STANDARD TECHNICAL TRAINING NOTES

FOR THE

RADIO ENGINEERING TRADE GROUP (FITTERS)

FOREWORD

1. These Notes are issued to assist airmen and apprentices under training as Fitters in the Radio Engineering Trade Group. They are not intended to form a complete text book, but are to be used in conjunction with lectures and demonstrations given at the Radio Schools. They are also intended to assist airmen on continuation training at other R.A.F. establishments.

2. There are four broad classifications in the advanced (Fitter) trades of the Radio Engineering Trade Group :—

(*a*) **Air Radar Fitter.** Employed in the servicing of all types of aircraft radar equipment (where servicing implies inspection, repair, re-conditioning, and modification).

(*b*) **Air Wireless Fitter.** Employed in servicing aircraft radio communication and inter-communication equipment, specified navigational aids, and miscellaneous wireless equipment.

(*c*) **Ground Radar Fitter.** Employed in servicing all types of ground radar equipment.

(*d*) **Ground Wireless Fitter.** Employed in servicing all types of ground communication equipment.

Note. The term "Radio Fitter" signifies an airman who has dual (Wireless and Radar) qualifications.

3. Before the duties described in Para. 2 can be carried out, a "thorough knowledge of the electrical and radio principles, and the elementary mathematics appropriate to the theory of the specified equipment in the trade" is required (see A.P. 3282A, Vol. 2). These Notes are in six Parts. The first four Parts deal with the theory, the basic principles, and the practice of radio to the standard demanded of the Radio Fitter Trades. Parts 5 and 6 give a summary of the equipments which the Fitter may meet in practice. These latter Parts are not intended to supersede existing Air Publications which should be consulted on specific equipment as necessary.

4. These Notes can only be issued on temporary loan to each trainee ; they must be handled with care and returned at the end of the course. A number of copies will also be available in Royal Air Force reference libraries ; these may be issued, as required, to airmen on continuation training.

5. No alterations to these Notes may be made without the authority of official Amendment Lists which will be issued from time to time.

LIST OF AIR PUBLICATIONS ASSOCIATED WITH THE TRADE

Principles and Techniques

A.P. 1093 R.A.F. Signal Manual, Part 2 (Radio Communication)
A.P. 1093E Interservices Radar Manual—Radar Techniques
A.P. 1093F Radar Circuit Principles, with Aerials and Centimetric Techniques
A.P. 1093G Radio Circuitry Supplement
A.P. 1093H Suppressed Aerials
A.P. 1186V C.V. Register of Electronic Valves
A.P. 2521A V.H.F. Ground Station Aerial Systems
A.P. 2867 Interservices Standard Graphical Symbols
A.P. 2867A Interservice Glossary of Terms used in Telecommunications
A.P. 2867B Interservice Glossary of Terms used in Telecommunications (Radar)
A.P. 2878C H.F. and M.F. Aerials for Ground Stations
A.P. 2900C Handbook of Electronic Test Methods and Practices
A.P. 3158C R.A.F. Technical Services Manual
A.P. 3214 (Series) The Services Textbook of Radio.

Equipment

Air Publications applicable to specific radio equipment are listed in:—

A.P. 2463 Index to Radio Publications

INSTRUCTIONAL FILMS

Title	Reference
Current of Electricity	14L/52
Nuts and Bolts	14L/178
Micrometer Calipers	14L/273
Vernier Scale	14L/413
Hammers, Chisels, Punches and Drifts	14L/1605
Files and Filing	14L/1606
Spanners, Screwdrivers and Pliers	14L/1636
Taps, Dies and Reamers	14L/1727
Hacksaws, Shears, and Vice Clamps	14L/1728
Locking Devices	14L/1729
Measuring and Marking—Precision Instruments	14L/1730
Transmission Lines—Maintenance of Coaxial Cables	14L/3280
Transmission Lines and Waveguides	14L/3288

This leaf issued with A.L. 13

Title	Reference
Vacuum Tubes—Electronic Diode	14L/3953
Cathode Ray Tube	14L/4268
Electricity and Magnetism	14L/4708
Magnetism	14L/5557
Electrical Terms	14L/5607
What is Electricity?	14L/5609
Electricity and Heat	14L/5610
Electricity and Movement	14L/5611
Electrochemistry	14L/5612
Putting Free Electrons to Work	14L/5614
A.C. and D.C.	14L/5615
The Generation of Electricity	14L/5616
The Transmission of Electricity	14L/5617
Aircraft First Line Servicing	14L/5656
Audio Oscillator	14L/5666
Volts—Ohm Meter Operation	14L/5667
Radio Shop Technician	14L/5668
First Line Servicing, Fighter Aircraft	14L/5768
Radio Antennae Fundamentals, Parts 1 and 2	14L/5780–1
R.D.F. to Radar	14L/5826
Waveguides, Parts 1 to 5	14L/5958–5962
Tuned Circuits	14L/6037
Ground Handling of Aircraft	14L/6338
The Doppler Principle in Airborne Navigation Aids	14L/6388
Centimetric Oscillators, Parts 1 to 3	14L/6397
Servomechanisms	14L/6435
Radar Techniques, Part 1—Waveform Response of C.R. Circuits	14L/6500
Radar Techniques, Part 2—Multivibrator	14L/6502
Radar Techniques, Part 3—Miller Timebase	14L/6504
Radar Techniques, Part 4—Pulse Forming by Delay Lines	14L/6506
Radar Techniques, Part 5—Flip Flop	14L/6508
Problems of Radio and Electronic Fault Finding	14L/6594
Principles of the Transistor	14L/6620

INSTRUCTIONAL FILM STRIPS

Title	Reference
Primary Cells	14J /154
Time Constant	14J/155
Distribution of Electricity	14J/194
Electricity—its Production	14J/195
Uses of Electricity	14J/196
Radiation	14J/197
Thermionic Valve	14J/198
Electrical Measuring Instruments	14J/203
The D.C. Motor	14J/204
Basic Radio Trouble-shooting, Parts 1 to 5	14J/239–243
The Internal Combustion Engine	14J/369
Elementary Principles of Cathode Ray Oscillograph	14J/370
The Cathode Ray Tube	14J/404
Magnetism and Electricity	14J/407
Waveguide Theory	14J/495–511
Waveguide Theory	14J/512–517
Introduction to Control Engineering Theory	14J/578
Introduction to Electronics	14J/586
Electronic Devices—Electron Tubes	14J/587
Basic Valve Circuits, Parts 1 to 4	14J/588–9
The Meaning of Valve Characteristics	14J/590
Telecommunication Principles	14J/606

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