

PROGRAMMING FOR LOGISTICS SUPPORT

8 December 1953

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INDUSTRIAL COLLEGE OF THE ARMED FORCES

Washington, D. C.

Colonel Ronald A. Johnston, USAF, Chief, Programs Division, Office of the Assistant for Programs, Headquarters, Air Materiel Command, was born in Island Pond, Vermont, 17 March 1914. He attended Louisiana State University and is a graduate of the University of Pittsburgh, College of Business Administration. He also attended the Air Command and Staff School, Air University, Maxwell, Alabama. He completed pilot training in 1941 and holds the rating of senior pilot. During the early stages of World War II he performed numerous antisubmarine patrol missions in the Caribbean area and later led bombing missions against Japan, for which he received the Distinguished Flying Cross, Bronze Star, and Air Medals. He has extensive experience in aircraft maintenance and engineering as air inspector (Technical) and later as deputy inspector general, Headquarters, Air University. In 1947 he spent a year on duty with the Inspector General, War Department under the Simpson Board Plan. In July 1951 he was appointed deputy assistant for Programs and Requirements under the deputy commanding general for Operations, Headquarters, Air Materiel Command, and in July 1952 was appointed to his present position as Chief of the Programs Division.

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COLONEL MANN: Admiral Hague, General Greeley, gentlemen: In our Requirements lectures for the past couple of weeks we have been dealing with planning at the joint level and planning and programming at the several departmental levels. These have all been rather high-level considerations and by the very nature of the subject rather nebulous and intangible. This morning we are going to come down out of this rarefied atmosphere to the operating or working level to see what is done with programs, how they provide guidance for requirements determinations, and how they provide logistical support.

Before I introduce our speaker this morning, however, I would like to introduce Colonel Martz, an alumnus of the college and for three years a member of the faculty, who is now at Wright Field. Colonel Martz, it is nice to have you with us even for a couple of days.

This morning our lecture is "Programming for Logistical Support," which, of necessity, must be given the broad-brush treatment. However, it will be developed in detail to the extent you wish in the question period and in the discussion groups this afternoon with the visiting panel members.

So far our speakers have been either from the Army or the Navy. I am proud this morning to be able to present an Air Force speaker, Colonel Ronald A. Johnston, Chief, Programs Division, Office, Assistant for Programming, Headquarters, Air Materiel Command. I assure you he knows his subject. He eats, sleeps, and lives programming. I am very proud to welcome him to this platform to speak to us on "Programming for Logistical Support." Colonel Johnston.

COLONEL JOHNSTON: Admiral Hague, General Greeley, Colonel Mann, Colonel Martz, gentlemen:

I have looked forward with enthusiasm to today's discussion of "Programming for Logistics Support" because this business of converting broad decisions and policies into detailed operational directives called programs and their use for determining the logistics support upon which the success of our future operations depends is little known nor well understood. The art of programming is dynamic. The challenge to all in this field is terrific, for any improvement made in programming, whether Army, Navy, Marine Corps, or Air Force, will of necessity result in increased effectiveness throughout each operational unit.

The major preliminary phase in the development of programs is the determination of mobilization and peacetime objectives. This sequence of planning actions as performed at the Secretary of Defense, Joint Chiefs of Staff, and departmental levels has already been presented to this class. Therefore, the foundation for this presentation has been laid and you are ready to learn of program development, distribution, application, and control. Our discussion today will be limited to the use of programs for procurement, maintenance, storage, and distribution of Air Force materiel and not their operational use.

The term "materiel," as used today, includes "all weapons, equipment, tools and supplies used and consumed by USAF organizations." Other terms that need to be defined are the words "program" and "programming." As used in this discussion, they mean "approved, time-phased projections of future positions to be attained, actions to be taken, and operating rates to be achieved in order to arrive at planned objectives." They also mean "the act of projecting these time-phased positions, actions and operating rates."

The beginning of any program cycles commences upon receipt of the Joint Chiefs of Staff objectives. In the Air Force, the Assistant for Programming in the office of the Deputy Chief of Staff, Operations, is responsible for furnishing program guidance, which consists of the Air Force interpretation and expansion of the JCS objectives. This program guidance serves the Air Staff as the basis for development of detailed Air Force programs. The Air Staff publishes these programs in many varying degrees of form and detail which can be categorized into four major program areas:

1. Aircraft and missiles.
2. Organization and personnel.
3. Installations and facilities.
4. Communications and electronics.

The projections in these program documents are the basis for forecasting the materiel requirements of the Air Force. Today's discussion of "programming for logistics support" will show the relationship of Air Force programs to the provision of materiel support and will be presented in three phases, as follows:

1. Program development for determination of materiel requirements.
2. Dissemination of program data and materiel policy guidance.
3. Materiel Program implementation and control.

Finally, your attention will be directed to some of the major program problems involved in these phases.

I have already mentioned the general process by which Air Force programs are developed in the Air Staff. As the logistics arm of the Air Force, the Air Materiel Command (AMC) which is charged with providing all materiel support is also vitally interested in the development phase of programming. We participate in the development of Air Force programs in the interest of maximum efficiency so that, to the greatest possible extent, the programs will be capable of direct application to the computation methods. In order to make possible the direct application of program data to these methods, the programs must be published in the exact form and detail needed, because in forecasting how much of what is needed there are many varied procedures and techniques which must be employed. The necessity for so many different procedures is brought about by the complex structure of the Air Force and the many different missions performed by individual organizations. The Air Force today is made up of 4,400 separate organizations and 1.25 million civilian and military personnel. Most of these organizations have a separate and distinct total requirement in kind and quantity for equipment and supplies. Also, approximately one-fourth of the Air Force personnel have specialized authorizations and requirements for supplies and equipment, according to their different occupations.

All of these various authorizations and different requirements for supplies and equipment combine to make the projecting of requirements for each type of unit and specialized skill a complex thing in itself. Add to this the necessity for projecting requirements for all items through several fiscal years, for considering industrial capacity, changing wear-out and consumption rates, introducing new items, procurement and distribution lead times, and for the calculation of total materiel assets on order and on hand, and you have a broad picture of the Air Materiel Command's job in forecasting the materiel required to support future Air Force operations.

The next phase of today's discussion is the "distribution of approved programs and policy guidance" for their application. The AMC in this phase is vitally concerned with the timely receipt of program information, for all our budgeting and buying actions must be geared to established dates over which we have no control. This makes it mandatory that the programs, upon which our actions are based, be delivered in time for the AMC to accomplish its required actions. Further, the AMC actions must be time-phased to assure compliance with these dates.

Chart 1, page 4.--To illustrate the necessity for this time-phasing, I will briefly outline the budgeting cycle. As you know, the Federal budget must be submitted to the Congress in the early part of January.

CHART 1

BUDGET PROGRAM CYCLE

FY 56

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TYPE OF ACTION	CY - 53					CY - 54					CY - 55																				
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
CONGRESSIONAL REVIEW AND APPROVAL																															
PRESIDENT'S REVIEW (REVIEW OF THE BUDGET)																															
OFFICE SECRETARY OF DEFENSE REVIEW																															
HEADQUARTERS USAF REVIEW																															
AMC COMPUTATION OF BUDGET ESTIMATE																															
USAF PROGRAMS PUBLISHED																															

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This in turn requires submission of the Defense budget to the President in December and the departmental budgets to the Secretary of Defense in October. Therefore, the Air Force major Command budgets are due in Air Force Headquarters by the end of May. Although seven months have been provided for review and subsequent adjustment at all levels above the major air commands, only a little more than three months in the budgeting cycle is available for the development and review of command budgets at command level inasmuch as the programs upon which these budgets must be based are not scheduled to be received by the major commands until the period of 15 January to 1 March.

I have already indicated the magnitude of AMC's requirements computations job, which includes development of materiel policy guidance, projection of item requirements, pricing, preparation into proper budget formats, and review and approval by the AMC Commander, General Rawlings. Therefore, it becomes necessary to schedule within the three-month period allowed all the actions that must be accomplished by all agencies of AMC to insure that the entire job is completed on time. The AMC assistant for programming, in coordination with the rest of the staff, allocates in advance the amount of time to be allowed for each action, and closely monitors the performance of all concerned.

Prior to authorizing and directing the use of any program data for either budgeting or buying, the AMC assistant for programming ascertains those areas in which further program or policy guidance is necessary. As in any business dealing with such a dynamic commodity as programs, there are bound to be areas of change which do not correlate with previously established procedures. In such instances, appropriate assumptions and ground rules must be laid down so that program data will accommodate the established system. In every instance where such tailoring of program data becomes necessary, Air Force Headquarters is kept advised so that all will be aware of the action taken.

To control the distribution of program data to the using agencies in the AMC, a system has been established to insure that only authorized program data are used. The system itself is simple and the details of its operation are relatively unimportant in this discussion. The importance of the system is in its effects--it insures application of only that program data which have been validated and authorized. It also permits a rapid check in our review of the accuracy with which the data were applied in projecting materiel requirements. In brief, the system identifies all authorized program data by a serial number which is coded to the program area involved--such as the Aircraft and Missiles Program. This system authorizes the programs for specific budgeting and/or operating uses. An index of program releases is periodically furnished all elements to insure that a consistent, command-wide knowledge of the currently authorized program is maintained.

Up to this point, we have shown why the complex structure of the Air Force necessitates intricate methods for projection of materiel requirements and a corresponding degree of form and detail in the development of program data. We have discussed the procedures for distribution of program data and policy guidance. These development and distribution phases of programming are involved in both the budgeting and operating aspects of the AMC functions. However, the third phase--"materiel program implementation and control"--is involved only in the operating aspect of our job.

Chart 2, page 7.--To understand how AMC materiel programs are implemented and controlled, it would be well to have a broad picture of the AMC organization. You can see on this chart that the AMC is composed of a Headquarters and 16 Air Materiel areas and depots. The Headquarters is made up of the usual staff offices with five major staff offices being directly concerned with Air Force materiel support. These are the assistant for programming, the comptroller, and the directorates of Supply and Services, Maintenance Engineering, Procurement, and Production. The Air Materiel areas and depots are composed of similar counterpart organizations.

In the recent past most of the operational functions, formerly centered at Headquarters, AMC, have been decentralized to our field organizations. These functions include the determination of materiel requirements and the actual procurement, maintenance, storage, and distribution of materiel. Policy guidance is furnished to the field organizations by the Headquarters, AMC staff offices; for example, program guidance is furnished by the assistant for programming, technical guidance is furnished by the directorates, and budget and funding guidance by the comptroller.

From this brief outline of the organization of the AMC, I will proceed with the discussion of program implementation and control in the buying operation. The actual procurement of Air Force materiel is an operating function that must be closely monitored to insure timely accomplishment of actions required to support the approved program for which funds have been appropriated by the Congress. Funds for procurement of aircraft and related equipment should be obligated within one year and be expended according to the production lead time of the items involved. Funds for major procurement other than aircraft should also be obligated in one year and be expended in consonance with lead time. Maintenance and operations funds must be obligated within the year for which appropriated and fully expended within three years.

Therefore, it is vitally important to measure progress of accomplishment in the buying operation, for, although it is a major problem to obtain from Congress sufficient funds to support programs, paradoxically, it is a major problem of the Air Force to obligate these funds within the year for which appropriated, in order to avoid withdrawals of unobligated balances or to have them considered a credit against the next year's program requirements.

AIR MATERIEL COMMAND

1 NOVEMBER 1953

CHART 2

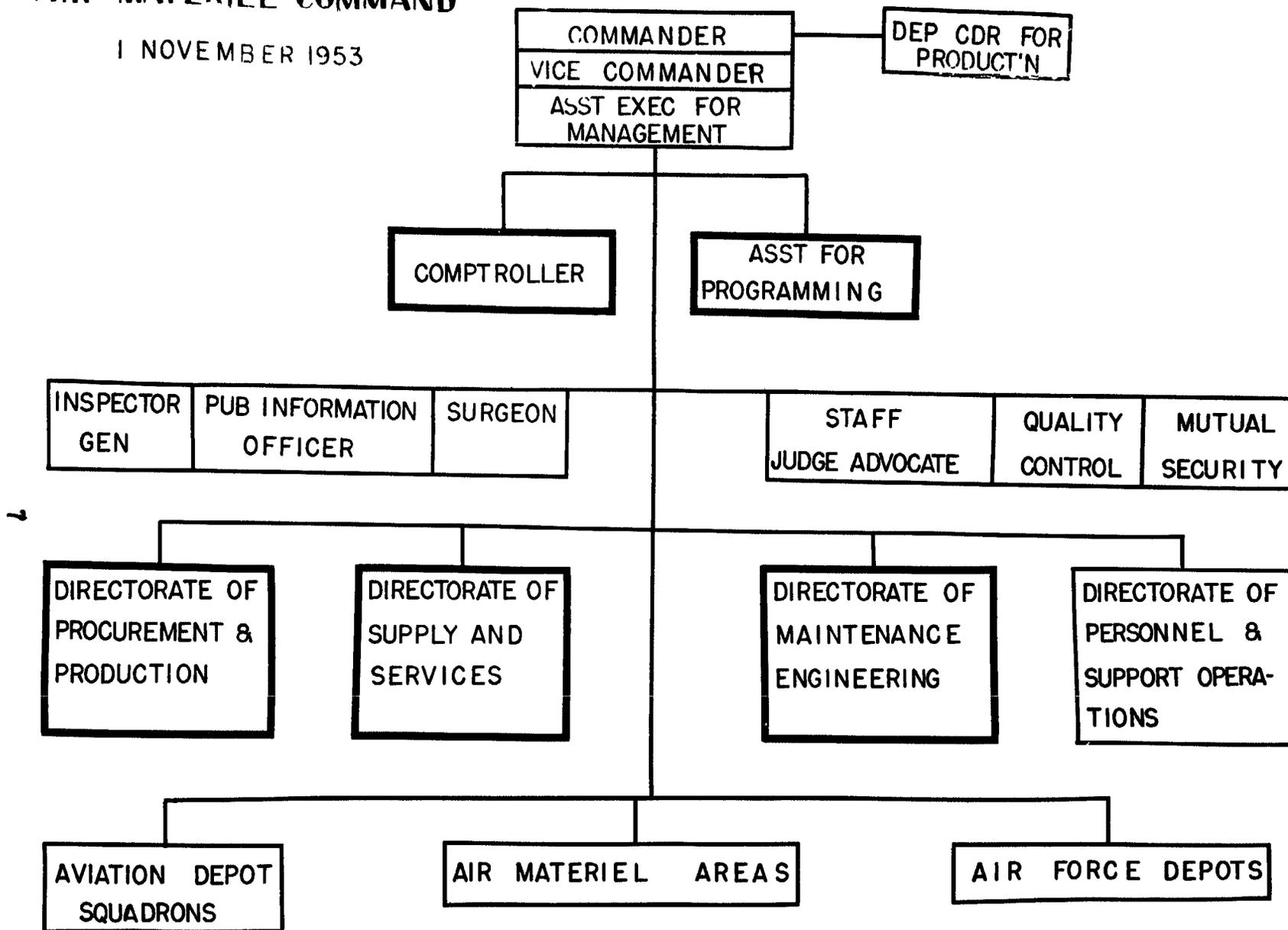


Chart 3, page 9.--Since the AMC has the major portion of the Air Force appropriation to obligate, the assistant for programming, in coordination with all other staff elements, establishes a schedule of monthly goals for accomplishment of initiation, commitment, and obligation actions for each fiscal year's procurement program.

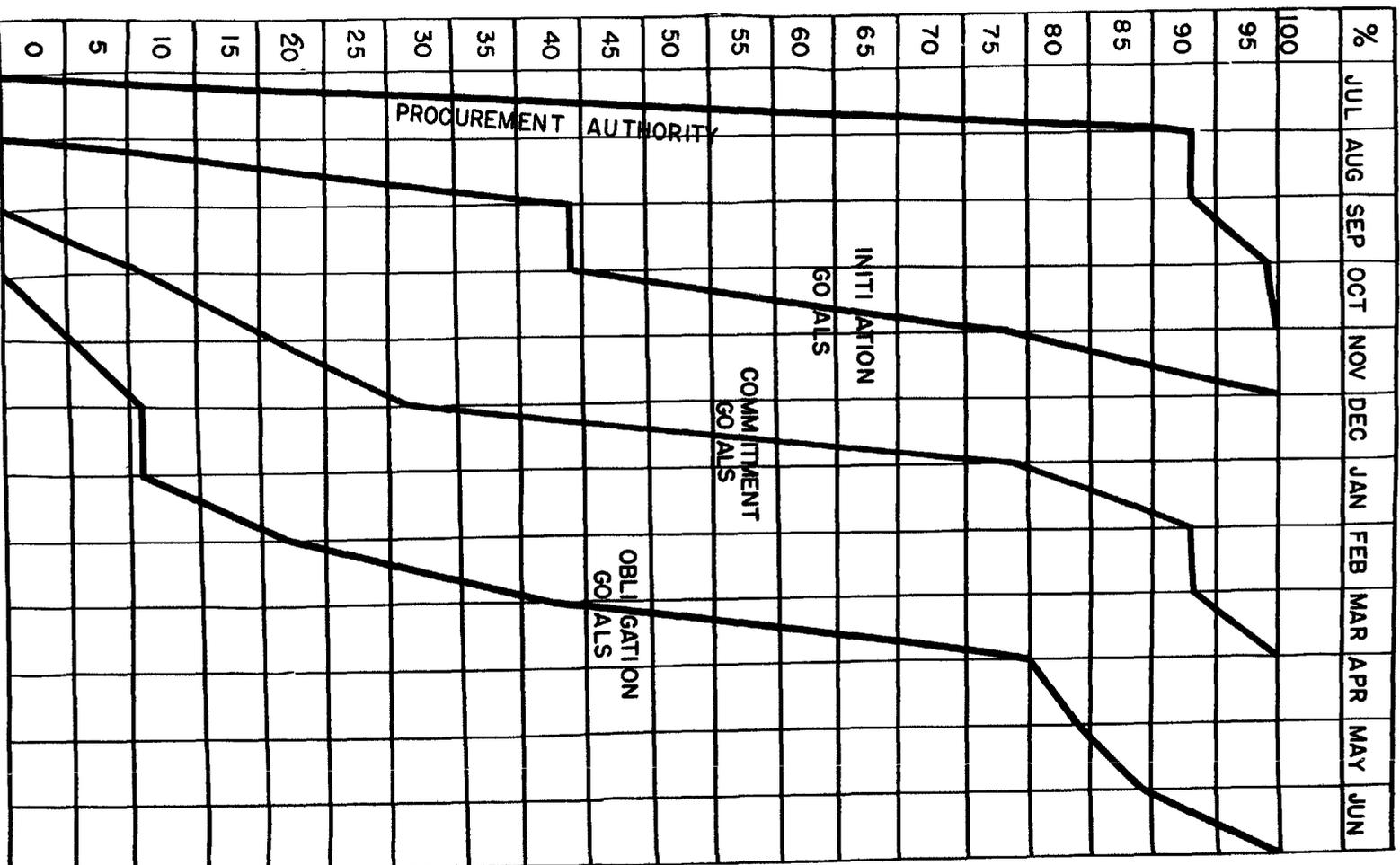
Through the use of periodic management reports which reflect the percentage of program accomplishment in the three stages of procurement, the deficiencies and/or problem areas are identified. These areas are analyzed in detail to determine the particular items involved in these procurement delays. If corrective action cannot be taken at the operating level, complete details of the problem are submitted to our Headquarters for final action. This management control assists in minimizing large carryovers of funds which in the past have contributed in no small measure to cuts and withdrawals of appropriated Air Force funds.

Another example of program implementation and control is specialized monitorship of new weapons systems and major commodities. This is a further refinement of our decentralization plan in which commodity control has been, or is being, delegated to the Air Materiel area and depot commanders. This commodity control is exercised by weapons phasing groups whose members are representatives of the AMC Headquarters, AMC field organizations, and of the major air commands that are the principal users. These groups develop a time-phased schedule of actions required to insure production and timely delivery of the major commodity or weapons system (and the related equipment) required to support the programmed conversion and equipping of Air Force units. Subsequently these groups, through review of management reports, conferences with contractors and AMC commodity specialists, closely monitor the progress of action so as to identify actual or potential deficiencies. Where deficiencies occur and cannot be corrected at the operating level, these groups recommend specific command action.

This implementation and control phase of programming can be summarized broadly by a statement of the programmer's duties which are:

1. To identify, select, and define the aspects of our functions that are significant to accomplishment of the Air Materiel Command mission and capable of being projected in time-phased increments against which progress can be concretely analyzed and evaluated.
2. To coordinate the development by staff offices of work goals in accordance with the estimated or computed work-load impact of Air Force programs. To compile and publish these goals as Air Materiel Command operating goals.
3. To measure the progress in meeting these goals. To analyze deficiencies for basic causes, and finally to determine and initiate corrective action.

**PROCUREMENT ACTION GOALS
TRAINING EQUIPMENT**
(BUDGET PROGRAM 250)



This phase of programming is the real challenge to the programmer. For in the development and distribution phases of programming, the benefits of the programmer's efforts are not evident in tangible form, inasmuch as these benefits are hidden in the products toward which his efforts were directed. However, in the program implementation and control phase, tangible dividends can be seen in decreased carryovers of unobligated funds and in more effective service to Air Force.

So far in this presentation I have dealt for the most part with programming at the AMC level of interest. The information I have presented portrays the part AMC plays in the development and use of programs for determining Air Force materiel requirements and how AMC implements and controls the procurement and delivery of this materiel to insure adequate support of the Air Force. I should now like to discuss two problem areas that have their origin at levels above the AMC but which compound the job of forecasting and providing materiel support.

The first of these problems is concerned with the necessity for procuring and prestocking certain specific and long lead-time items for implementation of war plans. The responsibility for providing and prestocking these items is part of the AMC mission. To forecast the requirements for these items in sufficient detail to accomplish actual procurement and in the proper quantities, requires that AMC be furnished precise projections which would constitute what might be called a "war program." This means that war plans must be committed to a similar degree of detail as the projections contained in peacetime programs.

Not only are war programs necessary for the prestocking of selected items, but they are also needed by AMC in determining current excesses of equipment and supplies that may be properly disposed of, without fear of eliminating potential wartime required items.

For any assumed D-day the starting positions of mobilization and war plans are based on in-use inventory of the organizations in being as projected in the operating programs. However, these plans, of necessity, project wartime operations in terms of broad forces only--they do not designate the organizational details and deployment of specific units--details which are necessary for accurately computing materiel reserve requirements. We are now at the point where we should decide which one of two courses to take:

1. If War Program details based on a selected D-day are developed which would be applicable in determining mobilization reserve requirements and excesses which could be safely disposed of, we risk the possibility of passing the selected D-day without war occurring, and having procured and prestocked items that might not be required on a later D-day.

2. If a specific D-date is not selected and such war program details are not developed, then the mobilization materiel which has been procured and prestocked may well be too little and in the event of war it would be too late to do anything about it.

The Air Materiel Command feels that the first course of action contains the smallest element of risk. Therefore, we are working toward the development of war programs in the detail that fits our established requirements procedures which will provide the right quantities of the right items of materiel on D-day.

The other problem I shall discuss is one encountered by all those who must determine the amount of our national resources--in dollars, materials, manpower, and industrial capacity--that should be allocated to meet defense requirements. Their problem is to find a means to measure in terms of "units of defense," the effects of restrictions in any or all of these national resources. In other words the big headache of the Air Force is to develop programs that adequately compromise between defense needs--as reflected by JCS decisions--and the probable amount of national resources that will be approved by congressional and executive authorities to meet defense needs; at the same time, congressional and executive authorities are at a loss to judge specifically, in terms of "units of defense," the effects of the limitations in dollars, people, industrial and materiel resources that they may impose.

This lack of a way for exercising calculated judgment creates an instability in defense programs of such magnitude as to require continual changes in program objectives in an attempt to achieve a balance between defense requirements and the amount of national resources made available.

Chart 4, page 12.--Program instability is of great concern to the AMC because this continual change compounds the difficulty of determining and providing materiel support. In this chart you see five different flying hour programs pertaining to the fiscal year 1955. These programs represent not just one but rather all types of aircraft on the active inventory. Three of these were projections for budgetary purposes and represent three successive revisions in less than one year, each requiring the recomputations of thousands of items governed by the flying hour program. The costliness of these changes is tremendous, not only in terms of dollars used in opening and closing and reopening the production spigot but also in terms "units of defense" which might have been produced instead, and in terms of impaired public confidence in the professional ability of the military establishment.

I am about to suggest, for stimulation of your thinking, an approach for increasing program stability through resolving the basic cause of instability, which is the lack of a means for making calculated

CHART 4

PROGRAM INSTABILITY

PROGRAMMED FLYING HOURS
IN THOUSAND

994

PROGRAM	50	150	250	350	450	550	650	750	850	950	YEAR FOR WHICH PROGRAMMED
OPF-53-1 REC'D AUG '51											
BPF-55-1 REC'D. FEB '53											
BPF-55-2 REC'D. JUN '53											
OPF-54-1 REC'D AUG '53											
BPF-55-3 REC'D. NOV '53											

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decisions. This approach we call "package programming," and it incorporates some systems already in effect in the other services; therefore, it is considered both possible and practicable.

"Package programming," as we propose it for the Air Force, is envisioned as a kind of Sears-Roebuck catalog of Air Force units. This catalog would contain a specification page for each and every distinct type of Air Force unit, listing the capital investment and operating cost per year for each type of unit. Just as the farmer selects needed commodities according to what he can afford from the Sears-Roebuck catalog, so would the Air Staff, in compromising between defense needs and resources available, select strategic, tactical, training and support units in the development of major air command packages in order of their priority, and by this means some degree of program stability would be attained. In turn, adjustment of budgets by congressional and executive authorities could be made with full knowledge of the effects of such adjustments in terms of Air Force "units of defense."

I believe that programming by some such process was intended by Public Law 216, 80th Congress. This law implies a requirement for programming by "units of defense," but allows budget estimating by "functional" categories such as major procurement, construction, maintenance and operations, etc. This law, however, does not prohibit the Air Force from programming on a costed "unit of defense" basis, nor from submitting such program data as "backup" for the "functional" recapitulations of the dollars requested.

The outline on page 14 shows the minimum elements that should be costed, in terms of both capital investment and operating costs per year, for each Air Force tactical or strategic unit. You will note that these elements include the capital investment and operating costs of supporting units. Supporting unit costs would include the total costs, or prorated share of costs, for all administrative, logistical support, and service types of organizations contributing to the operation of each tactical or strategic unit. This means, for example, that a Medium Bomb Wing in the catalog would include a prorated percentage of the capital investment and operating costs of an Air Depot Wing (which is a logistical support unit) in addition to its own capital investment and operating costs.

With the cost data presently maintained by the Air Force, together with UAL-BAL and UPREAL records, a complete job of costing could be accomplished within a relatively short period of time. These records will greatly facilitate the job of gathering the capital investment and operating costs of Air Force "units of defense."

In discussing this "package programming" approach, naturally I have simplified the concept to the greatest extent possible for presentation purposes. In actuality, the Sears-Roebuck catalog concept would be established through electrical accounting machine procedures, so that these packages could be rapidly developed and their costs as rapidly accumulated.

USAF TABLE OF ORGANIZATION UNIT

Capital Investment		Operating Costs Per Year	
<u>Personnel</u>		<u>Personnel</u>	
Recruitment	\$\$\$	Administration	\$\$\$
Training (Direct)	\$\$\$	Pay & Allowances	\$\$\$
Services & Facilities		Subsistence	\$\$\$
Supplies		Housing	\$\$\$
Equipment		Medical Care	\$\$\$
Maintenance of Equip.		Recreation & Morale	\$\$\$
Training (Indirect)	\$\$\$	Proficiency Training	\$\$\$
Administration		Services & Facilities	
Pay & Allowances		Supplies	
Subsistence		Equipment	
Housing		Maintenance of Equip.	
Medical Care			
Recreation & Morale			
<u>Weapons</u>		<u>Weapons</u>	
Initial Procurement	\$\$\$	Operational Supplies	\$\$\$
Operational Support Equip.	\$\$\$	Routine Maintenance	\$\$\$
		Services	
		Supplies	
		Equipment & Facilities	
		Major Repair & Modification	\$\$\$
		Services	
		Supplies	
		Equipment & Facilities	
		Disposal	
<u>Operational Facilities</u>		<u>Operational Facilities</u>	
Initial Construction	\$\$\$	Maintenance	\$\$\$
<u>Supporting Units</u>		<u>Supporting Units</u>	
Capital Investment in Personnel, Weapons & Operational Facilities	\$\$\$	Operating Costs of Personnel, Weapons & Operational Facilities	\$\$\$
Total	\$\$\$	Total	\$\$\$

Gentlemen, I have outlined the relationship of Air Force programs to the provisioning of materiel support by discussing their development, utilization, distribution, implementation, and control. I have discussed some program problems to stimulate your interest in the field of programming by indicating their importance to each and everyone of us. As the United States becomes more and more a "have-not" nation, the tremendous cost of insuring our way of life continues to increase. This cost must be reduced or our American way of life will be seriously jeopardized. Therefore, it is up to us, the Army, the Navy, the Marine Corps, and the Air Force to reduce program changes and effect better use of resources by providing management with the tools to calculate more accurately the risk involved in the decisions they make regarding the defense forces of the Nation.

PANEL

Colonel Chester G. Martz, Deputy Assistant for Programming, Hq AMC.

Mrs. Hazel M. Finucan, Assistant Chief, Programs Division.

Mr. Charles E. Hickey, Logistics Officer, Programs Division.

Mr. Don E. Haber, Logistics Officer, Programs Division.

Mr. Robert G. Durrum, Logistics Officer, Programs Division.

Lt Colonel George McCleary, Assistant for Program Control,
Programs Division.

COLONEL JOHNSTON: I know, having been to school myself, that there is nothing more deadly than 11:30 A.M., and second, I know there is nothing that can stun an audience more just before lunch than to put a group of people on the stage where there was only one before. Let me put your minds at rest. These AMC people are here on the stage, first, so you will become acquainted with the panel members who will be with you in the afternoon sessions, and second, to back me up with experts who can answer any of your detailed questions.

QUESTION: Please give the meaning of UAL and BAL.

COLONEL JOHNSTON: Will you take that, Colonel McCleary?

COLONEL McCLEARY: Yes, sir. UAL is a Unit Authorization List and BAL is a Base Authorization List. A BAL is the consolidation of all the unit authorization lists for a single base. The theory behind these lists is that we allow the using organizations to tell AMC what their

needs are rather than for us to guess! This UAL serves two purposes: It not only tells us what unit needs are, but it also indicates what the units already have on hand. From the base, where it becomes a Base Authorization List by consolidation, it goes to the major command headquarters for review and approval. After approval of the requirements, the major command sends it on to the Air Materiel Command. We then add to the requirements of the commanders, the AMC stock level, lead time and projected requirements for new units to obtain a gross requirement for the Air Force. To the total Air Force requirement, we apply total assets, which include assets as stated in the UAL and in the AMC inventory procedure, to arrive at a net buying or budgeting requirement.

QUESTION: At what stage during your budget cycle and also during your procurement program do you touch base with the Navy?

COLONEL JOHNSTON: During the budget estimating cycle, not at all. Our problem at that time is to determine our net materiel needs and translate them into dollar requirements. However, in the procurement cycle we must of course touch base with both the Army and Navy to exchange military interdepartmental purchase requests (MIPR's). This is begun as early in the fiscal year as MIPR's can be prepared and continues throughout the fiscal year. This year, for the first time, we have a reciprocal agreement that the receiving service will guarantee obligation of all other service MIPR's received before 1 March, except where problems of nonprocurability are encountered. This four-month period is considered sufficient to insure normal obligations.

QUESTION: My question follows closely the previous question except that it has to do with production capacity. At what stage in this program development, particularly in the procurement planning aspect, do you bring in the element of allocation of production capacity, either your own or that of private industry?

COLONEL JOHNSTON: This is a continuous process carried on by our Procurement and Production Directorate. The Air Force has built an extensive production base down through first, second, and in some cases third sources, and by using the present Administration's "Production Reserve Policy," we are able to allocate our peacetime production requirements and in addition, maintain a minimum mobilization potential.

QUESTION: Colonel Johnston, in your chart you showed the organization for the Air Materiel Command Headquarters and then indicated that the Air Materiel areas were similarly organized. I am particularly interested in the inspection part of that. I noticed on that main chart that the Quality Control block is on a staff line in AMC Headquarters. Do the inspectors in an Air Materiel Area report directly to the commanding officer in charge of the area or do they report to the contracting officer or the procurement officer? In other words, how far does that go?

COLONEL JOHNSTON: Prior to our decentralization program, our operations were all centered in Headquarters, AMC. We have now decentralized most of these operations to the Air Materiel areas and depots on an orderly basis. During the recent decentralization of the procurement element, we established the "quality control" function in a separate office. These offices report directly to the area commander.

QUESTION: My question deals with program instability. As I recall, the C-97 aircraft were programmed at 10 hours daily utilization. The new program, which came out shortly after that, reprogrammed those aircraft at 4 hours utilization, due to the AMC inability to support them logistically at any higher utilization. Subsequently, the operating programs reflected utilization rates that AMC could support logistically, so the requirement for AMC was to support a four-hour utilization rate. It is just a tight little circle going round and round. How do you propose to break out of that circle?

COLONEL JOHNSTON: Specifically, I think on the C-97 you will find that the civil air lines run a maximum utilization rate of approximately 10 hours a day. However, USAF does not desire to program a maximum rate of 10 hours a day unless the requirement exists. To expend that amount of support, which is dollars, except on a valid peacetime or wartime basis is unwarranted. In peacetime our average utilization rate is approximately four hours.

To get back to your reference to the "circle." As you no doubt recall there was a time when AMC was unable to state accurately just how many flying hours could be supported. We now have support capability reports that quite accurately project over a period of several quarters just how many hours can be supported. This projection is based upon support already available and the support (parts) to be delivered in the future. Therefore, any contemplated increase in flying hours must be time-phased to coincide with the projected availability of parts. Thus such deficiencies as once occurred are avoided, we are breaking out of that circle.

QUESTION: Referring again to your budget chart and the Air Materiel Command, does the Air Materiel Command do all the work for the Air Force budget or does somebody help? I have another question after you answer that.

COLONEL JOHNSTON: Of course your question refers to the fact that all Air Force Commands must submit a budget estimate. Each command, including AMC, must determine and submit their budgets for personnel, operating expenses, etc. The Air Materiel Command, in addition, must submit the budget for materiel for the support of the entire Air Force. The budget for which AMC is responsible accounts for approximately 87 percent of the total Air Force appropriation.

QUESTION: This touches on the second question. Do those other commands come in with their budgets to the Air Materiel Command or to the Air Force? Going back to that cycle, you had the Air Force programs in January and February, and the Air Materiel Command's computation of requirements taking place in the three months thereafter, and from there on you have the budget defense, Air Force review, and then to Congress. In other words in five months--I realize those are going on all the time--as far as the charts are concerned, the Air Force is working out what it is going to get two years from the end of that five-month period. I don't know how those other commands get their requirements into the cycle. Do they do it through the Air Force or whom?

COLONEL JOHNSTON: First, I will answer the nonmateriel portion of your question. These personnel and expense budgets are submitted directly to Hq USAF by each command in accordance with the stipulations contained in the Annual Budget Call.

Next, the materiel portion.--As Colonel McCleary has explained, the major commands submit to AMC through the UAL/BAL system their current requirements for organization and base equipment. These requirements are then added by AMC to the programmed requirements for new units, the Air Force assets are applied, and the net total Air Force budget requirements for this materiel is submitted by AMC to Hq USAF. That is how the organization and base equipment requirements of major commands are included in the budget. In addition, AMC computes all other Air Force materiel budget requirements--such as aircraft and related equipment--and submits this directly to Hq USAF.

QUESTION: Colonel, I am not too clear about the employment of the word "program" in this operation. How many programs do you currently have now in your computations?

COLONEL JOHNSTON: We have 11 major program documents and 55 other specialized items of program data. For example, one of the items would be the Collateral Equipment projection. That is the equipment in mess halls, dining rooms, BOQ's, and so forth.

QUESTION: When a commander indicates his requirements for engines, are they under a separate program when he sends them to you?

COLONEL JOHNSTON: The commands do not compute engine requirements. The engines that are required for new production and for in-service aircraft are computed by AMC.

QUESTION: Are you now procuring engines for a given D-day in the future, say three years from now?

COLONEL JOHNSTON: When we place an aircraft on procurement we also place on procurement life-of-type engines to support that aircraft. This procedure naturally covers wartime requirements.

COLONEL BARTLETT: In the computation of war requirements and the application of BAL to that, it seems to me the first thing you have to know is what is the war mission and size. Those BAL requirements summed up in the aggregate will give you country-wide and foreign requirements for any particular item. I don't believe you can crystal-gaze what the mission of any particular base is going to be three years from now, come war. My experience hasn't been that way. We changed missions and size of aircraft at bases so fast it made our heads spin. In the training command, do you think you can actually use BAL in war requirements? Isn't it going to be the best you can do? You are going to do your best and you can't do any better?

COLONEL JOHNSTON: The solution I suggested was for stimulation. I wanted to interest you in programming and program control, not in what we have done in top management. I suggested that there is perhaps less element of risk in doing it one way than in the other way. I didn't say that saves anything.

I would like to say for Mr. Hickey, Mr. Haber, Mr. Durrum, Mrs. Finucan, Colonel McCleary, and for myself that we consider ourselves honored to have been requested to come up here to make a presentation and we hope we did a good job.

MR. HENKEL: Colonel Johnston, on behalf of the Commandant, the faculty, and the students, I thank you and your team for giving us such an excellent picture of "Programming for Logistical Support." We are looking forward to having you with us this afternoon. We appreciate your bringing your team. I also thank Colonel Martz for appearing with you.

(15 Feb 1954--750)S/ijk