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PRINCIPLES OF
STRATEGIC INTELLIGENCE

MILITARY INTELLIGENCE DIVISION
WAR DEPARTMENT

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In reply refer to Initials and No.

Op-23X

NAVY DEPARTMENT

OFFICE OF THE CHIEF OF NAVAL OPERATIONS

WASHINGTON 25, D. C.

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6 March 1946.

MEMORANDUM for Captain Hindmarsh. (Room 4621)

Subject: Intelligence Training.

Enclosure: (A) Confidential MID - Principles of Strategic Intelligence.

1. Enclosure (A) is forwarded for information.

2. It may be desirable to obtain additional copies for Op-23-C-31.

3. It is requested Enclosure (A) be returned to Op-23-X.

Wallace S. Wharton

WALLACE S. WHARTON,
Captain, USNR.

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FIRST TENTATIVE EDITION

PRINCIPLES OF

STRATEGIC INTELLIGENCE

October 1945

MILITARY INTELLIGENCE DIVISION

WAR DEPARTMENT

FOREWARD

In a world in which the United States has assumed global responsibilities and in which any development anywhere is likely to have reprecussions affecting the vital interests of our nation, an adequate organization for strategic intelligence is more indispensable than ever before. If such an organization has trained personnel using scientific methods for producing intelligence, it will enable our national leadership to make the wisest possible decisions for the maintenance of world peace and the promotion of national security. But if, in the closely knit world in which we now live, the means of estimating strategic capabilities are neglected, as they were in the past, the results may be little short of disastrous.

This first tentative edition of a manual on strategic intelligence brings together for the first time the principles of this science as they were developed in the course of World War II. It is intended to serve both as a guide for the planning and organization of strategic intelligence in the post-war period and as a basis for training the individuals who are to engage in it. It concentrates on defining the subject matter and setting forth the multifarious problems of a fundamental nature which must be solved; it does not attempt to offer all the solutions or to describe the detailed techniques. It should give the intelligence leader and the intelligence researcher an understanding of their essential missions and the perspective which they need for the performance of their duties.

Constructive comment on the general tenor, arrangement, and detailed content of this first draft is invited and will be given full consideration in its revision.

JRL/PNT

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Chapter I. INTRODUCTION

1. The Nature of Strategic Intelligence

STRATEGIC INTELLIGENCE is complete, accurate, and timely knowledge of the capability of foreign nations to make war. It is based on the scientific analysis and integration of detailed information from all possible sources on their present and potential military forces, their economic resources and development, their political organizations and activities, their physical geography, and their demographic, psychological, and social tendencies. The result of the concurrent study of all these factors must be accurately interpreted against the background of previous knowledge and in the light of the general situation to reveal their strategic significance. In time of war, strategic intelligence is the basis for military and political strategy, and to some extent for military tactics. In peacetime, as the only existing form of operational intelligence, it is the foundation for intelligent leadership in the conduct of our foreign relations and in the planning of our national defense.

2. The Need for Strategic Intelligence

Any nation which wishes to make wise decisions in its foreign policies and in its national defense preparations must base these decisions on knowledge of the affairs of other nations. International relations have never been based on faith, hope, and charity but always on hard fact and cold calculation. There is no reason to suppose that this will change in the foreseeable future. Any nation, whether aggressive or peace-loving, will pursue its national policies and defend its national interests with success if its leaders are thoroughly informed regarding the capacities and intentions of other nations. A nation not so informed will forfeit the influence which its position warrants in world affairs, and in time of war it will either go down to defeat or have to incur disproportionate expenditure in life and wealth when the emergency overtakes it. Strategic intelligence is an insurance against loss, and the effort invested in it will be repaid many fold.

There is nothing sinister or unfair in having an effective intelligence organization. Even if there were, the fact that all other nations have it would compel the United States to do likewise. The American tradition of open dealings and abhorrance of secrecy and intrigue have in the past created a distaste for intelligence operations which has resulted in great loss of life and great expense each time the nation has become

involved in war and in immeasurable loss of effectiveness in peacetime dealings. Yet the elements of the "spy thriller" are almost completely lacking in strategic intelligence, even in time of war. It is a function characterized by seriousness of purpose, perseverance, and patriotic service. It has its secrets, but these are analogous to those of other branches of the government. It does for the nation what a statistical department does for a corporation, or what any good business man always does for himself: sizes up the situation before taking action.

In the modern world the need for an adequate, well-led, and efficient system of strategic intelligence is greater than ever before. The interests and commitments of the United States, both in its own sovereign right and as a leading and responsible member of the United Nations, are world-wide. Rapid communications and economic interdependence have made all nations neighbors. Scientific discoveries have produced, and will continue to produce, new and deadlier long-range weapons which make American isolation a thing of the past. If another war comes, there will be no time for elaborate preparations or isolationist-versus-interventionist debates; the enemy will seek an immediate decision by a swift knock-out blow. Only by obtaining complete and accurate information on what is going on in all parts of the world and by the prompt and continuous synthesis of that information into strategic intelligence can the United States be assured that its interests will be safeguarded.

Strategic intelligence has been defined in terms of the war-making capabilities of nations. This is not a cynical or militaristic definition. It does not mean that the goal of every nation is to wage successful wars against other nations and that all its actions must be interpreted in this light. It means simply that, the world being organized as it is, the weight of a given nation in world councils and its bargaining power in its economic and political dealings with other nations are proportional to its inherent ability and willingness to enforce its views <u>if there were a showdown</u>. Usually such a showdown is avoided, simply because each nation is aware of both its own strength and the strengths of the others with which it deals. Either an overestimate or an underestimate of the strategic capabilities of other nations, on the other hand, will lead to a loss of bargaining power or to a war.

It was Hitler's misjudgment of British psychology which led him into World War II and his underestimate of Soviet political cohesion and industrial resilience which induced him to attack Russia. The Japanese leaders in 1937 similarly misinterpreted the available information on China's topographic, political, and

psychological factors and in 1941 misjudged both the psychology and the economic resourcefulness of the United States.

Strategic intelligence must be both comprehensive and concentrated. It must include knowledge of all details on all aspects of all nations, and at the same time it must produce a balanced synthesis of this knowledge for the guidance of the national leadership.

The complete details are needed both for their own sake and as a means of producing an intelligent and accurate synthesis. In themselves, they constitute the basis on which any detailed war plans of our own will have to be laid. For example, full knowledge of all the characteristics of a special weapon in the possession of a potential enemy is necessary in order to develop an adequate defense against it. As contributory to the synthesis -- the big picture -- the details are likewise indispensable. Napoleon in an armchair, looking at a large map of eastern Europe, studying fragmentary bits of information which had been supplied him on the supposed strength of the Russian Imperial armies, and otherwise relying on his intuitive genius, planned one of the most disastrous campaigns in history. He could not have made this blunder if he had had complete and accurate knowledge not only of Russian military strength but also of Russian defensive tactics, the climatic conditions to be expected, the state of the roads, the availability of food and forage in the countryside, and the probable attitude of the population along his line of communications. He may not have been able to study all these technical and specialized subjects in detail himself, but it would have been the function of his intelligence experts to furnish him, from the mass of detail, with a balanced synthesis of all the pertinent factors.

The world has since become much more complex, and the need for both the complete detail and the balanced interpretation has become much more urgent. At the same time, the methods of collecting and collating information on every conceivable subject and of producing intelligence at strategic level have been developed to a high degree of refinement. It is these scientific methods which are the subject of the present manual.

3. Character and Types of Intelligence

INTELLIGENCE is the product resulting from the integration and interpretation of evaluated and collated information.

This definition applies to all forms of intelligence, whether combat, specialized or technical, or strategic. The principles are the same, but the detailed methods, the tools, and the uses made of the product are different.

Intelligence must be carefully distinguished from information. Intelligence is the finished product; information is the raw material.

INFORMATION consists of a multitude of incoming reports; most of them are factual in nature; some are probably true, some are probably false, and some are partly true and partly false; some are prompt, and some are out of date; all are, in themselves, incomplete. Intelligence, on the other hand, must be complete, accurate, and timely. It results from the careful evaluation of each informational report according to both the reliability of the source and the probability of the content; the collation, or critical comparison, of all evaluated reports dealing with each subject; the integration of these collated reports into a sensible pattern, and the interpretation, or analysis of the significance, of this intelligence pattern against the background of other knowledge. Finally, to be useful, intelligence must be promptly disseminated, in suitable forms and in needed detail, to all authorized persons and agencies who need it.

COMBAT INTELLIGENCE is the knowledge of the enemy, in accordance with the above process, on which tactical operations in the field are based. Its sources are local ground and air reconnaissance, direct observation, interrogation of prisoners of war, exploitation of captured documents, and the like. Its subject-matter is chiefly military dispositions and movements. Its techniques are speedy evaluation and collation and immediate interpretation and dissemination; there is no time for elaborate recording and analysis. Its users are the commanders in the field, from company to army group, who must make the operational decisions.

Strategic intelligence, on the other hand, deals with all factors which can possibly affect the war-making capabilities of all foreign nations. It is as important in peacetime as it is in war. Its sources in time of war include all those of combat intelligence plus censorship of intercepted mail, the foreign press and radio, and several types of secret sources; in time of peace it relies chiefly on all kinds of published material and on official and unofficial observers abroad. Its techniques include a carefully planned organization, thorough analysis of all information, scientific methods of integration, and balanced interpretation. Its beneficiaries are the national leaders responsible for foreign policy and for planning the national defense.

4. Components of Strategic Intelligence

It has been said that strategic intelligence deals with

all details on all aspects of all nations. Naturally, if this is taken literally, the necessary information would fill many Libraries of Congress, and many thousands of people could be employed sifting it. In practice, therefore, strategic intelligence concentrates on those factors which will materially affect the war-making capabilities. These are relatively few in number. But at times any one of them may be dependent on other factors not originally taken into account, and the researches on a given subject of strategic significance may lead into innumerable byways. Thus in the last analysis, while the strategic intelligence organization cannot possibly digest all information on all subjects, it must nevertheless always know where to look for either the complete documentary material or the skilled specialists on any one subject.

The component elements of strategic intelligence are topographic, sociological, political, economic, Who's Who, military (ground, air, and naval), technical, and scientific intelligence. Each one of these elements is itself a specialized form of intelligence and may be dealt with independently of the others. During World War II, in fact, entirely separate organizations existed to handle various specialized forms of intelligence, but in each case for a specific purpose of limited scope. Strategic intelligence is attained only by the synthesis of all of them.

TOPOGRAPHIC INTELLIGENCE deals with the physical environment of man. It provides knowledge of the framework in which human beings live, work, and organize themselves and, more particularly, in which military operations take place. It is concerned with land forms, waterways, soils, vegetation, crops, and climate, and also with man-made routes of communication, ports and landing places, and cultural changes in the landscape. Topographic intelligence research requires knowledge of the sciences of geology, hydrography, climatology, geomorphology, ecology, soils, and botany.

SOCIOLOGICAL INTELLIGENCE deals with the people who inhabit areas, as distinct from their political organizations. It is concerned with races, language, population, level of culture, health, vital statistics, living conditions, gainful occupations, religion, national peculiarities and superstitions, and general attitude. Sociological developments are both the causes and the results of political movements; they are also closely related to topographic and economic factors. Their study contributes to strategic intelligence by providing knowledge of the demographic and psychological factors which determine the will of a nation to prosecute war.

POLITICAL INTELLIGENCE deals with governmental organizations and the relations between them. The concept of national sovereignty is the basis for all international relations, whether peaceable or otherwise. The decision to make war or peace, to observe or violate treaties, to encroach on the rights of neighbors, to form alliances, and otherwise to pursue all national aims is vested in the political leadership of each nation. The character of that leadership, its foreign and domestic aims and policies, the degree of support which it enjoys within the nation, and the types and strength of any opposition to it are therefore vital factors in strategic intelligence. To study them it is necessary to know the detailed governmental and administrative structure, the political traditions and ideals, the various political movements, and the leading political personalities of the nation. Political intelligence further deals with the relations between nations in various areas, involving the delicate balance of power and impinging upon numerous economic, psychological, and other factors.

ECONOMIC INTELLIGENCE deals with the natural and human resources of a nation, the industries in which its people engage, and the product of those industries. The capacity of a nation to produce the materials of war is obviously a vital strategic factor. The question whether it is self-sufficient or must depend on imports of essential foodstuffs and raw materials is another. These factors, in turn, cause a struggle among nations for access to strategic materials and competition in building up their domestic industries. Commercial relations between nations often lead either to political alliances or to political animosities. Severe economic depression may result in serious domestic political unrest or radical changes in living conditions, while continued prosperity and industrialization are bound to affect the national culture and folkways. A strong industry usually means rapid scientific development. The actual and potential strength of the armed forces of a nation is directly dependent on its ability to equip and supply them. For all these reasons economic intelligence is more basic than any other type, and economic developments are likely to have more far-reaching and inescapable effects on the ability or intention of a nation to make war than those in any other field.

WHO'S WHO INTELLIGENCE deals with all personalities who are likely to occupy important or responsible positions in the political, economic, cultural, scientific, or military life of a nation. It is thus, in reality, contributory to the other forms of intelligence rather than an independent type in itself. It is considered separately from the other forms because it has unique methods for collecting, evaluating, and collating its information

MILITARY INTELLIGENCE deals with the strength, organization, and combat effectiveness of the armed forces of a nation. It includes the study of Order of Battle (identifications and locations of units and their strength, composition, command structure and military personalities), military manpower, system of mobilization, weapons and equipment, uniforms and insignia, fortifications, tactics and training, and military supply and administration. All these subjects include the ground, air, and naval forces of the nation and take into account the potential armed forces in wartime as well as the actual forces existing in time of peace.

TECHNICAL INTELLIGENCE is the branch of military intelligence which deals with the technical design and characteristics of weapons and equipment. Only its final product, the combat effectiveness of a given weapon, enters into strategic intelligence, and its detailed study is therefore largely delegated to the technical services of the Army, Navy, and Air Forces.

SCIENTIFIC INTELLIGENCE deals with the progress of scientific research and development as it affects the capabilities of a nation to produce new types of weapons or to evolve new methods of warfare. It is contributory to economic, military, topographic and technical intelligence. It is concerned with laboratories, experimentation, and scientific personalities, and its interest in a new weapon ceases when the development phase is completed. It guards against the use of surprise by a potential enemy.

5. The Intelligence Process

According to previous teachings, the intelligence process consists of three phases: collection, evaluation, and dissemination. Actually, this is an over-simplification; it indicates only the broad framework of the process. It can be applied literally only in the lowest combat echelons, where the intelligence personnel are charged with gathering all reports of observations of the enemy, evaluating these reports (i.e. checking them against other observations and previous knowledge), and then promptly passing them on, with their evaluations, to their commanding officers.

At all higher levels, and above all in the case of strategic intelligence, it is more appropriate to distinguish no less than eight successive steps in the process of producing intelligence. Each is governed by a separate set of requirements and circumstances, and each is accomplished by special scientific techniques. Some of them are often combined into a single operation, but the logical distinction nevertheless remains valid. They are outlined briefly here

and discussed in greater detail in subsequent chapters of this manual.

DIRECTION is the overall guidance of the intelligence process. It requires a leadership which knows thoroughly both the momentary and the continuing needs for intelligence, the possibilities of exploiting all sources of information, and the techniques of organizing, staffing, and controlling the intelligence-producing unit. It involves far-sighted planning in anticipation of intelligence needs, the careful selection and adequate training of personnel, and the development and coordination of the most efficient organization for carrying out all the necessary functions.

COLLECTION is the gathering of all possible information from all possible sources and its speedy transmission to the intelligence-producing unit. It requires constant guidance on the intelligence needs, the organization and staffing of suitable agencies to exploit all available sources of information, and training the personnel of these agencies in the most useful methods of submitting the information which they gather.

SELECTION is the process of making the information which has been collected available to the researchers within the intelligence-producing unit both by initial circulation and by efficient filing and indexing. It requires knowledge of the functions and needs of each subdivision and of each individual. Its aim is to supply each individual in the intelligence-producing unit with all information in any way pertinent to his assigned subject, but at the same time to reduce to a minimum the amount sent to him which proves to be of no value to his work.

EVALUATION is the considered judgment of the accuracy, completeness, and import of an item of information received. It is the first step by the researcher himself in the production of intelligence. It includes an assessment of both the reliability of the source and the plausibleness or probability of the information itself. It is based on previous experience with the individual source or with the type of source concerned and on previous knowledge of the subject dealt with.

COLLATION is the critical comparison, element by element, of two or more related items of evaluated information. It is accomplished by studying both the actual content and the more remote implications of each item and then examining these implications to see whether they confirm, supplement, or contradict one another. Collation may lead to a re-evaluation of individual items of information.

INTEGRATION is the selective combination of items of evaluated and collated information to produce intelligence. It consists of fitting the pieces together after the value of each has been assessed and the content and implications of all have been critically compared. While previous steps often require much hard work, this is the phase in the intelligence process which demands a thorough knowledge of the subject and the exercise of intellectual discrimination.

INTERPRETATION is the analysis of the strategic significance of integrated material and its balanced relation to other knowledge. It is the final step in placing the intelligence produced in its proper perspective and telling what effect it will have on the overall situation.

DISSEMINATION is the timely distribution of integrated and interpreted intelligence, in suitable forms and in needed detail, to all authorized persons and agencies who can use it. Intelligence is worthless if it remains in the files, and it is of historic interest only if it is not given to the proper parties promptly. The act of dissemination involves careful consideration of the most useful manner in which to present the truth, the whole truth, and nothing but the truth.

6. Intelligence Agencies

Since strategic intelligence is the synthesis of all its component parts, it must obviously be carried on at a level close to the highest authorities of the government. A single agency should be responsible for it. This will not only avoid useless duplication of effort and possible conflicts of competencies but, much more important, the fixing of the responsibility squarely on one agency is the only way of insuring that the job will be done properly. This does not, however, exclude the participation of other departments of the government in contributing information obtained from their own collection agencies or in assuming responsibility, on sub-contract, for certain specialized components of strategic intelligence.

During World War II a great number of agencies, both in Washington and overseas, engaged in strategic intelligence or in parts of it. Much of the overlapping and conflict of interests which resulted was unavoidable, but much could have been prevented by more far-sighted planning. The various theater headquarters in Europe and in the Pacific branched out increasingly into political, economic, psychological, and other forms of intelligence in addition to the operational military intelligence which was their original responsibility within their respective areas; this was probably necessary

in the final stages of the war when these headquarters were preparing to assume the functions of military government. The Department of State, which had previously been concerned with diplomatic relations rather than with political intelligence, built up extensive machinery for both political and economic intelligence. The Office of War Information had a large organization for psychological intelligence. The Foreign Economic Administration collected, collated, and disseminated data on economic affairs all over the world. The Office of Strategic Services, in addition to its function of collecting information for the War, Navy, and State Departments, engaged in multifarious intelligence-producing activities of its own. The Office of Naval Intelligence concerned itself with ground, air, economic, and political, as well as naval, intelligence. The Military Intelligence Service extended its interests into all fields of intelligence and probably had the most comprehensive coverage of strategic intelligence of all the agencies mentioned. Officially, strategic intelligence was the responsibility of the Joint Intelligence Committee under the Joint Chiefs of Staff. Frequent exchanges and consultations among all the agencies concerned did much to prevent them from working at cross-purposes, but the system as a whole cannot be regarded as satisfactory. Too often it resulted in evasion of responsibility or in contradictory estimates at the highest levels.

In organizing strategic intelligence for peacetime it should be recognized that only a single agency which is clearly made responsible for the complete synthesis of all intelligence can guarantee the most effective results. What form that agency will take is still an undecided matter of high policy beyond the scope of this manual. It may be pointed out, however, that no such single responsible agency has existed in the past, nor have all the component parts of strategic intelligence, covered separately by different agencies, been treated adequately. Enormous quantities of information have been collected — economic information by the Department of Commerce; political and Who's Who information by the Department of State; and topographic, psychological, demographic, scientific, technical, and numerous other types of information by a variety of agencies, both governmental and private. But in most cases this information was collected and exploited for a specific purpose which fell short of the needs of strategic intelligence.

The strategic intelligence organization should be able to exploit fully the facilities of all these agencies for collecting their specialized types of information, and its own collecting authorities should keep in constant contact with them. But the government as a whole should rely on a single strategic intelligence agency for all completely integrated and properly interpreted intelligence on foreign nations.

7. Security

SECURITY, as the word is used in intelligence work, means the safeguarding of information. Measures to effect this may be either passive (keeping your mouth shut, observing the classification of documents) or active (primarily the work of counterintelligence). The information to be safeguarded includes everything which should not, in the best interests of the nation, fall into the hands of any foreign power.

Information may reach unauthorized persons by means of a document (report, study, tabulation, map, chart, blueprint, scrap of notepaper), the spoken word, or direct observation of activities or physical objects. It is necessary to safeguard not only complete and compiled information on whole subjects but even the smallest fragmentary items of information, since foreign intelligence services, operating like our own, are able to piece together laboriously such items from widely separated sources. No one person allowing a leak of a tiny bit of information is aware of the harm done.

So far as strategic intelligence is concerned, the information with which it deals should be safeguarded for two reasons: To protect the source and to conceal from foreign powers the amount and accuracy of our information regarding them. A secret source of information dries up the moment it is compromised. Any nation will gain an advantage if it can learn just how much another nation knows about its own strategic capabilities or intentions. Many foreign nations employ deliberate measures of deception, even in peacetime, to conceal their true strength and motives. Obviously they would be only too happy to learn, through indiscretions on our part, how successful or unsuccessful these measures may have been.

In time of war, extraordinary measures must be taken for security, both because there is more vital information to conceal (war plans, movement of troops, secret weapons) and because the enemy devotes enormous efforts and often adopts desperate measures to obtain information. In time of peace, since the immediate urgency of safeguarding information is less apparent, there is a serious danger that security measures will become so lax that important information will be divulged and the national interest will suffer irreparable damage.

Americans are particularly careless in the handling of information. They are noted for being open-hearted and communicative and are untrained in keeping secrets. They are usually unfamiliar with the methods used by other nations in gaining access to vital information, and they have a natural distaste for secretiveness. In dealing with strategic

intelligence, these characteristics, which are normally to be regarded as admirable, must be suppressed and overcome.

Even knowledge of the general direction which our intelligence effort is following will indicate to a foreign nation what further measures it should take for concealment or deception and possibly what strategic plans (i.e. military, political, economic, or a combination of them) our national leadership is developing.

Security measures may be divided into security of personnel, security of paper, area security, and personal security.

SECURITY OF PERSONNEL is the assurance that all persons who have access to types of information which should be safeguarded are completely loyal and trustworthy. It applies to all personnel having anything to do with strategic intelligence.

SECURITY OF PAPER embraces the measures taken to prevent classified documents (or documents which should be classified) from reaching unauthorized persons. Intelligence documents may be classified Restricted, Confidential, Secret or Top Secret, each subject to a different set of regulations as to who may make the classification, who may reduce the classification, and how the documents must be safeguarded. These regulations must be carefully studied and meticulously followed. At the same time common sense must be used in handling documents which are not marked as classified but which by their nature should be regarded as such. This applies to carbon paper used in typing classified papers, to card files and marked maps, to notes jotted down on the back of an envelope, and even to typewriter ribbon before it has been run through the machine twice.

AREA SECURITY consists of the measures to insure that classified papers are kept out of reach of unauthorized persons when no responsible person is in the area in question. It includes rules regarding the locking of cabinets, desks, and safes, the protection of combinations for combination locks, the handling of classified waste, and the elimination of security hazards such as quantities of loose papers lying on desks (which might blow to the floor). Elaborate precautions must be taken by duty officers and all other personnel to see to it that any area in which classified papers have been handled is completely secure before it is vacated for the day.

PERSONAL SECURITY (as distinct from security of personnel) is the responsibility of each person who has access to classified information to safeguard its security in all forms. It includes not only the conscientious observance of all measures for security of paper and for area security but particularly the security of

the oral cavity. Persons working in strategic intelligence should never talk shop outside the office. They should not even inform their closest friends and families of the nature of their work. They should drink in moderation, if at all, since alcohol loosens the tongue. They should be careful not to discuss classified matters over the telephone or to write regarding them through the open mail. Above all, they should have nothing to do with newspaper personnel.

The Four Horsemen of Indiscretion, all in league with the devil, are:

Enthusiasm
Conceit
Ignorance
Faith

Because of his genuine enthusiasm for the work he is doing, an intelligence researcher is in constant danger of "bubbling over" with it in the presence of unauthorized persons -- usually his closest friends. Because of his ever-present ego, he is open to flattery and taunt, the two most successful devices for eliciting information from people against their own better judgment. His ignorance of the importance of even minute scraps of information and of the elaborate methods used by foreign agents to obtain what they want may also lead him astray. Faith in the discretion of others, however well trusted they may be, is always misplaced; a secret ceases to be a secret the moment it is shared. The best principle is never to talk to anyone about anything outside the office; the next best is to limit conversation to inocuous subjects and to sidestep all curious questions remotely connected with intelligence work.

Security has its excesses, however. If applied unimaginatively it will hamper the dissemination of intelligence to the persons who need it. It should always be remembered that intelligence is worthless unless it is promptly placed in the hands of all <u>authorized</u> users. Similarly, security must not be allowed to lead to secretiveness <u>within</u> the strategic intelligence organization. Obviously, all persons who are expected to make accurate evaluations and interpretations must have access to all the information pertinent to their subjects. Provided that all the workers concerned are personally secure, the best results can be obtained only by the complete and free exchange of both information and intelligence within the organization. The security of the information with which they deal must be a constant preoccupation of all intelligence personnel, but internal security must not be carried so far as to become a detriment to the efficiency of the unit.

Chapter II. DIRECTION

8. Intelligence Leadership

Direction of strategic intelligence by fully qualified leaders is the prerequisite for its success. It means the far-sighted and understanding guidance and coordination of the whole effort in all its stages — collection, research, and dissemination. It demands anticipation of the intelligence needs, organization of the most efficient machinery for fulfilling them, and constant supervision of the operation of this machinery. Direction takes place not only at the top but also at all lower levels of the strategic intelligence structure. The sole requirement for the performance of this function is intelligence leadership.

The effectiveness of any organization is in direct proportion to the effectiveness of its leadership. This applies equally to a business enterprise, a football team, a cultural society, an exploring expedition, and a military unit on the field of battle. Without qualified, resourceful, and imaginative leaders any effort, however well organized and however well staffed with subordinate personnel, is foredoomed to failure. With inspired leadership, even an organization which is deficient in other respects will forge ahead. That the leader makes or breaks the organization is a truism which is demonstrated again and again in the history of nations and in the everyday experience of individuals.

The universal principles of leadership apply with particularly striking effect to the strategic intelligence effort. The concept of "intelligence leadership" as distinct from ordinary leadership in any other type of activity is a new one, and its significance has not hitherto been sufficiently appreciated. But there are a number of unique features about strategic intelligence which demand a special type of leadership. Only the most capable leaders, thoroughly imbued with the importance of their responsibilities and possessed to an exceptional degree of the gifts of broad vision, intellectual acumen, and human understanding, will meet the requirements.

The strategic intelligence effort has a high patriotic purpose. Its product is used by the highest officials of the government and cannot be less than the very best obtainable, since the national interest is at stake. Its ramifications go all over the world. It deals with a multitude of facts, ideas, possibilities, probabilities, and conjectures, which it gathers from innumerable sources and weaves into a sensible pattern by highly intricate processes of analysis and synthesis. Its tools are human brains — a multiplicity of different human brains working together. It must operate with clocklike

precision, since timeliness is one of its most essential requirements. Its secrets must be safeguarded. The personnel must be of unusually high caliber, and their enthusiasm must be kept at a high pitch. To guide such an effort the leaders must obviously have qualifications of intellect and character far above those required for almost any other type of human enterprise.

The intelligence leader is no mere executive. He must have a thorough grasp of the object, nature, and scope of the intelligence operations which he is conducting and of the means available for performing them. He must have close and constant contact with the researchers who actually produce the needed intelligence, and yet he must stay sufficiently aloof from the detailed processes to keep his perspective. He must know the general characteristics of the subject-matter being dealt with but must never imagine that he can understand its details as well as the specialized researchers who handle it. He must respect his subordinates and show his appreciation for their efforts; he must win their respect and confidence by a display of superior ability and devotion. He will demand absolute loyalty of all members of his organization, but in return he must demonstrate complete loyalty to them. In all matters he must set the example. In addition to guiding the efforts of intelligence research, he must think in advance of what will be the intelligence needs six months or longer hence and must systematically plan and execute the measures needed to fulfill them. Further, he must constantly check on the timeliness and form in which intelligence is being disseminated and must make sure that all agencies with a legitimate interest in the product of the strategic intelligence organization are receiving full and prompt service.

To meet all the above requirements it is essential that the intelligence leader divest himself of administrative responsibilities and other routine duties and delegate as much authority as possible. He must be free to lead the operations of his organization. He will find himself constantly fighting the temptation to sit back in his office and let himself get bogged down with paper work. He should spend as much time as possible visiting the various units and branches and talking to the operating personnel to learn their problems at first hand. He should always be receptive to constructive suggestions and in fact should solicit them, not only from his subordinate leaders but from the individual researchers. He must be able to put himself in the position of the researchers and see things from their point of view, and he must be ever alert to ways of stimulating their effort and improving their morale. Often it is the little things, not the big ones, that count most, and a leader cannot appreciate the "tremendous trifles" unless he wins the confidence of his subordinates. He cannot do this by making unreasonable demands upon them. A universal characteristic

of the inadequate leader is the issuance of stupid orders, based either on a momentary whim or on lack of a sense of proportion. The next worst thing to a senseless order is one which, though fully justified on the basis of the situation known to the leader who issues it, does not appear to make sense to the recipient. This can be avoided by the simple expedient of explaining its purpose or of giving a specific assurance that it is necessary.

While interesting himself in the problems of the individual members of his organization, the leader of strategic intelligence must devote his main attention to matters of broad policy and leave their detailed execution to qualified subordinates. His decisions must be based on a comprehensive understanding of the mission of strategic intelligence, the probable future demands to be made of it, and the potentialities for exploiting sources of information. He must establish appropriate collection agencies and see to it that their activities are guided by an Intelligence Plan embodying the specific requirements as they develop. He must lay down policies for the selection and training of personnel adequate in both quantity and quality to accomplish the mission. Finally, he must organize the intelligence-producing unit in the manner best suited to meet all the circumstances and must keep it flexible enough to adapt itself to new circumstances as they arise.

All the qualities required of the highest intelligence leader in guiding the effort of the entire organization are equally essential at all lower levels of leadership. Each unit, branch, or section chief must keep his own mission in perspective, constantly study ways of improving the machinery to accomplish it, set the example in all matters to his subordinates, and endeavor by personal contact to understand their problems and help to solve them. At the very lowest level, the desk chief must realize that the position which he holds entails responsibility for the work and the morale of those placed under him and demands of him, just as much as of his superiors at each level, the possession and exercise of all the qualities of intelligence leadership.

9. Personnel Selection and Training

a. General requirements. All research personnel in the strategic intelligence organization must possess to a high degree the various qualities of character, intellect, and attitude which are described in detail below. In addition to this "common denominator", each researcher must, through training and experience, develop special aptitudes and expert knowledge on the particular subject to which he is assigned, together with a good understanding of all other subjects closely related to it.

Only thus can the organization reap the benefits of the specialization and teamwork which are essential to its proper functioning.

The intelligence organization must have political experts, economic experts, military experts, scientific experts; experts on Western Europe, Eastern Europe, Southeast Asia, Latin America; and many who specialize on particular aspects of individual countries. Not only their fields of knowledge and interest but their temperaments and modes of thinking may and should vary -- within limits. Subject only to common possession of the necessary basic qualifications and common training in scientific intelligence techniques, there is no desire to mold the researchers into intellectual automatons or to stifle their individual characters; on the contrary, it is highly desirable that there be ample interplay of personalities who are different in their backgrounds and methods.

The only idiosyncrasies which cannot be tolerated are eccentricity, prejudice, egotism, clannishness, and complacency.

b. Basic qualifications. Every researcher who is to engage in strategic intelligence work must have the following basic qualifications:

(1) Loyalty. This is of course the sine qua non. There must be no question of the absolute devotion of the individual to the United States and his determination to defend and promote its interests above those of any other nation or those of any class or group. There can be no divided loyalties in intelligence work.

(2) Personal security. However loyal a person may be, he cannot be considered acceptable for intelligence work unless he knows, or soon learns, how to keep his month shut. Regardless of the moral aspects, indiscretion can be just as harmful to the national interest as disloyalty or outright treason.

(3) Enthusiasm. Apart from his personal loyalty and security, an intelligence researcher must have a genuine interest in the work he is doing and a conviction of its importance to his country. He must not be petty in judging apparent setbacks or other difficulties in the progress of the contribution which he is able to make to the promotion of the national interest but must be always ready to fight, not for his personal advancement, but for the cause to which he is dedicated. Joining the strategic intelligence organization means not only a career, with all possible provisions for personal well-being, but an opportunity to exercise constant personal initiative for the furtherance of the interests of the nation.

(4) Cooperativeness. Each researcher must be able to submerge his own ego, his specialized knowledge, and his particular

point of view in the functioning of the organization as a whole. Teamwork is the essence of an organization of research specialists. There is no room in such an organization for personal animosity, petty rivalry, or stuggle for personal credit. Complete loyalty to one's own unit and its chief is the best way of being cooperative.

(5) Intelligence. This is a quality which psychologists have long been trying, in vain, to measure. It is the native ability to reason, to make valid deductions. It can be cultivated by education, but the indispensable grey matter must be there to start with. The Intelligence Quotient is an indication, but it is not conclusive. An intelligence researcher must possess the faculty of evaluating reports impartially, relating them to other reports, and producing a balanced interpretation of the resulting intelligence pattern.

(6) Education. A college degree is not, in itself, a sufficient qualification for an intelligence researcher. Nor is an advanced degree automatically a decisive qualification. What is essential is that the student absorb and retain the knowledge imparted in educational institutions and, more important still, that he develop an ability to think clearly and thirst for more knowledge. Not the outward forms of education but the results in mental development are needed.

(7) Knowledge. A general knowledge of world geography, political affairs, economics, and military affairs is of course essential for proper strategic intelligence work. A good working knowledge of at least one foreign language is also highly desirable. Both these, however, can be acquired, if necessary, after joining the intelligence organization, provided the other qualities of mind and character enumerated are present.

(8) Experience. Previous research work of some kind and travel and residence in foreign countries are desirable but not essential. Such experience can be gained on the job if the other qualifications are met.

(9) Accuracy. A meticulous love of accuracy must be developed in each researcher. This includes both accuracy of detail and accuracy of balanced interpretation of an overall estimate.

(10). Objectivity. The researcher must be able to eliminate his personal bias and preconceived ideas from the consideration of any problem. He must seek only the whole truth, whether agreeable or otherwise.

(11) Imagination. Purely intellectual qualities are not enough in intelligence research. The worker must be able to think of all implications of any set of facts which confronts him, to fill in the gaps, to detect errors and inconsistencies, to visualize the whole picture as well as the details.

(12) Initiative. The researcher must never be content with the information reaching him or with the methods he uses for developing it into intelligence. He must constantly seek ways of improving the guidance of the collecting agencies, devise better techniques for collation and integration, and produce and disseminate intelligence spontaneously whenever he senses a need for it. He must be ever alert to ways of improving his own work and the functioning of the organization as a whole.

c. Training. The training of intelligence personnel is in two phases: preliminary training and continuing in-service training. The objectives of both are three-fold: to impart the principles of strategic intelligence, as set forth in the present manual; to develop certain qualities of intellect and attitude listed above (so far as they are capable of development); and to enable the researcher to gain knowledge and experience in the particular subject or subjects with which he is to deal and a sufficient comprehension of all related subjects.

Preliminary training takes the form of a course of instruction to which the prospective researcher devotes his entire time for a period of several weeks or months. This course is particularly concerned with the first two objectives mentioned above, but attention is also given to the third objective. All students are taught the nature and methods of strategic intelligence and its basic vocabulary: the essential difference between information and intelligence; the functions of direction, collection, selection, evaluation, collation, integration, interpretation, and dissemination; and the character of the topographic, sociological, political, economic, Who's Who, military, technical, and scientific components. They are given detailed instruction in the scientific techniques of the intelligence process and general training in the methods of handling each of the component factors. They are also given an insight into the structure and mode of operation of the strategic intelligence organization so that they will be able to fit themselves into any part of it. An effort is made, with the help of practical exercises and demonstrations, to develop such desirable qualities as accuracy, objectivity, imagination, cooperativeness, and initiative, and the students are given careful indoctrination on security matters.

The preliminary training in the actual subject-matter with which strategic intelligence deals has the aim of providing all researchers with at least a minimum knowledge and understanding of all the subjects. Their specialized knowledge of individual subjects can be acquired later. The ideal is that every researcher should know "something about everything, and everything about something". The full benefits of specialization can be obtained only if each individual, in addition to knowing his own specialty thoroughly, has a fair understanding of at least the broad outlines of all the subjects related to it and is thereby able to see it in

perspective, This will not only improve the accuracy of his own individual evaluations and interpretations but will provide the necessary basis for teamwork, which is fundamental to all intelligence activity. This teamwork is of two kinds: the continuous interchange of information and stimuli among researchers dealing with related subjects, and the periodic "teaming up" of various researchers for work on a specific project. For both purposes a comprehension of each other's subjects is necessary. Moreover, it will often be desirable to transfer researchers from one subject to another, either to widen their experience or to meet the changing needs of intelligence. Hence the preliminary training course includes not only an analysis of each of the components of strategic intelligence but also a series of lectures on the general political, topographic, economic, sociological, and military factors existing in each major geographic area.

After assignment to duty in one of the research branches the researcher begins his detailed training in his particular subject. The first few weeks of this in-service training should be partly on a formal basis. There should be time set aside each day for individual instruction by the more experienced researchers; there should be required reading and study; and there should be careful and constructive criticism of the form and content of the first few reports prepared by the newcomer. Subsequently his specialized training will continue on an informal basis; in fact it never ends, since he will never stop gaining knowledge and experience in his particular subject as well as in the general techniques of intelligence in all its phases. If possible he will be sent on one or more tours of duty abroad, in the area with which he is primarily concerned; he should then utilize the opportunity to perfect his knowledge of the language by conscious effort, or to acquire such knowledge if he did not already possess it, and to become thoroughly familiar with the customs and character of the people. He should never tire of exploring all aspects of both the subject and the country or countries with which he deals and should seek to become increasingly familiar with related subjects and adjoining countries as well.

10. Organization CONFIDENTIAL

a. General principles. Organization means systematic arrangement. The organization of any enterprise is the systematic arrangement of its parts in such a manner as to fulfill its mission most efficiently. This usually means dividing the overall mission into several logical components, or sub-missions, each of which is assigned to a subordinate unit; further subdividing these components of the mission into smaller and more specific elements and assigning these to smaller units; and so on down to the last individual. Thus each member of the organization has an assigned task; the tasks of the individuals making up a small group add up to a larger task; and all the tasks put together form a unified and integrated structure.

There are three opposites to "organization". The first is non-organization, or simple lack of organization, typified by the barbaric horde in contrast to the modern army. The second is disorganization — that which happens to the modern army when it is badly mauled by the enemy; its communications are broken down, some of its functions are not performed at all, and its command channels are confused, until it has a chance to "reorganize". The third opposite, and the least excusable one, is misorganization. This is the improper arrangement of the various parts, according to a supposed "system" which does not provide for the complete performance of the overall mission or for the integration of the various assigned tasks into a unified whole.

To be effective, an organization must meet three requirements: Comprehensiveness, specialization, and coordination. Comprehensiveness means that all parts of the overall mission must be fully accounted for in the detailed assignment of functions. Specialization means maximum subdivision of the mission into its basic elements so as to concentrate the efforts of each individual in a particular direction. Coordination means teamwork — the complete control and maximum interplay of efforts at all levels. The overall mission of the factories of the Ford Motor Company is to produce a particular design of automobiles as cheaply as possible. Their entire physical and human resources are "systematically arranged" in such a way as, first, to provide adequately for the performance of every necessary step in the manufacturing process; second, to break down the functions to the minutest mechanical operations which can be performed with maximum speed and accuracy by highly specialized men and machines; and, third, to insure perfect coordination all along the production line. Thus all three requirements are met. Without the first — comprehensiveness — obviously no cars could be produced. With a lesser degree of specialization the most economical use of both men and machines would be sacrifficed. Without perfect coordination there would be bottlenecks which would not only slow down the whole operation but cause much idleness and wasted material and effort.

b. Requirements of the strategic intelligence organization. The production of strategic intelligence is just as complex and delicately balanced a process as that of Ford cars. It can be accomplished only by a carefully planned and thoroughly integrated organization meeting all the basic requirements described above. In addition, since it deals with facts and ideas instead of nuts and bolts, and since its tools are human brains rather than riveting machines, it has special requirements of its own which must be fulfilled. These include avoidance of duplication, flexibility, stability, and staff control.

The basic requirement of comprehensiveness, as applied to the strategic intelligence organization, means that provision

must be made for adequate coverage of every aspect of every country. This does not mean that there must be at least one researcher devoting his full time to the sociological conditions in Ecuador and another concerned only with the topography of Greenland; but it does mean that the functions must be so allotted that information on any subject, however obscure, will fall clearly within the responsibility of a particular unit or individual. Missions must be so clearly defined as to preclude "buck-passing". If the situation in a given area changes, thereby suggesting new lines of research, the individuals responsible for following them up must be specifically designated without delay.

A corollary of this requirement is the avoidance of duplication. This cannot be achieved completely, and efforts to achieve it should not lead to excessive compartmentalization of research. The specialized fields of interest will necessarily overlap, and each specialist must be reasonably familiar with matters closely related to his own. Those who deal with related subject-matter should work together as a team, and to do this they should be in the same section and the same area so far as feasible. The situation should never arise of two people in different branches or sections studying exactly the same problem with the same materials, each ignorant of the other's activities.

The requirement of maximum specialization is met by making a detailed study of the subject-matter in each case and then breaking it down logically into as many special fields as the available personnel will allow. This must not, however, be carried to extremes. Overspecialization tends to destroy objectivity. A specialized field must not be so narrow that the researcher loses his perspective. A good precaution against this is to assign certain researchers a more general responsibility for wide fields of research; by keeping the broader view they can pull together the threads of the various specialized researchers within those fields.

Coordination of work can be obtained only by intelligence leadership. The leader at each level must not only set up initial machinery for liaison and coordination but must make sure that it functions properly from day to day. It is his duty to encourage the units or individuals subordinate to him to report all failures of coordination and the reasons for them, to take remedial action promptly if the difficulty lies within his own unit, and to seek suitable action at a higher level or by lateral contacts if relations with other units are involved. The chief barriers to coordination are usually individual pride and professional jealousy. They can be

overcome only if the leaders at all levels are thoroughly dedicated to the common task. However well the functions may be allocated, the strategic intelligence organization cannot operate efficiently unless it operates as a team.

Flexibility is essential to the strategic intelligence organization. There are constant changes in the world situation, the particular situation in different countries or areas, the opportunities and methods of collecting and transmitting information, the quantity and quality of the information obtained, the long-range and short-range intelligence needs, and the facilities for producing intelligence. All parts of the strategic intelligence organization must be so constituted that they can readily adapt themselves to all such changes. When Germany surrendered, the MIS had to concentrate its efforts more than before on the war in the Pacific, and it had to make the necessary changes in organization and assignment of personnel with maximum speed and without disrupting its operations. Similarly, if in the future a serious international crisis arises in a given area, or if a particular country appears to be developing a new form of warfare, the strategic intelligence organization must be able to shift its attention swiftly to the new problem without interfering with the smooth functioning of all its components.

At the same time, the stability of the organization should be maintained to the greatest extent possible. This requirement appears, on the surface, to be inconsistent with that of flexibility. But it is essential that the continuity of research on all matters of consequence be preserved even though the organization transfers its main efforts to whatever subjects is of the greatest immediate importance. There should be no hesitation in eliminating research on a matter which no longer has any significance, but foresight demands that all subjects of possible future importance be studied continuously despite momentary concentrations of effort on other matters. Once a subject has been dropped for some time, it may take many months to restore the study of it to an efficient basis; the files are dispersed, the sources of information have been neglected, the specialized research techniques have been lost sight of, and the personnel with the needed background knowledge and experience of the subject are no longer available. To avoid this, the form of organization chosen must provide for a permanent minimum of continuing research on all matters of possible strategic significance regardless of any alterations which may be made to meet new situations. Major reorganizations should be avoided since they interrupt research on all subjects; even if the new organization provides adequately for the study of a given subject, the wholesale reassignment of personnel and rearrangement of space and other facilities means breaking up the

research teams and informal procedures which are actually the basis for research operations.

Staff control is a device for improving vertical and horizontal coordination and for enabling intelligence leaders to perform their real functions of leadership in the intelligence organization. It involves the designation of individuals at each operating level to control, on behalf of the chief of the unit concerned, the administration, the flow of information, and the production and dissemination of intelligence. Each such individual maintains contact with the corresponding representatives at the next higher and next lower levels and in the parallel units at the same level. Administration is coordinated throughout the branches and sections without bothering the respective chiefs except on matters of policy. The individual in each unit responsible for the flow of information distributes the incoming papers to the researchers, solicits from them their criticisms of the quantity and quality of information on the various subjects, takes steps to procure better information from the collecting agencies, and coordinates the handling of information with his opposite numbers in the other units. The control of the production and dissemination of intelligence is similarly coordinated at the different levels and between the different units. The result of this system is that each leader has a responsible staff to conduct the detailed operations of his unit and that each major element of the operations is under intelligent and responsible control throughout the structure.

c. Special problems. It is not the purpose of this manual to lay down a specific form of organization for strategic intelligence. It aims rather to set forth the principles which must govern any form of organization; the details will then depend on the situation, the means available, and the judgment of the leadership. But in all cases a number of special problems must be solved in applying the basic principles and requirements outlined above.

The most important set of problems is the integration of the several functions which must be performed by the strategic intelligence organization. These functions are collection, research, dissemination, and administration. They must be kept distinct, but at the same time there must be provision for complete interplay among them. The problem is not solved by merely creating a separate group to handle each of these four functions. Each has its special techniques, but all must be coordinated according to a carefully laid plan.

Administration, for example, is necessary at all levels and within all components of the organization. A separate administrative group cannot alone provide for it; each branch and section must have its own machinery for handling this function. There are two essential requirements for administration: It must fill all the needs adequately and efficiently, and it must not interfere with the intelligence operations. It must comply with any pertinent regulations regarding personnel, equipment, and records, and it must be so conducted that it enhances, rather than obstructs, the effectiveness of the unit as a whole. Too often administrative personnel tend to forget that their mission is to serve the organization, not to control it.

The handling of information, including relations with collecting agencies, should be kept distinct from the production of intelligence. The researchers should not have to concern themselves with the channels of communication with outside agencies, the machinery for tapping sources of information, or the mechanics of routing and filing documents. But again, there must be maximum integration between the production of intelligence and the handling of information; researchers must be able to express their needs, to criticize incoming information and bring about improvement, and to initiate action to fill in the gaps. In other words, the machinery which is set up for collecting and handling information must be completely and constantly at the disposal of those who are to use the information collected.

Similarly, the dissemination of intelligence, while involving special mechanical techniques with which the intelligence researchers should not be concerned, must be fully geared to the process of research. The organization should not be so rigid that those responsible for dissemination cannot keep themselves fully versed in the problems of research and the actual or potential product of research at all times. Likewise, the researchers must have direct access to the unit which is planning and organizing the dissemination of intelligence.

A further problem of coordination arises within the part of the organization responsible for research. Since strategic intelligence deals with numerous aspects of numerous countries, it must be decided whether the overall organization of the research unit should be according to countries or according to aspects. Whichever method, or whatever combination of the two methods, is chosen, the research must be integrated both geographically and functionally. If the organization is purely geographical, there must be specialists in political, economic, military, and other subjects to coordinate the work functionally; if it is purely functional, there must be

specialists in the different countries or areas to coordinate it regionally.

Other special problems include that of filing documents, whether centrally or dispersed among the researchers; that of area security; the question whether to assign all clerical personnel to specific desks or to retain them in clerical pools; the problem of arranging the locations of the different branches and sections so that those with related functions are in the closest proximity; and the multifarious problems of liaison and coordination among researchers.

The highly complex problems of organization for strategic intelligence are not solved by drawing up an ideal organization chart. In addition to being perfect on paper, the organization must work in practice. To accomplish this, the intelligence leadership must make sure that all personnel are thoroughly indoctrinated in their own specific duties and in the functioning of the organization as a whole and that the subordinate leaders at all levels are constantly alert to ways of improving coordination and integration. The intricate machinery, however well designed for its purpose, will operate properly only if it is kept lubricated, and this means vigilance, imagination, and unceasing devotion on the part of the leadership.

11. The Intelligence Plan

In a combat unit, the Intelligence Plan is the device used by the G-2 to guide him in collecting the information currently needed. It consists essentially of a check list of subjects on which information is required, arranged in order of priority, with an indication opposite each item of the sources to be exploited and the specific steps to be taken for their exploitation. Whenever the list is revised, due to a change in the situation, the intelligence officer must issue new directives to his collecting agencies and set new deadlines for their reports. Thus the Intelligence Plan is constantly adapted to the changing needs of the headquarters which it serves, and by using this device the G-2 is able to provide his commanding officer with all available items of information of the types required at the time when they are needed.

In strategic intelligence the same basic principle is applied, though infinitely refined and elaborated to correspond to the universal scope of the subject-matter dealt with. The strategic Intelligence Plan is a guide not only for the collection of information but also for the production and dissemination of intelligence. It is based

on the current overall needs as determined by the intelligence leadership in view of the national interest and the world situation. These are interpreted by the subordinate leaders into directives for the coverage of the various aspects of the various countries, arranged according to priorities. These general directives, in turn, are translated into specific requests for information addressed to the collecting agencies and into specific projects for the production of intelligence. If properly handled, the Intelligence Plan will accurately reflect the momentary intelligence needs, will guide the efforts of all personnel of the organization, and will provide complete and timely coverage of all subjects of importance. It is the heart-beat of intelligence operations.

The strategic Intelligence Plan is not merely an outline of the subjects with which strategic intelligence is concerned. It is a detailed check list, kept constantly up-to-date, of the special subjects on which information or intelligence is required at any given time. It provides space opposite each item for indicating what steps have been taken to obtain the information required and what results have been achieved. Thus it shows at a glance the gaps or inadequacies in the necessary information and thereby serves as a basis for further action to improve the coverage.

Within the strategic intelligence organization the Intelligence Plan should be coordinated at a high level by an individual who is in close and constant touch with the top intelligence leadership, with the subordinate specialists and research sections, and with the agencies for collecting information. Subject to his guidance, the plan itself must be broken up into segments allotted to the various research branches and sections, since it is much too complex and detailed to be kept up by one person. Each segment of the Intelligence Plan, covering a single broad field of research, is further subdivided into narrower fields to be handled by specialized personnel who are in the closest possible contact with the researchers responsible for those respective fields. They will then keep a detailed record of the incoming information on the subject or subjects in question, will solicit from the researchers requests for information to fill in the gaps, and will forward these requests in suitable form to the appropriate collecting agencies. Each request and each response to it will be entered in the ledger as a means of checking the effectiveness of collection.

Collecting agencies themselves should keep their own Intelligence Plan, which should at all times reflect the overall strategic Intelligence Plan so far as it concerns the special field in which they are working. Thus an

observer in the field, for example, should keep a check list of the subjects on which he is able to collect information and opposite each subject should indicate the sub-sources available to him and the quantity and quality of their performance. This is the best method for him to determine his current effectiveness in covering the field to which he has been assigned.

Chapter III. COLLECTION OF INFORMATION

12. The Nature of Information

INFORMATION is defined as the raw material from which intelligence is produced.

This definition is not a figure of speech; it is to be taken literally. Like any of the raw materials of industry — mineral ores, crude petroleum, timber, textile fibers, clay, sand, and so on —, information must undergo considerable processing before it develops into a usable product. Its procurement must be guided by the anticipated needs for the finished merchandise. It is found in various stages of admixture and adulteration and often in more or less inaccessible places. The method of extracting it is in every case an applied science, requiring trained technicians and special machinery. It can be obtained only by probing, digging, drilling, cultivation, and other deliberate and arduous methods. It must then be brought to the processing plant by the most efficient and expeditious means available. It is thereupon distributed, within the processing plant, to the various departments for cutting, molding, separation, combination, distillation, application of reagents, and all the other manufacturing processes, ending with packaging. Finally, the product must be delivered to the appropriate customers at the time when they need it.

Information differs, however, from the raw materials of industry in that it consists of facts and ideas rather than tangible material substances. It is also much more variegated and fragmentary and requires much more intricate piecing together. Its sources are often difficult to locate and still more difficult to exploit. Moreover, its content is constantly changing.

The three requirements of intelligence are accuracy, completeness, and timeliness. Information can be timely, but it can never be accurate or complete. Clausewitz wrote, "Most information is false". That was an understatement, since all information, by definition, presents only a partial and incomplete — and therefore inaccurate — picture. If it did not, it would be indistinguishable from intelligence. Even if an informational report is "complete" within itself and fully reliable, such as an official statement of a foreign government, the full text of a treaty, or a captured military operational order, it is not intelligence until it has been integrated with all other information on the same or related subjects and interpreted against the background of general knowledge.

In any case, most of the information which forms the raw material for strategic intelligence is highly fragmentary, and much of it is "false" in the sense of Clausewitz. It therefore requires scientific evaluation and collation. But this does not mean that inaccurate or partial information should not be collected and transmitted. On the contrary, the essence of the intelligence process is the receipt and evaluation of all possible information, whether good, bad, or indifferent, since only full coverage makes possible proper collation

and complete integration. The collecting agencies cannot possibly know whether a given item of information will be found useful or not; even the intelligence researcher is not always sure of the value of a report until he has collated it with other information, and its true value may not become evident for months afterwards. At the same time, it is evident that the collecting agencies should be kept currently briefed on the intelligence needs in the greatest possible detail and that they should be staffed by persons qualified to make the necessary selection of material from the sources available to them and if possible to give it an initial evaluation on the basis of their local knowledge.

13. Basic Principles of Collection

There are only three basic principles for the collection of information; all the other "tricks of the trade" are merely corollaries, refinements, or applications of these principles. They are: Guidance, Coverage, and Transmission.

GUIDANCE means the direction of collection in accordance with the Intelligence Plan. It is both initial and continuous. Initial guidance is the setting up of appropriate agencies to exploit the various sources, the staffing of these agencies with suitably trained personnel, and the issuance of general directives to them. It must be based on a knowledge of the intelligence needs and of the informational possibilities in all parts of the world. Thus if either a new aspect of intelligence required emphasis or if a new potential source of information were to become available, it would be the duty of direction to establish without delay the machinery of collection indicated by the circumstances. Continuous guidance is the constant briefing of the various collection agencies on the changing intelligence needs so that they will know how to direct their own efforts most effectively. It is achieved by many methods. The Basic Intelligence Directive outlines the overall subject-matter and attempts to classify all possible subjects in a logical manner. The periodic revisions of the Intelligence Plan point toward the more specific objectives in the different regions and countries as they develop from time to time. Specific requests for information direct the efforts momentarily into particular channels. Evaluation reports enable the collecting agencies in the field to know to what extent their reporting is effective in meeting the needs. Personal visits of members of the collecting agencies and informal correspondence with them will do much to keep them aware of what is wanted and of how their information is utilized. The world is full of information as well as misinformation; the collecting agencies can know what to report and how to report it only if they are given constant guidance.

COVERAGE is the complete functional fulfillment of their missions by the collecting agencies. Assuming that they are properly guided, it means that they must exploit to the full all the sources available to them and use their initiative to open up new sources. They must not only meet all specific requests so far as

they are able but must study the continuing needs on all subjects, in the various ways in which they are conveyed to them, and see to it that they satisfy these needs to the limits of their resources. This they can best accomplish by maintaining their own Intelligence Plan. It may well happen, however, that all collecting agencies are giving complete coverage so far as their respective facilities allow but that there are still important gaps in the information received. In such a case the inadequate overall coverage demands further measures of guidance, such as the establishment of new machinery for tapping additional sources or the provision of more personnel or more funds to existing agencies.

TRANSMISSION is the conveying of the information from the collecting agency to the using agency. It includes two elements: form and speed. The speed of transmission will often, but not always, determine the usefulness of the information to the intelligence-producing unit. Not all information collected overseas should be cabled, but the collecting agency should be able to judge the urgency of any given item. If there is no great urgency, it should take the time to put the information into the most usable form. This means not only clarity of presentation but also, whenever suitable, field evaluation and explanation by the collecting agency. It will often be desirable to combine various items into a well-balanced report, including full comments and interpretations. This does not alter its essential character as raw information so far as the strategic intelligence researcher is concerned, but it may greatly improve its value by adding the benefit of the local knowledge and experience of the reporting agency. The latter must only be careful that, whatever form of submission is chosen, the information proper is set forth without alteration or abridgment and is not mingled with any comment, interpretation, or explanations which may be desirable.

14. Categories of Sources

All sources of information for strategic intelligence may be classified according to three separate sets of criteria: whether they are primary or secondary, whether they are open or secret, and whether they are regular or occasional. An understanding of these distinctions will help in the study of the methods of collection as well as in the evaluation of information.

PRIMARY SOURCES are those through which the information is obtained directly, in its original and pure form, without any adulteration by any intermediate agency. They include documents, publications, and broadcasts originating in the country concerned, if they have to do with the affairs of that country. They also include direct observations made by official or unofficial observers abroad and statements made to such persons by sub-sources, provided that such observations and statements are reported

accurately and in full. In time of war they also include censorship submissions, captured documents, interrogation of prisoners of war, photographic reconnaissance, and various secret sources in which the enemy is exposed to direct scrutiny.

SECONDARY SOURCES are those in which the information is obtained and partially evaluated, condensed, reworked, or elaborated by an intermediate agency. They include studies or reports made by other government departments, by foreign governments (on third countries), by newspaper correspondents, or by any other individual or agency. They also include the field evaluations, comments, and explanations made by the collecting agencies in submitting primary information. Secondary sources are not necessarily less useful than primary ones; in some cases, in fact, they must be relied on almost completely. But an effort should always be made to procure as much information as possible in its original form from primary sources and to use the secondary sources chiefly to supplement it.

OPEN SOURCES are those in which the foreign nation concerned makes no effort to conceal the information. They include not only its publications and broadcasts but also many official and private contacts of the field agencies, whenever such persons give information freely and without compunction. They also include the legitimate observations of travelers and newspaper men. For many aspects of strategic intelligence open sources provide the bulk of the needed information in time of peace.

SECRET SOURCES are those in which the information is obtained without the knowledge or against the will of the foreign nation concerned. They include some of the contacts of the regular field agencies, the reports of trained unofficial observers, and a number of other types of sources. In wartime they provide the bulk of the information received, since the enemy is then particularly anxious to conceal his activities in all fields. The special feature of secret sources is that they must be protected by adequate security measures against compromise.

REGULAR SOURCES are those which provide information regularly or repeatedly, such as the foreign press and radio and the routine activities and contacts of official observers abroad. Because of their regularity it is possible to set up efficient machinery and standard techniques to extract and exploit information from these sources, and they have the further advantage that evaluation is simplified as the reliability of the source becomes known.

OCCASIONAL SOURCES are those which provide information only sporadically or in some cases only once. They include a multitude of individual informants, both at home and abroad, as well as various secret sources. Their information is sometimes unusually valuable, but it is much more difficult to handle and to evaluate than that obtained from regular sources.

15. Individual Sources of Information

The following description of individual types of sources is not exhaustive, and the characteristics of each will naturally vary from time to time and from country to country.

FOREIGN PRESS. This includes the daily newspapers, general periodicals, and specialized periodicals (economic, technical, scientific, military) of each foreign country. They contain three kinds of useful information: (1) Factual items, such as Who's Who data, reports of political events, balance sheets of corporations, accounts of new technical developments, and texts of laws or governmental pronouncements. (2) Discussions (descriptive reports, feature articles, editorials, etc.) on political, economic, sociological, military, or scientific matters of interest, which often shed valuable light on the subject in question and thus aid in the evaluation and interpretation of reports from all other sources. (3) Background information, which is hard to define but is of inestimable value in giving intelligence personnel the "feel" of the country — its attitudes, modes of thinking, customs, and cultural interests. The foreign press is useful both to the official observer abroad and to the intelligence researcher at home and should be made available to both. The observer abroad needs it not only for his own background information but for many factual and descriptive items on which he will find it appropriate to base reports and studies. He cannot rely on the researcher at home to gain the full benefit from these items, since he may be able to combine them with other information and to add useful comment or explanations based on his local knowledge and experience. The researcher at home, on the other hand, cannot rely entirely on the field observer to extract and report everything from this source in the needed detail. Those researchers with the language qualifications should themselves peruse the press of the countries with which they deal, for the sake of the descriptive material and background which they can thus obtain, while at the same time there must be facilities within the strategic intelligence organization for extraction of all pertinent factual data and its submission to all the researchers concerned.

FOREIGN RADIO. This is chiefly valuable for factual items which can be culled from the mass of propaganda, uninteresting commentaries, and routine news reports which it contains. Its great advantage over the foreign press is its speed of transmission. It can be useful, however, only if there is adequate machinery for monitoring the foreign broadcasts and reporting accurately and promptly any factual material obtained. In the recent war this was done very effectively, but at enormous expense, by the so-called Foreign Broadcast Intelligence Service (note the misuse of the word "intelligence"), which undertook complete and world-wide coverage. Some more efficient method must be devised

for the exploitation of the foreign radio as a source of information for strategic intelligence purposes in the future.

FOREIGN PUBLICATIONS (Other than newspapers and periodicals). These include books and pamphlets, both official and private, published in foreign countries. Many thousands of books on every conceivable subject are published annually in each of the leading countries of the world. Obviously it would be impossible for the strategic intelligence organization to digest the contents of all of them. But a selection of those of special value for topographic, sociological, political, economic, Who's Who, military, technical, and scientific intelligence should be procured and studied. This applies particularly to encyclopedias, atlases, biographical dictionaries, official statistical publications, year books, and the basic military training manuals. They should be kept on hand as reference work accessible to the researchers concerned. Virtually all other books published currently will become available in due course in the Library of Congress, in other departments of the government, in university libraries, or in various private institutions. It is essential that contact be maintained with these collections and that intelligence personnel have access to all publications on any subject at any time. Bibliographies, accession lists, and publishers' catalogues should be in the hands of the researchers concerned.

DOMESTIC PRESS. The reports of foreign correspondents to the American press are useful in two ways. In the first place they are usually the quickest means of obtaining detailed information on current political and other developments. This same information, which comes in first on the agency teletypes and then appears in the leading newspapers, is later confirmed by slower means. In the second place, they often furnish factual or descriptive data which are not available from official observers or any other source. The American foreign correspondents are well trained and usually highly skilled and resourceful in their specialized profession — that of eliciting and reporting information on happenings all over the world which are likely to interest the American public. They often succeed in establishing contacts which would be closed to any official or unofficial observer. Their disadvantages are that they cannot be properly briefed on intelligence needs and that in any case they write for public interest rather than for intelligence value. Their reports must nevertheless be given attention, and the intelligence researcher would do well to become familiar with the reliability and personal slant of every correspondent stationed in the country with which he is concerned. In addition to the reports of newspaper and agency correspondents, the discussions of current affairs in some of the more serious domestic periodicals are worth watching. Some of these periodicals have extensive files of accumulated and indexed information on innumerable subjects which would make it desirable to establish good liaison relations with them in order to draw upon this material.

DIRECT OBSERVATION ABROAD. This is dependent on the alertness of the official and unofficial observers who are sent out for the purpose. Official observers include the representatives of the Department of State (diplomatic missions, consular offices), the armed forces (military and naval attaches), the Department of Commerce, and other branches of the government; they are accepted by the government in question in exchange for its own observers sent to this country, and they are charged both with the conduct of official relations on their various subjects and with the gathering of information. Unofficial observers may include members of the strategic intelligence organization itself, when they travel in foreign countries, and in time of war they of course include numerous undercover agents. Observers as such, whether official or unofficial, are not a source except when their reports are based on their own personal observation; otherwise they act as extracting and transmitting agencies for information derived from informants or from the local press and publications. Personal observation can extend only to physical things and is therefore chiefly useful for topographic, military, and technical intelligence. A technical observer, for example, may report on his own personal examination of an article of equipment; a military attache may observe and report on the movement of troops or the tactical methods used in manoeuvers. In practice, direct observation is usually combined in the field with material from informants and other sources in order to produce a well-rounded report on a given subject.

INFORMANTS ABROAD. The official and unofficial observers abroad obtain a very large proportion of their information from personal contacts. These range all the way from official personalities in the ministries with which the official representatives have to deal to underworld characters who are working solely for personal gain and who specialize in the art of the double-cross. In between there are casual acquaintances, business men, cranks, idealists, social contacts, colleagues of other nationalities, and persons with various axes to grind. A surprisingly large proportion of all useful information is obtained by perfectly open dealings with persons in official or semi-official positions. That obtained from cranks, idealists, and axe-grinders -- the "lunatic fringe" -- is usually worthless but occasionally contains unexpected gems. It is doubtful if any substantial amount of information of value for intelligence purposes has ever been secured in a public bar or night club or through the use of seductive women, hypnotic drugs, or any of the other spectacular devices of the Oppenheims. It is often, however, procured from persons who did not intend to divulge it, and the true story can be detected behind quantities of falsehood and camouflage by a skilled investigator. The eliciting of information is an art which requires a knowledge of the subject-matter concerned, an understanding of psychology, quick comprehension of people's motives, and a glib tongue.

DOMESTIC INFORMANTS. These include individuals, corporations, and institutions. Many patriotic citizens voluntarily submit information which they think to be of great importance but which usually turns out to be of very little value. Better results are obtained by deliberate efforts to benefit from the observations and experiences of returning travelers, particularly business men, engineers, scientists, and news correspondents. Still more effective, if it can be properly organized and arranged, is the procurement of information from large corporations with international connections, since they gather information in their special fields from sources which are not open to any regular collecting agency. The domestic chemical industry, for example, should be expected to know more about the production trends and capabilities of foreign chemical industries than can ever be obtained from any of the other sources mentioned above, since in its own private interest it collects information and produces its own "intelligence" on this particular subject. The same principle applies to scientific foundations and research institutes of all kinds for their respective fields of interest. These sources of information have been only slightly exploited in the past and need rapid and complete development.

Other sources besides those dealt with in the above paragraphs are principally operative in time of war and are accordingly not described in detail here. In the recent war prisoners of war and captured documents yielded vast quantities of information, not only on military affairs but on all the other components of strategic intelligence. The censorship of mail was another valuable source on numerous subjects. The use of photographic reconnaissance was of inestimable value to topographic intelligence in preparation for landing operations; it also produced information on fortified areas, enemy movements, and industrial bomb damage. Exchanges with allied nations were particularly useful in relation to areas where the coverage was otherwise insufficient. Many of these wartime sources are capable of partial development in time of peace, and in any case the techniques of exploiting them which were evolved during the war must be preserved for a possible future emergency.

16. Machinery for Collection

As has been previously stated, the agencies for the collection of information must be established and maintained by the authorities responsible for directing strategic intelligence. Their character and scope will depend on the long-range intelligence needs and the overall potentialities of sources; their methods and activities will vary with the short-range intelligence needs and the nature of the specific sources available. The following remarks are therefore necessarily generalized, and the detailed machinery for collection must be adapted to the conditions in the different areas and to the developing situation.

For purposes of collection, information may be divided roughly into that which is obtained abroad and that which is obtained in this country. The principal agencies for exploiting sources abroad are the official representatives — diplomatic missions, consular offices, and attaches. In view of their official character, their personnel requires training in matters of protocol as well as in information-gathering. No official representative should allow his enthusiasm for his information-gathering work to lead him to compromise his official position and thus create an international incident. On the other hand, there is a need for more awareness on the part of such personnel than was the case before the war of their functions with respect to strategic intelligence; for more thorough training in the subject-matters concerned; and for more effective guidance in their information-gathering. It is also essential to eliminate duplication and petty rivalry; all members of a single mission, including all its attaches, should work together as a team. The reason for their failure to do so in the past was their divided loyalties to the various departments of the government which they represented; this could be fully overcome if there were a single strategic intelligence organization in control of all their activities in this field. A more efficient method of reporting should also be developed and constructive criticism should be encouraged.

It has been shown that foreign newspapers, periodicals, books, and pamphlets must be available both to the field agencies as a basis for their reporting and to the intelligence researchers themselves. Machinery should be put into operation for the procurement of the needed material and its speedy transmission to the strategic intelligence organization. At the same time clear instructions must be issued to the field agencies as to what types of information from the press they should report, so as to avoid duplicate translation work and the like. Within the strategic intelligence organization the method of exploiting the foreign press will depend on the internal structure, but it must in any case meet three demands: circulation of the publications to those researchers who can and should read them; extraction of factual data by specialized personnel for the use of all researchers; and the filing of the publications in the most accessible place for later reference by any researchers concerned. The availability of other books and reference material in the Library of Congress and similar collections must be made known to the researchers by suitable lists and indexes.

Complete coverage of information from the foreign radio requires an elaborate monitoring organization which will hardly be considered worth while in peacetime. It is nevertheless desirable that facilities be established on a more modest scale to monitor key broadcasts from specified areas. These might include one daily news summary from each important country, any

periodic commentaries by important or well-informed individuals, and occasional speeches by world statesmen. Any material thus monitored which appears to supplement that contained in press dispatches should be transcribed and translated in full and speedily made available to the researchers. In case of crisis in a given area, the monitoring organization would be able speedily to multiply its coverage in that area.

Complete coverage of the domestic press is neither possible nor desirable. One or two of the best newspapers, such as the New York Times ("All the News That's Fit to Print") should be available to all researchers, and a number of other leading newspapers and periodicals should be examined by specialized personnel for the extraction of pertinent material and its submission to the researchers concerned.

The most important sources for which machinery of collection has hitherto been wholly inadequate are the domestic informants. Every effort should be made, if necessary with special appropriations, to tap the fund of information received by numerous private American corporations and institutions with foreign connections, particularly those of a scientific nature. They could even be given detailed guidance in their collection activities abroad and might thus eventually become important adjuncts of the strategic intelligence organization.

The machinery of collection includes not only the collecting agencies, with their trained personnel and effective guidance, but also the mechanics of transmission. The latter problem has numerous technical aspects, such as use of codes and ciphers, cryptographic security, air mail schedules, employment of couriers, and use of ditto and mimeographing. The two guiding principles are that all material must be received in time to be of value and that it must be in the most useful form feasible under the circumstances. Special care must be taken to avoid distortion in transmission, which is a chronic ailment of coded cables. While collecting agencies should be encouraged to add their field evaluations and comments wherever appropriate, they must be required to submit the information itself in unadulterated form. Maximum use of standard indexing systems such as that contained in the Basic Intelligence Directive will tend to simplify the distribution and filing of the reports after they reach the strategic intelligence organization.

Chapter IV. PRODUCTION OF INTELLIGENCE

17. Selection

SELECTION is the process of making information available to the appropriate researchers after it reaches the research organization. The complexity of the operation varies in geometrical proportion to the quantity of the information handled and the number and degree of specialization of the researchers.

Selection includes both the immediate distribution of incoming reports and their ultimate filing and indexing for future reference after initial circulation and processing. These two procedures, though apparently at opposite ends of the intelligence "production line" have the same object — to make all information available to those who need it at any time and in the most efficient manner. They are both equally important, since intelligence is produced both by the daily processing of current reports and by the researching of previous ones. The two stages of selection have entirely different techniques, but both require the active participation and cooperation of the researchers themselves.

The basic principles of selection — both distribution and filing — can be best understood by first imagining a strategic intelligence organization consisting of a single individual responsible for all aspects of all countries. Every morning he receives a sheaf of, say, twenty to thirty informational reports, each dealing with a particular subject. His first act, before embarking upon evaluation and collation, is naturally to sort the reports according to subject and geographical area. He discards any which are obviously worthless, and he makes a mental cross-reference for those which he will have to consider in relation to two or more subjects or areas. He then processes each useful report in conjunction with his card files and other repositories of previous information on the same subject. Finally, he files the report under the appropriate area and subject for future reference. If at any time he is asked for an intelligence study on a particular subject, he can always reassemble all reports pertinent to it with the help of an indexing system which he has devised.

The strategic intelligence organization actually consists of large numbers of researchers and has to receive, process, and file vast numbers of informational reports. The "In" basket, the brains, the card files, and the filing cabinets of the single individual described above are multiplied many times. The sorting and filing techniques are thereby made infinitely more intricate, since each individual is a specialist in a particular subject and area and many of the incoming reports deal with several related

subjects. But the basic principles of making the information available for research are the same for a large organism as for a single individual — sorting, cross-referencing, and logical filing.

DISTRIBUTION is the initial process of circulating information to the appropriate researchers when it first reaches the strategic intelligence organization. Its basic requirements are knowledge of specialties, mechanical efficiency, speed, and due consideration of priorities. In a shoe factory, the leather, nails, rubber heels, and other ingredients received from various sources are automatically distributed to the appropriate departments by unskilled personnel, with the aid of conveyor belts or similar mechanical devices. The functions and interrelations of each department are clearly defined; the incoming material is of a few standard and familiar types; and the channels of distribution are firmly established. In the intelligence factory the process is much more complicated: the functions of the various researchers necessarily overlap and dovetail; the incoming reports are infinitely varied in form and content; and the question of priority of interest must be considered separately in each individual case.

The personnel responsible for distribution must therefore be well trained in the nature of all subjects dealt with, thoroughly familiar with the functions of the various branches, sections, and individuals, and constantly briefed on the special needs of the researchers. Their aim must be two-fold: to insure that every researcher has a chance to examine promptly every report containing matter affecting his sphere of interest; and to keep to a minimum the proportion of reports routed to a researcher which turn out to have nothing of interest to him. No matter how effectively they do this, the system cannot be perfect. They should err slightly on the side of sending too much to the individual researcher rather than sending him too little. It is part of their duty to keep themselves informed as to the exact functions of each subdivision and of each individual. At the same time it is essential that the researcher notify the distribution personnel of any change in his own functions, any momentary special interest, and any inaccuracy in the coverage which he is receiving. Moreover, he must himself keep aware of the needs of other researchers and add them to the distribution when appropriate.

Two types of machinery for distribution have been tried, with varying success. One is the "reading panel" method, the other the "distribution specialist" method. A reading panel is essentially a group of representatives of the various subdivisions of the organization, each of whom examines all incoming reports and designates those which he believes will interest someone in his subdivision. There must be some arrangement for determining

priority of interest when two or more representatives claim such an interest for their respective sections, so that the report can be routed in the correct sequence. The "distribution specialist" method involves the designation of one or more persons to represent the entire organization and to determine the distribution of reports to all subdivisions or individuals on their own responsibility. They must also determine priorities according to their judgment of the relative needs of the different subdivisions or individuals in each case. This system is more economical of personnel, since normally only one of the distribution specialists, instead of a whole panel, scans each incoming report; on the other hand, it requires comprehensive knowledge and shrewd judgment to a much greater degree than does the reading panel. If the research organization is large and complex, the reading panel system is probably the only feasible one for the initial distribution to the major subdivisions; each such subdivision can then have a distribution specialist who keeps in close touch with the individual researchers whom he serves. These two echelons of distribution must cooperate extensively, and the distribution specialists of the different subdivisions must likewise maintain contact with each other in order to improve the routing of material.

The actual circulation of reports is usually accomplished by means of a routing slip, "In" and "Out" baskets, and a "pick up and deliver" service. Routing slips are of two general types: those which have the designations of the various sections or desks already printed on them, in alphabetical or other arbitrary order, with space for indicating the sequence of circulation by means of numbers; and those which provide space for writing in the designations in the desired sequence of circulation, with neighboring columns for the initials of each recipient and the date. The latter type has been found more efficient for circulating intelligence material among individuals within a branch; the former type is probably more suitable for inter-branch circulation and for the circulation of administrative papers. Each subdivision and each individual has an "In" basket for incoming reports not yet dealt with and an "Out" basket for those which have been processed. Administrative personnel are designated to clear all the "Out" baskets several times a day and redistribute the reports in accordance with the routing slips. If this mechanical handling of paper is properly organized, much of the unnecessary delay in the circulation of reports can be eliminated. Thus if a given report is to go to six individuals and the mechanical handling alone requires a day in each case, the last individual will receive the report a full week later than he otherwise would; but an efficient pick up and deliver service can keep this part of the delay down to a few hours. In addition, every researcher must be constantly impressed with the necessity for disposing of the material in his "In" basket speedily, giving priority to those reports which are later to be routed to other individuals.

FILING is the retention of reports in an accessible place according to a logical system of cataloguing. As this definition indicates, its two requirements are accessibility and complete and careful indexing. To be effective it requires the full cooperation of the researchers.

Files of reports may be kept in one of two places: in a central repository (Intelligence Library) for the entire organization, or dispersed among the subdivisions and in close proximity to the individual researchers. Both systems have their merits and their deficiencies, and the choice of one or the other or a suitable combination of the two will depend on the structure and size of the organization and the quantity and variety of the material processed.

Dispersed files have the great advantage that the material is immediately accessible to, and under the control of, the individual researchers most concerned with it. This system is feasible if the great majority of the incoming reports concern only one subdivision, one individual, or one small group of individuals working in the same room. Even without these conditions, it is possible if the majority of reports are available in multiple copies, so that any subdivision or individual may file a copy. But when a large proportion of reports are received in only one copy and concern two or more separate sections, it is necessary to file them in a central repository which will be accessible to all. There must then be a system analogous to that of a lending library in order to keep track of reports when they are taken out of the files for the use of researchers.

Under either of the above systems, careful attention must be given to the actual method of filing and indexing. Any such method is based on the assumption that all interested researchers have a chance to see reports when they first reach the organization and that during this initial circulation they make a notation in their index journals, running lists, or card files of the source, serial number, and date of any report containing information of possible value to them. Hence if their methods of recording and collating information are fully efficient, they should be able to reassemble all pertinent reports at any future time when they wish to make a study of a particular subject. For this purpose it does not matter what method of filing or cataloguing is used, so long as any report is always available according to its source and date or its serial number. But unfortunately this is not the only consideration. For one thing, there are bound to be inperfections both in the distribution system and in the recording and collation of information by the researchers. Subjects of interest may vary, and a study may be called for on a matter which had previously been considered unimportant and on which, therefore, no extracts or

notations had been made by the researcher. Again, researchers may come and go, and their systems of recording may change or develop as time goes on; it may even happen that a part of a card file or index journal is misplaced or lost. Sometimes it may be desired to reassemble all reports from a given source, or to examine all reports regarding a given country or subject during a specified period. Any system of filing and cataloguing must take all these possibilities and requirements into account.

Basically, there are three possible methods of filing reports: by serial number, by source, and by subject. Filing by subject has been found impracticable because most reports deal with, or impinge upon, several subjects and some reports in fact cover a vast number of subjects. It would be impossible to make all collecting agencies confine each report to a single subject; even if a complete and logical classification of "subjects" could be worked out, it would inevitably change from month to month if not from day to day. Filing by serial number is completely arbitrary, since the serial number is assigned to the report as it comes into the research organization and without reference to its source or subject; it has the advantage, however, of being the quickest way of retrieving a report if a notation of its serial number has previously been made. Filing only by source has some elements of both the advantages and the disadvantages of both the other methods.

The best method yet devised is actually an intricate combination of all three of the above methods: the material is filed so far as possible by source but cross-indexed by serial number and again cross-indexed, to the greatest extent feasible, by subject. This system is admittedly imperfect and requires a considerable amount of paper work, but it has been found the most efficient for locating reports by any approach that may be employed: serial number, source, or subject. Under this system the indexing by subject is peculiarly the duty of the researcher, since only the researcher knows his own subject-matter thoroughly. An example of the method of applying it is the BID (Basic Intelligence Directive) system devised in the MIS. The BID attempts to classify the entire subject-matter of intelligence, assigning a four-digit number to each basic element and using up to four decimal places for the further subdivisions of each such element. For example, the 4000's are reserved for economic matters; within this block, the 4200's are used for fuels, metals, and minerals; 4203 is petroleum; 4203.04 is production of petroleum products and use of substitutes; and 4203.0408 is production of synthetic oil. A "BID sheet" is attached to each incoming report, providing space in which the researcher is invited to enter the appropriate BID number or numbers and any pertinent further classification or remarks. Sometimes one report will receive a large number of such BID numbers. These are then transcribed in

the Intelligence Library onto index sheets arranged by BID numbers, so that eventually all reports containing material on synthetic oil production will be listed on the sheet marked 4203.0408, each entry showing the serial number of the report. The cross-index of serial numbers will then indicate where the various reports in question are filed (largely according to source). Obviously, such a system can work only if all the researchers cooperate. The chief objection to it, other than its complexity, is that the BID index is actually a duplication of the researcher's own index which he keeps in the form of a card file or index journal and which he organizes according to his own concept of the proper logical breakdown of his subject. Any person desiring intelligence on a given subject, it is argued, should not go to the Intelligence Library and consult the BID index but should apply to the appropriate researcher, who will either be able to produce the intelligence immediately from his own extracts and compilations or can reassemble the pertinent reports quickly by examining his notations of reports on the subject. The answer to this argument is that the researcher may change; his card files and index journals may be radically modified or may be incomprehensible to any other person; certain subjects may not be adequately covered by any researcher; and it is therefore desirable to have a central and complete index according to a standard indexing system on all subjects.

The above remarks on the detailed methods of distribution, filing, and indexing should not be taken as incontrovertible rules on these subjects but as illustrations of the problems involved. The actual machinery adopted for making information available to the researchers at all times in the most efficient and foolproof manner will necessarily depend on the structure of the research organization, its size, the intelligence objectives, and the quantity, variety, and form of the information received.

18. Evaluation

EVALUATION is considered judgment of the accuracy, completeness, and import of an item of information. It is the first step in the intelligence process to be performed by the strategic intelligence researcher himself. It involves an examination of both the source and the content of the report in question.

According to the dictionary, to evaluate is to assess the worth of a thing. For intelligence purposes the "worth" of an item of information is composed of three elements: the reliability of the source, the probability or plausibleness of the information itself, and its immediate signification. Reports cannot be simply classified as "true" or "untrue". Few reports are devoid of truth, but still fewer give the whole truth on a given subject. The vast majority are partly true but contain elements of distortion, bias, or falsehood, which may be either deliberate or

inadvertent on the part of the reporting person or agency. For this reason the process of evaluation is one of scientific analysis requiring much training, experience, and shrewdness.

RELIABILITY of a source is best determined by the past performance of the same source. If previous reports derived from a given source have consistently proved to be accurate, it can be considered a highly reliable source; if it has frequently been in error, it must be regarded as relatively unreliable. There are only two sources which are theoretically "perfect": direct observation by the researcher himself and authentic documentary evidence. The first is very seldom obtained; the second is more frequent but depends on proof of authenticity. Reports from any other source -- an official or unofficial field observer, the foreign press or radio, a news correspondent, or any type of interested or disinterested informant -- must always be considered to be of "less than perfect" reliability.

The records of any court of law are full of conflicting testimony by two or more equally "reliable" and disinterested witnesses to the same event. No human being is faultless in observation and reporting of even simple occurrences, and the hazards are greatly accentuated when the subject-matter is as complex and specialized as that with which strategic intelligence is concerned. A source may be perfectly sincere and well-intentioned but misinformed. Or a well-informed observer may report in a careless or inaccurate manner. Many people are entirely trustworthy, but few are intellectually honest to the extent of completely excluding their personal prejudices, whims, fancies, or conceit from their observation and reporting. Again few people have photographic memories for visual observation or can write down accurately the full gist of a lengthy conversation after it is over. Not even all high-caliber observers are good objective reporters, since the element of subjective interpretation almost always enters the picture. And those sources of information for strategic intelligence which are at least relatively honest, well-informed, observant, and objective are vastly outweighed by sources which are poorly informed and inaccurate in observation and reporting or which have their own axes to grind.

A conventional "evaluation code", known as the letter-figure system, has been devised for rating both the reliability of sources and the probability of their reports. This system, which is widely used and universally understood by field agencies and intelligence personnel, consists of a letter from A to F assigned to the source and a figure from 1 to 5 (or zero) assigned to the information itself. The following is the official meaning of the letter evaluation:

A - Completely reliable

B - Usually reliable

C - Fairly reliable

D - Not usually reliable

E - Unreliable

F - Reliability cannot be judged

Field agencies (military attaches, etc.) customarily assign their own letter rating to their sub-sources. If their reports are based on their own direct observation they normally give them the latter rating "A"; if they come from informants whose previous performance they are able to judge they are usually rated "B", "C", or "D" and rarely either "A" or "E"; if they come from untested informants the rating is usually "F".

The rating assigned by the field agency is not to be accepted by the strategic intelligence researcher as his own evaluation. Direct observation by the field observer, which he naturally rates as "A", may be rated as "B" or "C" or even "D" by the researcher, depending on his previous experience with the accuracy of observation and reporting by the observer in question. Any sub-source of the field observer, such as an informant, must be rated "F" by the researcher unless he has had previous experience with the same sub-source. The real value of the rating given by the field agency to sub-sources is in helping to judge the probability of the information itself. Information derived from a sub-source which a trusted field observer considers of "B" reliability is -- other things being equal -- more likely to be true than that derived from an informant rated "D" by the same field observer, and it may therefore receive a better figure rating by the strategic intelligence researcher.

This system of rating is admittedly imperfect, and the researcher is at liberty to make alterations and refinements so long as he uses them only for his internal purposes of extraction and compilation. Thus it is often desirable to give one's own evaluation followed by the field evaluation in parentheses. Or it may be that an individual source is unknown and as such would be rated "F" but that similar sources (such as persons with the same political affiliations or newspapers of the same reputation) have been experienced before; in such cases some researchers assign a "presumed" rating in parentheses after the "F".

It is important to distinguish between the source and the transmitting agency. A field observer is himself the source only

when he reports what he has seen with his own eyes. A newspaper, whether foreign or domestic, is never a source except for its own editorials and for unattributed articles. Moreover, a single source may have varying reliability on different subjects. If the Moscow radio reads an official pronouncement by the Soviet Government, the source is the Soviet Government and the rating is probably "A", since the Moscow radio can always be relied upon to quote such pronouncements with meticulous accuracy and the Soviet Government is obviously a completely reliable source on its own pronouncements. On the other hand, when the Moscow radio reports a communist revolt in Paraguay without attributing the item to any accredited news agency, the rating is at most "C" and probably "D", since Moscow radio is notoriously inaccurate in this kind of reporting. Similarly, the Soviet Government's pronouncement is rated "A" so far as it is considered as a statement of official policy, but if it includes factual allegations regarding Paraguay, these, in themselves, must be given a much lower reliability rating. To carry the illustration still further, the version of the Soviet pronouncement which is broadcast by the Brazzaville radio (in French Equatorial Africa) and monitored and reported by the Associated Press in New York must be rated "E", since the Brazzaville radio has proved consistently inaccurate in its reporting of European events. In other words, the subject-matter of the information may be considered as part of the evidence in arriving at the proper letter evaluation of the source; but the probability of the information as such must not be taken into account in this part of the evaluation.

PROBABILITY of an item of information is judged by its consistency within itself, its circumstantiality, its plausibleness in view of general knowledge and experience, and its consistency with other information or intelligence on the same or related subjects. Theoretically the source of the information should be ignored in considering its probability; in practice, however, it is occasionally necessary to take into account the reliability of the source or the rating given a sub-source by a collecting agency as material evidence as to the probability of the information itself.

The conventional evaluation code described above provides the following figure ratings for probability of information:

1 - Confirmed by other sources

2 - Probably true

3 - Possibly true

4 - Doubtfully true

5 - Improbable report

0 - Truth cannot be judged

These ratings are admittedly inadequate since they do not provide for the various "dimensions" of truth in a given report. As has been previously stated, reports are not simply "true"or "false". They are usually a complex mixture of truth, partial truth, fragmentary truth, and untruth. A report is often "true as far as it goes"; or it gives one aspect of the truth; or it is true in itself but false in its implications; or it may even be a deliberate falsehood which nevertheless reveals a true state of affairs if properly evaluated. Again, a report may be "confirmed by other sources" but still completely untrue, since various sources may conspire to spread false information. Thus the figure code given above should not be applied too literally but should be used as a convenient method of expressing the researcher's judgment of the degree to which an item of information should be accepted at its face value. It should also be noted that the real value of a report is the product resulting from multiplying the probability of the report by the usefulness of the information. A completely true report may be common knowledge and therefore worthless; a report which is full of falsehood and distortion may be very useful for background information.

The field evaluation of probability, like that of reliability of sub-sources, should not be automatically accepted by the researcher. If he is familiar with the field observer or transmitting agency, however, the field evaluation may assist him in arriving at his own rating. Thus when the field observer rates a piece of information "2", it is as much as to say, "I cannot state positively that this information is correct, but it appears to be plausible in itself and consistent with other information available to me with the general situation, and in view of all the circumstances known to me locally I consider it probably true". If the researcher has high respect for the judgment of the field observer, this implied statement may lead him to revise his figure rating by one or even two points, or in other words to attach much more weight to the information than he otherwise would. Similarly, the field evaluation of the sub-source may help the researcher in reaching his own figure rating. When a field observer rates a report "B-4", he is in effect saying, "This information seems doubtful in view of its apparent inconsistency within itself or with other information, but it comes from an informant whom I have found to be usually reliable, and should therefore be given careful attention". This may induce the researcher, who has other information on the same subject from a number of sources, to revise his own figure rating from "3" to "2", or from "0" to "4", or even from "2" to "1".

On the other hand, it should be clearly understood that the two parts of the letter-figure rating are, in essence, entirely independent of each other. Simply because a source is rated "A" is no reason for rating the information "1" or "2". It is

perfectly possible for a completely reliable source to be mistaken, resulting in a rating of "A-5". Or an unreliable source may produce a report which is fully acceptable, giving it an "E-1" rating. Under the law of averages, of course, the more reliable the source, the more likely the information is to be correct. But this must not lead to any rule of thumb in evaluating information or to any overlapping of the two elements of the letter-figure rating. Only in cases where there is no other means of judging the truth of a report should the reliability of its source be allowed to influence the figure rating.

Information from an authentic official document should receive the special rating "A-Documentary" -- provided that it has to do with a subject on which the issuing authority is completely competent. This would apply, for example, if an official infantry training manual states that the normal rifle company will consist of three light platoons and one heavy platoon; there could not conceivably be a better source for such a statement than this. But it would not apply to a document, however authentic, which discusses the military organization of a third country.

Consistency within itself is an important element in the probability of an item of information. A report which is self-contradictory is naturally suspect. The first thing to do when examining a report is to see whether it makes sense. But this is not the only criterion of its truth and is never conclusive. A good liar can often tell a more convincing story than a sincere and honest individual. A completely unsound report may, on the face of it, be entirely consistent and logical, while a report which is basically true may contain apparent contradictions which crept in accidentally or through imperfections in observation or transmission.

Circumstantiality means minuteness of detail. It affects the value of a report in two ways. A vague and general report may be perfectly true but practically useless, while a detailed report on the same subject -- though no more or less true than the general report- is much more valuable. Thus the statement "Venezuelan production of petroleum nearly doubled during the 1930's" is true, but the statement "Venezuelan production of petroleum rose from 117,000,000 barrels in 1931 to 224,000,000 barrels in 1941" is equally true but incomparably more useful. Still more valuable would be a report giving the actual production year by year, the locations of the principal fields and refineries, the reasons for the increase, and the factors which will affect future production. In other words, the more details the better. In the second place, minuteness of detail affects the probability of the report. A vague report which avoids giving particulars is likely to be received with a doubtful shake of the head, but a report on the same subject which includes much circumstantial detail is given more consideration

and, provided the details check with previous information, will usually receive a higher probability rating. Thus, "The Chinese are planning a new rail line in Honan" leaves the researcher with no means of judging the probability of the information; while a report which specifies what Chinese authority is making the plan, how and when it is to be executed, the political or economic reasons for it, and the exact route to be followed will appear much better substantiated to the recipient.

Apart from its inner consistency and its circumstantiality, a report must be examined against the background of general knowledge on the subject in question. This will determine to what extent it is plausible. Thus the report of the projected Chinese railway referred to above must not only be consistent and detailed but must fit into the known political, economic, financial, topographic, and other conditions in the area. If the government has no possible means of financing such a project, if the needed materials and labor are not available and cannot be procured, if the stated route is of no conceivable economic or military value, or if there are insurmountable difficulties of terrain in the area mentioned, the report is to be considered highly unlikely. The researcher must not, however, completely reject a report simply because it does not at first appear plausible. Several years ago few people would have credited a report — however consistent and circumstantial and however well vouched for — on the atomic bomb. Perhaps the Chinese authorities (to continue the above example) have special reasons for wishing the rail line in question and special means of constructing it which are not yet evident. The plausibleness of information will help the researcher in evaluating it, but he must always keep an open mind. Truth is often stranger than fiction.

The last factor to determine probability of an item of information is its consistency with other information or intelligence on the same or related subjects. This involves the comparison of the report with information from other sources and with the accepted body of intelligence. It is distinct from the factor of "plausibleness" described above, since it means considering specific items of confirming or contradictory evidence rather than the general background situation. Actually it leads into collation, which is the next step in the intelligence process. The difference is that collation is the critical comparison of items of evaluated information for the purpose of integrating them to produce intelligence, while the present operation is the comparison of a single new item with previous items for the purpose of determining its specific probability. In practice, collation often results in a re-evaluation of individual items of information, but the two processes are nevertheless logically distinct.

IMPORT means "immediate signification". It is the third element in the evaluation process. In addition to assessing the reliability of the source and the probability of the information, it is necessary to determine what it actually signifies and thus how it will affect the existing fund of knowledge on the subject. Thus an item of information may be from a highly reliable source and adjudged completely true, but it may nevertheless have no significance, either because it deals with an uninteresting subject or because it is a truism. On the other hand, a report may be unreliable and improbable and yet have tremendous implications, demanding more detailed investigation.

Judging the immediate meaning of a report must be carefully distinguished from the interpretation of intelligence, which comes much later in the intelligence process. Interpretation is applied after all available reports on a given subject have been evaluated, collated, and integrated; it explains the significance of the resulting intelligence and places it in perspective. Determining the signification of an item of information on the other hand, applies only to that single item and is part of its preliminary processing before it can be properly collated with other items of information. At the lowest levels of combat intelligence it might be said that these two processes are virtually merged into one; a report from the front lines regarding enemy activity is immediately "interpreted" and passed on to the appropriate authorities without going through the intermediate processes of collation and integration. But at strategic intelligence level it is necessary to explain the meaning of each individual report separately as a prerequisite to the subsequent steps in the analytical and synthetic process.

The import of an item of information is determined by translating it into meaningful language, removing the wrappings and trimmings, examining it in its stark reality, and deducing its immediate implications. The process should theoretically be performed without reference to any other items of information, although it naturally requires a good knowledge of the subject dealt with. It may be said to consist of first reducing the report to its pure, straightforward, factual content and then blowing it up to its full dimensions. This requires both analytical reasoning and plain common sense. It also requires a liberal allowance of that unusual quality known as intellectual imagination. Sometimes it involves the laborious extraction and tabulation of factual data contained or implied in what at first appears to be an incoherent jumble of generalities. Or it may be necessary to correct specific errors or to fill in gaps to find out what is really meant in the report. Finally, judgment must be exercised to define the effect of the report on the known situation.

Any of Hitler's speeches -- which sometimes ran to two hours -- had to be dealt with by first eliminating all the rhetorical extravagances and then setting forth systematically and in ordinary language, for each subject touched on, both the definite commitments of policy and the propaganda emphasis selected. From these, in turn, it was possible to draw numerous tentative conclusions regarding the trend of affairs in Germany and the probable intentions of the regime, and the report was then ready for collation with other information. But even statements emanating from relatively sane people must often be analyzed carefully to get at their true meaning. Official pronouncements are couched in diplomatic language which successfully throws sand in the eyes of most people. "The conferences were held on a most cordial basis and complete identity of views between the two governments was established." On a less exalted level, supposedly objective reports on all subjects are frequently colored, intentionally or otherwise. Truth is freely mixed with distortion, or falsehood insinuates itself through a plethorn of window-dressing. All reports, from whatever source, must be stripped of their impedimenta and exposed to scrutiny in their unadulterated state.

Some incoming reports do not make sense unless the researcher has the ingenuity to untangle their apparent inconsistencies and disjointed logic. Captured documents in the recent war were frequently torn or fragmentary, and the missing parts had to be conjectured so far as possible from the context. This only illustrates, in purely physical terms, the fragmentary character of many reports from other sources, and the same principle of filling in the gaps must be applied in these cases as well. Needless to say, the researcher must not let his imagination run away with him, but it should nevertheless be given free play as a means to the end of determining what a given report actually signifies. Another source of difficulty is errors in transmission or fallacious interpretation of observed phenomena by the original observer or the transmitting agent. A cable describing plans for the expulsion of six million Germans from the "new western provinces of Holland" caused considerable puzzlement in the various Western European desks to which it was routed, until someone deduced that "Holland" was a mistake for "Poland". Another famous case is that of "Colonel Ulm of Panzer troops", who was reported to be stationed on the Bulgarian-Greek frontier; there was quite a bit of speculation on the possible machinations of this mysterious German tank officer in the Macedonian area until it was suggested that "Col Ulm" in the cable was a distortion of "column".

Misprints in publications may similarly lead to ludicrous chains of reasoning based on false premises. The right surname combined with the wrong given name has resulted in innumerable cases of "mistaken identity" which have sometimes had dire consequences. Too often the interpretation attached by a field agency or sub-source to an item of information has blinded the researcher to the real import of the information itself. The only remedy is constant vigilance, broad comprehension, and exercise of common sense on the part of the researcher.

After the chaff of propaganda, wishful thinking, distortion, and incongruity has been eliminated and the real factual content of the report has been sifted out, its immediate implications must be determined. "Immediate implications" are those additional facts which can be deduced from the reported facts themselves. Often there are several alternative deductions, and all must be taken into account. Here again, both a general knowledge of the situation and a liberal use of the imaginative faculty are paramount. If a report states that fifty concrete mixers have arrived at Trabzun, it may mean (if true) that the Turks intend to improve the highway network in that region, or that they contemplate extensive fortification activity; or the equipment may be merely en route to another point farther inland. Which of these explanations is correct will depend on collation with other information afterwards; but it is part of the function of evaluation to see the various possible implications of such a single item of information when taken by itself.

19. Collation

To collate is to compare critically. In the intelligence process, collation is the necessary analytical step which precedes the integration of evaluated information into intelligence. It involves the minute examination of related items of evaluated information, element by element, in order to determine to what degree they confirm, supplement, or contradict each other and thereby to establish accepted facts and relationships.

Comparison can take place only between two or more like things. Reports on totally unrelated subjects cannot be compared and therefore cannot be collated. But all information on the same subject, and all information on different subjects having even the most distant relationship with one another, can and must be collated before intelligence (complete, accurate, and timely knowlege) can be produced.

Collation has two immediate objects: to establish items of factual truth, and to establish relationships between such items. In its simplest form it means weighing two or more reports on the identical factual subject and arriving at an accepted statement. This may theoretically be a mathematical average, a compromise, or a composite of the original reports, depending on the evaluation which

has been given to each. In practice it is never a simple average, even in as straightforward a matter as a numerical estimate. If three different sources give the number of troops in a certain province of Ruritania as 100,000, 150,000, and 200,000, respectively, the researcher would "accept" the middle figure only if all three reports were exactly equal in their reliability and circumstantiality and if there were no other information whatever available on any remotely related subject. This could obviously happen only if the sources were all completely unknown, if their reports all consisted merely of the bald numerical statement and were as of the same date, and if Ruritania were located on the planet Mars. Actually there will always be some means, however inadequate, of judging each source; some difference, however slight, in the circumstances, detail, or wording of the reports; and an existing body of related knowledge on such matters as the overall strength of Ruritanian forces, the topography of the province in question, previous activities in the area, and the political relations between Ruritania and its neighbors. The researcher must carefully consider each of these factors in collating the three reports and arriving at his own estimate.

In most cases the subject-matter is much more complex than that given in the above example. It may be a set of complicated production figures, or the characteristics of a weapon, or a series of events involving several political interests and numerous personalities. In such cases it is necessary to break down the subject into as many factual elements as possible and then to examine each element separately in the light of the various reports. Or, expressed the other way around, each report is broken down into all its factual elements and each element then studied in conjunction with similar elements of other reports. In either case the result is a critical comparison of the ultimate factual content of various reports, so far as they deal with the same or related subjects, for the purpose of getting at the truth or of arriving at the best possible estimate of the truth.

Relationships between facts are established by studying all the implications of each individual fact and of every possible combination of facts. This step can be taken only after the facts themselves have been determined by the collative process described above. It might be regarded as "advanced collation", and it leads directly into integration--the piecing together of all the elements to produce intelligence. It differs from integration, however, in that, although relying partly on deductive reasoning, it is still a part of the build-up process prior to final synthesis; it is the final stage in the mustering of the evaluated information. Relationships between facts are, after all, only larger facts which can be derived from the smaller ones.

The process of determining relationships almost invariably leads to a re-examination of the individual facts concerned, and this in turn usually results in a re-evaluation of the various reports on

which they are based. In other words, collation is a continuing process which comes logically, but not necessarily chronologically, after evaluation.

Although collation is essentially a mental process, it cannot be performed in an armchair. It requires the extensive use of mechanical devices and techniques for extracting or indexing the content of incoming reports and compiling the information according to a logical system. Only with the aid of such devices can the items of information on any subject or group of subjects be surveyed and critically compared. The following are the principal mechanical aids, or collation files, which have been developed:

The simplest device for extracting information is the running list. This is merely a ledger in which all pertinent items of information coming within the scope of the researcher's work are entered, usually in highly condensed form, in the order in which they are received. Each item is accompanied by the date, source, and evaluation. No attempt is made to classify the items according to the logical subdivisions of the subject-matter, but one refinement which will aid in finding desired items quickly is the underlining of key words in each item, while another is the sidelining of important items.

With most researchers and with most subject-matters the general running list described above is soon largely superseded by a specialized running list. This follows the same system except that the overall subject is broken down as far as possible into its logical components, each of which is represented by a separate page or sequence of pages in the ledger. There may initially be only half a dozen such subdivisions, but it will probably be found that each of these lends itself to a further break-down into smaller elements. In each case a "general" page should be inserted at the beginning of each major subdivision in order to accommodate such items of information as do not properly fit into any one of the smaller categories. It is obvious that this type of running list is much more useful than the general running list, since it places all extracts on a given subject in one place where they may be readily collated. The general running list should accordingly be reserved for "unclassifiable" items and for extracts on a new subject when its logical break-down is not yet apparent.

If most of the information comes in the form of wordy reports which cannot readily be condensed for speedy extraction, the function of the running list is performed by the index journal. This is really a running list of references rather than of extracts. The subject-matter is subdivided in the same manner as with the specialized running list, but the entries made in the ledger are merely the titles of reports, possibly with a very few words to indicate the nature and value of the contents. In each case the source, date, and serial number are recorded, so that all reports on a given subject can be reassembled from the files whenever they are

needed. This type of journal has to be resorted to in studying political developments, tactical doctrines, and other subjects involving much descriptive or narrative matter which cannot be reduced to concrete facts.

For many subjects a combination of the running list and index journal, known as a log book, has proved most satisfactory. This contains factual extracts to the maximum feasible extent, supplemented by index references to those reports which cannot be extracted factually. Wherever possible, however, the latter type of reports should be summarized in full so as to avoid the subsequent efforts of retrieving them from the files. This applies particularly when the files are not under the immediate control of the researcher. If there is sufficient clerical help it is even desirable to make lengthy typewritten extracts of such reports for insertion in the log book.

All running lists, index journals, and log books should be in looseleaf form and should include a table of contents showing the detailed arrangement of the material. As they begin to grow in size, a tab should be placed on the initial page of each section to facilitate ready reference. A standard form for headings, spacing, abbreviations, and the manner of indicating sources, dates, serial numbers, and evaluations should be adopted and adhered to.

The ultimate development of the specialized running list or log book is the card file. This breaks down the subject-matter into its smallest possible elements, providing a single card (instead of a page of a notebook) for each such element. It is possible to do this only with subjects which consist primarily of factual elements rather than descriptive matter; examples of such subjects are personalities, identification and location of military units (Order of Battle), and data regarding individual cities, factories, ships, fortified localities, communication lines, and the like. In some cases it is possible to break down the data regarding each individual element still further and to design a printed card which will provide spaces for the different facts to be recorded. The cards should be arranged in whatever logical manner the subject dictates: alphabetically, numerically, by provinces, by industries, etc. Often it will be found that two or more card files can profitably be used for the same subject, each constituting a cross-reference to the other. Thus personalities may be carded alphabetically as well as according to occupation or position in the national life; military units can be carded according to location or according to number and type, or both. If the factual data to be extracted are very brief, consisting of only one line for each extract, it is best to use the same card (or sequence of cards) for all successive extracts on the same elements, so as to facilitate collation; but if most of the extracts are likely to take up several lines or more, each extract should be made on a separate card and all cards relating to the same element filed together in chronological order.

Many types of information can best be recorded on work-maps. These include unit locations, troop movements, fortifications, boundary disputes, local administrative organization, mineral deposits, production facilities, distribution of population, and many topographic matters. Special devices must be evolved for plotting such information in order to show adequately the name, extent, or character of the thing plotted and the source, date, and evaluation of the report; these devices include use of different colors, symbols, and overlays. Although some of these techniques are similar to those employed for the dissemination of intelligence by cartographic representation, it should be remembered that work-maps are intended as an aid to collation and are never identical in appearance with the maps which are disseminated. In almost all cases work-maps must be supplemented by one or more of the other devices for extraction and compilation described above.

Charts, graphs, and statistical tables are useful for plotting or compiling much of the information dealt with by economic and sociological intelligence and the study of military manpower. The above remarks regarding work-maps apply equally to these devices; special special methods must be used for indicating all the pertinent elements of the information, and they must be carefully distinguished from material for dissemination.

For some subjects, which do not lend themselves readily to factual analysis, such as political events, a periodic digest or chronology will be found a useful tool of the researcher. This has the purpose of condensing for ready reference the principal developments around which the study of the subject must be built.

Whatever mechanical devices are used for compiling information as an aid to collation, the researcher must observe the four cardinal principles of accuracy, completeness, standardization, and improvement. Each extract must accurately reproduce the essence of the information on which it is based. All material pertinent to the subject must be fully extracted or indexed. Standard arrangement of the material extracted and uniform use of language are indespensable for intelligent collation. Finally, the researcher must be constantly alert to means of improving and elaborating his collation files to fit the development of the subject-matter or of his own understanding of it.

As previously indicated, the devices described in the above paragraphs are essential as a means of collating information, but they must not be confused with collation itself. This is achieved only by carefully examining and comparing critically, element by element, all items of evaluated information on a given subject in order to establish acceptable facts and relationships.

20. Integration.

INTEGRATION is the fitting together of numerous pieces to form a unified whole. In the intelligence process, it is the final step of assembling all pertinent facts and relationships, previously established by evaluation and collation, to produce the intelligence mosaic on a given subject. It is the one stage in the whole process which requires the maximum use of logical reasoning and sound judgment.

It may appear, from what has been said regarding collation, that piecing together the collated material is really a simple mechanical process requiring no more intelligence than solving a jig-saw puzzle. This would be true if all the pieces of the puzzle were present. But in intelligence work there are usually large gaps where the information is inadequate or totally lacking, and it is here that the creative imagination must come into play. The researcher must be able to proceed from the known to the unknown, from the general to the particular, from the obvious to the obscure, and from the cause to the effect, in order to round out the picture.

Integration uses primarily the methods of deduction. This means that it consists of drawing conclusions from accepted premises. Collation is essentially a process of analysis--picking things to pieces; integration is essentially a process of synthesis --reassembling the pieces into a logical pattern. To put it another way, the purpose of evaluation and collation is to amass all the evidence, while the purpose of integration is to draw the inferences which are inherent in the evidence.

In practice, these logical distinctions are not always clearly defined, nor is there any reason why they should be. The researcher does not sit down and consciously engage in collation for an hour and then consciously switch over to integration. Usually the two processes go on simultaneously. Taken together, they form the heart of the intelligence process: the conversion of information (previously evaluated) into intelligence (ready to be interpreted). It is desirable, however, for the beginner to understand how collation and integration supplement each other in producing this conversion and to realize that he is applying a combination of inductive and deductive reasoning in proceeding from his original facts to his final conclusions. Intelligence, like any science, is built upon a foundation of observed phenomena, or facts; but it becomes meaningful only when it establishes generalities from the facts and draws the logical conclusions from the generalities. Its first task is to verify the facts (evaluation); its second is to classify or systematize them (collation); and its third is to derive the conclusions from them (integration).

One example may illustrate this procedure. In April, May, and the first three weeks of June 1941, the military attache's office in Berlin obtained many hundreds of individual reports from innumerable sources regarding German troop movements and troop concentrations. Only a small minority of the reports made sense, taken by themselves. Many directly contradidted each other, while others seemed to point in the same general direction. By perusing the reports as they came in, the military attache would have been able, without doing any recording or plotting of the information, to inform the War Department toward the middle of June that the Germans appeared to have assembled considerable forces in Poland and East Prussia; using this "armchair" method he could have siad little more definite than that. Actually, by assiduous use of the techniques of evaluation, collation, and integration, he was able to keep the War Department currently informed throughout the period on the approximate number of divisions involved, the exact identifications and locations of many of them, the rate of build-up in the various sectors, their supply stocks, and the progress of road-building and fortification activity. Each individual report was carefully evaluated according to the reliability of its source, the probability of the information, and its immediate import. All reports affecting a given area, movement, unit, or activity were analyzed in conjunction with each other and critically compared to determine the acceptable facts and relationships. This was done by recording the information systematically and plotting it on a series of maps. Finally, the entire jig-saw was put together by integrating all the known facts and relationships and filling in the gaps by logical deduction.

The putting together, or integration, was not done, however, on the last day before the German attack. It was done constantly, from the very beginning so that the entire picture, so far as known, could be seen at a glance at any given time. Consequently it was possible at all times to see what types of information were particularly needed to fill in the gaps and to take appropriate action to obtain this information. Thus the whole intelligence process led back to the guidance of collection on the basis of the established intelligence needs.

21. Interpretation.

As has been shown, the result of integration is the intelligence mosaic, or what might be called "raw intelligence" on any given subject. It does not achieve full usefulness until this mosaic has been interpreted against the background of all other knowledge in any way pertinent to the subject. Interpretation determines the meaning of a known condition or development and places it in its true perspective. As the final step in the production of intelligence, it is the basis for any action which should be taken to meet or counteract the condition or development concerned.

In combat intelligence, where the intelligence process is telescoped, the G-2 collects all available information on the enemy and the terrain, in accordance with the Intelligence Plan. He evaluates each item, compares or collates different items dealing with the same subject, and weaves all the items together into an estimate for presentation to his commanding officer. One form of such a presentation is an Order of Battle map, showing the accepted dispositions of all enemy units. If the system is functioning properly, this may be a very accurate and up-to-the-minute map, but it is still not enough to tell the commander all that he needs to know. Taken in conjunction with the terrain, the weather, the supply situation, enemy morale, and the disposition and condition of friendly troops, it may mean that the enemy is about to launch an attack, or equally well, it may mean that the enemy is incapable of resisting an attack. The commander can be made aware of these implications and consequently decide what orders to issue to hiw own troops only if the map is intelligently interpreted.

At strategic level interpretation must take into account all the components of strategic intelligence: topographic, sociological, political, economic, Who's Who, military, technical, and scientific. It is the final synthesis of all factors which will affect the war-making capabilities of a nation. In the example given above, the German troop concentrations in June 1941, however accurately, completely, and promptly they were known, could not be translated into the prediction "The Germans are about to attack Russia" except when studied in conjunction with the political and economic relations between the two nations, the personalities of their leaders, the terrain, and the general war situation. Integration aims to produce a complete and accurate picture of a given subject; interpretation shows the position occupied by the knowledge of that subject in the overall picture.

In the strategic intelligence organization the function of interpreting intelligence in its broader aspects should be confined to a few individuals who are unusually well qualified to judge all factors simultaneously and to balance them against each other. These individuals cannot possibly examine all the information regarding the countries with which they deal. In order to keep their perspective they must study principally the results of the work of the numerous specialized researchers. The researchers, on the other hand, should not attempt to interpret except within the limited spheres with which they are concerned. For many forms of dissemination the work of the researchers is sufficient, since the questions dealt with are of comparatively narrow scope and do not require strategic interpretation. But whenever the strategic significance has to be determined, with its possible effect on the national interests and national policies of our own country, the function of interpretation should be left to specialists who devote themselves to keeping in touch with all factors.

Strategic intelligence has its limitations, and no one will pretend that the product of the intelligence process is omniscience. It is seldom possible to make such a statement as "The Germans are about to attack Russia". In the larger issues of world affairs there are always imponderables beyond the reach of scientific investigation. Even if the information obtained is comprehensive and exhaustive and the intelligence based on it is produded according to the best approved techniques by highly competent personnel, the great decisions of history usually rest within the minds of unpredictable individuals.

What strategic intelligence can do, however, is analyze, and then synthesize, all the factors affecting any given problem complex. The degree of coverage of the sources and the efficiency of the techniques of evaluation, collation, and integration will determine how accurately, completely, and promptly these factors are known. The balanced interpretation of these factors will then be able to say "All indications point to an impending German attack on Russia". Further, it will be able to outline the strategic military factors which will be involved in the campaign (if it comes off), the political, economic, and psychological factors which will determine the strength and endurance of the two adversaries, and the repercussions which it will have in other parts of the world. In other words, as stated at the beginning of this manual, interpretation of all the components of strategic intelligence furnishes the national leadership with the concentrated and comprehensive knowledge of the affairs of foreign countries on which to base the decisions for the defense and furtherance of the national interests.

Chapter V. DISSEMINATION OF INTELLIGENCE

22. General Principles of Dissemination

a. Definition. Dissemination is the timely distribution of intelligence, in suitable forms and in needed detail, to all authorized persons and agencies who can use it. It has its own problems and its own techniques, but at the same time it is most intimately bound up with the research process. Dissemination is the goal, the end result -- in fact, the very reason for existence of the entire strategic intelligence organization.

b. Timeliness. The intelligence produced by the arduous processes described in the previous chapters is of no value if it remains in the files or in the heads of the researchers. It is of purely historical interest if it is not placed in the hands of the users promptly. Timeliness of dissemination actually involves two principles: knowledge of the current needs and speed of execution. The first demands a careful and constant study of the requirements of all potential users by techniques analogous to those of market surveys conducted by large corporations and industrial groups, combined with an equally careful alertness to the potential value of the types of intelligence which are currently produced, or capable of being produced, by the researchers. The second requires highly efficient machinery for editing, assembling, reproducing, and publishing intelligence in all the various forms which are used.

c. Subject Coverage. Everything worth disseminating should be disseminated. Both the researchers and the persons specially responsible for dissemination must be constantly aware of this and must see to it that the useful intelligence which is developed reaches those who can use it. Moreover, if it should happen that no satisfactory intelligence is being developed on a subject thought to be of current interest, they should take steps promptly to remedy the deficiency, if necessary by issuing requests for information to the collecting agencies to fill the gaps. They should not confine themselves to performing assigned research projects or answering specific requests for intelligence but should take the initiative in producing and disseminating intelligence whenever it appears likely to be useful.

d. User Coverage. All intelligence which is disseminated must be distributed to all users who are likely to benefit from it. This applies to both routine and special reports. A report requested by a particular agency should not necessarily be submitted to that agency alone but should also go to any others that can use it. This requires awareness of the intelligence needs and interests of all possible using agencies and ability to recognize the value of a particular production to them regardless of who originally asked for it.

e. Form. No two dissemination problems are exactly alike. The medium chosen for dissemination will in each case depend on the type of intelligence, its urgency, its bulk, its security classification, the type of users to which it is addressed, and the number of copies required. It will also be affected by the desirability of using graphic forms of presentation. Numerous types of dissemination media must be developed to fit all the various needs, and efforts must constantly be made to improve them and to develop new media. Clarity of presentation, consistency of style, attractiveness of outward form, durability, and freedom from typographical errors are a few of the problems which must be solved.

f. Detail. The amount of technical detail will vary widely according to the customer and the circumstances. A terrain study may include many maps, diagrams, and technical terms which can be fully understood only by the technical experts for whom it is intended. A political or economic survey for the use of higher authority, on the other hand, may consist chiefly of general statements and supporting factual data which will be immediately comprehensible to any intelligent reader. A handbook on a foreign army which is intended for the troops must obviously use entirely different language from a report on the same subject designed for the use of the General Staff. Requests from some agencies may call for all the details available on a particular subject of extremely narrow scope, while others will require a general summary of a much wider field. Often the time element will determine how much detail can be given; there may be such a wealth of of information available on a given subject that the researcher is tempted to spend a month making a thoroughgoing analysis of it, whereas the urgency of the intelligence need is such that a brief survey produced in two days' time will be much more to the point. It should also be remembered that many recipients of intelligence have not the time or patience to wade through a voluminous study, however excellent, and would much prefer to have the essential factors set forth in a few succinct paragraphs.

g. Security. It is not always necessary or desirable to give intelligence the same security classification as the information on which it is based. If it has been possible by skillful analysis and synthesis to reach important intelligence conclusions which were not immediately evident in the raw information, it may be desirable to raise the classification in order to conceal from the foreign nation concerned the accuracy and completeness of our intelligence or the unexpected value which we derive from an apparently inocuous source. Thus during the war captured documents as such were generally regarded as restricted, but intelligence based on them was almost always classified confidential so that the enemy would not realize how extensive and how effective was our organization for exploiting this source. More often the classification of material can and should be reduced after it has been converted into intelligence. Information

which is highly classified when first received may lose its secret or confidential character with the passage of time, since it would meanwhile have been possible to obtain it from several other sources. In such cases the original report itself will of course retain its high classification, in order to protect the original source, but the information derived from it may be reduced after rewording and integration with other material. Even without the time factor, information from a number of sources, all of which are classified secret, may result in intelligence on the confidential level since the material has been so completely reworked that none of the original sources can possibly be compromised. Occasionally it is even desirable to reduce a classification arbitrarily in order to make possible a wider dissemination; the risk of compromise is then outweighed by the expected value to the recipients. The individuals responsible for dissemination must carefully consider all these factors in each instance. Needless to say, they must also provide for the suitable marking of outgoing classified papers and make sure that they are disseminated only to persons and agencies cleared for the security level involved.

h. Continuity. The final principle of dissemination is systematicand continuous coverage of the subjects dealt with. Periodic reports or reviews should be instituted to keep up to date, for the appropriate users, the intelligence on matters of current interest. On some such subjects it is even desirable to notify the users at regular intervals that there is nothing new to report, so that they can have the assurance that the last intelligence disseminated is still valid. In other cases, when material previously disseminated is invalidated by receipt of better information or by change in the situation, it is imperative that recipients of the previous intelligence be set right immediately. Handbooks and other collections of extensive intelligence data should be amended and revised at reasonable intervals. All intelligence disseminated must of course bear the date so that users will always know whether or to what extent it can be accepted as the latest available on the subject. If, some months after a report has been issued, a further need for dissemination on the same subject arises, the researchers concerned should always be consulted to make sure that the material is not obsolete.

23. Problems and Techniques of Dissemination

a. Separate Control. The dissemination of intelligence can be made the responsibility of the various research branches and sections, or it can be handled by a separate organization. Since most of its problems and techniques are entirely distinct from those of research, the latter solution has been found more suitable. If each branch or section did its own disseminating, it would doubtless be able to cover its subject-matter effectively, but uniformity and balance would be sacrificed and the benefits of centralized planning and special techniques would be lost. Only by a unified control of all dissemination

can the best media be developed, the technical facilities properly utilized, priorities enforced, the using agencies systematically surveyed, the speediest channels of dissemination exploited, a standard security policy applied, and continuity of dissemination assured. Specialized personnel devoting their full time to dissemination will devise many methods and discover many possibilities which could not conceivably be developed within the research units.

b. Integration with research. If dissemination is under a separate control, however, machinery must be established for the closest possible coordination with the research branches and sections. Not only is the material for dissemination prepared by the researchers, but their specialized knowledge of the subjects dealt with will usually indicate what sort of material should be disseminated, in what form, and at what times. Hence the dissemination unit must have the closest contact with the researchers both for deciding what to disseminate and for working up the individual reports and studies once the decision is made. This can best be achieved by some sort of liaison desk within each research organization. It must never happen (as has been the case too often in the past) that the dissemination unit develops a miniature and amateur research organization of its own and attempts to prepare reports after only cursory consultation with the regular researchers. On the other hand, the researchers should not have to worry about the exact form of presentation of their material but should be able to supply it in rough form to the editors in the dissemination unit after initial consultations on the subject-matter to be covered, the amount of detail desired, the security classification, and similar matters. The researchers should constantly be urged to notify the dissemination unit of new developments in their fields of interest which might be worth writing up in a report. The dissemination unit serves in every respect as the publishing house for the research unit, thoroughly familiar with the needs of its public, the condition of the market, the techniques of publication, and the channels of distribution and obtaining from its "authors" their rough manuscripts for editing as well as their suggestions on what is worth a publication effort.

c. Dissemination Media. The following are the principal types of media employed for the dissemination of intelligence. Each is capable of extensive variation and refinement to fit the particular needs. The first three, and to some extent the fourth and fifth, are handled by the researchers on their own responsibility, while the rest are generally controlled by the dissemination unit.

(1) Informal means. This normally consists of a personal consultation between the researcher and a person in higher authority, a representative of another agency, or a fellow-researcher. It may involve merely the answer to a specific question, which the researcher can often produce immediately, or an extended discussion of a whole problem complex, possibly requiring reference to collation files. The

The results of this type of dissemination are intangible but nevertheless of much greater importance than is often recognized.

(2) Oral presentation. This may take the form of a lecture or conference with a group of people or personal presentation to a higher authority. In either case it requires careful preparation and a mastery of the techniques of clear delivery and effective demonstration.

(3) Memoranda. A researcher will occasionally find it desirable to call attention to an intelligence development by means of an informal memorandum to his superiors or to other interested parties. This method may be preferable to oral presentation since it enables the researcher to organize his ideas and cite his evidence in writing. It often leads to other forms of dissemination on the same subject.

(4) Assigned projects. These are usually the result of a specific request for intelligence by an outside agency. It is essential that this request be carefully formulated to show exactly what is wanted, in how much detail, and how urgently. Carrying out such projects constitutes a large proportion of the work of many of the researchers. A copy of each project, when completed, should be presented to the dissemination unit, so that it can determine whether further dissemination is desirable now or later and can record the fact that formal dissemination has been made on the subject in question. If the researcher feels that wider dissemination may prove desirable, he should coordinate the form of presentation with the dissemination unit in advance.

(5) Graphic presentation. Maps, graphs, charts, and photographs should be used to the maximum extent in all forms of dissemination. Their preparation by cartographic personnel must be carefully worked out in consultation with the researchers and (if wider dissemination is desired) with the dissemination authorities.

(6) Books. These are formal, systematic presentations in printed form of whole fields of intelligence, to be used as reference or training material for large numbers of people. The content must be logically arranged and carefully edited after the material has been assembled by the researchers. Attention must be given to size, binding, type of paper, type of print, subdivision into chapters and sections, and many other technical problems. If possible a book should be profusely illustrated and should include a subject index. Amendments and revisions should be issued whenever sufficient additional intelligence has accumulated, provided that the need for the book still exists.

(7) Periodic publications. Like books, these "magazines" are printed and are intended for wide dissemination. They contain data and discussions on relatively wide fields of intelligence and are intended

to keep the recipients up to date on the latest important developments. They are subject to the same technical problems as books, but in addition the successive issues of a single periodic publication should follow a standard arrangement and style carefully worked out in advance and adhered to consistently. Subjects dealt with in one issue should be followed up in later issues if significant changes take place.

(8) Periodic reports. These have essentially the same purpose as periodic publications except that their dissemination is limited to a much smaller number of persons or agencies. For this reason they can bear a higher security classification and can deal with the subjects in a more technical manner. They are usually mimeographed or dittoed. Speed of dissemination is particularly important with these reports, since the type of material included in them is usually of current interest only.

(9) Special reports. Whenever the accumulated intelligence on a subject amounts to a substantial change or improvement in previous knowledge which will be of interest and value to a number of persons or agencies, a special report should be issued. Such reports may be short, long, general, detailed, rough, polished, comprehensive, or specific, depending on the character and urgency of the intelligence and the nature of the needs of the intended recipients. Their distribution is a more complex problem than that of any other type of report. Requested projects for which wider dissemination is desired also belong to this category.

(10) Cables. Spot intelligence is sometimes transmitted to representatives overseas by cable in order to aid them in their own reporting or in whatever other missions they are performing. This is particularly applicable in war, when theater headquarters urgently need the latest strategic intelligence on military and other matters, but its potentialities in time of peace should not be lost sight of.

(11) FilmsThe use of short motion picture films for the dissemination of intelligence is capable of considerable development. Their value lies chiefly in the indoctrination of troops in intelligence matters.

d. Directions of dissemination. Combat intelligence is disseminated in three directions: up, down, and across. The G-2 periodic report is distributed to the next higher echelon, the next lower echelon, and the parallel units on the same level as the originating unit. These concepts cannot be applied literally to the dissemination of strategic intelligence, but the same basic principle is followed. The military and political High Command of the nation must be regularly furnished with a balanced interpretation of all strategic factors in the current situation. Full details on innumerable specialized subjects

must be made available to subordinate departments of the government, including the technical services and other subdivisions of the armed forces. Handbooks and other reference material must be supplied to the troops and to many individual government officials. In addition, provision should be made for dissemination within the strategic intelligence organization, so that all researchers can be kept abreast of developments in fields more or less closely related to their own. Suitable channels must be developed and maintained for dissemination in each of these vertical and lateral directions.

e. Market analysis. To insure the best possible service to all "customers", the dissemination unit should make a systematic and continuing survey of their needs. Careful records on each of the many using agencies should be maintained, showing in each case the character of the agency, its general and specific intelligence needs, and complete details on the service which has been rendered to it in the past. Every report which is disseminated should be promptly entered in the records for each receiving agency, so that it will be possible to see at a glance what type of material has been furnished it in the past and whether this meets the known needs of that agency. Correspondence with the various users will help determine their needs, and they should be encouraged to criticize both the volume and the quality of the reports sent to them. Personal contacts with representatives of using agencies will be found even more valuable in discovering whether they are satisfied with what they are getting, since persons in responsible positions shrink from committing themselves in writing to anything resembling criticism of another agency unless they are waging a campaign against it, but most such persons will gladly voice their opinions orally if approached in a friendly and tactful manner. Efforts should constantly be made to contact additional agencies which might have a ligitimate use for the product of strategic intelligence, while at the same time those to which the product is no longer of value should be promptly dropped from the rolls. All the information gathered by market analysis must serve as a basis for corrective action to improve the quantitative and qualitative coverage to each user.

f. Procedure. Once the decision is made to undertake a dissemination project on a given subject, all persons concerned must operate as a team. The responsible individual in the dissemination unit must draw up a tentative list of recipients and study both the urgency and the character of the needs of each. This will enable him to set the deadline for the project and to determine its scope, the amount of detail to be included, and the desirability of using graphic methods, the security classification, and the most suitable medium for dissemination. He can then consult with the members of the team, who include both researchers and dissemination specialists, and block out the work to be done. A general outline of the report is then agreed upon in conformity with the medium to be employed and the other special conditions mentioned. The research part of the work is subdivided among

the various researchers involved, and intermediate deadlines are set for completion of the first draft, initial coordination of the parts, revised drafts, editing by a dissemination specialist, and final review by the researchers. Arrangements are made as early as possible for the preparation of any illustrative material and for any priorities which may be needed for reproduction, printing, and shipping. If the material is to go overseas, it may even be desirable to integrate the final timetable with air transport schedules and the like. All technical questions, such as style of print or mimeograph, binding, pagination, and proofreading, must be anticipated so that there will be no bottleneck in issuing the report once the text has been approved in final form. If the report is lengthy, work on various parts may be staggered so as to increase efficiency in the various phases of processing. The mechanical tasks of typing and reproduction must be so organized as to cause a minimum of delay. Finally, provision must be made for transmitting the completed project to the recipients by the fastest means available and without administrative red tape or intermediate distributing authorities.

g. Dissemination plan. The dissemination plan is a comprehensive record of what has been disseminated; its purpose is to serve as a guide to what should be disseminated in the future. Every completed project or report should be kept on file by the dissemination unit and its contents carefully indexed. This index will show immediately what subjects have been covered and what ones have been neglected. When a request for intelligence is received, consultation of the index may indicate that it can best be met by submitting a copy of a report which has previously been disseminated and thus save duplication of effort. The dissemination plan will further make it possible to decide priorities and to initiate projects to fill in the gaps in intelligence coverage. It supplements but does not replace consultation with the researchers.

24. Preparation of Material for Dissemination

a. General. As has been shown, dissemination is usually effected in writing, whether as an informal memorandum, a publication, an assigned project, or a periodic or special report. In each case the writing is the crystallization of the last two steps in the production of intelligence -- integration and interpretation. While the actual nature and appearance of the report will vary extremely according to the subject, the medium, and other considerations, certain basic principles apply in all cases. The most important of these are outlined below.

b. Scope of subject. Every effort should be made to report on a subject which is clearly defined and self-contained. This is not always possible, since requests for intelligence are often so framed that only isolated parts of a subject or various parts of several different subjects are involved. But whenever there is a choice, the subject should be so delineated that it forms a logical whole which can

be readily subdivided into its component parts and equally readily related to other subjects or larger issues. In all cases the exact scope of the subject or subjects dealt with must be clearly formulated in the minds of the researchers and precisely indicated in the title of the report.

c. Logical arrangement. Once the subject has been circumscribed, it must be subdivided into its logical parts, and these should form the basic framework for the report. The subdivisions may be organizational, functional, geographical, chronological, or even alphabetical or numerical, depending on the subject. Thus a report on Argentine internal politics might begin with a brief historical survey, followed by a discussion of each political party, and ending with an examination of the relations between parties and the underlying political currents of the nation. A topographic study might be arranged according to the various areas and sub-areas included, taking up successively under each area the factors of position, climate, land forms, drainage, and so on; or it may be found more suitable to divide the subject first into these factors and to discuss the different areas and sub-areas under each factor. A report on Russian antitank weapons would consist principally of a separate description of the characteristics of each weapon, but this might well be preceded by a general discussion of the common characteristics of all and followed by an estimate and critical review of their effectiveness. There is plenty of room for flexibility in this matter, since most subjects are complex and may be approached from any of several directions. But whatever arrangement is chosen, it is essential that it cover the entire scope of the subject, that all subdivisions on the same level be coordinate with each other, and that they follow in logical sequence. It is best to draw up a detailed outline in advance in order to make sure that all these requirements are met.

d. Procedure. After a logical outline has been developed it is a relatively simple matter to tackle each subdivision of the subject in turn. All collation files relating to each such subdivision are carefully studied and integrated and the significance of each established fact or relationship is worked out, often in discussions between two or more researchers. When the first draft is completed it must be reviewed to see whether any inconsistencies or duplications have crept in, and it will invariably be found that parts of it need rewriting or at least considerable rewording. The chief criticism of most reports is lack of coherence and balance, and this can always be traced to the failure of the author to proceed systematically in organizing this material. The job of writing a report, like the job of building a bridge or that of washing a car, can be performed properly only if it is undertaken one step at a time in accordance with a systematic plan laid down in advance.

e. Style. An intelligence report does not need to be a masterpiece of English prose, and it contains almost nothing of the qualities of other forms of literature such as poetry and the drama. What it

does need is a clear, succinct, and unequivocal style. All statements, so far as possible, should be factual. Long, involved lines of reasoning should be avoided, and every sentence should convey a definite meaning which contributes something to the discussion. Trite phrases, vague generalities, and repetitious statements should be eliminated. The choice of descriptive words must be precisely in accordance with their dictionary meanings. Irony, innuendo, and axe-grinding have no place in an intelligence report. Rules of outward style, such as grammar spelling, punctuation, indentation, use of abbreviations, and spacing, must of course be carefully observed.

f. Accuracy. Needless to say, anything presented in an intelligence report as a fact must be fully established as such. But this is not enough to insure accuracy of the report as a whole. An agglomeration of facts, each one completely true in itself, often results in gross falsehood. This is evident from even the most superficial study of the methods of advertising, salesmanship, political oratory, and propaganda. The researcher must assure himself that he is giving all the facts pertinent to a situation and that he is presenting them in such a straightforward manner that the result will be a true picture. His own interpretation, relating the facts to previous knowledge, will help achieve this result, provided that his judgment in weighing all the possibilities and implications is sound. But in writing the reports he must be careful that all interpretive comments are clearly recognizable as such and are not mixed in with the facts themselves. After taking all possible precautions to insure accuracy of presentation, it is still advisable to persuade another researcher to read the draft and then to discover whether he receives exactly the right impression of the subject as a whole as well as of its parts.

g. Graphic aids. The presentation of almost every subject can be improved by the use of graphic aids. These include maps, charts, graphs, pictures, diagrams, and tabulations. They seldom tell the whole story and should normally be accompanied by adequate explanatory text; but they serve to illustrate the subject vividly to the readers and will frequently take the place of lengthy descriptive material. In many cases, particularly in topographic intelligence and in Order of Battle, they are indispensable. There are two excesses, however, in the use of graphic aids. One is resort to them to depict something which should be obvious to any intelligent reader from a plain textual statement; no chart should be necessary to compare the total populations of Belgium and the Netherlands. The other is the tendency to develop more elaborate and time-consuming forms of graphic presentation than the particular intelligence project really warrants. A simple outline map with a few crayon markings on it may show what is essential much more effectively than a cartographic masterpiece requiring two weeks to prepare. The specialized personnel involved should not be burdened with work that is not really necessary. On the other hand, if the subject-matter, intended recipients, and other circumstances can best

be dealt with by highly elaborate forms of graphic presentation, the very finest methods are barely good enough.

h. Other aids to clarity. Apart from graphic aids there are a number of devices which can be used to increase the readability of a report. These include avoidance of long paragraphs, use of paragraph and sub-paragraph headings, a table of contents, and (with long reports) a subject index. A summary should always be placed at the beginning to orient the reader, and in addition a long report should have an introductory section surveying the whole subject. The introductory paragraph of each section might also be used to summarize the contents of that section, and the first sentence in each paragraph should adequately indicate the subject which it concerns. Mechanical aids to the usefulness of a report are such matters as the right size and type of paper, clarity of reproduction, lack of typing errors, and handy methods of binding or stapling.

Chapter VI. STRATEGIC FACTORS

25. Topographic

The physical characteristics of an area constitute the framework within which all human activity takes place. The topographic factors, accordingly, belong logically at the beginning of the list of factors which determine strategic capabilities. They set the stage for the human drama.

Topography means, literally, the description of places. In the broad sense in which it is used in strategic intelligence it embraces all aspects of the physical environment of man, both natural and artificial. It is concerned not only with the factors of position, climate, land forms, drainage, vegetation, and surface materials but also with the cultural, or man-made, factors which have altered the landscape and the terrain. It is not quite equivalent to the science of geography, since the latter also includes the study of man's activities in his environment. Topographic intelligence, however, has a direct bearing on these activities, and in wartime it is of vital importance to military operations. Its study requires, more than that of most of the other strategic components specialized scientific training and skills, and its mode of procedure involves extensive use of cartographic techniques.

The topographic study of any given area includes the following factors:

POSITION. This is the situation of the area with relation to other areas, including its accessibility by land and by sea. Obviously, if New Zealand and Great Britain were alike in other respects, there would still be a vast difference in their strategic capabilities and in the strategic capabilities of other nations with regard to them because of the essential difference in their location on the globe.

CLIMATE AND WEATHER. These factors vitally affect the economic activities in an area as well as any contemplated military, naval, or air operations. In the economic field, the climate of an area helps determine the type and quantity of crops that can be raised and the amount of human life that it can support. In the military field, the effect of climate on operations is made clear by the mere mention of the monsoon season in Burma, the Russian winters, and the various campaigns in North Africa; similarly, the day-to-day weather influences operational capabilities at any given time.

LAND FORMS. These are the types of configuration of the earth's surface. They include such forms as mountain ranges, hills, slopes, plains, plateaus, valleys, and depressions, and also the shape of the coastline which divides the land from the sea. They affect both military strategy and military tactics as well as the sociological, political, and economic factors. They largely determine the routes of movement and supply, the types of equipment which can be used,

the methods of attack and defense, the possibilities of concealment and surprise, and many other operational matters.

DRAINAGE. The question whether an area is fully or only partially drained, the number, width, depth, and direction of the streams, and the character of their banks and crossing places are determining factors in the mobility of troops and the tactics employed in any given area. The direction in which an area is drained also affects its political and economic orientation. A related factor is that of international water routes--oceans, seas, lakes, rivers, straits, and canals, the control of which is a cause of constant competition among nations.

VEGETATION. The presence or absence of forests, bushes, grass cover, cultivated crops, and other forms of vegetation has a vital effect on military operations and tactics. Vegetation may be either in its primeval state, as in the jungles of New Guinea, or the result of human cultivation, as in the Normandy hedge-rows.

SURFACE MATERIALS. The character of the surface of the earth--whether hard soil, soft soil, rock, sand, or rubble--determines what kind of vehicles can move over it, whether it is suitable for entrenchment, how quickly it will drain, and what will be the effect of a frost. Even such matters as the danger of dust-storms must be considered. In addition to its military implications, the surface material helps determine agriculture, mining, location of cities, and transportation routes.

CULTURAL FACTORS. These include all changes which man has made in his physical environment, especially in their effects on military operations. Besides cultivated crops, artificial forests, plantations, and the like they include roads, railways, and canals as well as houses, settlements, and cities, the factories of Stalingrad, the subways of Berlin--anything, in fact, which can influence tactics and which can be depicted on a map.

In their effect on military operations, both strategic and tactical, none of the above topographic factors should be considered by itself, since they are all interrelated. Only a study of the combined effects of all factors will show their strategic significance.

The emphasis in topographic intelligence has necessarily been on the military aspects of terrain, and this will probably continue to be the case in peacetime. But from the overall point of view it should also be remembered that topographic factors may influence national characteristics (Swiss mountain-dwellers versus inhabitants of the Dutch flatlands), political boundaries, economic pursuits, and technical capabilities.

26 Sociological.

Sociology is the study of groups of human beings, including the character, habits, attitudes, and activities of each group and the relations between different groups. Sociological intelligence

deals with the demographic and psychological factors in strategic capabilities; it tells the number, types, and distribution of the population and the manner in which it is likely to react under given conditions. It is also concerned with social institutions and folkways and their bearing on the political, economic, and military life of the nation.

The total population of a country directly affects its economic and military potential and therefore its political power. Study of the birth and death rates and migrations determines the growth or decline of a population. The population must be broken down into age classes, sex, and racial groups to determine the available industrial and military manpower. The existence of a large racial or linguistic minority within a country's borders is oftern the cause of political strife. On the other hand, racial and linguistic affinity may, as with the Slavic nations, affect the cultural relations and political orientation. The population may be further classified according to occupational skills, actual gainful occupations, level of culture, religion, and numerous other categories. The distribution of population includes not only its regional distribution but also the proportions living in large, medium, and small urban communities and in rural areas. Some countries publish detailed statistics on all these matters, while for others it is necessary to arrive at acceptable estimates by scientific intelligence procedures. During the recent war, and continuing up to the present, a major problem has been to determine the war-conditioned displacement of populations caused by the concentration of labor in armament centers, the evacuation of non essential persons from threatened areas, mobilizations and demobilizations, military and civilian casualties, conscription of foreign labor by the Axis powers, organized resettlement of minorities, and the mass refugee movements.

A special demographic problem is that of health, and its study leads to an examination of the questions of food supply, housing, availability of fuel for heating, system of medical care, and general standards of living. The health of a nation is important in determining its fit manpower for both military and industrial purposes and its national stamina in case of war; the existence or threat of epidemic is also of vital interest to other nations.

The psychological factor is, in a sense, the determining factor for war or peace. Whatever its other strategic capabilities, a nation will not enter a war and will not persist in a war already started if it lacks the will to fight. The combat effectiveness of a military unit is the sum of its strength, weapons, organization, leadership, tactics, and all other purely military factors multiplied by its morale; if its morale is zero, its combat effectiveness is zero regardless of the other factors. The same is true of a nation as a whole. But care must be taken to examine the entire complex of conditions which motivate a nation and not merely the outward appearance of warlike

or peaceable desires. The German people were tired of the war and yearned only for peace at least as early as 1943, but their defeatism was overcome by a combination of strong political cohesion, dictatorial control, propaganda, militaristic habits of thought, traditional national discipline, and sheer obstinacy. Many other factors influence the will to fight, such as national pride, national hatreds or prejudices, religious beliefs and fanaticism, fear (as of the Bolshevist bogey) hero-worship, greed, bellicosity, complacency, and love of comfortable living. It will be noted that virtually all these are emotional, rather than intellectual, qualities. Wars are fought for reasons of national interest which can be reduced to purely logical terms, but the support for wars by populations is based almost entirely on emotional factors. For this reason propoganda and psychological warfare address themselves to the heart rather than to the mind; they seek to persuade rather than to convince.

The psychological factor is as important in peacetime as it is in war. The will of a nation to pursue its national aims with vigor and, if necessary, to resort to force determines its bargaining power in international relations. Likewise, psychological warfare continues in time of peace; it is the effort of a nation to deal directly with the people of another nation instead of with its government or to induce the people to force their government to act in the desired manner.

The actions of human beings are largely influenced by their social institutions and folkways. These include such diverse things as the family, the established Church, the educational system, trade unionism, social security systems, the caste system of India, the position of women, aristocratic priviliges, the Japanese attitude toward the Emperor, tribal taboos, and all kinds of national traditions and habits of thought. A nation with democratic ideals and institutions such as a representative government, trial by jury, and a free press will behave quite differently from one with only an autocratic or fuedal background. A highly cultured and urbanized people will go to war under entirely different circumstances from a nation of peasants or a race of semi-barbarians. In a larger sense the social institutions include the form of government, but its detailed study comes rather in the field of political intelligence.

27. Political

Since prehistoric times groups of human beings have been associated either voluntarily or by force, under one form or another of authority for the purpose of governing their relations with each other and with other groups. Essentially the purpose of government, whether autocratic, democratic, or something in between, is to represent the common interests of the governed, both internally and externally. At home, a government establishes law and order, protects property and human rights, regulates commerce, and performs any other functions which

the welfare of the community requires. Abroad, it prosecutes the interests of the community by wars of aggression or defense and by measures short of war.

For the purposes of strategic intelligence the interest in political affairs is concentrated on the foreign relations of governments rather than on their domestic policies. But since these international relations are determined by an extremely complex combination of internal factors it is also necessary to study in great detail the form of government, the domestic political and administrative institutions and procedures, and the personalities, parties, and interests involved. This study, interpreted against the background of the economic, military, topographic, psychological, and other determining factors, will indicate how a government is likely to act under any given circumstances and will make it possible to understand its current actions.

The domestic political structures of nations vary widely. It is not enough to distinguish them as either democratic or autocratic. Many nations pay lip service to democracy but are actually ruled by a small clique or by the interplay of several vested interests. On the other hand, no government is completely arbitrary; even a dictator must take into account the interests and desires of various elements of the community and must cater to public opinion. It is necessary to study the machinery for the exercise of executive and legislative power and at the same time to examine the actual forces within the nation which determine its exercise. In most countries these forces express themselves through political parties, and the aims, program, popular support, limitations, and personalities of each such party must be fathomed. Further, the political jargon of a country must be understood, the researcher must not be led astray by what may appear to be excessive bombast or excessive mildness in the oratory or slogans of politicians, since these are conditioned by the customs of the country; he must get down to fundamental issues. Finally, the government in power must be analyzed to determine its policies; its personalities, the interests or sections of the population which back it; and above all its weakness and the movements in opposition to it.

The foreign policies and actions of a government are determined, in the long run, by the national interests as seen in the light of the international situation. By the actual methods employed and their timing are largely decided by the complex of pressures on the government resulting from the interplay of domestic political forces. If all governments were enlightened dictatorships and there were no distributing factors such as international political movements, supernational economic interests, cultural affinities, or religious inhibitions, relations between nations would be a simple matter of matching strength against strength, and the stronger nations would always win. In the final showdown on any given issue this actually happens, but meanwhile the undercurrents of political ideas and interests within individual nations and among groups of nations have developed

so many pressures and counter-pressures that the situation may have changed. To follow accurately the kaleidoscopic development of international relations, accordingly, the researcher must be thoroughly familiar with all the complex internal and international political factors.

For conducting their relations with each other, modern nations exchange plenipotentiaries known as ambassadors or ministers. These representatives negotiate with the governments to which they are accredited on all routine matters and report to their own governments on current political developments which may affect their interests. But when an important issue arises the plenipotentiary, despite his high-sounding title, usually acts merely as the messenger for conveying diplomatic notes from one government to the other. Such issues are often settled by conferences among foreign ministers or chiefs of governments or by the dispatch of special envoys and experts. There then ensues a game of give and take characterized by polite diplomatic formulas and conventions but fundamentally consisting of an exchange of threats and counter-threats until a compromise solution is worked out.

To impose its will on other nations a government does not usually need to go to war, to threaten openly to do so, to make a show of force, or even to put forward any specific demands. Its latent ability to do any of these things will be just as effective and will avoid unpleasant publicity. "Speak softly and carry a big stick" is a motto successfully followed by the United States in its relations with Latin America, by Great Britain in building up and maintaining its empire, and by the Soviet Union in pursuing its interests in eastern Europe and eastern Asia. Lesser nations, with smaller sticks, have sometimes considered it necessary to speak loudly in order to make themselves heard. But once Hitler dominated central Europe, he needed no fiery speeches, no curt ultimatums, not even a concentration of his Panzer divisions, to make Hungary, Rumania, and Bulgaria do his bidding. His political failure in Yugoslavia in the spring of 1941 was not due to the proverbial toughness of the Serbs but rather to their confidence in receiving support from two other great powers.

War as an instrument of national policy is a last resort to which even the most aggressive political leaders are reluctant to turn. It is much cheaper to achieve the same ends by the "fleet in being" or the "army in being", or by economic pressures, or by psychological warfare. The intelligence researcher must recognize these measures short of war for what they are, must be able to analyze and weigh each such possibility, and must integrate the intricate political forces which determine the character of any international situation.

28. Economic.

Simply defined, economics is the study of the means by which groups of people earn their livelihood. In a primitive community these consist of hunting, fishing, and foraging, possibly supplemented by the

cultivation of crops. In a modern state they involve all the complicated laws and conditions affecting the production, distribution, and consumption of innumerable articles of material wealth.

Economic intelligence is interested in the results of all these processes, but to determine these it is necessary to go into the economic processes themselves. Economics affects strategic capabilities in many ways and is probably the most ramified of all the components of strategic intelligence. Many modern scholars, in fact, consider economic forces the basic causes of all wars, regardless of the immediate political objectives of the belligerent powers and the psychological attitudes of their citizens. It is certainly true that the principal contacts between nations in times of peace are in the economic fields of trade and competition, that economic weapons are the most potent in international dealings short of military action, and that the economic potential is the best single measure of a nation's overall strategic capacities. For these reasons a thorough analysis of economic forces, both within nations and between nations, is essential to arriving at a strategic estimate.

The ability of a nation to wage war is proportional, among other things, to its capacity to produce the physical weapons of war, such as guns, tanks, aircraft, naval vessels, and ammunition. Consequently, all important nations seek to obtain access to the strategic materials needed for such production and to build up their own basic industries. Economic intelligence must therefore know the natural resources of the different nations, their actual industrial capacity, and their ability to expand it rapidly. But this is only one small aspect of the subject. A nation must export in order to pay for its needed imports, and the resulting competions in world markets leads to trade agreements, tariff wars, subsidies of exports and of shipping, the formation of economic blocs, and the setting up of cartels and similar devices of international big business. Large and wealthy nations tend to dominate the economic life of their smaller neighbors, which usually means automatically a domination of their political life as well. This, in turn, leads to the struggle for spheres of influence among the great powers. All these forces may come into play by the deliberate action of governments on the basis of strategic planning, as in the case of Germany before the war, or by the natural interplay of private economic forces. The old slogan that "trade follows the flag" can just as readily be stated the other way around; the national interests of a country may become deeply involved in an area because of its economic commitments.

Apart from its own immediate strategic importance, economics has a direct or indirect effect on almost all the other strategic factors, It affects topography by building cities, railways, lines, ports, canals, coal mines, plantations, and farms. It affects sociology by concentrating the population in industrial centers, developing new social groupings and institutions, and changing its folkways and habits of thought. Economic forces underlie political forces, since most actions of governments are directed to furthering the domestic economic well-being or the foreign economic interests of the nation. They have

a direct effect not only on the size but also on the character of the military forces; Ethiopia may have a larger army than that of Sweden, but it can never have as much artillery, since Sweden has iron ore and a steel industry. Even scientific intelligence is affected by economics, since an industrial country is bound to have more scientific research than an agricultural one.

Of special interest in economic intelligence is its direct bearing on the actual planning and conduct of war. This is expressed in three phrases now familiar to everyone: war economy, economic warfare, and military economics. War economy embraces such measures as the rationing of raw materials and foodstuffs, price control, labor conscription, and war finance. It is an indispensable part of total war, and even rich nations like the United States have had to resort to it; some nations even find it necessary to have a modified type of war economy in time of peace. Economic warfare consists of measures intended to harm the enemy's war economy, both by denying him the strategic materials which he needs and by destroying his war industries. Blockade, preemptive buying, submarine campaigns against merchant shipping, and industrial bombing are among the methods used. Military economics may be described as the coordination between military and economic measures both before and during military operations. In the planning stage it includes the setting up of the war economy so as to insure a maximum production of military goods, and also the actual strategic planning of operations so as to increase the economic potential. As early as 1935 the Germans started building up stockpiles of strategic materials, developing substitutes for materials which they lacked, and expanding their industrial structure to accord with the plans of the General Staff. The Caucasus campaign was deliberately planned in order to solve the oil problem, and similar consideration for the Hungarian oil wells led Hitler in January 1945 to send his best divisions to Hungary instead of defending the approaches to Berlin after the Russian breakthrough in Poland. The haste of the Japanese drive into Malaya and the East Indies is an example of military economics on a grand scale; the same principle is illustrated on a smaller scale by the periodic rice campaigns in the Yangtze valley. Speedy exploitation, according to prearranged plans, of the raw materials, agriculture, labor, and industrial plant of occupied areas is a further application of military economics, of which there were numerous examples in the recent war.

29. Who's Who

The world, so far as strategic intelligence is concerned, consists of things and people, with all the infinite variety of groupings, combinations, and interrelations among them. Things and their relation ships are the primary subjects of study for topographic, economic, military, technical, and scientific intelligence. People are studied collectively by sociological and political intelligence and to a lesser extent by economic, military, and

scientific. The study of people as individuals is the responsibility of Who's Who intelligence.

Properly speaking, the study of personalities is not a separate component of strategic intelligence but is contributory to several of the other components. It is so vast a field, however, and its methods are so unlike those of the other components, that it is treated independently. This does not alter the fact that the personality factor is most intimately bound up with the other factors and should never be overlooked in attempting to reach an estimate of any situation. The identity, background, opinions, character, and affiliations of the persons who lead or represent political parties, governments, cultural movements, economic enterprises, military forces, or scientific undertakings will inevitably influence the character and potentialities of those movements or forces.

Besides studying personalities to help determine the capabilities of the organizations with which they are associated, Who's Who intelligence may contribute directly to solving the problems of some of the other components. The most striking illustration of this is to be found in the countless cases in the war when military units were identified in particular areas by means of personalities. If a certain general was discovered to be in a given place, it was not unlikely that his division was there, and this bit of evidence, added to previous indications, might be enough to decide the question. Or if a prisoner of war said that his company commander was Captain X, previous compilation of Who's Who data might reveal what unit he belonged to. In peacetime, if Mr. Y suddenly turns up in a certain foreign capital, and if he is known to be an important agent of a certain third power, it may be the last link in establishing the fact that that power is pursuing a particular interest there. Or the sudden disappearance of all the nuclear physicists from the various universities in Ruritania might lead to some interesting conjectures connected with scientific intelligence. The more comprehensive and detailed the personality data are, the more extensive become the possibilities for this sort of intelligence integration.

It is not possible to maintain dossiers on more than a small fraction of the two billion or more people in the world. Who's Who intelligence must therefore select those few hundred or few thousand in each nation who hold, or who may in the future hold, positions of responsibility in any field. But once these individuals are selected, it must gather and collate every possible item of information on them, including their photographs, signatures, and personal habits. Even obscure items may become important when it is necessary to decide which of the numerous Smiths or Meyers or Changs is meant in a particular report. For collation purposes it is necessary to file the information not only alphabetically but according to subjects, activities, or organizations and also to know something about the nature and purposes of each such organization.

It is further desirable to assemble Who's Who books, telephone books, industrial directories, and almanacs for use as reference works.

Besides the leaders and potential leaders in various fields, Who's Who intelligence should know the names and characteristics of as many as possible of the minor representatives of various organizations and movements. This applies particularly to political, military, and economic agents and to members of subversive groups, including those within the United States. Many such activities can be followed more effectively by basing their study on personalities than by any other method.

30. Military

The armed forces of a nation are the physical means with which it engages in battle with the enemy. They do not represent the only methods of warfare, since there are also economic, political, and psychological weapons, but in the final analysis they are the means of imposing the nation's will upon the enemy. They include the land, sea, and air forces; all three of these must be studied and integrated to form complete military intelligence.

In time of war a large part of the effort of military intelligence, at strategic as well as at combat level, is devoted to Order of Battle and operational probabilities. In peacetime more attention can be given to the basic military system, organization, tactical doctrines, and mobilization plans. In both cases, however, the object is to determine the nation's military capabilities as a component of its overall strategic capabilities.

ORDER OF BATTLE is the strength, composition, disposition, movement, and command structure of armed forces. It has to do with the designations and types of units, their locations, their commanders, and their subordinations. Its principal tools are the Order of Battle map and the card file. In time of war the techniques of Order of Battle intelligence are extremely complex, since it must be pieced together from innumerable small indications and requires a thorough knowledge of the enemy's overall organization, command functions, and habits. But if properly conducted it furnishes the only sound basis for judging enemy operational capabilities, provided that there is also sufficient knowledge of terrain, weapons, and the other factors. It is one thing to know that there are about 100,000 enemy troops in an area; it is quite another thing to know what divisions and GHQ units are involved, who commands them, and exactly how the individual regiments and battalions are disposed. In peacetime the study of Order of Battle, in its proper sense of identifications and dispositions, is a much simpler matter, since much of the information is usually available in official publications.

MILITARY SYSTEM is the basic structure of the armed forces of a nation and the general principles applying to it. It includes such

questions as whether military service is voluntary or by conscription, the political control of the armed forces, the control of the military budget, the military tradition of the nation, the attitude of the people toward the military, and the caliber of the officers. It also involves the larger question of the general character of the armed forces on the basis of the topographic, sociological, political, and economic position of the nation: Great Britain must have a powerful navy and can afford to have a small professional army; Russia needs a mass conscript army to defend its vast territory and is able to have it because of its huge population; Denmark can scarcely hope to offer more than token resistance to any aggressor; Mexico naturally tands to have a large proportion of cavalry and to be weak in artillery.

ADMINISTRATIVE ORGANIZATION includes the specific form of control of the armed forces and their functional and territorial subdivision. It involves the detailed organization of the ministry of war (or the equivalent), the high commands of the army, navy, and air force, and theGeneral Staff; the breakdown of the forces into arms and services and the way in which each is organized; the division of the country into corps areas, fleet commands, and similar districts and the character function, and command channels of each; the systems of fiscal, property, and personnel administration; and the identification and location of military schools, ordnance headquarters, naval repair shops, replacement training centers, and all other types of installations. It is also necessary to know the plans for wartime changes in all these matters, such as the establishment of a field headquarters; the division of authority between the combat zone, the communications zone, and the zone of the interior; and the operation of the replacement system for personnel and the procurement system for material.

TACTICAL ORGANIZATION is the number, ranks, and functions of the personnel and the number and types of weapons and vehicles in any military unit, including their arrangement within the component elements of the unit. Most armies have scores if not hundreds of different types of units, and the organization of each must be studied separately. The general doctrines and principles of organization, including the formation of battle groups and combat teams, must also be examined. Naval and air organization further involve the use of battle squadrons and similar tactical formations. In time of war a distinction must be made between the prescribed organization (Tables of Organization) and the actual organization as it works out in the field, and attention must be given to the question of flexibility of organization to meet changing battle conditions.

MANPOWER is studied from the point of view of both quantity and quality. The total available military manpower is derived from the overall population and broken down into age classes. The system of conscription, voluntary enlistment, and mobilization must be known,

as well as the standards of physical fitness and the policies governing occupational deferment. Details must also be obtained regarding the method of sending replacements to the field and the system of hospitalization and discharge. The total strength at any given time is equal to the intake minus the casualties or attrition and must be checked with the Order of Battle (for the number of units of each type) and the organization specialist (for the prescribed strength of each unit). In wartime, casualties are divided into permanent battle losses (killed, captured, and disabled so seriously as to require discharge), non-permanent battle losses (wounded who are later returned to duty), permanent non-battle looses (died of illness or accident and discharged for non-battle disability), and non-permanent non-battle losses (temporarily hospitalized beacuse of illness or accident).

MATERIEL is an important factor in military intelligence but is studied by special techniques and is therefore dealt with separately under technical and scientific factors below.

FORTIFICATIONS AND DEFENSES are physical obstacles to enemy movement which are established either before or during operations. While essentially defensive in nature, they can also be used to protect an assembly area preceding an attack. Permanent and semi-permanent fortifications must be studied both as to type and technical characteristics and as to their actual locations. Temporary defenses, such as minefields, earthworks, and entanglements, can be studied in peacetime only as to type and characteristics, while their location in wartime is more a matter for combat intelligence. Strictly speaking, fortifications are a part of the topography, but since they are erected deliberately for a specific military purpose, their study comes in the field of military intelligence. They reveal much regarding a nation's operational plans as well as its defensive capabilities.

TACTICS must be studied in close conjunction with tactical organization and with weapons. Basic tactical principles do not change, but their application with particular types of organization, weapons, and terrain varies almost without limit. Tactical methods should be studied together with methods of training, since the latter are bound to reflect the approved doctrines. The best source in peacetime is the standard training manuals and officers' handbooks, supplemented by personal observation by military experts who can judge the merits and deficiencies of any maneuver or exercise.

LOGISTICS includes the study of supply, movement, and evacuation, with the emphasis on the first two. How fast a body of troops can move to a certain area and whether their supplies can be maintained are obviously vital questions in judging military capabilities. The answers will depend on the size of the force, the distances involved, the terrain, the transportation facilities, and the tonnage of equipment in the initial issue and required for subsequent maintenance

under the expected conditions. Detailed data must therefore be assembled in advance on such matters as standard equipment issues, maintenance requirements, number of trains or vehicles needed to move a given unit, march discipline, roads and railways, supply administration, and the location of supply depots. Where movement over water is concerned, the study extends to the amount of shipping available, the shipping routes, the port facilities, and the speed of loading and unloading. In time of war all these questions become acute and operational, but much of the needed material can be gathered, evaluated, and collated in peace.

31. Technical

Technical intelligence is actually a part of military intelligence, but it is treated separately for two reasons. In the first place, it deals entirely with physical objects, which can be studied quite independently of the persons or organizations which use them. In the second place, much of the study of materiel is of such a character that it can and should be delegated to the specialized technical departments of the army, navy, and air forces.

The first of these reasons makes it possible and desirable to conduct technical intelligence on a global basis, breaking down the subject matter according to types of equipment rather than according to countries. At the same time, the study of military equipment, especially in the stages of integration and interpretation, must be provided for within the strategic intelligence organization itself. The technical services are interested in a weapon or other article of foreign equipment only to the extent that it may give them leads for the improvement of our own equipment. They have special facilities and specially qualified personnel for determining its technical characteristics in detail, but they are not expected to tell its significance for the foreign nation's strategic capabilities. This can be done only if the material is fully integrated, from the intelligence point of view, with knowledge of the country's military organization and tactical doctrines and then interpreted in the light of all other factors. It is essential however, that the section of the strategic intelligence organization dealing with foreign material work in the closest possible cooperation and harmony with the Ordnance Department, the Quartermaster General's Department, and the other technical branches concerned. Experience has shown that both will benefit from such an association.

Technical intelligence deals with small arms, mortars, artillery, armored vehicles, rocket weapons, grenades, automotive equipment, aircraft, naval vessels, fire control equipment, signal equipment, and engineer equipment. It also includes uniforms, insignia, decorations, and individual equipment. All types of weapons, vehicles, and other combat equipment must be carefully catalogued for each country, and the data must be integrated not only with material on organization and tactics but also with economic intelligence, so that

the production and employment of each type as well as its characteristics can be judged. The study of uniforms and insignia is of great value to combat troops in identifying enemy or allied personnel and is also used for indoctrinatinating military attaches and members of military missions before they go abroad. One very practical use of intelligence on insignia and decorations is to, avoid the adoption of any design for our own forces which would resemble one already being used by a foreign nation.

32. Scientific

Scientific intelligence deals primarily withthe actual or potential development of new weapons or new methods of warfare. It is contributory to technical intelligence, but it uses much more specialized methods and has a different approach to the subject. It may also contribute to economic intelligence and possibly to certain of the other strategic factors.

Technical intelligence is interested in a weapon or other article of equipment after it leaves the factory. Its interest continues even if the weapon is obsolescent or inferior, so long as it is being employed by the foreign nation in question. Scientific intelligence, on the other hand, in concerned with a weapon only during its development stage, and it goes back even further to general scientific research and experimentation to anticipate the potential development of new weapons in the future. It asks such questions as what weapons are being developed, where and by whom, what lines of research are being pursued, to what extent they are subsidized by the government, what new fields of scientific endeavor are being opened up, and what implications they may have for the future war-making capabilities.

The actual subject matter of scientific intelligence varies from time to time. If it had existed in the early part of this century it would undoubtedly have been much interested in the possibilities of turning the new principles of submarine navigation and flight to military use. During the recent war it was especially concerned with electronic developments such as radar and anti-radar devices. Obviously it must watch very carefully any experimentation which may affect the knowledge of foreign nations in the field of atomic energy. It deals constantly with research trends which might contribute directly or indirectly to chemical warfare or the possible use of biological warfare. But its interest is not confined to revolutionary changes; it must also follow scientific developments which may lead to an improvement in existing weapons and existing methods of waging war.

Apart from its value in anticipating military developments, scientific intelligence also affects other components of strategic intelligence. If a nation were to develop plastics to the point

where they could replace steel in many of the materials of war, the economic capabilities would be seriously altered. The development of military aviation, tracked vehicles, engineering equipment, and longer-range artillery has substantially changed the effect of various topographic factors. Medical research may change the health of a nation or may convert a malaria-infested area into a productive community. The possible economic, political, psychological, and social effects of atomic fission must be watched just as closely as its military and technical implications.

In the present era of rapid scientific development and intensive scientific research in all leading countries of the world it is imperative that the strategic intelligence organization have an adequate staff to keep in the closest possible touch with all forms of scientific activity. It cannot limit itself to those which have apparent military applications, since scientific development in any field may, under modern conditions, change the war potential of a nation and the world strategic situation.