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Management Survey Handbook

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Management Survey Handbook

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FOREWORD

Every Army organization faces the necessity of dealing with management problems which require detailed analysis and judgment. Many of these problems can be identified through the situations they create. Other management problems may not be so apparent. Discovering them, identifying their nature and scope, and determining cost effective and efficient solutions will often require a well executed management survey.

This pamphlet presents the general methodology and techniques of a management survey, plus certain management information systems and automatic data processing considerations. The pamphlet is one of a series a management improvement technique publications included as part of the overall Department of the Army Management Review and Improvement Program (DAMRIP). The assistance of the US Army Management Engineering Training Agency (AMETA) in the development of this pamphlet is acknowledged, with appreciation.

The proponent for this pamphlet is the Comptroller of the Army. Comments and suggestions from users are welcomed, and should be forwarded to Office, Comptroller of the Army, ATTN: DACA-MRM, Washington, DC 20310.

Management Survey Handbook

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Chapter 1 INTRODUCTION

1-1. Pamphlet Purpose.

In today's Army, the management responsibilities have become so large and complex that commanders, activity chiefs and directors and many functional managers find it necessary to employ full-time management analyst staffs to provide them with advice and assistance regarding management systems and practices. These staffs exist to help their organization head find and install better, faster, and cheaper ways to carry out his mission. The purpose of this pamphlet is to assist management analysts in their conduct of management surveys to improve the efficiency and effectiveness of Army organizations. However, the organization head who authorizes a management survey and the person whose organization is to be surveyed should also find the pamphlet useful, since both are concerned with the potential benefits and impact of the survey in assisting them to better manage their assigned areas of responsibility.

1-2. Pamphlet Scope.

This pamphlet describes the concept of management surveys and sets forth a method for the successful design, implementation, and followup of management surveys. It presents the survey procedural steps and the principal techniques used in conducting a management survey. It concludes with a sample management survey and a list of survey reference sources.

1-3. What Is a Management Survey.

To successfully manage an organization, management must specify its objectives; establish plans, systems; and procedures to accomplish them; delegate responsibilities and authority; set up adequate standards of performance; and evaluate results. Periodic reviews and appraisals of these management efforts are called management surveys.

A management survey is a comprehensive examination of an organization's plans, policies, objectives, structure, systems, procedures, and use of resources and physical facilities. The management survey involves the process of measurement, both quantitatively against existing standards and objectives, and qualitatively in terms of the desired management results. The primary objective of the survey is to identify management problems, determine their causes, and develop recommendations for solutions to these problems. It is a command effort by a commander, his staff, and one or more management analysts.

Surveys, of course, vary widely in purpose, scope and depth. An overall management survey is analogous to the thorough overhauling of an item of major equipment. At times, only portions of equipment need reconditioning. In the same sense, management surveys may be focused where the problem is greatest-on the organization structure of an agency, installation, or element; on a mission or policy; a function, system or procedure; or on specific resource utilization problems. In short, an effective management survey or study may be made on any part or aspect of an organization as well as on the entire organization.

Management surveys are similar in a number of ways to manpower surveys. Much of the description of the overall objectives, methods and procedures is interchangeable, as management analysts who have participated in manpower surveys will recognize. They differ in that the focus of the management survey is on improving an organization's structure and methods of operations while the manpower survey focuses on improving the utilization of an organization's personnel resources. However, because of the close relationship between the two types of surveys, they have been conducted in some organizations as a joint effort. Where this has been done, significant savings in survey manpower have been realized, and commanders are urged to consider this joint survey approach where feasible.

1-4. What Can a Management Survey Accomplish.

a. Management surveys are usually made for one or more of the following purposes:

(1) To find out how well an organization, or one element of an organization, is performing its mission, keeping costs low and productivity high, preventing or resolving problems, strengthening organizational weak spots and overcoming weaknesses in its programs, procedures or performance.

(2) To determine how to reduce or increase staffs most effectively when programs and budgets change.

(3) To plan fundamental and constructive changes, such as helping an element refocus its program or adjust its emphasis in relation to the changes.

(4) To develop improvement in an organization's structure, programs, methods, practices, and policies.

(5) To look into specific problem areas and develop remedies.

(6) To provide counsel and stimulation to the elements surveyed.

(7) To learn (from the elements surveyed) successful techniques that can be applied elsewhere,

(8) To examine procedures for potential improvement through application of data automation, improved reporting and management by exception and similar techniques.

1-5. When to Use a Management Survey.

a. Some of the situations that indicate to a commander that a management survey is needed to help a problem or improve an unsatisfactory condition are listed below:

(1) Subordinates may provide the commander in confidential or informal discussions with indications that a survey is needed.

(2) Progress reports may show programs behind schedule or out of balance.

(3) Tests or exercises may reveal weaknesses which can be traced back through processes involving more than one element.

(4) Discussions during conferences or following presentations frequently produce signs of unsatisfactory conditions.

(5) Visits by the commander (or his subordinates) to other agencies may reveal problems that are similar to situations in his own organization.

(6) Internal audits are primarily management oriented and may disclose areas where a management survey would be productive.

(7) Manpower surveys, in addition to dealing with use of manpower, may point to other problems which need attention.

(8) Productivity, cost, and performance analysis data may reveal management inefficiencies.

(9) Quality control reports can show flaws in production or deficiencies in procured items.

(10) Suggestions for improvement originating through the Array Suggestion Plan, idea interchange, methods improvement and Defense Integrated Management Engineering System (DIMES) reviews, or other sources may direct attention to failures in management.

(11) Reports of employee turnover, absenteeism, accidents and grievances may reveal poor supervision or poor methods.

(12) Comments from external sources (general public, Congress, other agencies) may disclose defects to which personnel, who see their agency only from the inside, are completely unaware.

(13) Surveys of employee attitudes can reveal difficulties previously unknown to supervisory personnel.

b. Valuable by-products of a well conducted management survey can include the following:

(1) Surveys show personnel how improvements can be made so they are better able to resolve their own problems.

(2) The teamwork developed in making the survey improves understanding among the team members. If they are drawn from various elements of an agency, working relationships among those elements are likely to be improved. The influence of that improvement can spread throughout the agency.

(3) When the survey team includes members of elements of a higher echelon, the higher echelon obtains a better understanding of the problems faced by the elements surveyed, with resulting improvement in relationships between the two.

(4) A survey may uncover weaknesses in the activities of higher echelons and in directives they have issued. If the higher echelons recognize these weaknesses and act to correct them, valuable improvements can result.

(5) Experience has shown that when lower ranking members of an organization are treated as survey partners, their contributions to the survey and to the organization increase significantly. Development of that partnership spirit between an analyst and the personnel of the elements being surveyed can also aid their acceptance of recommended changes.

1-6. What is Needed From the Commander.

The commander or organization head who authorizes a survey needs to take certain actions to assure the necessary degree of cooperation between his organization and the survey team. A certain amount of apprehension and resistance is to be expected from personnel whose operation is being surveyed. The commander's immediate subordinates are concerned about their relationship with him. Lower level supervisors may be afraid to express their opinions on certain problems which might be counter to those of their supervisors. Many persons hesitate to make suggestions which might reflect the ability of an associate or a superior. The commander's job is to foster an atmosphere which dispels these fears by taking such actions as listed below.

a. Exercise command leadership in getting cooperation among the elements surveyed and the survey team. Place command emphasis on the importance of the survey and his personal interest in its success.

b. Clearly state what he expects the survey to accomplish and what feedback on its progress should be given to him during the conduct of the survey.

c. Assure that the analysts and the chiefs of the elements surveyed understand what he wants.

d. Set realistic time limits which create as little interference as possible with the regular work of the elements surveyed.

e. When the survey is completed, make sure that the approved recommendations are announced to the surveyed element and are implemented. If a recommendation requires additional resources, it may be necessary to consider the desirability of curtailing other activities to obtain them.

1-7. What is Expected from the Survey Analyst.

During the conduct of a management survey, the commander (or organization head) and the personnel being surveyed have the right to expect the highest degree of professionalism from the survey analysts, including the following:

- a. Sound objective thinking which is uninhibited by past practices or current boundaries.
- b. A recognition and acceptance of the fact that the analyst does not have line authority and, therefore, must gain acceptance through his technical competence plus a good measure of salesmanship and skill in human relations.
- c. Demonstration of his ability to understand the overall picture with all its composite parts, and without an attitude reflecting "tunnel vision" regarding his analysis and proposed solutions.
- d. The ability to show reason and judgment in determining when to conclude each phase of the survey and move on to the next one.
- e. A sense of priorities and direction by which he can focus on the elements of importance.
- f. A sense of economic value which insures that each recommendation is necessary and economically justifiable.

1-8. How to Identify and Analyze Problems.

Numerous methods have been developed for identifying and analyzing problems. Before describing the management survey process, it is necessary to set forth the method used in this pamphlet for problem identification and solution. Our method consists of a series of steps which are shown in the form of a model (fig. 1-1) and are described below.

a. *Problem Recognition.* The first key step in problem identification and analysis is the recognition of problem areas. Problem areas are indicated when "what should be" differs significantly from "what actually is." Measurement determines the degree of difference between the desired condition and reality. When this degree of difference goes beyond the tolerance limits set by the organization head, the existence of a problem becomes evident and the cycle is set in motion.

b. *Problem Identification and Definition.* Once a problem is recognized, the next step is to "specify" it by asking questions, such as:

- What are the observed trouble symptoms?
- What are the probable causes?
- What are the dimensions of the problem?
- What factors need emphasis: speed, cost or quality?
- What are the factors that will limit or restrict the development of a solution?

Well planned management surveys often uncover more than one problem. When this occurs, priority for investigation should be established on the basis of the urgency of the problems, availability of information, and potential "payoff" to be derived from their solution. This is usually a command decision.

c. *Planning and Fact Finding.* With the identification of the problem (or problems), the next step is to develop a plan to assist in fact finding. In practice, fact finding has taken place continuously since the problem has been recognized. However, planning assists in identifying the sources of facts, the approaches needed to collect them, and the techniques that will be used to document and analyze the facts. Fact finding continues until sufficient facts are available to the analyst so he can make an adequate analysis of the problem. It is usually not possible to collect all of the facts relating to a problem, especially in the case of a complex or long-standing problem. Here, the skill and judgment of the analyst comes into play in deciding when he has enough material of the right type to permit movement to the analysis step.

d. *Analysis.* Analysis, as a minimum, should include—

- A determination as to the adequacy, validity and relevance of the facts obtained in the previous step.
- Comparisons of the facts with known elements such as Army regulations, command policy, and regulations, experience factors and the like.
- Design of feasible alternatives.
- Systematic test and evaluation of these alternatives.

e. *Decision and Implementation.* This final step involves the selection of the alternative shown by the analysis and evaluation as the most likely to solve the problem. This alternative is stated in the form of a recommendation, or series of recommendations to the person who authorized the survey. The approved recommendations are then implemented. When this alternative still leaves unresolved problems, a feedback to the problem recognition step is made and the new problem is then put through the problem identification and analysis cycle.

f. *Other Considerations.* There are several other considerations, not shown above, that are important in the management survey. These include effective presentations and reports, pilot test implementation, and post implementation review. However, the basic process of problem identification and analysis described above provides most of the framework for effective conduct of a management survey. If this cycle is followed, the survey analyst should be successful in most management survey work.

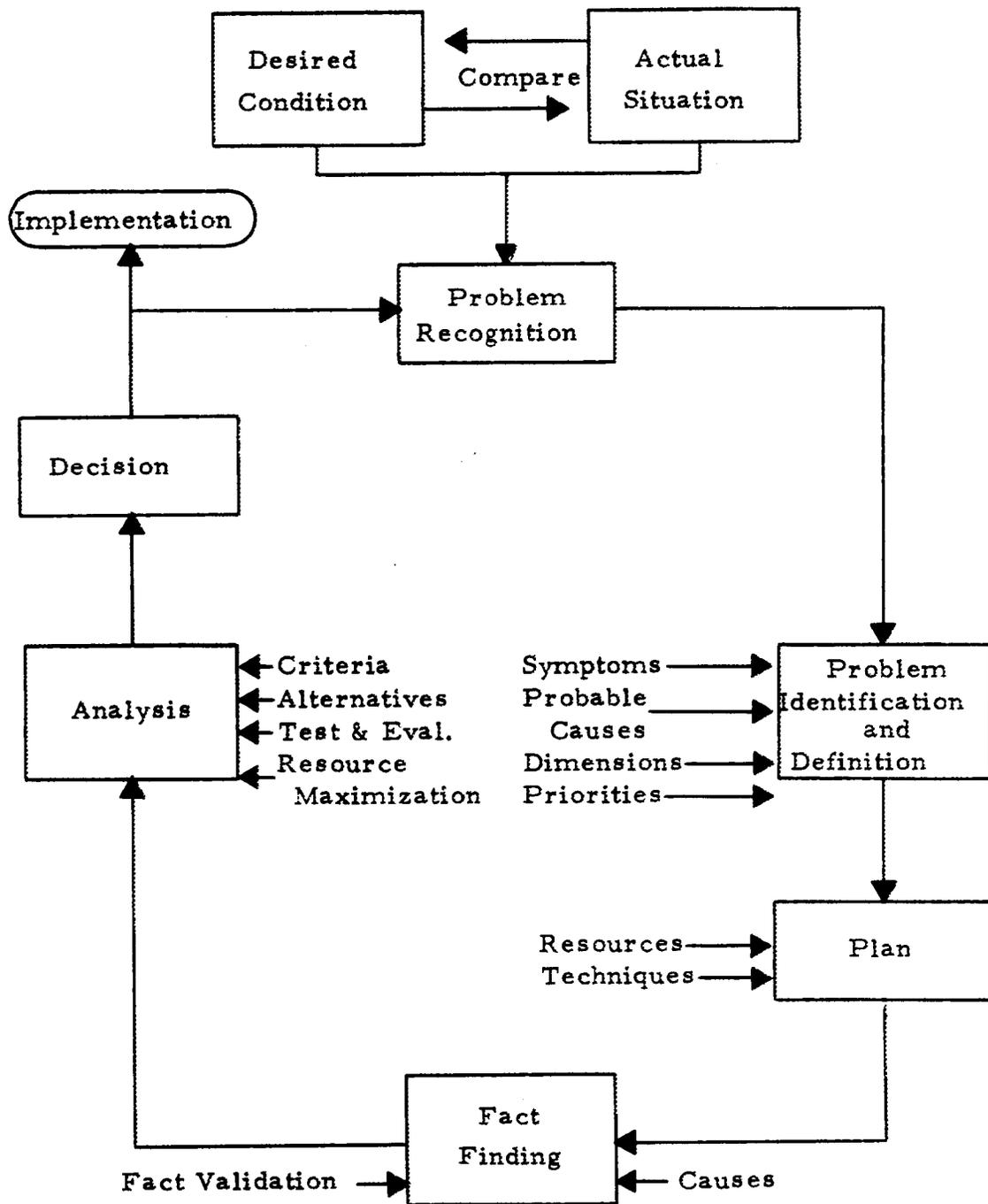


Figure 1-1. Problem Identification and Analysis

Chapter 2 THE CONDUCT OF THE MANAGEMENT SURVEY

Section I SURVEY DEFINITION

The first phase in the conduct of any management survey is to define its purpose. This phase corresponds to the problem recognition, identification and definition steps of the Problem Identification and Analysis cycle described in the previous chapter. Section I presents the steps involved in survey definition.

2-1. Feasibility Study.

a. A management survey, because of the time, effort and expense involved, should not be initiated without careful examination of the problems to be considered and benefits to be derived. A feasibility study, (sometimes called “reconnaissance”) will assist in making these determinations. A feasibility study is a preliminary survey designed to take a quick, but educated look at an entire problem area. The feasibility study is aimed at problem recognition, identification, and definition. It is usually made by the management analyst who will be responsible for the survey, if it is to be conducted. The analyst uses the feasibility study, to determine if a management survey is needed and, if so, what should it accomplish. He also determines what elements, functions, or activities the survey should encompass.

b. Normally, a feasibility study will include the study of—

- (1) Missions—directed and inferred or assumed.
- (2) Current organization charts—function and position.
- (3) Prescribed standard organization, if any.
- (4) Procedures—operating directives, forms, and reports.
- (5) Previous reviews, IG and audit reports and pertinent staff studies.
- (6) Reviews of comparable organizations.
- (7) Workload and duties.
- (8) Assigned and authorized strength.
- (9) Cost of survey.
- (10) Work area to be covered.

c. The analyst usually starts his feasibility study informally by discussing it with the officials of the elements concerned. He then prepares a command letter to the organization explaining the feasibility study and requesting their full cooperation. He next gathers and analyzes his data and makes his recommendations as to whether he feels a management survey is needed, or not. The actual authorization for a survey is, of course, a command decision.

2-2. Initiating Survey Activity

Four of the more common ways in which a management survey may arise are stated below. The first two will often be preceded by a feasibility study while the last two, by their nature, do not normally include a feasibility study.

a. A survey may be generated within an agency or installation, usually by the commander in consultation with members of his staff, the chiefs of the elements to be surveyed, the comptroller and the management chief.

b. A survey may be directed as the followup to observations or recommendations of an inspector general, an internal auditor, a manpower survey, or a previous management survey.

c. A survey may be performed on a predetermined schedule as part of a planned program under which all elements of an agency or installation are surveyed at stated time periods.

d. A survey may be directed by higher authority, often in response to or in anticipation of a request or instruction from the Congress, Secretary of Defense, Secretary of the Army, Chief of Staff, US Army or commander of a major field command.

2-3. Survey First Phase—Statements of Problem Identification and Definition

Regardless of whether a formal feasibility study is conducted or not, the first phase of the management survey must generate a statement of problem identification and definition. This statement or series of statements will serve as the formal initiating and directing force in the survey. The feasibility study, if performed, is usually incorporated or expanded into the problem statement since much of the required information will already have been obtained during the completion of the study.

To carry out its role properly, the problem statement should note the observable trouble symptoms and attempt to isolate and identify their probable causes. Properly prepared, it will provide guidance for use during the development and evaluation of solutions. Initially, the problem definition may represent only one manager’s viewpoint and thus be limited by his organizational orientation. However, subsequent analysis and revision can bring to the problem statement the total organization viewpoint and broad solution guidance necessary for significant and meaningful improvement.

An adequate problem identification and definition statement should include, but not necessarily be limited to, the points shown in figure 2-1. These points are described below:

a. Observed Symptoms and Probable Causes. Observed problem symptoms are those undesirable characteristics of a work situation which are the visible indicators of a problem. Managers and analysts sometimes designate the symptoms as the actual problems, rather than probing for the real causes that may be producing these symptoms. However, the objective in problem identification and definition is to recognize symptoms for what they are—symptoms—and then probe for real causes of the problems. Often there is a considerable distance between symptoms and the real causes. Time should be devoted to curing causes, not fighting symptoms. A good problem statement will include a statement of symptoms and attempt to identify the related causes.

b. Dimensions of the Problem Area. Establishing the dimensions of a problem, involves determining its area, size, and extent. For example, where do the symptoms and causes begin? How far do they extend? What organizational elements and positions appear to be concerned? What are the quantitative measures, if any, of the symptoms noted?

c. Factors for Maximization. These refer to characteristics or factors which are desired in the solution of the problem. They are made a part of the problem definition in order to clearly establish them as subjects to be covered in the problem solution. Typical factors for maximization are: decreased manpower, fewer steps, decreased total processing time, decreased space requirement, decreased requirement for critical manpower skill or machine time, increased quality (error reduction), decreased processing, and improved control of such intangibles as safety. These factors, of course, must be ranked with a priority of preference in the final solution of the problem.

d. Limiting and Restricting Factors. These factors can be generally classified as regulatory requirements, local managerial preferences, and feasibility restrictions.

(1) Regulatory requirements are those reports, processes and organization structures, required by specific instructions from a higher authority outside the organization.

(2) Local managerial preferences are those reports, processes and organizational structures that local managers have determined to be necessary in the effective discharge of their responsibility.

(3) Feasibility restrictions are these factors that will have an impact on the problem solution because of their nature, the environment in which the organization exists, or the timing of the problem. Typical feasibility restrictions are: the volume of activity in the problem area, expected time period of the problem, amount of time available in which to develop a solution, investment in equipment presently used in the problem area, possible time loss involved in a change, pressure for a solution to the problem, possible retraining required, potential savings, personalities involved and the priority of the problem area.

At this point, the limiting and restricting factors are subject to change. The authorizing official may have preferences and priorities which will differ from those generated during problem identification and definition. His preferences should be noted in the final survey definition prior to formal survey planning and staffing.

-
1. Observed symptoms:
 2. Probable causes:
 3. Dimensions of the problem area:
 4. Factors for maximization:
 5. Limiting and restricting factors:

Prepared by:

Date:

Coordination:

Approval:

Figure 2-1. Statement of Problem Identification and Definition

Section II

SURVEY AUTHORIZATION

The analyst has now completed his initial examination of the problem. He has gathered program and background information and developed statements of problem identification and definition through pre-survey conferences, initial fact finding efforts and other available means. Diagnosis, presentation and authorization or termination must now be accomplished.

2-4. Pre-Survey Diagnosis and Report

a. The pre-survey diagnosis and report is similar in many ways to the feasibility study. They differ in that the feasibility study is a quick, usually informal reconnaissance of the problem area while the pre-survey diagnosis is more extensive in coverage and leads to a formal written report (or briefing) to the organization head who will make the decision whether or not to authorize the management survey.

b. In preparing his pre-survey report, the analyst follows the same steps used in corresponding stages of an actual survey. He first analyzes his material to find the evidence which indicates that a survey should or should not be made. He reaches his conclusions and tentatively determines what recommendations he will make. He tests his recommendations by once more analyzing the statements of the problem, the area the survey is to cover and what it should accomplish.

c. In considering his statement of the problem, the analyst needs to test carefully for clarity of his writing. Both the analyst and the person authorizing the survey must be able to fully understand and agree upon the survey objectives and what it will cover. This means the minimal use of technical language and "jargon."

d. In considering the area to be covered by the survey, the analyst must consider whether the problem is peculiar to the function or element to be surveyed, whether the causes are beyond the control of the elements which would be surveyed, and whether there are solid reasons for making the survey.

- e. In reviewing what the survey should accomplish, the analyst must arrive at a position on such questions as:
- (1) Do the prospective gains warrant the use of the funds and other resources required.
 - (2) Are the possible gains sufficient to justify giving the survey priority over other needed activities.

The analyst should also determine how he would judge the success of the survey; what criteria he would use to appraise the degree to which it achieves its purpose. This placing himself in the position of the survey customer is often a help in cutting down extraneous or irrelevant activities during the survey.

f. An additional factor to be considered by the analyst is the desire of most authorizing officials to have the work of the surveyed element done better, faster, and cheaper. Unfortunately, these three goals are often in conflict. To avoid such conflicts, the analyst must be prepared to discuss this problem with the official who can authorize the survey so that they can reach a clear and specific agreement regarding the order of importance among the three goals. This determination of priorities is a major policy decision which the authorizing official must make to guide the analyst in his survey effort. It is a decision that must be stated early in the survey process so that the analyst does not waste time and resources pursuing the wrong goals.

2-5. Analyst's Presentation to the Survey Authorizing Authority.

a. When the analyst has completed his pre-survey analysis, it is advisable for him to go over it and his proposed recommendations with the officials of the elements to be surveyed. This action serves several purposes. It brings to light any errors in his thinking. It improves understanding between himself and the officials and assures them that he is not planning behind their backs; and it lays a sound basis for a cooperative, successful undertaking.

b. The essential points in the analyst's presentation should include the following:

- (1) The conditions or situations noticed originally which make the survey seem advisable.
- (2) The nature and extent of the feasibility study, if conducted.
- (3) His recommendation to survey or not to survey and the factors on which he bases the recommendation.
- (4) If a survey is recommended, who should conduct it and what should be the objectives.
- (5) Who will use the survey results-and for what.
- (6) A recommended survey time schedule.
- (7) An estimate of the size of the staff to be used, if more than one analyst is required.
- (8) If the survey is not recommended, the steps then required to terminate it with minimum effort on the organization and the personnel involved.

2-6. Survey Authorization

The final step is the analyst's presentation to the official (military or civilian) who has the authority to authorize a management survey. This is usually the organization head who is in the chain of command above both the analyst and the elements to be surveyed.

The analyst's presentation may be verbal, written, charted, illustrated, or a combination of some or all of those methods; in short, whichever he believes will most effectively demonstrate the situation to the authorizing official.

If the analyst makes a verbal presentation (decision briefing) and is given approval to conduct a survey, the discussion following the approval becomes very important. It should bring out clearly the desires of the authorizing official on the extent and purposes of the survey and the uses of the survey findings.

The authorizing official may also have certain activities he particularly wants surveyed or excluded. If the analyst knows what these activities are, he can take the appropriate action.

Such a clear understanding among the authorizing official, the analyst, and any persons between them in the chain of command is essential before any attempt can be made to introduce the survey to the other persons involved and obtain their understanding. It is often helpful to make the basic understanding a matter of record, if feasible.

The authorizing Official and the analyst must also agree on tentative beginning and completion dates for the survey. Those dates should permit sufficient time for the number of persons to be assigned to the survey to produce satisfactory recommendations, and should allow the survey to be made at a time of normal workloads in the elements to be surveyed. In addition, the analyst and the authorizing official need to discuss arrangements to publicize the survey so the personnel in the elements to be surveyed can have time to prepare to furnish help. The publicity will help to forestall misleading rumors and tend to ease personnel fears.

Finally, the analyst submits a report to the authorizing official. If a survey is to be made, the report should include the material in the presentation which is to be used for guidance during the survey. If the survey is rejected, the report should summarize the material presented and state the reasons for the rejection.

Section III SURVEY PLANNING

This section deals with the all-important task of planning the management survey after it has been authorized. It corresponds to the "Planning" step in the Problem Identification and Analysis Cycle described in the previous chapter.

2-7. Pre-Planning for the Survey.

While the preliminary work to determine the objectives of the study and obtain survey authorization may have been done on a less formal basis, the survey Plan of Action is the formal document that launches the survey. The Plan of Action has several additional uses that are important to the survey.

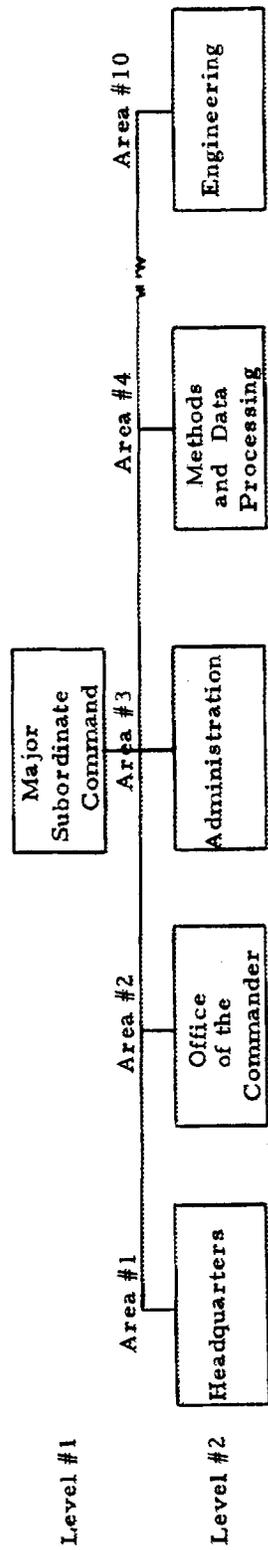
- a. It provides a working document for the survey team which will facilitate adherence to schedule and minimize any initial confusion.
- b. By showing the limits and outlines of the survey, it provides managers with the opportunity to re-evaluate their original concept of the problem.
- c. It facilitates the effective scheduling of the survey working time with minimum interference in the work of the activity.
- d. It assists in obtaining the full cooperation of the personnel to be surveyed by showing them the exact nature of the survey.

2-8. The Survey Plan of Action.

- a. In the preparation of the Survey Plan of Action, the analyst should include such considerations as—
 - (1) The purpose of the survey as understood by the authorizing official, the analyst, and the supervisors of the elements surveyed.
 - (2) Provision for cooperative action between the analyst and the personnel of the elements surveyed during every phase of the survey.
 - (3) The order of priority of any intermediate objectives which must be accomplished prior to attaining the major survey objectives.
 - (4) The relative priority among the overall goals of lower cost, improved speed, and better product.
 - (5) A working plan for fact finding which includes data to be acquired, sources of data, and techniques to be used.
 - (6) The material to be used in the analysis and development of recommendations, including the criteria to be used to analyze the performance of elements surveyed.
 - (7) The personnel needed for the survey, their qualifications, and possible sources.
 - (8) A plan for the assignment and division of work within the team.
 - (9) The provision for periodic coordination of findings and exchange of pertinent material.
 - (10) Time scheduling for the completion of the various phases of the survey, including the followup on installed recommendations and final evaluation of the survey.
 - (11) Provision for checking on progress and revising plans, when necessary.
 - (12) Instructions which may be needed, covering such matters as security; space allocations, stenographic, clerical, drafting, and reproductive services; files, toll calls; travel funds and authorizations; supplies and other administrative matters.
- b. After consideration has been given to the items mentioned above, the analyst needs to prepare a formal plan of action. The plan of action should contain six sections:
 - (1) *Statement of the problem.* A condensed statement of the findings in the preliminary survey indicating what the problem is, its impact, and why it exists.
 - (2) *Scope.* The organizational or functional limits that will be involved in the survey, plus any geographic and time limitations.
 - (3) *Objectives.* The basic reasons for the study (results of the preliminary surveys), the results to be achieved, priorities and criteria by which the results will be measured.
 - (4) *Methods.* The questions which must be answered, including identification of the most likely sources of information, the general approach to be used (interview, direct observation, work measurement, etc.), the order of elements to be studied, principal phases of the study (points of decision making), the responsibilities of the principal participants and provisions for interim reviews.
 - (5) *Resources.* Staffing requirements, including clerical support and help required from other units (as well as the management staff) in terms of man-hours. Also identification of special skills, special assistance (legal, contractual, etc.), equipment needed, and proposed sources. If travel is required, the points of where, when, and by whom are covered. An overall allocation of cost by unit and activity is also provided.
 - (6) *Schedule.* A time table by principal activity and a date for follow-up action.
- c. As the analyst attempts to visualize the sequential steps which will be involved during the survey, he will usually find the use of some form of Gantt charting both necessary and appropriate. Suggested planning formats are shown in figures 2-2 and 2-3. (Charts similar to figure 2-3 can be used to assist planning efforts in other phases of the survey.)

| PROJECT TITLE AND CONTROL NUMBER: | | | | | |
|--|---------------|-----------------------|----------|---------|----------|
| PROBLEM STATEMENT: | | | | | |
| RESPONSIBLE ANALYST: | | | | | |
| SUMMARY OF APPROACH AND TECHNIQUES: | | | | | |
| SEQUENTIAL STEPS | TIME FRAME | RESOURCE REQUIREMENTS | | | |
| | | ANALYST | CLERICAL | GRAPHIC | FACILITY |
| | | | | | |
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| PLANNING APPROVAL: | | | | | |

Figure 2-2. Project Planning Format



- A. Plans, Policies and Objectives
- B. Organization Structure
- C. Systems and Procedures
- D. Utilization of Human and Physical Facilities

(Areas may be Command-wide not just Division)

MANLOAD ASSIGNMENTS BY AREA

| Area Leaders | Area #1 | Area #2 | Area #3 | Area #4 | Area #10 |
|--------------|---------|---------------------|--------------------------------------|-----------------------|---|
| | James | James | James | Morris | McMan |
| A | 3 A&C | 3 A&B | 3 A&B | 3 A&B | 3 A&B |
| s | James | James Charles James | James Charles Gary Brown Black Black | Morris Charles Morris | McMan Charles Schoer Schoer Gary Brown Schoer Black |
| i | | 3 C&D | 3 C | 3 C&D | 3 C |
| g | | | 3 D | | 3 D |
| n | | | | | |
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Note:
 Level 1 reflects the overall mission, plans, policies, and objectives of the organization.
 Level 2 reflects the functional breakout of the organization structure.
 Level 3 is divided into sections A, B, C and D which refer to the primary areas of emphasis which must be examined in the conduct of management surveys.

Figure 2-4. Management Survey Work Breakdown Chart

Section IV SURVEY TEAM ORGANIZATION

2-9. Survey Team Composition.

a. An overall management survey of a major activity might require the combined skills of management analysts, industrial engineers, computer system analysts, operation research analysts and functional area specialists from such fields as personnel, production, procurement, or quality assurance. Of course, the actual determination of the number of team members and the required technical or professional skills must be based on an analysis of the survey scope, primary areas of emphasis, and time limitations.

b. If a liaison officer between the team and the elements being surveyed has not been formally designated, plans should be made to include such a person on the team. The duties of a liaison officer are especially important when the analysts come from outside the activity to be surveyed. Liaison officers assist the analysts by—

(1) Providing data on the background of the element; its current structure, procedures, reports, and controls; its personnel and their group relationships; previous attempts to solve its management problems; and similar information needed in fact finding.

(2) Making dates for interviews, introducing team members to persons visited, explaining the purposes of the survey to them and underlining the endorsement the commander of the element has given to the survey.

(3) Providing informal advice, criticism, and comment of tentative analyses and proposals.

(4) Helping obtain favorable hearing within his element for the analyst's recommendations, and assisting in installing improved recommendations.

A person selected for liaison work must have the confidence of his element and must be an individual whose presence encourages others to speak frankly. The analyst and the element's officials should agree on his selection.

2-10. Organizing the Survey Team.

The survey team should be organized through the use of a management survey work breakdown chart (fig. 2-4). This is a graphic representation of the project structure which establishes a common framework for the accomplishment of all the work to be performed during the survey. It also enables assignment of responsibilities and provides a basis for uniform planning and program visibility.

a. Work Breakdown Charts. Work breakdown charts may be prepared from the formal organization charts of the elements being surveyed. The charts may also be designed to reflect functional or system areas that are command-wide, rather than the usual divisional organization reflected on the organization chart. Decisions on this matter depend on the nature of the organization and the product or services which it provides, although functional charts are preferred where feasible.

The next step after the primary work areas have been determined is to overlay these areas with the principal considerations to be examined during the survey. By definition, a comprehensive management survey will examine an elements plans, policies, objectives, organization structure, systems, procedures, and use of human resources and physical facilities. These points would usually be the principal consideration that are examined during the survey.

Key survey analysts are then assigned as work area leaders. Other team members are scheduled to investigate specialized activities within these areas. The number of people assigned to a given area and the length of time they are scheduled to review that area should be indicative of the problems encountered during reconnaissance and the priorities which have been assigned within the survey.

b. Task Lists. Task lists should be prepared for each survey area and level. The task lists will include individual assignments, tentative time schedules, and the expected outputs from the group (master flow charts, layouts, etc.).

Section V FACT FINDING

This section, which corresponds with the similarly named section of the problem identification and analysis cycle, describes the methods and considerations recommended to analysts in their implementation of this portion of the survey plan of action. Unless the fact collection is done carefully and thoroughly, the survey analyst will be operating under difficult conditions in the successive stages of the survey. Accordingly, this section is set forth in somewhat more detail than preceding sections.

2-11. Fact Finding Objectives.

a. Objectives. There are actually three different objectives that need to be accomplished during the fact-finding phase: to collect facts, to collect suggestions, and to derive support for future improvements.

b. Collect Facts. This is the primary objective of the fact-finding phase. The survey analyst will find that three versions of “the facts” may be found during the survey.

- (1) What the directive or regulation says.
- (2) What the operating official thinks is being done.
- (3) What is actually being accomplished.

For this reason, fact-finding plans must be made which will allow examination at the regulatory, managerial, and performance levels.

c. Collect Suggestions. In collecting facts, the analyst needs to make provision for involved personnel to voice their opinions. Their suggestions for changing or improving operations should be solicited, recorded, and given careful consideration during the analysis phase. Many of the ideas for solutions can be obtained directly or indirectly from the persons on the job.

d. Sell Acceptance of Improvements. In many instances analysts have stated that the technical aspects of a management survey are relatively easy to complete if the proper survey technique is selected. The most difficult problem is often convincing element personnel to accept necessary improvements. The fact-finding phase must be designed to prompt this acceptance. Through interviews, personal observations, or questionnaires, the people in the organization are made aware that higher management is concerned about and working on their problems. When the fact-finding phase is conducted properly, resistance to change will be minimal. The solution proposed by the analyst will be accepted as logical by the analyst and the surveyed activity because they both have the same facts from which to draw their conclusions and because they have confidence in the analyst’s procedures and objectivity.

2-12. Fact Finding Principles.

In collecting facts and suggestions and promoting acceptance of improvements, the analyst observes several basic principles.

a. He makes every effort to conform to the scope, time schedule, and manpower requirement stated in the overall survey plan. If the scope needs to be broadened, or other changes are required in the survey plan to solve the real problems, he secures approval to modify the plan.

b. He relies on his judgment to tell him how broadly or deeply to examine each situation in searching for data. A few guidelines which may help him are given below.

(1) In making his initial contacts in any element, the analyst starts at the top of the chain of command and works down. This enables him to get two important advantages: proper perspective and the support of the superior of each person to whom he talks.

(2) The analyst usually finds a few problems vital that they dominate all others and when solved cause a chain reaction for improvement of lesser problems. These vital problems present the real opportunities for improvement. Unless the analyst learns their causes and finds workable solutions, the survey can have little value. As he collects and sifts data, he searches constantly for facts which will identify these problems. When he thinks he has identified them, he concentrates most of his efforts on solving them.

(3) When sampling techniques are appropriate, he uses them. Well planned and used, sampling can indicate vital problem areas less expensively than a more exhaustive search.

(4) In no case does the analyst seek irrelevant or too refined data-facts which are just “nice to know.” However, it is better to have excess data than too little data. A conclusion which is wrong or weakly supported because of lack of data is worse than the waste of manpower in procuring an over-abundance of facts.

(5) As the analyst’s fact finding continues, patterns should appear to develop. He treats these patterns as hypotheses and searches for indicated but missing facts which will prove or disprove them. When he finds a fact that relates to one of these patterns but does not fit into it, he seeks a more broadly based hypothesis into which all the related data will fit.

c. In carrying out his fact-finding, the analyst allows himself flexibility as to how, when, where, and what data to gather. He is constantly on the alert for new sources of pertinent data, both as to the facts themselves and the reasons why they exist.

d. The analyst is careful to be sure that his facts are accurate, through constant verification and cross-checking of his data. The analyst records his data in planned, orderly fashion so valuable facts are not lost in the analysis and later phases of the survey. He clearly identifies each item so that he can construct an audit trail showing when, where, and from whom he obtained it. This enables him to identify sources of specific items when necessary.

e. In gathering data, the analyst attempts to obtain the full cooperation of the personnel in the elements surveyed. Their familiarity with the many tangible and intangible factors which influence a given situation can be very useful. The analyst’s ability to solicit valuable data and ideas from the personnel of the organization being surveyed often helps decide the success of the survey.

2-13. Information Requirements and Fact-Finding Methods.

a. Fact-Finding is not an end in itself. It is directed towards the definition of existing conditions, the determination of causes and the provision of the survey data base.

b. The analyst, as previously described, gathers facts at the regulatory, the managerial, and performance (worker) level. On each of the specific areas or subdivisions of the survey, he seeks the facts which will correctly answer appropriate questions beginning with "what," "why," "when," "where," "who," "how," "how much," and "how well." Frequently, the analyst approaches this search by developing lists of key questions or "key lists," to be sure that he covers all important aspects of the problem. These lists enable him to see the problem as a whole and to visualize the scope and types of the data needed—and to concentrate only on the collection of essential information.

c. There are two basic sources of information: existing documents and personnel. The two sources are complementary and both should be employed in every possible case. Information is usually extracted from these sources by one or more of the following general methods.

- (1) Studying existing records.
- (2) Personal interviews.
- (3) Personal observation.
- (4) Questionnaires.
- (5) Statistical methods.

The selection of the methods to be used will be dependent on the time involved and an understanding of the basic limitations and advantages of each technique. To facilitate this selection, each of the general methods are presented and discussed in section 1, chapter 3.

2-14. Recording the Facts.

Well documented and well-organized working papers facilitate the analysis of problems and the development of solutions. They facilitate the orientation of new members of the survey team and are the analyst's best support when his facts, opinions, or conclusions are challenged.

a. *Data Gathering Sheets.* Data gathering sheets are very important as personnel working papers used by an analyst. He needs them to record information obtained by interview or by questionnaire. When using a data gathering sheet as a questionnaire, the analyst normally gets the best results if he introduces it personally to each unit or work group. Since data gathering sheets are for the analyst's own use, they need only be clear and complete.

b. *Linear Responsibility Charts.* These charts are an excellent example of a data recording sheet that may be used both as a specialized technique or widely adapted to the general requirements of a management survey. Basically, a linear responsibility chart is a sheet of paper divided into a series of vertical and horizontal lines. On the horizontal lines at the left side of the sheet, the tasks, functions, or work assignments may be entered. Across the top of the form on the vertical lines, the departments, division levels, or people may be listed. A predetermined series of symbols which may be used to identify the degree of Involvement of each of the elements at the top of the sheet with the actions listed on the left side.

As the analyst reviews existing records, he may prepare a linear responsibility chart which details how the prescribed function is to be accomplished. During observation or interviews, he would record sequentially how the work is actually done. Thus, he has a graphic display which will assist him in the identification of problem areas and the design of improvements. This technique is discussed in more detail in chapter 3.

c. *Fact Sheets.* During the conduct of the management survey, the survey team members may find themselves using a variety of survey techniques on broad and diverse organizational elements. Usually most survey teams will attempt to share significant facts on an informal basis. While this procedure may be acceptable for a small survey team, larger groups should follow more formal procedures. The fact sheet is designed for this purpose.

Each team member should review, on a daily basis, his notes and documents which he has obtained during the day in order to evaluate the significance of the statements and data. On each major fact, he prepares a fact sheet. This includes facts which bear upon an important condition, problem or deficiency and which has been verified to the analyst's satisfaction. It also includes a notation of source, or reference to notes or backup material, and each fact statement is closed with the analyst's name and survey area in parenthesis.

The fact sheet procedure, although perhaps appearing to be "excessive paperwork," will—

- (1) Provide a convenient and standardized method of getting elusive facts out of reference notes and other collected data and organizing the material into a readily useable form. (Cut them up, sort them out, collate them, etc.)
- (2) Encourage daily evaluation of the significance of collected data.
- (3) Permit daily interchange of all significant facts among individual team members.
- (4) Provide a vehicle for daily monitoring of team results, giving leads for discussion, followup, identification and questioning at higher management levels.
- (5) Keep the area leaders and the survey team chief informed daily and give them leads for top management discussions and team meetings.
- (6) Indicate the need for clarification and additional fact validation when conflicting data appears.
- (7) Provide an objective record of fact finding research efforts.

2-15. Initiating Formal Fact Finding Activities.

The initial activity on the first day of the survey should be an entrance conference with the key officials of the element

being surveyed. These officials are already aware of the purpose of the survey, so the primary objective of the entrance conference is to introduce individual survey team members and solicit the good will and cooperation of these key officials.

Normally, the survey team leader will review the survey interview schedule and inform the key officials of the surveyed element as to the particular survey methods that will be employed. If a feasibility study has pinpointed special problem areas to be investigated, the fact finding and analytical methods to be used in these areas will be reviewed in detail. At the close of the entrance conference the survey team leader should make arrangements for any interim or final reports which are desired by the officials.

At this point, the supervisors of the first areas to be surveyed should be brought into the meeting and be introduced to the survey team members who will be working in their areas. The survey area leaders should decide if the scope of the organization dictates that a similar entrance conference be held with managers in their assigned areas and if so, make the necessary arrangements. Formal fact finding then begins.

2-16. Fact Validation.

Errors, omissions, or misunderstandings in an analyst's data will often lead to unsound recommendations and result in confusion, inexcusable expense and personal embarrassment. Consequently, the analyst must make sure that his analyses and recommendations are based on facts, not on rumors or misunderstanding. As far as possible, he verifies all important points against basic documents or other factual data.

When the analyst obtains information which he questions, he should check back first with the individual from whom he received the information and try to clarify his areas of doubt. If necessary, the analyst checks his information with the supervisor of the persons who gave him the information, being careful not to reveal information given to him in confidence or which might create friction within the element.

These checks often produce extra dividends as well as valuable corrections. For example, the supervisor may not know all of the details of what his subordinates are doing or may disagree with what a subordinate has reported. The existence of such situations may reveal problems to the analyst. The fact that there are such misunderstandings is a signal that a thorough study of supervisor-subordinate relationships might produce valuable results. Further checks can be made with persons in elements not directly influenced by the survey.

As a general rule, the analyst should carry his checking of a particular point as far as he believes necessary to verify or disprove it. However, complete accuracy is often slow and expensive to obtain, so that analyst ultimately must use his own judgment as to the degree of verification needed for each point. This is particularly true with the use of surveys using statistical samplings, surveys of performance when standards of measurement are not available, and other studies involving judgment and opinion of both the analyst and the persons interviewed. In such surveys, hard facts may be very difficult to obtain and great caution must be exercised by the analyst in reaching conclusions.

In the validation of facts, the review and concurrence by persons in the element surveyed who will vouch for the report's accuracy is important. If any errors in the original fact finding have not been caught previously, they can be corrected at this time. The simplest way to obtain the concurrence of these persons is to dissolve any disagreements while the report is in draft. The approved interim report will also serve as a positive measure in evaluating fact finding progress.

2-17. Evaluating Progress.

One technique analysts use to maintain (or regain) an overall viewpoint is to set aside a regularly recurring time to summarize and evaluate the data they have accumulated. (The preparation of fact sheets greatly facilitates this process.) The time to be set aside may be a half-hour daily in a short survey, an hour or two weekly in a long one, or whatever the analysts find necessary to restore their perspective and enable them to see their most recent findings as part of the whole picture. Frequently they go back to the feasibility study to be sure that they are still pursuing the objectives with which they started.

Actually, in these evaluation sessions the analyst is in the process of analysis. He hunts for clues in the data he has gathered. He may find some clues which indicate a need for further fact finding along a line he has started and others which indicate that the best opportunities lie in a different direction. He forms hypotheses and develops plans to test them by discussing and checking against verifiable data. In most instances, the analyst will eventually find what appears to be the vital opportunities for improvements and will shape his further activities to develop them.

If the data collected are not giving productive leads, the analyst may be tempted to pile up more and more facts. If this occurs, a thorough job of evaluation is needed. Perhaps a more penetrating analysis of data already assembled may enable him to avoid more fact finding. Often, at that point, a fresh view of the data is useful and staff associates or element personnel who have not previously been closely involved may give valuable insight or ideas. If such an analysis indicates that more data are needed, it usually defines those needs more clearly than before.

2-18. Terminating Fact Finding Activity.

a. When to Terminate. In a management survey, there may be moments when the analyst must weigh the strength of his data against the need to present results and to stay on schedule. His choice becomes one of whether to submit what he believes are incomplete solutions or request more time.

However, he cannot stretch out his fact finding indefinitely in a search for perfection. If he finds that in a relatively short time he can produce 80 or 85 percent of the value of the survey and that much time is needed to complete the rest, he may be able to ignore those possible refinements and complete his work at that point. A second alternative is to present the solutions as they stand with an explanation of what he would still like to achieve and how long it should take.

b. The Bridge Between Fact Finding and Analysis. The process of gathering and integrating the facts has been compared to putting together a jigsaw puzzle. In a typical survey, as facts are collected, a few seem to fit together in one place, another few somewhere else, a third batch in a different area. As more of these solid areas develop, the analyst can begin to see what facts might link the areas and eventually fill in the open spaces. His further search provides facts which fill some of those gaps and other facts which don't fit any of them. The facts which don't fit and the spaces which he doesn't find facts to fill, force him to revise his thinking about the ways the solid areas relate to each other.

By that time, the survey has moved into the analysis phases. The analyst develops new ideas and tests possible solutions. Often more facts are needed, or facts must be clarified, or more supporting data must be found. This process continues until a pattern emerges in which all the pertinent facts fit properly and which has no unexplained gaps. At that point, the analyst has enough data to support his recommendations completely and to bring out all of the potential benefits to be derived from the survey.

Section VI

ANALYSIS AND SYNTHESIS

This section presents and examines the logical steps of analysis and synthesis and reviews some of the considerations involved in the determination. It corresponds to the "Analysis" step of the problem identification and analysis cycle.

Analysis and synthesis constitute two different facets of the survey, but in practice are so interrelated as to be virtually impossible to separate.

Both analysis and synthesis are dependent on measures and criteria of effectiveness and efficiency. Criteria are necessary in analysis to ascertain deficiencies and problem areas. In synthesis, criteria of effectiveness and efficiency allow for the systematic evaluation of alternatives.

The overall process of analysis and synthesis consists of a series of distinct steps.

- Step 1. Define the condition (problem, deficiency) .
- Step 2. Determine the causes of the problem.
- Step 3. Determine the objectives of the solution.
- Step 4. Develop alternative solutions in principle.
- Step 5. Select the optimum solution.
- Step 6. Sell the solution in principle.
- Step 7. Design the solution in detail.

2-19. Analysis.

During this phase, the analyst is concerned primarily with the first three steps shown above. Analysis should be accomplished for each functional area and for the organization as a whole.

a. Step 1. Define the Condition. The first step in the process of analysis is to define precisely the problem, condition, or deficiency which requires solution. In several earlier steps, the problem was "defined." However, that definition was made before the facts were obtained. Now that the analyst has the problem facts, it becomes necessary for him to scrutinize, interpret, and evaluate the facts to define precisely the conditions which now exist. The following actions are appropriate.

- (1) Become thoroughly acquainted with all actual material collected.
 - (2) Verify the data for completeness and accuracy.
 - (3) Exclude insignificant or unrelated information.
 - (4) Prepare a well organized summary of the existing situation.
 - (5) Challenge every aspect of the problem to identify major weaknesses as well as opportunity for improvement.
- Starting with the basic mission, consider each item in terms of—

- (a) Waste and deficiencies.
- (b) Opportunity for improved methods.
- (c) Better means of control.
- (d) More efficient operations.
- (e) Greater use of human and physical facilities.
- (f) Summarize the major indicators of the problems.

b. Step 2. Determine the Cause of Condition. With the problem(s) clearly established and understood, the next step is to ascertain the conditions that have created and are sustaining the problem.

- (1) How long has the problem existed?

- (2) When and where did it start?
- (3) Is the situation growing worse or better?
- (4) What are the basic causes, both today and in the past?

A detailed diagnosis of the problem is often the most important step in analysis. When the real causes have been revealed, the solution may become rather obvious.

c. Step 3. Determine the Objectives of the Solution Before a problem can be solved, another step is necessary—the determination of the objectives of the solution. The original statement of problem identification and definition will be helpful here. Some considerations to be included in the process are:

- (1) The end results in such terms as dollars saved, decreased manpower requirements, increased production capability, improved quality, and product delivery.
- (2) The proper balance between time, cost, and quality requirements in achieving these end results.
- (3) Any other limitations or goals necessary to achieve a solution. Completion of this step also requires that the analyst relate the current objectives to the original objectives of the management survey. The analyst therefore needs to review the management objectives as originally stated because they may be unrealistic in terms of the present situation and may therefore need revision.

2-20. Synthesis.

The synthesis phase involves developing solutions which will allow management to obtain their objectives effectively and efficiently. Synthesis is a constructive process requiring imagination, creative ability, and the capability to visualize the overall relationship of functional area goals to organizational objectives. It also requires managerial decisionmaking ability during the systematic evaluation of alternatives. During the synthesis of solutions, the analyst takes himself out of the traditional staff role and acts as top management in deciding what courses of action should be taken.

a. Step 4. Develop Alternative Solutions in Principle. There is very seldom just one possible solution to a problem. There are often a range of alternatives, each accompanied by risks. None of the alternatives are likely to be the perfect solution. In this step, the analyst should develop the most feasible alternatives for solution of the problem or problems. In developing these alternatives—

- (1) Think first in terms of overall concepts. If the concept appears sound, then think through the details.
- (2) If the team approach is used, follow some of the ground rules of “brainstorming,” such as—
 - (a) No criticism. Let the information flow. If some individual is criticized, this will hinder his contribution to the group and information will not flow as freely as before the criticism.
 - (b) Encourage free-wheeling. Encourage participants to bring up “way-out” ideas; these may trigger other ideas.
 - (c) Try to get as many ideas as possible.
 - (d) Combine and improve ideas. In the later stages of a brainstorming session, ideas are combined and improved upon to provide the best basis for analysis.
- (3) If the concepts and ideas introduced appear sound, draft the solution first in skeleton form, then move on to a broad outline form.

b. Step 5. Select the Optimum Solution. The task involved here is to select the alternative which makes the contribution to mission accomplishment. Each of the previously developed alternatives should be tested from both a conceptual and a judgmental point of view, asking such questions as:

- (1) Is the solution technically sound? If necessary for a particular problem, draw on the experience of other professional staff personnel to insure technical competence in all areas.
- (2) Is the solution practical? The best solution is of no value if the circumstances at hand make it impossible to accomplish.
- (3) Is the solution timely? The right solution implemented too late or too soon is of no value.
- (4) Is it acceptable? There are usually two objectives to any study. First, to develop an optimum solution and secondly, to achieve true acceptance for it. If the solution has a negative impact on the organization’s personnel, it will not succeed.
- (5) How does the solution rank when compared to the criteria of effectiveness and efficiency? (See para 2-21.)

c. Step 6. Sell the Solution in Principle. In this step, the goal is to achieve a solution which will be acted upon. After the analyst is convinced that the facts support the alternative he has chosen, he should make certain that the solution makes sense from the point of view of the individual who has authorized the survey. Before the solution is designed in detail, agreement should be reached on the principles upon which it is based. The analyst’s presentation to the authorizing official at this point should be on an informal basis which will allow modification to include any suggestions or ideas which the official may contribute.

d. Step 7. Design the Solution in Detail. The accepted solution should now be designed in detail. (Some of the considerations involved in solution design are included in section VII) For each deficiency or problem area, a recommendation should be developed in brief and specific terms which will state the suggested solution, time frame, and agencies responsible for implementing it.

2-21. Criteria of Effectiveness and Efficiency.

In conducting a management survey, the question always arises, "Against what standard or criteria are we measuring?"

a. Cost Effectiveness. All organizations and their elements are established to seek specific goals, The effectiveness of the organization (and its subelements) is measured by the degree to which it realizes or meets its goals. Its efficiency is measured by the amount of resources used to produce a unit of output.

While effectiveness and efficiency usually go hand in hand, there are notable differences. An organization could obtain its goals and be effective and at the same time do so in an inefficient and wasteful way. Conversely, the organization might operate in a highly efficient manner and, because of certain uncontrollable elements, fail to meet its goals. Most organizations, however, are anxious to meet their goals and willing to measure their efficiency.

b. Measuring Cost Effectiveness. As a rule, some aspects of output are more measurable than others. Frequent measuring can tend to encourage over-production of highly measurable items and neglect of the less measurable ones. It may result in a distortion of legitimate goals and objectives to the detriment of the overall organization, If the analyst wishes to avoid these problems he can formulate his analysis around the general steps involved in cost effectiveness studies, namely:

(1) *The objective.* In the management survey, the objectives of the ultimate decision maker could refer not only to the plans, policies, and objectives of the element under study, but also to those of DA and DOD.

(2) *The alternatives.* Identifying the alternative strategies and means by which the objectives can be obtained.

(3) *The costs.* The choice of a particular alternative carries the understanding that certain identifiable resources are no longer available for other purposes. Thus, while most costs are in terms of money, the analyst must also consider the opportunities for flexibility that a given course of action precludes.

(4) *A model.* In cost effectiveness analysis, the role of the model (or models) is to simulate and predict the costs that will occur and the extent to which objectives would be met by each alternative.

(5) *A criterion.* A criterion is a rule or standard by which to rank the alternatives in order of desirability. It provides a means for weighing cost against effectiveness. During survey definition, the analyst gathers these criteria in terms of "Factors for Maximization." During analysis and synthesis, he utilizes these criteria in selecting the optimum solution. The decision must be made on which alternative is the cheapest way of achieving the objective. Or conversely, for a given level of applicable resources, how far does spending this amount on each alternative get towards the objective? We either maximize accomplishment of the objective for a given cost or minimize the cost for achieving a given objective. The answers to these questions enable the development of sound criteria of effectiveness and efficiency. Knowledge of the appropriate criteria will determine the success of any analysis conducted during the management survey.

Section VII

PRESENTATION AND REPORTS

2-22. The Presentation Concept.

The presentation is essentially a translation of the mass of factual data contained in the various diagrams, charts, and documents-into some fundamental relationships which can form the basis for a managerial decision. In the process of making this translation, the analyst presents his findings, conclusions, and recommendations to the approving manager in order to get approval to implement the recommendations. In this process raw information and facts are not enough. They must be skillfully presented and related to command interests in such a way to induce approval.

a. Some of the considerations which the analyst should be familiar with in the reports and presentation phase are listed below.

(1) Ideas should usually be presented in the order of their acceptability, Start with the changes which are most acceptable to the organization surveyed.

(2) Submit recommendations at the right time. Sometimes it is advisable to wait until the proper time in light of program status, condition of organization, personalities, etc.

(3) Where recommendations are a refinement or modification of suggestions made by the group being surveyed, these recommendations and their sources should be stressed.

(4) Submit recommendations at the right time. Some times it is advisable to hold off making a recommendation(s) in order to take advantage of program status changes, condition of organization, personalities, etc.

(5) Don't press for immediate decisions on points that you can see are not being accepted; they may be accepted readily a little later,

(6) Consider effects of changes on personalities so that when the idea is submitted, it can be accompanied by a plan for eliminating or minimizing the personality problems.

(7) Check the history of an idea elsewhere in order to anticipate objections and have logical answers to questions previously raised. Be able to point to instances where the idea is in effect and is working.

(8) If immediate installation of a recommendation is not feasible, it is often useful to include a proposed timetable for its installation.

(9) Be truthful-don't claim doubtful advantages-don't oversell.

(10) Thorough gathering and analysis of facts is the best assurance of recommendation acceptance. In the final analysis, ideas are most frequently rejected because of insufficient or poorly organized supporting facts.

b. Presentations of the survey proposals are usually made at three levels in the organization: the worker level, subordinate manager level, and approving manager level. The amount of detail will vary with the level and the presentation must be adapted to the objectives and interests of each group. Informal presentations are conducted at the worker level to obtain reactions, identify points of controversy and obtain any suggestions to the proposed charges. At this level the data should be covered in great detail. The presentation to the approving manager will be more formal, highly summarized, (but with adequate supporting data) and geared to predetermined interests and information requirements. Presentations to subordinate managers will fall somewhere between these two extremes, and are primarily to obtain concurrence or note possible areas of nonconcurrence.

c. There are two types of presentations: written and oral. Both have advantages and limitations and, as far as possible, should be used in combination. The oral presentation backed up by a written report is normally preferred by approving managers. This offers the analyst the best chance of success in "selling" his proposal. Usually, the presentations to workers and subordinate managers are oral, based on written support data. The psychological considerations are similar to any level but are usually given more attention during the preparation of top level presentations.

2-23. The Formal Presentation.

The formal oral presentation should be constructed around a management decision pattern. This pattern is a series of mental phases that occur during the presentation process. These phases are: orientation, problem situation, proposal, discussion, and decision. They are preceded by a prior planning period and may be followed by presentation of an approval or action document.

a. Prior to the presentation, the analyst should review his main proposals, in terms of the attitudes, knowledge, and background of his audience; he then mentally develops his approach to take account of these factors.

b. During the orientation phase, the listener settles down and mentally "tunes in" the presentation both from a personal and an organizational viewpoint. This is the time to present the project title, survey area and organizational involvements.

c. In the problem-situation phase, the problem statement is reviewed and the present conditions are broadly summarized. The current system should not be attacked or criticized. The logic of the presentation should bring recognition of the deficiencies that exist. The analyst should mention the changing conditions that have caused the existing plans, procedures, etc., to become inadequate rather than criticize the former plan or individuals concerned.

d. In the proposal phase, the proposed recommendations are summarized. Emphasis is on how the recommendations differ from the present situation. In both of these phases charts may be employed to illustrate or support the points made.

e. The discussion phase begins as the advantages, benefits, and costs of the proposals are highlighted. Here, the presentation should cover as many potential questions as possible.

f. The last and most crucial phase is the decision. All prior phases have been leading up to this point. If the decision is for approval, an action document which will allow subsequent implementation should be presented.

The oral presentation offers the analyst an opportunity to achieve face-to-face contact, generate enthusiasm, and obtain a decision. The written report supporting the oral presentation, formalizes the presentation and provides the detailed information that may be necessary for command review and implementation.

2-24. The Formal Report.

The survey report includes the findings, conclusions, and recommendations of the survey team.

a. *Characteristics of a Good Report.* Every good report has at least five outstanding characteristics. These are—

- (1) Completeness with brevity.
- (2) Accurate statement of facts.
- (3) Interest.
- (4) Good appearance and uniform arrangement.

(5) Use of good English with words and sentences that are well chosen and well formed. (Guidance in this area may be obtained from DA Pam 1-10.)

b. *Contents of the Written Report.* The written report is composed of a series of standard sections which can be telescoped or expanded depending on the complexity and type of project involved. These various parts are separately listed and described below. (Appendix A shows an example of a completed survey report.)

(1) *The title page.* A cover sheet which contains the title of the project, any identifying control numbers, date of review, and names of the team's members.

(2) *Table of contents.* Self-explanatory.

(3) *Purpose of the survey.* The original survey definition statement together with subsequent modifications, who requested the survey, the functional areas and organizational elements involved, survey limitations, factors for maximization, and any assumptions which are necessary for problem analysis.

(4) *Summary of recommendations.* A brief statement of the conclusions and recommendations, ranked in order of

importance and identifying the major benefits which will accrue to the organization as a result of approving the recommendations.

(5) *Main body.* A more detailed discussion of findings and conclusions including the facts and logic used in arriving at the summary recommendations(s). This section is primarily for detailed assimilation and consideration. It typically includes the economic considerations and cost benefit impact of implementing the proposals, where these have been analyzed.

(6) *Action program.* Actions necessary to implement the proposal, In many survey reports there is a lack of understanding concerning who should take corrective action. The recommendations derived from the findings and conclusions must be clear statements of the action to be taken, by whom it is to be taken, and what the results should be.

(7) *Credits.* Sincere, but not flowery, expressions of appreciation for assistance during the project. Mention by name and position.

(8) *Appendix and attachments.* Detailed tables, charts, diagrams, layouts, etc., either supporting facts or documenting the proposals in the report proper.

2-25. Coordination and Transmittal.

The final survey report, unless otherwise stated by the individual who authorized the survey, is to be forwarded to that official only. Distribution of the survey report will be made by the authorizing official and survey team members should treat all information contained in the report as confidential.

Confidentiality does not, however, preclude informal review of survey recommendations with intermediate level supervisors. Their concurrence with the recommendations is an essential ingredient for the overall success of the survey. However, their concurrence should be accomplished on an informal basis unless otherwise authorized.

The final survey report should be forwarded with a brief transmittal letter which outlines the original objectives of the survey. Additional copies of the report should be provided as necessary for distribution by the commander.

Section VIII IMPLEMENTATION

The first requirement prior to implementation is the detailed design of the systems of operation necessary to accomplish the approved recommendations. This corresponds to the implementation step of the problem identification and analysis cycle.

2-26. System Design and Plan of Action.

a. System Design. Before the new system is installed, the analyst must insure that the following essentials have been prepared.

(1) A description or detailed instructions delineating duties, authority, responsibilities, and operating instructions for the new System.

(2) Standards of performance for the new system.

b. Implementation Plan of Action. When the system is designed and standards of performance have been established, the analyst then reviews the plan of action for implementation. The implementation plan should be broken down into separate actions that must be taken to achieve full and complete operation of the approved proposal. For each of these actions, a realistic time requirement is determined, personnel are assigned responsibility for accomplishing or monitoring the action, and the action is scheduled in accordance with its sequence in the implementation plan. The plan should allow for—

(1) An announcement to all personnel of the organization summarizing the change, explaining why it is being made, describing the benefits which will result, and stating the dates on which the change will become operational.

(2) Selection and training of the personnel who will operate the system.

(3) Pilot or trial implementation prior to total changeover.

(4) Adaption of the administrative reporting system to the new system.

(5) Plans for follow up to review accomplishments against the standards of performance.

If conditions permit, the recommendations may be put into action on a limited or dual system basis before they are implemented in their entirety. As each of the recommendations are put into effect, the system should be monitored for adherence to schedule and performance characteristics.

2-27. Role of the Analyst.

Implementation is a joint action involving the survey analyst and the personnel working in the organization surveyed. The role of the analyst is dominant during the early parts of this phase, then gradually diminishes and disappears as the new system becomes fully operational. The survey staff should not attempt to replace line operators during installation. Their role should primarily be that of planning and monitoring the installation to insure that the environmental factors

(Supplies, equipment employee morale) are such that a valid indication of system performance will be obtained during followup. The key phrase in implementation is "plan for the unexpected."

Section IX

POST IMPLEMENTATION REVIEW

2-28. Review of System Performance.

The progress of implementation of the survey recommendations must be reviewed periodically after the survey is completed. The time and effort devoted to a management review make it necessary that maximum benefits be derived as soon as possible. The attainment of maximum results will require energetic and systematic followup to insure that the approved changes are installed as planned and that the changes are producing the desired results.

The post implementation review should be conducted in accordance with an established schedule so the activity will be ready and expecting it. The analyst measures the results of the improvements by applying the performance standards which have been agreed to by management. He notes the results, any lack of adherence to prescribed procedure, and the possibilities for further improvements. If modifications are deemed necessary, plans should be made to accomplish them. If the system is performing as planned, any temporary reporting systems should be changed to provide permanent administrative reporting input to the installation.

2-29. The Post Implementation Final Report.

A final report should be prepared for top management regarding the effects of the new procedures, noting both positive and negative changes. The final report may ask for decisions on recommendations which the survey team continues to support but which were not accepted earlier. The report may also cite problems uncovered which are not within the scope of the current survey and which may require the attention of other staff offices.

If the survey has been conducted in a professional manner with the full support of the commander, the entire organization will experience the benefits from the survey effort.

Chapter 3

MANAGEMENT SURVEY TECHNIQUES

Section I

GENERAL FACT-FINDING METHODS

The two basic sources of information are existing documentation and personnel. Both are used during management surveys. Obtaining information from either of these sources is usually accomplished by one or more of the fact-finding methods discussed below.

3-1. Study of Existing Records.

The study of existing records is one of the essential steps in the management survey. The primary considerations in reviewing recordings are: how many records should be reviewed before turning to other fact finding methods? And, how much reliability can be associated with the facts as found in existing records? There are two different schools of thought on this matter.

a. Analysts who review the existing records as the first step of a survey usually do so to—

- (1) Gain a sound understanding of the organization's mission, its intended structure, procedures, and the like.
- (2) Learn something of the manner in which the organization actually operates.
- (3) Learn enough about the organization to ask intelligent questions and to be well grounded in exploring problems with operating officials.

(4) Improve their chance of being accepted as competent and trustworthy. (If the organization's personnel can recognize that the analysts are interested in the organization and want to understand its problems, they are encouraged to give them wholehearted cooperation which uninformed analysts could never evoke.) Many persons take pride in reviewing their activities with analysts whom they believe to be professionally qualified and interested in them.

b. Some analysts prefer to delay the study of existing records until they have obtained information from the organization's personnel. They state that—

(1) Material in the records is often out of date, so the study may be wasteful and misleading if records are reviewed first.

(2) The analyst who studies the records first may believe that he has found the answers to his problems and not make adequate further study. Also when he conducts interviews, he may not be an unbiased listener.

(3) Less time is needed to use the records to verify data received from other sources than to make exhaustive record study as the first fact-finding step. This is especially true when the analyst finds he must refer to the records again to verify some points.

c. The analyst's timing of when he will make his study of existing records is usually less important than his obtaining correct and essential facts from them. He needs to select good cross-section of materials which brings to light as much relevant information as possible. Some documents may be studied at the beginning of his fact-finding and others later, depending on the nature of the survey. The types of documents usually studied and some of the cautions to be observed are shown in table 3-1.

d. Study of the information obtained from existing records can reveal problem areas of greater importance than some originally identified. The analyst's interest and emphasis may shift as he finds new possibilities for improvement. He changes his plans accordingly, staying within the framework of the survey objectives and overall plan.

3-2. Personal Interviews.

The interview is one of the principal methods in management surveys for collecting facts about the way the job is being done. A more subtle, but equally important objective is to sell the idea of progressive improvement in operations, sowing seeds of acceptance for possible future change. These objectives are realized by providing the interviewee with a perspective of his activity in relation to the total problem area and getting him to identify with the solution through the involvement of his suggestions and ideas.

a. *Types of Interviews.* In management surveys, personal interviews can be divided into two basic types: the interview of a manager, and the interview of a worker. These two types of interviews are similar except in the level of detailed information requested. Managers usually provide summary information of their areas, leaving detailed process steps to be supplied by their subordinates. The manager's interests center on the roles of their assigned managerial responsibility in the operations. They are also concerned with the areas in which they participate. Workers' interests in the problem area usually center on their individual roles and the possible impact of any change resulting from the survey. Where it is not feasible (or desirable) to interview all workers, the ones holding key positions and the known informal leaders should be selected. The approach should always be through authority channels, with the analyst furnishing advance information regarding time, subject, and materials that might possibly be discussed.

For discussion purposes, the interview process can be divided into four phases: prior planning, opening, continuity and control, and close. Each of these phases is separate; however, there must be a smooth transition in the last three during the actual conduct of the interviews. Each of these phases will be covered separately in the following paragraphs.

b. *Prior Planning Phase.* Prior planning insures that the maximum benefit is realized from the interview. The analyst should decide definitely on the type of information he wants and the major points to be covered. His two basic questions are "what!" and "why." He should be prepared to ask direct questions to get the desired information. Such terms as "efficiency," "me," "my boss," and "straighten out your problem" should be avoided.

It is useful in the prior planning phase for the analyst to prepare a standard, carefully worded statement of the problem area to be used in all interviews. Also, the analyst should make plans to take notes of the interview to insure minimum omissions and good organization of the questioning process. Notes can be taken during the interview or written up just after the interview is ended. The time of each interview should, as far as possible, suit the convenience of the interviewer. Generally, interviews should be planned for thirty minutes or less.

c. *Opening Phase.* The opening phase in the interview should start with an introduction of the analyst and his organization followed by a statement describing the study. The statement should include a remark to the effect that the solution of the problem is always a joint undertaking in which the participation of the interviewee is desired. The role of the interviewee in the problem area is reviewed in order to provide perspective. The type of information desired, usually processing detail, is discussed. The analyst also gives some general information on how the information he gets will be used. If the interviewee is tense or hesitant, the analyst should offer to check back with the interviewee when his information has been incorporated in the documentation of facts.

The interviewee's reaction can range from outright hostility to overeager cooperation, and the analyst must be prepared to handle either extreme. His approach should be friendly, noncritical, objective, respectful and sympathetic to problems. The interviewee should always be made aware that he has first-hand knowledge of operating detail, that his comments and ideas are useful and desired, and that as a result of the interview, some aspect of his role in the problem area is going to be improved.

d. *Continuity and Control Phase.* The majority of the interview is concerned with the continuity and control phase. In addition to questioning, the analyst observes the physical layout, notes excess or unused equipment or possibly some use for available equipment presently not being used.

The key to good questioning is that the analyst must be a good listener but remain in control of the interview. A good ratio is 85 percent listening to 15 percent talking. All of the rules of good listening, such as mentally thinking ahead, evaluating, summarizing, and reviewing, apply here. The analyst avoids criticizing personnel or the present system and does not commit himself to accept and use ideas or suggestions. When discussion gets away from the problem areas, he changes the conversation back to the problem. He attempts to avoid involved discussion of rare and exceptional occurrences, but is alert to alternate courses in the procedure. He probes for the interviewee's suggestions, views of the problem, and ideas for solution, and makes sure that his notes are detailed enough to give credit for ideas that are incorporated in the final solution.

e. *Close Phase.* The close phase of the interview is a critical time. The objective here is to effectively terminate the

interview. The door should be left open to call back and get additional assistance if necessary, The analyst notes names, title, and telephone extensions, reviews the data gathered with the interviewee to be sure it is complete and understood, and expresses his appreciation for assistance and cooperation.

f. Repeat Interviews. Subsequent interviews follow the same pattern as just described, until all appropriate details of the problem area have been collected.

g. Advantages of Interviewing. Many analysts prefer interviewing to other fact-finding techniques because of the flexibility involved. They recognize that, meaning is conveyed between individuals not only by words, but by phrasing and emphasis and by silence, action, or inaction. In personal interviews the analyst can observe such subtleties and adjust his own approach to fit the situation as it develops, Other advantages and special uses of the interviewing method are:

(1) Interviews are necessary to secure information that is not recorded anywhere except in the mind of the person interviewed.

(2) An interview of a manager or a supervisor is often the best way to evaluate him-his general attitude, how he thinks, how much he knows, how close he is to his job, and his knowledge of the people who work for him.

(3) An interview of a worker is often the best way to secure information on how well workers are trained, their morale, their qualifications, what they do, how well they understand the policies and instruction given to them, what they do that is not covered by procedure, and what ideas they have.

(4) Interviews are often thought to be stimulators for both the person interviewed and the interviewer. The “off the record” informality of an interview may cause people to give information which would not otherwise occur to them or which they would hesitate to submit in written form.

h. Limitations of Interviews. While the interview is a legitimate fact gathering technique, it has definite and frequently overlooked limitations.

(1) The person interviewed is often asked to give information without having had an opportunity to thoroughly check his facts or think through what he is saying. He may give information that is approximately but not precisely accurate; or he may be so cautious that he withholds valuable information because he is not absolutely positive of its accuracy.

(2) When people are interviewed, they often feel that they should know the Answers to all questions asked. They may therefore answer questions with guesses rather than admit their ignorance.

(3) The interviewer must keep a record of the facts learned. This record must often be hastily written and errors may result. Even if notes are complete and accurate, the person interviewed may deny any statements attributed to him and there is no way for the interviewer to prove who said what, (This may be partially corrected by asking persons interviewed to authenticate the notes taken during the interview. but such authentications are not always feasible.)

(4) Some people unconsciously try to answer questions the way they believe the interviewer wants them answered instead of stating their true beliefs.

(5) An interviewer is likely to get a collection of exceptions. Unusual, humorous, or dramatic incidents are much easier to talk about than everyday routines.

3-3. Personal Observation.

a. Basic. Personal observations are required in time and motion studies, layout studies, or tracing the flow of work or documents. When such studies are necessary, they cannot be made unless the analyst obtains data by following and recording the action in detail.

b. Supplemental. In the supplemental type of observation, the analyst observes the organization and nature of the situation as he moves about to look at records and conduct interviews. This type of observation is frequently made during the feasibility study, when the analyst is taking his “general tour” through the organization. The “general tour” is good for obtaining impressions, but is not good for obtaining facts upon which the final survey results must depend. However, an experienced analyst can use the “general tour” very effectively to determine where he should concentrate his efforts. The analyst seeks clues which assist him to—

(1) Identify persons who appear to be centers of activity, information, or influence.

(2) Find processes, working relationship and physical arrangements which may be particularly in need of improvement.

(3) Find minor deficiencies which may be symptoms of important problems.

(4) Improve understanding of data obtained by other methods.

(5) Support recommendations, when necessary, with data he has gathered.

c. Office Activity Clues. In observing office activities, an analyst seeks to include the answers to such questions as the following:

(1) Are people applying themselves to their work, walking about a great deal, getting in each other’s way while working, waiting for work, doing personal work, talking in little social groups, being tardy to work, or leaving early?

(2) Are arguments or discussions going on between workers, or between workers and supervisors?

(3) Are some people very busy, others obviously not?

- (4) Is there a business-like atmosphere, routine noise, or unusual confusion?
- (5) Are there piles of papers on top of workers' desks, or on top of supervisors' desks but not on workers' desks?
- (6) Are work places, rooms, and individuals neat, orderly and clean?
- (7) Are space and light well used?
- (8) Is there evidence of recent clean-up or rearrangement of work which may have been made especially for the occasion of the survey tour?
- (9) Is the material on bulletin boards of recent date and business-like nature? Does it contain disciplinary threats that indicate personnel problems?
- (10) Are files and bookcases well labeled? Are labels obviously related to mission of the element?
- (11) Are there evidences of poor maintenance work, such as burned-out light bulbs, operators trying to fix office machines, extension cords laying about, etc.?
- (12) Do messengers know where to deliver mail or do they deliver huge quantities to one desk? Is there evidence of outgoing mail not being collected promptly?
- (13) Is there evidence of superperfection? Of unnecessary work being done to meet too high or expensive a standard? Of unnecessarily short target dates?

Persons experienced in technical work can often observe that particular type of work and recognize symptoms in it which correspond to those listed above.

d. Cautions to be Exercised. Observations such as those mentioned above are more common during the feasibility study than the actual fact-finding phase. However, regardless of the time considerations, the analyst should be aware of the problems that may occur in using personal observation as a fact-finding technique.

- (1) He may obtain a misleading impression if the current volume of work is not normal, the persons observed are working harder because he is there, or some unusual operating condition exists.
- (2) If he is not sufficiently analytical, he may allow his impression to color his other findings too greatly, even to the point of looking for evidence to justify them.
- (3) If his observations are obvious or prolonged, they may disturb the persons being observed and reduce their willingness to cooperate with him.

e. Benefits to be Gained. In spite of the cautions to be exercised, there are many special values in the use of personal observation as a fact-finding technique.

- (1) Personal observation and examination of the work performance level afford the only positive means of measuring the dependability of facts given in administrative reports, interviews, questionnaires, or records.
- (2) Hazy understandings or erroneous impressions by the analyst can be corrected best by first-hand observations.
- (3) The analyst can protect sources of "off-the-record" information by observing the facts for himself and basing subsequent actions upon what he saw rather than what he heard.
- (4) Recommendations usually receive better acceptance if it can be shown that they are based upon personal observation of actual operations.
- (5) Personal observation is frequently the best means of observing conditions which indicate the need for future survey work in areas not covered by the current assignment.
- (6) By observing actual operations, the analyst can be armed with factual information that can help to dissipate "smoke screens" created by chronic resisters to change.
- (7) Observation of operations help the analyst to acquire the "know how" he will need when he is asked to supervise the testing or installation of changes he recommended.

3-4. Questionnaires.

Questionnaires used in management surveys usually are not standard forms but are a type of data gathering sheet developed to fit a particular situation. Their use is usually limited by two related factors:

Questionnaires to obtain complex data are difficult to prepare; and replies to questionnaires are apt to be unsatisfactory unless both their preparation and their presentation to respondents are extremely well planned and executed.

a. Questionnaire Use. Questionnaires usually are used in management surveys to obtain information under the following circumstances:

- (1) When there is insufficient time to interview all the people from whom information is desired.
- (2) When questionnaires will reveal objective data which will permit convenient tabulation.
- (3) When the analyst needs to reach individuals who are physically far removed from the scene of the survey.
- (4) When it is believed necessary to allow more time for answering detailed questions raised during interviews.

b. Questionnaire Design Consideration. The major problems in preparing any questionnaire are likely to be met in developing questions which will produce the information needed, and in phrasing the questions so that they can be understood in the way the analyst wants them understood. Wrongly pointed questions are apt to produce inconclusive replies. Wording that is ambiguous or implies the desired answers can provide misleading data. To help prevent these difficulties, the analyst follows certain guides in preparing the questionnaire.

- (1) Determine what information is desired.

(2) Consider the person who will complete the questionnaire and tailor it as closely as possible to his ability and knowledge for answering.

(3) Ask for information that is easy for the recipient to obtain. (Don't create the need for conducting a study to answer a question.)

(4) Be careful about emotional connotations in questions.

(5) State the questions clearly and in as simple language as possible. Avoid long and involved questions. Try to phrase the questions so the answers may be simple and short. If possible, phrase the questions so that the recipient can answer with check marks or yes or no answers.

(6) Arrange the questions in a logical sequence so that the answers can be easily analyzed, classified, and tabulated.

(7) Work the questions to avoid influencing the answers. Don't ask leading questions.

(8) Make the questionnaire brief.

c. Questionnaire Distribution. If the questionnaires are to receive wide distribution, they should first be tested on a small group to see that the questionnaire obtains the responses the analyst needs. This pre-test is called validation. Pretesting and rewriting of questions continues until all questions produce valid answers with the desired type of information for the analyst.

After the questionnaire has been validated, the next problem is to present the questionnaire in a way which will induce the recipients *to furnish complete, accurate, and objective data. As mentioned, respondents who are afraid or suspicious are apt to color their replies. Accordingly, when the questionnaire is ready to be distributed, the analyst attempts to create conditions which will give him accurate, complete, and understandable replies. Typically, he prepares an introductory statement which is issued with the questionnaire. The statement requests the cooperation of the persons to whom the questionnaire is addressed and explains briefly the purpose of the survey, the purposes of the questionnaire and how the answers to the questionnaire will be used. Where possible, the organization commander should sign the statement.

While questionnaires (with attached statement) can be passed out to recipients, usually it is better if the analyst introduces the questionnaire personally to individuals or small groups. In these cases, the analyst distributes the questionnaire; explains the survey and the questionnaire; and sets a deadline for the respondents' replies. While the questionnaire is being filled out, the analyst should be available or on call to answer questions that may arise.

d. Avoiding Bias. When the analyst is attempting to determine the extent or general nature of a problem involving a great many persons or offices, he should be especially sure that his sampling technique is sound. To avoid bias, anonymity should be stressed if the results are to be honest and worthwhile. Depending on the organization climate, the analyst may find that the questionnaire should be administered by him and not by the individuals' supervisor.

Other considerations such as direct transmittal of answers or "thru-to" may lie outside the analyst's control. He should, however, be aware of the conditions governing transmittal.

e. Followup. Sufficient follow up should be made to insure as close to 100 percent reply as possible on questionnaires. The person who does not reply is frequently the one whose answers are most significant.

**Table 3-1
Review of Records**

| Type of Document | Analyst's use | Comment |
|---|--|--|
| The basic authority for the establishment of an agency or element, or for the assignment of certain missions or functions. | | Required. |
| When pertinent, the records of congressional hearings on basic laws and recent appropriation acts. | To help determine congressional interest. | Required. |
| Official directives, policy statements, office instructions and other documents implementing the basic authority. | | These may be so detailed that they are confusing. It may be better for the analyst to come back to them after getting the general picture and learning specifically what he needs to know. |
| Command program documents and schedules which establish guidance, policies, and workload for the element being surveyed. | | These may only express intent, from which the actual program may differ considerably. |
| Organizational, functional, and personnel charts. | To determine how the work and responsibility are intended to be distributed. | These may not be current. Also, they may differ considerably from the actual responsibilities. |
| Organization and procedural manuals, standing operating procedures, charts and other documents. | To learn what actions the official documents require. | These documents are good material for orientation, but after the analyst has learned and charted the actual practices, he can often see useful checks and clues in the documents which he might not have noticed before. |
| Budget estimates and justifications, allotment and authorization papers, and financial reports. | To learn about available financial and manpower resources. | These may be too optimistic, with difficulties and other negative aspects omitted. |
| Basic personnel data, such as the numbers, grades and distribution of personnel, both military and civilian, and position descriptions. | To learn the strength of the working force and the emphasis put on the various functions, and to learn duties assigned to personnel. | Position descriptions may be—out of date or incorrect for other reasons, obscured by technical language, given only a superficial understanding of the job, exaggerated. |
| Work distribution charts, flow process charts and supervisors' handbooks. | So he does not have to repeat ground already covered. | These charts and handbooks are fine when they exist and are current. The analyst may need to talk later with members of the element to clear up matters he does not understand, verify points which look dubious and, when necessary, bring data up to date. |
| Data produced by work measurement analysis. | To appraise the element's workload and the productivity of the personnel. | Current data based on realistic factors can be very useful, particularly when considered in relation to trends and future work schedules. |
| Pertinent manpower yardsticks | For measuring personnel requirements ... | By comparing manpower yardsticks with current strength data, the analyst may find areas which may be improved. |
| Cost and RMS type reports | | These reports indicate where most resources are consumed, actual cost against planned cost of cost centers, and trend in unit cost of output. |
| Employee suggestions submitted under Army Incentive Awards, Zero Defects, and Idea Interchange. | To learn what the employees think about operations, to find clues to weak spots and to see how management reacts toward new ideas. | These are useful sources of data which are too often overlooked. Even when the improvements suggested are not feasible, they may show the analyst opportunities he has not discovered in other ways. |

Table 3-1
Review of Records—Continued

| Type of Document | Analyst's use | Comment |
|--|--|---|
| Administrative reports, program progress reports, and statistical data. (The reports contain data on progress against goals or missions set forth in the annual programs, and on such factors as costs, quality of service, functioning of equipment, labor turnover, grievances and accidents.) | To learn the apparent effectiveness of the element. | These documents are often worth very close scrutiny, including statistical analysis. |
| Correspondence files and logs | To learn what activities the element has which generates workloads and which involves external coordinations, visits, etc. | Correspondence often gives a superficial picture. Further search may be required to find why certain situations exist or, when it is important, why they were handled as they were. |
| Working papers and reports of previous surveys of all types, work simplification, and other improvement programs. | To better evaluate the state of management, health of the agency and gauge its responses to previous recommendations. | These documents can be used to determine whether element tries to profit from recommendations. |

Section II
STATISTICAL METHODS

There is a definite upward trend in the use of statistics to help identify management problems and point out areas where improvements can be accomplished. Statistics can reveal those elements of the organization that are not operating effectively and provide quantitative measures of comparative operating efficiency. While the use of statistics is primarily considered as an analysis technique, statistical sampling techniques have also wide application in the fact-finding phase of the management survey. Statistical methods are described in other Army publications and in nongovernment publications (such as college texts, handbooks, programmed learning materials and the like) that are usually available to analysts. Accordingly, this section will present a review of the statistical methods typically used in management surveys. For application details, it is suggested that the analyst refer to one or more the sources listed above or to the statistical publications listed in the reference section of this handbook.

3-5. Work Sampling.

A work sampling study consists of a number of observations taken at random intervals wherein the state or condition of the object of study is noted and classified into predefined categories pertinent to the situation. Based upon the percentage of the total sample observation taken in each category, inferences are drawn as to the relative frequency with which an observation will appear in that category.

In its simplest form, work sampling consists of making observations, at random intervals, of a department or a group of workers or machines and noting whether they are working or idle. The percentage of the day that the worker is Idle is the ratio of the number of idle tally marks to the total number of tally marks.

The underlying theory of work sampling is that the percent of occurrence of a condition as found in a random sample reflects to a known degree of accuracy the percent of that condition in the total activity, The degree of accuracy can be regulated by varying the number of observations. With work sampling it is possible to evaluate the degree of reliability of the information in a study at any point in the study, and goals can be adjusted as new information is gathered or as limitations dictate.

a. Advantages of Work Sampling. Work sampling offers many advantages over conventional personal observation or work measurement techniques.

- (1) It can be tailor-made to gather information on anything that can be observed.
- (2) It provides data economically and on a timely basis.
- (3) Survey analysts do not require specialized training.
- (4) It is less disturbing to workers being studied than time studies or continuous observations.
- (5) Measurements can be made with a preassigned degree of accuracy.
- (6) Survey analysts can be interrupted without affecting results.

b. Uses of Work Sampling. Work sampling can be used many ways in the management survey, such as:

- (1) To determine areas of concentration for methods study and to indicate where most time is being spent, where bottlenecks exist, etc.
- (2) To determine equipment utilization and to provide facts upon which decisions can be made concerning need for capital expenditures, revisions of schedules, etc.
- (3) To determine work assignments and distribution of work, especially for skilled or short supply personnel.
- (4) To assist in determining objectives—to give a picture of the present situation so that specific goals may be selected.

(5) To validate or establish standards. This is especially valuable in difficult areas, where other means are not practical. Work sampling standards are recognized as being less precise than time study or predetermined time system standards, but have more application in individual performance evaluation.

(6) To give factual basis for determining allowances for engineered standards,

3-6. Sampling.

The use of sampling usually requires a mathematical background. However, confidence tables have been established which will allow even the beginning analyst to use this fact finding technique. An example of a confidence table is shown in figure 3-1.

Notice that the relative size of the required sample does, in fact, reach a "plateau" whereby the increased population size has little impact on the required sample size. From the population size of 5,000, requiring a sample of 357, to the population size of 1,000,000, the sample size increases by only 27 units to 384. This shows that the sample size is not a fixed percent of the total population. The smaller population requires a larger percent of their total for accurate samples; i.e., 500 population needs a 217 size sample for ± 5 percent accuracy. Smaller percents of the population, however, provide just as much confidence in terms of risk and error; i.e., only .04 percent sample is needed for a 1,000,000 population to provide the accuracy prescribed in the table.

**Sample Size Required To Provide 95% Confidence That An Estimate of
Population Proportion is Not in Error by More Than $\pm 5\%$ (Absolute).**

| <i>Population size</i> | <i>Required sample size</i> | <i>Sample size as a % of population</i> |
|------------------------|-----------------------------|---|
| 1 | 1 | 100% |
| 10 | 10 | 100% |
| 20 | 19 | 95% |
| 40 | 36 | 90% |
| 60 | 52 | 87% |
| 80 | 66 | 83% |
| 100 | 79 | 79% |
| 150 | 108 | 72% |
| 200 | 132 | 66% |
| 300 | 168 | 56% |
| 400 | 196 | 49% |
| 500 | 217 | 43% |
| 750 | 254 | 34% |
| 1000 | 278 | 28% |
| 2500 | 333 | 13% |
| 5000 | 357 | 7% |
| 10,000 | 370 | 4% |
| 25,000 | 378 | 2% |
| 50,000 | 381 | 1% |
| 100,000 | 383 | .4% |
| 500,000 | 384 | .07% |
| 1,000,000 | 384 | .04% |

Figure 3-1. Sampling

Section III GENERAL DATA RECORDING METHODS

Regardless of the fact-finding method that he uses, the analyst is still faced with the problem of recording his data in such a manner that it will provide a complete and comprehensive picture of the existing conditions. There is no single best method of recording this data. It should be recorded in the simplest manner possible which will allow related information to be easily coordinated. If a few simple notes will serve the purpose, the use of complicated charts and other detailed techniques should be avoided. Essentially, what the analyst is looking for is a method that allows him to record his information as it is collected in sufficient detail, to verify his findings, and initiate the formal analysis phase.

There are many different techniques for recording these facts. This section will present only the more general techniques which may be adapted to any survey.

3-7. Linear Responsibility Charts.

Linear responsibility charting is perhaps the most versatile and adaptable data recording method which can be used during the management survey. Basically, a linear responsibility chart is a cross-reference of people and work. It presents, in a condensed graphic form, much of the information normally associated with organization charts, position descriptions, methods and procedures. It allows the analyst, to obtain a clear picture of the existing conditions rather than a collection of different and perhaps vague or conflicting traditional management documents, Optional Form 18 (Recurring Data Analysis Chart) which will be requisitioned through normal AG publication supply channels may be used for charting.

a. Procedure. In the layout of the chart, the organizational lineups go across the top while the item of work are listed down the left side (Exhibit 6)). The symbols and numbers, defined in figure 3-2, are placed in the blocks as appropriate.

In the vertical columns across the top, the people or units of the organization are entered. They are listed from left to right showing command through the performance or work level. Usually, linear responsibility charting is completed for each level of the organization. If it is desirable to chart the total system involved, then different levels of supervision may be shown.

Down the left side of the chart, the items of work are listed in sequence on the horizontal lines. Usually, this information is entered as the analyst interviews the people in the organization. The work element could, however, be listed in advance if the system or method is known.

To obtain maximum value from linear responsibility charting, the analyst must be quite specific. Generalizations such as "I am responsible for this," or "We take care of that" will not be adequate. The analyst must search until he is satisfied that he knows the exact degree of responsibility involved and the options that may be encountered.

In writing the items of work, each must begin with an action verb such as "determine," "approve," or "issue." The item must be brief, definite, complete, and unique.

The symbols shown in figure 3-2 are purely arbitrary. Letters, numbers, or colors can be used with equal effectiveness. However, the number of symbols should be limited to avoid the addition of so much information that it would clutter the chart. If more information appears to be needed, a different level of charting may be appropriate.

b. Uses of Linear Responsibility Charting. The linear responsibility charting technique has many uses. For example, as an analyst reviews existing documentation, he may prepare a linear responsibility chart which prescribes how a function or procedure is to be accomplished. During the formal fact-finding phase, he can record sequentially how the function or procedure is accomplished. During the analysis phase, he can use linear responsibility charting to define and clarify problem areas and assist in the design of improvements. The same charts can be used to support the conclusions and recommendations in the reports and presentation phase. During implementation, linear responsibility charting of the new procedure will assist in training involved personnel in the new work procedure.

3-8. System Diagram.

The system diagram is a technique developed to assist an analyst in comprehending the general activity interrelating components, and performing relatively coarse analysis of an entire system area (fig. 3-3). The diagram provides a framework within which the various procedures constituting a system are sequentially summarized and indexed to selected supporting factors. The elements involved in a system diagram are shown in table 3-2. Information for completing a system diagram is collected through reviews of regulations, procedure documents, and interviews. Actual completion of the diagram is by analysis and synthesis of the information collected.

3-9. System Charting.

System charting provides a pictorial means by which to document and study the interworkings of a functional system. While many consider system charting to be limited to the use of automatic data processing, the survey analyst can often adapt some form of system charting to the management survey. System flow charts can be prepared in several levels of detail, for varying purposes (e.g., record following, computer logic, functional flow).

a. A general system chart can be developed when a knowledge of overall data flow and processing is desired. This chart (fig. 34) portrays the major documents used in the system, the interrelationship between departments (if multidepartment survey), and the major files used. The chart provides a single picture of the total management system. The content of the chart provides an indication of data activity as well as human and computer performance for balanced effectiveness.

b. A functional flow chart emphasizes the functional characteristics of the system. This chart identifies all of the record inputs, files, and output records as well as what data processing steps are necessary to update the file or produce the output report (fig. 3-5). The emphasis is on the data being manipulated, computations in file update, and input/output records used. The end result is a "picture" of the information system of the existing system for analysis or the designed system for implementation.

c. The two types of charts described above are primarily used to document an information system. The general system chart provides the overall understanding of the activity being studied. The system is then segmented into logical functional entities and described by means of the functional flow chart. This more detailed level of charting provides an insight into what records are used, the flow of the data in the function, and the resulting products provided from system interaction.

There are many different types of charts as well as many areas where they can be effectively used: as shorthand devices for gathering information during the interview, as tools to aid in rapid comprehension of a system area, or in presentations to management. Regardless of their purpose or the symbols used, the completed charts serve the analyst primarily as aids to orderly thinking and logical analysis.

Table 3-2
How to Complete a System Diagram

| Element | Completion |
|-----------------------------------|---|
| Description | Give a narrative of the area of coverage. It should spell out the relationship of the system to the mission responsibility, functional activities involved, and managerial goals for system operation. |
| Procedures Action | Give a highly summarized statement of what occurs in each separate procedure in the system. In essence, it will contain only about one sentence for each major action in each procedure. The remaining factors of the diagram are listed in relationship to the major action statement. |
| Organizational Elements | Lists the element(s) responsible for accomplishing the action statement. They are listed in the degree of detail necessary for clarity. |
| Skills | List the functional titles of the persons in the organizational element required to perform the major procedure action. |
| Equipment | Give in detail the equipment employed in accomplishing the action. |
| Information inputs | List information entering the system or procedure. The entry should identify the source of the information. There will not necessarily be an input to each major procedure action, nor is it necessary to list the output of the preceding step as an input. |
| Information Resources | List those reports, files, records, guides, manuals, etc., referred to in accomplishing the action. Information Resources added to or updated as part of the action will also be included. |
| Information Outputs | List all information created or dispatched as a result of the procedure. The outputs should be identified as to format and (if going outside that procedure) destination. There will not necessarily be an output from each major procedure action. |
| Objectives and Goals | Rank, for each procedure, the qualitative aspects of performance and the quantitative measures employed. |

Symbol**Definition**

- X** **WORK IS DONE**—This means that the activity or function described in actually performed by the individual designated.
- 1** **GENERAL SUPERVISION**—This cover the important aspects of planning, delegation, and control of the function described. It is more in the nature of administrative work where hour-to-hour direction is neither practical nor proper.
- 2** **DIRECT SUPERVISION OVER WORK DONE**—This signifies a more hour-to-hour check on the activity as carried out by a subordinate.
- 3** **SUPERVISION WITH COORDINATION**—Where two or more individuals or groups must work cooperatively on the same or similar activity and where it is necessary to bring about a unified approach to the function described, then the person responsible for the coordination is marked with this symbol.
- 4** **DECISION ON POINTS SPECIALLY SUBMITTED**—This applies to decision-making activities either where a specialist must be approached for technical decisions which affect a part of the overall problem or where delegation is extensive and only occasionally are decisions referred up to supervision. (Decision must be followed.)
- 5** **PERSON MUST BE CONSULTED**—Before a decision or an action is taken, the individual marked with this symbol must be consulted. His opinion must be heard through his advice need not be followed.
- 6** **PERSON MUST BE NOTIFIED**—Upon making a decision or taking an action, the individuals marked with this symbol must be advised. Knowledge of the action or decision will assist them in carrying out their own responsibilities.
- 7** **PERSON MAY BE CALLED IN FOR EXCHANGE OF VIEWS**—This is self-explanatory. The emphasis is on "may." There is no need to consult, or right of consultation. However, it is likely, pertinent, or normally done.
- S** Symbol so marked refers to a specific member of a group.
- P** Symbol so marked indicates participation in only a part of the activity described.

Figure 3-2. Definition of Symbols For Linear Responsibility Charting

| SYSTEMS | | SYSTEM DIAGRAM | | TITLE: | | | | | | | | | | | |
|---|--|--|--|--|--|--|--------|--|-------|--|---------|---|--|---|--|
| PROCEDURE ACTION | | | | | | ORGANIZATIONAL ELEMENTS | SKILLS | EQUIPMENT | INPUT | INFORMATION RESOURCES | OUTPUTS | OBJECTIVES & GOALS | | | |
| <i>Highly summarized telegraphic statement of what occurs in each separate procedure in the system.</i> | | <i>Listing of the element(s) responsible for accomplishing the action statement.</i> | | <i>Functional titles of the person in the organizational element required to perform the major procedure action.</i> | | <i>Equipment employed in accomplishing the action.</i> | | <i>Information entering the system or procedure.</i> | | <i>For reports, files, records, guides, manuals, used in accomplishing the action. Information resources added to or updated as part of the action will be listed in this section.</i> | | <i>Information dispatched as a result of the procedure.</i> | | <i>Rank the qualitative aspects of performance and the quantitative measures employed for each major procedure.</i> | |
| | | | | | | | | | | <input type="checkbox"/> present <input type="checkbox"/> obsolete | | | | | |

Figure 3-3. System Diagram

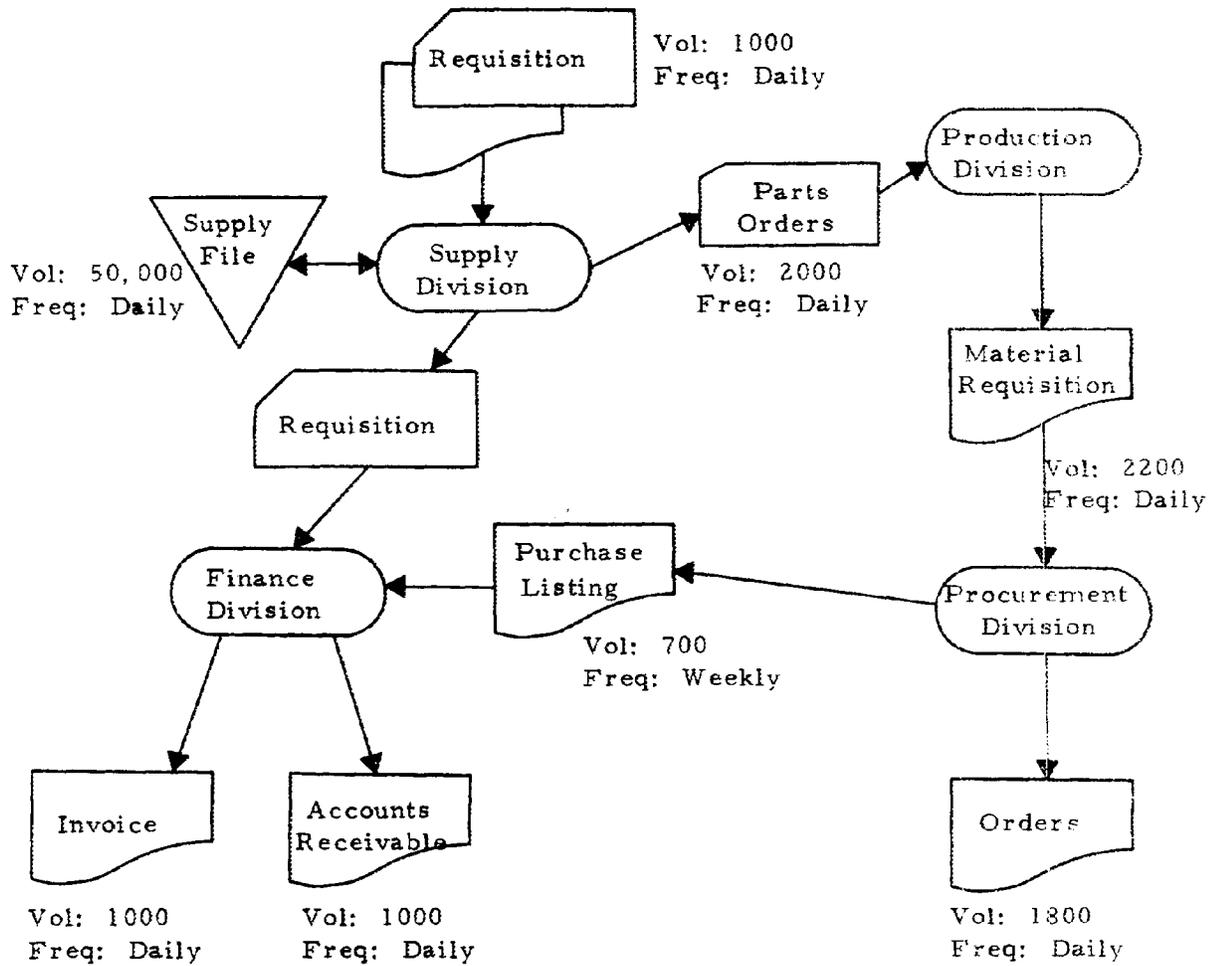


Figure 3-4. Example—General Systems Chart

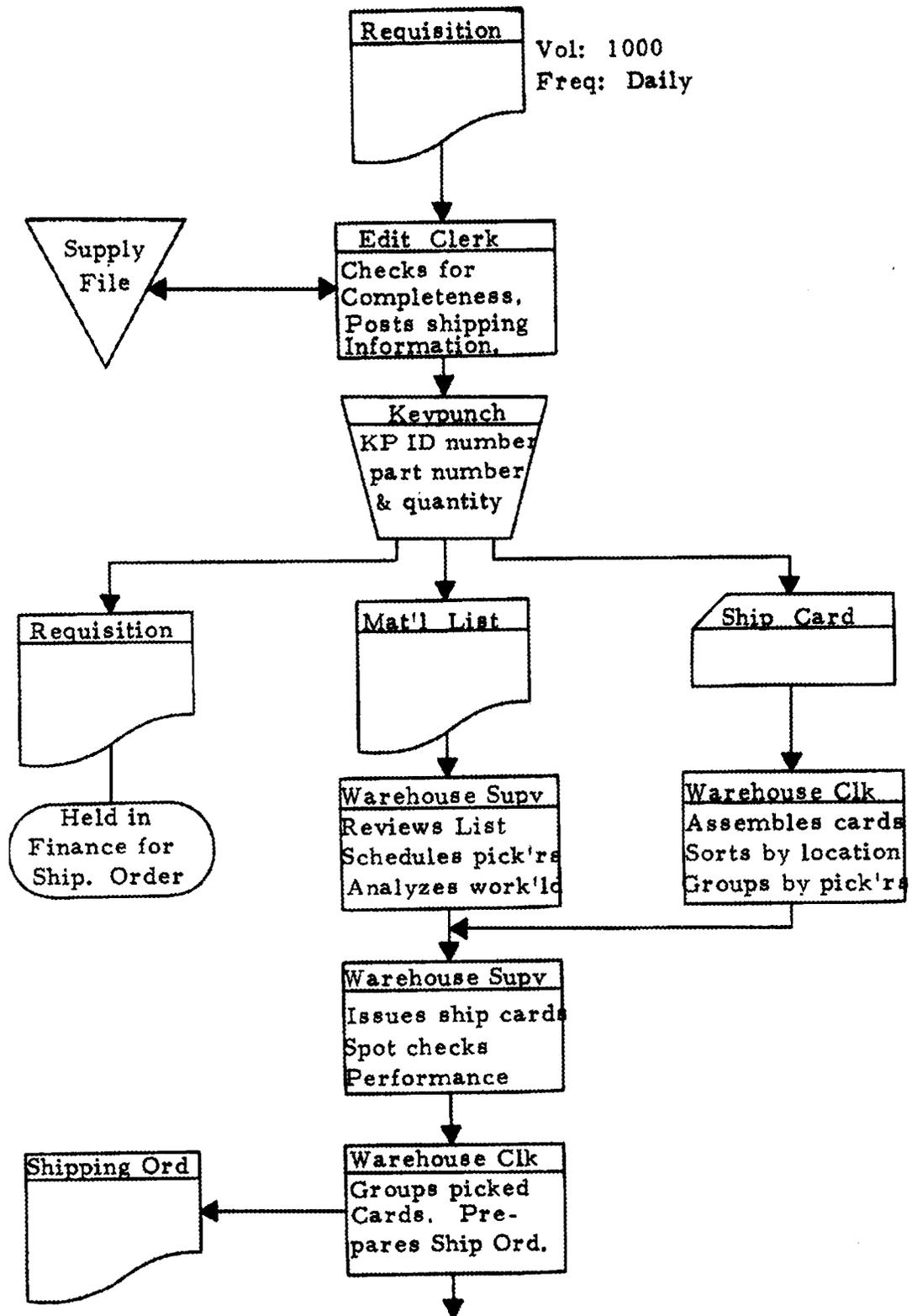


Figure 3-5. Example—Functional Flow Chart

Section IV

PRINCIPLES AND QUESTIONS FOR KEY SURVEY AREAS

The principles listed in this section are guidelines and represent the ideal situation. They are presented to assist the analyst in the overall evaluation of the organization. The analyst should deviate from these principles in order to represent the existing conditions.

The questions are to both the analyst and the functional manager in the identification of specific problem areas which require study and corrective action. They can also be used as indicators of the desired status for which the organization is striving.

The lists presented in this section should not be interpreted as being all-inclusive. The survey analyst should, in every case, develop a specialized listing of principles and questions for each major area in the survey. As answers are found which reflect adherence to or variance from the principles involved, the necessary processes of logical thinking and analysis are greatly facilitated,

3-10. Plans, Policies and Objectives.

a. Principles.

(1) The mission, policies, and objectives are stated clearly, published, and explained to the personnel who must carry them out.

(2) The mission and objectives are translated and organized into interrelated programs with specific goals.

(3) Objectives and goals, if fulfilled, will complete all aspects of the mission.

(4) Objectives are realistic in terms of funds and staff available.

(5) Planning and scheduling are well organized and continuous processes.

b. Checklist.

(1) Does the mission statement adequately describe the actual mission of the organization?

(2) Is the mission adequate to fill responsibilities designed by higher levels?

(3) Are all of the elements of the mission essential?

(4) Does it conflict with, duplicate, or overlap missions of other organizations?

(5) Is the mission proper for this organization?

(6) Is it clear and unequivocal? Is it in writing?

(7) Does the mission appear to be beyond the ability of the organization to fully perform?

(8) Could the mission or any part thereof be performed more economically or effectively by some other organization?

(9) Is there current and long range planning to accomplish the mission?

(10) Are prime objectives determined and defined?

(11) Are the results measurable?

(12) Are they stated as a result rather than an activity?

(13) Are supporting objectives leading to the attainment of each prime objective determined and defined?

(14) Are specific objectives organized and interrelated to enable attainment of overall program objectives?

(15) Are objectives communicated effectively to operating management in the next lower levels of the organization?

(16) Are all objectives practical and economical?

(17) What operational system(s) or end item(s) will each organizational element surveyed and its units be responsible for producing?

(18) What are the major phases of work and significant objectives through which the operational system (s) must move to completion?

(19) How are these objectives related?

(20) Does each management level develop supporting objectives for the next level below? After defining the supporting objectives, does each level review them with the next higher level to insure consistency before final decision?

(21) Determine what policies and related procedures are in effect.

(22) Determine whether published policies and procedures are being followed in actual practice.

(23) Are policies predicated on fact and sound judgment?

(24) Are policies established by appropriate authority?

(25) Are policies formulated in definite, positive, clear and understandable terms and stated broadly enough to permit discretionary action by responsible personnel?

(26) Are policies translatable into practices, terms, and peculiarities of every department or division of the organization?

- (27) Are policies supported and used by all responsible personnel?
- (28) Do policies possess a high degree of permanency?
- (29) Are there as many policies as necessary to cover conditions that can be anticipated but not too many policies so as to become confusing or meaningless?
- (30) Do plans set forth the nature, sequence, and interrelationships of supporting objectives which must be accomplished to achieve the prime objectives?
- (31) Do plans set forth the important objectives of the kind, quality and quantity for the work to be performed?
- (32) Do plans encompass the structure and relationships among units?
- (33) Do plans establish the feasibility of meeting the directed due date for the successful attainment of the objective?
- (34) Do plans delineate the various tasks required to achieve a predetermined objective, and the manner and order in which these tasks are to be accomplished?
- (35) Do plans show what task is expected of each component of the organization?

3-11. Organization Structure.

a. Principles.

- (1) The objectives of the organization and its sub-elements should be clearly defined and stated in writing.
- (2) Functions should be assigned to organizational elements to achieve most efficient and economic operation.
- (3) Clear lines of authority should exist from the top of the organization to the bottom. Clear lines of accountability should exist from bottom to top.
- (4) The responsibility, authority, and accountability of each position in the organization should be clearly defined in writing.
- (5) Responsibility should always be coupled with corresponding authority.
- (6) Authority to take or initiate action should be delegated as close to the scene of action as possible.
- (7) The number of levels in the management hierarchy should be kept to a minimum.
- (8) The span of management should be limited to that number of people which can be effectively supervised.
- (9) Everyone in the organization should report to only one supervisor.

b. Checklist.

- (1) What are the primary directives which contain guidance on organization structure?
- (2) What restrictions, controls, or limitations exist?
(These are courses of action which are not practical because of formal restrictions or informal taboos.)
- (3) What are the relationships and coordination necessary in the organization?
- (4) What are the basic kinds of work necessary to accomplish the mission?
- (5) What is the present pattern of organization? Why was it selected?
- (6) What were the, previous organization structures? Why were they changed?
- (7) Have the functional, product, customer, and geographical patterns of organization been compared to the organization objectives and goals to determine which better facilitates the accomplishment of the mission?
- (8) What financial considerations would be involved for each different organization structure?
- (9) What special capabilities does each staff element provide?
- (10) Does the staff element relieve line operations of burdensome tasks?
- (11) Does the staff element provide quality, cost, or time controls?
 - (a) Is this needed apart from the line element?
 - (b) Is uniformity of end product vital?
 - (c) At what level should these controls be provided—centralized or decentralized?
 - (d) For whom is the independent check provided?
- (12) Is the specialized area of such importance that it should be broken away for emphasis?
 - (a) Does it highlight a potential trouble spot?
 - (b) Does it provide timely service?
 - (c) Does it promote the specialty or make its coordination more difficult?
- (13) Since each staff element adds to overhead, does it provide its worth in terms of increased efficiency and effectiveness? Does the workload justify a separate element?
- (14) Is the relationship of the staff element to the line proper? Should it be: advisory, coordinating, service, control, or functional?
- (15) What authority does each manager have as far as: supervision, resources, and determining programs and procedures?
- (16) Do standards of performance exist for each management position?
- (17) Is each manager performing in his assigned areas of responsibility?

3-12. Systems and Procedures.

a. Principles.

- (1) Systems and procedures are designed to obtain the mission of the organization and implement its stated policies.
- (2) Systems and procedures are regularly evaluated with the aim of improvement.
- (3) Systems and procedures are simple and
- (4) A system is considered optimized when an ideal design balance is achieved between speed, cost, and quality in relation to its objective.
- (5) Management is vitally concerned with the organization's systems and procedures.

b. Checklists.

- (1) Are all the procedures in the system necessary?
- (2) Are all actions necessary to accomplish the function of the system?
- (3) Are the goals and objectives of the total system, and each of its component procedures, realistic and in harmony with those of the organization?
- (4) Are the organizational elements operating within the scope of their assigned functional responsibilities?
- (5) Do the skills used appear to be appropriate with the level of difficulty and importance of the actions?
- (6) Is the equipment used appropriate. Is other equipment on hand, available, or on the market?
- (7) Do the information inputs, resources, and outputs appear to be adequate and suitable?
- (8) Is the physical layout arranged properly within the work area?
- (9) Has motion economy been considered in facility layout?
- (10) Are elements performing related tasks adjacent to each other?
- (11) Are equipment and operations standardized?
- (12) Is work scheduled in accordance with preplanned time tables?
- (13) Are delays and inspections reduced to a minimum?
- (14) Are transportation and movement between work stations, sections, and divisions held to a minimum?
- (15) Does the physical layout make possible the maximum use of space for essential work?
- (16) Are work areas free of surplus equipment and furniture?
- (17) Have work processes been charted and examined for work simplification purposes?
- (18) Does each organizational element in the procedure have to be involved?
- (19) Is the involvement in keeping with its assigned functional responsibility?
- (20) Is the information input to the procedure satisfactory as to format, cycle, and quality?
- (21) Is each form involved in the procedure necessary?
 - (a) Is each copy prepared necessary?
 - (b) Is it prepared at the beat time?
 - (c) To the method of completion appropriate in view of person completing, volume, and subsequent use?
- (22) Is each record (file, register, log, etc.) required?
 - (a) Is it maintained at the beat point in the procedure?
 - (b) Is it maintained by the proper organizational element and person?
- (23) Could excessive movement be reduced by changes in layout?
- (24) Could delays be eliminated or cut down?
- (25) Could steps be subdivided to reduce skill requirements?
- (26) Where volume permits, could machines be used?
- (27) Could volume be pooled to justify mechanization or better equipment?

3-13. Resource Utilization.

a. Principles.

- (1) Allocate resources in accord with the priority of organizational objectives.
- (2) Plan and control the use of all resources in relation to the output of completed work.
- (3) Establish accepted levels of deviation from the planned resource usage. Evaluate deviations and take corrective action as required.
- (4) Establish acceptable standards for resource consumption.
- (5) Insure allocation of resources are coordinated to balance consumption in accord with planned schedule or work.
- (6) Provide a work-unit structure that permits identification of performance and resource consumption by unit.
- (7) Insure that facilities and equipment provide effective working conditions and an optimum level of quality service to the organization.

b. Checklist.

- (1) What are the criteria used in justifying the requirement for new equipment and facilities?
- (2) How are new equipment and facilities allocated?

- (3) Is adequate review of facility requests made by top management?
- (4) What is the organization's system of insuring that expensive cost resources are being adequately used?
- (5) Are resources left idle for long periods of time?
- (6) Is there a Preventive Maintenance Program?
- (7) What types of training programs are offered? To what extent do employees take advantage of those offered?
- (8) Are all skills used properly and with the assurance that special skills and abilities are not wasted?
- (9) Are the organization's resources authorized by the TOE or TDA up to the approved complement?
- (10) Are performance standards established and used? Are the work areas covered by performance standards appropriate for accurate measuring?
- (11) Is the effectiveness of the personnel within the accepted deviations from the performance standards? If not within tolerance, what caused the deviation from standard? What corrective actions are being taken?
- (12) If workload cycle fluctuates, can fluctuation be controlled?
- (13) What effort is made to eliminate overtime, peak loads, and backlogs?
- (14) Is there a correlation between work volume and strength of personnel?
- (15) Are there workload backlogs? If so, what resource(s) are needed to relieve the excess?
- (16) Is the equipment used for the purpose it was originally designed to perform?
- (17) Should the equipment be replaced with more modern equipment to improve effectiveness? (Consider the cost versus benefits.)
- (18) Do the supervisors manage and control their resources? Is the manager constantly aware of the distribution and consumption of his resources?
- (19) Are productive work units reported within prescribed definitions?
- (20) Have work centers to be measured been determined? Can more work measurement be used?
- (21) Are methods of computing performance standards understood by operating supervisors?
- (22) Are control devices in evidence to indicate:
 - (a) Progress in performance?
 - (b) Below standard performance?
 - (c) Man-hour loss?
 - (d) Absenteeism?
 - (e) Tardiness?
 - (f) Meeting established due dates?
- (23) Is cost of production recognized in terms of man-hours?
- (24) Are budgets maintained and used by management?

Chapter 4

MANAGEMENT INFORMATION SYSTEM AND SYSTEMS AUTOMATION CONSIDERATIONS

4-1. Purpose.

This chapter is concerned with management information system (MIS) and systems automation, and should be helpful to a survey analyst who is conducting this type of study.

4-2. Management Information System.

All organizations have a management information system (MIS) as a necessary function of the management process. Regardless of the size of the organization or the sophistication of the method of handling data, a data base must exist in some form to enable management and functional specialists to make decisions. A comprehensive management survey should examine the effectiveness of the existing MIS in relationship to a potential or ideal MIS to insure that management is provided with the proper information needed to accomplish its assigned missions. The objectives of an ideal MIS are to—

- a. Collect and maintain current data that is pertinent to the organization's mission.
- b. Process the data in the most efficient and economical manner, using management sciences to the fullest extent practical.
- c. Produce concise and timely information as required by each level of management for optimum execution of its functional objectives.

Any organization can be viewed as a management system and as an information system (fig. 4-1). The management system performs the functions of management and requires an information system to provide the data reference sources needed for managerial decision making.

The management survey should examine the degree of formality and consistency exercised within the management system of the organization as well as the timeliness and sophistication of the information system that interfaces for data

reference.

A method that can be used to relate the management system to the information system is the matrix or grid chart (fig. 4-2). With this tool, the missions and functional responsibilities can be listed in vertical column on the left and the reports relating to the responsibility across the top.

The matrix arrangements help the analyst to formalize and organize his findings in a simple but meaningful format. Emphasis is placed on the organizational responsibilities and the degree of management reports. Good management requires a reasonable degree of reporting to insure adequate feedback of performance, control of operations, trend indications, etc. The vertical columns list the names of the existing reports in the organization. This process reveals the absence and presence of reporting as well as the emphasis placed upon each function. The second column lists the types of reports that could or should be in the system based upon noticeable problem areas and results of interviews. The third column shows the source or consideration of needed data to satisfy any new reports suggested. For example, a report may be shown as needed for efficient management of a particular function but the data to generate the report is not being presently collected. The availability column will list these needs and could indicate where or how the data will be collected.

The matrix chart can do much to help the analyst during a survey of organizational reporting, since reports and needs for reports should be aligned with responsibilities. The matrix chart will aid the analyst in understanding the management system and the related information system. It can be used to show management the extent and emphasis of reporting in the organization, including gap areas.

4-3. Systems Automation.

During the management survey, the analyst should also study the organization for the degree and quality of automation of the information system. Data automation means the maximum use of machines or computers with a minimum of human effort. Use of prepunched cards or paper tape during the recording of actions is one example of reducing human effort in data recording and in eliminating potential errors entering the system. Many devices are available to facilitate the collection and perpetuation of data throughout the information system.

Punchcard readers, paper tape readers, optical scanners, keyboard devices, and magnetic strip readers can be used in many applications resulting in greater speed, accuracy, reduction of effort, and lower cost. These devices may feed data from their source directly to a computer or may be collected for later computer processing.

The analyst should determine to what degree the organization is automated in data reporting and in subsequent data processing. This evaluation can become a technical process requiring detailed computer knowledge but much can be performed by a general analyst. With only a limited background in computers, the analyst can identify certain factors and apply systems experience with economic reasoning to develop conclusions about efficiency and effectiveness of computer usage.

The volume of records required and the extent of processing required in an organization are the most significant factors influencing the degree of automation that can reasonably exist. A computer application would not normally be economical if the volume of daily input transaction records was low and numbered in the hundreds. An organization that receives thousands of transactions records per day should be processing data by computer and use of clerks in this effort would normally be inefficient and uneconomical.

The extent of processing data is the other factor to examine during systems evaluation. Records that enter a computer system require various processes before and after primary data manipulation. Because of these processes, the data, when it is in the computer, should be used to the fullest extent possible. The value of automatic processing of data would be quite limited, for example, an input record read into the computer would process only a value or quantity added or subtracted as related to a file record. The cost of entry of the data: and the probable output report in this example would probably not justify the value of application being performed on a computer.

Any MIS system should be designed to include all possible and necessary processing of the data records while in the computer. The use of such processes as analysis of trends, check for appropriate value within a range, use of a mathematical model, computation for a management indicator, accumulation for a certain type action, etc., should be considered where the value of the output report to management can be enhanced.

The analyst needs to examine these two main characteristics of an information system—record volumes and extent of data processing because the extent of data automation that should effectively be used will be based largely upon those two factors. Likewise, normal factors of cost of the system, cost of change, data availability to user, timeliness, accuracy, etc., must be considered in relation to these two characteristics. The conclusion can then be made as to whether the organization is automated to the fullest extent based upon management's needs and the nature of the data being used. DA Pamphlet 18-4, Data Processing Installation Review/Evaluation Checklist, provides a simple and straightforward methodology for evaluation of systems automation.

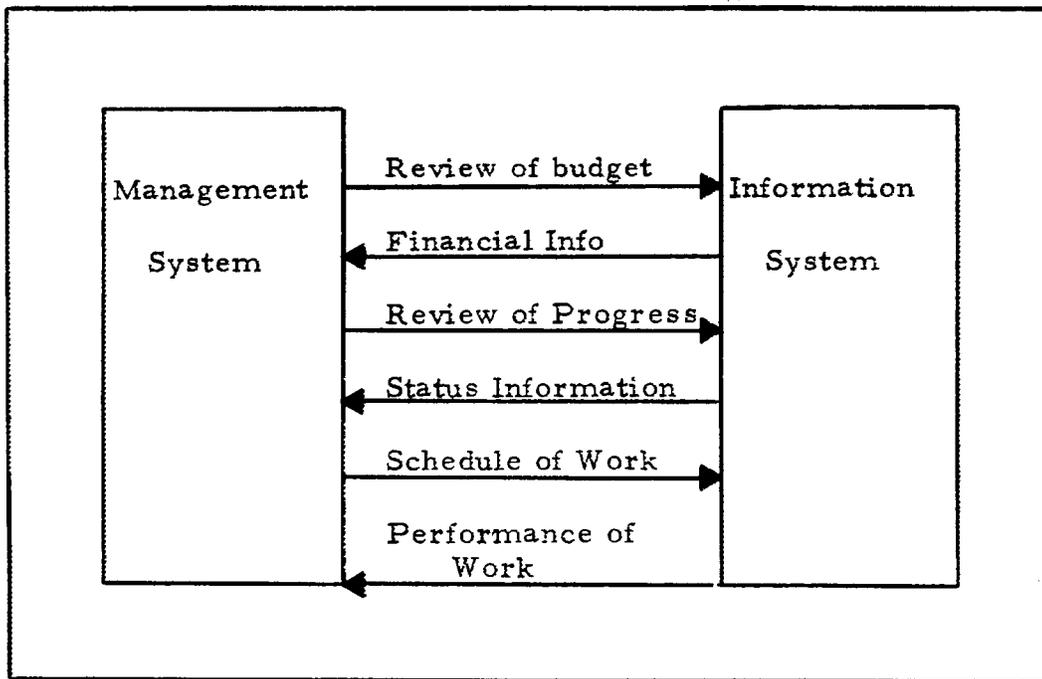


Figure 4-1. Management and Information System

| Organizational Responsibility | Existing Reports | Needed Reports | Availability of Needed Data |
|-------------------------------|------------------|----------------|-----------------------------|
| MISSION I | | | |
| Function A | | | |
| Function B | | | |
| Function C | | | |
| MISSION II | | | |
| Function A | | | |
| etc. | | | |

Figure 4-2. Matrix chart

Appendix A
SAMPLE MANAGEMENT SURVEY REPORT

NOTE: This sample is to be used only as a format guide for the mangaeement survey report. It does not represent Department of the Army policy or organizaional doctrine.

SAMPLE

MANAGEMENT SURVEY REPORT

MacArthur Arsenal
Washington, DC
December, 19xx

Conducted by:

Dates conducted:

Management Improvement Office
MacArthur Arsenal
Douglas J. Blatt, Survey Team Chief
Thomas R. Block
Robald D. Amon
Margaret F. Roosa
Patricia A. McIntyre

Follow-up reviews scheduled

Follow-up reviews conducted

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| 3. Linear Responsibility Chart | |
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| 6. Linear Responsibility Chart for Implementation | |

I. PURPOSE OF THE SURVEY

a. INTRODUCTION

By letter of 14 September 19XX, the Commanding Officer requested the Management Improvement Office to perform a Management Survey of the MacArthur Arsenal. The survey was requested in response to a feasibility study conducted during August. Due to the size and scope of the problems encountered during the feasibility study, the Commander requested that the survey include an overall evaluation of—

- The Arsenal’s plans, policies and objectives.
- The organization structure.
- The current operating system and procedures.
- Total resource utilization.

b. STATEMENT OF THE PROBLEM

The problems originally identified during the feasibility study, in brief, were as follows:

- (1) Overhead expenses during the prior four quarters had risen 15 percent over budgeted figures.
- (2) During the recent establishment of new production lines in Product Divisions A and B, there was considerable confusion regarding authority and responsibility for the implementation. Although the lines are now operational, much friction still exists between the product branches.
- (3) Equipment usage records reveal excessive equipment idle time while similar new equipment requests have been placed on requisition.
- (4) The storage and supply division has increased its Stock Fund Budget by 17 percent in one year, apparently due to problems with the Distribution Processing System.
- (5) The unavailability of programmer and computer time has delayed automation of a new Production Control System which was to have been put in operation along with the new product lines.
- (6) Employee labor union grievances have more than doubled during the last two quarters.
- (7) Overtime usage figures have reached seven percent with no appreciable reduction of the current two month schedule lag.
- (8) Lost time accidents within the manufacturing areas reached an all time high. An explosion in June has left five men hospitalized in critical condition.

c. FACTORS FOR MAXIMIZATION

By direction, any solution to the problems encountered was to be within the overall funding guidance as specified in the currently approved Five Year Plan. Other priorities established for the solution were to meet product delivery schedules and maintain the current high quality standards of the Arsenal.

d. BASIC ASSUMPTIONS

The following basic assumptions were established at the outset to narrow the scope of the study to manageable proportions within the study time frame permitted.

- Even though a period of continuing austerity exists, the Arsenal is willing to make investments to improve effectiveness and efficiency in its system of management.
- Workload for the Arsenal will not vary more than plus or minus 10 percent in the next five years.
- The present product lines will continue for at least five years.
- The present governing regulations will remain valid.

II. SUMMARY OF RECOMMENDATIONS

1. It is recommended that MacArthur Arsenal be reorganized to a functional pattern of departmentation as shown in Exhibit 1 of this study. The survey revealed a diffusion of mission and staff types of work, (See Exhibit 2.) The recommended pattern will designate the mission and the staff elements. The immediate benefit of the reorganization will be the improved coordination within each function which should insure improved delivery performance. Also, present equipment will be more fully used, thereby eliminating the requirements for new capital equipment. On a long range basis, the structure will permit specialization and the development of functional skills, thereby facilitating the efficiency and effectiveness of the organization in accomplishing its objectives.

2. It is recommended that functional responsibilities (authority, responsibility, and accountability) be clearly defined in writing in the form of management guides. Throughout the survey, responsibility for certain key functions was found to be neither defined nor acknowledged. In many cases the Division Managers were not fully aware of the limits of their authority and responsibility. The institution of Management Guides will alleviate the above problem and benefit the accomplishment of mission objectives. (An example Management Guide for the Head of Manufacturing Division is provided in Exhibit 4.)

3. It is recommended that the organization establish an integrated Long Range Planning Committee. The establishment of this committee will emphasize the long range planning function, provide the vehicle to integrate the organization into a cohesive unit, and provide centralized policy on long range planning while allowing for decentralized policy execution within each element.

It is also recommended that a Safety and Security Committee be established. This committee would recommend to the Commanding Officer policy statements in these two areas.

Finally, directives from higher headquarters have instructed this arsenal to establish a Position Management Committee—this is shown on the proposed reorganization.

4. It is recommended that the revised Distribution System developed by the survey team be adopted. The present system has caused high costs, excess stock inventories in some areas with unavailability of stock in others, and numerous complaints concerning slow processing. The benefits that will accrue from the new system are reduced requisition processing costs; decreased processing time; improved workflow and reduced manpower costs.

5. It is recommended that a Data Processing Office be established as a separate entity and the ADP function be removed from the Comptroller Office. At the present time, 70 percent of the data processing workload is for the mission or line organizations, while only 20 percent of the work is performed for the Comptroller Office. Since management wishes to increase the amount of computer assistance to the line elements, the establishment of a separate ADP Office will give this function added emphasis and visibility in addition to the independence desired.

6. It is recommended that a formal personnel management program be instituted. At present, labor relations are strained. Of particular significance is the lack of a career development program for specialists and managers. There exists no integration of individual goals with the organizational goals. The establishment of a personnel management program will allow the training of individuals to fill future in-house positions, reduce labor relation strife, and improve employee performance.

7. It is recommended that the Arsenal develop a sound DIMES program in order to more effectively manage human resources, provide more realistic standards, increase the overall level of performance, and better use total resources.

8. It is recommended that a Management Reporting System be established to give the manager adequate information on which to base his decisions. At present, there does not exist within this organization any type of integrated reporting system to enable a manager to receive timely information.

III. FINDINGS

(This section should contain the detailed findings and explain the logic of the recommendations. For demonstration purposes it has been abbreviated. The paragraphs correspond with those in the Summary of Recommendations.)

1. In the interviews and through other information collected, the survey team found that mission type work and staff type work were many times under the same executive. There was no division between these two types of work. The same pattern of organization has existed for twenty years even though the mission and objectives of the Arsenal have changed drastically. The present structure does not provide for logical homogeneous groupings of staff and mission activities. Under the organizational structure now employed, there exist excessive layers of supervision—this is quite evident in the Assistant Division Head and Assistant Branch Head positions. This layering of supervision has caused confusion and poor communications within the entire organization. In view of these problems and management's concern for reducing total operating costs, the functional pattern of departmentation was selected. The reorganization will delineate the staff and mission activities (para 6), reduce layering and produce a pattern of departmentation which will minimize the cost of capital equipment. The proposed reorganization can be accomplished within current resources.

2. Throughout the survey, there existed many instances where managers were unaware of their total authority and responsibility. The survey team was unable to find any instances where management had current records of departmental responsibility and authority. The Linear Responsibility Chart (Exhibit 3) reveals some of these areas of confusion covering management's responsibilities. The preparation of the Management Guide (Exhibit 4) for the new organization will clarify the areas of confusion and assign to writing each manager's authority, responsibility, and accountability.

3. Each manager interviewed by the survey team stressed the need for more coordinated long range planning efforts within the organization. A planning function is carried out by each manager but there does not exist any integrated Arsenal planning program. As it now stands, there does not exist any vehicle for policymaking in the long range planning area. With the inception of a long range planning committee, the integrative vehicle could be established still leaving the decisionmaking at the manager level.

4. The present Distribution System at the Arsenal was found to be quite ineffective and costly. The specific problems identified were that the personnel were not effectively used, some of the functions performed were not related to the branches or divisions' functional statements, and slow processing time resulted from excess checking and reviews. The new system will better meet the system goals of filling 98 percent of all requisitions on time and insuring that in-storage product spoilage and damage does not exceed 2 percent of the dollar value of products held.

5. At present, Automatic Data Processing is under the Comptroller's Office. During the interviews conducted, it was related that management would like to use automatic data processing to develop a management information system and other in-house reporting systems. Data processing, as a separate entity, could staff for and accomplish this service in a more direct and effective manner. Data processing, rather than providing only financial services, should be organized to provide staff services to all departments. Also, the proposed new organization structure will emphasize the need for product coordination and control systems on an Arsenal-wide basis rather than the current Divisional basis.

6. Several organizational units require changes. One of the areas in need of change is the personnel management program. The existing policies on personnel management are in need of revisions and their current de-emphasis is not in accord with DOD objectives and policies. Many labor relations problems were exposed during interviews which could be lessened with a formal personnel management program. With added emphasis to the personnel function, morale and performance in the Arsenal should rise.

Another function in need of emphasis is Safety. The safety record of the Arsenal has been suffering for some time due to the delays caused by evaluating and correcting possible safety hazards. In accord with higher echelon policy guidance and considering the Arsenal's "explosives" problem, it is recommended that a separate Safety Office be established, reporting directly to the Commander. This action will give the program proper emphasis and permit timely action on possible safety hazards.

One other function, quality assurance, which is essentially a control function, is currently assigned to a line organization. Due to the nature of this function, it is recommended that quality assurance be separated from the line organization. An independent appraisal of quality can be made only if this function is allowed the independence required of any inspection activity.

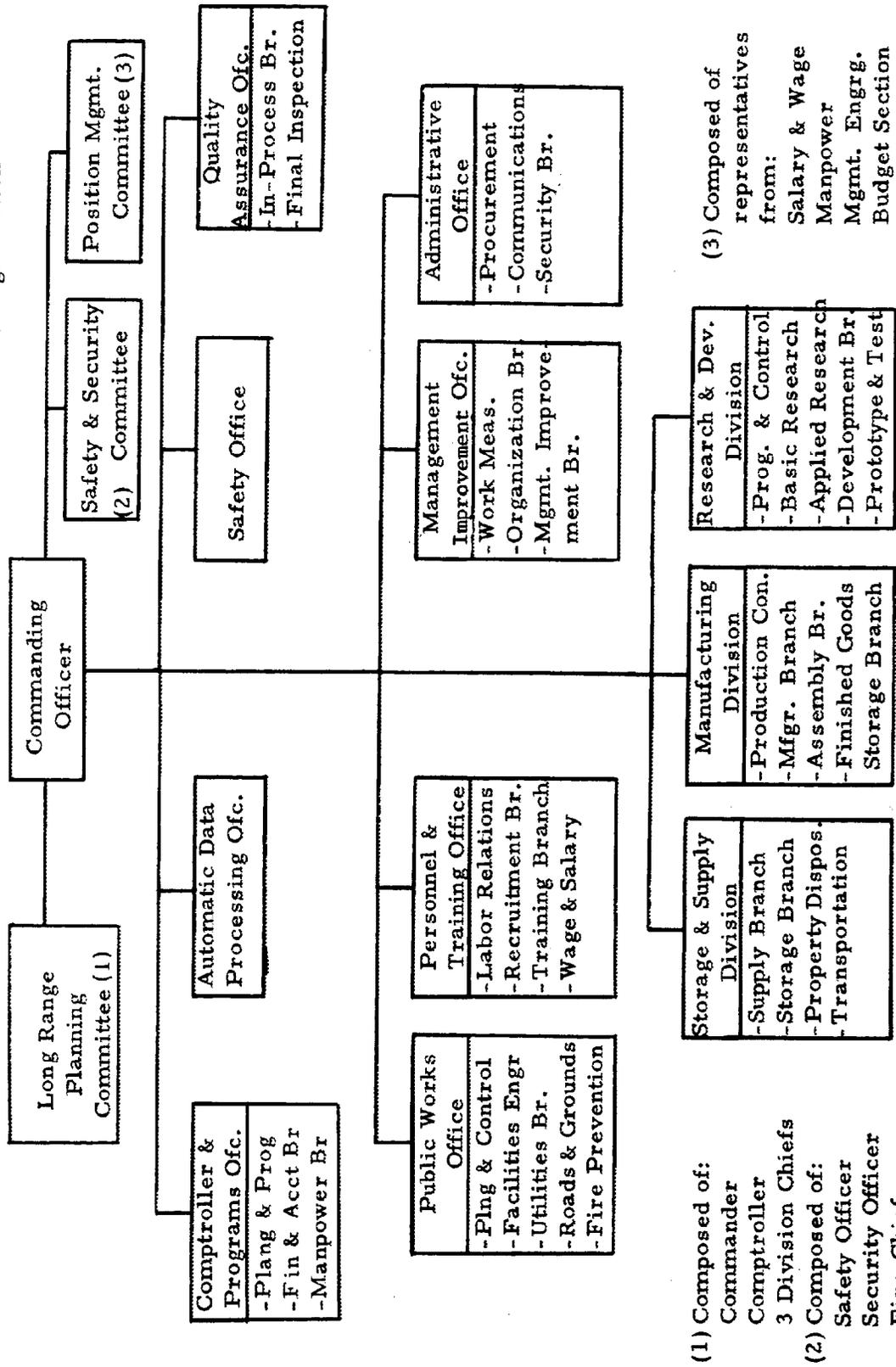
7. In the organization, 71 percent of the total productive hours worked had been measured; 29 percent had not been measured. All performance standards had been established from historical data and had been calculated by dividing the actual man-hours charged during the specified time period by the number of work units produced. In this case, complete reliance on the generation of performance standards from historical data has resulted in poor use of human resources. This analysis, along with general observations of work in process, provided evidence indicating the Arsenal is accepting a level of performance far below that which could be performed.

8. The present management reporting system used at the Arsenal consists simply of reports requested by each manager. No total system has been established to relate each manager's information needs. There is no formal system to integrate the management process of the Arsenal with the information needs.

IV. IMPLEMENTATION PLAN OF ACTION

The time phasing of the recommendations and the responsible organizations are shown on Exhibits 5 and figure 3-2. (A detailed discussion of implementation plans should follow in this area. This discussion as well as other comments, credits, appendixes, and attachments has been deleted from the demonstration report.)

MAC ARTHUR ARSENAL
Proposed Reorganization



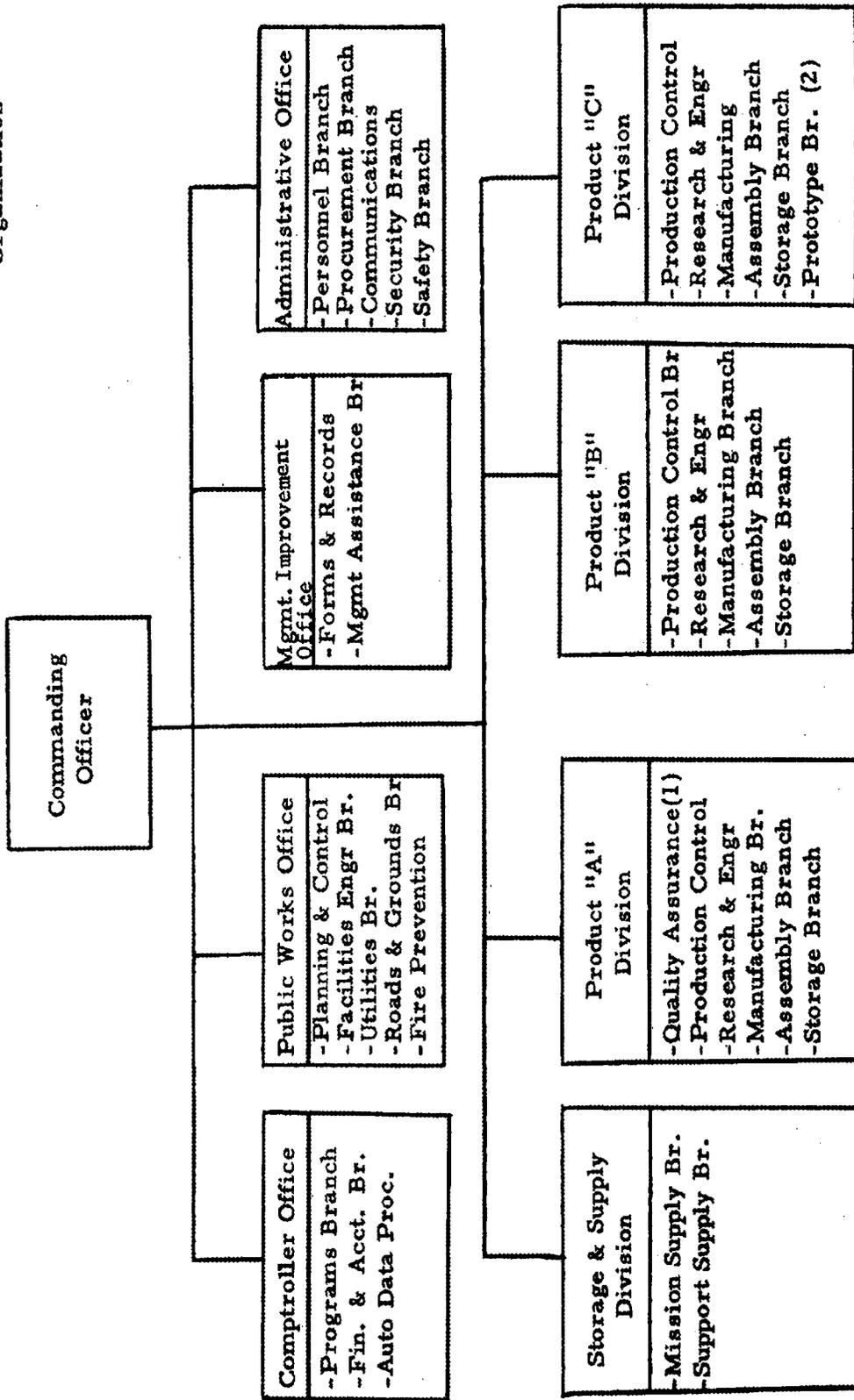
- (1) Composed of:
Commander
Comptroller
3 Division Chiefs
- (2) Composed of:
Safety Officer
Security Officer
Fire Chief
- (3) Composed of representatives from:
Salary & Wage
Manpower
Mgmt. Engrg.
Budget Section

Communications Officer (as reqd.)

Figure A-3. Exhibit 1

Present Organization

MAC ARTHUR ARSENAL



- (1) Performs Quality Control for Product Divisions A, B, & C.
- (2) Performs Prototype and Testing for Product Divisions A, B, & C.

Figure A-4. Exhibit 2

| To Establish Production Lines For Hand Guns | Division | | | | | | | | | |
|---|-----------------------|-----------------------|----------------------|--------------------|-------------------------|-----------------------------|------------------|------------------------|-------------------------|-------------------------|
| | Commanding Officer | Comptroller Office | Management Office | Engineering Office | Product "A" Division | Quality Assurance Branch | Safety Branch | Public Works Office | Product "B" Division | Product "C" Division |
| Commit Funds | 1 | X | 6 | 6 | 6 | | | 6 | 6 | 9 |
| Obtain Drawings | | | X | 6 | 6 | | X | | | |
| Prepare Bill of Material | | | 6 | X | | | | X | X | |
| Prepare SOP | | | X | 6 | 7 | 5 | | | | |
| Install Tooling | | | 2 | 5 | | 7 | X | 5 | 5 | |
| Set Up Line | | | 4 | X | 5 | 5 | | | | |
| Operate Control Check | 3 | | | X | X | | | X | X | |
| Stop Line if Necessary | 6 | | 6 | 6 | X | | | | | |
| Reoperate Line | | | | X | 6 | | | X | X | |
| Perform Final Inspection | | | | 1 | X | | | 6 | 6 | 6 |

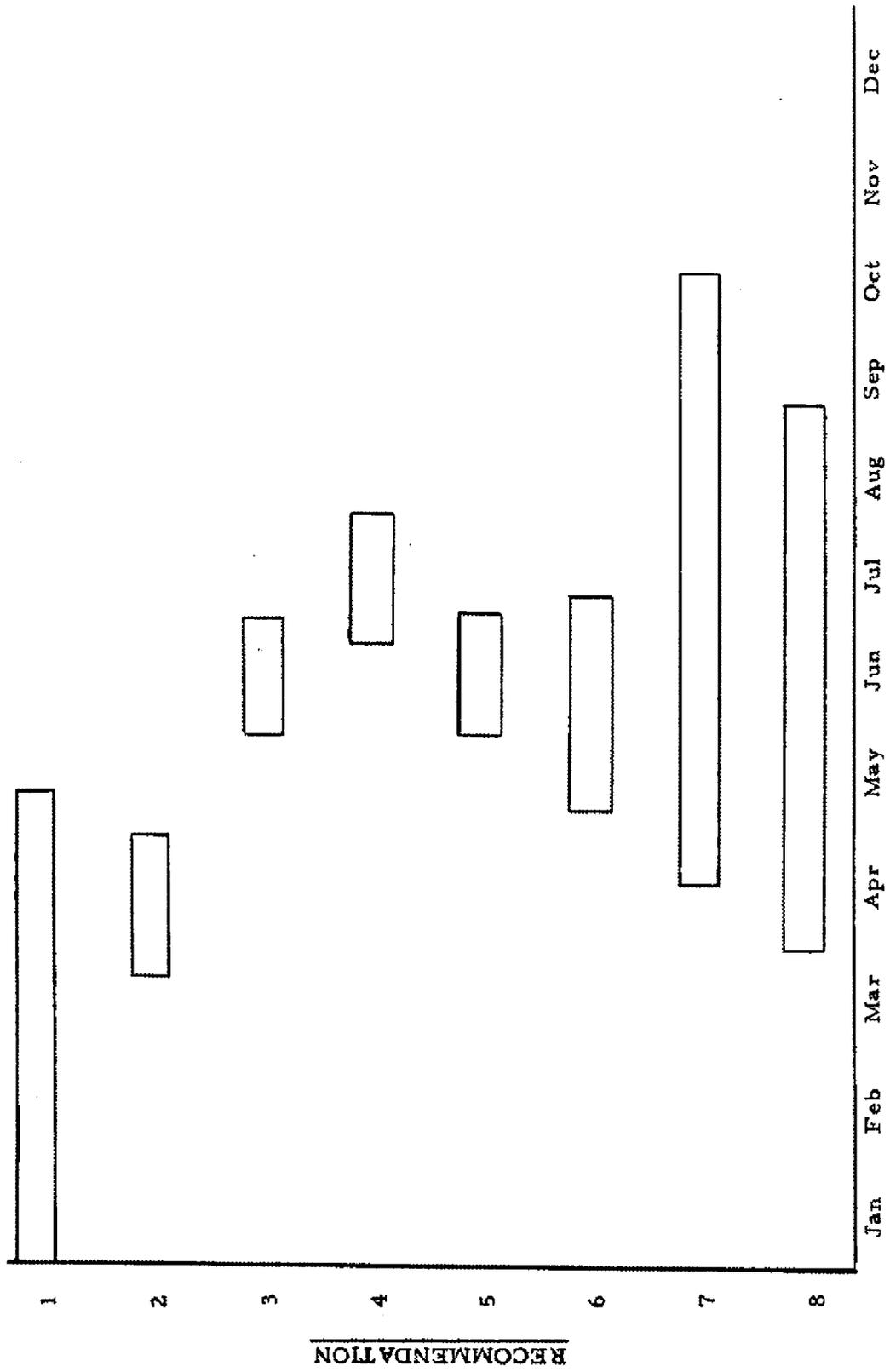
- X = Work is done.
 1 = General Supervision,
 2 = Direct Supervision over work done.
 3 = Supervision with coordination.
 4 = Decisions on points specifically submitted.
 5 = Person must be consulted.
 6 = Person must be notified.
 7 = Person may be consulted.

Figure A-5. Exhibit 3

| MANAGEMENT GUIDE | |
|---|--|
| Position: Chief, Manufacturing Division | |
| MISSION STATEMENT: | Responsible for conducting the production control, manufacturing and assembling for a products produced at the Arsenal. Also responsible for the operation of the Finished Goods Warehouse. |
| AUTHORITY: | Within the limits of approved programs and command policies, the Chief of Manufacturing will establish and administer procedures to provide the required number and skill of personnel to execute approved production schedules. He will assign the usage of equipment to his subordinate General Foreman, evaluate and present capital equipment needs to the Long Range Planning Committee. He will recommend organizational changes to the Commander and establish policies and procedures within his division. |
| RESPONSIBILITY: | Performance of his division is determined by joint discussion between the Commander and Division Chief considering project priorities, schedules, lead time needs, and allowable deviations from time and quality standards. Resource acquisition authority must be secured through the Comptroller and Programs Office for all resources: Money, Manpower, Material, and Equipment. Workload will be approved by the Programs Branch after discussion with the Division Chief. The formal reporting system will be used as established by the Management Engineering Office. Exception reporting will be established at the Quarterly Review and Analysis meeting of the Commander. |
| ACCOUNTABILITY: | The division chief reports to the Commander for overall program accomplishment. Material and equipment accountability must be made to the Comptroller and Programs Office, which will report results to the Commander. Participation is required on the LRP Committee, and the Position Management and Safety/Security Committees when his Division is involved. The division chief is responsible for timely responses to external inspections, as requested by the staff office responsible for answering inspection reports. |

Figure A-6. Exhibit 4

IMPLEMENTATION SCHEDULE OF RECOMMENDATIONS



RECOMMENDATION

Figure A-7. Exhibit 5

| RECURRING DATA ANALYSIS CHART | | TITLE, DESCRIPTION, OR SOURCE | | | | | | | | | | | | | | | | | | | | PAGE OF PAGES | |
|---|-----------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|--|
| | | Current Organization | | | | | | | | | | New Organization | | | | | | | | | | TOTAL | |
| SUBJECT OF ANALYSIS OR ACTIVITY | | | | | | | | | | | | | | | | | | | | | | | |
| LINEAR RESPONSIBILITY CHART OF IMPLEMENTATION | | | | | | | | | | | | | | | | | | | | | | | |
| ANALYZED BY | | | | | | | | | | | | | | | | | | | | | | | |
| JAMES A. LOW | | | | | | | | | | | | | | | | | | | | | | XX Dec XX | |
| ITEM | | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | NO. | TOTAL | |
| 1 | Reorganization | 1 | 5 | 6 | X | 5 | 5 | 5 | 5 | 6 | | | | | | | | | | | | | |
| 2 | Management Guides | 1 | | | | | | | | | 5 | 5 | 5 | 5 | X | 5 | 5 | 5 | 5 | 5 | 5 | | |
| 3 | A Long Range Planning Comm. | 1 | | | | | | | | | X | | | | | | | X | X | X | | | |
| 4 | Safety & Security Committee | 1 | | | | | | | | | | X | X | | X | | | | | | | | |
| 5 | Position Mgmt. Committee | 1 | | | | | | | | | X | | | X | | X | | | | | | | |
| 6 | Distribution System | 1 | | | | | | | | | 6 | | | 6 | X | 6 | | 4 | 6 | 6 | | | |
| 7 | Data Processing Branch | 1 | 5 | | X | | 6 | 6 | 6 | 6 | | | | | | | | | | | 4 | | |
| 8 | A Personnel Mgmt. Program | 1 | | | X | 5 | | | | | | | | | | | | 4 | | | | | |
| 9 | Safety | 1 | | | X | 5 | | | | | | 4 | | | | | | | | | | | |
| 10 | QA | 1 | | | X | | 5 | | | | | 4 | | | | | | | | | | | |
| 11 | Transportation | 1 | | | X | 5 | | | | | | | | | | 4 | | | | | | | |
| 12 | Re-allocation of Resources | 1 | X | | X | | | | | | 3 | | | | | | X | X | X | X | | | |
| 13 | Work Measurement Program | 1 | | | X | | | | | | 3 | 6 | 6 | 6 | X | 6 | 6 | 5 | 5 | 5 | 5 | | |
| 14 | Management Reporting | 1 | | | | | | | | | 5 | 6 | 6 | 6 | X | 6 | 6 | 4 | 4 | 4 | 6 | | |
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X = Work is done
 1 = General Supervision
 2 = Direct Supervision over work done.
 3 = Supervision with Coordination.
 4 = Decisions on Points Specifically Submitted.
 5 = Person Must Be Consulted.
 6 = Person Must be Notified.
 7 = Person May be consulted

Figure A-8. Exhibit 6

Appendix B REFERENCES

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- AR 5-3, Doctrine and Philosophy for Management of Class I Installations
- AR 5-4, Department of the Army Management Review and Improvement Program (DAMRIP)
(To be printed)
- AR 5-5, The Army Study System
- AR 10-10, Class I Installation Organization
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- AR 18-1, Management Information Systems; Policies, Objectives, Procedures, and Responsibilities
- AR 18-7, Data Processing Installation Management, Procedures, and Standards
- AR 30-1, The Army Food Service Program
- AR 30-10, Central Food Facilities
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- AR 385-10, Army Safety Program
- AR 405-70, Utilization of Real Estate
- AR 420-42, Solid Fuels
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Appendix C INNOVATION IN ACTION

C-1. We Want Your Help!

In line with the conviction that “there is always a better way” we hope you will recommend suggestions for improving this pamphlet; or any part of the evolving and dynamic DA Management review and Improvement Program (DAMRIP). All suggestions to the Office, Comptroller of the Army are always thoroughly analyzed. However, don’t be discouraged if your excellent suggestion isn’t published immediately. Often suggestions are held until the end of the year or until enough are submitted to justify publishing a change.

C-2. How To Do It

The next two pages are pre-addressed form letters to the Management Improvement Office, Office, Comptroller of the Army. You don’t even have to type your ideas—if they are legible you can be sure they will receive careful consideration. Please be sure to include your return address so that we can thank you. If you don’t feel inclined to write but feel that you have a hot idea, just call us at OX 51768/51120—or use AUTOVON 22-57168/51120.

SUBJECT: Suggestion for Improving DA Pam 5-4-1

HQDA (DACA-MRM)
ATTN: DAMRIP Pamphlet
Washington, D.C. 20310

1. I am using this pre-addressed comment sheet to forward the following ideas for improving this pamphlet; or other idicated portions of the DAMRIP Program.

2.

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