manage anything it doesn't need to; it should be happy to have DSA, or in some cases GSA, perform that management function.

So, the answer in short is, we should look for it to continue - sound growth - but always short of getting into the highly technical unstable intimately related to weapon system performance items.

QUESTION: Sir, I am somewhat confused and alarmed by the growth of a profession which I shall call "bird-dogging." You said that on one project 10,000 different things had to be bird-dogged every two weeks. An industrialist recently told us that in one of his plants alone he had 150 bird-dogs occupying much space and generating much paper work. Would you please elaborate on that phenomenon?

MR. MORRIS: I'll try to. The example I referred to was the Titan III program - 12,000 events, or events off of the PERT networks that have been developed for that program. Let's take a quick look at the program. First of all, it's one that's going to cost the government \$800 million; it will take four years, approximately, to complete. I believe the total number of events which were identified as required from start to completion of that program were on the order of 100,000. I'm not sure of that figure

precisely, but that's the order of magnitude.

These 12,000 events are the critical go-no-go events, so to speak, but they must be met or we will experience time slippage or cost over-runs. They involve about four major contractors. The reporting is accomplished largely in computer formats, so that, clerically, I don't think this represents a huge effort.

The bird-dogging probably comes more in the area of our contract administration staffs - and perhaps some of them have been augmented under the more detailed management of PERT Systems and incentive contracts. I frankly think we've got to be very alert to over-control and over-elaboration of controls. We in industry are talking constantly - there's a formal work-group that has been established by the Defense Industry Advisory Council, to try to smoke out the unnecessary controls and relax them. They're beginning to take some initial steps in that direction.

In fact, we have just recently relaxed controls under tight incentive contracts on overtime approval, for example. We've got a lot of work to do here and we must constantly watch it.

QUESTION: Sir, my question relates to the McCormick-Curtis Amendment on common services, and particularly Project 81. Would you discuss the current status of that project, from the using management's viewpoint, and particularly the impact of that on functions now performed by the military departments?

MR. MORRIS: I'm not in the best position to discuss this. Project 81

is the responsibility of Mr. Horowitz, the Coordinator of Organization Planning , for the Secretary. It's a continuing standing project on which a lot of work has been done with some incremental results taking place, such as single-service training. Of course, the DIA is one of the most dramatic things that has come about since Project 81 was established about two years ago.

The major effort that our office has been involved in in the past year-and-a-half has been Project 60 which is within the framework of Project 81, the contract administration services. If anything of a major nature occurs toward further integration of common support activities in the logistics field within the next year, I think it will be in Project 60's area.

As most of you know, we have a pilot test now in the design stage which will become operational about the first of April, in the Philadelphia Region - a five-state region - where some 2,000 field contract administrators, inspectors, all the control people, expeditors and others, will be organizationally integrated under a single director - General Stanwyck, say, of the Army - and that group will operate as an integrated organization for a period of months. Depending upon the success of that integration and the benefits, or lack of benefits, which will be found, it may be decided to extend integration to many other regions; some 13 have been discussed. We're not pre-judging the results, however.

I think that that's the single most important thing at this time which has a relationship to Project 81. I believe, however, that you'll see over the

years to come, continuing studies with possible integration of common support activities, not only in the logistics area but in Personnel and other aspects of Defense management.

QUESTION: Mr. Secretary, prior to coming here I held the stewardship of a division of submarines. Over the past few years I have been progressively dismayed at what I consider the progressive deterioration in readiness and loss in operating time due to many things; that I would attribute to our cost reduction system; for example, items on the cards but not on the shelf. Would you please speak, sir, to what you consider the supply effectiveness of the department is today compared to before, and would you particularly dwell on supply effectiveness during those moments of crisis such as the Cuban situation?

MR. MORRIS: Well, first, I'm surprised to hear what you have said, and it would certainly indicate that there may well be problems that need some deeper study than I've been aware of. The principal measures of supply effectiveness which we watch in my own office are those of the Defense Supply Agency in which we feel a special interest and responsibility. By and large these have been on an increasing trend and are considered generally satisfactory. They have, in fact, been quite satisfactory during the Cuban and Berlin emergencies.

We found no real cause for dissatisfaction there. We've had some situations; the automotive supply field itself was the most unsatisfactory. Prior to the realignment of that responsibility that occurred about six months ago

we were definitely suffering in that area.

I've been impressed with what I've heard of the planning for the supply support of the Polaris Submarine Program particularly, and with the development of the tender support program. I have not seen effectiveness statistics. I'm sure that Admiral Compacter and his folks are watching this carefully. I would not at all attribute any degradation in effectiveness as a result of the cost reduction program. And wherever this is occurring we should quickly relax unrealistic efforts.

The Air Force watches this from the point of view of the aircraft out of commission rates and the missile out of commission rates, very closely, and I have been exposed regularly to their figures. They have experienced, since 1958, a continued improvement. They once were running 13% out of commission in aircraft parts. This is now down to 5% or less. They have reduced their buy program for aircraft parts by some \$450 million during the same period of time. They think they have probably reached the bottom of that reduction and I think that I probably agree with them.

If that 5% figure starts creeping up we would certainly want to plow more resources in to assure proper supply support. In short, wherever this program begins to reveal any degradation of quality and reliability, all of us want to move quickly to correct that situation. We're really looking for the optimum point of inventory investment response times to the required levels of operation and readiness.

QUESTION: Mr. Secretary, in the case of commercial off-the-shelf

items, using the quarter-inch electric drill, etc., how do you insure continued standardization if, in subsequent buys, the vendor of the standardized item is not the lowest bidder?

MR. MORRIS: We admittedly have a problem of potential continuing conflict between our desire on the one hand to obtain competition, and a desire on the other hand to simplify and standardize. I don't think we've reached any final consistent philosophy in this respect. It's a matter of cost effectiveness trade-offs again. In the reflect area where we reduced to seven I would suspect that we did not degrade or limit competitive opportunity. In the drill area where we reduced to one, we may have; I don't really know.

We, as indicated, think we can accomplish savings on the order of 25% where we move from a captive sole-source situation to a more free and open competitive situation. Depending on the unit price of the item and the volume used, I think we've got to continually look at standardization on the one hand versus price reductions on the other, and keep optimizing those decisions. This is going to be a continuing problem for us.

QUESTION: Mr. Secretary, I'm somewhat concerned about the growth of non-profits. Since you, in your tenure, have helped establish LMI, I understand, would you explain your reason for wanting the LMI and perhaps list some of the projects that you have encouraged?

MR. MORRIS: Yes. The President of LMI is in the room with us today and I'm sure he'd be glad to speak further. LMI was conceived in

about June of 1961, by Secretary McNamara, as a device for accelerating breakthroughs in our management techniques on almost every subject that I've talked about here this morning. The interest was to form a small but highly professional analytical group who would have nothing else to do but gather facts and make analyses; make pilot tests; and come up with workable practices and solutions to problems of very long standing. The problem is that while we've got - I estimate about 2,600 people - military and civilian, in the upper echelons of the three departments in OSD, working on logistic management matters everyday, these people have only fractional time available for the most part, to undertake continuous, consistent studies of these problems.

Hence, we wanted one group that would have no other impingement - Congressional, public, industry or otherwise - on its time. The alternatives were either to arrange for such service to commercial consulting firms - and we've been doing this for years and will continue, in a measure, to do it - or to have one group that was pretty much sponsored by Defense, that specialized in this area and in this area only.

Secretary McNamara, hence, decided to recommend to the President the creation of a non-profit organization. He did, and President Kennedy approved it. That group has existed, now, for about 2 1/2 years. It has been kept deliberately at a fairly small size - only 20 professional people. Its annual budget is reserved, so that only 80% is spent in-house; 20% is reserved for the retention of special consultants on a limited time basis

for special problems.

Now, what have its results been? Its initial work was directed toward competitive procurement both of spare parts and end items. And in that field, as we indicated on one of the charts, through 1963 we have achieved price reductions of about \$237 million. I would credit the work of LMI with a substantial part of that result.

In the incentive contract field, one of their earliest projects was a very thorough researching of incentive contract practice throughout the departments, and the development and publication of an incentive contract manual. That manual was produced over a year ago and has become the basic reference piece for some 25,000 negotiating personnel.

Value engineering, I mentioned, or the elimination of gold-plating. LMI spent about a year studying the practices within Defense and among contractors, and is a principal producer of the H-III manual on value engineering. They have been of primary support to us in the conduct of major conferences; the procurement conference at Williamsburg in February 1962; the maintenance conference at Williamsburg in December 1962; and the program manager conference at New London last spring.

So, as you can see, they've been intimately related to almost every facet of this overall logistics improvement effort. They work under task orders which I personally sign, and which I arrive at only after consultation with the military departments and the Assistant Secretaries of those departments. They are an adjunct to our work. We think they will continue

to pay off about 100 to 1 in reference to our expenditure on their effort. I hope they will be a permanent fixture in the logistics improvement management process of the Department of Defense.

QUESTION: Mr. Secretary I refer to the mission-oriented five-year force structure and management program which has made quite an impact on the Department of Defense. To what extent, sir, and how do you and your office use this program in the management of the logistics business?

MR. MORRIS: In many, many ways. In the first place, the continuous up-dating of that program to the program change proposal process involves many parts of our office. We have, for example, Mr. Davis' office weapon systems acquisition, and he is a part of the review process for each change in the up-dating of the five-year force structure program on major end items.

Secondly, this five-year forecasting process is of great importance to our construction and housing people. They, in fact, are the primary final coordinators and producers of the five-year plan that becomes a part of that official booklet. This controls the annual budget preparation for the military construction program for which we have to assume the initial leadership in presentations to the Congress.

The five-year forecast is especially important to those who are interested in the impacts on communities and industry. We have two units in our office that are responsible for working with employees, communities and industry on future planning to adjust to economic impacts through changes

in the defense effort. This is the primary tool now available for that purpose. We hope to perfect still other tools in the future, but it's the primary tool today.

In other words, it's important to almost every part of our work in that it gives us official insight into what the workloads and tasks are going to be within the department and among our contractors, looking ahead at least a year-and-a-half to two years, and with some certainty, beyond that to five years.

QUESTION: Mr. Morris, would you explain what is done with the \$1.4 billion saved last year; how much was turned back to the Treasury, if any; and how do you program the \$4 billion you expect to save for 1967?

MR. MORRIS: That's a very good question. The most important first answer is that Secretary McNamara, in his posture statement which he has just presented to Mr. Vinson's Committee, has documented the fact that the 1965 budget now presented to Congress is less by \$2.5 billion approximately, than it would have been had these actions which we reviewed this morning not taken place. That 2.5 obviously includes all the 1.4 achieved in 1963 plus what we hope to additionally achieve in 1964, plus certain projections into 1965.

So, the major impact of these savings as they're occurring in the current year, will appear in a future year budget. Now, as they're generated in the current year, and had not been anticipated in the budget for that year, they become eligible for re-programming under the regular rules of finan-

cial management within the Department of Defense. And much of the savings that we looked at in the 1963 period - at least half of them, I would guess - were re-programed and spent on other high-priority requirements. What the turn-back to the Treasury has been I don't know. I'm not sure this would be too useful to figure.

We have unexpended balances each year, of both one-year and no-year funds, and their utilization and management is a matter of controllership. Some are always carried forward and applied to the total obligation authority of the next year's budget program. Some are turned back to the Treasury.

But our principal measure is what happens to the future-year budget. And the \$4 billion objective is to be able to document by 1967 that these increases in efficiency have, in fact, based on the 1961 force structure level which is our takeoff point, enabled us to operate at \$4 billion less than otherwise would have been possible.

QUESTION: I've been here a number of years in town and I've seen us go through the stages of banking surpluses for saddles, bugles. - - - - (too much echo to be understandable.) - - - - With the budget situation that we have right now, we also find again that outboard motor and a few things like this. Do we have that solved yet, or not?

MR. MORRIS: We'll never solve it totally. But all the indicators are that we have made more progress not only because we've worked harder, but because there is just more pure technology which enables us to do it

today, than we've had in years past. The fact that we did re-utilize 183 million more in '63 than in '61, and the fact that we expect to do much better this year and next, is the prime gross indicator. The most interesting thing - and if you ever have the chance I think you should take advantage of this - would be to visit Battle Creek, which you probably know better than I do, and see the operation that has been brought into being after a good many months of work, in terms of what is called the "Project Plus."

It is an actual computerized inventory on tape of all this long supply and excess stock. It's the first time it has existed in this form as a matter of fact, with high-speed communications links to the inventory control offices. So that, there can be a daily interchange of requirements versus what's on hand in the excess in an attempt to make a re-utilization transfer. We're making definite progress but you'll never eliminate the problem in current buying and selling, of the freak excesses that show up. I don't want to ever mislead anybody that this can be done. But the indicators are that we are definitely making more progress due to technology and harder work than has been made in the past.

QUESTION: Mr. Secretary, you mentioned that you cut the pipeline time from 140 to 55 days, and some of it was through the use of air transportation. I understand that air transportation is a little more expensive than rail or ship. I wonder where in the cost you show this increased transportation cost?

MR. MORRIS: Again, there is no netting out of costs in that example. What this example was intended to indicate was a more realistic statement of gross requirements for mobilization purposes, more highly analyzed and individualized requirements computations. The 120-day factor was an arbitrary blanket factor applied to all items regardless of characteristics, size, transportability, etc., and based upon experience it was pretty old.

The Army found that by taking 500 items that account for about 75% of its major procurement buy, that it could set a pipeline time for each based on its own characteristics. They did assume the use of air transport where the item lent itself readily to that. We're assuming that the increased lift capability that was coming into being would make possible the reality of that assumption; actually, then, reducing only a gross requirement which had never been satisfied and never would have been fully satisfied to a more realistic buy requirement level.

QUESTION: A few years back the military services were accused of - and not without reason - underestimating program costs. Although steps have been taken to improve cost-estimating procedures a new problem appears to be developing in the five-year force structure plans and programs, and that is, underestimating programs. Could you give us an insight as to why OSD does not permit the procurement program to remain relatively level throughout the next five years, especially in light of the high R&D expenditures?

MR. MORRIS: I'm not sure I understand this question too well. I believe you asked two questions. It's true, we've been plagued with underestimating program costs on major systems, with the result that the end cost has often been three to ten times what the initial estimate has been. The major attack that has been made on this is through the more analytical steps taken in a program definition phase that might run for a matter of months to a year, to the application of the PERT cost and time analytical techniques and the very close control, as we saw, on Titan III, by weekly reporting on many thousands of events.

These things are beginning to contribute to more realistic initial estimates and closer control over current performance of programs. And we hope that less and less will we end up with three to ten times escalation.

Now, the second part of your question I didn't quite grasp.

QUESTION: I'm referring specifically to the materiel annex, where you look at this year's program in comparison to 1969. There is a drop; I don't want to mention how much, but there is a considerable drop. And with the high R&D expenditures it would occur to me that this program should remain relatively level, or we'll be forced to raise the procurement program as we come toward the year of execution.

MR. MORRIS: Well, I think everybody realizes that in this five-year process you have what is called the "bow-wave effect;" it's a sort of peaking and tailing off, the tailing off being unrealistic. And this occurs each year as you update the program and project it forward, the fourth and fifth

years being much less reliable than the first, second and third, perhaps.

I'm no expert on this one; I guess the practical answer is that we're just unable, realistically, to make a more precise forecast and hence accept only what we reasonably know to be the expectancy on the tail-end of the five-year period, knowing that it's probably going to change each year as we update the forecast.

I should add that the R&E budget is beginning to tail off a little bit. The '65 program is down, I believe, \$300 million under the '64 program, which may indicate that we peaked out on this big R&D effort.

QUESTION: Mr. Secretary, several times in your lecture you referred to the savings as being validated and audited. It appears to me that in a program of this kind there might be a temptation to come up with figures that wouldn't stand against close scrutiny.

MR. MORRIS: This is a very, very difficult problem. But McNamara has insisted that we validate this to the fullest feasible extent. You can't validate tens of thousands of actions, and it wouldn't be worthwhile to do so. But he has made a separate special assignment to Dr. Dan Borth, the Deputy Assistant Secretary under Mr. Hitch, for audit, to organize and audit efforts to continuously monitor the reported savings that come up from the installation level. And Dan estimates that there are about 300 auditors equivalent today, spending their major time in reviewing, monitoring, and assuring the validity of the principal cost-reduction actions that are reported on a quarterly basis, up to the Secretary of Defense.

I can assure you that Dan spends an awful lot of his time doing this. We let no figures and no specific examples get into the Secretary's posture statement, or into the public literature, that has not passed through an audit review and evaluation. It's the most highly validated effort, I think, that has ever occurred, of its type. It's not perfect by any means, however, and we don't expect that it ever can be.

QUESTION: Mr. Secretary, on your slide on the edited procurement of Titan III you indicated that the contract was a cost-sharing type between the DCD and the contractor. Could you comment on the present status of cost-sharing contracts? Are they good? Do you like them or not?

MR. MORRIS: We have made a lot of progress in the last two years in arriving at what we think are contracts involving a much fairer sharing of risk between the government and the contractor in incentive situations. Two years ago when we first took a reading of the incentive contracts then in existence, we found many where the spreads were very narrow, say 95% to government and 5% to the contractor; or, 90% to the government and 10% to the contractor.

These provide effectively very little incentive to the contractor to reduce his costs. We've been urging the departments to take greater and greater shares of risk, to spread the risk in a more proportionate way between the government and the contractor. The last survey made about two months back shows a great deal of progress. We found several cases where

we had a 60-40 relationship, which really gets you into a high risk-sharing situation. The average today is tending more toward a 75-25. And as we learn better how to think through and negotiate these contracts I expect we'll see more 70-30, 65-35 arrangements. This is our objective.

QUESTION: Mr. Secretary, do you see any influence on our allies from our experience in improving district management, and will this be of any help to us if there is improvement?

MR. MORRIS: I think that the proper answer is that we do definitely see improvement and greater interest in adapting and applying some of the lessons and techniques we're learning. I have a special group in my office, of about eight or ten men, whose job is international logistics. They're working constantly with the military departments and our counterparts in the NATO countries at this time. Germany has been the most active in working with us on cooperative logistics arrangements.

We've made progress; I'm not sure how spectacular it is, but we've made definite progress.

QUESTION: Sir, I'm interested in the target date of 1967, which is beyond '54 and short of '68. Would you comment on why 1967, and also on the durability of these logistics procedures with the turnover in key decision-making personnel?

MR. MORRIS: These are very good questions. The '67 date was set because the program was established initially as a five-year cost reduction effort. Five years seemed, judged mentally, to be the right span of

time in which to achieve the scope of results we were seeking. Now, the five years - Fiscal '62 - 3 - 4 - 5 and 6 - at the end of which time the action should have been taken and realized that by 1967 the budget would reflect the \$4 billion objective which has been set, this has no relation to election years, politics or anything else; it's just the way the program was initially planned.

As to durability, this will be a function entirely of leadership and competence, and the application of effort not just at the top of the military departments and OSD, but throughout the warp and woof of the entire logistics structure, the some 2 1/2 million people who do these jobs. I think the most heartening thing to me in the past six months when I've been able to get out in the field, has been to see what's happening, for example, at the Air Force Air Materiel level. I've been to all the places now, save one or two.

They each have their goals for 1964 and 5. The goals have been subdivided within, down to division level. They get monthly reports from their division heads as they progress against their goals. And they've really caught fire with this effort. As long as that type of response can be sustained in all three departments, at installation level, I think this program has become a permanent way of life.

It's possible, if all the heat goes off, from the Secretary of Defense on down, that people would lose interest in it. We can't afford to let that happen. I just hope that succeeding generations of administration and

defense will make this a technique of management that has real substance and real teeth behind it. Certainly, Secretary McNamara will see that this happens as long as he's here.

QUESTION: Mr. Secretary, with respect to the goldflow problem, would you comment on your present and planned actions? For example, the petroleum sector is exempted from buy American for, I believe, about \$1/3 billion a year in overseas procurements.

MR. MORRIS: I'd rather not attempt to respond specifically to this question because I'm not well enough read in day-to-day. Mr. Hitch's office follows the whole program. We have parts of it such as the petroleum; such as reduction in military construction and maintenance costs overseas. We do have a definite target, as I recall, of holding the level of procurement this year, of petroleum overseas, to that achieved in 1963 which represented something like a \$30 million reduction.

But these targets essentially are generated by Mr. Hitch's office, approved by the Secretary of Defense and given to us for implementation. And it's up to us to work out a way of getting there.

COLONEL MARTHENS: Mr. Morris, I want to thank you for giving us a little extra of your time, and I know I speak for our large guest-list and the entire staff and faculty, for your coming over and visiting with us today, and telling us how we're doing in the Department of Defense.

MR. MORRIS: I enjoyed being here.