

The Intelligence Profession Series

Number FOUR



WARNING INTELLIGENCE

by

Cynthia M. Grabo

SAMPLE ONLY

DO NOT TAKE

6723 Whittier Avenue, Suite 303A
McLean, Virginia 22101
(703) 790-0320

\$1.25

The Association of Former Intelligence Officers (AFIO) was formed in 1975 by former intelligence personnel from the Federal military and civilian intelligence and security agencies. Its purpose is to promote public understanding of, and support for, a strong and responsible national intelligence establishment.

AFIO believes that effective intelligence is the nation's first line of defense against surprise from abroad and subversion at home and is indispensable for our national leaders in the conduct of foreign and defense policy. AFIO therefore holds that reliable intelligence is essential to the cause of peace.

In its first years, AFIO was active in providing expert testimony to committees of Congress which were investigating various aspects in national intelligence. With a lessening of the amount of effort required to provide Congress with objective, expert testimony, AFIO is embarking on an education project designed to provide material which will support the teaching of the subject in American universities and colleges. This series of monographs is one aspect of that project.

AFIO is independent and has no affiliation with the United States Government. Publications of the Association, however, which could divulge sensitive information regarding sources, methodology and techniques, are cleared with the proper element of the intelligence community. Clearance with a government element merely serves to satisfy security requirements and does not constitute substantive approval by that element. In fact, AFIO will not accept substantive direction. Opinions expressed in these monographs are those of the authors, not necessarily those of the Government or of AFIO.

Future editions of this series will address other subjects of current critical interest to the United States intelligence community and the citizenry. These will include secrecy, estimates, the legal and ethical bases for national intelligence, the history of national intelligence in the United States, comparisons with foreign services, collection, policy and the establishment of requirements.

Other pamphlets in this series are:

The Clandestine Service of the Central Intelligence Agency, by Hans Moses.

National Security and The First Amendment, by John S. Warner.

The KGB: An Instrument of Soviet Power, by Thomas Polgar.

WARNING INTELLIGENCE

Cynthia M. Grabo

Intelligence Profession Series
Number Four

The Association of Former Intelligence Officers
McLean, Virginia
1987

About the Author

Cynthia Grabo was a graduate student at the University of Chicago when she was recruited by Army Intelligence (G-2) in World War II. She retired from the Defense Intelligence Agency in December 1979.

She served as a strategic warning analyst for the Department of Defense for 30 years, and was a senior researcher and writer for the Watch Committee throughout its existence. She is the author of a textbook on warning intelligence (unavailable to public readership) which is still used in the training of intelligence analysts, and of numerous papers and articles on warning. She continues to lecture on the subject at the Defense Intelligence College.

Ms. Grabo's awards include the Defense Intelligence Agency's Exceptional Civilian Service Medal, the Central Intelligence Agency's Sherman Kent award for outstanding contribution to the literature of intelligence, and the National Intelligence Medal of Achievement.

The monograph series, *The Intelligence Profession*, is published by the Association of Former Intelligence Officers, 6723 Whittier Avenue, Suite 303A, McLean, Virginia 22101. Individual copies are priced at cost and are available for classroom use. Current issues are available at \$1.25 per copy. Payment must accompany each order.

Printed at McLean, Virginia

WARNING INTELLIGENCE

Contents

Introduction	1
Warning of What?	2
Indications & Warning (I&W):	4
How The System Functions	4
Tactical Versus Strategic Warning	6
An Interdisciplinary Problem	8
Warning and Collection	8
Warning and Current Intelligence	9
Role of Basic Intelligence	10
Basic Factors in Warning	12
Military Indications	12
Political Factors	13
Integration of Military, Political and Other Data	14
Problems and Hazards of Analysis	17
Volume and Nature of the Data	17
Constraints of Time	18
Security, Deception and Disinformation	20
Misperception, Preconception and Self-Deception	21
Timing and the Cry-Wolf Syndrome	23
Uncertainties and Probabilities	26
Warning and Policy	29
Conclusions	32
Seminar Suggestions	34
Recommended Reading	35
Case Studies	38

Acknowledgements

This text has been reviewed, for content and/or editorial consistency, by the following:

Richard W. Bates
John J. Davis
Samuel Halpern
Walter L. Pforzheimer
Edward F. Sayle
Jack E. Thomas
Eugene F. Tighe, Jr.

Thanks are also due to Gretchen Campbell for preparing the manuscript for publication.

WARNING INTELLIGENCE

Introduction

Few functions of intelligence are as important to the US government and people as accurate forecasting, or warning, of events which could adversely affect our national interests or security. Yet, there is relatively little public information available on the nature of warning intelligence, and it is widely misunderstood. In the eyes of the public, it is probably associated with failures like the Pearl Harbor attack, since such dramatic disasters can never escape national attention. Warning successes, on the other hand, may go unnoticed and unheralded, even within the government, for it rarely can be proved that adequate forecasting enabled a nation to avert disaster. A non-event attracts no attention. Also, because of the classification of much information associated with warning, many of the details are not releasable on a current basis. Only within the past few years, for instance, has the true story of the role of intelligence in World War II been made public.

Nonetheless, the general principles and problems associated with warning intelligence can and should be discussed and more widely understood. For warning is one of the most complex and difficult problems for all nations, and study of the subject is well worth the serious attention of students both in and out of government.

This monograph can provide only a very brief and necessarily rather superficial discussion of some aspects of this large and complex problem. Collection, community organization and crisis management obviously are important to warning, but it is the interpretation of the evidence and what is done with it that is crucial. This paper therefore is concerned primarily with the nature and analysis of data pertinent to warning, judgments of its meaning and significance, and the assessment for the ultimate user - the decision-maker.

Warning of What?

There are many types of events of which US government leaders, and indeed the general populace, may wish to be warned. Not all of these (a variety of domestic problems and natural disasters, for example) fall within the province of the intelligence services. But, excluding these, there still remain a large number of potential threats, or problems, in the field of foreign affairs and international relations of which the policy-maker and military commander legitimately expect to be warned by the intelligence community.

Foremost among these traditionally is the potential threat of military attack by hostile forces against ourselves and/or our allies. All students are familiar in some degree with the great classic warning problems, in which inadequate warning, or inadequate response to intelligence warnings, contributed to military disasters or severe reverses – Pearl Harbor; the German attacks on Western Europe in the spring of 1940, on the Soviet Union in June 1941, and in the Ardennes (Battle of the Bulge) in December 1944; the North Korean attack on South Korea in June 1950 and the subsequent Chinese military intervention in October-November; the Communist Tet offensive in Vietnam in 1968 are conspicuous examples.

There have also been a series of threats to US strategic interests since World War II, primarily from the Communist nations, which did not result in hostilities but which nonetheless were critical warning problems: the Cuban missile crisis; repeated threats to West Berlin, particularly the blockade and subsequent airlift in 1948-1949 and the 1961 crisis; a series of threats in the Taiwan Strait; and others.

Other military operations, or threatened conflicts, although not directly involving the US, have also posed serious warning problems. These have included Communist-backed insurgencies or so-called "wars of liberation" in many areas of the world; four major Arab-Israeli conflicts as well as other conflicts and incidents in the Middle East; and conflicts or threatened conflicts between Communist nations including the Soviet suppression of the Hungarian revolt in 1956,

invasion of Czechoslovakia in 1968, and several Soviet-Polish crises; Sino-Soviet tensions, particularly the crisis of 1969; and the Soviet invasion of Afghanistan in December 1979.

Aside from these threats of military operations, policy officials have come to expect the intelligence community to provide warning of major political changes or upheavals in foreign nations which might adversely affect US interests, such as the Iranian revolution and seizure of US Embassy hostages in the late 1970s.

As if warning of these types of dangers were not enough, several new types of intelligence problems involving at least some degree of warning have emerged in the past ten to fifteen years. Some of these are acute and very difficult problems involving major commitments of intelligence resources. They have included:

- Major economic developments affecting our strategic interests – most notably the oil crisis of 1973.
- Verification of compliance with arms control agreements with the Soviet Union, particularly warning of possible attempts to deceive us.
- Drug production and international narcotics trafficking.
- Terrorism – the new form of low intensity international warfare and possibly the most difficult of all types of warning.

It may be observed that these new types of warning problems, however important they may be, are rather specialized subjects. They tend to involve specific types of collection (e.g., attempts to penetrate terrorist organizations), and for the most part analysis of trends or threats can best be left to experts on these particular subjects. The great classic warning problems, on the other hand, usually involve a range of intelligence specialties and contributions from collectors and analysts in many fields. Thus, when we speak of "warning intelligence" as a subject worthy of study by intelligence analysts, policy officials and the academic world, we are speaking primarily of warning in the traditional sense, particularly the threat of possible military action by a foreign power.

Indications & Warning (I&W): How The System Functions

During World War II, all the major powers undoubtedly gave priority attention to efforts to detect preparations by their enemies for further military operations. Warning intelligence did not emerge as a specialized branch of the trade, however, until a few years later. Its genesis was the series of cold war threats in the late 1940s, particularly the Berlin blockade. Small, informal efforts were begun to identify and collate the types of activity by foreign nations which might precede hostilities; these became known as **indicator lists**. A manifestation that one of these activities was actually occurring was an **indication** and from this the term Indications and Warning (commonly abbreviated I&W) emerged. The term was a good choice, since by definition an indication is a symptom or suggestion, a guide to what may occur, rather than a certainty, and this well defines the elusive and uncertain nature of warning.

The North Korean attack on South Korea in June 1950, which caught the intelligence agencies largely by surprise and policy-makers even more so, led to a rapid expansion of the warning effort. Within weeks, an interagency committee, soon titled the Watch Committee, was meeting once a week on a regular basis and more often if requested. It reported directly to the highest intelligence authorities and to policy officials. The committee remained in existence for 25 years, and for most of this time it was supported by a full-time interagency research and administrative staff whose sole function was I&W. In 1975, for a variety of reasons, the committee was discontinued, its research staff substantially reduced, and overall direction and coordination of the national warning effort ultimately passed to the National Intelligence Officer for Warning, one of the several NIOs directly responsible to the Director of Central Intelligence.

It would be erroneous to assume that, even in the days of the Watch Committee, this group and its staff bore the sole responsibility

for warning in the intelligence community. On the contrary, the several intelligence agencies were and still are constantly engaged in the collection, analysis and interpretation of data which may relate to warning. Current intelligence publications and briefings, in particular, and especially during a period of developing crisis, are normally the principal means by which most of the relevant information bearing on warning is conveyed to consumers. Where the situation warrants it, special memoranda or estimates, both by individual agencies and on an interagency basis, are designed specifically to focus attention on the threat and to provide the policy level with the information and assessments which it needs.

In addition, over a period of years, all the major intelligence agencies have established alert or indications centers which are staffed on a 24-hour basis by watch officers, and supported by high-speed and dedicated communications. Their function is to monitor and evaluate the incoming flow of current information and to alert appropriate analysts and authorities to any abnormalities or potential problems. If a crisis threatens or erupts, special task forces may be set up to deal with the problem. The Department of Defense operates a worldwide network of alert centers with offices in all the major military commands.

In short, the intelligence community is well equipped today to exchange information rapidly and to respond promptly in a threatening situation. If this was all that was required to provide warning, there would be few problems. But it is not that simple.

Tactical Versus Strategic Warning

Both the military forces and the intelligence services make a distinction between tactical and strategic warning. Although definitions of these terms vary somewhat, all agree that there is an important distinction for both decision-makers and intelligence.

Tactical warning, however defined, is very short-term warning that attack is either under way or so imminent that the forces are in motion or cannot be called back. Such warning is primarily for military commanders who must respond to it and allows virtually no time to redeploy defensive forces, let alone permit policy-makers to come to decisions or plan their response.

Strategic warning is any type of warning or judgment issued early enough to permit decision-makers to undertake countermeasures, at least military and sometimes political or diplomatic as well. Ideally, such warning may enable the target country to take measures to forestall the threat altogether and avoid a conflict. Conversely, when strategic warning is lacking, collection assets may not be alerted to obtain additional information, and tactical warning, if received, may be ignored or misinterpreted.

Now, obviously, if the intelligence services, particularly at the national level, have not issued any warning until the last minute, they have failed in their job. Warning which assists the policy-maker must be strategic, and it is this warning which must be the primary concern and objective of intelligence.

Some descriptions of the process of warning are remarkably simplistic and may leave the impression that at some point in the amassing of indications, intelligence is suddenly able to come to a definitive judgment that the adversary certainly will attack at some approximate or precise time in the future and therefore issues one clear-cut and final warning. Nothing could be further from the truth in most instances. Rarely, if ever, does intelligence issue only one

warning. In most circumstances, a series of reports, estimates or judgments are issued by intelligence and sometimes by scholars and the media as well, which serve to alert the policy-maker to impending dangers, even if they do not constitute formal "warning." If and when the situation worsens and a growing number of indications point to a mounting danger of enemy attack or other hostile action, the intelligence services will presumably come to more definitive judgments and more precise warnings will be issued, although in real life, as explained below, this may not always be the case.

Regardless of the frequency, timing, format and certainty of the estimates or warnings emanating from the intelligence services, the crucial factor is that the highest policy levels recognize the danger and, if necessary, take appropriate action to reduce or forestall it. For it is an axiom of warning that warning which exists only in the mind of the intelligence analyst or is recognized only by the intelligence community is useless unless it is also conveyed to the decision-maker and is convincing to him. He not only must be warned; he must know that he has been warned, and he must have sufficient confidence in those who warn him to take action. It is this above all that distinguishes warning intelligence and the warning process from most other aspects of intelligence.

An Interdisciplinary Problem

In the language of the academic world, warning is an interdisciplinary function. It may involve a whole range of intelligence specialties: a variety of collection systems, including some of the most advanced and technical, as well as the traditional clandestine methods and open source material; basic intelligence; current intelligence; technical and scientific specialties; estimates.

Warning and Collection

Simplistic views of the problem frequently tend to equate warning with collection, to attribute failures either to insufficient data or delays in transmitting it, and to consider that the remedy lies in more and faster collection. No one familiar with the problem would depreciate the importance of reliable and comprehensive collection systems, particularly those which provide accurate and timely details on the strength, location and preparedness of military forces or insight into the political decisions of the adversary. Certainly, there have been warning failures which appear attributable primarily to inadequate or slow collection. The first and overriding responsibility of intelligence in an impending crisis is to insure that collection assets have been alerted and are being used to maximum effectiveness.

Nonetheless, studies often have shown that inadequate analysis rather than poor collection was the primary cause of failure. Sometimes, where collection may seem to have been at fault, the root cause was an inadequate assessment of the threat which led in turn to failure to make proper use of available collection resources. (The Pearl Harbor disaster could have been avoided if the reconnaissance assets which were available had been fully employed to search for the Japanese task force.) In many crises, a great deal of information really was available but was not properly assessed. Moreover, the sheer volume of data and redundancy of information can be a real impediment to analysis, particularly in a fast-breaking crisis. An abundance of seemingly confirmatory data may even breed skepticism;

if the enemy is really preparing for surprise attack, why should it be so obvious? More facts and first-rate sources do not necessarily provide "more warning."

Warning and Current Intelligence

A second common misconception is to regard warning solely as a current intelligence problem or the responsibility only of watch officers and current analysts. Obviously, and particularly where the threat appears imminent, it is essential that information be received, processed and analyzed as promptly as possible. The analysts cannot afford to ignore any new information or fall behind in coping with the incoming flood of data lest they miss some critically important item. Modern weaponry clearly has made it even more imperative that information be as current as possible.

It does not follow, however, that the best warning judgments flow inevitably or even usually from the most diligent review of current information. The most accurate warning is more likely to be the product of a detailed and continuing review in depth of information received over weeks or months which may be relevant to the current situation. Very few crises erupt so suddenly that there are no hints of impending trouble well before the situation becomes acute. Most crises have roots going deep into the past, and early indications may be received at least weeks and quite often months or even years before the crisis erupts. The analysts who have kept track of these earlier indications and can recall and integrate them with the current data will usually have a far better understanding of the situation than the watch officer who perforce cannot have done such detailed analysis.

Moreover, events do not move forward inexorably and at a steady pace, and warnings issued in the short term are not necessarily more accurate than those issued earlier. There are a variety of reasons for this (see discussion of deception and timing below). The seeming lull before the storm, or paucity of new indications in the short term, is by no means unusual.

Current intelligence analysts, particularly in crises, are under enormous pressures not only to read and digest all the incoming material but to produce more assessments, attend more meetings, answer more questions. In these circumstances, it is desirable to have some analysts whose sole function is to examine indications in depth

and who do not have to meet constant demands to produce analyses of current data.

Role of Basic Intelligence

A large part of the intelligence effort of any modern nation is devoted to the collection and analysis of basic data. The depth and reliability of basic data in large part determine the quality of intelligence and its usefulness to the policy official and the nation. The great advances in technical collection of recent years, while valuable for current analysis, above all have improved dramatically the quantity and quality of basic intelligence.

The range of basic research specialties in modern intelligence is enormous, including a wide variety of economic, scientific, technical, political, sociological and military topics. While much of this information ultimately is incorporated into so-called "finished intelligence," such as periodic publications or special studies or estimates, a large part of it, if retained at all, is held in analysts' files, computer data banks, in-house publications or working papers. Some of it may never be used for any purpose while some of it is retained by analysts against the contingency that it may some day be needed. And one of these contingencies may be war or the threat of war.

A large amount of data which is of only passing interest or value in normal circumstances may become invaluable if hostilities are threatened or under way. Basic information on such subjects as terrain, ports and harbors, transportation systems and their capabilities obviously is essential both to intelligence analysts and military commanders. Similarly, the need for much information on the armed forces of foreign nations (details on the order of battle, mobilization procedures and capabilities, logistics, command and control, alerts and combat readiness, military commanders, and so forth) becomes critical if it appears that those forces are being prepared for combat operations. Details which have never seemed important before and may not even have been compiled or recognized as significant in peacetime may become invaluable to an understanding of the situation in a crisis. The need for basic information, and perhaps even more for expert interpretation of it, thus may skyrocket in a crisis. Analysts on obscure basic subjects, whose expertise has never before been needed on a current basis, may find themselves in sudden demand to prepare briefings or explain the basic facts.

Nor is the requirement for such basic data and their interpretation confined to military problems. The expertise of analysts on a variety of political, economic and technical subjects may also be needed. Still more important to the process, these specialists may be the first to recognize that something abnormal is under way. Information which may never reach the current analyst at all or, if it does, may be meaningless to him, may provide the first significant indication of impending trouble. The collector or basic analyst who first detects and recognizes the significance of the anomaly thus may be able to provide the earliest warning.

In short, there is potentially almost no element or aspect of the intelligence process which may not, on some occasion, contribute to warning. Thus some understanding of the nature of indications and the warning process is valuable to all types of analysts and their supervisors. It is erroneous to think it can be left to a few specialists on I&W or that it is an esoteric subject with which few need be concerned.

Basic Factors In Warning

Military Indications

For obvious reasons, the detection and analysis of military activity is a major factor in warning intelligence. When hostile action is threatened, the priority requirement is to ascertain the capabilities and readiness of the adversary's military forces.

Among the more basic and seemingly simple questions which intelligence asks and seeks to answer are: Is the adversary mobilizing? Have the units been alerted and/or deployed from home stations to assembly areas or forward positions? What is the status of logistic preparations? Of military aircraft, naval units and missiles? Is transport being requisitioned for the military? How urgent are the preparations? Have unusual military security measures been imposed? How long may it take to bring forces to full readiness? These and other factors, some of them highly technical or specialized where modern forces are involved, may be critical in attempting to reach a judgment as to whether the forces of a foreign nation are indeed being prepared for possible military operations.

Military analysts and their supervisors thus bear a heavy responsibility in the warning process, for the military facts, insofar as they can be ascertained, will determine assessments of what the adversary can do and what he may do.

Nonetheless, a determination of the capabilities and readiness status of the forces of any foreign nation at any given moment, and particularly in a fluid and fast-moving situation, is by no means as easy as some would think. History records many instances of gross misjudgments of the adversary's military capabilities. While recent breakthroughs in technical collection have substantially improved the quantity, quality and timeliness of military information, particularly on deployments, not all preparedness measures are so obvious or so readily detectable. In any event, estimates of intentions do not rest

solely on military preparedness or capabilities but must also take other factors into account, most notably the political context.

Political Factors

While the importance of many military indications for warning is readily apparent, the relevance of political developments often is obscure, doubtful and subject to widely varying interpretations. It is relatively easy to compile a list of political indicators, of actions of a political, diplomatic or civil nature which nations traditionally have taken or might be expected to take in preparation for hostilities, but it is virtually impossible to anticipate how applicable or detectable they may be in any given situation. This is particularly true when the country in question is a police state or closed society which has no constitutional requirement to consult a legislature, and where routine security measures normally conceal much of the activity of the political leadership and other civil developments from public or press scrutiny.

The uncertainty with respect to political indications is attributable to several factors: political developments are not quantifiable or measurable and cannot be counted like tanks or aircraft; they usually do not significantly change the **capability** of a nation to initiate hostilities; there are few political actions which must be taken to prepare for attack; those which a nation may choose to take (changes in diplomacy, a marked step-up in belligerent propaganda, or direct threats, for example) are often highly ambiguous as indications of hostile intent; it is much easier to carry out political than military deception, and it is almost impossible for the adversary to penetrate or prove political deception in advance; and the past performance of a country may provide very little guide to how it will perform the next time.

Dependent on the circumstances, a nation may make its objective quite clear and undertake a variety of political measures in support of that objective, or alternatively (particularly if secrecy and surprise are paramount) it may take almost no overt political measures to tip its hand. A dramatic and highly visible political development (the German-Soviet non-aggression pact) preceded the outbreak of World War II by about a week and was almost universally recognized as an indication of probably imminent hostilities. To the Japanese, on the other hand, surprise was essential in the Pearl Harbor attack, and they avoided political actions which might have led the US to expect an

attack on Hawaiian territory. Similarly, in 1962, the Soviet Union sought maximum secrecy and surprise in the deployment of missiles to Cuba, and any political hints of such an intention were, to say the least, ambiguous. Yet, six years later, in the Czechoslovak crisis, the Soviet Union made no secret whatever of its grave concern and, in concert with its allies, took a series of overt and obvious political steps in an attempt to reverse the liberalization trend in Prague.

The uncertainty concerning the occurrence, detectability and reliability of political indications, not surprisingly, can induce a sense that they are somehow less important than military developments, or of secondary value to the warning assessment. And yet at every stage in the warning process the political context is the crucial determinant of the adversary's intention. The developments or indications which are perceived, whether military or political, are reflections of a political decision of the highest order, taken by the national leadership in support of a political objective. In the final analysis, the assessment of the intentions of another nation rests heavily on a perception which is essentially political: a correct appreciation of the adversary's goals, priorities and willingness to fight or take risks to achieve its goals. It is such political perception which often is the primary difference between those who "have warning" and those who do not.

The highest objective of every espionage service is to penetrate the enemy's decision-making councils - the legendary mole in the politburo or cabinet. Lacking such access, intelligence analysts seek to reconstruct, insofar as possible, the adversary's decision-making process, to deduce from the totality of indications at hand what decisions should logically have been taken and what they may signify for the future.

Integration of Military, Political and Other Data

In normal circumstances, most intelligence analysts, particularly in basic specialties, can and do pursue their work with relatively little concern for or attention to what is under way in other areas of specialties of the trade. The specialist on weapons has little need to be informed about propaganda. Basic military analysts don't need to concern themselves much with political developments, and specialists in diplomacy or international relations don't worry much about the military training schedule. That schedule has been planned well in advance to accomplish certain long-term goals; it perhaps has the

general overall blessing of the nation's political leadership, but beyond that it proceeds more or less as planned with little interference from the diplomats.

In an impending crisis, all this may be changed. Now the military forces become an instrument of the political leadership to be employed in pursuit of a political objective - whether it be a show of force, to put pressure on some other nation, or to prepare to attack it. The national leadership now becomes intimately involved in military activities, and its decisions at every stage govern what the military will do. Long-term training programs are abandoned as the military forces are alerted for other action.

In these circumstances, military and political analysts no longer can afford to focus narrowly on their own specialties and ignore what their colleagues in other fields are doing. The military and political data or indications must be collated, interwoven and considered as a whole or their significance may be lost. The observed military activity will likely be misunderstood unless its relation to the political decisions is correctly perceived. Chronologies which incorporate indications of all types, including unexplained anomalies, may be very useful devices to assist analysts to perceive the interrelationship of seemingly disparate developments and to attempt to reconstruct the timing and import of the adversary's decisions.

What weight should be given political versus military developments in attempting to assess the probable course of action of a foreign nation? It would be extremely hazardous to generalize on this. Nonetheless, in normal circumstances when there is no seeming threat, most nations tend to assess the intentions of their adversaries primarily in light of the political atmosphere. When a crisis has arisen, however, and a potential threat of hostile action exists, the level of military preparedness usually assumes far more importance as a gauge of intentions. In part, this reflects the fact already noted, that political plans and preparations are far more easily concealed and ambiguous than military preparations. But it also reflects the fact that nations do not normally undertake sudden, massive and disruptive military preparations during a period of high tension with no intention of employing military force. The level and urgency of military preparations thus are themselves a manifestation of the decisions and commitment of the leadership.

History suggests that a massive and sudden buildup of combat forces in excess of any legitimate defensive requirement carries with it a probability, even a high probability, of an intention to employ them – or at least an expectation that force will probably be required to achieve the desired outcome. The nation which discounts such preparations does so at its peril.

Problems and Hazards of Analysis

Most historians and observers of the intelligence process agree that basic misperceptions and faulty analysis, rather than inadequate collection, have been the primary cause of most warning failures. This section will examine, very superficially because of space limitations, some of the reasons for this and also attempt to explain some of the complexities and difficulties in the analytic process which are not always well understood.

It should be noted that these problems and the potential for erroneous interpretation and misjudgments are by no means confined to the US intelligence community, the US government, the American people or democracies in general. An examination of the mistakes made by other nations (for example, by Germany, Japan and the Soviet Union in World War II, or the various countries of the Middle East in the several post-war conflicts in that area) will reveal that all countries have basically the same problems and are prone to the same types of errors. Indeed, it is the recurrence and even universality of these problems which make them worthy of study by intelligence personnel and policy-makers. If each of these situations was totally unique, they would be of historical interest but would provide no useful insights into improving performance in the future.

Volume and Nature of the Data

In some instances, a failure to have anticipated attack or other hostile action may be attributable to wholly insufficient data, a virtual total inability to have penetrated a closed society or detected military preparations. But this is unusual, particularly today. In most instances, and especially a crisis which develops over a period of weeks or months, the reverse is true. There is so much raw information that it can literally overwhelm the analytic process. No one who has not worked a live crisis, with a geared-up collection system eager to leave no shred of information unreported, can appreciate the sheer volume of material which pours in on the analysts. Some of this, of course, will

be from reliable and established sources in which the analyst has confidence and can accept more or less as fact. Some of it can probably be discarded as obviously erroneous or, at least, probably irrelevant. But a large amount of it usually can be neither confirmed nor refuted, at least initially, nor can its importance or relevance, even if true or partially true, be established. Information from seemingly reliable sources may not always be true. The recognition of a crisis engenders a flood of reporting from new sources of unknown reliability: foreign governments, the domestic and foreign press, patriotic citizens seeking to be helpful, psychics and cranks, the enemy's disinformation services, third parties or informants whose access to useful information is unknown and whose motives are obscure. False confirmation (the same information from apparently independent sources but which has the same origin) is a constant hazard. Rumor abounds, but rumors are not always false and should be pursued. An inordinate amount of analysts' time can be spent following up leads, preparing requests for further collection, trying to consult colleagues in other offices, or seeking to evaluate false reports, particularly if they are sensational and have attracted higher level attention.

In this crisis atmosphere, it is not surprising that data are lost. Much basic information does not arrive in time, some which is seemingly available never reaches the responsible analysts, it is too voluminous (e.g., foreign press material not yet translated) even to be considered until later, or for one reason or another it is set aside and never really considered at the time. Post-mortems and historical studies are more accurate than current analyses, not just because of 20-20 hindsight but because they can examine and include a great deal more information than was actually available or usable before the fact.

Constraints of Time

Closely related to the problems of collecting and evaluating data under pressure are the difficulties which inadequate time imposes on the analytic process as well. For time is not on the side of the warning analyst; it is on the side of the potential aggressor or instigator of the crisis.

Constantly under pressure to prepare analyses for their superiors and the policy-maker, the analysts not only lack time or resources to evaluate much of the current incoming data; they also lack time to go

back and cull from the files, or even the computer base, pertinent information from days or weeks before, and must rely on memory. Further, in preparing summaries for higher authority, the analyst cannot include or even consider all the fragments that have been reported and must be selective. In the end, what may emerge is a rather generalized impression of the import of the available evidence rather than the rigorous analysis which might have been undertaken had time allowed. And the interagency group which seeks to obtain a consensus of views confronts the same problems. Individual members may be able to evaluate a particular report or its collector or provide insights or interpretations that improve the product, but in the end all face the same hazards and deadlines.

A shortage of time also acts to hamper the ready acceptance or analysis of new data or new types of data. There may be no accepted methodology for dealing with the new information, or even no analysts assigned to that type of problem. Its significance may not be readily apparent and it may be set aside and perhaps not considered at all in coming to an assessment of the threat.

Finally, but by no means least, the analytic elements of the intelligence community not only are expected to summarize and report the available data but also to come to judgments or estimates of what the adversary is going to do, to predict his behavior. And, because it may be too late tomorrow to come to a judgment, some conclusion should be reached today. The problems of warning, which at best are complex, are immeasurably compounded by the need to reach conclusions long before all the evidence is available or can be adequately checked or analyzed. The psychological hurdle is simply enormous. The more rigorous the academic training of the analysts in research methodology, the more difficult it may be for them to come to a judgment on the basis of information which is almost certainly inadequate, highly conflicting, subject to varying interpretation and likely to be modified or even refuted by new information tomorrow.

The reluctance of people, both individually and collectively, to come to positive judgments in these circumstances can well be understood. The natural tendency is to defer a judgment until more evidence is available. It is not just a fear of being wrong or being overtaken by events, although this contributes to the reluctance. Despite every effort to be objective and as thorough as possible, even the analysts with the best understanding of the problem (who are proved in the end to have

been right) will be plagued with doubts and uncertainties as to the accuracy of their judgments. Contradictions and uncertainties are the mark of every true warning problem.

Security, Deception and Disinformation

There is probably no aspect of warning so unpredictable but so potentially difficult and damaging as the efforts of the adversary to conceal his intentions by means of security and deception.

The effects of rigid security, particularly in military matters, are obvious and need little elaboration. By such means as strict censorship of the press, restrictions on access to permanent military installations, and bans on travel to areas of troop movements or maneuvers, nations may seek to conceal their military strength and capabilities in peacetime and their preparations for war or possible war in times of crisis. Clearly, closed societies and police states, which routinely seek to prevent disclosure of the most routine military data at all times, have a great advantage over democracies. Intelligence personnel are usually experienced in this problem, however, and can recognize that routine or unusual security measures are seriously impeding collection and analysis. The effects of active deception and disinformation, on the other hand, cannot be anticipated with any confidence. For the victim of successful deception not only does not know he is being deceived at the time; he may not even recognize the deception in retrospect.

Interest in deception as an art, and recognition of its value in war, have been greatly stimulated by the declassification and publication of material on the World War II deception operations of both the Allies and the Axis powers. All students of intelligence should have some familiarity with these - particularly the Allied deception effort in the Normandy invasion, probably the most successful and important deception operation in the history of warfare. In addition, several general studies of the techniques and effects of deception have been published in recent years, as well as analyses of the practice of disinformation (Russian *dezinformatsiya*).

Some of the conclusions which emerge are:

- Tactical military deception has often been extremely successful in misleading the adversary as to the location, timing, strength or nature of the attack. The resulting surprise can be the key factor in

the initial victory.

- All nations are vulnerable to deception, including those which are themselves successful practitioners of the art. The same ruses, even though known to the adversary, can be employed again and again.

- The deceiver may attempt either to lead his enemy to a totally erroneous decision, or to confuse him by presenting him with a number of alternatives, thus promoting indecision. Either tactic can be effective in achieving surprise.

- Deception, at least in the short term, need not be highly elaborate or sophisticated. Such simple and obvious ruses as describing deployments as exercises or offering to enter into negotiations on the eve of the attack, may be successful in lulling suspicion.

- Tactical deception and surprise can be successful even though there has been ample strategic warning and the adversary is fully prepared for an attack (e.g., the Normandy invasions).

- Strategic deception (total concealment over a period of time of the objective or intention) is much more difficult. Nations rarely, if ever, even attempt to conceal their long-range objectives.

- However, deception may be very successful in leading the adversary to believe that the objective is still being pursued by political means, and that attack is not imminent.

Some techniques have been suggested to assist analysts to recognize and counter deception. Perhaps the best is the simplest, that they have some understanding of the problem and be alert at least to the possibility and the more obvious tactics.

Misperception, Preconception and Self-Deception

These fundamental problems probably have received more attention from social scientists than any other aspect of warning and intelligence analysis in general, and deservedly so. For it does appear that many errors in analysis are attributable primarily to the frame of reference of the individual and the group to which he belongs, and that so-called conventional wisdom or the prevailing climate of opinion may carry more weight in interpreting information than does objective analysis.

This brief discussion cannot begin to address the complexities of this problem but can only note some of the basic conclusions that have emerged from studies, particularly those most applicable to warning.

People relate new information to previously held concepts, however much they may seek to be objective. We all interpret data in the light of our experience, beliefs and knowledge of the subject. Experience is normally a good guide, and experts on subjects or areas are usually right, or at least more nearly right than non-experts. But they are clearly not infallible, and especially when the available data are inadequate, conflicting or point to a conclusion contrary to what the expert would normally expect.

People more readily accept incoming data which support their previously held views or hypotheses and tend to reject evidence which might support a contrary conclusion. The more firmly the individual or group holds an opinion (e.g., how another nation will behave in a given situation) the more difficult it is to change that view. In fact, a large amount of unambiguous evidence will likely be needed even to bring people to consider an alternative hypothesis, let alone regard it as probable. In international relations, it may require a series of rude shocks to change prevailing opinion about another country.

When the analyst has already expressed a view in print, he will be extremely reluctant to change it (to admit error). This has been described as "pride of previous position."

Lacking conclusive evidence about how the leaders of another nation may behave in a tense and confusing situation, there is a tendency to fall back on "mirror-imaging," to believe that they will behave as we would, and to regard a resort to hostile action as inherently "irrational" and therefore unlikely. It is easy in these circumstances to underestimate the commitment of another nation to the achievement of its objectives or its willingness to take risks.

Quite apart from their substantive expertise and background, it does appear that some people are better able than others to set aside their preconceived opinions and to consider contrary evidence. Temperament and character, as well as purely intellectual factors, appear to be involved.

Those in the minority who are bucking the system, and particularly if they are opposed by recognized experts and their superiors in the hierarchy, are under strong psychological pressures to conform to the prevailing view. (This is true of all organizations.) Even if minority opinions are ostensibly welcomed (and they usually are in intelligence), the non-conformist may still be most hesitant to express his views.

The most successful deception efforts are those which play upon the preconceptions of the adversary and lead him to deceive himself.

Those higher in the intelligence hierarchy, including the chiefs of the organizations, as well as those at the policy and decision-making level, face the same difficulties as desk-level analysts. They, too, have preconceptions and may be under pressures to conform to established policy. But they will almost always, except in unusual circumstances, be basing their judgments on far less detailed information than is available at the working level. Thus, there is an inherent likelihood that they will be relying even more heavily on their preconceptions and may potentially be more vulnerable to deception than are those at the working level.

The pertinence of the foregoing principles to warning is obvious and has been demonstrated time and again. An understanding of these hazards to analysis is essential.

Timing and the Cry-Wolf Syndrome

Contrary to what many believe, predicting the timing of attack is one of the most difficult aspects of warning. On the face of it, it would appear that military forces should be mobilized, brought to readiness and deployed for attack at a more or less steady and predictable pace, and that the victim of the approaching attack would have the clearest warning in the days or hours just prior to the initiation of hostilities. But for a variety of reasons, this is not often the case.

First, it is not easy, even with good intelligence, to determine when opposing forces may actually be fully ready for combat. The most observable preparations – the major deployments of combat forces – may well be completed some time before the logistic buildup, and this may prompt warning of imminent attack too early. Apart from this, there are any number of valid military reasons that attacks may be postponed: delays in the arrival of units and supplies; problems in

coordination between services; counteractions of the adversary, leading to changes in plans; poor weather, high tides, soggy terrain. Operations may be postponed or advanced solely because the date may have been compromised. Nearly all nations have been able to achieve tactical surprise in warfare, including concealment of the time of the attack. One of the easiest of deception tactics is to plant false information with the adversary's intelligence as to the timing of the offensive.

Perhaps even more important are the political factors which may affect timing or even determine whether the operation will occur at all. Particularly if the nation in question is seeking to obtain its objectives by political means, if possible, and plans a military operation only as a last resort, the offensive may be held up for days, weeks or even months. Indecision by the leadership, attempted mediation by third parties, and a variety of other political reasons may affect the timing.

All this poses acute problems for intelligence, military commanders and the policy-maker. The better the collection and the more perceptive the analysis, the earlier the first warning of impending trouble may be issued; yet, ironically, such early warning may seem almost too early if in fact the nation in question is beginning a relatively leisurely, long-term series of preparedness measures against some future contingency. Or, if military preparations appear virtually complete and a firm warning or series of warnings is issued but nothing happens, the intelligence service may be discredited. The "cry-wolf" phenomenon is a real hazard; the larger the number of seemingly false warnings that have been issued, the greater the likelihood that the final valid warning will be greeted with skepticism or even ignored.

The worst consequence can be a relaxation of vigilance, a failure to alert defensive forces at the critical time. In the early months of World War II, Hitler repeatedly postponed his attack on Western Europe, often at the last minute. Repeated seemingly-false warnings which were, in fact, valid when issued (some of them originated with Admiral Canaris's deputy, an informant of the Dutch military attache in Berlin) bred disbelief in the ultimate warning. Both the French and Dutch failed to alert forces for the German attack of May 10, 1940. In the Korean war, the belated intervention of Chinese forces, and particularly the delay in the launching of their counteroffensive, as US and UN troops advanced rapidly toward the Yalu, contributed to a false sense of confidence that they would not attack at all.

Obviously, intelligence cannot delay warnings against the possibility that an operation will be deferred or not take place at all. Understanding of the uncertainties of timing, derived from numerous historical examples, can do much to assist intelligence analysts, military commanders and political decision-makers to appreciate that predictions of timing can rarely be precise and that seeming delays should not lead to a relaxation of vigilance.

Uncertainties and Probabilities

As should now be evident, the warning process is plagued with uncertainty from beginning to end. It is not possible to "prove" in advance that something will occur, for human behavior cannot be totally predictable. Although this is generally understood in theory, and intelligence officials and policy-makers alike have repeatedly been cautioned not to expect certainty in warning, those who are faced with making the crucial decisions naturally want as firm a judgment as possible – the adversary either is or is not going to attack or initiate some other adverse action. Since intelligence really cannot, and should not have to, make an absolute either-or choice, it seeks ways to describe the range of possibilities and to make its judgments more meaningful to the decision-maker. For all warning judgments, no matter how expressed, are really assessments of probabilities. What is important is what the words or terms convey both to those who write them and those who read them, and the analytic process by which the judgment of probability is reached.

Studies have shown that words such as *possibly*, *probably*, *might*, *could*, *it is likely*, *we believe*, or *we do not believe* convey quite different degrees of likelihood to people, even those who have spent much time together discussing the evidence. And of course readers will also interpret them differently. Some efforts have been made to translate these terms into percentages or to express the judgments in numerical terms (e.g., probable equates to 60-90% likelihood). These efforts have not met with universal favor, and indeed there is often considerable resistance to attempting to make judgments too precise in highly fluid and uncertain situations.

Any intelligence judgment that there is a high or even 50-50 probability that some foreign nation or group is about to initiate hostile action is, of course, a most significant warning for the policy-maker and, when appropriate, should entail some action on his part.

One problem in reaching meaningful assessments in warning is that,

in any given situation, there is likely to be a wide spread of opinion. It is not unusual for some to consider a hostile action as quite likely, while others view it as quite unlikely. In part, but by no means entirely, the differences reflect how much detailed knowledge of the situation each has. Opinions of senior personnel, and even presumed experts on the subject, are not much value and may even be dangerously in error if they have had no opportunity to examine the evidence and are reaching their judgments on their preconceptions and the prevailing climate of opinion rather than on an exhaustive review of the available facts. Thus, a probability judgment which is simply a majority consensus or which papers over the spread of opinion, and the reasons for it, is not only meaningless but may be dangerous. There has probably never been a warning failure in which there was not someone who was right but whose views never received an adequate hearing. More often than not, it has been the minority that was right.

There are procedures and analytic techniques which are designed to assist people, both individually and collectively, to examine evidence more carefully and objectively and to come to more accurate judgments of probability. One of the best known of these is Bayes Theorem which, in brief, requires the analyst to examine each fact or piece of information not only as to validity, but also as to its relevance or significance to a given course of action. The purpose is to assist analysts to examine the individual bits of data separately and rigorously rather than to ignore or discount information with which they tend to disagree, and to help to insure that evidence of critical importance (sometimes called information of "high diagnostic value") is given the weight it deserves. When such techniques can be applied in a detailed review of the indications by a group, the differences in views and the reasons behind them should be better perceived, and presumably better and more objective consensus will be reached. Most importantly, information which might otherwise be lost or ignored is brought into the picture.

One method sometimes suggested as a way to insure some warning and yet avoid difficult judgments is to assume the "worst case." Some persons even believe that this is the function of I&W, but this is totally erroneous. Warning intelligence would lose all credibility and indeed would be guilty of "crying wolf" if it constantly presented the worst possible interpretation of every situation. Reasoned judgments are essential. At the same time, intelligence cannot dismiss out-of-hand

worst case possibilities which are critical to the national interest. A high probability is not the only factor to be considered, for there are dangers so potentially disastrous that even a low probability of their occurrence calls for action. One such today would be evidence, however tenuous, that a terrorist group had acquired a nuclear weapon and was preparing to detonate it in a US city. A judgment in early December 1941 that there was even a 10% probability that Japan would attack Pearl Harbor would probably have prompted action to disperse the US fleet. Intelligence has a responsibility to report not only that which appears probable but also that which, though seemingly improbable, may be critically important to military commanders and political decision-makers.

Warning and Policy

As noted earlier, a distinguishing characteristic of warning intelligence, as opposed to many other aspects of intelligence, is that it must be conveyed promptly to the decision-maker and he must take appropriate action. There are, of course, situations involving possible hostilities between two other parties which do not directly involve US interests, and in some of these no action is required or perhaps even desirable on our part. In these cases, warning is useful to the decision-maker (and the reputation of the intelligence services may suffer if they have not foreseen the action), but the nation's vital interests are not at stake. We are here discussing those situations in which some action by either military or political decision-makers (or probably both) is essential. For warning is useless in these instances unless it is convincing to the policy-maker and results in some action to forestall or at least reduce the danger.

The policy-maker, however, may be confronted with difficult, and even dangerous, choices or alternatives. If the adversary has not yet reached a firm decision to attack, a major military response such as large-scale mobilization or widespread combat alerts may deter attack, but it could also trigger a preemptive strike which might otherwise have been avoided. Or it may set both nations on a course of ever more dangerous actions and reactions which culminate in the "war by miscalculation" which neither side wished. At the least, the policy-maker must consider that large-scale mobilization and deployments are very expensive economically and disruptive and alarming to the populace. Thus, in the almost certain absence of unequivocal evidence of the adversary's hostile intent and of the timing of his actions, there may be compelling reasons for the policy-maker to exercise more restraint than intelligence personnel might wish. In the ultimate danger - the threat of nuclear war - the fear of provoking such a conflict could outweigh the fear of surprise attack.

Some critics believe that most warning failures are the fault of policy, rather than intelligence, and that remedies lie in educating and

changing the attitudes of the users of intelligence. It might be more accurate to say that both producers and users need educating but, above all, the need is for a better rapport and exchange of views and interaction between intelligence and policy.

Certainly, the policy-maker needs to understand the capabilities and limitations of his intelligence services. The better his understanding of what can and cannot be collected and of how the analytic process works, the better he should understand the finished product and make good use of it. He will also have the best grasp of what intelligence can do for him and what to ask it to do. For intelligence, although it should not be the hand maiden of policy, is usually extremely responsive to policy needs and makes every effort to satisfy the requests of senior officials.

But intelligence does not operate in a vacuum. It not only needs a general understanding of national policy and its requirements but, particularly in crises, to have some knowledge of what the policy level is doing. This is not idle curiosity; there are at least two reasons that intelligence and policy should interact.

The first is that actions by one side affect the actions of the other and that the adversary's actions sometimes cannot be interpreted correctly without knowledge of what our side is doing. A sudden alert or deployment of military forces by one side, for example, may be triggered by some action of the other; an action which appears offensive may, in fact, be defensive. If intelligence does not understand the cause, it can well misinterpret the action. Or it can fail to report some significant information because its relevance is not perceived.

Secondly, in periods of crisis, high-level diplomatic and military communications and hot lines are used not only for negotiations and planning, but also carry increased amounts of important information which may be extremely pertinent to intelligence assessments. Unless the policy official or military planner recognizes the importance of this and takes steps to insure that information is released to intelligence, critical errors in assessment may result. There are, of course, no easy solutions to this problem. But communication is a two-way street.

Above all, perhaps, supervisors and policy officials need to be asking their intelligence services the right questions, to include requests for minority views or alternative interpretations if they do not feel that

they are receiving them. No amount of diligent research by a desk-level analyst can generate the interest or response that a high-level official can obtain by a simple question. Those officials who encourage imaginative and perceptive analysis, who do not reject new ideas because they cannot be "proved," are most likely to obtain the best and most useful warning judgments from their intelligence. It is probably not fair to say that decision-makers get the intelligence they deserve, but they can certainly help to inspire it to its finest performance.

Conclusions

Some social scientists and critics of intelligence believe that warning failures are inevitable and that nations cannot guard against well-planned and well-executed surprise attacks and other disasters. Few in the intelligence trade would subscribe to such a pessimistic view.

It is important to distinguish warning which is critical to the national interest or makes a difference to the outcome from warning which, though desirable, is largely irrelevant. There have been many instances in which no amount of warning would have made any difference to the military outcome, and it is unfair to contend that a different or better intelligence performance would have changed the course of history. The Soviet invasion of Czechoslovakia in 1968 is a case in point, and there have been many similar instances in which the massive forces of large nations have simply overwhelmed small nations. It is desirable, of course, at least for political reasons, for other nations as well as the victim to have foreseen the disaster, even if there was little that they could have done to prevent it.

When it does matter and appropriate action would have made a difference, it is admittedly true that there have been many warning failures, even by nations with the most experienced and professional intelligence services. But even in these cases, there have nearly always been significant and sometimes voluminous indications which were either ignored, incorrectly assessed or integrated with other information, or which were not convincingly presented to the decision-maker so that he would take action. Thus it does not appear "inevitable" that nations will make wrong assessments or that people cannot learn from such experiences.

Certainly, warning will always be a difficult process, calling for the most expert and imaginative analysis. We can hope to improve performance by a better understanding of the problems and of the types of errors which have been made time and again by many nations. Better warning is dependent not only on the collection of more and

better data and advanced computers to process it, but above all on the training of people. There is a need for the continuing education of intelligence analysts, their supervisors and policy-makers in warning intelligence, and the academic community can do much to help.

Admittedly, we cannot hope to "solve" the problem of warning, and we cannot expect perfection. But intelligence does not have to be supremely accurate in most cases, and certainly not perfect, to be useful. If it has done all it can to collect the data, has examined it exhaustively and objectively and presented its judgments and the range of alternatives as accurately as it can to the policy-maker, this may be all that can reasonably be expected. In an uncertain world some errors are inevitable, but the consequences need not be disastrous.

Seminar Suggestions

Within the past several years, members of the academic community have produced a number of highly perceptive and valuable insights into the types of analytic problems encountered in warning intelligence. In addition, the declassification of much intelligence material from World War II and the resulting numerous and excellent historical studies which have been derived from it have provided a wealth of material pertinent to warning analysis. While technology has changed collection and warfare in some degree (although probably not as much as some believe), the analytic problems are virtually unchanged. The lessons to be learned from Pearl Harbor and from Hitler's attack on the Soviet Union are as pertinent today as they were at the time.

There is also considerable literature on the warning aspects of several later conflicts and crises, although they generally do not provide the wealth of detail now available on the World War II instances.

It is suggested that a seminar of five sessions might be divided as follows:

1. A general introduction to the nature of warning intelligence and its relation to other intelligence functions.
2. Military indications, capabilities and intentions. Students might try a hand at preparing military indicator lists.
3. Political factors in warning, with particular attention to analysis of the decision-making process of a foreign country.
4. Major problems in analysis. This portion could well consume several hours, using the problems identified in this paper as a starting point.
5. Relation of warning intelligence to US policy and decision-making.

Student papers and oral reports could best be devoted to analyses of the mistakes made and lessons to be learned from some of the great warning problems of the past, particularly those in the following reading list under Case Studies.

Recommended Reading

General

BETTS, Richard K. *Surprise Attack: Lessons for Defense Planning*. Washington, D.C.: The Brookings Institution, 1982.

As its title indicates, this work deals with the military aspects of warning and surprise, illustrated with a number of brief case studies from World War II and the post-war era. It also includes an extensive discussion of NATO's potential warning problems. Particularly recommended are the two chapters entitled "Why Surprise Succeeds."

HUNTER, Douglas E. *Political/Military Applications of Bayesian Analysis: Methodological Issues*. Boulder, CO: Westview Press, 1984.

This work discusses the practical application of Bayes Theorem of probability assessment to intelligence problems.

JANIS, Irving L. *Groupthink: Psychological Studies of Policy Decisions and Fiascoes*. Boston, MA: Houghton Mifflin Co., 1982.

Janis examines how groups reach decisions (often erroneous or even fatal decisions) by seeking consensus at the expense of independent critical analysis, and how the processes of groupthink contributed to various fiascoes and to flawed assessments in the Korean war and Vietnam. Although this study is concerned with national decision-making, the analytic errors of the "groupthink syndrome" are also relevant to the intelligence process.

JERVIS, Robert. *Perception and Misperception in International Politics*. Princeton, NJ: Princeton University Press, 1976.

This valuable and highly recommended work is a classic discussion of the nature of perception, the processes by which people analyze data, common misperceptions in analysis, the impact of preconceptions and wishful thinking on judgments, and similar topics - all as related to the dynamics of international politics. Although the discussion, like Janis's, focuses on decision-makers and their problems, it is equally applicable to warning intelligence.

KNORR, Klaus, and MORGAN, Patrick (eds.) *Strategic Military Surprise: Incentives and Opportunities*. (National Strategy Information Center) Brunswick, NJ: Transaction Books, 1983.

This is possibly the single most valuable work available for the study of I&W. It reviews strategic surprise in 20 conflicts in Europe,

the Far East and the Middle East (including several cited in Case Studies, below). Concluding chapters draw some generalizations as to the incentives for surprise attack and (particularly recommended) the causes of vulnerability and misperception by the victim.

MAY, Ernest R. (ed.) *Knowing One's Enemies: Intelligence Assessment Before the Two World Wars*. Princeton, NJ: Princeton University Press, 1985.

This collection of case studies of assessments by the major powers reveals how wishful thinking, preconceptions and misperceptions colored judgments and often led to major errors in policy and misjudgments of foreign capabilities. This is another highly useful volume for both intelligence analysts and policy-makers.

WARK, Wesley K. *The Ultimate Enemy: British Intelligence and Nazi Germany, 1933-1939*. Ithaca, NY: Cornell University Press, 1985.

British long-range estimates and errors in assessment of Germany's military capabilities and intentions are examined.

Deception

BITTMAN, Ladislav. *The Deception Game: Czechoslovak Intelligence in Soviet Political Warfare*. Syracuse, NY: Syracuse Research Corp, 1972. Paperback, New York: Ballantine Espionage/Intelligence Library, 1981.

Bittman, a former Czechoslovak intelligence officer who defected in 1968, provides interesting and valuable insights into the deception operations of the Soviet and Czechoslovak intelligence services.

DAILEY, Brian D., and PARKER, Patrick J. (eds.) *Soviet Strategic Deception*. (Hoover Institution Press) Lexington, MA: D. C. Heath & Co., 1987.

This excellent volume, comprised of proceedings from a conference held at the Naval Postgraduate School in September 1985, covers various aspects of Soviet strategic deception, including: organization, active measures, diplomacy, arms control, military and regional deception, strategic planning.

DANIEL, Donald C., and HERBIG, Katherine L. (eds.) *Strategic Military Deception*. New York: Pergamon Press, 1982.

Several writers contributed to this valuable compilation. The first part deals with the theory and basic principles of deception. The

second portion includes a number of case studies, including two chapters on Chinese military deception.

GOOCH, John, and PERLMUTTER, Amos (eds.) *Military Deception and Strategic Surprise*. Totowa, NJ: Frank Cass & Co., Ltd., 1982.

This small volume of six articles by different authors outlines some basic concepts and examples of deception and is recommended as an introduction to the subject.

WHALEY, Barton. *Stratagem: Deception and Surprise in War*. Cambridge, MA: MIT Center for International Studies, 1969.

This work still is available only in manuscript form, but it can be found in some libraries. It is something of a pioneer work and, although the text is very uneven in quality, it contains much useful information, particularly on types of deception and timing of attacks.

Case Studies

Pearl Harbor

There is a wealth of fine information available on this most studied of warning failures. The literature is particularly valuable to students because of the great amount of detail, not only on high-level perceptions and decisions, but also on the day-to-day handling of raw intelligence at the working level. The following books, all highly recommended, are noteworthy also for their valuable insights into the misperceptions, errors, and breakdowns in communication which contributed to the failure.

LAYTON, Edwin T., with Roger Pineau and John Costello. *"And I Was There": Pearl Harbor and Midway - Breaking the Secrets*. New York: William Morrow & Co., 1985.

PRANGE, Gordon W., with Donald M. Goldstein and Katherine V. Dillon. *At Dawn We Slept*. New York: McGraw-Hill Book Co., 1981.

WOHLSTETTER, Roberta. *Pearl Harbor: Warning and Decision*. Stanford, CA: Stanford University Press, 1962.

Germany's Attack on the USSR: June 1941

This famous "warning failure" is an excellent topic for students because we have the benefit of two comprehensive analyses of the available intelligence and warnings, one primarily from the standpoint of the USSR, the other the official British history.

HINSLEY, F. H., et al. *British Intelligence in the Second World War*. (Vol. I.) New York: Cambridge University Press, 1979.

Chapter 14, "Barbarossa," provides a comprehensive and detailed account of how the several British intelligence agencies brought themselves slowly and belatedly to a recognition that Hitler had in fact abandoned his plans to invade England and would instead attack the USSR – a move which seemed, of course, inherently illogical. This is a rare insight into the problems of warning.

WHALEY, Barton. *Codeword Barbarossa*. Cambridge, MA: MIT Press, 1973.

Official Soviet records, of course, have not been opened but Whaley, nonetheless, has compiled an impressive account of the numerous warnings which Stalin received and seemingly ignored. Or was he the victim of German deception?

The Normandy Invasion: June 1944

In the vast amount of literature on this great military operation, there are a few works which deal primarily with the intelligence and deception aspects, and with the German failure to have anticipated the place and time of the invasion.

CRUICKSHANK, Charles. *Deception in World War II*. New York: Oxford University Press, 1979.

HASWELL, Chetwynd John Drake ("Jock"). *D-Day Intelligence and Deception*. New York: Times Books, 1979.

These two works, written with the benefit of declassified British documents, are interesting and useful accounts of the Allied plans and operations.

MASTERMAN, J. C. *The Double-Cross System in the War of 1939 to 1945*. New Haven, CT: Yale University Press, 1972.

This was the initial semi-official revelation of the extraordinarily successful British deception effort; it concentrates on the doubling of the German espionage agents in the U.K.

The Ardennes Offensive (Battle of the Bulge): December 1944

Hitler's last major attempt to stem the Allied advance on the continent was a planned major counteroffensive which many of his officers believed was doomed to failure from the start. Nonetheless, it achieved some initial success, in large part because of the excellent German deception effort and Allied overconfidence and self-deception. The best account of the intelligence aspects is in:

MACDONALD, Charles B. *A Time for Trumpets*. New York: William Morrow & Company, 1985.

Several other histories also discuss briefly the deception plan and the Allied intelligence failure, e.g.:

COLE, Hugh M. *The Ardennes: Battle of the Bulge*. (U.S. Army in World War II, European Theater of Operations). Washington, DC: Office of the Chief of Military History, 1965.

The Chinese Intervention in Korea: Autumn 1950

Three times in 1950, the US was surprised by Communist attacks in Korea: first, by the initial North Korean invasion of the South in June 1950; then, by the first relatively limited Chinese attacks in late October; and, finally, by the major Chinese offensive beginning in late November. While these surprises have often been cited as intelligence failures – and admittedly there were some serious inadequacies in collection and assessment – gross misperceptions and errors in judgment by policy-makers and military command were the real causes of failure. There is no better example of the principle that warning is useless unless it results in action to forestall disaster. The most useful analyses of both the intelligence and command and policy aspects are:

DEWEERD, Harvey A. *Strategic Surprise in the Korean War*. Santa Monica, CA: The Rand Corporation, 1962.

FOOT, Rosemary. *The Wrong War: American Policy and the Dimensions of the Korean Conflict, 1950-1953*. Ithaca, NY: Cornell University Press, 1985.

WHITING, Allen S. *China Crosses the Yalu: The Decision to Enter the Korean War*. (The Rand Corporation) New York: The Macmillan Co., 1960.

Two volumes from the series U.S. Army in the Korean War. Washington, D.C.: Office of the Chief of Military History:

APPLEMAN, Roy E. *South to the Naktong, North to the Yalu*, 1961.

SCHNABEL, James F. *Policy and Direction: The First Year*, 1972.

Arab-Israeli Conflicts

All four of the major Arab-Israeli conflicts since World War II are very useful cases to the study of warning. In the 1956 conflict, US perceptions were complicated by Israel's secret collaboration with the

U.K. and France in a surprise attack on Egypt and by the coincidence of the Hungarian revolt. The June 1967 Six-Day War appears to have resulted from misperceptions by both sides, and operationally was notable for Israel's successful deception and highly effective initial air strikes. The October 1973 war (Yom Kippur War) was a masterpiece of secret planning and deception by Egypt and Syria which effectively befuddled the normally highly perceptive Israeli intelligence service. The following works are especially recommended:

DUPUY, Trevor N. *Elusive Victory: The Arab-Israeli Wars, 1947-1974*. New York: Harper & Row, 1978.

HEIKAL, Mohammed. *The Road to Ramadan*. New York: Quadrangle/The New York Times Book Co., 1975.

HERZOG, Chaim. *The War of Atonement, 1973*. Boston, MA: Little Brown & Co., 1975.

_____. *The Arab-Israeli Wars*. London: Arms & Armour Press, 1982. (Also, New York: Random House, 1982.)

The Soviet Invasion of Czechoslovakia: 1968

The Soviet invasion on the night of 20-21 August was the culmination of months of tension in which the USSR tried, by a variety of political and military means, to reverse the trend to liberalization in Prague. The crisis is particularly worthy of study as a warning problem because of the exceptionally large amount of information concerning the USSR's objectives and preparations. Although the military story is necessarily sketchy because so little detail has been made public, there is a wealth of available information on the political aspects and Soviet decision-making. Students particularly interested in the political aspects of warning should consult the following superbly researched and documented work:

DAWISHA, Karen. *The Kremlin and the Prague Spring*. Berkeley, CA: University of California Press, 1984.