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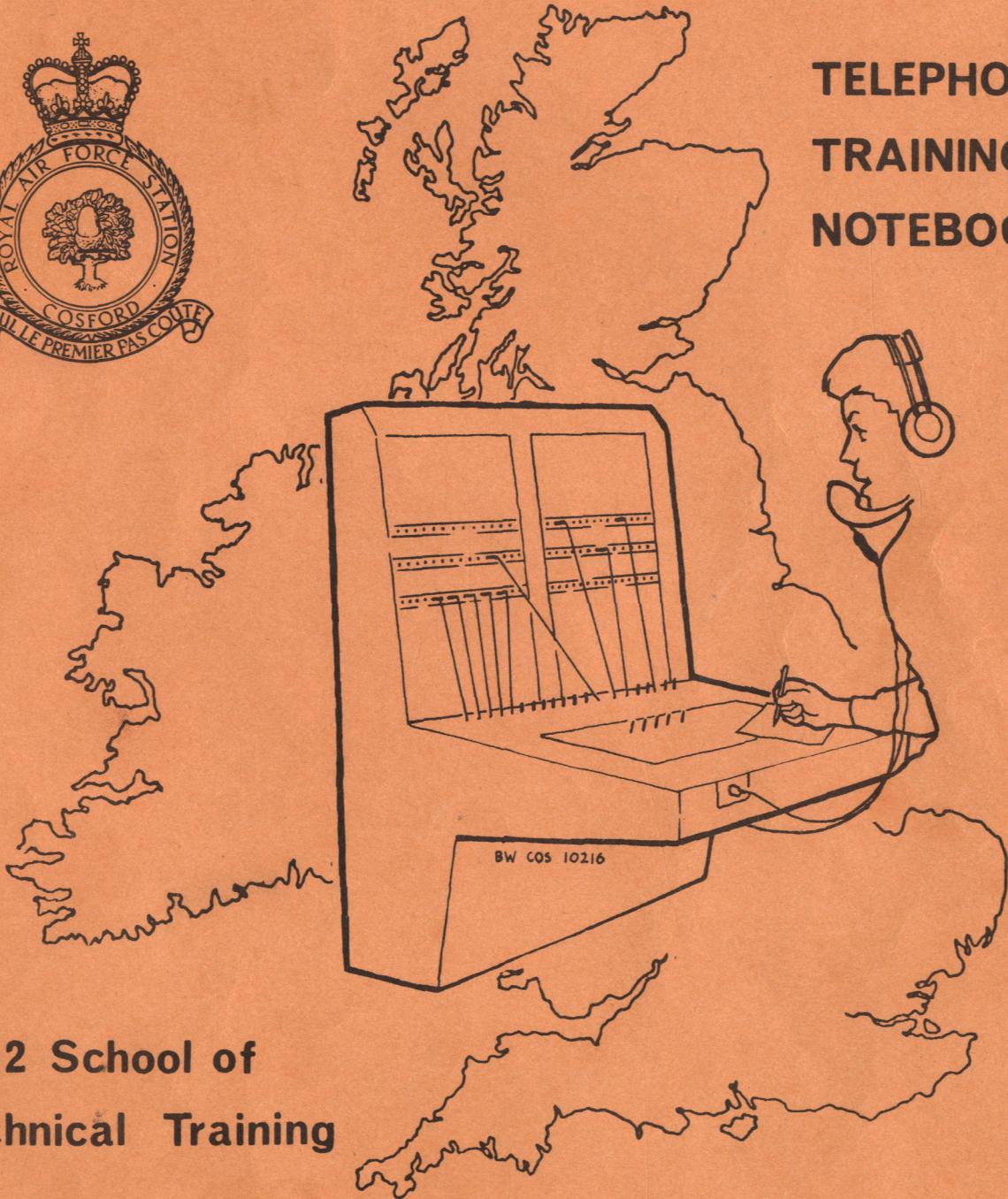
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ROYAL AIR FORCE COSFORD

NR WOLVERHAMPTON



TELEPHONIST TRAINING NOTEBOOK



No 2 School of
Technical Training

No C8221596 Rank L/AC Name WELSBY. A.W.

| | | |
|------------|---|-------|
| | <u>INTRODUCTION</u> | 1 |
| CHAPTER 1 | <u>COMMUNICATION AND PHYSICAL SECURITY</u> | |
| | Official Secrets Act and Security | 2 |
| CHAPTER 2 | <u>FUNDAMENTAL PRINCIPLES OF SWITCHBOARD OPERATING</u> | |
| | Accuracy, Courtesy and Speed | 3 |
| | Time and Phonetic Alphabet | 3 |
| | Speech | 4 |
| | Order of Answering Signals | 4 |
| | Salutations | 4 |
| | Multiple Peg Markings | 4 |
| | Rules for Passing Numbers | 5 |
| CHAPTER 3 | <u>TYPES OF SWITCHBOARD AND ANCILLARY EQUIPMENT</u> | |
| | Layout of Switchboard | 6 |
| | Private Automatic Branch Exchange Mk 3 | 7 |
| | PABX No 3 Switchboard Alarm Systems | 8 |
| | PABX Ancillary Equipment | 9 |
| | Telegraph Automatic Switching System | 9 |
| CHAPTER 4 | <u>BRITISH TELECOM DIRECTORIES</u> | 10 |
| CHAPTER 5 | <u>ROYAL AIR FORCE DIRECTORIES</u> | |
| | Royal Air Force Postal Directory (AP 3297) | 11 |
| | Station Telephone Directory | 11 |
| | Royal Air Force Telephone Directory (AP 3435) and Supplements | 11 |
| CHAPTER 6 | <u>RAF FORMS SIGS 240</u> | 12 |
| CHAPTER 7 | <u>PROCEDURE AT CALLED SWITCHBOARD (INCOMING VIA DEL/PW) (USE OF TKO)</u> | 13-14 |
| CHAPTER 8 | <u>CALLS VIA BRITISH TELECOM AUTOMATIC EXCHANGES (OUTGOING CALLS)</u> | |
| | Dialling Procedure | 15 |
| | No Reply Procedure | 15 |
| | Number Obtainable Procedure | 15 |
| | No Tone Procedure | 15 |
| | Engaged Procedure | 15 |
| | Cut Off Complaints | 15 |
| | Wrong Number | 16 |
| | False Clears | 16 |
| | Subscribers Private Meters | 16 |
| | Subscribers Trunk Dialling Booklet | 17 |
| | Use of STD within RAF | 17 |
| | Subscriber Trunk Dialling Procedures (STD Calls) | 17 |
| CHAPTER 9 | <u>BRITISH TELECOM FACILITY CALLS</u> | |
| | Calls via the British Telecom Operator | 18 |
| | Transfer Charge Call | 18 |
| | Prolonged Uninterrupted Trunk Calls (PUT) | 18 |
| | International Call | 18 |
| | Precedence Calls | 19 |
| CHAPTER 10 | <u>GENERAL PURPOSE TELEPHONE NETWORK</u> | |
| | Layout of Network | 21 |
| | Operator Assisted Calls | 21-22 |
| | Precedence Calls | 23 |
| | Calls to Germany | 23 |
| | Calls to Army and Navy Units | 21 |
| | Routine Testing | 24-25 |
| | Fault Reporting | 25-26 |
| | Annexes A, B, C and D | A1-D1 |
| CHAPTER 11 | <u>OVERSEAS RADIO CALLS</u> | 27 |
| CHAPTER 12 | <u>FORMS AND PUBLICATIONS</u> | 29 |
| CHAPTER 13 | <u>FAULT REPORTING, RECORDING AND ROUTINE TESTING</u> | 30-31 |
| CHAPTER 14 | <u>E TYPE FIELD TELEPHONE</u> | 32 |
| CHAPTER 15 | <u>EMERGENCY CALLS - BOMB THREATS AND HOAX TELEPHONE CALLS</u> | 33 |

INTRODUCTION

1. The information contained in this handbook forms the syllabus for the basic student Telephonist course. To a lesser degree, it also contains the information required for TCO and Assimilation courses, as described below.
2. Telephonists - All (Chapter 3, Para 7 is for information only).
3. TCOs
 - Chapter 3 - Paras 1, 2, 3, 4 and 5.
 - Chapter 4
 - Chapter 5
 - Chapter 6
 - Chapter 7 - Paras 1, 2, 3 and 4.
 - Chapter 8
 - Chapter 9 - Paras 3, 6, 7 and 8.
 - Chapter 10 - Paras 1 to 21 inclusive, Annex D.
 - Chapter 12
 - Chapter 13
 - Chapter 14
 - Chapter 15 - Paras 1, 2, 3 and 4.
4. TCCs
 - Chapter 3 - Paras 1, 2, 3, 4 and 5.
 - Chapter 4
 - Chapter 5
 - Chapter 6
 - Chapter 7 - Paras 1, 2, 3 and 4.
 - Chapter 8
 - Chapter 9 - Paras 3, 4, 6, 7 and 8.
 - Chapter 10 - Paras 1 to 26 inclusive, Annex D.
 - Chapter 12
 - Chapter 13
 - Chapter 14
 - Chapter 15

CHAPTER 1

COMMUNICATIONS AND PHYSICAL SECURITY

OFFICIAL SECRETS ACT

1. Extracts found on MOD Fs 134-135.
 2. It is an offence:
 - a. To communicate any document or information to any person other than those to whom he/she is authorised to communicate it.
 - b. To use such information to endanger safety or interests of the State.
 - c. To retain any document without permission.
 - d. To publish or communicate such information to the press without prior authority.
 - e. Personnel are held responsible for any statements made to friends which may ultimately be given for publication.
 3. Security - Physical
 - a. Poster 59, drawing attention to penalties attached to infraction of the Official Secrets Acts, fixed to all doors of switchrooms.
 - b. Entry is permitted to the following:
 - (1) Officers and airmen of the RAF employed on signals duties.
 - (2) Police, fire picquets and guards in the execution of their duties.
 - (3) Civilians employed by the Ministry of Defence on duties connected with signals.
 - (4) British Telecom employees carrying out duly authorised repairs.
 4. Communications Security. Switchboard operators are bound to overhear partial conversation from time to time in order to supervise, but they must not listen in for any other purpose. The unauthorised disclosure or other improper use of information gained in the course of his/her duty renders the operator liable to disciplinary action under security regulations.
 5. It is essential that all operators must sign a statement* that they are acquainted with these security regulations before being allowed to commence work in an exchange.
- NOTE: All conversations overheard whilst operating are to be treated confidentially.

*F134

FUNDAMENTAL PRINCIPLES OF SWITCHBOARD OPERATING

1. Accuracy

- a. Always repeat a demand, then pause, thus giving the caller an opportunity of correcting you if necessary.
- b. When necessary, test for a free line (tip of plug on bush of jack).
- c. Ensure good connection to the right line.
- d. Different coloured cords and keys are used, to assist in clearing calls down upon completion.

2. Speed

- a. Promptness in Answering and Clearing calls.
- b. Use of correct expressions. If telephone service is to run smoothly, all operators must use the same procedure.

3. Courtesy

- a. Requires tact, with pleasant manner and voice.
- b. Assist where needed and avoid argument.
- c. Guard against giving way to irritation, although circumstances may be trying.

4. Queries and Complaints. If difficulties arise that disturb the smooth running of the switchboard, the operator should ask for assistance of the supervisor. If no supervisor is available, the operator should refer to the Officer or NCO IC the Signals Office.

5. Change-over of Operators' Reliefs. Whenever a change of operators takes place, the outgoing operator should carry all calls in hand to a stage at which they can be handed over without detriment to their progress.

6. Switchboard Discipline. Operators at the switchboard must not talk amongst themselves except on matters directly affecting the telephone service as may be necessary.

7. Operators' Private Calls and Conversations. Private calls over the civil system are not to be received by operators at the switchboard. The supervisor is to arrange for such calls to be dealt with from a suitable extension. Calls should be confined to matters of an Urgent nature. Operators must not hold private conversations over the P/W network.

TIME

8. Official Time. In all telephone exchanges which are not on a master clock system, clocks must be checked daily by the BBC Time Signal. If no convenient method of receiving the time signal exists, but not otherwise, the Civil Speaking Clock (TIMELINE) may be used.

9. 24 Hour Clock System

a. ALL TIMES in the RAF are based on the 24 hour clock, without reference being made to AM or PM. Day starts at 0001 hours (one minute past midnight) and finishes at 2359 hours (one minute before midnight).

b. A time piece giving the OFFICIAL TIME must always be available in the exchange and corrected each morning by the BBC Time Signals.

c. When asked for the time by a subscriber, it should be given to the nearest minute.

EXAMPLE: "The time by the exchange clock is hours."

10. Phonetic Alphabets

| <u>Letter</u> | <u>Phonetic</u> | <u>Letter</u> | <u>Phonetic</u> |
|---------------|-----------------|---------------|-----------------|
| A | ALFA | N | NOVEMBER |
| B | BRAVO | O | OSCAR |
| C | CHARLIE | P | PAPA |
| D | DELTA | Q | QUEBEC |
| E | ECHO | R | ROMEO |
| F | FOXTROT | S | SIERRA |
| G | GOLF | T | TANGO |
| H | HOTEL | U | UNIFORM |
| I | INDIA | V | VICTOR |
| J | JULIETT | W | WHISKEY |
| K | KILO | X | X-RAY |
| L | LIMA | Y | YANKEE |
| M | MIKE | Z | ZULU |

Pronunciation of Numerals

| <u>Numeral</u> | <u>Spoken As</u> | <u>Numeral</u> | <u>Spoken As</u> |
|----------------|------------------|----------------|------------------|
| 0 | ZE-RO | 5 | FIFE |
| 1 | WUN | 6 | SIX |
| 2 | TOO | 7 | SEV-EN |
| 3 | TREE | 8 | AIT |
| 4 | FOW-ER | 9 | NIN-ER |

11. Speech. Operators should cultivate a quiet tone of voice, speaking well into the microphone and saying each syllable distinctly. Any tendency on the part of the operator to talk rapidly or to shout should be checked. A rising inflection of the voice should be used when asking or implying a question. Only the authorised Phonetic Alphabet and pronunciation of figures will be used when necessary.

12. Headsets

- a. Adjust to each operator's requirements.
- b. Microphone directly in front of mouth at a distance of not more than one inch (this assists in having a quiet exchange).
- c. Each operator to have own headset.

13. Posture at the Switchboard. Operator must sit in an upright position, relaxed and comfortable.

14. Order of Answering Signals

- a. Broadly speaking, there are only two types of signals - Calling and Supervisory.
- b. The operator should deal with signals in the following order:
 - (1) A 'DOUBLE SUPERVISORY'.
 - (2) A 'FLASHING SUPERVISORY'.
 - (3) Single 'STEADY SUPERVISORY'.
 - (4) Calling signal on a GPTN PW line.
 - (5) Calling signal on a 'SPECIALLY MARKED EXTENSION' or Civil Exchange Line.
 - (6) Calling signal on an ordinary extension.
- c. Supervisory Signals
 - (1) On a flashing supervisory, announce the name of your switchboard.
 - (2) On a single steady supervisory - supervise and, if no speech is in progress, say "Are you holding, have you finished?" If conversation is in progress, supervise at one minute intervals until conversation has ceased or a double clear is received.

15. Salutations

- a. Calls from extensions - "Number please".
- b. Calling Signal on a PW:
 - (1) At a Station - name of Station, ie, "Cosford".
 - (2) At a Command HQ - "Strike Command".
 - (3) At a Group HQ - "Bawtry".
 - (4) At a Switching Centre - "Rudloe Manor".
- c. Calling signals on civil lines - announce name of the station, ie, "RAF Cosford".

16. Multiple Peg Markings

- a. Coloured pegs may be placed in jacks to give operators information regarding particular lines. The following colours will normally be used:
 - (1) Plain Black - Spare line, no telephone connected or telephone not in use.
 - (2) Plain Red - Line out of order (USE Plain White if diversion is required).
 - (3) Plain White - Temporary arrangement, refer to notice or enquiry position.
 - (4) Plain Pink - Transfer to another PBX, refer to notice or enquiry position.
 - (5) White with a number - Connect caller without comment to number shown.
 - (6) Green with a number - Permanent change; advise caller of the new number and connect.
 - (7) Yellow - Line taken temporarily for operations or emergency purposes.

17. Rules for Passing Numbers

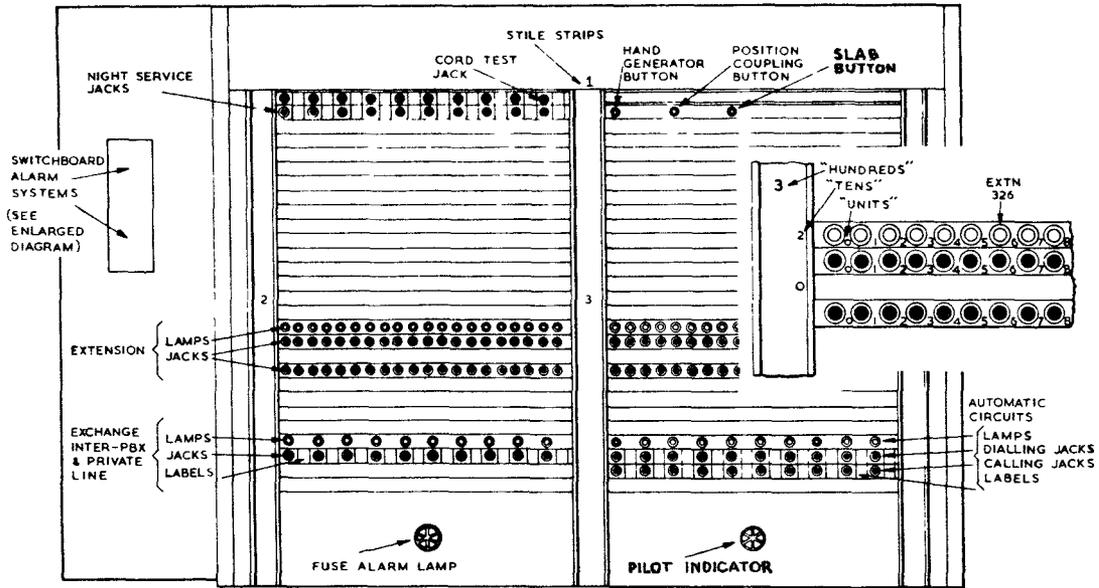
- a. Three digits - pause after first digit, eg, ONE - TWO FOUR (124).
- b. Four digits - break into two groups of TWO, eg, TWO SIX - THREE TWO (2632).
- c. Five digits - break into three groups of ONE - TWO - TWO, eg, FOUR - SIX TWO - ONE NINE (46219).
- d. Six digits - break into three groups of TWO, eg, FOUR SIX - SIX TWO - NINE ONE (466291).
- e. Hundreds and thousands will be passed as read, eg, SEVEN HUNDRED or SEVEN THOUSAND.
- f. When reading a number from a Civil Directory and it is seen that a hyphen has been placed after the second figure of a six figure number, or after the first figure of a five figure number, the hyphen should be disregarded when dialling the number.
- g. Use 'DOUBLE' for any pair of same number either side of a pause, eg, DOUBLE SEVEN - TWO FOUR (7724).

TYPES OF SWITCHBOARDS AND ANCILLARY EQUIPMENTLAYOUT OF A SWITCHBOARD

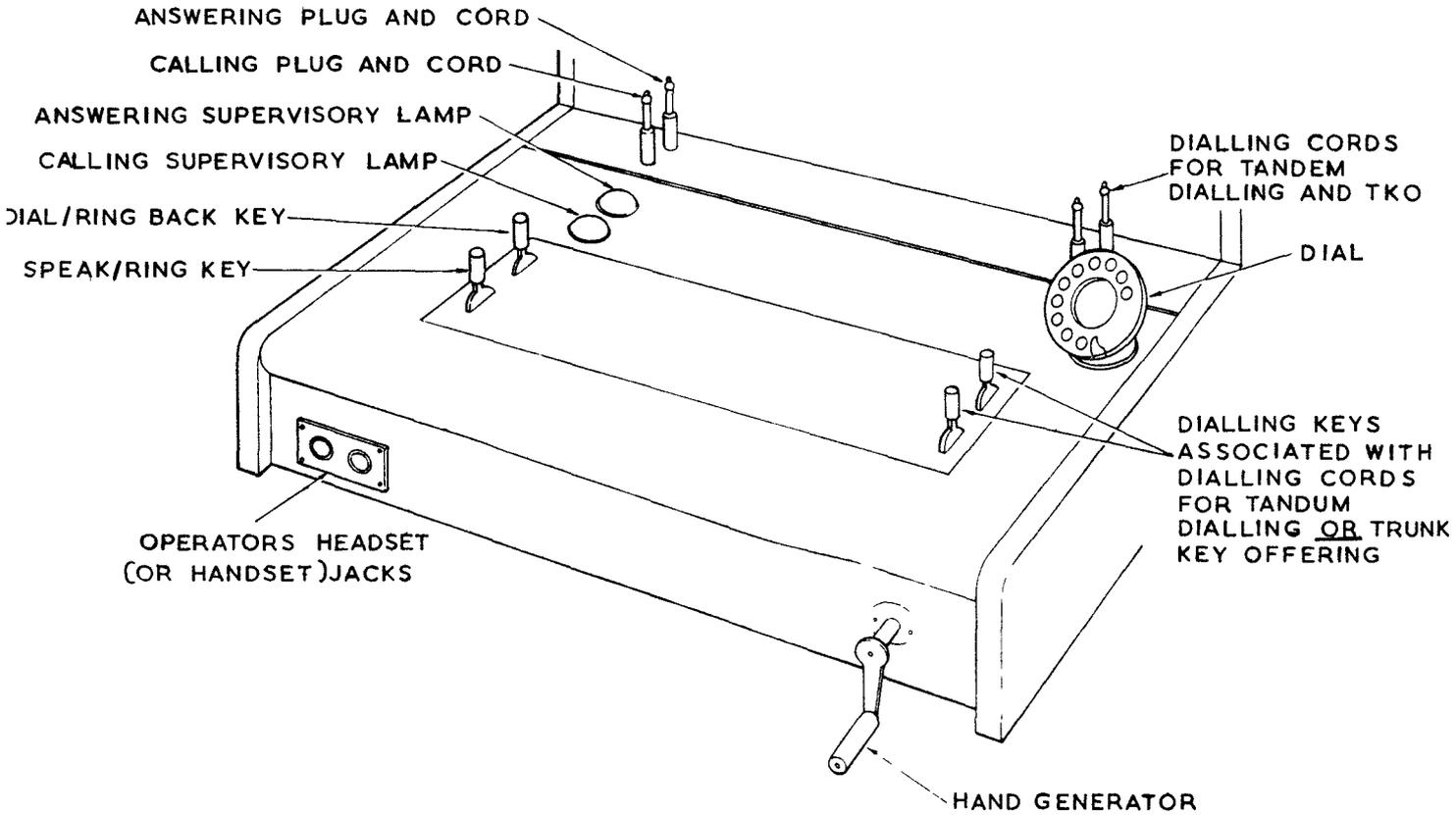
1. Switchboards provided for RAF use are normally manually or semi-auto operated and are divided into two main parts, Keyshelf and Face.
2. Keyshelf Equipment
 - a. Answering Cord - used to answer a call or to recall a subscriber.
 - b. Calling Cord - used to make a call.
 - c. Supervisory - shows the progress or state of a call.
 - d. Dial/Ring Back Key - used in Dial position to obtain a number of a facility through the AUTOMATIC exchange. When used in RING-BACK position, it enables operator to ring on the Answer Cord.
 - e. Speak/Ring Key - in Ring position, enables operator to ring on Calling Cord. When used in Speak position, operator can listen or speak on both Cords.
3. Face Equipment
 - a. Night Alarm - audible signal attracting operator's attention should it be distracted.
 - b. Position Coupler - enables one operator to work the cords and keys of two positions without changing his/her jack.
 - c. Hand Generator - provides emergency ringing supply.
 - d. Calling Signal - indicates to an operator someone is calling (can be visual and audible means of signalling).
 - e. Pilot Indicator - indicates to an operator that there is a calling signal on that position (not common to all PABX 3 switchboards).
 - f. Extension - a line from an instrument capable of being connected to both civil and Service networks.
 - g. PW Lines - a direct circuit between two points, terminating normally on a switchboard at both ends.
 - h. Exchange Lines - lines joining a subscriber or switchboard to a civil exchange.
 - i. Stile Strip. The stile strip to the left of each panel carries the hundred digits and the ten digits of the extension numbers (the unit digits are engraved on the jacks). See diagrams of switchboard face equipment.
 - j. Cord Test Jack - used for testing cord circuits, plugs, keys and supervisories.
 - k. Night Service Jacks - provide an essential telephone service when the PBX is unmanned during non-working hours for certain essential predetermined extensions (see Ancillary Equipment).
 - l. Fuse Alarm - indicates a fuse has blown on that position.

TYPE OF SWITCHBOARD

4. Private Automatic Branch Exchange Mk 3 (PABX 3)
 - a. Multiple position switchboard.
 - b. Central battery operated with exception of the ringing circuit.
 - c. Engaged test fitted.
 - d. Calling signals - lamps (directly above the jacks).
 - e. Supervisories:
 - (1) Lamp.
 - (2) Clearing condition - Positive - Lamp glows.
 - f. Equipment fitted:
 - (1) Night Alarm.
 - (2) Hand Generator and Push Button.
 - (3) Position Coupler.
 - (4) Power Failure Alarm.



(1) Face Equipment



(2) Keyshelf Equipment

- (5) Cord Test Jack.
- (6) Branch Jacks on all Lines.
- (7) Trunk Offering Facility.*
- (8) Emergency Facility.
- (9) Permanent Glow Pilot Alarm.*
- (10) Free Line Signalling on PWs and DELs.
- (11) Recall Operator Facility.
- (12) Hold Facility.
- (13) Night Service.*

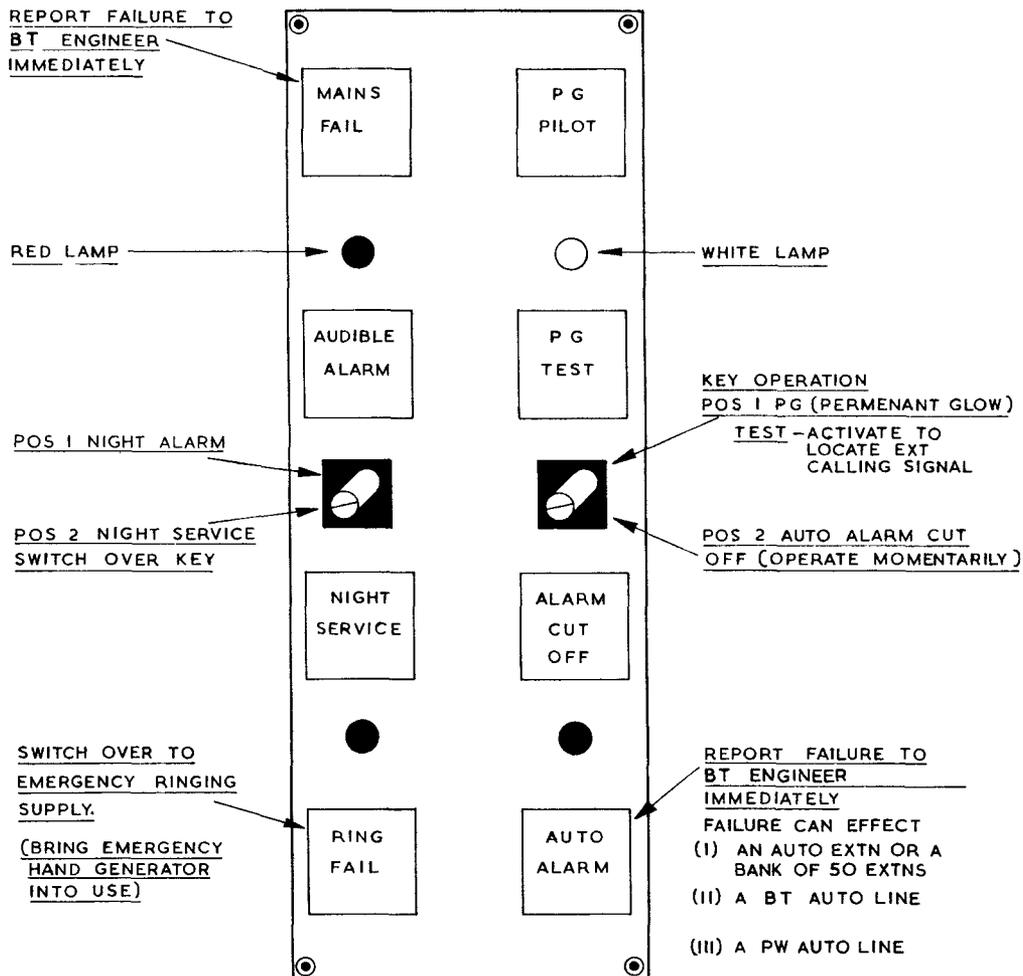
g. Capacity from 50 auto extensions.

See notes on Ancillary Equipment.

PABX NO 3 SWITCHBOARD ALARM SYSTEMS

ACTIVATED WHEN BATTERIES NOT BEING CHARGED BY THE MAINS. IF FAILURE NOT REPORTED BATTERIES WILL ONLY LAST 7 HOURS WILL EFFECT (I) PG ALARM AND (II) FLS.

REPORT FAILURE TO BT ENGINEER IMMEDIATELY



NOTE (I) THIS ALARM PANEL IS NORMALLY FITTED TO THE FIRST POSITION ON THE SWITCHBOARD FACE EQUIPMENT.

(II) ENTER ALL FAILURES IN COMMUNICATIONS DIARY, EXCEPT PG TEST.

(III) RESTORATION OF SERVICE INDICATED BY RED LAMP EXTINGUISHING.

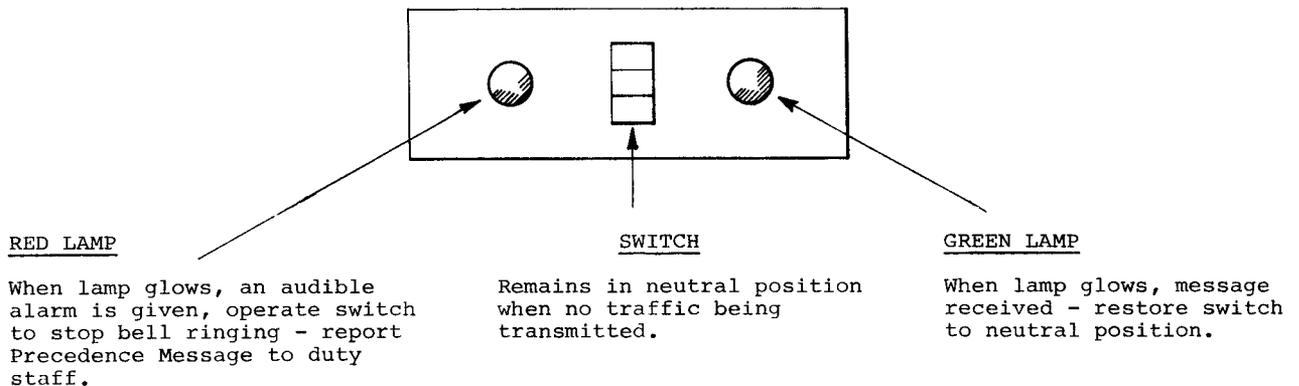
PABX ANCILLARY EQUIPMENT

5. Switchboard Alarm Systems (PABX No 3) (See Diagram)

- a. Auto Alarm. If the buzzer operates and the red lamp labelled AUTO ALARM glows, it means that a fault requiring the attention of the maintenance engineer has developed. Stop the buzzer by momentarily operating the ALARM CUT OFF keys, enter the details in the faults log and inform the appropriate fault centre. It still may be possible for the operator to speak on the exchange lines, even though the internal service has ceased working.
- b. Mains Failure.* If the lamp labelled MAIN FAIL glows, report to the appropriate fault reporting centre. Carry out same procedure as for Ring Fail (see para d).
- c. PG Pilot Alarm. If individual extension lamps are provided and the white lamp labelled PG Pilot glows, it means that a minor fault has developed (eg, an extension telephone has been left off the rest). The extension can be identified by operating the PG TEST key, which will cause the calling lamp of the extension concerned to glow and flash.
- d. Ring Fail.* If the lamp labelled RING FAIL glows, the emergency hand generator may be brought into use by operating the HAND GENERATOR button or key on each position. To ring, turn the handle of the hand generator briskly with the cord circuit key operated to ring.

6. Telegraph Automatic Switching System (TASS). This comprises two lamps, RED and GREEN, a switch and an audible alarm (bell).

- a. Purpose, to indicate to the duty telephonist that a PRECEDENCE signal has been transmitted and is awaiting action by the duty staff (local orders will determine which personnel are to be informed).
- b. Operation



NOTE: Operation of TASS panel can be likened to the power failure alarm.

7. Night Service Jacks. Selected extensions are permanently wired to these jacks. By inserting an answering plug in an extension jack and the calling plug in a night service jack, exchange calls may be made from and received at the extension without the assistance of the operator (see diagram of PABX switchboards layout).

*Enter in Communications Centre Diary.

CHAPTER 4

BRITISH TELECOM DIRECTORIES

BRITISH TELECOM AREA DIRECTORY

1. BT directories issued to subscribers within local area - contents.
 - a. Particulars regarding enquiries and difficulties.
 - b. Instructions on how to dial.
 - c. Map showing limits of area covered by the directory.
 - d. Emergency call facilities, ie, Fire, Police and Ambulance.
 - e. Telephone call charges and methods of timing.
 - f. Details of facility calls.
 - g. Subscribers listed in alphabetical order by name.

NOTE: Should be available in all RAF exchanges.

2. Commercial Classified (Yellow Pages). Subscribers listed alphabetically in trades and professions.

NOTE: Should be available in all RAF exchanges.

3. X Directories. Subscribers who do not wish their numbers published or divulged by the operator. Call to ex-directory numbers will NOT be connected without prior permission of the required subscriber unless the caller already knows the number, in which case the caller will be connected without comment.

NOTE: This directory is not available in RAF exchanges.

4. Directory Enquiries

- a. When number not known and directory not available etc, contact the civil operator and ask/dial 'DIRECTORY ENQUIRIES'.
- b. When connected to enquiries, ask for the telephone number of the required person (the address of the required person is an essential factor).
- c. Clear down.
- d. Proceed as for normal BT call.

CHAPTER 5

ROYAL AIR FORCE DIRECTORIES

ROYAL AIR FORCE POSTAL DIRECTORY (AP 3297)

1. Purpose. To obtain the location and civil exchange numbers of RAF units and associated Services. Issued by the Ministry of Defence.
2. Contents. A miscellany of information, including:
 - a. Signals Message Writing; Instructions for Official Mail; Public Relations Officers; Commander Home Defence Forces and Regional Liaison Officers; Royal Observer Corps; RAF P & SS UK; MOD Police, Chaplain Services (RAF); Meteorological Offices (UK and Abroad); Movements Units (UK).
 - b. Geographical Index to Stations at Home containing: postal address and civil telephone numbers; transport facilities; nearest road.
 - c. Geographical Index to Stations Abroad containing postal and telegraphic addresses.
3. Station Telephone Directory
 - a. (1) An alphabetical/numerical list of wings, squadrons and other miscellaneous units on a station. The further breakdown of each wing, squadron or miscellaneous unit into flights, sections, departments etc and their telephone extensions.

(2) An alphabetical index of officers, WOs and civilian personnel of equivalent status. It is arranged by rank, name, appointment, extension and home telephone number, where applicable.
 - b. It is found in the Visible Index File (VIF) or in a prominent position in the switchroom.
 - c. If asked for a particular person by name or appointment, consult directory, inform caller of the number displayed and connect.
 - d. If the number is not contained in the VIF or displayed in a prominent position, connect caller to the telephone supervisor or operator detailed for Enquiry duties.
4. Royal Air Force Telephone Directory (AP 3435) - Contents
 - a. Service instructions (green pages).
 - b. Civil telephone numbers of MOD and Service switchboards (yellow pages).
 - c. Section A - an alphabetical list of RAF stations in the United Kingdom, giving main telephone users for each station.
 - d. Section B - an alphabetical list of RAF station abroad, giving main telephone users for each station.
 - e. Section C - miscellaneous units, RAF detachments etc.

NOTE: Sections A and B - both normally contain telephone enquiry numbers for each station.
5. GPTN Dial Codes and Dialling Instructions (AP 3435 - Supplements 1, 2 or 3)

Supplement 1 - used by exchanges served by Harrogate, Brampton, Waddington, Rudloe Manor, Stafford and Honington zonal switching centres.

Supplement 2 - used by exchanges served by High Wycombe zonal switching centre.

Supplement 3 - used by exchanges served by Pitreavie Group Switching Centre.

CHAPTER 6

RAF FORMS SIGS 240

1. Purpose. Used on telephone switchboards to record:
 - a. When a call cannot be connected immediately, ie, booked calls.
 - b. All calls over CIVIL system, except SERVICE calls in the untimed area (local calls).
 - c. Precedence calls.
 - d. Incoming transfer charge calls, both Service and private.

2. Preparation of Tickets

- a. Particulars should be legibly written.
- b. Block letters will be used for codes.
- c. Codes known by all operators may be used for the names of other switchboards or for indicating the reason for non-completion of the call. Codes are as follows:

| <u>CODE</u> | <u>MEANING</u> |
|-------------|---|
| L E | Lines Engaged. |
| N E | Called number of extension engaged. |
| O E | Originating extension engaged. |
| N R | No reply from called number or extension. |
| O N R | No reply from originating extensions. |
| W N | Wrong number. |
| N U | Number unobtainable. |
| O O O | Out of order. |
| N T | No tone. |

- d. The following codes may be used to indicate type of call etc:

| <u>CODE</u> | <u>MEANING</u> |
|-------------|--|
| SER | Service call. |
| PRI | Private call. |
| P U P W | Prolonged uninterrupted private wire call. |
| P U T | Prolonged uninterrupted trunk call. |
| T C C | Transferred charge call. |
| A D C | Advise duration and charge. |

3. Completion/Cancellation

- a. When a call has been connected, a large TICK is to be made in the remarks column.
- b. If the call cannot be completed and is cancelled, a large CROSS joining the four corners is to be made on the ticket.
- c. Appropriate spaces should be filled in, including the initials of all operators dealing with it.

4. Retention of Tickets. Completed Forms Sigs 240 regarding calls over the civil system will be retained for a period of 12 MONTHS.

CHAPTER 7

PROCEDURE AT CALLED SWITCHBOARD (INCOMING CALLS)

1.
 - a. Calling signal received from another exchange, direct exchange line* or private wire - announce name of switchboard, eg, "RAF Cosford".
 - b. Caller requests an extension (see notes on use of Station Telephone Directory, page 11, and Unit Organisation, page 14).
 - c. Apply engaged test.
 - d. IF extension is free:
 - (1) Ring at 10 second intervals until answered or 30 seconds have elapsed.
 - (2) If no reply after 30 seconds, advise caller, "There is no reply."
 - e. IF the extension is engaged internally, an offer to interrupt the existing call must be made. Say, "The number is engaged, shall I interrupt?"
 - f. IF the caller should say, "No", say, "Will you call again later?"
 - g. IF the caller wishes you to interrupt, say, "Who is calling and where are you calling from, please?"
 - h. Carry out Trunk Key Offering Procedure. Fitted to the PABX No 3. Consists of a pair of cords and the associated key, which enables an existing internal automatic extension-to-extension call to be interrupted for an external trunk call received via BT or PW system.
 - (1) If the automatic extension is engaged, you can enter the circuit and interrupt the call to offer an urgent or trunk call. Advise the caller, "One moment, please", then restore the speak key. Insert a DIAL/TKO cord into the jack of the required extension and operate the appropriate TKO key. You can then speak to the extension.
 - (2) If the extension agrees to accept the call, say, "Will you both replace your receivers. Extension ... I will call you." Restore the TKO key, withdraw the plug from the extension jack and, as soon as the circuit tests 'free', connect the waiting call by inserting the calling plug and ringing the extension.
 - i. IF the called extension refuses the call, say to caller, "Extension does not wish to be interrupted, please call again."
 - j. IF the caller desires to hold on, say, "Please call again, the line is wanted for another call."
 - k. IF the caller asks to be called when the extension is free, say, "I am not allowed to recall distant subscribers."
2. Cut Off Complaints
 - a. Extension 'FLASHES' on an existing connection (use of RECALL button on handset). Announce the name of the switchboard and say, "Can I help you?"
 - b. Called extension complains of 'cut off'. Say, "The caller will probably call you again, please replace your receiver."
3. Transfer Call to another Extension
 - a. Called extension 'FLASHES'. Announce the name of the switchboard and say, "Can I help you?"
 - b. Called extension requests the caller to be transferred to another extension.
 - c. Say "Transferring you to ...", disconnect the calling plug and call the extension required.
4. Called Extension requests Another Call
 - a. Repeat demand.
 - b. Replace the calling plug with the answer plug.
 - c. Proceed according to the call required.

*TONES (STD Pay Tone)

'Rapid Pips' indicate that a call is being made from an STD coin box (allow sufficient time for caller to place money in the box).

UNIT ORGANISATION

5. It is essential that telephonists have a knowledge of the more important responsibilities of Station appointments, thus aiding them to clear incoming calls promptly and effectively.

| | |
|--|--|
| <u>Station Commander</u> | Responsible for the efficient working of the Station, supervision and control of the duties performed by his officers. |
| <u>OC Admin Wing</u> | President of Airmen's Messing Committee. |
| <u>OC General Duties Flight</u> | Advises the CO on matters of discipline and maintains officers' duties roster. Acts as deputy in CO's absence. |
| <u>PA to CO</u> | Personal Assistant to the Station Commander and accepts telephone calls for the CO during his absence in normal working hours. |
| <u>Medical Officer</u> | In addition to obvious duties, advises CO on matters of hygiene and sanitation. Approves menus for messes. |
| <u>OC Supply Squadron</u> | Responsible for Clothing Stores, Technical Stores and Barrack Stores (Barrack Warden responsible for this section). SCAF (Supply Control and Accounting Flight). |
| <u>OC Personnel Services Squadron</u> | Advises the CO on all financial matters. |
| <u>OC Engineering Flight</u> | Responsible to CO for MT Servicing, Station Workshops and Electrical Section. |
| <u>Station Duty Officer</u> | Deputises for the CO during non-working hours. |
| <u>Orderly Officer</u> | Supervision of the guard. Supervision of issue of rations to messes. Attendance at airmen's meals. Attendance at fires. Inspection of Secret and Confidential Publications. Visits the PBX at least once during tour of duty. |
| <u>General Office</u> | Part of the Clerical Services Flight and deals with personnel, their movements, promotions and records etc. |
| <u>Station Standing Orders</u> | Issued by the CO and limited to matters peculiar to the Station. |
| <u>Station Routine Orders</u> | Orders issued at regular intervals and dealing with duties, parades and any special matters of discipline. Special notices may be inserted AFTER the signature of issuing officer, such as welfare and sports announcements (signed by OC GD Flt). |
| <u>Public Services Authority (PSA)</u> | |
| <u>Superintendent of Works</u> | Responsible for repairs and maintenance of buildings on the Station. |
| <u>Supervising Engineer</u> | Responsible for the Station plant and all electrical equipment. |

CONFERENCE CALLS

6. Bunching Facilities. Some switchboards are provided with special facilities for connecting conference calls, ie, calls from one subscriber to several others. This is normally done by means of a special bunching strip or strips of jacks connected in parallel. When the call is set up, all the subscribers concerned are connected to jacks in these strips. Conference calls are sometimes known as 'BUNCHED' or 'MULTIPLE' calls.

7. Procedure

- a. When asked for a conference call, repeat demand, ie, '93, 96, 99, 100'.
- b. Test each of the required extensions to see if free, if so:
 - (1) Call first extension and say, "Conference call for you, one moment please" and insert relevant answer plug into bunching strip.
 - (2) Call each required extension in turn, in the same way.
 - (3) When all extensions have answered, connect calling plug from originator into bunching strip and say, "Your conference call, go ahead please." Supervise until conversation begins.

8. Extension Engaged or No Reply

- a. Say to originator, "Exchange (96) is engaged, will you take the others now?" or "There is no reply from extension (96), will you take the others now?"
- b. If caller wishes to take call, connect him to bunching strip and say, "Go ahead please."
- c. If caller refuses call, say to called subscribers, "The call has been cancelled."

9. Termination of Existing Call

- a. When supervisory received, supervise - no speech - challenge, "Are you holding, have you finished?"
- b. If a subscriber requests another number, say, "What is your number please?" Ensure he is connected on an answer plug then connect.

CHAPTER 8

CALLS VIA BRITISH TELECOM AUTOMATIC EXCHANGES

1. Procedure

- a. Calling signal received from an extension, say, "Number please."
- b. Repeat the demand.
- c. Pause.
- d. Ask whether the call is 'SERVICE' or 'PRIVATE'.
- e. Request, "Who is calling?"
- f. If 'PRIVATE', obtain a Bar Number and compile the F Sigs 240.
- g. If 'SERVICE', compile the F Sigs 240 (but see NOTE).

NOTE: Do Not compile F Sigs 240 for Local Service Calls.

2. Auto Procedure (Local)

- a. Select free exchange line,* listen for a dialling tone (a continuous low pitched purring sound).
- b. Operate DIAL/RING BACK key to 'DIAL' position, dial the number, allowing dial to return quite freely.
- c. Restore the Dial Key to the NORMAL position.
- d. Proceed according to the TONE heard.*
- e. To RE-DIAL on the same line, withdraw the plug for TWO SECONDS, re-insert and re-dial.

*NOTE: Use SPM (Subscriber Private Meter) line for private calls.

3. NO REPLY - allow number to ring for 60 seconds. Disconnect and say, "There is no reply."

4. Number Unobtainable

- a. Withdraw the calling plug and say, "I am trying to connect you, will you please repeat the number."
- b. Change the line (if available).
- c. Re-dial - if unobtainable, say, "There appears to be a fault, I will make enquiries and call you."
- d. Dial '100' for BT operator. Say, "This is I am receiving number unobtainable on, will you please advise."
- e. Re-call subscriber and inform him/her accordingly.

5. No Tone. Carry out same procedure as for number unobtainable, except when advising BT operator. Substitute 'no tone' for 'number unobtainable', ie, "This is I am receiving no tone on, will you please advise."

6. Engaged Tone. Say, "The number is engaged, shall I call you?" If the call is required, compile a Form Sigs 240 and try to connect the call at 5 minute intervals.

7. Cut Off Complaints (calling plug disconnected)

- a. Calling signal received, subscriber complains of being 'Cut Off' (calling plug disconnected). Say, "What number were you calling? I will re-connect you."
- b. Re-insert the calling plug in free exchange line and re-dial.
- c. Supervise until the called number answers.

8. Cut Off Complaints (connection still maintained)

- a. Extension 'flashes' on existing connection.
- b. Announce name of switchboard, ie, Stanbridge, can I help you?"
- c. Caller complains of being 'Cut Off'. Say, "What number were you calling? I will re-connect you."
- d. Withdraw the calling plug.

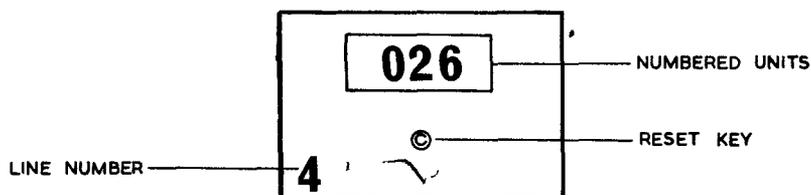
- e. Select a free line.
 - f. Re-dial.
 - g. Supervise until the called number answers.
9. Wrong Number (WN)
- a. Existing extension 'flashes' on existing call.
 - b. Announce name of switchboard, ie, "Stanbridge, can I help you?"
 - c. Caller complains of wrong number. Say, "What number were you calling?"
 - d. Withdraw the calling plug.
 - e. Select a free line.
 - f. Re-dial.
 - g. Supervise until answer received.
 - h. IF wrong number obtained again, call civil operator and explain circumstances.
10. False Clears
- a. This is a clearing signal accidentally caused by some means other than a normal disconnection (ie, ring off or subscriber replacing their handset).
 - b. If received, supervise at 1 minute intervals until:
 - (1) Conversation ceases.
 - (2) Double Clearing signal is received.
11. Tones Heard after Dialling*
- a. Ringing Tone - a low pitched intermittent BURR BURR.
 - b. Engaged Tone - a high pitched BUZZ BUZZ.
 - c. Unobtainable Tone - a continuous high pitched BUZZ.

SUBSCRIBER TRUNK DIALLING (STD)

SUBSCRIBERS' PRIVATE METERS (SPMs)

12. Subscribers Private Meters are fitted to most types of RAF switchboards. They are associated with the British Telecom lines. Every meter has a label bearing the number of the line to which it is connected and a display window through which can be seen a row of numbers similar to those on a car mileometer.

FACE EQUIPMENT



13. Procedure. When an operator originates a call on a BT line on which a meter is fitted and the distant end answers, the meter associated with the calling line operates and the number displayed at the window is increased by one. As the call continues, the meter operates again at intervals throughout the call. The length of time between these meter operations varies, depending on whether the call is local or long distance and also on the time of day and day of the week. These meters will only be used for:

- a. Private Local Calls in Local Dialling Code areas.*
- b. Private Trunk Calls in Subscriber Trunk Dialling Code areas.*
- c. PUT Calls.

*NOTE: See the use of STD booklet (overleaf).

14. In order that supervisors can record the charges for each call connected by this method, it is essential that operators record the Dialled Meter Units on Form Sigs 240.

SUBSCRIBER TRUNK DIALLING SYSTEM

15. A dialling instruction booklet is issued to each subscriber who is connected to the STD system. It contains dialling instructions, services that are available to the subscriber on STD and a list of exchanges that can be dialled, together with the dialling codes and charges.

16. Use of STD within the RAF. The use of STD facilities may be used for the following calls:

- a. Calls to other Service establishments, ie, Army and Navy units outside the local fee area are to be made over the civil system, unless PWs have been provided and routing over Service PWs has been agreed.
- b. Private calls, when a meter has been installed or no ADC is required.
- c. Calls to RAF stations not connected on the RAF PW network.
- d. Service calls to a civil number.
- e. PUT calls where meters are installed.
- f. Calls to RAF stations when there is an unacceptable delay (ie, 1 hour) and the subscriber requests the call via British Telecom.
- g. Precedence Calls - should LE, NE or NU be obtained, route the call via the BT operator, using the appropriate precedence call prefix.

17. Subscriber Trunk Dialling Procedures

- a. Repeat demand.
- b. Request, "Service or Private?"
- c. If Service call - say, "Who's calling,"
 - (1) Compile F Sigs 240.
 - (2) Consult the Subscribers Trunk Dialling booklet for dialling codes.
 - (3) Test for a free British Telecom line.
 - (4) Dial the codes and number.
 - (5) Supervise the call until answered or proceed according to the tone heard.
 - (6) Check the destination, then say, "Go ahead, please."
 - (7) Complete the F Sigs 240.
- d. If Private call - say, "Who's calling?"
 - (1) Request a Bar number.
 - (2) Compile the F Sigs 240.
 - (3) Consult the STD booklet for codes.
 - (4) Test for a free BT line associated with Subscriber's Private Meters (SPMs).
 - (5) Dial the code and number and supervise until answered or proceed according to the tone heard.
 - (6) On completion of a call, note SPM reading and annotate the F Sigs 240 accordingly.
 - (7) Re-set SPM to zero reading.
- e. (1) If your British Telecom lines are engaged, say, "The line is engaged, shall I call you?". If the call is required, note LE and TIME on your Form Sigs 240 and make attempts to obtain the call every 5 minutes.
- (2) If the required number is engaged, say, "The number is engaged, shall I call you?" If the call is required, note NE and TIME on your Form Sigs 240 and make attempts to obtain the call every 5 minutes.

CHAPTER 9

BRITISH TELECOM FACILITY CALLS

CALLS VIA CIVIL OPERATORS

1. With the introduction of metered lines to the switchboard and British Telecoms continuing expansion programme of Subscriber Trunk Dialling (STD) and International Direct Dialling (IDD) codes, the requirement for 'Advise Duration and Charge' (ADC) calls has been reduced to an almost insignificant number.
2. However, in the event of a subscriber's private meter becoming unserviceable or a subscriber requesting an ADC call, the procedure to be adopted is as follows:
 - a. Annotate F Sigs 240 remarks column PRI ADC (there should be no requirement to make Service ADC calls).
 - b. Select a free exchange line - dial 100.
 - c. When civil operator answers, request, "An ADC call to Gloucester 31916 for Leighton Buzzard 372217."
 - d. The civil operator will complete the call or will advise NE or NR.
 - (1) If NE, say, "Book the call as from extension ..."
 - (2) If caller wishes the call to be cancelled, say, "Please cancel the call."

- NOTES:
1. F Sigs 240 remains outstanding until civil operator calls back with details of the duration and cost.
 2. ADC calls incur an additional charge.

TRANSFER CHARGE CALLS (INCOMING)

3. a. Purpose. A call for which the called person agrees to pay all the relevant charges for the call or its continuance. An Additional facility charge is made.
- b. Incoming Calls. Operators will accept the call from the civil operator, saying, "I accept" and note from where the call originates.
- c. Confirm from the caller that the call is of an official nature, obtain rank and name and connect to the required extension. Before connection is made, request called subscriber to inform the supervisor of the validity of the call upon completion.
- d. Private transferred charge calls may be accepted for connection to extensions in residences and quarters (not messes) for which rental is paid by the incumbents and subject to the recovery of all charges.
- e. All transfer charge calls will be timed.

PROLONGED UNINTERRUPTED TRUNK CALLS

4. a. PUT Calls are authorised by MOD (Air) Director of Signals. In cases of genuine emergency or outside normal MOD office hours, approval may be given by Command HQ.
- b. On receiving a request for a PUT call, the operator is to connect the caller to the Supervisor.
- c. The cord circuits used will be marked 'PUT CALL - DO NOT DISCONNECT' and a marker placed over associated speak/ring key.
- d. The connection is not to be monitored or disconnected without instructions from the Supervisor.

SERVICE/INTERNATIONAL CALLS (CALLS TO SWITCHBOARDS OUTSIDE THE COUNTRY OF ORIGIN)

5. a. Requests for Service or international calls are in all cases to be referred to the exchange Supervisor.
- b. The Supervisor will prepare a ticket showing particulars of the call, including the rank and name of the caller. The ticket is then to be passed to an operator with instructions to obtain connection over the public trunk network.
- c. When setting up a call via a civil network to a switchboard in another country, the operator is always to request the civil trunk operator to advise duration and charge (ADC).
- d. If STD code is available and meters fitted, connect via this method, ensuring that the meter reading is noted.

PRECEDENCE CALLS VIA CIVIL NETWORK

FLASH CALLS

6. a. Purpose. Call made in extreme operational emergency or when the safety of human life is involved. These calls are recognised over Service and civil telephone networks, including Overseas Service networks in all European NATO countries.
- (1) Over Service and civil networks, they are afforded ABSOLUTE PRECEDENCE over all other calls. Other calls will be disconnected in favour of a FLASH CALL.
- (2) May be originated by ANYONE whose duty in an Emergency makes it necessary, but such persons may be called upon to justify their action. The operator is to obtain rank and name of subscriber and all FLASH CALLS WILL BE MONITORED.
- b. Civil Network Procedures (STD)
- (1) If a call cannot be connected immediately by the GPTN (See notes on GPTN, page 21), attempt to make the call via STD - dial code and exchange number obtained from TRI (Telephone Routing Index).
- (2) When the distant exchange operator answers - check destination - then say, "FLASH CALL, go ahead please". Monitor call.
- (3) Should NE, LE or NU be obtained, progress the call via the civil operator. (see Note 1e).
- c. Procedure via Civil Operator
- (1) Obtain the same information from the originator, but on passing to civil operator, add the word DISTRESS. To obtain civil operator, dial '999' or 100 (as local orders dictate)
- Example: DISTRESS CALL TO PETERHEAD 2091, for LEIGHTON BUZZARD 372217.
- (2) When connected to the required number, say, "FLASH CALL, go ahead please."
- d. Precedence Calls to Station within Local Fee Area. Precedence calls to stations within the local fee area must be routed via the BT system if the station can be obtained by dialling direct. Should NE, LE or NU be obtained, route call via the Private Wire Network.
- e. Record details of all FLASH CALLS in the Communications Centre Diary, F798.

IMMEDIATE CALLS

7. a. Purpose. Calls made which are of MOST URGENT Operational Importance or for MOST URGENT matters of Essential Administration. Over Service and civil network, IMMEDIATE calls take precedence over all other calls, except FLASH. Any urgent or ordinary call will be DISCONNECTED in favour of an IMMEDIATE call.
- b. Authority for Originating
- (1) Staff officers not below the rank of Wing Commander, Station Commanders or COs of Units acting independently. They, in turn, may only delegate authority to:
- | | |
|-----------------------------------|------------------------------------|
| (a) Officer i/c Operations Rooms. | Displayed on Face Equipment as |
| (b) Duty Air Traffic Controller. | specially marked extensions and |
| (c) Duty Met Officers. | listed in the VIF under precedence |
| | calls users. |
- (2) Exceptional circumstances may make it necessary for any person to originate these calls if NO ENTITLED PERSON IS PRESENT, but they must be prepared to justify their actions later.
- (3) If unmarked extension, say, "Precedence calls are not normally allowed on this extension." If caller justified the claim, say, "May I have your rank and name for record purposes please?" Ensure that the details are entered in the Communications Centre Diary.
- c. Procedure via CIVIL NETWORK (STD)
- (1) If the call cannot be connected immediately via the GPTN, attempt via STD (obtain code and exchange number from TRI).
- (2) When the distant exchange operator answers, check destination and say, "Immediate Call, go ahead please." Monitor.
- (3) Should LE, NE or NU be obtained, progress the call via the BT operator.

d. Procedure via British Telecom Operator

- (1) Obtain the civil operator, prefix the demand with "Service Urgent Call", that is, "Service Urgent Call to Peterhead 2091 for Leighton Buzzard 372217."
- (2) Check the destination, then say, "IMMEDIATE CALL, go ahead please."
- (3) Complete Form Sigs 240.

PRIORITY CALLS

8. a. Purpose. Used for calls dealing with URGENT OPERATIONAL or ADMINISTRATIVE IMPORTANCE. It is recognised over both Service and civil networks. Over both networks Priority Precedence calls are given a place on the waiting list.
- b. The civil telephone system's equivalent of a 'Priority' call is a 'Service Urgent' call.
- c. Authority to Originate
 - (1) All staff Officers and WOs.
 - (2) CO of station or unit and his deputy.
 - (3) Officers and WOs authorised by CO and promulgated in the PBX.

CHAPTER 10

GENERAL PURPOSE TELEPHONE NETWORK (GPTN)

1. With the introduction of the General Purpose Telephone Network, it is now possible for a subscriber to dial, using standard codes, direct to another extension of any military exchange without operators being involved.
2. Any call made by a subscriber is routed through a complex network switching system interconnected by long distance private wires.
3. This network contains 3 types of exchange:
 - a. Dependent Exchange. This is directly connected to a Group Switching Centre or a Zonal Switching Centre (see Annex A).
 - b. Group Switching Centre. This is normally directly connected to its parent Zonal Switching Centre only, but can be directly connected to other Zonal Switching Centres (see Annex A).
 - c. Zonal Switching Centre. This is directly connected by trunk routes to all other Zonal Switching Centres (see Annex A).
4. Outlets to other Service establishments, Army or Navy (Gateway Scheme) not connected to the GPTN are routed in accordance with instructions contained in the Telephone Routing Index (TRI).

EXCHANGE SERVICES (OPERATOR ASSISTANCE)

5. All subscribers have access to the Royal Air Force Telephone Directory (AP 3435) and GPTN Dial Codes and Dialling Instructions (AP 3435 - Supplements 1, 2 or 3), so that operator assistance will normally only be required if a subscriber:
 - a. has insufficient information to dial a call (see para 6).
 - b. finds difficulty on a call he has dialled (see para 7).
6. Operators are expressly forbidden to manually connect incoming GPTN calls to extensions. Therefore, if the subscriber has insufficient information to dial the call, he will contact the distant exchange enquiries position in the first instance or distance exchange operator as a last resort and obtain the number required. The subscriber will then clear-down and re-dial direct to the extension wanted.
7. If the subscriber experiences difficulties in obtaining the distant extension, he is to contact his own exchange operator, who will then:
 - a. determine the difficulties.
 - b. verify number dialled is correct by consulting TRI.
 - c. determine number of times call attempted and period of time involved.
 - d. obtain subscriber's details.
 - e. state that you will make enquiries.
 - f. investigate.
8. There are numerous difficulties which could be encountered: NT; NU; WN; LE or NE for example, and numerous reasons for the difficulties, ranging from an unserviceable dial unit on the subscriber's phone - through exchange and switching centre equipment - to an unserviceable telephone at the distant extension.
9. The operator would proceed to investigate thus:
 - a. After consulting the TRI and selecting the correct GPTN circuit, dial the GPTN code and extension number, proceeding as the tone dictated.
 - b. If unable to obtain the required extension, contact the distant exchange enquiries position or operator. Ascertain reason for difficulties.
 - c. If unable to establish connection with the distant exchange, contact your own Zonal/Group switching centre, explain the situation and ask for "an operator assisted call to (location name and extension number)."

GPTN OPERATING INSTRUCTIONS (TANDEM DIALLING)

10. Sequence taken by the Operator. Should the subscriber be experiencing difficulties with a call over the GPTN to RAF Hereford, extension 312, proceed as follows.

- a. Select the GPTN dialling code number from the centre column of the TRI.

TELEPHONE ROUTING INDEX (JOINT SERVICE) Issue No 1/82

SYMBOLS

| | | |
|--------|-------|---|
| - | means | Ask for |
| X | means | The exchange named in the exchange column |
| . | means | An operator can be obtained by dialling 0 |
| * | means | Call civil number outside normal working hours |
| DIR | means | Direct connection to exchange named in exchange column |
| μ | means | To be notified when dialling available |
| • | means | DDI (Direct Dialling In) |
| : | means | An operator can be obtained by dialling 100 |
| + | means | An operator can be obtained by dialling 1 |
| DIR(M) | means | Connect caller by manual line |
| T | means | Operator use only. Code <u>not</u> to be given to Extension users |

TRI (JOINT SERVICE)

| <u>HENDON</u> | | |
|---------------------|-------------|--------------------------|
| RAF | 2.42.No | 01-202 6577 |
| RAF MUSEUM | 2.42.No | 01-205 2266 |
| HENLOW RAF | 3.8.No | Hitchin (0462) 815016 |
| <u>HEREFORD</u> | | |
| MIL | 4.151.No | Hereford (0432) 57311 |
| ORDNANCE | 4.151.No | Hereford (0432) 760361 |
| RAF | 2.24.No | Hereford (0432) 761555 |
| <u>HEREFORD MIL</u> | | |
| EXT NOS 2200-2649 | 20-x-No | * (01049 5221) 89 + |
| EXT NOS 3200-3349 | 20-x-No | * (01049 5221) 87 + |
| HERMITAGE MIL | 4.13.381.No | Hermitage (0635) 200371 |
| HERON HMS | 4.12.83.No | Heche .ter (0935) 840551 |

The GPTN code for RAF Hereford is 2.24.No. Include the extension number required (312) or (0) for operator and the number to dial would be:

224 312 or 224 0

- b. Select the correct GPTN circuit (see Annex C).
- c. Insert the calling plug into the lower jack of the GPTN switchboard line.
- d. Insert dial cord A or B belonging to the TKO/Tandem dialling facility into the dialling jack associated with the required line.
- e. Operate dial key belonging to the TKO facility and dial the code and number for the required station.
- f. Upon receiving a 'tone', disconnect the TKO cord.
- g. Proceed according to line conditions.

SELECTOR LEVEL ACCESS BUSYING (SLAB) KEY

- 11. a. In order to have the exclusive use of some circuits under breakdown conditions or to route Precedence calls (Flash and Immediate) when circuits are busy, operators can take control of circuits by operating a push button known as a SLAB key.
- b. These keys are located in a special cabinet at Zonal and Group switching centres and are mounted on the switchboard face equipment at Dependent exchanges.
- c. The operation of the SLAB key will cut off both subscribers and cause the Free Line Signalling to FLASH (Proceed as for Precedence calls).
- d. When a particular SLAB key is operated on a BOTHWAY circuit, the operator will instruct the distant operator of this fact.

PRECEDENCE CALLS

FLASH AND IMMEDIATE CALLS

12. Operator assistance in obtaining connection of a Precedence call will only be invoked if the originator is unable to complete the call by dialling.

13. Operating Procedures

a. Originating Exchange

(1) Record the following details on F Sigs 240: precedence and time in remarks column, destination and extension, caller's rank, name and telephone extension.

(2) Insert calling cord into first free (disengaged) O/G or BW Precedence line and dial 'O'. When the distant operator answers, ask for "A Flash/Immediate call to (location and extension number)."

(3) If all Precedence circuits are engaged, interrupt one and say, "Clear the line for a Flash/Immediate call." Remain in circuit until both parties have cleared down (see notes), withdraw and re-insert the calling cord and dial 'O'. When the distant operator answers, ask for "A Flash/Immediate call to (location and extension number)."

b. Parenting ZSC/GSC or Intermediate ZSC. Having determined the routing for the call from the Visible Index File (VIF), select a disengaged Precedence circuit on the appropriate route and proceed as in para 13a (2) and (3) above.

c. Terminal ZSC/GSC

(1) Plug into a disengaged Precedence circuit to the required exchange, dial 'O' and, when the operator answers, ask for, "A Flash/Immediate call to extension ..."

(2) If there are no disengaged Precedence circuits to the distant exchange, interrupt one and say, "Clear the line for a Flash/Immediate call." Remain in circuit until both parties have cleared down (see notes), withdraw and re-insert the calling cord and dial 'O'. When the distant operator answers, ask for, "A Flash/Immediate call to extension ..."

d. Terminal Exchange. Connect the call to the required extension, TKO the extension if it is engaged.

14. Flash and Immediate calls are to be supervised and monitored throughout.

- NOTES:
1. In cases of difficulty in obtaining the disconnection of an established call, operate one of the SLAB keys on the required route and dial 'O' to obtain the next operator.
 2. On bothway circuits, the operator at the distant end of the circuit also has to be instructed to operate the appropriate SLAB key.
 3. If unable to connect call over GPTN, use Public Service Telephone Network (PSTN) using procedure laid down in Chapter 9, paras 6 or 7.
 4. Flash and Unauthorised Immediate calls are to be entered in the F 798.

PRIORITY CALLS

15. Priority calls are for calls of urgent operational or administrative importance which should not suffer the delay to which ordinary calls are subject at the time.

16. A person entitled to make PRIORITY calls is not authorised to demand one unless they have been advised by the operator that an ordinary call is subject to an unacceptable delay. In that circumstance, the operator may then be told, "This is a Priority call."

17. Upon request for a PRIORITY call, check the caller's authority and record the following details:

- a. Rank and name or appointment.
- b. Required unit and extension number.

18. The call is then placed at the top of the booking list. Attempt to connect the call via the civil or Service network at 5 minute intervals.

CALLS TO/FROM GERMANY

19. When the GPTN has been fully commissioned, calls to and from Germany will be by direct dialling. This facility is already available to some selected stations.

20. In the interim, calls for Germany will be routed via High Wycombe. Dial code as advised in TRI.

EXCHANGE PROHIBITION EQUIPMENT

21. Connection of Private Wires to Direct Exchange Lines and vice versa is prevented by Exchange Prohibition Equipment.

RAF GENERAL PURPOSE TELEPHONE NETWORK (GPTN) - PROLONGED UNINTERRUPTED PRIVATE WIRE (PUPW) CALLS

22. PUPW calls enable the network to provide a back-up to operational speech circuits in the event of an emergency or an exercise and for facsimile or data transmission.
23. An operator receiving a request for this type of call is to connect the caller to the supervisor.
24. The supervisor is to request the caller to advise the exchange when the connection is no longer required and proceed as follows:
 - a. Using a pair of cords, on an end position wherever possible, set up the call to the required location, having waited for an outgoing circuit to become disengaged and operated the associated SLAB key. The supervisor at each intermediate switching centre and the terminal PBX is to be advised that a PUPW call is required to (station) via (terminal switching centre) under operator control using the SLAB keys.
 - b. When the call has been established, the supervisor at each switchboard is to mark the cord circuits and the associated SLAB key by attaching a label marked 'PUPW call - do not disconnect'. A reminder ring is to be placed over the speak/ring key associated with the pair of cords in use to prevent accidental operation.
 - c. All operators are to be instructed that the marked connection is not to be monitored or disconnected without instructions from the PBX supervisor.
 - d. At multiple type switchboards, all repetitions of the extensions and/or private circuits are to be pegged in the multiple to prevent interruption from other switchboard positions. White multiple pegs marked 'PUPW' are to be used.
 - e. When advised by the originator that the call is no longer required, the supervisor at the originating PBX is to clear down the local connection, advise the supervisor next in the chain of connection that the call is to be cleared down and restore the SLAB key. Similar action by the supervisor at each PBX will result in all the circuits involved being returned to normal service. The cord circuit labels and multiple pegs are also to be removed. The time of disconnection is to be noted in the exchange diary.
25. Supervisors at intermediate PBXs are to verify at 0900 hours and 1700 hours daily with the supervisor of the originating exchange that connected PUPW calls are still required.
26. RAF SCSHQ (Tels 12) is to be informed if the number of PUPW calls on any route is degrading the service to normal users.

ROUTINE TESTING

27. Routine testing will be controlled by Zonal Switching Centre/Group Switching Centre operators.
 28. Routine testing from Zonal Switching Centres/Group Switching Centres will be made from a special telephone, associated with test access selectors, using a call maker cord.
 29. The test telephone is programmed to select any disengaged circuits and route a call to an extension at the distant unit.
 30. Zonal Switching Centre Responsibilities. Zonal Switching Centres will test routes to:
 - a. Its dependents (outgoing only).
 - b. Higher numbered switching centres (using bothway and outgoing circuits).
 - c. Group Switching Centre.
 - d. Gateway circuits (outgoing only).
 31. Group Switching Centre Responsibilities. Group Switching Centres will test routes to:
 - a. Its dependents (outgoing only).
 - b. Gateway circuits (outgoing only).
- NOTE: All routes will be tested daily before 0800 hours.
32. Testing Procedures at Zonal Switching Centres/Group Switching Centres
 - a. Inform the distant operator that you are about to begin testing your outgoing circuits.
 - b. Select the call maker cord for the route to be tested.
 - c. Having lifted the handset of the telephone used for testing, insert the test cord corresponding to the first circuit of the route into the call maker. When the distant operators answers, speak over the route.

- d. If the test is satisfactory, release the connection and proceed to the next circuit.
 - e. If the circuit is engaged, place the call maker cord to one side and test later. Proceed to test the next circuit.
 - f. If a satisfactory connection is not made, record the circuit number and details of the failure, release the connection and operate the circuit busying key.
 - g. Proceed as for paras c to e until all outgoing circuits are tested.
 - h. After you have completed testing, instruct the distant operator to test your incoming circuits (see instructions for testing on routes for which you are not the test control).
 - i. The distant operator will give you details of unsuccessful test calls. Record the details and instruct the distant operator to release the connection, then busy out the circuit on an end position at a DEPENDENT EXCHANGE or on the TEST and BUSY CABINET at a Zonal Switching Centre or Group Switching Centre.
33. Testing at ZSC/GSC on Routes for which you are not the Test Control
- a. When instructed by the controlling ZSC/GSC, proceed as in para 43a to 43g.
 - b. On completion of the tests, pass the British Telecom Circuit Numbers of any faulty circuits, with details of the failures, to the Test Control operator and busy out the circuits.
34. Testing Procedures at Dependent Exchanges
- a. Testing will be carried out from the SWITCHBOARD OPERATING POSITIONS.
 - b. When instructions to commence testing have been received, plug into the first outgoing circuit of the route and dial the test number. Check the SUPERVISORY SIGNALS at each stage and speak over the circuit when the distant operator answers.
 - c. If DIALLING, SUPERVISORY SIGNALS and SPEECH are satisfactory, release the connection and repeat the testing sequence for each outgoing and bothways circuits.
 - d. Faulty connections are to be held until all circuits have been tested. Repeat the British Telecom Circuit Numbers and fault details to the test control, release the connections and busy out the faulty circuits on an end position.

PRIVATE WIRE FAULT REPORTING PROCEDURES

35. Fault Reporting Responsibility - General. For each dependent and trunk route, The BT will nominate one of the ZSC/GSC to be responsible for reporting the faults to the BT Fault Reporting Point (FRP). In general, the division of responsibilities will be:
- a. The parent ZSC/GSC for dependent exchanges.
 - b. The lowest numbered ZSC terminal for each trunk route, eg, a faulty circuit between Harrogate (8) and Waddington (7) will be reported by Waddington.
 - c. The ZSC/GSC for the outgoing Gateway circuits.
36. Fault Reporting at Dependents. Faults on incoming circuits and the incoming components of bothway circuits which are found whilst routine testing are excluded from reporting. Other faults are reported as follows:
- a. On extension reporting difficulties, establish that the fault is not caused by the telephone instrument or Station PBX.
 - b. Hold the faulty circuit, if it has been identified, and report the circuit number, the number dialled and the nature of the fault to your ZSC/GSC.
 - c. If the outgoing circuit is not identified, report details as in para 47b, stating that the outgoing circuit has not been identified.
 - d. Report a total failure of the route immediately to your ZSC/GSC using the BT public network.
37. Fault Reporting to BT Fault Reporting Point at ZSC/GSC
- a. Check that the fault is your responsibility.
 - b. Check that the call has been routed correctly.
 - c. Examine the relevant circuit fault record card for recent faults of a similar type (see Annex B).
 - d. Report details to the BT FRP and state whether the call is held by a distant switchboard.
 - e. Obtain a fault docket number and enter the details on the circuit record card (RAF FORM 7102).

f. Faults found during routine testing are to be reported to BT FRP.

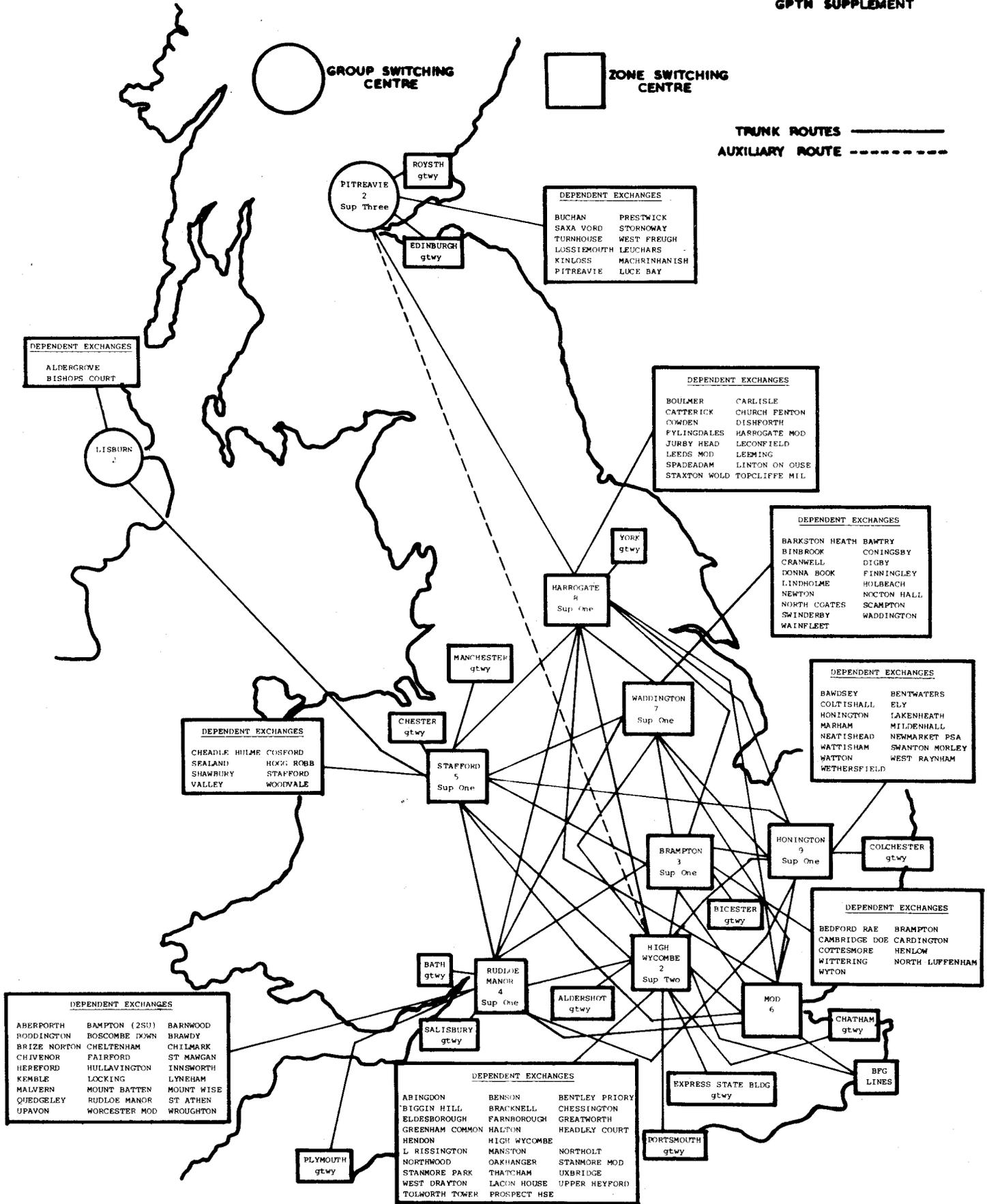
g. Report fault on circuits for which you do not have reporting responsibility to the controlling ZSC/GSC, giving relevant details.

h. Co-operate with the BT FRP on re-testing circuits.

38. Failure of Routes. A complete or partial breakdown of a route - RAF SCSHQ Benson is to be informed (telephone Benson, ext 2287) during normal working hours and 6 SU Duty Officer at Rudloe Manor out of normal working hours.

GENERAL PURPOSE TELEPHONE NETWORK

ANNEX A TO
GPTN SUPPLEMENT



SWITCHBOARD FACE EQUIPMENT

SWITCHBOARD DESIGNATION LABELS

| CIRCUIT TYPE | ABBREVIATION | LABEL COLOUR | LABEL ENGRAVING |
|--|--------------|--------------|-----------------|
| Incoming Only (Admin) | IC | White | Black |
| Bothways (Admin) | BW | Orange | Black |
| Outgoing Only (Admin)* | OG | Green | Black |
| Gateway (Joint Service Access) | JA | Blue | White |
| Operational (Including AOTN) | | Yellow | Black |
| Mediator | | Black | White |
| Emergency | | Red | Black |
| Priority Answer | | Blue | Black |
| *These circuits will be fitted with SLAB KEYS. | | | |

SWITCHBOARD OPAL COLOUR CODES

| FACILITY | OPAL COLOUR | |
|---|----------------------------------|-------|
| | CALLING LAMP | FLS |
| Incoming Only | White | |
| Bothways/Outgoing (Full Facilities) | White | Green |
| Bothways/Outgoing (Restricted Facilities) | White | Amber |
| Emergency | Red | |
| Priority Answer | White with engraved Black 'P' | |
| 'O' Level Assistance | White with engraved Black 'O' | |

ROUTINE TESTING SCHEDULE - SWITCHING CENTRE

| | TYPE OF CIRCUIT | TEST EQUIPMENT | METHOD OF TESTING | FAULT REPORTING | REMARKS |
|--|--------------------|--|--|---|---|
| 1. Switching Centres with lower dialling codes will test to Switching Centre with higher codes. <u>EXAMPLE</u> 2 will test to 3, 4, 5, 6, 7, 8 3 will test to 4, 5, 6, 7, 8 etc | O/G & B/W (Aspect) | Call maker test cards to test telephone and switchboard to switchboard line equipment. | 1. <u>O/G & B/W (No SLAB KEY Fitted)</u> . Using specially prepared call maker cards, insert in call maker telephone. Communication will be established with distant exchange by a call being received on a telephone located in the switchroom. 2. <u>O/G & B/W (SLAB KEY Fitted)</u> . When testing circuit with SLAB KEYS fitted, the tests will be carried out from the switchboard on which the circuits are located. Communication will be established by the operator dialling zero ('0') and a signal will appear at the distant switchboard. 3. <u>Speech & Signalling Tests</u> Operators will ensure that speech is satisfactory and signalling (calling signals and supervisory signals activated). | 1. Faults to be entered in faults log distant location to be notified. Fault reported to local fault reporting point and place RED pegs in the multiple. If the circuit appears on the switchboard, busy the circuit out from the busy cabinet. | Time of testing will be determined by Switching Centre with lowest dialling code. All testing is to be carried out during NON-WORKING HOURS, except for exchanges who are on night service. |
| 2. Switching Centres with higher dialling codes will test to Switching Centres with lower codes. <u>EXAMPLE</u> 8 will test to 7, 6, 5, 4, 3 and 2 | O/G & B/W (Aspect) | Call maker equipment and switchboard to switchboard line equipment. | 4. <u>O/G & B/W (No SLAB KEYS)</u> Carry out same tests as for para 1. 5. <u>O/G & BW (SLAB KEY Fitted)</u> Carry out same tests as for para 2. 6. <u>Speech & Signalling Tests</u> Carry out checks as for para 3. | 2. Enter faults in faults log. Notify distant exchange. | Time of testing to be determined by SC with lower dialling code. |
| 3. RAF Switching Centre to a gateway station (Army, Navy). | O/G & B/W (Aspect) | Call maker equipment and switchboard to switchboard line equipment. | 7. <u>O/G & B/W (No SLAB KEYS)</u> . Carry out same test as for para 1. 8. <u>O/G & B/W (SLAB KEY Fitted)</u> Carry out same checks as for para 3. | 3. Carry out same fault reporting procedure as in para 1 (if circuit is not your responsibility for fault reporting carry out procedure as in para 2). | |
| 4. Switching Centre to Dependent. | O/G & B/W (Aspect) | Call maker equipment and switchboard to switchboard line equipment. | 10. <u>O/G & B/W (No SLAB KEYS)</u> . Carry out same test as for para 1. 11. <u>O/G (SLAB KEYS Fitted)</u> . Carry out same procedure as for para 2. 12. <u>Speech & Signalling Tests</u> Carry out same checks as for para 3. | 4. Carry out same fault reporting procedure as in para 1. | |

ROUTINE TESTING SCHEDULE - DEPENDENT EXCHANGE

| | TYPE OF CIRCUIT | TEST EQUIPMENT | METHOD OF TESTING | FAULT REPORTING | REMARKS |
|------------------------------|--------------------|---|--|---|--|
| Dependent to Zonal Switching | O/G & B/W (Aspect) | Switchboard to test telephone and switchboard to switchboard. | O/G & B/W Circuits (No SLAB KEYS Fitted). All testing at a dependent exchange will be carried out from the switchboard. When a circuit is not fitted with a SLAB KEY, the operator will dial a test number, which will call a telephone situated in the distant switchroom. O/G Circuits Fitted with a SLAB KEY. To test these circuits, the operator will dial 'O'. | Enter faults in faults log. Notify distant exchange (ZSC or GSC). Place red pegs in the multiple. | Testing will be carried out at specified periods. The time of testing being determined by the ZONAL switching centre, except in the case of switchboards on night service. |

CHAPTER 11

OVERSEAS RADIO CALLS

1. a. MOD MAIN PBX has unclassified speech facilities on the DCN to RAF formations overseas.
- b. On receipt of a request for a call to an overseas formation, the PBX operator is to record the following information on the F Sigs 240:
 - (1) Rank, name and extension of the caller.
 - (2) Formation or station required.
 - (3) Rank, name and appointment of the required person.
 - (4) When applicable, the identity or branch of another recipient to take the call in the absence of the primary addressee.
 - (5) Time of booking.
- c. The operator is to:
 - (1) Advise the caller, "I will book this call, you will be called later."
 - (2) Set up a call to MOD MAIN PBX, ask for 'Overseas Operator' and pass full details of required call.
 - (3) If immediate connection is not possible, book the call with the 'Overseas Operator', who will give details of the expected time of connection. This will be subject to the availability of the required circuits.
- d. Precedence Calls. Incoming and booked overseas calls are to be given precedence on RAF trunk routes. Existing calls, other than precedence calls, are to be interrupted if necessary. The normal degrees of precedence, ie, FLASH, IMMEDIATE and PRIORITY apply to calls over radio circuits.
- e. Notes for PBX Operators at Terminals of the HF Radio Telephone Network. The introduction of unclassified radio telephone circuits to overseas locations introduces few problems in telephone operating; the circuits are two way speech and ringing circuits and differ little from normal telephone landline circuits. When a call is connected, the noise and speech levels between operators must be kept at a minimum, because all noise or speech on the line will be transmitted over the radio path. Therefore, when you receive or put through a call to or from an overseas subscriber, put the key to the monitor position when you are not actually speaking. This will ensure that the noise is not inadvertently fed into the line. Other points to be observed are:
 - (1) Keep talk to a minimum.
 - (2) Warn the subscriber using the following words, "Your call is being passed over an unclassified circuit and may be monitored."
 - (3) Connect the subscriber only when you have contact with the distant exchange.
 - (4) Do not break in unnecessarily.
 - (5) Liaise with the SCS and request assistance in case of difficulty in establishing calls.

FORMS AND PUBLICATIONSFORM 798 - COMMUNICATION CENTRE DIARY

1. Supervisor is responsible for its upkeep.
2. Contents
 - a. Time, taking and handing over watch.
 - b. Entry to indicate that Signals books have been checked and taken over (SBC).
 - c. Entry to indicate faults log checked and the faults noted (FLC).
 - d. Any unusual occurrence(s).
 - e. Supervisor's signature.
3. The following items would warrant an entry:
 - a. ALL FIRE and CRASH calls.
 - b. ALL FLASH calls.
 - c. PUPW and PUT calls.
 - d. IMMEDIATE (unauthorised only) PRIORITY (unauthorised only)
 - e. Incoming Service Transferred Charge calls (unless local orders state in a separate log).
 - f. Power failures and restorations.
 - g. ANY UNUSUAL OCCURRENCE, ie, bomb threats, hoax telephone calls, complaints
4. Air Publications

| | | | |
|---------|-------------------------|---------|--|
| AP 3297 | RAF Postal Directory* | AP 3224 | Signals Organisation* |
| AP 3435 | RAF Telephone Directory | AP 3435 | Supplements 1, 2 and 3 GPTN Dial Codes |
5. Allied Communication Publications

| | |
|-------------------|---|
| ACP 134 (A) | Telephone Switchboard Operating Procedure.* |
| ACP 134 UK Supp-1 | Communications Instructions, Telephone Operating Procedure, Telephone Exchange Organisation and Management (UK). |
6. Forms

| | |
|------------------|------------------------------|
| F Sigs 240 | Used for Booking Calls. |
| F 798 | Communication Centre Diary.* |
| Frame 25 and 25A | Visible Index File. |

*Check before commencing watch. Signals Books Checked (SBC).

CHAPTER 13

FAULT REPORTING AND RECORDING

1. Responsibility for Reporting Faults

- a. Supervisors will report immediately all faults to the appropriate Fault Reporting Point (FRP).
- b. If fault directly affects another switchboard, it also has to be informed.
- c. See notes on switchboard alarm systems (reporting action to be taken).

2. Fault Recording

- a. All faults are recorded in the FAULTS LOG.*
- b. Faults that have already been reported and are awaiting clearance are not to be reported again, but a note is to be made against the original entry stating the reason for the continuance of the fault.
- c. The actual details recorded may vary slightly, but the following details are essential.

| FAULT REPORTED | | | | EQUIPMENT RETURNED TO SERVICE | |
|----------------|------|----------------------|------------|-------------------------------|------|
| DATE | TIME | DESCRIPTION OF FAULT | INTS OF OP | DATE | TIME |
| | | | | | |

e. Ensure that pegs are inserted in the jacks of faulty lines and extensions, including all multiples, until restoration advice is received.

*Check all entries before commencement of watch (Fault Log Checked - FLC).

GENERAL ROUTINE TESTING AND FAULT REPORTING (REF ACF 134 UKJ SUPP-1 SECTION 11)

ROUTINE TESTING

1. Purpose - telephone equipment should be tested regularly in order that faults may be detected at an early stage and remedied before they have adverse effect on traffic.
2. All daily tests are to be carried out not later than 0800 hours or on opening.
3. All tests are to be carried out under supervision.
4. All faults should be reported immediately to the appropriate fault reporting point.
5. Operators are not allowed to carry out repairs.

DAILY TESTS

| EQUIPMENT | TEST | DEFECTS |
|---------------------------|---|--|
| <u>Operator's Headset</u> | Test with another operator on suitable internal ext, ie, Supervisor's telephone, or test with suitable external ext, ie, any telephone manned 24 hours a day. Carry out general examination of instrument. This test is also to include <u>spare instruments, Supervisor's handsets and table instruments</u> . | Check for satisfactory transmission and absence of noise. Check for frayed cords, missing parts, cracked and broken parts. |
| <u>Cord Circuits</u> | 1. Throw Speak Key, insert Ans and Calling plug in turn into cord test jack. Confirm that: a. Plug fits firmly in jack. b. Supervisory Indicator operates sup flashes when half way in. c. No scraping noise is heard on shaking cord. 2. Check for short cords. 3. Carry out Engaged test. 4. Carry out general examination. | <u>General Examination</u> Check for missing screws, covers, other parts. Frayed cords or defective parts. NOTE: Cords that develop faults should be put out of order by fitting an <u>OUT OF ORDER</u> sleeve on the <u>ANSWER PLUG</u> . DO NOT DOUBLE CORDS BACK IN THEIR SOCKET. |

| EQUIPMENT | TEST | DEFECTS |
|---|---|---|
| <u>Face Equipment</u> | The Supervisor keeps an up-to-date record of all special markings, labels and pegs. These should be checked daily with the aid of the Faults Log, Transfer of Extension Record, Notice Board or Enquiry position. Any incorrect, illegible marking or miss missing pegs etc should be rectified <u>IMMEDIATELY</u> . | Incorrect, illegible and missing pegs. |
| <u>Night Alarm</u> | With alarm ON, create calling signal - dial 'O' (auto switchboard) or lift receiver (manual switchboard). Ensure audible alarm received. Switch <u>OFF</u> alarm. Replace receiver. | |
| <u>Hand Generator</u> | Operate Hand Generator key/button. Select suitable internal extension, ie, Supervisor's telephone. With aid of Hand Generator, provide Emergency Ring Supply (note Ring Key and Hand Generator work in conjunction with each other when carrying out this test). Restore Hand Generator button/key. | Check that telephone rings when Hand Generator in operation. |
| <u>Dials and Exchange Lines</u> (Automatic Lines) | The testing of Dials and Exchange Lines are combined. Test is made by dialling the test number of the exchange. The TEST NUMBER can be obtained from the <u>LOCAL BRITISH TELECOM SUPERVISOR</u> . After dialling the test number, a <u>REVERSE RING TONE</u> should be heard. If a dial is suspected to be faulty, test on another line. If correct result is still not obtained, change the dial. Test new dial. <u>NOTE:</u> When testing manual exchange lines, procedure is similar to testing PWS, but <u>DO NOT RING</u> . | Ensure REVERSE RING is heard after dialling test number. |
| <u>Face and Key Shelf Equipment</u> | 1. Check Face Equipment weekly against list of working lines (check card will indicate spare and working lines). 2. Note and record: a. Loose jack strips. b. Missing or broken lamps and opals. c. Missing, incorrect or illegible labels. d. Missing or broken key tops. | |
| <u>Free Line Signalling</u> (where provided) (daily test) | 1. Test to be carried out from <u>different section of the multi each day</u> . 2. Starting with first circuit, use engaged click to ensure free line. 3. If free plug up circuit, ensure FLS steps up to next free line. 4. Carry out tests on all lines in the group until the signal is extinguished. 5. Carry out engaged test from a different section of the multi - ensure that the engaged click is heard on every circuit plugged up. 6. Disconnect plug from circuits, ensure that FLS steps down on each withdrawal. | 1. A circuit indicated by a free line signal tests 'engaged!'. 2. A free line signal fails to step to another circuit or to disappear when the circuit is plugged up. 3. A circuit not plugged up when the FLS is extinguished fails to give the engaged click (this test can only be carried out from a different section of the multi). |

TYPE 'F' FIELD TELEPHONE

1. Purpose. To provide emergency communication between two or more points.
2. Construction
 - a. Handset. Consists of Microphone and Telephone earpiece.
 - b. Hand Generator. Provides an output for ringing the distant bell.
 - c. Batteries. To energise the microphone (two 1.5V batteries connected in series providing 3 volts).
3. Carbon Microphone
 - a. Purpose. To change sound waves into electrical current variations.
 - b. Action. Two 1.5V dry cells, connected in series (3V), are used to energise the microphone circuit. The sound waves strike the diaphragm, causing it to vibrate. The resultant compression and decompression of the carbon granules varies the resistance in the circuit, thus varying the current at the frequency of the original sound waves.
4. Telephone Earpiece
 - a. Purpose. To change electrical current variations into sound waves.
 - b. Action. Electrical current variations which flow through the windings on the pole pieces increase or decrease the magnetic field of the permanent magnet. This varying magnetic field causes the diaphragm to vibrate at the frequency of the original current variations, thus reproducing the original sound waves.
5. Daily Servicing
 - a. Handset
 - (1) Disconnect lines.
 - (2) Lift handset and 'blow' across microphone. A 'breathing' sound should be heard in the earpiece.
 - (3) Press cradle switch, a click should be heard and the breathing sound should cease.

NOTE: If 'breathing' sound not heard when handset is lifted, batteries need checking.
 - b. Batteries
 - (1) Your speech faint - your batteries unserviceable.
 - (2) Distant speech faint - distant batteries unserviceable.
 - c. Generator. With lines disconnected, generator should turn easily. If generator difficult to turn, it is unserviceable.
 - d. Lines (telephone connected)
 - (1) Generator hard to turn - lines shorted.
 - (2) Generator turning too easily - lines open circuited.
6. Methods of Connecting
 - a. Metallic pair. Two wires connected in parallel. D8 wire normally used. Range 12 to 15 miles.
 - b. Earth Return. One wire connected from L1 to L1 with L2 connected to earth at each telephone.

CHAPTER 15

EMERGENCY CALLS - BOMB THREATS AND HOAX TELEPHONE CALLS

FIRE AND CRASH CALLS

1. Fire Calls

- a. A list is to be displayed in the switchroom giving extensions to whom information should be passed. Usually found in the VIF.
- b. Procedure when a fire is reported:
 - (1) Take the extension number and particulars of the caller.
 - (2) Obtain the exact location and type of fire (liquid, solid, electrical, chimney etc)
 - (3) Note the time of reporting.
 - (4) Carry out Fire Orders (which are promulgated locally).
 - (5) Inform the supervisor, for entry in Communication Centre Diary F 798.

2. Crash Calls

- a. Calls dealing with reports concerning aircraft safety, distress or crashes.
 - b. Carry out same procedures as for 'FIRE' calls, but advise the persons listed on 'CRASH CALLS' list.
3. On PABX 3 the number 222(2) is reserved for emergency use, ie, fire, ambulance, security etc. On flying stations, the number 333(3) is normally reserved for crash calls.
4. An operator is to say, "Emergency, which service do you require?"

NOTE: It is advisable to state to all concerned that the information is being passed by the PBX operator. Prefix all announcements with, "This is the PBX operator ..."

BOMB THREATS AND HOAX TELEPHONE CALLS

5. Introduction. When there is a threat of terrorism, RAF units must expect to receive bomb threats and hoax telephone calls. All units must therefore prepare for such incidents and update their plans regularly, in liaison with local police and fire services. P&SS units may be called upon for advice and assistance in dealing with the incidents and who will have responsibility for subsequent investigation.

ACTION ON TELEPHONE CALLS

6. The majority of bomb threats and hoaxes will be received by a telephonist and therefore they must be clearly briefed on what action to take if receiving such calls. The following points should be included in the brief:
- a. Try to prolong the conversation by keeping the caller talking and attempt to elicit as much information as possible.
 - b. Summon assistance to try and trace the call and to corroborate the facts and opinions expressed by the caller.
 - c. If the caller asks to be connected to an extension, the telephonist should connect him, but should monitor the call and alert the duty officer or security control to identify the person using the extension.
7. Facts to be Obtained. During the course of the call, the recipient should attempt to establish:
- a. which airfield, aircraft or other target is involved.
 - b. the exact location of the device.
 - c. the time it is due to detonate.
 - d. what sort of device it is.
 - e. when it was placed in situ and by whom (individuals or organizations).
 - f. the specific reason for the attack.
 - g. why the informant is giving the warning.

8. Caller's Knowledge of Circumstances. The recipient of a call should try to note whether the caller showed a detailed knowledge of the:
- a. device.
 - b. installation involved and the local environment.
 - c. movement of the particular aircraft.
 - d. destination and route of the aircraft.
9. Voice Characteristics. The recipient should also try to note all he can about these characteristics of the caller's voice.
- a. Was the tone normal?
 - b. Did it sound distinct or muffled?
 - c. Was it high pitched or stuttering or otherwise indicative of nervous tension?
 - d. Was it slurred or indicative that the person was under the influence of drinks or drugs?
 - e. Was there evidence of excitement in the informant's voice (eg, hurried speech)?
 - f. Did the caller give the impression that the message was being read?
 - g. Was the voice cultured or was there a pronounced or a recognizable accent or dialect?
 - h. Apart from establishing the sex of the caller, was there any indication that the person was young or old?
10. Background Noises. It will be of help if the recipient listens and notes any:
- a. sound which would indicate that someone else was with the caller (eg, prompting or giggling in the background).
 - b. background noise, eg, road traffic, aircraft, radio or jukebox.
11. Subsequent Checks. After the telephone call, the operator or recipient should attempt to determine the type of call.
- a. Was it operator-connected and, if so, can the operator help to identify the source?
 - b. Was it from a call box and, if so, was it STD?
12. Recording of Information. After providing the duty officer or other staff with details of the telephone call, the operator or recipient should make a full written record of the conversation and the impression he gained on the various characteristics outlined above.