

ANNEXURE K

SECRET

1ST AIRBORNE DIVISIONAL SIGNALS



SIGNAL
OPERATION
ORDERS

MARKET

17 SEP 1944 TO 26 SEP 1944

CONTENTS

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1 Airborne Div Signals OO No.1 - Op "MARKET"	

It has been necessary to include in this annexure Signal Instructions and a Signal operation order that were issued before op "MARKET"; 1 Airborne Div Signals OO No.1 - op "MARKET" was issued in conjunction with these instructions and orders.

SECRET.1. Security of Signal Documents(a) Documents carried by offrs

The amount of signal infm carried by offrs at all fmn and unit HQs will be cut down to an absolute minimum. The signal documents to be carried at all levels are shown in Appx A. All code sign extracts and sub-extracts, Slidex and Maplay Keys, wireless diagrams and frequency allotments will be written on incendiary paper and carried in destruction tubes.

(b) Wireless Detachments.

The detachment cmd of every wireless detachment will carry a signal diagram of every station at his HQ. This diagram will shew frequencies and one day's code signs only; it will not name units. It will be written on a pigeon message form and concealed in a hollowed out. 303 bullet. Special signal diagrams and details of preparing the bullet are shewn in Appx C.

2. Code Signs

The minimum number of code signs will be carried at each HQ. Units and fmns will prepare sub-extracts of code signs as shewn in Appx B, which gives a simple key for memorising the order of battle.

3. Slidex and Map Ref Codes

Slidex and Map Ref Code keys will be used on wireless links as under:-

All wireless links to higher fmn, flanking fmn, base and ASSU.)	Airborne Slidex and Maplay Keys.
All wireless groups within 1 Airborne Div, down to and including unit rear links.)	
All wireless groups within units)	Individual unit Slidex and Unicode Keys.

Army Keys will not be taken into use until issued by CC Div Sigs.

4. Change of Code Signs and Keys

All code signs, Slidex and map reference keys will change at midnight GMT and NOT midnight zone time.

5. Authentication

Slidex Authentication System will be used for authentication on all wireless links

6 Cipher

- (a) The ciphers used will be one time pads giving 100% security with no fear of compromise and Airborne D.T. cipher giving 48 hrs security. Detailed cipher layout is shown at Appendix D.
- (b) The Airborne D.T. sentence must not be written down but must be memorised.
- (c) All medium grade cipher documents will be called in prior to any move to airfield. They will be returned in security boxes to OC Div Sigs. Bde cipher sections will carry their equipment for the Airborne op in satchels signals. Cipher operators will carry their satchels on their person at all times after security boxes have been withdrawn.

Compromise

In the event of compromise of code signs, slidex keys or map ref keys due to capture or insecurity on the air, OC Div Sigs will be informed by IMMEDIATE message of the time and details of the compromise. OC Div Sigs will issue fresh code signs or keys as soon as possible after the compromise. During the early stages very little action can be taken immediately, but it is vital that a compromise is reported immediately it occurs.

8. Distribution of Code Signs and Keys

1 Airborne Div Code Signs will be issued to fmns and units in the form of sub-extracts as shown in Appx B. OsC units are responsible for re-producing these sub-extracts for the necessary number of days, as shown in Appx A, on incendiary paper. Airborne Slidex and Maplay Keys (which have been distributed by 21 Army Group to all other fmns concerned for period D-1 to D+10, will be issued in a similar manner and OsC units are again responsible for reproducing these for the correct number of days on incendiary paper.

Where units are restricted to three days code signs and keys, OC Div Sigs will arrange for further code signs and keys to be issued after landing.

9. IN NO CIRCUMSTANCES WILL ANYTHING BE COMMITTED TO PAPER THAT CAN SAFELY BE REMEMBERED.

APO
England,
30 May 44
/GCA

Lt Col, R Signals.
Comd,
1 Airborne Divisional Signals.

Distribution List B (less serials 23, 24, 25, 26, 27)
CSO, Airborne Troops (two copies)

GENERAL.

1. This instruction deals with the mounting of an airborne op. Before moves to airfields everything possible must be done, so that subsequently when details of the plan are known, only final adjustments are required.
2. With this object in view, therefore, this instruction gives details of wireless nets, frequencies etc, so that an op can be mounted at say, six hrs notice is required.

The possible ops here catered for are -

- (a) A para bde without glider element.
- (b) A div with normal aircraft allotment.

either op to take place in sp of British or U.S.fms.

WIRELESS LAYOUT.

3. Appx A shows Div nets. Appx B shows RA nets.
4. Appx C shows arrangements for a para bde used alone and without glider element.
5. Appx A.

If time does not permit details of rear links to higher fms being arranged before take off, higher fms will first set comms with the Airborne Div by opening a LO set on the div A wave. If circumstances permit a sig rep will also meet OC Sigs as soon after landing as possible.

6. Appx B.

Bde FOO No.22 sets will be netted on FOO control frequency and flicks either on regt net of allotted regt OR on a special frequency giving a one to one link to the allotment regt. On first landing FOOs will open direct to the allotted regt. At Div HQ CRA's FOO set will open on the FOO control net. When satisfactory comms are est orders will then be given to Bde FOOs to flick to this net. Finally CRA will take control of the net.

7. Appx C.

In the vent of a Para Bde being used alone, it will probably be impossible to prearrange links to any ground fm. A sig rep will however meet OC Para Bde Sigs as soon after landing as possible if circumstances permit. In any event, the ground fms will open a LO set on the Bde Comd net and also a set on the Bde lateral frequency. Para Bde will make frequent calls on latter frequency. Further details can then be arranged. Crystals will be distributed if possible before move to airfields.

3. Frequencies.

Frequency lists A,B,C, and D have been circulated. Crystals will be distributed, by air if necessary, before take off. As soon as air movement table has been issued, OC Div Sigs must be informed by Bde etc of fms to which airfields crystals must be issued, and where sets are distributed requiring details of frequency list to be used.

to sheet 2.....

9. Call Signs.

- (a) Row Registers of this div are held at HQ all Corps and Divs in 21 Army Gp.
- (b) An airborne fmnn working on a link to a non-airborne fmnn will always be the subordinate station on the link.

10. Keys for Slidex and Maplay.

- a Keys have been issued from D - 1 to D + 10, D day being the day of the Airborne op. They have been circulated to all British and US Corps and Divs.
- (b) These keys will be used on all nets on which an Airborne Div set is working, (incl arty and air sp) and until liaison is est with the ground fmnn. Thereafter the normal system of keys, as if the airborne fmnn was a normal ground fmnn, will be brought into use. This means that the Airborne keys will be used for the fly-in and until such time as they are superseded by other keys on orders from the cooperating ground fmnn.

11. Compromise.

If keys et. fall into enemy hands, compromise must be accepted as new keys cannot be distributed with certainty before liaison with ground fmnn is est. Any compromise will be reported without delay to OC Sigs.

CIPHER.

12. See Sig Instruction No.1. If the op is in the American sector arrangements will be

- (a) Para Bde - Slidex only until US cipher operators can join Bde on ground.
- (b) Airborne Div - Three US cipher operators will accompany Div from UK carrying American ciphers.

ACK

APO England
30 May 44.
TS/AD

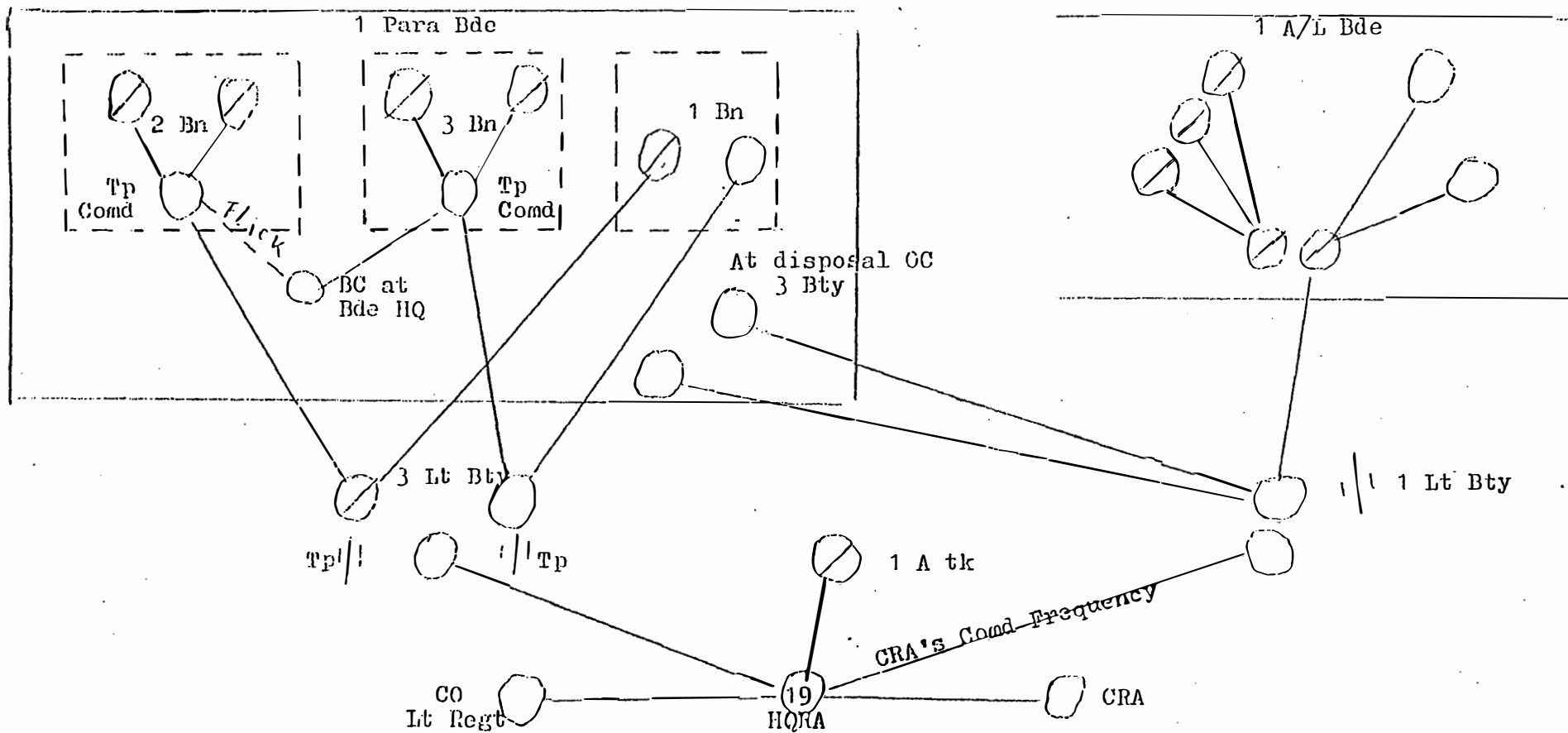
(Signed) T.G.V. Stephenson.
Lt Col R Signals
Officer Commanding
1 Airborne Divisional Signals

DISTRIBUTION.

List 'A' (less serials 6,7,13,14,20,21,22,23,24,25,26)
CSO Airborne Tps 2 copies, S.O.in C 21, Army Gp 6 copies.

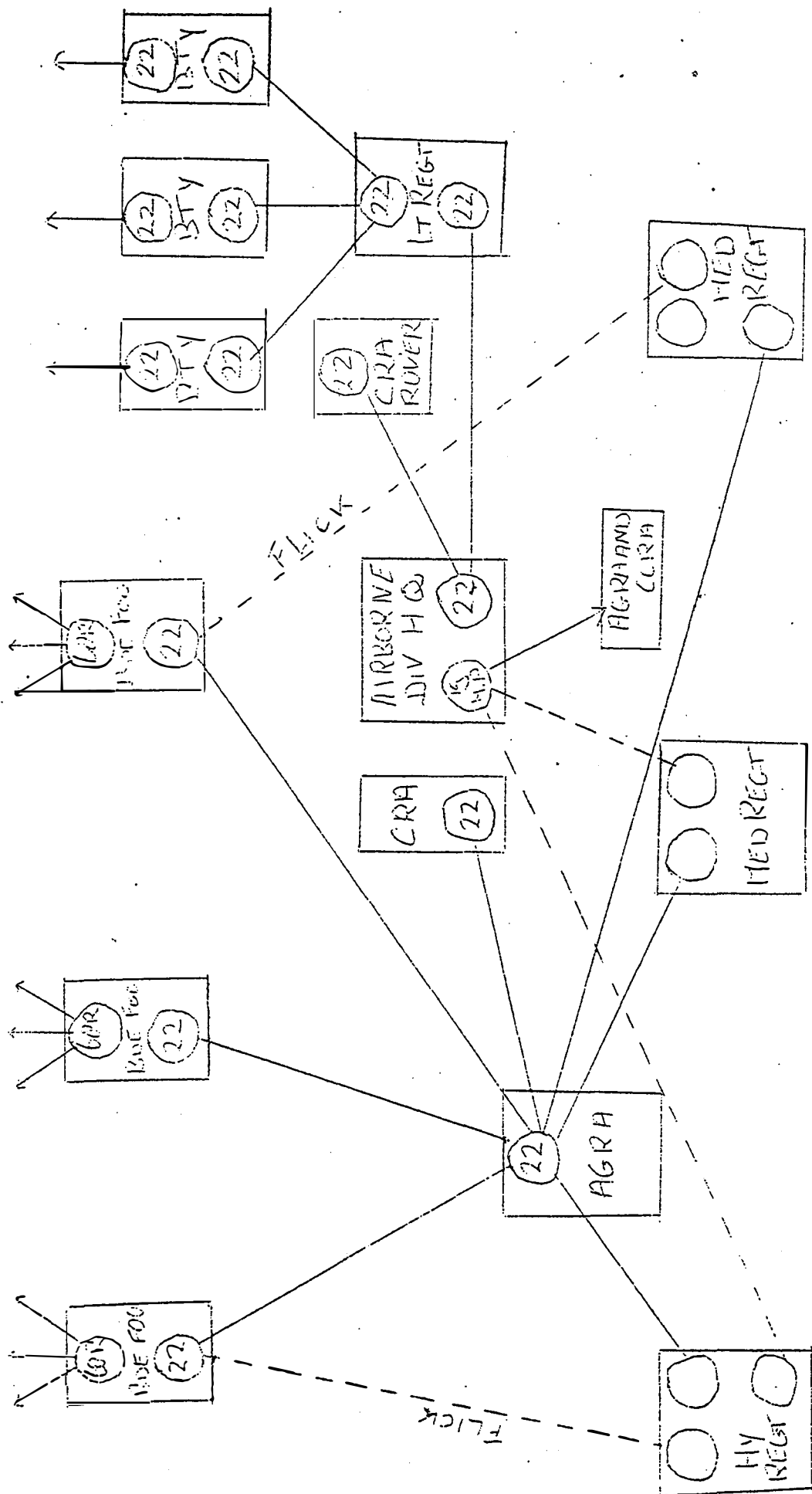
WIRELESS DIAGRAM 1st LIFT.

APPX 'A'

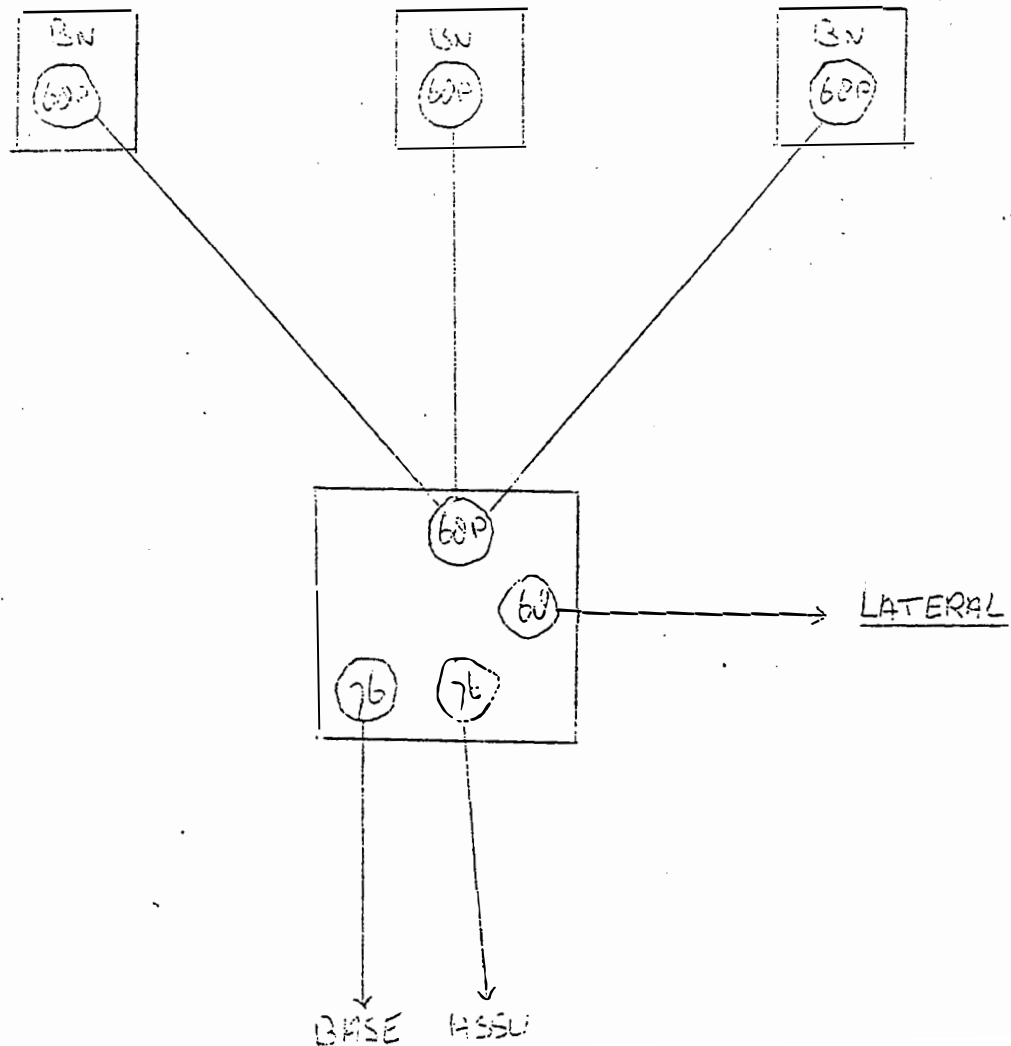


RA COMMS

APPENDIX 'B'



PARA BDE COMMS



FREQUENCIES. NORMAL, ACCORDING TO FREQUENCY LIST
ORDERED EXCEPT FOR LATERAL

LATERAL FREQUENCY WILL BE AS FOLLOWS

BRIT. SECTOR: 2602 KCS (600)

U.S. SECTOR: 4050 KCS (600)

PART I - COMMS1. GENERAL.

This instruction deals with final details for an airborne op and also with the plan for Pigeons.

2. PARA REPORT CENTRE.

(a) In accordance with the usual practice this will be est by the Div HQ para party as soon as possible after landing, and will remain open until the glider element arrives. The Div A wave frequency will be used. Layout at Appx A.

(b) On landing, the No.22 sets in the glider element are allotted the following call signs.

A Wave set	Tac HQ call sign
A Wave spare set	" " " " plus suffix 1.

When glider element takes over control, the Para Report Centre will, while still open use Tac HQ call sign.

3. BASE LINK.

While establishing comms, Airborne Div sets will call at the hr and half hr for 5 mins. Base set will be expected to call at 15 and 45 mins past the hr.

4. PRIORITY OF OPENING OF SETS AT DIV HQ.

In the event of casualties to sets and crews, and there being insufficient to op all links, the following will NOT op in the order of priority given

<u>No.22 Set</u>	<u>No.76 Set.</u>
Recce Sqn Rear Link.	ASSU)
Corps CW	B Wave) Equal
Corps RT	

5. FREQUENCIES.

The order as to which frequency list is to be used will be given at Div and Bde O Gps. Crystals will be distributed at the same time. Details of RA comms will, if known, be given when FOO's are briefed.

6. TIME SIGNALS.

The BBC is arranging to broadcast time signals, A list of stations broadcasting time signals is at Appx B. The signal will be the usual six "pips", the last of which gives the exact hr.

7. OFFICE CALL SIGNS.

These will be as follows:-

Airborne Tp	(Main)	HQAB
" " "	(Base)	HQABR
Airborne Div		PY
Para Bde		PZ
A L Bde		GZ

The following call signs will continue to be used

HQ 1 Airborne Div (static)	FK
HQ 6 Airborne Div (static)	NVN

to sheet 2.....

8. ASSU

In certain cases ASSU net may be used for comm to Base. Details have been circulated direct to Bde HQ (HQ Air Tps/5808/X/TS dated 29 May 44 refers). Frequency and crystals for ASSU net will be given at O Gp.

9. 21 IND PARA COY.

Crystals are being provided to enable 21 Ind Para Coy to work direct to Base should this become necessary. This should, however, be in an emergency only. On landing Ind Para Coy will open a set on frequency used on link Div - Recce Sqn. This set will be found from their own resources. In the event of this link not working (see para 4) instructions must be obtained from Div HQ.

PART II
PIGEONS.

10. GENERAL.

It is hoped that up to 100 pigeons can be made available. These will home to lofts situated somewhere in the SOUTH where the messages will be retransmitted to HQ Airborne Troops. Since messages should only be sent by pigeon in cases of emergency, they should be franked with the priority IMMEDIATE or above as the case may be. The address will be in clear and will be "HQ Airborne Troops (Main)"; no other form of address will be used.

11. SCALE OF PIGEONS.

Containers will, if available, be distributed as follows :-

Div HQ	6 (2 bird containers)
Para Bde HQ	3 (1 bird cylinders)
A L Bde HQ	4 (2 bird containers)
Para Bn HQ	4 (1 bird cylinders)
A L Bn HQ	2 (2 bird containers)
Lt Regt	2 (2 bird containers)
21 Ind Para Coy	6 (1 bird cylinders)
Total	<u>82</u> pigeons.

12. USE.

Message should be in Slidex Code as if being sent by RT. The div Pigeon Offr has recently given lectures to units etc on care and handling of pigeons. It is stressed that pigeons are unlikely to home if kept longer than seven days after landing. Unused pigeons should therefore be released 7 days after landing.

ACK

(Sgd) T.G.V. Stephenson.

APO England.

Lt Col R Signals
Officer Commanding

TS/AD

1 Airborne Divisional Signals.

DISTRIBUTION.

List 'A' (less serials 6,7,13,14,20,21,22,23,24,25,26)
S.O. -in-C 21 Army Gp 6 copies.
CSO Airborne Tps 2 copies.

Comms For Para Report Centre.

SECRET.

Index B

Appx 'A'

1 Para Bde

4 Para Bde

1 A L Bde

(68P)

(68P)

(22)(if landed)

(68P)

(68P) spare

Para Report
Centre.

APPENDIX 'A'

Index B

HQ	Documents Carried	By Whom Carried	Remarks
Div	Complete Code Signs of) Airborne Div.) Airborne Slidex Keys.) Airborne Maplay Keys.) Airborne Div wireless) diagrams.) Airborne Div frequency) allotment.) Code sign sub-extract) of higher fm and) flanking fms)	OC Div Sigs) OC A Sec) OC O Sec)	In destruction tubes. All infm for period of seven days.
HQ RA	Complete code signs of) Airborne Div.) Code sign sub extract of) higher fm RA.) Sub extract of higher fm) and flanking fm code) signs.) Airborne Slidex Keys) Airborne Maplay Keys) Div RA and HFRA) Wireless Diagrams)	CRA Sig Offr) BMRA)	In destruction tubes. All infm for period of seven days.
Ind Para Coy	Code signs of units on D.Zs.	P Sec offr OC Ind Para Coy	For two days only, in destruction tubes. Depending upon op.
Bde HQ	As for Div HQ	2 Bde Dig Offrs	In destruction tubes. If one sig offr goes in glider party then one more copy must go in para party.
Bde FOO	Sub extract of higher fm RA code signs Slidex Keys Maplay Keys	FOOs	In destruction tubes for three days only
Bns	Sub extract of Div Code Signs (Bde Group only)	Adj Bn RSO	For three days only. In destruct tubes.

APPENDIX 'A' (Contd)Index B

HQ	Documents Carried	By Whom Carried	Remarks
Recce Sqn	Div extract of code signs. Limited sub extract of higher fm and flanking divs code signs Slidex and Maplay	OC Recce Sqn and one other offr	For three days only in destruction tubes.
Light Regt	Extracts of Div Code Signs Slidex and Maplay	R Signals offr Adjut	For three days only
RE Sqns and Coys	Bde Group code sign extract plus code signs for RE report wave. Slidex and Maplay	2 offr	For three days only
Fd Amb and A/Tk Btys	Bde Group code sign extract. Slidex and Maplay	2 offr	For three days only.

Schedule of Time Signals obtainable on BBC Broadcasts.

SECRET.

All times are BAKER time (B)

All frequencies are Mc/s unless otherwise stated.

Index B

Appx 'B'

0100	GRW	6.15	GRJ	7.32	GSD	11.75						
0500	GRW	6.15	GRJ	7.32	GSB	9.51						
0700	GRW	6.15	GSW	7.23	GRJ	7.32	GRU	9.455	GSB	9.51	GSD	11.75
0800	GRM	7.12	GSW	7.23	GSU	7.26	GRJ	7.32	GRU	9.455	GSB	9.51
	GHO	9.625	GVZ	9.64	GRH	9.825	GRG	11.68	GSD	11.75	GVU	11.78
	GMC	15.07	GSF	15.14	GSF	15.31	GHD	15.42				
0900	GRM	7.12	GSW	7.23	GSU	7.26	GSB	9.51	GHO	9.625		
	GUZ	9.64	GRH	9.825	GRG	11.68	GSB	11.75	GVU	11.78		
	GRV	1.204	GMC	15.07	GSF	15.14	ESP	15.31	GHD	15.42	GRD	15.45
1000	GRM	7.12	GVZ	9.64	GRH	9.825	GSN	11.82	GRV	12.04		
	GHD	15.42	GVQ	7.73								
1300	GSD	11.75	GVU	11.78	GMC	15.07	GSF	15.14	GRP	17.87	GSH	21.47
1400	GSB	9.51	GSD	11.75	GSE	11.86	GSF	15.14	GMC	15.07	GHE	15.435
	GRP	17.87	GSH	21.47								
1500	GSB	9.51	GSD	11.75	GSE	11.86	GMC	15.07	GSF	15.14	GRP	17.87
	GSH	21.47										
1600	GSB	9.51	GRG	11.68	GSD	11.75	GSE	11.86	GMC	15.07	GSF	15.14
	GHE	15.435	GRP	17.87	GSH	21.47						
1700	GSB	9.51	GRG	11.68	GSD	11.75	GVU	11.78	GSE	11.86	GMC	15.07
	GSF	15.14	GRV	12.04	GRP	17.87	GSH	21.47				
1800	GRV	9.455	GRG	11.68	GVU	11.7	GSD	11.75	GVU	11.78	GSE	11.86
	GSF	15.14	GS I	15.26	GHD	15.42	GRD	15.45	GUQ	17.73	GSV	17.81
1900	GRS	7.065	GRU	9.455	GSB	9.51	GRG	11.68	GSD	11.75	GSE	11.86
	GSF	15.14	GHE	15.435	GRD	15.45						
2000	GRS	7.065	GSB	9.51	GSN	11.82	GVU	11.7	GSD	11.75	GSE	11.86
	GHS	15.07	GSF	15.14	GS I	15.26	GHE	15.435	GHD	15.45	GSV	17.81
2200	GRS	7.065	GRV	9.455	GSB	9.51	GRY	9.6	GRH	9.825	GVU	11.7
	GSD	11.75	GSF	11.86	GMC	15.07	GS I	15.26	GHE	15.435		
2400	GRS	7.065	GSD	11.75								

P.T.O.

The General Forces Programme is radiated on 877 Kc/s and 1013 Kc/s

Time Signals are radiated at -

0700	0800	0900	1300	1400	1500	
1600	1700	1800	1900	2000	2200	daily

(All times BAKER time)

In addition Greenwich Time Signals are available every hr, on the hr, 24 hrs per day, 7 days per week on 6195 kc/s.

APPENDIX 'B'

Index B

OsC units will ensure that code signs for the correct number of days are written on incendiary paper and carried as laid down in appendix A. -
A simple method of concealing the order of battle is as follows:-
The examples taken are the code signs carried by a bn for three days

HQ 11 Para Bde	AAZ	TVL	XND	LOQ
HQ 14 Para Bde	QAD	IZB	LFO	FJM
HQ 21 Air Landing Bde	BAN	NQV	NNY	AJT
101 Para Bn	JAP	OLP	LPT	LFN
102 Para Bn	PJB	NMQ	NXL	NMP
103 Para Bn	JNC	TOL	FFQ	XUF
232 Fd Amb	BIB	ANJ	END	ONT
204 Para Sqn, RE	BJD	QFU	XXT	DFR
61 A/Tk Bty	FAN	LPT	ZNP	NFB

The only information written is four rows of code signs, the order of battle is NOT written down. The first row of code signs is only a key to the order of battle using the following:-

A B C D E F G H I J
1 2 3 4 5 6 7 8 9 0

In writing down the appropriate figures for the letters shewn in column one the number of the appropriate fm is given. This AAZ equals 11, standing for 11 Para Bde. If the offr is fairly familiar with the order of battle this should be sufficient to establish the identity of the code sign.

CODE-SIGN SUB-EXTRACTS

1. Corps Sub-Extract

- (a) A Army HQ
B Corps HQ
" Corps R Lk RT
" " " CH
C Recce Regt
" " " (R Lk)
- (b) D Div
" " R Lk RT
" " " CH
" " Lateral
E Recce Regt
" " " (R Lk)
F Bde
" " R Lk RT
" " " CH
" " Lateral
(Similarly other Bdes in Div)
- (c) (Similarly other Divs in Corps)

APPENDIX 'B' (Cont'd)CODE-SIGN SUB-EXTRACTS (Cont'd)2. Corps RA Sub-Extract

- (a) CCRA B Corps
- (b) AGRA
" R Lk
- (c) CRA D Div
" " R Lk
- (d) (Similarly other Divs)
- (e) W Regt RA
" " " (R Lk)
X Bty
Y Bty
Z Bty
- (f) Similarly other Corps RA Regts.

3. Bde Group Sub-extract

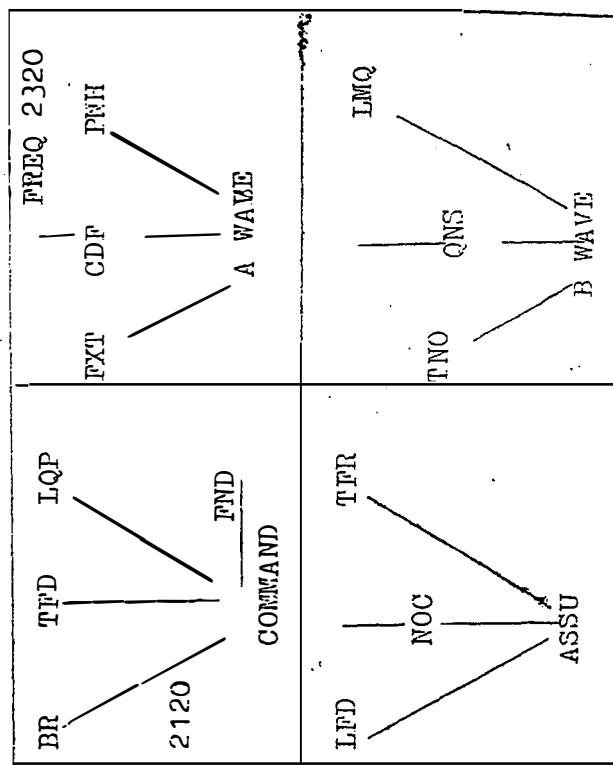
- (a) Div HQ
- (b) HQs of other 2 bdes
- (c) Bde Main HQ
Bde Comds Rover
Bde Rear (Base) HQ
Bde SDZ
Ei
Bn
En
Fd Amb
Sqn RE
A Tk Bty
- (d) Lt Regt HQ
Lt Bty
Lt Bty
Lt Bty

APPENDIX 'C'Index B

The following is a specimen signal diagram carried by an operator at Bde HQ. He may have to work on any one of four nets and all these are shown.

Note

Slidex and Maplay keys for one day will be written on reverse.

Method of Concealing Signal Diagram

Remove the bullet from a round of .303 and drill out the lead from inside the metal case. The signal diagram is then written on pigeon message pad as shown above and rolled up and inserted in the hollow metal case. The bullet case is then replaced in the cartridge case and slightly crimped into place. In case of emergency the operator can then dispose of his signal diagram by firing the cartridge in his rifle.

APPENDIX D

Index B.

The cipher layout is complicated by (a) the fact that any cipher used must not be liable to compromise other ciphers by its loss, capture, and (b) the fact that, due to our opportunity role, distribution of ciphers must be effected before the commencement of the operation to all fmns with whom we might communicate,

These difficulties have been overcome as follows:-

1. No normal ciphers will be carried by air.
2. This division's Airborne Double Transposition Cipher, which is held down to bn level within the division has been distributed to all fmns down to bde level in Second Army and First Cdn Army for use when this div or any of its fmns comes into action. Thus we have wide lateral communications.
3. One Time Cipher six-way links are being issued to all corps in Second Army and First Canadian Army of which four legs will be held by the corps and the other two legs sent to HQ Airborne Troops and to this div. In the event of this div coming into action the corps concerned will issue three of the legs held to their divs (or as necessary) and this div will take with it into action the link appropriate to the corps under whom they are to come.
4. Further One Time Cipher links will be (a) the three way link between HQ Airborne Troops, this div and Base Supply Airfield, and (b) the One to One links between bdes and main div, bdes and Airborne tps, and main div and base div, (the last re-transmitted via Airborne Tps).
5. In the event of a bde going in alone it would have to be provided with a portion of the six-way link (see para 3) and a portion of the three-way link (see para 4(b)).
6. In order that all One Time Pad holders may know what portion of a pad is safe, as for safety all pads will be carried in triplicate, the first duty of (a) a bde cipher operator will be to send to main div a slidex message priority Immediate stating that he has arrived, and a cipher message to all other corresponding holders of One Time cipher, and (b) at main div similarly a slidex message will be sent to bdes and a cipher message to all other corresponding holders of One Time cipher. Until these messages are received no cipher messages can be sent to main div or bdes.

1 Airborne Div. Sigs.
OO No.1.

Index B

Ref maps :- FRANCE 1/100,000 Sheet 7. 1/250,000 Sheet 2
 1/ 50,000 Sheets 64, 65, 53, 54.

INFM

1. With the object of preventing the GERMAN retreat in Northern FRANCE an airborne force is being dropped in the area TOURNAI - RENAIX. This force consists of

HQ Br Airborne Corps
 82 US Airborne Div
 101 US Airborne Div
 1 Br Airborne Div
 52 (L) Div

and will be under comd 21 A. Gp.

2. 1 Airborne Div, with under comd Polish Para Bde, has been ordered to drop and secure firm base in area RENAIX - ESCANAFFLES - BERCHAM.

INTENTION

3. Div Sigs will provide comms for op.

METHOD

4. Lifts
 There will be three lifts.

First Lift.

Para Aircraft :-	Div report centre	2)	BARKSTON HEATH
	Div Sigs	1)	
Glider :-	A B C and G		FAIRFORD

Second Lift.

Para Aircraft :-	Div Sigs	2	SALTBY
Glider :-	D E F H and S		FAIRFORD
	4 Wacos for US Air sp parties		HARNELL

Third Lift.

Polish Para Bde	COTTESMORE
-----------------	------------

5. Wireless

- (a) On the para report centre landing, comms will be as at Appx A. Usual procedure will be employed on the glider element landing.
- (b) When the first lift is complete comms will be established as at Appx B.
- (c) Comms after second lift is complete will be as at Appx C except for Polish Para Bde who do not arrive until the third lift.

6. Line
Line will be laid as soon as possible after landing. No existing civil or captured enemy installations will be used without sanction of OC Sigs. The minimum destruction will be done to existing comms to prevent their use by the enemy, and always in the presence of an offer of R Sigs.
7. RA Comms
As ordered by CRA. Two frequencies are allotted. The FOO control of arty of ground fmns will NOT be used. Skeleton layout only is shown at Appx D.
8. Frequencies.
As at Appx E.
9. Pigeons
As laid down in Div Sigs Op Instruction No.3.
10. Guard Set Procedure.
A guard frequency is being provided and this will be the same for all airborne divs. It will be used to establish lateral comms between flanking fmns and will open on orders of OC Sigs. Link signs shown on the div code sign extract will be used. Airborne fmns will always act as junior station on the net.
11. Air sp
Two US Air Sp Parties are allotted and will be located at Div HQ under the control of CRA. All demands will be submitted to Div.
12. Codes - General.
 - (a) All code signs and keys will be changed at 0200B hrs.
 - (b) All fmns, other than Airborne, are using interservice and joint codes and ciphers, and combined codes and ciphers.
 - (c) Distribution will be normal.
13. Authentication.
CCEP O 122 A7 will be used in rear of div and on all laterals. Within this fmns the normal Slidex system will hold.
14. Security
Extracts of code signs of ground fmns will not be taken. The safe keeping of all code sign lists is again emphasised.
15. Compromise
Any compromise of code signs or keys will be reported immediately to OC Sigs.
16. Cipher
 - (a) Only normal Airborne ciphers will be taken.

- (b) Normal Br Airborne ciphers will be used on Polish links. Index B
- (c) M209 giving 24 hrs security will be used on Air Sp link and Div lateral. OTP is also available on the latter.
- (d) Messages may only be sent in Polish below Polish Para Bde HQ.

17. Comms with ground tps

Ground fmns may call on div guard wave. M209 will be available to US fmns and OTP to Br fmns down to div level. The only way to identify the ground fmns will be by cipher message since code signs of the latter are not held by 1 Airborne Div.

18. Locations

Div HQ)	
1 A L Bde HQ)	will be issued later
1 Para Bde HQ)	
4 Para Bde HQ)	

ADM

19. 1st line reinforcements will NOT be taken.
20. 24 hr rations required to be distributed about the man will not be opened until the evening of D-1.

ACK

(Signed) T.G.V. Stephenson

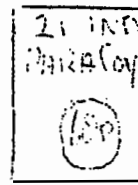
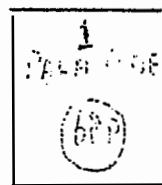
APO England
30 Aug 44
TS/AD.

Lt.Col. R Signals
Officer Commanding
1 Airborne Divisional Signals.

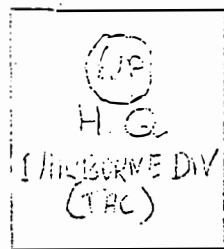
DISTRIBUTION

1 Para Bde	copy 1 - 2	52 (L) Div Sigs	Copy 20
4 Para Bde	3 - 4	OC 1 Coy	21
1 A L Bde	5 - 6	2 Coy	22
Recce Sqn	7	A Sec	23
21 Ind Para Coy	8	O Sec	24
CRA	9	E Sec	25
CRE	10	F Sec	26
Polish Ind Para Bde	11 - 12	C Sec	27
Comd	13	J Sec	28
G	14	K Sec	29
A/Q	15	L Sec	30
CRASC	16	War Diary	31 - 32
CSO Airborne Tps	17	File	33
82 (US) Airborne		Spares	34 - 36
Div Sigs	18		
101 " " "	19		

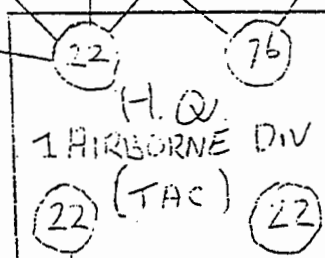
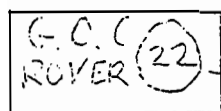
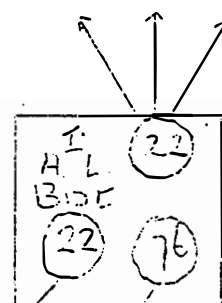
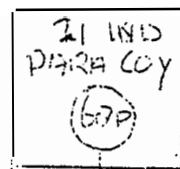
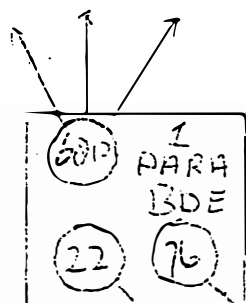
APPENDIX 'A'



f1



APPENDIX 'B'



f11

f10

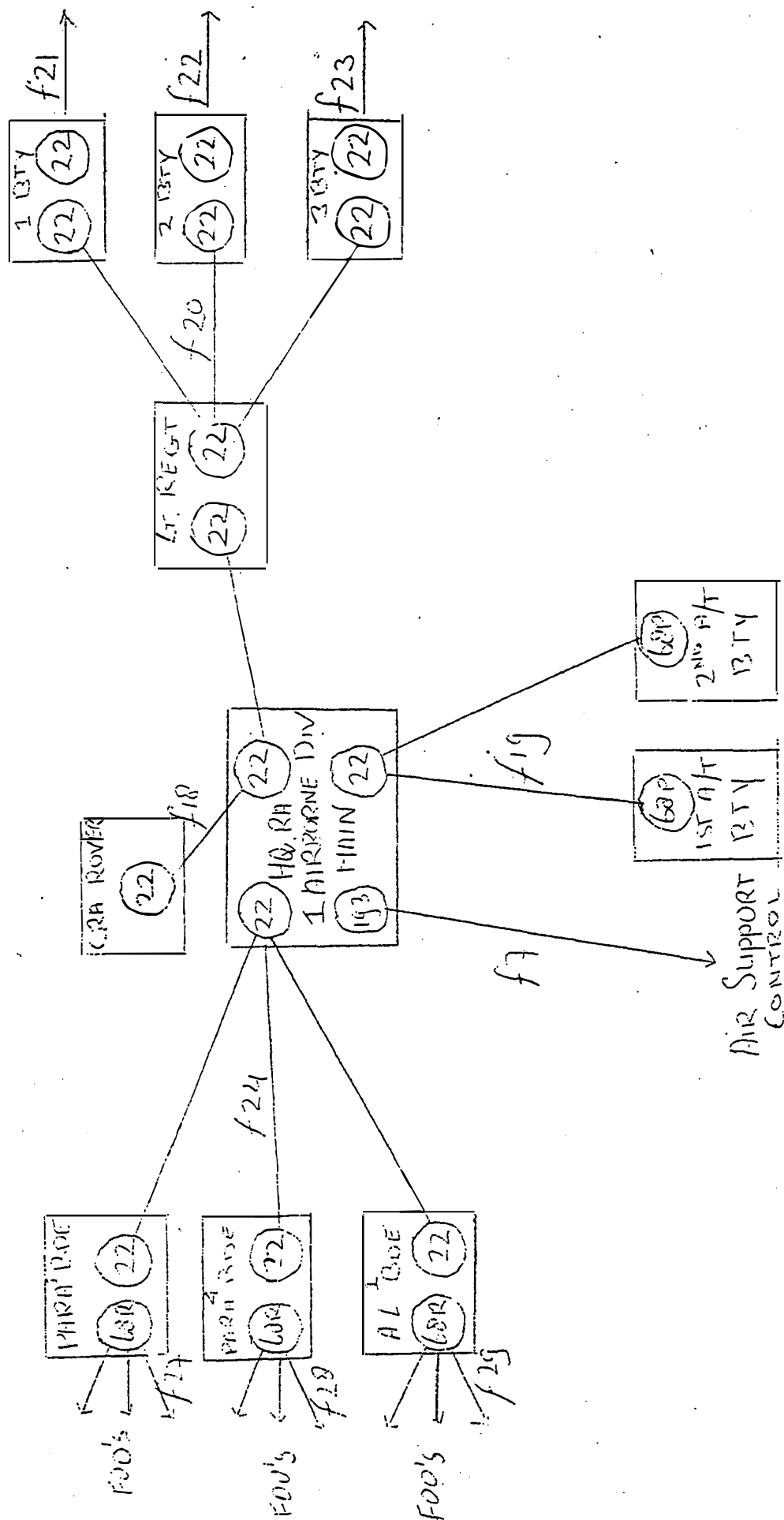


AIRBORNE CORPS

101 (106) AIRBORNE DIV

82 (106) AIRBORNE DIV

APPENDIX 'D'



Net	Wave	Serial No.	Freq.	Remarks.
f 1	Div A	P1	2096	Crystal Control.
f 2	Div B	P2	2504	
f 3	1 Para Bde Comd	P3	2216	
f 4	4 Para Bde Comd	P4	2296	
f 5	1 A L Bde Comd	P5	2384	
f 6	1 Polish Para Bde Comd	P6	2616	
f 7	Air Sp		2968 3968	Channel A Channel B
f 8	Div Guard	C14	4050	
f 9	Div Lateral	C13	1896	
f 10	Airborne Corps RT	C1	2852	
f 11	Airborne Corps CW	C2	3564	
f 12	Polish Bde CW rear link	P7	2804	
f 13	Recce Sqn Comd	P8	3912	
f 14	Recce Sqn A Tp Comd	P9	4625	
f 15	" " B " "	P10	5933	
f 16	" " C " "	P11	6345	
f 17	RE Report	P12	4128	
f 18	CRA Comd	P13	3396	
f 19	A Tk Comd	P14	2236	
f 20	Lt Regt Comd	P15	4947	
f 21	1 Bty Comd	P16	4205	
f 22	2 Bty Comd	P17	4310	
f 23	3 Bty Comd	P18	4530	
f 24	FOO Control	P19	3832	
f 27	1 Para Bde FOO	P22	4000	100 Kc/s bands 68R only
f 28	4 Para Bde FOO	P23	3700	
f 29	1 A L Bde FOO	P24	3400	
f 30	RASC	P25	5280	
f 31	21 Ind Para Coy 1	P26	5900	No.46 set only.
f 32	21 Ind Para Coy 2	P27	5500	
f 33	No.46 set Common	P28	5690	

to sheet 2.....

Net	Wave	Serial no.	Freq.	Remarks.
	Spares	P30	2064	
		P31	2604	
		P32	3404	
		P33	4930	
		P34	5055	
		P35	5207.5	

1 Airborne Div Sigs Op List No.1.

Date 11 Sep 44

1. General

Sig arrangements are almost exactly as for Op 'LINNET'. The Sigs OO No.1 issued for that op will therefore hold except where amended herein. Sigs Op Instr No.1 for 'COMET' is cancelled.

2. Lifts

First lift.	Para Report Centre	1	
	Div Sigs (para)	2	BIRKSTON HEATH
	Gliders A B C and G		FAIRFORD
Second lift	Para Report Centre	1	
	Div Sigs	1	SALTBY
	Gliders D.E.F.H and S		FAIRFORD
	4 Wacos Air Sp Parties		MANSTON
Third lift	Polish Para Bde		SPANHOE
			COTTESMORE.

3. Wireless(a) Phase I. first lift

add (i) No.76 set working to base, frequencies as for 'COMET'.

(ii) SCR 300 at 1 Para Bde working on channel 33 to RCT 82 US Airborne Div. Airborne Tps Slidex and Maplay keys will be used on this link.

(b) Phase II. second lift

add link to Base from Div and RCT 82 US Airborne Div from 1 Para Bde.

delete Div lateral lin (f9) to 82 and 101 US Airborne Divs.

(c) Frequency Guard Wave (f3) will be notified later.

4. Pigeons

All messages will be addressed to "HQ Br Airborne Troops (Rear)".

5. RA Comms

As ordered by CR1. 5055 Kc/s (f34) is allotted to CRA as an additional frequency.

6. Codes and ciphers

Normal.

7. Timings

'Y' day is evening 15 Sep.

Sheet 2/.....

Op 'MARKET' - 1 Airborne Div Sigs Op Instr No.1. Sheet 2. SECRET.

8. Div HQ
Will be at ARTILLERIE PARK 736786.

ACK

(Signed) T.G.V. Stephenson
Lt. Col., R. Signals,
Comd,
1 Airborne Div Signals.

Tad HQ

TGVS/FL.

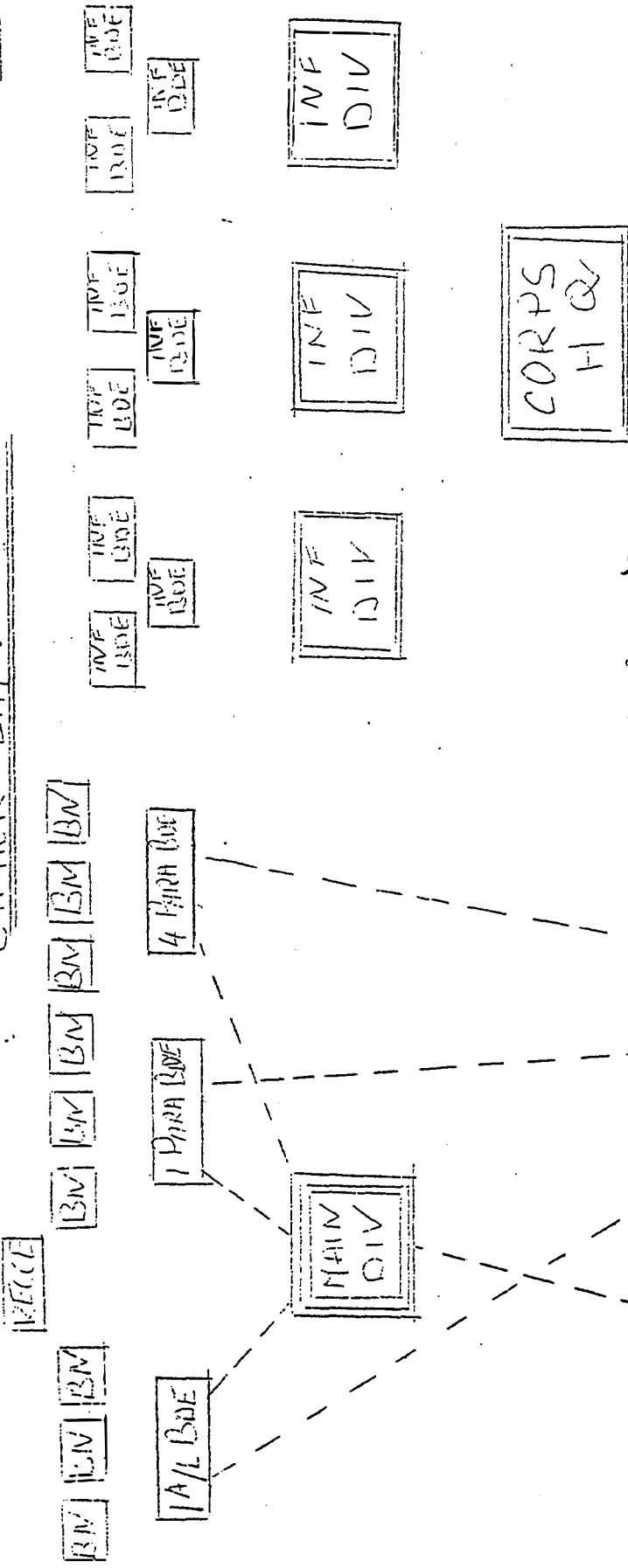
Distribution: as for Op Instr No.1 Op 'COMET'.

RE/UNITED DIV COMBAT

	14	15	16	17	18	19	20	21	22	23
101 (US) Airborne Div	101	102	103	104	105	106	107	108	109	110
Div Guard Wave	111	112	113	114	115	116	117	118	119	120
Div Recce	121	122	123	124	125	126	127	128	129	130
Div Arty	131	132	133	134	135	136	137	138	139	140
325 Glider Inf Bde	141	142	143	144	145	146	147	148	149	150
504 Para Inf Bde	151	152	153	154	155	156	157	158	159	160
505 " " "	161	162	163	164	165	166	167	168	169	170
506 " " "	171	172	173	174	175	176	177	178	179	180
101 (US) Airborne Div	181	182	183	184	185	186	187	188	189	190
Div Guard Wave	191	192	193	194	195	196	197	198	199	200
Div Recce	201	202	203	204	205	206	207	208	209	210
Div Arty	211	212	213	214	215	216	217	218	219	220
501 Para Inf Bde	221	222	223	224	225	226	227	228	229	230
502 " " "	231	232	233	234	235	236	237	238	239	240
503 " " "	241	242	243	244	245	246	247	248	249	250
327 Glider Inf Bde	251	252	253	254	255	256	257	258	259	260
101 (US) Div	261	262	263	264	265	266	267	268	269	270
Div Guard Set	271	272	273	274	275	276	277	278	279	280
Recco Regt	281	282	283	284	285	286	287	288	289	290
HQ RA	291	292	293	294	295	296	297	298	299	300
155 Inf Bde	301	302	303	304	305	306	307	308	309	310
156 " " "	311	312	313	314	315	316	317	318	319	320
157 " " "	321	322	323	324	325	326	327	328	329	330
1 Polish Para Bde	331	332	333	334	335	336	337	338	339	340
HQ 50 Corps	341	342	343	344	345	346	347	348	349	350
Guards Armd Div Main HQ	351	352	353	354	355	356	357	358	359	360
Div Lateral	361	362	363	364	365	366	367	368	369	370
Recco Regt	371	372	373	374	375	376	377	378	379	380
HQ RA	381	382	383	384	385	386	387	388	389	390
11 Armd Div Main HQ	391	392	393	394	395	396	397	398	399	400
Div Lateral	401	402	403	404	405	406	407	408	409	410
62 (US) Airborne Div	411	412	413	414	415	416	417	418	419	420
Div Lateral	421	422	423	424	425	426	427	428	429	430
101 (US) Airborne Div	431	432	433	434	435	436	437	438	439	440
Div Lateral	441	442	443	444	445	446	447	448	449	450
62 (Br) Airborne Div	451	452	453	454	455	456	457	458	459	460
Div Lateral	461	462	463	464	465	466	467	468	469	470

SECRET

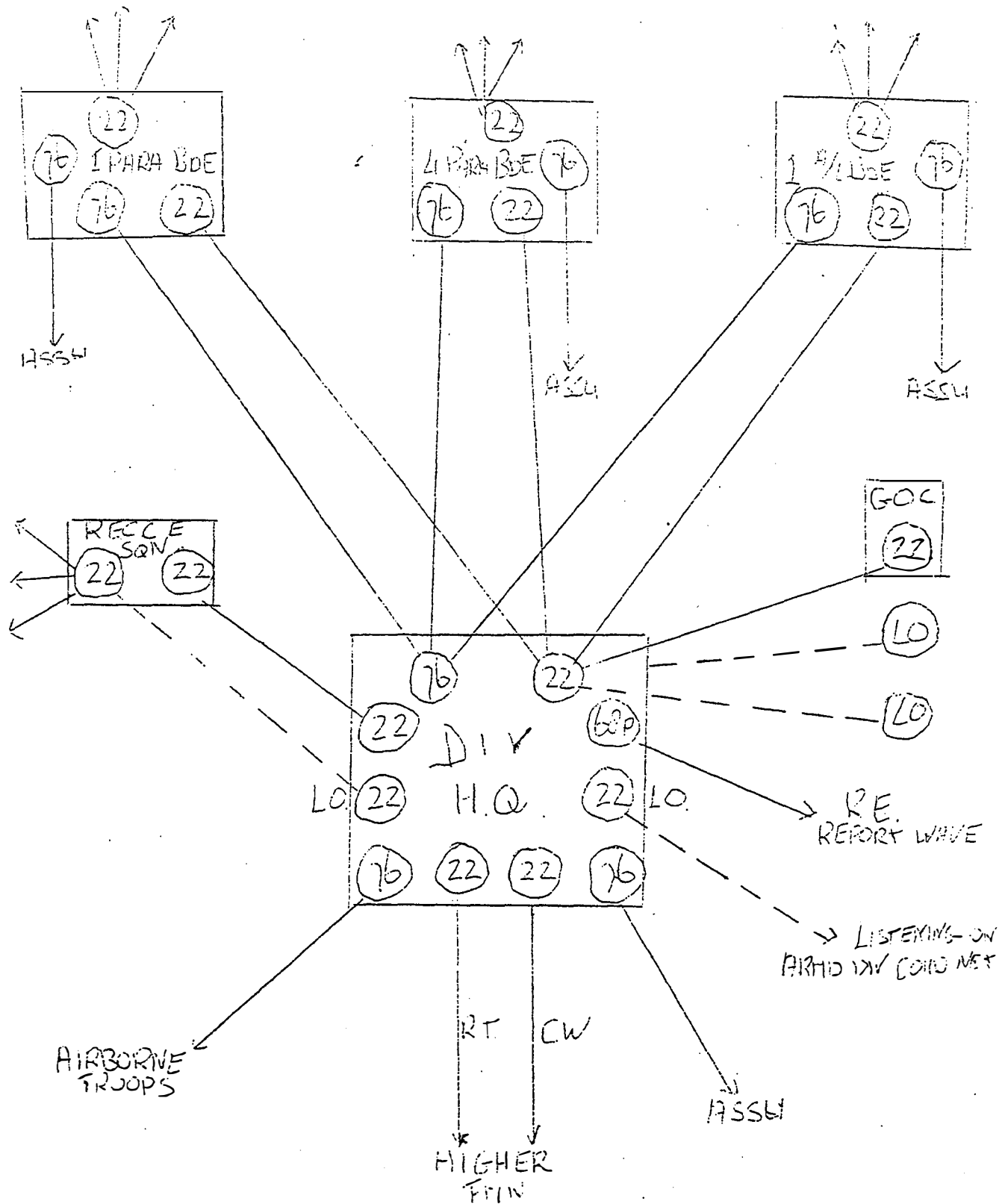
CARRIER LAN-OUT IN OPS



- LEGEND
- HIGH SECRET
- 1 ALL LINKS OUTLINED IN RED ON SIX-WAY ONE TIME LINK
 - 2 ALL LINKS OUTLINED IN GREEN ON THREE-WAY ONE TIME LINK
 - 3 ALL LINKS JOINED BY DOTTED LINES ON ONE-TO-ONE ONE TIME LINK
 - 4 ALL LINKS SHOWN HOLD AIRBORNE BASE SUPPLY ARTILLERY

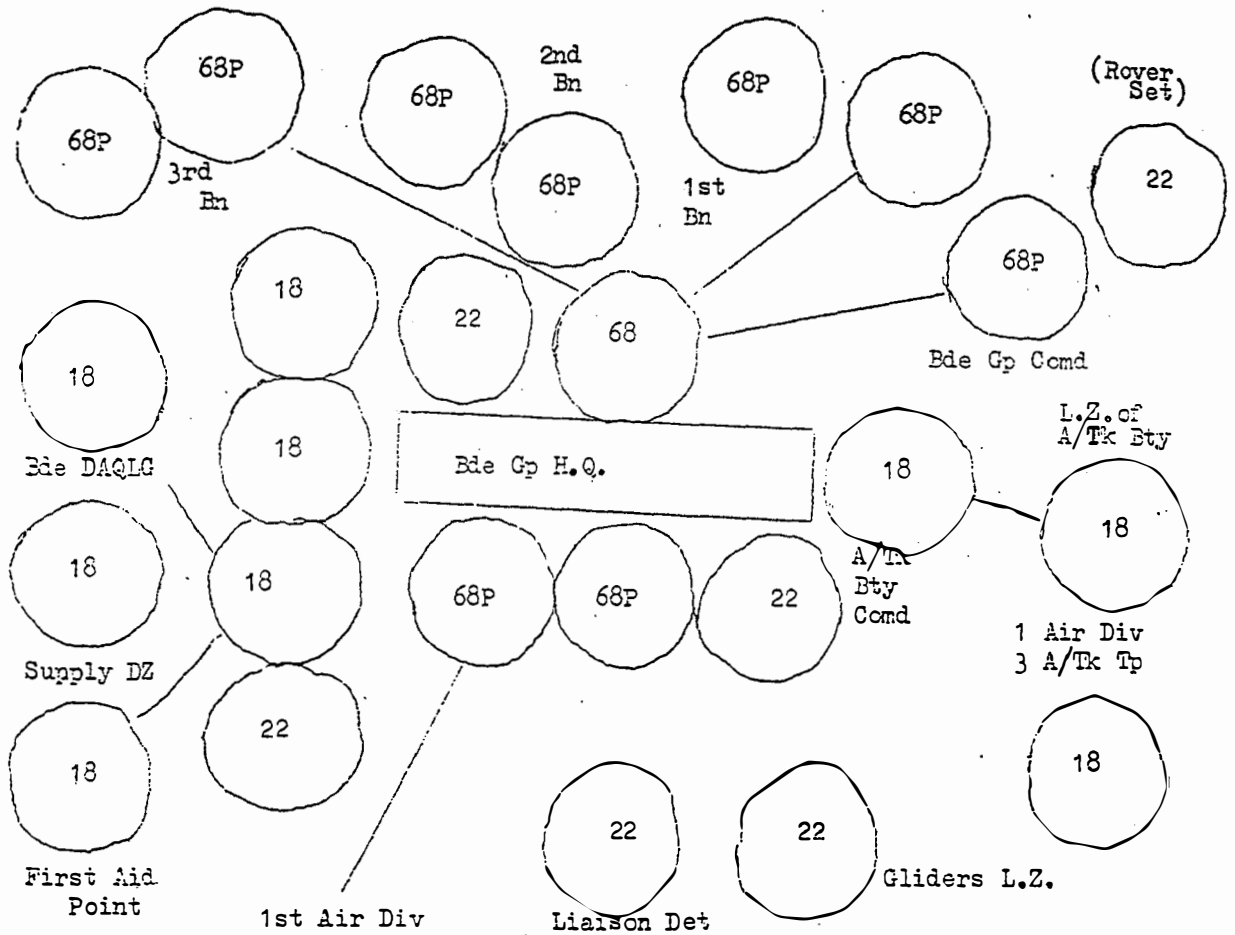
DIV COMMS

APPENDIX 'A'



Signal Diagram - R/T.

Appx No.1



Signal Diagram - LINES

Appx No.2.

