

this, the final REF ID: A63400
The title of/my talk, might well be "The Influence of C-Power on History",

and lest some of you jump to the conclusion that I've suddenly gone psychotic and am suffering from a delusion that I'm a reincarnation of the great Admiral Mahan, I hasten to explain that the "C" in such a title ~~is not~~ is not the word "SEA" but the letter "C" and it stands for the word CRYPTOLOGIC. The title of the talk would therefore be: "The Influence of Cryptologic Power on History." As a sub-title I would offer this: "Or how to win battles and campaigns, and go down in history as a great tactician, strategist and leader of men; or, on the other hand, how to lose battles and ~~miss~~ ^{campaigns} and go down in history as an incompetent commander, a military 'no-good-nik'."

At this point let me hasten to deny that I'm casting any reflections upon certain successful--spectacularly successful commanders; names will occur to you without my calling them to your attention--and there will be names of men in each of the two categories--"how to win" and "how to lose" battles and campaigns--and entire wars, for that matter.

Sometimes the course of history is materially changed by the amount and quality of the COMINT and COMSEC available to field commanders and also how well they use these offensive and defensive weapons. Sometimes it is materially changed by the absence of COMINT and COMSEC where it had previously been in existence and used. We shall note incidents of both types and we may start with an incident of the first type, one in which lots of first-class COMINT was available. I need only mention the name Pearl Harbor and many of you will no doubt think that I'm going to go into that still controversial and disastrous episode in this talk, but I'm not. I will, however, use it as a jumping-off point for what will follow in the talk.

~~When the commanders had COMINT, they were able to put what forces they had~~
~~at the right place, at the right time. But when they didn't have it--and this~~
~~happened several times--their forces often took a beating. In one famous or~~
 infamous case, the Battle of the Bulge, a serious catastrophe was barely
 averted because our G-2's had come to rely too heavily on COMINT, so that when
 it was unavailable they seemed to lack all information or at least they felt
 that lack. I said that a serious catastrophe was barely averted but even
 so the losses were quite severe, as can be seen from the following:

"According to Eisenhower's personal officer, American losses in
 the Battle of the Bulge totalled 73,898 men, of whom 8,687 were killed,
 47,139 wounded, and 21,144 missing. Over 8,888 of these casualties were
 in the 106th Division. Because of heavy German attacks, 733 tanks and
 tank destroyers were lost. Two divisions, the 28th and 18th, were
 nearly completely annihilated, although the 28th Division did subsequently
 enter combat after being rebuilt."¹

Robert E. Marriam, Dark December, 1947, p. 211.

What happened? Why?

In an article which is entitled "Battlefield Intelligence: The Battle of
 the Bulge as a Case History", and which was published in the February 1953 issue
 of Combat Forces Journal, Hanson Baldwin said:

"Intelligence deficiencies and an astigmatic concentration upon our
 own plans with an almost contemptuous indifference for the enemy's, set the

stage in December, 1944 for the German successes in the Battle of the Bulge--a case history in the 'dos and don'ts' of intelligence."

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Further on Baldwin said:

"Another and more basic failure was the inadequacy of collection; we just did not get all the facts that were available. There was a variety of reasons for this.

"In General Sibert's words 'we may have put too much reliance on certain technical types of intelligence, such as signal intelligence . . . and we had too little faith in the benefits of aggressive and unremitting patrolling by combat troops. We had no substitute, either, for aerial reconnaissance when the weather was bad; and when we came up to the Siegfried Line, our agents had great difficulty in getting through, particularly in the winter.'

"Dependence upon 'Magic', or signal intercepts, was major, particularly at higher echelons; when the Germans maintained radio silence, our sources of information were about halved."

I hope I've not tried your patience by such a lengthy preface to the real substance of my talk, so it's about time I got down to brass tacks, that is, to the technical aspects of the talk.

In what I read from TIME, the word "MAGIC" was used to refer to the information that came from the solution of German, Italian, and Japanese secret

communications. MAGIC, of course, simply was a sort of code word for COMINT.

The term was introduced to us by the British when we began to play together in the cryptologic gardens; we found it useful and adopted it, too. Later on we

came to use other secret words to designate this sort of intelligence and to

change the words from time to time, for security reasons. Now Magic or COMINT

is composed of three types or categories of intelligence, and by far the greatest

part of it comes from intercepting, recording, and studying enemy radio traffic.

The three types or categories are: (1) Special intelligence, which comes from

the solution and processing of the encrypted messages themselves; (2) Traffic

intelligence, which comes from the study of what are called "the externals" of

those messages, data applicable to such things as their call signs, the frequencies

employed, the direction or routings, and so on; and (3) Weather intelligence,

which comes from the study of the enemy's weather messages, which in wartime

and even in peace time to a certain degree, are encrypted. In this audience

it's hardly necessary to mention how important a role the weather plays in the

conduct of war.

There is hardly need for me to give you a definition of COMINT, but

perhaps I should cite its three principal objectives. First, to provide

authentic information for policy makers, to apprise them of the realities of

the international situation, of the war making capabilities and vulnerabilities

of foreign countries, and of the intentions of those countries with respect to

war. Second, to eliminate the element of surprise from an act of aggression by