

Gentlemen

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It's a nice thing to have
solved some code or cipher or enciphered
code, and to have as a result some
information right out of the horse's
mouth; but if you can't use it,
what good is it except, perhaps, for
historical purposes. In other words,
it's one thing to have COMINT —
and another to use it properly,

That is, so as not to dry up the
source of the COMINT and
continue to receive it

This afternoon we were going
to observe an excellent ^{illustrative} case of
these points

During the first part of last Friday's talk ^① you saw and heard Walter Croukhite's "You are there" account of the Z.T. episode. It depicted in a rather sensational but ~~possibly~~ ^{factually} accurate manner the profound impression the publication of the text of that telegram created in Congress. When the film ended I said that I'd leave for today's session a discussion of the cryptologic background of this astounding and important episode of WWI, for it certainly charged the atmosphere with great tension and had a most serious influence upon history.

The Croukhite film hardly needs comment to indicate the importance which the publication

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of the Z.T. exercised upon history; for its publication must inevitably be considered in any study of the causes which lead to the entry of the United States of America into WWI. Incidentally, because the U.S. is the leading power on the Western Hemisphere, the publication of the text of the Z.T. helped to bring Argentina, Bolivia, Brazil, Cuba, and Panama into the Allied camp.

So important an incident in cryptologic history therefore warrants the careful study by historians as well as cryptologists. The story is replete with lessons on the ^{disastrous} consequences of weakness in "C power," and with lessons on the ^{opportunities} attendant upon great strength in "C power." And, in passing, I may add that the story as it now

appears in the history books and popular 2
 accounts of the Z.T. episode have many errors in
 them, some of which will be pointed out today.

I think it correct to say that history
 attributes US entry, on 6 April 1917, into WWI as
 a belligerent on the side of the Allied Powers to the
 disclosure of the contents of the Z.T. Note that this
 statement is qualified by a date, viz, 6 April 1917.
 Perhaps that would have come about without the Z.T.,
 sooner or later, for one reason or another but most
 probably as a result of German ruthlessness in the
 conduct of submarine warfare. But "later" might
 have been too late, because after 1 February 1917
 when unrestricted submarine warfare started there
 wasn't much time left to help Britain and her allies,
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because England was being starved for food and munitions. And if America had waited until England had been starved into starvation and capitulation, it is possible that America would never have entered into WWI - or, if it was forced to enter by German arrogance, it might have been left to fight a powerful and jubilant Germany all alone. Who knows?

The fact is, however, that the Z.T. was published on March 1st and within a little over one month, on April 6th, we declared war on Germany. There seems to be little doubt, therefore, that America entered the war when she did because of the Z.T., or, shall we say, rather, as a consequence, on the one hand, of German obtuseness in affairs dip

lomatic and naïveté in affairs crypto-⁽³⁾
logic; and, on the other hand, as the fruit
of British astuteness in affairs diplomatic
and brilliance in affairs cryptologic.

It was only to be expected that question
and doubt should be raised as to the authen-
ticity of the Z.T. The newspapers were full of
denunciations and discussions of what many
people regarded a complete hoax, a fraud.
In the Congressional Record the debate on
March 1st takes up 22 whole pages - all
devoted to the question of the authenticity of
the Z.T, which I had so far nothing to back it
except the word of the Wash corresp of the Associated Press.

The publication had not been made on the authority of the State Department at all, it had strangely appeared merely as a despatch of the A.P. sent broadcast apparently upon its own responsibility. Recall Cronkite film of Long scene

~~But now let's lift the secrecy veil a bit. That veil ^{has} never been lifted by the British Government. The first lifting of the secrecy veil was in 1925 when the November issue of "World's Work" magazine brought the final installment of Burton J. Hendrick's Life and Letters of Walter H. Pater, although there were hints before this during~~

~~I will read from "World's Work" from here to time will make comments.~~

— Read — [to middle 2^d col p 24]

add 1237
23c
show
(sets
man

But now let's lift the secrecy veil a 13.1
 bit and it will be of interest to start in with
 a brief story about how the British crypto
 logic organization got started.

Read from Furing. Room 40, p lecture
 at Edinburgh 14 Dec 1927

Read from Furing Room 40, p 173-4

Read from James p 25, 28, 29

D/F
 Political Section " " p 69
 " " " " A 69-70

First hint as to crypto work by Churchill in
 talk reported in the Scotsman 12 July 1923 and in The World
Cross (1923) but even as early as 1921 The Scotsman
 - over -

in its issue of 14 July had a remark by "Sir Maurice Hankey" that among those who had worked in obscurity, as opposed to those who all the time were in the limelight, there was no name which deserved greater honour than that of Ewing, and no man who had done greater service to his country.

Ewing remained head of Room 40 until July 1917 when Sir W. Reginald Hall, Director of Naval Intelligence became actual head of Room 40 too.

Several months later came the episode involving the famous or infamous Z.T. The first lifting of the secrecy veil that had been thrown about the episode came in 1925 when the Nov issue of Worlds Work was brought the final installment of Hindrich's life & letters of Walter H Page. I will read from Worlds Work - and from time to time make comments

We shall not concern ourselves with the ^{LA} steps taken by President Wilson and Secretary Lansing, culminating in the publication by the A.P. of the text of the Z.T. Our attention will be concentrated upon the minute details of the manner in which the message was intercepted and solved.

[Continue reading from Hendrick, p 74 "The manner in which" It to "the most fateful message sent to America during the war" join with ~~document~~ following from p 26, 1st col "In the British Admiralty this Hauen-Seynells thoroughfare was known as "the main line", it was the most direct and consequently the one most

used for sending German dispatches to the United States'

Hendrik cites no authority for the statement that the Lt was transmitted by radio from Nauen to Sayville. There is very good reason to doubt it - as we shall see

A few hours after outbreak of war the RN, who've always recognized importance of control comm channels as well as sea lanes took urgent steps to isolate Germany from rest of world that lay beyond the oceans, by cutting & diverting to her own service the two German cables across the Atlantic, leaving only indirect channels of comm with her ambassador at Wash. There were 4 main numbers

- 1) Radio - Nauen - Sayville^{US} + Tuckerton, NJ
130th supervised by US ^{US} and well supervised
- 2) Cable from Germany via Berlin Stockholm -

Buenos Aires, Washington — but this route was secret from U.S., although there is positive evidence that it was known to B from first days of its use for the cable from Stockholm to B A, passed through England

3) Via Berlin, Copenhagen, Washington — and this cable also ~~passed~~ through English Port. This was a very unusual channel for Germans because it could be used only with knowledge & cooperation of the U.S.

4) Involved insertion of secret text in ord. news dispatches (concealment system) & was disclosed only after war by Berensdorff himself

As to 1st method — the ^{use of the} radio channel — ^{was prohibited and} the ^{under} super ^{not} reason exercised by Am authorities was very detailed. Hendrick is absolutely wrong when he says (p 25, 1st col) 'How little this prohibition interfered with the Germans is shown by the use they made of the havy

Island station for this, the most fateful message sent to America during the war." I have very carefully ~~searched~~ searched every available record and have found not the slightest evidence that this channel was actually used & the German accounts have been examined as well as American [Tell how supervision was exercised. Eng Chiffre ⁹⁹¹² Read from p 7 + 8 of brochure, paras checked

No, the Z.T. wasn't sent via that route, although Hendrick's account makes it plausible by saying:
 [p 25, Col 2: "On the 16th of January, 1917 ... etc
 whole column to 1st 2 lines p 26-7 "Does Hendrick want to imply Bernsteinoff added this precious bit of enticement?", No, Hendrick's explanation is quite flat, disingenuous. We shall soon learn the real explanation

for the gaps and doubtful points in the text. 16
 We come now to the second comm channel used
 by the German Govt etc -- bottom p. 8 of brochure

There is plenty of evidence that the Br knew
 of this circuitous route ~~and that evidence is found from p. 9~~
 "There is in the State Dept files etc -- only indicated
 that ~~the positive evidence~~ it happens to be dozens of
 messages that passed over this route or later appeared
 among the hundreds in the affidavit by Admiral
 Sir W. R. Hall, ~~with Director of Naval Staff of Br Naval~~
~~Staff in London~~ ~~that~~ those messages in the Hall
 affidavit are many that ^{many} passed over to Berlin -
 Stockholm - B.A. - Wash route. What the Germans
 did was to hand their coded telegrams over to their

Swedish friends in Wash and in Berlin, the Swedish Ambassador or Minister embodied the German code groups in a message apparently of their own ~~with~~ ^{with a message that} their process consisted of ~~the process of deciphering the groups~~ ^{groups of process of deciphering the groups} ~~code groups of process of deciphering the groups~~ ^{code groups of process of deciphering the groups} ~~and another few groups - and hoping that the differences between Swedish code and German code groups would not be noted - even if it occurred to other than Swedes or the Germans that the cables touched England. And, of course, it didn't dawn on the Germans that their code could be unravelled and read by anybody not possessing a copy of the code-book - certainly not the stupid Englishman~~

~~We know too, that the B-3 couldn't read~~
~~and they didn't solve the Swedish codes - maybe they~~
~~tried I don't know, but we have a dead ^{B-3} statement~~

The Hendrick account would make it appear ¹⁷ as if the Z.T. only it only received special treatment ~~to~~ receive its receipt but it is clear from ~~what~~ the German records alone ~~lead to show~~ that the transmission of crypt messages by more than one route was routine procedure with Bernsteinoff. But Hendrick says.

Read from p 26 of Hendrick col 1
Hendrick's statement "In many capitals German messages were frequently put in Swedish cipher... etc implies that the RT read Swedish codes too

Read from p. 10 of brochure - 'How it would be easy, to read 1st page of p 11

We come now to the third and most interesting of the Z.T. routings - the one used with cooperation of State
Read from last two 1st col p 26 Hendrick

Hendricks makes it appear that obtaining permission to use SD facilities was a rather simple matter ... p 12 brochure - all the way to end ~~the~~ place p. 13 marked "stop here"

The SD was indeed careful in placing its own facilities at the disposal of the Germans.
Read from p 14 brochure - one para only

We come now to a study of the code used for the Z. T. ^{and first} in its passage from Berlin to Washington. There can be no question that the message, ^(it was no. 157) was the one which had been appended to Berlin-Wash No. 157 and which had been sent via State Dept channels. As we already said, the Br Govt has officially never published any account of the interception and solution of the

Z.T. by its cryptologic agency commonly referred to as Room 40. But when we study very intently the telegrams that passed between the British and American Governments dealing with the Z.T. as related in the Hendrick account—and more especially now, the account contained in book which was published only 3 years ago by a close associate and ^{informant} colleague of Admiral Hall (~~but not a cryptanalyst~~). This is the book, Eyes of the Navy, by Admiral Sir William James, ¹²¹ ~~who worked under Hall in Naval Intelligence during the war~~ when taken at the Admiralty, took part in pressing for publication books and articles covering various aspects of WWI and informing authors what, for security reasons, could not be published. Moreover, he had the advantage of personal knowledge of the war and events involved, which enabled him to distinguish fact from fiction.

Admiral James in his foreword says.
Read from p xi + xii to point marked

But Admiral James was careful. Even though, as he says, he had no access to unreleased official papers and therefore, as he says, it wasn't necessary for him to obtain official approval for publishing his book, he did submit it for some sort of blessing or approval as this memo to me dated 15 Dec 1955 from ~~later~~ then Deputy Senior Liaison Officer to GCHQ clearly shows

Read from Harkun memo

And, perhaps it's not strange to say, Admiral James himself doesn't know the delicate & interesting technical points about the ZT which remained obscure or in doubt — until he published his book. And likewise can be said about his clarification, — unintentional, I'm sure of other dubious points about the history and operation of Room 400 B

But we shall have to confine ourselves to the verifiable facts about the cryptology of the Z.T

Let's begin by quoting from Admiral James' 19
 account [James, p 136 — "Then early in the New Year,
 [Read p. 136 + 137 to point indicated + comment re the
 truth of what I say about the source of the De Grey -
 Montgomery message. (Incidentally, describe De Grey)

There are reasons to believe that the version that
 we have just seen came from the Br copy of the S Dept
 message containing Berlin's Nos 157 + 158 to Washington — but
 I don't think it would have been polite at the time or
 even now to say or insinuate even that the Br were also
 intercepting + studying messages of the US Govt!

[Then go on with last para p 137 + continue
 with p 138 + 139 to point indicated]

Berinstorff tried desperately to have Berlin change
 its decision about unrestricted sub warfare — to no avail.
 On 1 Feb 13 presented the declaration re sub-
 warfare which began that day. Pres W broke off relations

Resume reading James, p 140, middle pp only
 Hall then took steps to obtain the additional
 evidence that would be required in the circumstances
 and telegraphed to his secret agent in Mexico City to get
 all copies of Bernstorff telegrams to Eckhardt since 18
 January. These were sent to Wash + forwarded by
 cable to Idm

James goes on "So much progress with
 the reconstruction of the code had been made that by Feb 19
 Hall had in his hands an almost perfect transcript of
 James then gives the text of the ZT as published. But
 James is throwing a little dust in our eyes. The
 version of the ZT that was finally published was not
 the version that was in the tel from Z to Bernstorff
 which was in Code 1500, but the equivalent version
 that was in the tel from B to Eckhardt — and that
 was in the order + much simpler 13040 Code!

Read the message entire as given on 110
p. 141 James.

Continue with p. 142 down to stop

Omit next para + continue as follows

But by this time Hall had information that the German-Americans in the US were extremely active in their endeavors to sway the President's hand. He felt that the time had come for immediate action and formally pressed for a decision. On 20 Feb he received Balfour's authority to handle the whole matter as he saw fit.

Continue with p 143 James - whole page + top 3 lines on p. 144 then continue.

~~from~~ We've already heard the contents of the message from Page, the Am Amb in London to the Pres & Sec State

so I won't repeat it now. You'll recall that in that tel Page stated that "early in the war the Br Govt etc ^{read extracted & marked paragraphs} on p 144 James

But now listen to James. (p. 145) "It was not the case etc - just that para & the next one then continue from p. 16 of F.M brochure & read all the way to bottom of page 16.

~~the facts~~
nobody can blame Hall for trying to put everyone including Page, the President & the Sec State off on the wrong trail & to cover the tracks of Room 40 OB. At the time this brochure (based up F.M brochure) was written we didn't know all the facts - we were making inferences & deductions, we said

[Read 2 marked paras on p. 17 of brochure]

The statement that a codebook - or at least some part of code document - was found must contain an element of truth, because here is what the Ewing book says.

Read Ewing, p 188

Ewing says that the captured material enabled the ^{workers} people in Room 40 to read much enemy dip correspondence; thus providing a starting-point from which to penetrate, one after another, the German Foreign Office ciphers

On the other hand, James gives us much more specific and valuable information on this point, and I think it is accurate
- over -

" Read James p 69 to top p, 70
In April (1915) something ...

If I'd had more time to prepare for these 12 talks before coming out here I would have ~~brought~~ ^{sent} Zimmerman Code 13040 out with my slides etc. It's an interesting document - as also is Englecher's Chiffre 9972 and Code 7500 - these are all in our archives now.

But to get back to the ZT itself again, you will recall that I said it was published in all the ^{imp} newspapers of the world on March 1st 1917. After acrimonious debate a resolution was passed by the Congress asking that the President be asked to state the source of the information. He replied the same evening through his Sec State as follows:

Read James, p 147 - Lansing's next para Zimmerman in a statement before the Reichstag made a long, involved, and foolish apology for his inept conduct, winding up with this:

Read James p 148, marked para

How naive! How could such a naive man
rise to be head of the F.O of a great & powerful state?

Continue with James, p. 149 & 150 to end of
quoted material top of p. 150

If Zimmermann had been really smart he
would have denounced the tel as a forgery, fraud, &
product of Br duplicity & chicanery — even if only
to smoke the Br out & make them prove the
authenticity of the tel by disclosing exactly how the
message & the keys contained in it was obtained

That is what Hall greatly feared would
happen — but his fears turned out to be groundless
Z was too dumb, too slow, too inept — and he soon
lost his job.

Now go back to F-M brochure, p. 17 to 12
end of 2^d para done