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WHAT IF THE LINGUISTS DISAPPEARED?

What is the exact nature of the work done by NSA linguists? When linguists work with different languages, with materials in varying volumes and in various printed and spoken forms, what duties do they perform in common, and what duties are completely different? Those questions were not specifically posed in the mission originally assigned to the Language Analysis Task Force (LATFO) when it was created in 1975. Instead, that mission, simply stated, was to analyze and validate the NSA Career Service Occupation System as it applies to NSA personnel in the Language Career Field (1JXX). But, during the 14 months of its existence, LATFO (Chairman

found these two unstated questions constantly coming up. In interviews with Agency linguists, and in our subsequent discussions, we found that certain functions could easily be fitted into logical categories, but others just didn't want to work that way. As a result of these divergences, our interviews and discussions ranged far beyond the limits of our stated mission and, by the time LATFO submitted its official report, we had gained many revealing insights into the facts of life as faced by the average NSA linguist (if such a person exists).

Some of these insights pertained to our mission and found their way into the official report that we submitted to the Task Analysis Steering Committee. But others pertained not to the specific mission, but to the overall philosophy of language occupation at NSA. We considered these insights to be outside the purview and mission assigned to LATFO and, accordingly, did not include them in our official report. But, since these incidental ideas were deemed to be too valuable to simply throw away, I took it upon myself to present them in my own way in a special memorandum to ADPS, as an individual report by the B Group member of LATFO.

It is that memorandum which has served as the basis for the article which follows. I must state at the outset that most of the ideas expressed in this article are my own and I take full responsibility for them. But I cannot take full credit for all of them, because the background experiences and knowledge of my colleagues, coupled with the stimulus and criticisms that flowed freely in some of our heated discussions, effectively sharpened my own perceptions and personal views.

The LATFO report was an investigation into what NSA's linguists -- that is, people -- do. In the following pages I hope to show the other side of the coin -- the vital role that foreign languages play in the production of COMINT reports.

January-February 77 * CRYPTOLOG * Page 1
Foreign languages are the stock in trade of translators, transcribers, and those who do language research of various types, but the skills of the translator and transcriber are not at all equal. Many good translators have poor aural comprehension and do poorly at transcribing voice tapes, and some of them decline to do it at all because transcription work can be monotonous and boring. However, any good transcriber, as a general rule of thumb, has the added capability of translating, if he knows the English language (some of our native-born linguists have trouble translating into English, which is, after all, their second language).

I have dwelt heavily on the language aspects of the above "analytic" disciplines (the "reporters" come later) with their differences and distinctions because so few NSA managers seem to have a clear understanding of the fact that knowledge of a foreign language is the key ingredient for most of NSA's end product. They tend to look upon language knowledge as a simple "tool" that can be turned on or off by the flip of a switch, and something that any reasonably intelligent person can learn with a little study. But that just ain't so! This misconception, I believe, responsible for much of NSA's "language problem."

NSA management needs to understand that knowledge of a foreign language is a difficult skill acquired by hard study in an educational environment and sharpened by on-the-job experience. In this respect it is no different from any other learned skill, such as mathematics, engineering, computer, or whatever. One can even say that the only valid way in which the knowledge of a foreign language can be called a "tool" is if "tool" is used in the sense of a scalpel in the hands of a competent surgeon who must possess a precise knowledge of the entire human body, many specialized surgical instruments, the properties and effects of different medicines, and a thorough awareness of the damage that may ensue if his knowledge and treatment are incorrect or inadequate.
The use of foreign languages as a "tool" is likewise dependent upon the skill of the practitioner, which is the sum total of his training, experience, background knowledge in related fields, drive, imagination, and, not least, his knowledge of the English language and his ability to express ideas in written form.

It is in this latter situation that we see a subtle shift in management's perception of the relative importance of the linguist's role vis-à-vis the reporter's role, to the detriment of the linguist. In that shifted perception, the reporter's end-product output is deemed to be more important than the linguist's output which made that report possible. This has resulted in a widespread feeling that reporters enjoy higher status, and in the last few years the higher-grade promotions appear to have gone to the reporters as a group. "It's the field to be in if you want to get ahead" is a frequent comment I have heard, often from reporters themselves. This is probably due to the very human tendency of supervisors and managers to know best -- and to reward -- those with whom they are in most frequent contact and whose work they review.
When I was one-and-twenty,
I heard a wise man say,
"Give riches, and perhaps your heart,
But not COMINT away.

"Save every bit," he counseled.
"And I will show the way --
Construct a vault; store wheat and chaff
Forever and a day.

"Be diligent in saving;
Be not by space deterred."
Yes, I was one-and-twenty,
And heeded every word.

I saved and filed and indexed;
My COMINT storehouse grew.
The things I started with were old,
But I kept adding new.

Then space became a problem.
(We all know how that feels!) I microfilmed the wheat and chaff,
And put it all on reels.

The years went on. In sixty-two
The Agencies were told:
"Declassify each item
That's a score and ten years old."
The Information Freedom Act
Came shortly afterward.
The groans of high officials
Were loudly to be heard.

The items in our storehouse --
Which ones would thus fall prey?
To judge each, it would take one more
"Forever and a day!"

It soon became apparent,
This was a task indeed.
The talent still remaining here
Fell short of what we'd need.

And so the call was issued
To Croskery and Howe --
To Steinmetz and to Flossie Burn:
"Come back. We need you now!"

And so they came, and labored;
They gave their counsel well.
Yet how much longer this will take,
No one can surely tell.

Now I am one-and-fifty.
I've seen a lot. And yet,
I marvel at the things we've done --
The challenges we've met.

Each item that we issued
We looked on -- then and now --
As something of a triumph;
Not so much "what" as "how."

The "what" was quite important
(Our customers agree);
But it's the "how" that gave us
A sense of dignity.

Should thirty years diminish this?
For one, I would say "No!"
I think I'll run for President,
And write my own E.O.

The listing on the next 12 pages has been
printed in the center of the magazine so
that it can be easily removed for use as
a permanent reference aid.
WHERE WERE WE?
Frederic O. Mason Jr., P14

The U.S. SIGINT establishment has developed, used, and abandoned so many sites that it is now difficult to remember them all, what their station numbers were, and just when they were active. The following compilation, which was produced in response to a request from Chief, P1, is offered to the reader as a reference aid, even though the information in it is known to be incomplete.

The arrangement below shows the station number (minus "US" prefix); the currently active sites (offset to left, in italics); abandoned sites; SCA unit numbers; and the years active.

Data for 1949 to date conforms to USSID-505 rules. All records shown are stored on a B6700 disk file for update and for extraction of data in a variety of sorts (such as by service, by country, etc.).

Stations active only in years for which sources were not available are probably not shown. When stations moved, they are often shown on separate lines, with different year spans.

Note that the listing is in two parts, each with its own classification. Part I, covering the period 1917 through 1946, is classified TOP SECRET CODEWORD. Part II, covering the period 1947 through the present, is classified SECRET, HANDLE VIA COMINT CHANNELS ONLY.

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**INTERCEPT STATIONS THROUGH WORLD WAR II**

Data derived from: NSA Cryptologic History Staff, E51

Active year span, same place
(1917 through 1946)

<table>
<thead>
<tr>
<th>Designator</th>
<th>Location</th>
<th>Year Span</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RADIO TRACTOR UNITS (Army and Federalized Nat Gd vs Pancho Villa)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTU-31</td>
<td>McAllen, Texas</td>
<td>(31 Oct 1918) 8</td>
</tr>
<tr>
<td>RTU-32</td>
<td>McAllen, Texas</td>
<td>(31 Oct 1918) 8</td>
</tr>
<tr>
<td>RTU-33</td>
<td>Laredo, Texas</td>
<td>(31 Dec 1918) 8</td>
</tr>
<tr>
<td>RTU-34</td>
<td>Laredo, Texas</td>
<td>(31 Dec 1918) 8</td>
</tr>
<tr>
<td>RTU-37</td>
<td>Del Rio, Texas</td>
<td>(1 May 1918) 8</td>
</tr>
<tr>
<td>RTU-38</td>
<td>San Antonio, Texas</td>
<td>(1 May 1918) 8</td>
</tr>
<tr>
<td>RTU-39</td>
<td>Sutherland Springs, Texas</td>
<td>(1 May 1918) 8</td>
</tr>
<tr>
<td>RTU-40</td>
<td>San Antonio, Texas</td>
<td>(1 May 1918) 8</td>
</tr>
<tr>
<td>RTU-43</td>
<td>Pecos, Texas</td>
<td>(20 Sep 1918) 8</td>
</tr>
<tr>
<td>RTU-44</td>
<td>Ft Bliss, Texas</td>
<td>(20 Sep 1918) 8</td>
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<tr>
<td>RTU-45</td>
<td>Las Cruces, New Mexico</td>
<td>(20 Sep 1918) 8</td>
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<tr>
<td>RTU-46</td>
<td>Las Cruces, New Mexico</td>
<td>(20 Sep 1918) 8</td>
</tr>
<tr>
<td>RTU-47</td>
<td>Lordsburg, New Mexico</td>
<td>(4 Oct 1918) 8</td>
</tr>
<tr>
<td>RTU-48</td>
<td>Lordsburg, New Mexico</td>
<td>(4 Oct 1918) 8</td>
</tr>
</tbody>
</table>

| **ARMY INTERCEPT STATIONS, AEF** |
| #1 | Verdun, France | (11 Nov 1918) 8 |
| #2 | Verdun, France | (11 Nov 1918) 8 |
| #3 | Euvezin, France | (11 Nov 1918) 8 |
| #4 | Euvezin, France | (11 Nov 1918) 8 |
| #5 | Verdun, France | (11 Nov 1918) 8 |
| Aero #1 | Euvezin, France | (11 Nov 1918) 8 |
| Aero #2 | Tambiance, France | (11 Nov 1918) 8 |
| Aero #11 | Verdun, France | (11 Nov 1918) 8 |
| | Souilly Meuse, France | (14 Nov 1917) 7 |
| (2 stns) | Coblenz, Germany | (14 Dec 1918) 8 |

Ft Wool, NY Harbor 8?
**ARMY LISTENING STATIONS, AEF**

<table>
<thead>
<tr>
<th>Designator</th>
<th>Location</th>
<th>Active year span, same place</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Saulz, France (11 Nov 1918)</td>
<td>1917 through 1946</td>
</tr>
<tr>
<td>#2</td>
<td>Fresnes, France (11 Nov 1918)</td>
<td>1917 through 1946</td>
</tr>
<tr>
<td>Hqs</td>
<td>Bois de Creus, France</td>
<td>1917 through 1946</td>
</tr>
<tr>
<td>Le Souche</td>
<td>Louisville Ferme, France</td>
<td>1917 through 1946</td>
</tr>
<tr>
<td>Le Rebois</td>
<td>Bois de Haudenilles, France</td>
<td>1917 through 1946</td>
</tr>
</tbody>
</table>

**OTHER ARMY INTERCEPT STATIONS**

<table>
<thead>
<tr>
<th>Designator</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Calexico, California</td>
</tr>
<tr>
<td></td>
<td>Mexico, City, Mexico</td>
</tr>
<tr>
<td></td>
<td>Houlton, Maine</td>
</tr>
<tr>
<td></td>
<td>Tucson, Arizona</td>
</tr>
<tr>
<td></td>
<td>Nogales, Arizona</td>
</tr>
<tr>
<td>Del Rio, TX</td>
<td></td>
</tr>
<tr>
<td>McAllen, TX</td>
<td></td>
</tr>
<tr>
<td>Monterey, CA</td>
<td></td>
</tr>
<tr>
<td>Philippine Dept, Ft Hughes</td>
<td>1917 through 1946</td>
</tr>
<tr>
<td>Boston, MA</td>
<td>1917 through 1946</td>
</tr>
</tbody>
</table>

**RADIO INTELLIGENCE COMPANIES**

- 111, 112, 125, 126 under CBB and Gen MacArthur in SW Pacific
- 113, 114, 116, 117, 118, 121, 124, 129, 137 in Europe
- 115, 119, 120, 122, 123, 127, 128, 130-136, 138 unlocated

**SIGNAL SERVICE COMPANIES**

- 3250 through 3264 in Europe
Active year span, same place
(1917 through 1946)

<table>
<thead>
<tr>
<th>Designator</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>DCO, 14th Naval Dist Peiping, China Roof of Navy Dept, Washington, D.C. Flagship (USS Omaha) European Squadrons Shanghai, China</td>
</tr>
<tr>
<td>B</td>
<td>Guam (Wahiawa) Flagship, CINCAF Olongapo, Philippines Manila, Philippines</td>
</tr>
<tr>
<td>C</td>
<td>Corregidor, Philippines Melbourne, Australia</td>
</tr>
<tr>
<td>C???</td>
<td>Chatham, Massachusetts (leased from RCA)</td>
</tr>
<tr>
<td>D</td>
<td>Dupont, J.E.</td>
</tr>
<tr>
<td>E</td>
<td>Chungking, China</td>
</tr>
<tr>
<td>F</td>
<td>Fruci, China Kweilin, China Kuming, China</td>
</tr>
<tr>
<td>G</td>
<td>Amagansett, New York (DF only, after 1943) Wailupe, Gak, Hawaii</td>
</tr>
<tr>
<td>H</td>
<td>Heeia, Hawaii Wahiawa, Hawaii Imperial Beach, California</td>
</tr>
<tr>
<td>I</td>
<td>Jupiter, Florida</td>
</tr>
<tr>
<td>J</td>
<td>Cheltenham, Maryland</td>
</tr>
<tr>
<td>K</td>
<td>San Juan, Puerto Rico Cooktown, Australia</td>
</tr>
<tr>
<td>L</td>
<td>Astoria, Oregon Bainbridge Island, Wash. (to Coast Guard, 1945) Skaggs Island, California</td>
</tr>
<tr>
<td>M</td>
<td>Balboa, Canal Zone Torl Point, Canal Zone Winter Harbor, Maine</td>
</tr>
<tr>
<td>N</td>
<td>Adelaide River, Australia</td>
</tr>
<tr>
<td>O</td>
<td>Guadalcanal</td>
</tr>
<tr>
<td>P</td>
<td>Okinawa Iwo Jima Kwajalein Recife, Brazil Adak, Alaska (to Coast Guard, 1945)</td>
</tr>
</tbody>
</table>

Unidentified shipborne intercept against Japanese Grand Naval Maneuvers in 1933, 1934, 1935, and undoubtedly in other years

Other US intercept stations are not specifically documented, but included:

Benjamin Franklin started the US Post Office during the period 1776-1790, and this is alleged to have included a systematic opening of mail in transit to acquire information of value to the government.

Commercial telegraph systems had been established during the 1840s and, during the Civil War, were taken over by both US and CS governments and also, on both sides, supplemented by military field wire and wigwag flag extensions into battle areas and across gaps. Traffic was sometimes enciphered. On both sides, ad hoc wire taps were utilized for intelligence purposes.

Wire taps have been used, or planned, ever since. It was a well-established procedure in World War I trench warfare. In 1945 there was at least one Signal Intelligence Detachment with white officers and Nisei enlisted men trained in wiretapping techniques, scheduled to be in the first wave in the invasion of Japan.
To the Editor, CRYPTOLOG:

The article on the Language Skill File by [CRYPTOLOG, October 1976] made no mention of the fact that the DDO Language Advisory Committee has been working on developing an accurate inventory of the Agency's linguists for over two years. This on-again off-again effort had as its genesis the attempts by A, B, and G to have their independent accounting systems adapted for DDO-wide use.

More recently, the LAC realized that there was a critical need for an accurate inventory of Agency language skills. Accordingly, a sub-committee of LAC was formed to develop a machineable data base. It served on this subcommittee, along with a third member, as the G member of DDO LAC. The Language Skill File was the result of the combined efforts of all the members of the LAC subcommittee, and I hope that this letter of clarification will help to give credit where it is due.

Minnie Kenny,
Chairman, DDO LAC

Letters to the Editor

To the Editor, CRYPTOLOG:

Like Charles Bostick in his letter in the November 1976 CRYPTOLOG, I must be doing (or thinking) something wrong. On page 18 of the November issue, under the heading "Sensitive materials?", you say you'll go all the way to TS/CW, but "draw the line at compartmented...". You imply that codewords are not exclusive or sensitive. What, I ask, is COMINT CHANNELS if not a compartment? Having chiefed the NSA SPO/SAO function a couple of years ago, I learned early, and attempted to spread the understanding of the fact that three compartments exist in the intelligence community. Most of us acknowledge two. Few in the cryptologic community, however, label COMINT CHANNELS as a compartment. In fact, we are so accustomed to seeing HVCCO and codewords that they are considered "garden variety" caveats; this ain't right!

Editor's reply:

Sorry, but we too made the mistake of implying that COMINT material is not a compartment. As you know, it is common practice here in the Agency to speak of compartmented information as something other than COMINT. We hope that the following revised wording improves the situation, while still being suitable for our unclassified "Contributions Solicited" handout.

OLD
Sensitive materials?
No. We'll go all the way to Top Secret Codeword, but we have to draw the line at compartmented or otherwise exclusive sources.

NEW AND IMPROVED
Sensitive materials?
No. We'll print anything from unclassified to TOP SECRET CODEWORD, but we draw the line at items requiring special clearances or briefings.

(UNCLASSIFIED)

(Letters to the Editor, continued on p. 21)
The quotation on the next page was taken from a published work of an NSA-er. The first letters of the WORDS spell out the author's name and the title of the work.
"Hew down the bridge, Sir Consul, With all the speed ye may; I, with two more to help me, Will hold the foe in play. In you strait path a thousand May well be stopped by three: Now who will stand on either hand, And keep the bridge with me?"

Rome
II Ides, June CCCXL

SUBJ: Recommendation for Senate Medal of Honor

I. Recommend Gaius HORATIUS, Captain of Foot, G-MCMXIV, for the Senate Medal of Honor.

II. Captain HORATIUS has served XVI years, all honorably.

III. On XI March, during an attack on the city by LARS PORSENA of Clusium and his Tuscan Army of ninety thousand (XC) men, Captain HORATIUS, accompanied by Sergeant Spurius LARTIUS and Corporal Julius HERMINIUS, held the entire Tuscan Army at the far end of the bridge until the structure could be destroyed, thereby saving the city.

IV. Capt. HORATIUS valiantly fought and killed one Major PICUS of Clusium in individual combat.

V. The exemplary courage and outstanding leadership of Captain HORATIUS is in keeping with the highest traditions of the Roman Army.

JULIUS LUCULLUS
Commander,
II Legion of Foot

1st Ind: AG IV Calends, April CCCXL
To : G-I
For comment. C.G.

IIId Ind: G-II
To : G-I

Omit strength of Tuscan forces in para III. This information is classified.

A report evaluated B-II states that the officer was Captain PINCUS of Tifernum. Recommend change "Major PICUS of Clusium" to "an officer of the enemy forces."

IVth Ind: G-I
To : XX JAG
Full name is Gaius Caius HORATIUS.

Change service from XVI to XV years. One (I) year in the Romulus Chapter, Cub Scouts, has been given credit for military service in error.

Yth Ind: JAG
To : AG
The Porsena raid was not during wartime. The temple of Janus was closed.
The Senate Medal of Honor cannot be awarded in peacetime. Reference is invited to RAR CVII-XXV, para XXI, e.)
The action against the Porsena raid was, ipso facto, a police action.
Suggest consideration for a Soldier's Medal.

VIth Ind: AG, XXX
To : G-I
Concur in para IV, Vth Ind.

VIIth Ind: G-I
To : AG
Soldier's Medal is given for saving lives, suggest Star of Bronze as appropriate.

VIIIth Ind: AG
To : JAG
For opinion.

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UNCLASSIFIED
Letters (cont.)

To the Editor, CRYPTOLOG:

Those readers who have spun mathematical wheels may note that F. Mason's problem (CRYPTOLOG, October 1976) is a simple study of rotary motion.

His collection of matched pairs of poker hands produces the following six rotor sequences:

1. J 10 7 Q K A  (6)
2. 8 7 9 2 10  (8)
3. 9 8 9 10  (6)
4. 9 10 2 A K Q J  8  (8)
5. A 2 J Q 9 10 K  (7)
6. Q K 10 J A  (5)

The two sequences defining the second position must be aligned so as to produce only one valid value per step. Each sequence moves one step per cup.

It follows that, if the (J, 8, 9, A, Q) hand occupies position $\theta$, the hand with 4 aces must occupy position $N$, where $N \equiv 5 \mod 6 \equiv 3 \mod 8 \equiv 0 \mod 7 \equiv 4 \mod 5$.

The solution is $N = 539 + 840k$, $k$ being an arbitrary integer, by the Chinese remainder process. (See, for example, Topics from the Theory of Numbers, by Emil Gosswald, Macmillan, 1966).

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I SAID IT AND I'M GLADI

'Doublespeak' Award Evokes Greater Effort

Associated Press

The State Department is not taking its "doublespeak" award sitting down.

The department received the dubious honor last week from the Committee on Public Doublespeak of the National Council of Teachers of English.

The award cited an announcement from Foggy Bottom that a consumer affairs coordinator would "review existing mechanisms of consumer input, throughput and output, and seek ways of improving these linkages via the consumer communication channel."

Lawrence S. Eagleburger, the top aide to Secretary of State Henry A. Kissinger responded Wednesday:

"I think it's an enormous compliment since it demonstrates remarkable recognition of my ability since I was largely responsible for the original document in recognizing the ability of my office to handle input, output and throughput with remarkable facility recognizing the normal inability of the bureaucracy to do anything in a manner which would merit an award for anything."

The Washington Post, 26 November 76
THIS DOCUMENT CONTAINS CODEWORD MATERIAL.

TOP-SECRET