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TO : DGGS

SUBJECT : AMF SIGNAL INTELLIGENCE SUPPORT OF 1ATF



INTRODUCTION

1. You will recall that approval was given in October 1966 for Major C.J. CATTANACH to accompany Mr. BOTTERILL, Assistant Director Defence Signals Division on a visit to SOUTH VIETNAM. The main purpose of this visit was to :

- a. Review the composition and functions of the AMF Direct Support Unit (DSU) with 1ATF;
- b. Consider ways and means of increasing the effectiveness of the DSU; and
- c. Improve cooperation with .

2. In addition to the above, arrangements were made with the British Ministry of Defence (Army) for Major CATTANACH to take a trial Airborne Direction Finding equipment (ARDF) which was being tested in FARELF, to SVN for further field trials in an AMF Cessna aircraft.

CONSIDERATIONS

3. The primary aim of the DSU when established in June 1966, was to provide a means by which Comd 1ATF could receive results of the U.S. Signal Intelligence effort. In addition, a small intercept and processing capability was inbuilt in order that the DSU could provide a direct service to Comd 1ATF on VC units and formations within the 1ATF TAOR.

4. This small independent capability has been so successful that both the Commanders AFV and 1ATF have stressed that this unit is providing the most, and in many cases the only reliable intelligence and that any means that can be found to increase this capability would be greatly appreciated and fully supported.

5. Discussions with the U.S. Sigint Authorities confirmed the value of this AMF DSU to the overall Sigint effort and they have agreed to provide an additional feedback of technical information to the AMF DSU in order to

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increase the effectiveness of the AMF effort. They also fully supported any increase in manpower that could be provided in order to further exploit various VC networks in military region 7 which as yet, are not firmly identified.

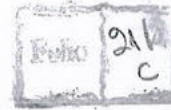
6. In relation to the day to day cooperation between U.S. authorities and the AMF DSU, many technical problems would be overcome if close personal contact were possible. Due to U.S. security regulations it is currently not possible to achieve this contact and further representations should be made in order to make this possible. In addition, a definite advantage can be foreseen if a Defence Signals/civilian expert was to be attached to the appropriate U.S. authorities in VIETNAM in order that the overall interests of the Australian Sigint authorities and the AMF unit in particular could be fostered.

7. Detailed investigation of the problem involved showed that the main source of intelligence now being produced by Sigint in SVN is by :-

- a. Intercepting and reading some low grade cipher traffic from low level VC communication networks; and
- b. Construction of enemy OOB information and locations by covering a large number of enemy networks.

8. The AMF DSU at present has the capacity to cover the known units and formations in the immediate area of influence of 1ATF, but has no capability to cover other currently unidentified VC networks known to be in the AMF area of interest. These networks could be of great importance and it may be possible through them, to find additional exploitable material which could lead to further intelligence concerning the disposition and future intentions of the enemy. Even if this was not possible, it would provide further information on the OOB of VC forces within the area of interest of 1ATF.

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9. Although the U.S. authorities have aircraft engaged on ARDF and it is expected that this number will increase during 1967 it is unlikely under the present system centralised priority control that the AMF DSU could rely on receiving US ARDF support to enable it to maintain continuity of location of VC HQ as and when required.

It is considered highly desirable therefore that the AMF DSU have an ARDF capability under its own control as soon as possible. This is strongly supported by Comd AFV and Comd 1 ATF.

10. The British ARDF system could not be fully installed in a Cessna aircraft during the visit to SVN due to approval to modify the aircraft not having been received from the RAAF authority in Australia. In addition the aircraft were due for a major service. A temporary installation was made however and both operators and pilots were instructed on the techniques involved. A full assessment of the effectiveness of this British system will not be possible until after a further 20-30 hours of test flying have been completed commencing when the installation has been fully fitted and major services completed in December 1966. It is possible that the British system might only be partially successful. For this reason it is intended to proceed with the Australian system being developed at WRE. Whatever system might be accepted it will be necessary for the DSU to have priority call on the use of a light ^{fixed} piper wing aircraft on a daily basis.

ADDITIONAL MANPOWER REQUIRED

11. In addition to the increased manpower required for intercept including exploitation of unidentified VC networks and for an independent ARDF capability further manpower is required:

- a. For the additional processing effort that will be necessary as a result of increased intercept.

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- b. To reduce the long hours of work of all personnel at present with the DSU (this averages about 90 hours per week) to ensure maintenance of optimum efficiency.
- c. To provide a small administrative and technical effort, which at present is being undertaken by _____ to the detriment of that unit's efficiency.
- d. To enable, as a result of US requests the conversion of the present Sigint communication channel to 24 hour operation.

The minimum proposed increase is 15 personnel made up as follows :

<u>Category</u>	<u>Present</u>	<u>Proposed</u>	<u>Remarks</u>
Command	1	1	
Processing	3	5	to incl 1 Int Offr who will in addition act as 21C
Operating - Intercept	8	14	Will permit manning of 4 X 18 hour posns as opposed to present 2 posns.
ARDF Control	1	1	-
ARDF Operating	-	2	To permit operation in AMF Cessna A/C
Sigint Comms	2	4	To allow 24 hour operation
Technical	-	2	To permit own receiver and cipher maintenance
Admin.	-	1	To act as Clerk/Storeman
	<u>15</u>	<u>30</u>	

12. The above manpower can be provided within the current establishment of 7 Sig Regt and no difficulties are foreseen in maintaining the increased numbers overseas. It is considered that these additional numbers ^{shown} be provided as soon as possible.

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RECOMMENDATIONS

13. It is recommended that you :

- (a) Note that efforts will be made to attach a DSD civilian expert to the appropriate U.S. Sigint authority in Vietnam and the case for closer personal contact between AMF DSU and the U.S. Sigint authorities will be pressed further.
- (b) Approve an increase of 15 personnel in the strength of the AMF DSU for 1 ATF to be effective forthwith.
- (c) Agree in principle that the AMF DSU have an independent ARDF system the equipment for which will be decided after an assessment has been made of the ^{relative} merits of British and Australian prototype equipment now under trial and development.

November 1966

Col. DMI