

MEMORANDUM FOR MR. RHOADS

22 August 1948

Subject: Comments in Passing on Draft of "Proposed Technical Manual TM #2 - ( ) Radio Intelligence."

#3. The definition of R/I is not that of the Army Navy Descriptive dictionary of cryptologic terms.

#6. Where is the appendix 1 "Glossary of R/I Terms" and what will it adhere to when and if finished?

#10-b The Radio Traffic analysis team apparently does everything: T/A plus evaluation. Shouldnt it be a pyramid \* Evaluation \* \* \* Collateral Info.

T/A . . . . . Crypt  
DF Intercept  
(Traffic and intercept control)

What does 10-A do? Administrate only? From description they seem to also evaluate. If they decide as to what will be done they are above the evaluation phase wherever it is done.

#13. What about radar, guided missiles, facsimile etc ad nauseam? What and who will intercept them or is the paras definition of "any mode of radio transmission" ambiguous. Leaving out radar, guided missiles etc which is a mistake but apparently established policy, this should read "radio communications" which includes facsimile and radio telephone. In connection with facsimile please note a MIS Technical Digest talked about use of plane borne facsimile for sending in photorecce results which was in experimental stage over two years ago.

In first sentence of this paragraph should "radio intelligence equipment" read "radio intercept equipment"? I thought intelligence was a function of the intellect with no mechanical equipment as a substitute.

#15. Direction finders. To me both "portable" and "mobile" imply the idea of transportability. Is "Fixed" and "mobile" a better distinction or is "long range" and "short range" even better. Within short range D/F equipment you will have variation in size as for example the German Radio Defense Corps

used both D/F sets (covered trucks with "Mobi" sets inside) and suitcase and even coat pocket sets for extremely close range work against agents. The entire problem of agent radio traffic requires serious consideration and should certainly be included in any tactical R/I Manual. The Germans started World War II with both Abwehr, Gestapo and regular police (Orpo) organizations for dealing with agents. A special "Radio Defense Corps" had to be created with several companies of signal corps specialists in D/F, interception, t/a, and cryptanalysis within the OKW (OKW/AgwNV/Fu III) to deal with agent traffic in Germany and occupied territory in France, Poland, Scandinavia etc. Even so in 1944 it was necessary to pull one entire signal intelligence regiment out of the German Army Signal Intelligence organization on the ~~western~~ eastern front (KONA 6) and assign it exclusively to Russian agent traffic because of the extremely large scale use of agents by the Russians. As Russia is the assured potential enemy for the purposes of this R/I manual the entire matter of agent traffic should be considered in the fullest detail. Monitoring of agent traffic gave the Germans tactical intelligence on Russian intent, future areas of major attack etc.

third  
 #16. Is the ~~second~~ sentence grammatical? And who is the assured enemy here. And isn't this entire manual confused on distinction between high level (strategic) communications intelligence operations and low level (operation or tactical) radio intelligence activities?

#17 More questions arise as to distinction between strategic and tactical and will not be mentioned further in these comments. Should it be Strategic, Operational, and Tactical with operational and tactical belonging to the field of the radio intelligence teams (for whom this manual is intended) and strategic and operational (yes, there is overlap—overlap and continuity are equally important for communications intelligence) intelligence which the "fixed stations and ASA itself are charged with?

#17-a Does the R/I company supply Army Group or does the Theatre ASA feed theater and Army Group and the R/I company work from division up through Army?

Doesnt this imply that the R/I Company is only concerned with ground force traffic? What about air-ground liaison nets, and the entire field of overlapping intelligence from army air and naval nets to say nothing of the Police (if the enemy is Russia?) I get the feeling these R/I teams are going to be working in a little vacuum all by themselves and not getting anywhere.

#17-a-1 Does the last sentence imply that ASA is assigning the mission for front line R/I companies?

#17-a-4 What is "further counterintelligence of our own radio communications?" Is it communications security, dummy traffic, fake traffic, etc?

#17-b Same remarks about Army Navy Air and Police as were raised for 17-a. The Germans said that monitoring Russian internal commercial nets gave their operational forces very little information although it was of value to strength estimates—and the Germans did not have a true strategic airforce. I question if it should be included in an operational level manual, however. Should there be T/Os and T/Es for each type of R/I outfit mentioned here and elsewhere? And wouldn't tables of T/O and E eliminate the need for a lot of this text?

It again seems unfortunate that all emphasis is placed on enemy ground force nets without indication of inter relationship between ground air and police and possibly naval and partisan or agent nets.

Further in re 18-b-1 you do not obtain and evaluate radio intelligence information solely by ~~finding~~ "intercepting and finding locations of enemy commercial and Army high echelon radio communications", such information is presumably available long before the R/I companies get into the field,

18-b-4. Aside from the hope that training would be completed before the R/I company gets to the field, shouldn't such training as this be listed as the responsibility of the commanding officer, particularly the liaison aspect, rather than as a part of the general mission of the entire company?

19. This sounds like badly written personnel management--the field R/I company will be A) a military unit and b) too busy for the excellent suggestions contained here. The very level (low echelon) of traffic and the nature of the work will force a close connection between the intercept operator and the T/A people anyway. I am still confused on the difference between intercept control, t/a and crypt in deciding what to cover etc. For example, both the TA section in para 19 b 3 and the operation control section in 19 are directing coverage? and crypt and G-2 requirements are not yet included. Again TA and operation and control are evaluating, assigning missions etc. In 19-b-2 we hear of data from "all possible sources" failing any other mention in this manual of captured documents, p/w interrogation investigation of enemy equipment etc is this where such collateral material is scanned? and who gets it for them, through what channels or do they hope an enemy tank crashes over an antenna and they loot the contents--if a plane crashed on their antenna they would presumably not be interested in the contents since they are only ground force. Nuts. 19-c 3 raises the linguistic problem, where will they get dictionaries, new vocabulary items etc? c-4 indicates crypt reports to TA for forwarding to G-2 and for evaluation--does this mean the TA team does the evaluation and the G-2 man accepts it or will the higher level G-2 not get the decode without comment for his own evaluation?

25. ASA interests again--in conflict with field G-2 requirements?

25.2 "The radio spectrum is scanned for traffic". What kind of traffic, r/t or w/t, what about anything else. Cf German definition of signal intelligence

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as "concerned with every manifestation in the radio spectrum".

And also, what about wire tapping at the front line level.

25.b.2 Is this sample message proper in a restricted manual?

26. The manual is forever talking about the ASA sub-section-- but the ASA-subsection is not described until Sec XI--shouldnt it be described at the first if it is the superior organization?

30-A Hurrah. Intercept non-merse.2

36. The ASA-sub-section. Only a general criticism here--but in general the duties and functions are very vague. Would a field commander from reading this know what the few individuals who turn up as his "ASA sub section" are supposed to be doing? The description in para 37 appears confused--is this ASA sub section to work at Army Group, Army, theater division or what level? What rank will the officers hold etc?

38. Functions of ASA sub-section are pretty general but what about collateral information to be passed to ASA and down to RI companies as PW interrogation, captured documents, enemy equipment and so on--shouldnt this all come through the ASA sub section?

39. Again we have G-2 and ASA desires being formulated. This is almost solely on the intelligence side--who will correlate crypto security and the needs and requirements of the signal officer at the same level?

Generally, the ASA sub section appears to be concerned solely with ground force requirements. Isnt the ASA sub section the place to look for coordinating Air and Police nets and exchanging information on naval if the RI companies are only going to be concerned with ground?

42. Claims for radio intelligence advanced here can raise plenty of eyebrows, particularly since RI has not been integrated with other sources of intelligence even for briefing purposes. I think there should be some discussion of the role of radio intelligence in relation

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other sources of intelligence-- if only to indicate that they are and indicate what mutual benefits will be derivable by each from an exchange of results. For example, from the LN Abt 353 papers there are illustrations of signal intelligence, by D/F, attempting to locate radar transmitters, to correlate with TA information on radio circuits concerned with ~~D/F~~ radar bearing sets in operation. Radar search results, measuring the impulses used, the tone or note of the transmitter concerned were coordinated with the signal intelligence results and photo reconnaissance material, which shows typical radar sites clearly, was also integrated. PW statements about new radar equipment (IFF in planes) were cited, and crashed air craft were examined for any equipment contained, the end product was presented in a single "signal intelligence" report on Russian "adar.

44 and following deals with movement of RI companies in attack etc. I should think that the ETO histories of RI Units would have interesting illustrative material. When "island hopping" is mentioned you wonder just which war time manual is being copied verbatim? Or will we island hop to Moscow? And here, too, in a combined operation with the navy there is no indication that any enemy naval circuits will be of any interest to signal intelligence.

46 and 47. The saddest paragraphs of the paper for what is unsaid. On liaison and cooperation compare the frequent and recurring remarks put in above.