

From: Major P.D. MUDD

Do/11/66

103 Sig Sqn
AFPO 4
GPO SYDNEY
NSW

31 Oct 66

Lt Col K.J. TAYLOR
1 Sig Regt
MILPO
INGLEBURN
NSW

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Dear Colonel Taylor,

Operations

5 RAR spent most of the month over on the western edge of the TAOR. They began with an operation to clear the NUI THI VAI hills (2971 and surrounding area). This was followed by an operation to secure route 15 for the movement of a new US Brigade moving in through VUNG TAU and then up the highway. After this, the battalion went back into the NUI THI VAI hills again.

For the first operation (CANBERRA) battalion HQ began from the area of AP ONG TRINH, 268668 and moved up along the ridge line to the NE to finish up at 291669 while the companies searched the surrounding areas. For the road clearing (ROBIN), bn HQ was in the area of AP ONG TRINH and the companies distributed along the road. For the third operation, (QUEANBEYAN) bn HQ left the road in the area of 252716 and moved generally east to finish up on the spur line at 293716, while the companies again searched the surrounding areas. At all stages there was an artillery fire support base near AP ONG TRINH, protected by a company of 6 RAR.

Throughout these operations, some difficulties were experienced from time to time in maintaining communications while bn HQ was on the move in rough country, but as soon as they stopped and put up any type of a reasonable antenna we were able to communicate directly from the control station. Throughout the three operations we had a rebroadcast station deployed on the hills above VUNG TAU, for use when required, and during QUEANBEYAN we used aerial rebroadcast. This is described in more detail later.

The final operation for the month was a cordon and search of HOA LONG, 4264. The task force provided the cordon for the area and the search was carried out by a variety of VIETNAMESE authorities. It was apparently quite successful and a total of 125 draft dodgers, VC suspects and known VC were detained. During this operation we deployed a tac HQ for the first time. It proveded no communications problems as all we had to provide was a radio set with operators.

/RADIO

RADIO

Aerial rebroadcast. During operation QJUNBEYAN, while HQ 5 RAR was moving from its assembly area to its final location for the operation, it was necessary to use aerial rebroadcast to maintain satisfactory communications. This facility was maintained from 0300 hours until 2015 hours. The Cessnas doing this job were tasked to remain on station for three hours each and to change over on station to maintain continuity. Fortunately, in an earlier trial with one aerial and one ground rebroadcast station we had run into the problem of having two rebroadcast stations on the air simultaneously and being unable to switch the aerial one off until after the aircraft. In the intervening period 161 Recce Flt had made arrangements for the back of the back seat to be removed so that the operator could gain access to the sets in the boot of the aircraft and switch them off when the relieving aircraft took over. Each aircraft carried a pilot and a radio operator while carrying out the task. We found it necessary to develop a simple procedure for changing over from one rebroadcast aircraft to another but apart from this the system worked extremely well, with no equipment failures or other problems except perhaps for boredom for the pilots. I believe 161 Recce Flt are writing a report on this operation from their point of view and will try to obtain a copy and forward it in due course.

Remote operation AN/GRC - 106 and AN/PRC - 47

For ease of accessibility it was decided that the TG net should be operated from either in or adjacent to the Signal Centre. However due to the number of high powered HF sets already in the area this would possibly NOT have been successful from a communications point of view.

To overcome this problem, the operating position was established in the sigcen and the sets were placed in the Operators Bunker on NUI DAT (a distance of approximately 900 metres from the sigcen). Thus the operator was readily available for message handling and the set was in a secure place more suitable for communications.

To actually install the operators position and set presented no great problems. Spiral 4 cable was used to provide the remote lines and was run over two alternate routes of approximately 1000 and 1200 metres respectively for maximum security.

Certain minor modifications had to be made to the ancillary equipment of both the AN/GRC-106 and the AN/PRC - 47 to achieve the aim, but these were within the scope of the squadron's tech maint resources. A list of these modifications is contained in Annex A.

The greatest problem was supplying the AN/GRC-106 with sufficient power to enable it to be operated continuously. At the time of writing the power supply is still six 75 AH 12 Volt batteries banked in series/parallel being continually float charged by a charging set, 300 watt. This is not practical since the AN/GRC-106 draws 1045 watts at 27 ± 3 volts on CW transmission. Recommendations have been made to obtain a stabilized rectifier to provide power in the base area and 28 volt DC generators for field operational use.

This set up has now been operating continuously for a period of some 21 days and since the initial problems were overcome, has been providing good service. The remote operation of the AN/GRC-106 and AN/PRC-47 is a feasible and practical proposition.

Miscellaneous

You may be interested in the general layout of our camp, so I will attach a sketch. The general layout is firm, but there will continue to be minor changes as tentage is replaced by more permanent type buildings. Work is due to begin on the Sigcen building, a lysaght prefabricated galvanised iron hut, which will go on the opposite side of Mercury Place to the existing sigcen, within the next week or two. All the NORTH - SOUTH lines on the sketch are drainage ditches to carry off the monsoons.

*Best wishes,
John Mudd*

Annexes A. MODIFICATIONS FOR REMOTE OPERATION OF RADIO SETS
 AN/PRC - 47 AND AN/GRC - 106

Enclosures B. WIRING DIAGRAM
 1. Camp layout.

MODIFICATIONS FOR REMOTE OPERATION OF
RADIO SETS AN/PRC - 47 AND AN/GRC - 106

AN/PRC - 47

As per Sigs 8143 of 212345Z from ARMY CANBERRA.

AN/GRC - 106

1. Modify adaptor type U239/PRC47 as follows
 - a. Modify adaptor wiring.
 - (1) Remove wire from erminal C and connect to terminal F.
 - (2) Remove wire from terminal H and connect to terminal B.
 - (3) Parallel connections of terminals B and D.
 - (4) Other wiring remains unchanged.
 - b. Re-label four cable terminals on adaptor shaft as follows;
 - (1) Delete IN insert KEY
 - (2) Leave next terminal labelled GROUND
 - (3) Leave next terminal labelled GROUND.
 - (4) Delete OUT insert AUDIO
2. Two pairs D10 cable may now be connected to these four terminals to provide CW between KEY and GROUND terminals and AUDIO between AUDIO and GROUND terminals.

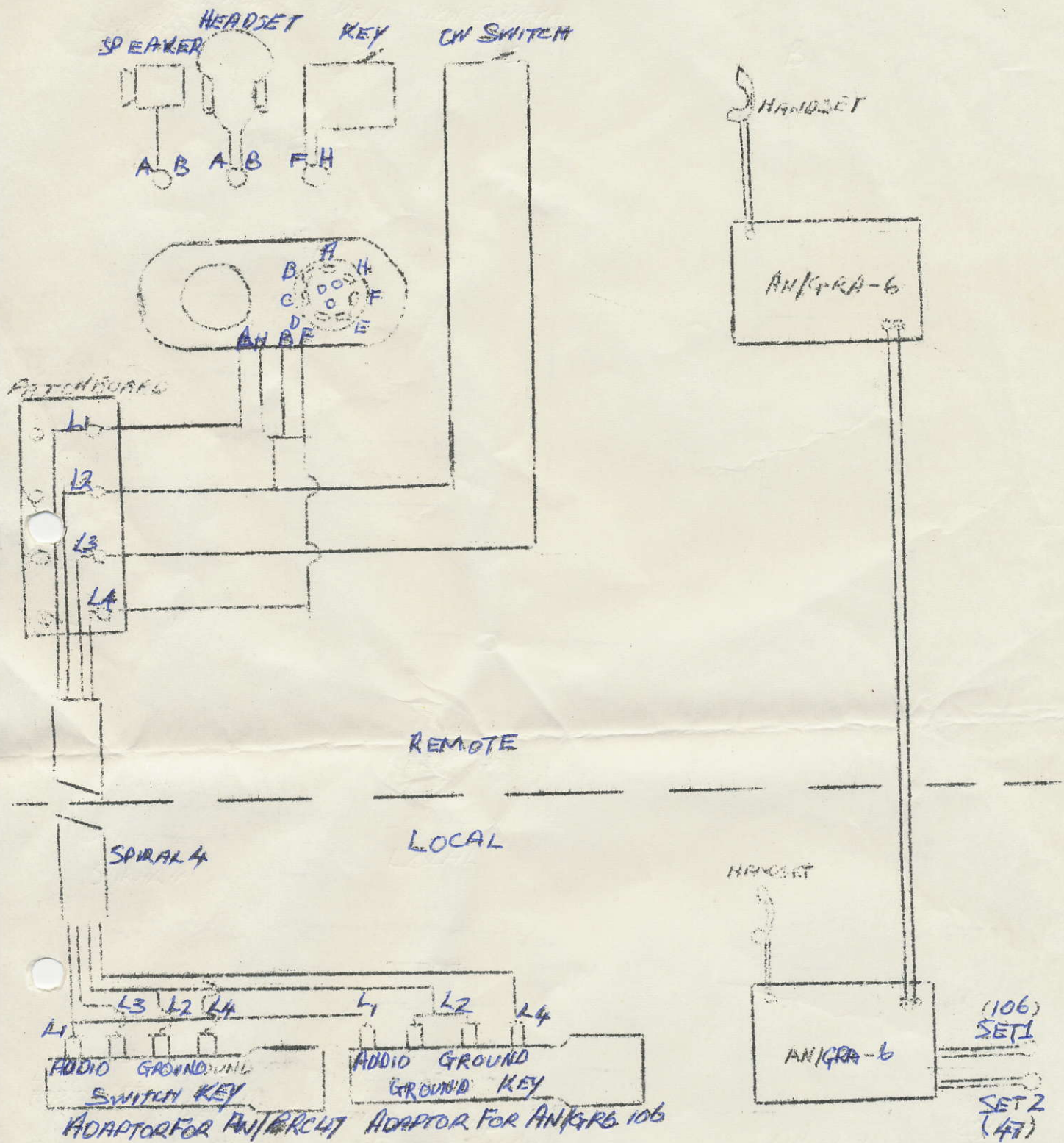
CAUTION

When the AN/PRC-47 is in operation the adaptor plug must be disconnected from the audio terminal of the AN/GRC - 106

NOTE

Voice facilities are also available over both sets by using an unmodified AN/GRA - 6 connected as per the wiring diagram attached as Annex B.

WIRING DIAGRAM



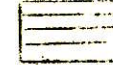
Annex 'A' to 103 Sig Sqn
Camp Standing Orders(SO No. 3)

KANGAROO HELIPAD



US
Dets

Sigcen
Sec



Areas of Responsibilities

1 APC Sqn

Track

US Dets

Radio Sec

Sigcen Sec

RECREATION

Toilet

Sqn HQ and RRU
Sleeping Lines

SqnHQ Sec

Radio Sec
Sleeping Lines

CANTEN

Showers &
Ablutions

(Tech Maint)

Parade Ground

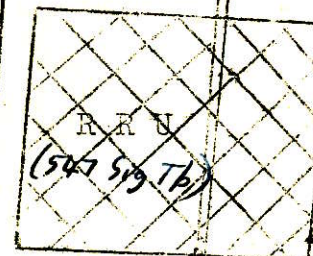
Toilet
Showers

Sigcen Sec
Sleeping Lines

R&F Mess
Sats Mess

Kitchen

Sports Area



Flag

Semaphore Drive

US Personnel
Sleeping Lines

Transport Compound

OC SSM

Ord Room

Generators

Tech Maint

2IC Tp
Offrs

Orrs/W6/Sgts

TRC
75

Swbd

Mercury Place

Sigcen

Morse
Trg

Q Store

Semaphore Drive

INGLEBURN AVENUE