

ACC

10000/135/556

RADIO & RADAR CO
JAN. - MAR. 1947

10000/135/556

RADIO & RADAR COURSES, ITALIAN PERSONNEL
JAN. - MAR. 1947

MEMORANDUM.

Telephone call from Wg Cdr Kendrick p.m. 25 March asking for two officers of Signal Courses to go to U.K. as soon as possible, if agreed to by I.A.M. Course to last six months, cost to be 310 each, Officers to travel in civilian clothes.

Chief of Staff informed on 26 March; also C.S.O. of this H.Q.; and Col De Vincenti C.S.O. at I.R.M.

Informed by C.S.O. this HQ that Major Felosi G. and Captain Paschina E. had been selected and by C. C.S. of I.A.M. that they were planning to leave Rome by B.E.A. on Tuesday 1st April. This information passed to Wg Cdr Kendrick on 26 March 1500 hrs by phone.

27th March 47.

Chisham

C. M.M. GRECE
Wing Commander
Air I.

Phone numbers:-

Mr. Cary	Abbey 3411	Ext 3975
Wg Cdr Kendrick	Victoria 8400	Ext 109
F/Lt Pitchell-Juan	Victoria 8400	Ext 21.

Copy for C.S.O. to file app/fin/s 524/547

Chick

C. M. M. GRECE
Wing Commander
Air I.

27th March 47.

Phone numbers:- Mr. Cary Abbey 3411 Ext 3975
Wg Cdr Kendrick Victoria 8400 Ext 109
F/Lt Pitchell-Juan Victoria 8400 Ext 21.

Copy for C.S.O. to file A.P.P. 110/554/54

6379

1.
Sip Ref 4th, have you any comment as to how further training of both Operators (in particular, practice in operation) and of mechanics?

2. Precise of 4th for Air Report pt.

WBS 25/2

2.

Dis. Ref 11. WBS 15.

Information has been received from HQ that no further training can be given in the north. Mechanics are gaining valuable experience in working on the vehicles now at Torrida a operation will be able to gain experience on the 401's at Puccinico. Plans being handed over to the 401's on 31/4/7. We are awaiting an answer from Air Min to our last letter re. sending operations mechanics to U.K. for training. Auth. 28/2.

2. Review of Air Report pt.

MS 25/2

2.

Ref 111 MS 4/5

Information has been received from HQ that no further training can be given in the north. Machines are gaining valuable experience in working on the vehicle now at Torricella & operators will be able to gain experience on the AT-6's at Pieveve. Funds being handed over to the AT-6's on 31/4/47. We are awaiting an answer from Air Union to our last letter re. sending operators enroute to U.K. for training. Auth. 28/2.

6578

ALLIED FORCE HEADQUARTERS

Italian Military Affairs Section

Air Forces Sub Section

APO 794

British Embassy
To: Cery to: MAC Secretariat.

AFB/CD/TW.

Re:

Training Courses in the U.S.
Subject: for I.A.F. Personnel.

31st March 47.

Date:

Ext: 546.

I refer to your letter DMS/RO/TW/AF dated 20th February 1947 in which I notified you that the Air Ministry had approved the attachment of Italian Air Force personnel to training courses in the U.S.

2. I have now received a signal from London stating that a letter is in the post which gives full details as to dates and duration of acceptable courses. The signal also calls for two officers to proceed to the United Kingdom as soon as possible in order to attend a signals officers course which will last for six months.

3. Two officers have been selected by the Italian Air Ministry and are sponsored by this office. Their names are Major Faloni, G. and Captain Paschini, R.

4. I would be most grateful if you would agree to making further arrangements with the Italian Air Ministry for the attendance of Italian personnel in these courses and in particular for the two signals officers named above to proceed by air during this week.

Srs AF Bishop.

A.G. BISHOP
Air Commodore,
Director,
Air Forces Branch,
Allied Force Headquarters.

Aty to C.S.O.

file
6577

5574/5/63

From : Ministry of Defence, Italian Air Force
Telecommunications Directorate

To : A.F.S.S.

Ref. : 515418/TEL/12/13-1/513 Coll.

Date : 26th March 1947

RADIO AND RADAR COURSES - ITALIAN PERSONNEL

In reply to letter D143/AIR/3 514/SIGS/AF dated 4th March 1947 we forward particulars of the Italian Air Force Personnel who completed the Radar Courses which have been carried out in conjunction with the R.S.F. in the North of Italy.

TRAINED AS:	PERCINCO		MONTORSI OTELLO	
	RANK	NAME	RANK	NAME
RADAR MECHANICS	LT.PIL.	MANSI-MONTENEGRO Renato	LT. PIL.	MONTORSI Otello
	W/O	ROMANZI Adolfo	W/O	TACCONI Adalgiso
	Sgt. Maj.	STACIARDI Enrico	"	ALBERTI Guerriero
	"	"	Sgt. Maj.	STACIARDI Inio
	"	"	Sgt.	GUERRA Italo
TECHNICAL OFFICER	L.A.C.	CASILE Cosimo	"	DELLA GIOIA Luigi
	"	DELLA GIOIA Umberto	L.A.C.	PERCINCO Pasquale
	W/O	PERCINCO Riccardo	LT. Maj.	ALBERTI Antonio
	Sgt	DELLA GIOIA Michele	Sgt.	ALBERTI Agostino
	"	"	"	CHIRIACO Antonio
RADAR OPERATORS	"	MARCONI Tommaso	"	BOLOGNI Renato
	L.A.C.	ALBERTI Antonio	"	ALBERTI Antonio
	"	BOLOGNI Emilio	L.A.C.	PAPA Francesco
	"	BOLOGNI Michele	"	BOLOGNI Antonio

In reply to letter MAS/11A/S 24/3/54 dated 14th March 1954 we forward particulars of the Italian Air Force Personnel who completed the Junior Course which have been carried out in conjunction with the R.A.A. in the north of Italy.

TRAINED AS:	PROMOTED		ITALIAN VARIO	
	RANK	NAME	RANK	NAME
CONTROLLER	LT. Ptl.	MANSI-MONTESANO Renato	LT. Ptl.	MONTESANO Oreste
RADAR MECHANICS	W/O	MONTELLI Abile	W/O	TRACCHI Maddaleno
	Sgt. Maj.	MONTESANO Davide	"	MONTESANO Guerrero
	"	MONTESANO Giacomo	Sgt. Maj.	MONTESANO Indo
	"	MONTESANO Giovanni	Sgt. Maj.	MONTESANO Italo
TECHNICAL OFFICER	L.A.C.	MONTESANO Umberto	L.A.C.	MONTESANO Luigi
	"	"	"	"
	"	"	"	"
	"	"	"	"
RADAR OPERATIONS	W/O	MONTESANO Elio	W/O	MONTESANO Antonio
	Sgt.	MONTESANO Michele	Sgt.	MONTESANO Antonio
	"	"	"	"
	"	"	"	"

6576

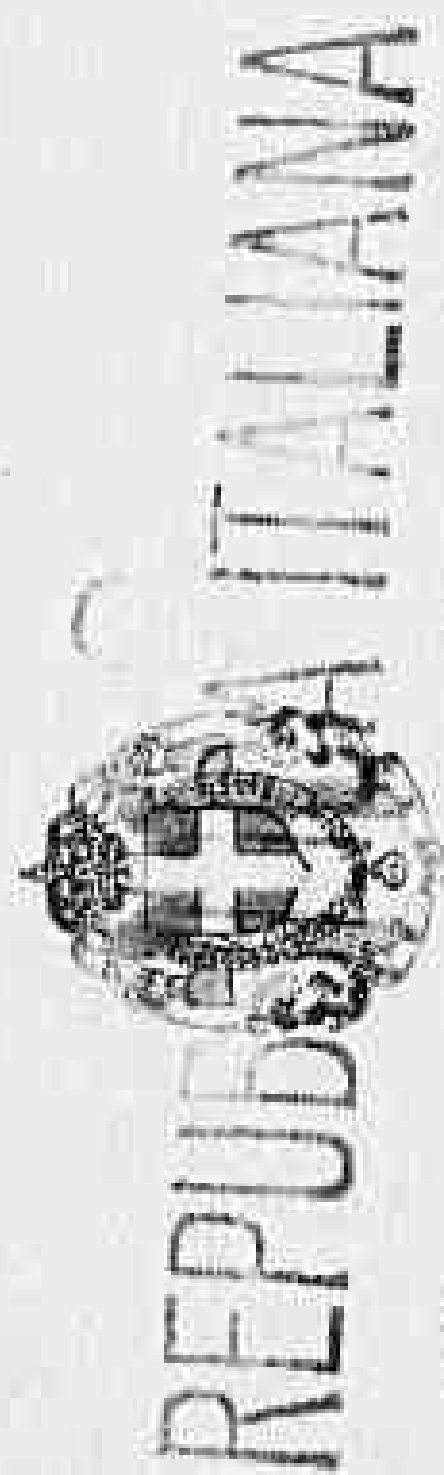
THE ITALIAN
(Gen. D.A. C. MANTO)

21/3

Translated by I.A.C. MANTO

up A 641

544/844



REPUBBLICA ITALIANA

Roma, 26 MAR 1947 19

10

Ministero della Difesa - AERONAUTICA

Ispettorato delle Telecomunicazioni

UFFICIO PERSONALE

Det. N. 5138

Allegato VEL/12/12.1

APC 794 - Tramite Ufficio Collegamento = S E D E =

ALLIED FORCES HEADQUARTERS
ITALIAN MILITARY AFFAIRS SECTION
TICN - AIR FORCES SUB SECTION

APC 794 - Tramite Ufficio

Collegamento = S E D E =

OGGETTO Corsi Radio e Radar -- Personale Italiano.

In risposta al foglio INAS/AIR/S.544/SIGS/AF in data 4 Marzo 1947, si comunicano i nominativi del personale dell'Aeronautica Militare Italiana che completò i Corsi Radar svolti presso la R. A.F. nel Nord-Italia:

PRECENICO		MOGLIANO VENETO	
Addestrato quale:	Grado	Nome	Nome
Controllore	Ten. Pil.	Mansi-Montenegro Renato	MONIORSI Ctello
Ufficiale Tecnico	Cap. A.A. rs	FIRINO Edoardo	AGAZZI Antonio
Meccanici	M. llo	BORGATTI Adelmo	LACCONI Adalgiso
	Serg. M.	RICCIARDI Enrico	ALBERTI Guerriero
	" "	D'ONOFRIO Giacomo	Serg. M. BERTIOZZI Indo
	" "	BASILE Cosimo	Serg. NEVOLA Italo
Radar	Io Avieri	DEL BELLO Umberto	DEL CIUDICE Luigi
	" "	" "	GERARDI Pasquale
Operatori	Serg. " "	DI BENEDETTO Michele	ALOISINI Agostino
Radar	" "	BARBIERI Ciro	CARRARO Antonio
	Io Av.	MARCUZZA Tommaso	BOLOGNINI Renato
	" "	MAZZEO Antonio	FALCONE Antonio
	" "	BOSSONE Emilio	PAPA Francesco
	" "	BOCCARDO Michele	COLETTA Antonio

6575

Il pugno italiano per ogni difesa non solo rappresenta e custodisce anche regala

ISTITUTO POLIGRAFICO DELLO STATO

In risposta al foglio IMAS/AIR/S.544/SIGS/AF in data 4 Marzo 1947, si comunicano i nominativi del personale dell'Aeronautica Militare Italiana che completò i Corsi Radar svolti presso la R. A.F. nel Nord-Italia:

PREZENICO			MOGLIANO VENETO		
Addestrato quale:	Grado	N o m e	Grado	N o m e	
Controllore	Ten. Fil.	Mansi-Montenegro Renato	Ten. Pil.	MONIORSI Otello	
Ufficiale Tecnico	Cap. A.A. rs	FIRINO Edoardo	Ten. Garat.	AGAZZI Antonio	
Meccanici	M. llo	BOGGIARI Adelmo	M. llo	MACCONI Adalgiso	
	Serg. M.	RICCIARDI Enrico	" "	ALBERTI Guerriero	
	" "	D'ONOFRIO Giacomo	Serg. M.	BERTOZZI Indo	
	" "	BASILE Cosimo	Serg. "	NEVOLA Italo	
Radar	1° Av.	DEL BELLO Umberto	1° Av.	DEL GIUDICE Luigi	
				GERARDI Pasquale	
Operatori	Serg.	DI BENEDETTO Michele	Serg.	ALOISINI Agostino	
	" "	BARBIERI Ciro	" "	CARRANO Antonio	
	" "	MARGUTTA Tommaso	" "	BOLOGNINI Renato	
Radar	1° Av.	MAZZEO Antonio	1° Av.	FALCONE Antonio	
	" "	BOSSONE Emilio	" "	PAPA Francesco	
	" "	BUCCARDO Michele	" "	COLETTA Antonio	

L'ISPEZIONE
(Gen. D. G. BARBA)

[Signature]

6575

From : Ministry of Defence Air Force
General Directorate of Telecommunication and
Aircraft Assistance
Persons Office

To : A.F.H.Q. I.N.A.S. A.F.S.S.

Ref. : 50587/TEL/13/12-2/482 Coll.

Date : 20th March 1947

RADIO AND RADAR COURSES - ITALIAN PERSONNEL

Referring to letter MAS/AIR/S. 554/SIGS A.F. hereby names of Officers and P.C.O.s designated to take up radio and radar courses.

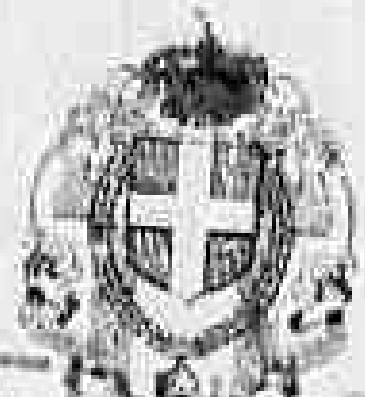
- a) Signals Officers radar: { Col. G.A.r.i. ANTONIOLI Luigi
Lt/Cel. G.A.r.i. MONTUSCHI Emilio
- b) Signals Officers Signals course { Maj. A.A.r.n. PELOSI Giuseppe
Capt. A.A.F.S. PASCHINA Emilio
- c) Intermediate Radar: { W/O W. Op. COSTA Bruno
Serg. Maj. W. Op. PELOTTIERI Luigi
Serg. elec. MARZEU Celso
- d) Radar operating { W/O W. Op. D'AQUINO Antonio
ground basic course { Serg. Maj. W/Op. ACRISI Girolamo
Serg. W/Op. ROSSI Gustavo
- e) R.T. operators: { Serg. W/Op. PELOTTI Pietro
" " GRADAGNO Pasquale
" " TANTONI Brizio

INSPECTOR OF TELECOMMUNICATIONS
(Gen. D.A. G. BARBA)

Translated by Sgt. J. K. KAN

C.S.O.

6574
Luna & others. Thank you.
Chubb
4/11.



MINISTERO DELLA DIFESA
MINISTERO DELL'AERONAUTICA
 (Ufficio Centrale delle Comunicazioni)

REPUBBLICA ITALIANA
 UFFICIO PERSONALE

Procl. 50967 / VEL/12/12-2 Roma

Reposta al Tel.

Gen. 1-2

Oggetto Corsi Radio e Radar - Personale Italiano.

20 MAR 1947
 1. ALLIED FORCES HEADQUARTERS
 I.M.A.S. - Air Forces Sub Section
 A.P.O. 754

Tramite Ufficio Collegamento

S E D E

Si fa riferimento al foglio IMAS/AIR/S.544/SIGS.A.F.-
 Si trasmettono i nominativi degli Ufficiali e Sottufficiali italiani designati a frequentare i corsi Radio e Radar in oggetto:

- a) Signals Officers Radar: { Col.G.A.r.i. ANTONIOLI Luigi
 T.Col.G.A.r.i. MONTUSCHI Emilio
- b) Signals Officers Signals Course { Mag.A.A.rn PELOSI Giuseppe
 Cap.A.A.rs PASCHINA Eligio
- c) Intermediate Radar: { M.llo Marc. COSTA Bruno
 Serg.Magg.Marc. PELOTTIERI Luigi
 Serg.Elett. MARSEU Celso
- d) Radar Operating Ground Basic Course { M.llo Marc. D'AQUINO Antonio
 Serg.Magg.Marc. ACRISI Girolamo
 Serg.Marc. ROSSI Gustavo
- e) R.T. Operators: { Serg.Marc. BELOTTI Pietro
 " " GUADAGNO Pasquale
 " " FANTONI Brizio.=

L'ISPETTORE DELLE TELECOMUNICAZIONI 6573
 (Gen.D.A. - G. BARBA)

Barba

(8)

From : Allied Force Headquarters, Italian Military Affairs Section.
Air Forces Sub Section, APO. 794.

To : Italian Air Ministry. Telecommunications Directorate.
(Attn.: Col. De Vincenti).

Date : 5th March 1947.

Ref. : IKAS/AIR/SS4/SIGS/AF.

RADIO AND RADAR COURSES - ITALIAN PERSONNEL.

Attached herewith are copies of reports rendered by the staff of K^o 8XXX and N^o 15052 A.M.E.S.'s on the courses attended by Italian Air Force personnel at Precinisco and Magliana Veneto. These reports should be treated as confidential.

Awlayck
for ~~A. F. RAY~~, S/Ldr
Air Vice Marshall, Director.
Air Forces Sub Section,
I.M.A.S., A.F.H.Q.

(4)

From : Allied Force Headquarters, Italian Military Affairs Section.
Air Forces Sub Section, APO. 794.

To : Italian Air Ministry. Telecommunications Directorate.
(Attn.: Col. De Vincenti).

Date : 5th March 1947.

Ref. : ISAS/AIR/3544/SIGS.AP.

RADIO AND RADAR COURSES - ITALIAN PERSONNEL.

The following courses in U.K. for Italian Air Force personnel have been approved in principle:-

- (a) Signals Officer Radar (Two Officers versed in Radio).
- (b) Signals Officers Signals Course (Two Officers with Radio knowledge).
- (c) Intermediate Radar, followed by Ground Mechanics Radar, followed by Instructional technique (Three NCOs).
- (d) Radar Operating Ground Basic Course (Three NCOs).
- (e) R.T. Operators (Three NCOs with R/T experience).

2. It is requested that names of Officers and NCOs selected for each course be forwarded to this Sub Section as soon as possible.-

A. E. Ray
for A. E. RAY, S/Ldr
Air Vice Marshall, Director.
Air Forces Sub Section,
I.M.A.S., A.P.H.Q.

6571

From :- Chief Signals Officer,
Air Headquarters Italy, R.A.F., C.M.F.

To :- A.F.S.C. ROME.

Date :- 27th February 1947.

Ref :- AHQI/S4380/Sigs.

Instruction Given to Italian Air Force
Personnel at 8XXX A.M.E.S.

Herewith combined copy of
Instruction to Italian Air Force
Personnel at 8XXX A.M.E.S. compiled by
F/Lt. G.J. Julien.

5544/SIGS
A.364 3/3/47
for


Air Commodore,
Air Officer Commanding,
Air Headquarters Italy,
R.A.F. C.M.F.

6571

From. 8xxx AMES. R. F. C.M.F.
 To . C.S.O. Air Headquarters, ITALY, R.A.F. C.M.F.
 Date. 26th February 1947.
 Ref . 8xxxAMES/500/SIGS.

INSTRUCTION GIVEN TO ITALIAN AIR FORCE PERSONNEL AT 8XXX AMES.

Combined lectures for both Ops and Mechs:- Part 1. Development of Radar- types of Radar and -i.e. beam and floodlight stations- Use of Radar for reporting and controlling aircraft- Sector operations- Group operations.

Part II.

Method of measuring distance by means of the Cathode Ray Tube- Knowing speed of electric waves etc- How the Cathode^{Ray} Tube works, H/R Tube, P.P.I. Tube - Differences.

Part III.

Short lecture on Siting Radar stations.

VISITS. To Sector Ops Room and Type 6 Station at Grado.

OPERATORS:- Practical Instructions.

- (1) Plotting by the Grid system.
- (2) Plotting from the P.P.I. tube.
- (3) Height reading.
- (4) H/R board and Craig Computer.
- (5) Recording.

All operators received individual instruction in the above and were put on day watches with R.A.F. Personnel, when they took over each duty in turn with the exception of actually passing the plot down the line to Operations.

MECHANICS COURSE.

1. Ground Radar : A brief talk on its use and development.
2. Common circuit elements used in Radar Equipments, including,
 Time-base generating circuits,
 The multivibrator,
 The cathode follower.
3. Type 8 Ground Radar.
 - (1) Circuits in detail of the units used in the receiver R3101. Including construction and operation of the H/R and P.P.I. C.R.T.s.
 The receiver Power Units.
 Receiver Controls.
 Interconnection of the various units comprising the R3101 and layout of components.
 Common receiver faults experienced.
 Maintenance of the R3101.
 - (2) The G.H.L./G.C.I. Transmitter T3079

6564

Page....2

(68)

Operation of Circuits in detail. Interconnection of the various units comprising the T3079. Layout of units and components. The power interlock in theoretical and practical detail.

Stages of running up the Transmitter.

Transmitter tuning.

Precautions and maintenance required.

Frequency monitoring of the transmitter.

Construction of the major components of the transmitter.

Common faults and lives of the major components.

(3) B.T.H. Turning Gear, Type 3

Location and construction and interconnection of the units involved.

Principles, and detailed operation of the turning gear.

Circuits, in detail.

Common faults arising; maintenance required.

Lining up of P.P.I. Display with aerial.

(4) G.C.I. Aerial System

Common T and R working: principles and practice.

Layout of aerial switching components.

Layout and design of aeriels, and feeder line from transmitter, through Faraday

Coupling Box. Feeding of aerial system from feeder line.

Feed to receiver. The receiver pre-amplifier.

Properties of the R.F. cables used.

✓ Practical attainment of high "front to back" ratio.

Switch Unit Type 88; theoretical and practical details.

Theory of height finding with two aerial systems at different heights. Practical

details of height finding and switching employed, on a G.C.I. aerial system.

The slipping unit employed in the aerial cabin.

PART 4

The Type 6 L.W. Set

(1) Layout of Units and aerial system.

Electrical interconnections between units.

(2)

The transmitter (T3154B) in practical and theoretical circuit detail.

Layout of the major components. Common faults.

Tuning.

(3) The P.P.I unit including P.P.I power pack)

The H/R unit

Receiver (R3118) Section

in practical and theoretical
circuit detail.

Layout of components. Operation
of Controls.

(4) The control unit Type 7, in detail.

(5). Aerial system theory (Yagi Aerials).

Switch Unit, in detail.

Feed from switch Unit. to aeriels, via coupling box.

Aerial turning gear layout.

6568

contd. 3

Page 3.

PART 5. GENERAL

(6c)

- (1). Calibration of a G.C.I. Station.
- (2). The cossorscope: Oscilloscope Type 7 :- Details.
- (3). Power plants used on a G.C.I. and Type 6 Stations: An outline.

All the personnel attending the course worked hard throughout and showed outstanding interest in their work.

I am confident that the Officers and other ranks who were instructed at this Station, could operate efficiently a Type 8 or Type 6 Radar Station, without further instruction.

.....*G.J. Julian*.....
G.J. JULIAN. F/LT
Officer Commanding
8xxx AMES. RAF. CMF.

5

From : Allied Force Headquarters, Italian Military Affairs Section.
Air Forces Sub Section, No. 794.

To : Italian Air Ministry.
(Directorate of Telecommunications).

Date : 4th March 1947.

Ref. : IVAS/AIR/3544/SICC/AP.

RADIO AND RADAR COURSES - ITALIAN PERSONNEL.

It is requested that a nominal roll, giving names and ranks of Italian Air Force Personnel who completed the Radar courses given by the R.A.F. in the north, be forwarded under the following headings to this Sub Section as soon as possible.

PRACINICCO		MOGLIANO VENETO	
Trained as:	Rank.	Name	Rank.
Controller.			None
Tech. Officer.			
Radar			
Mechanics			
Radar			
Operators			

RADIO AND RADAR COURSES - ITALIAN PERSONNEL.

It is requested that a nominal roll, giving names and ranks of Italian Air Force Personnel who completed the Radar courses given by the R.A.F. in the north, be forwarded under the following headings to this Sub Section as soon as possible.

PUGLIESE		MOGLIANO VENETO	
Trained as:	Rank.	Name	Rank
Controller.			
Tech. Officer.			
Radar Mechanics			
Radar Operators			

6586

Curley

for

A. W. HAY, S/Ldr
Air Vice Marshall, Director.
Air Forces Sub Section,
I.M.A.S., A.W.H.Q.

487

REPORT ON THE ITALIAN RADAR COURSE. (Six Weeks Instruction).

The above Course took place at No.15052 AMES., from 9th ~~Jan~~ December, 1946, to 7th February, 1947. They were absent for two weeks leave over the Christmas period.

INSTRUCTORS.

Operational - F/Lt. Wesley.
Technical - F/O. Cartwright.

Section "A".

Six Italian u/t Radar Operators were trained in the following subjects :-

(a) Theory.

General Theory of Radar.
Cathode Ray Tubes.
Operational difference between C.R. - C.H.L.
C.H.E.L. - GCI Stations.
V.P.D's and Lobes.
Duties of Radar Personnel.
~~Filter~~ Room.
Sector Ops. Room.
Group Ops. Room.
Fighter Command Grid Reference system.
Telling procedure - Land Line and W/T.
R/T Procedure.
Identification of Aircraft.
Height Finding.
D/R Navigation.
Counting of Aircraft.
Crew Duties at Interceptions.
Calibration.
Simple Aerial Theory ^{and} Airborne Radar Equipment.

(b) Practical.

P.P.I. Reading.
Height Finding and Counting.
D/R Navigation.
Telling - Land Line and W/T.
Visits to Type 6801 AMES and A.H.Q. Ops. Room.

Instructors Comments.

The Italian u/t Operators showed a remarkable enthusiasm throughout their stay; this factor complied with their high degree of Intelligence compensated greatly for the lack of training facilities and the difficulty of language. The u/t Controller - Lt. Montorsi possessed a fairly fluent command of the English Language, and acted as interpreter throughout.

The lecture covered all subjects necessary to efficient operating - ranging from simple technicalities to precise information on the layout - functions and operating of a Radar Chain. After two weeks of lectures, the operators spent most of their time at the Technical Site Operating the gear and undergoing practical training under the

Cathode Ray Tubes.
 Operational difference between C.H. - C.H.I.
 C.H.E.L. - GCI Stations.
 V.P.D's and Lobes.
 Duties of Radar Personnel.
 Filter Room.
 Sector Ops. Room.
 Group Ops. Room.
 Fighter Command Grid Reference system.
 Telling procedure - Land Line and W/T.
 R/T Procedure.
 Identification of Aircraft.
 Height Finding.
 D/R Navigation.
 Counting of Aircraft.
 Crew Duties at Interceptions.
 Calibration.
 Simple Aerial Theory ^{and} Airborne Radar Equipment.
 (b) Practical.
 P.P.I. Reading.
 Height Finding and Counting.
 D/R Navigation.
 Telling - Land Line and W/T.
 Visits to Type 6801 AMES and A.H.Q. Ops. Room.

Instructors Comments.

The Italian u/t Operators showed a remarkable enthusiasm throughout their stay; this factor complied with their high degree of Intelligence compensated greatly for the lack of training facilities and the difficulty of language. The u/t Controller - Lt. Montorsi possessed a fairly fluent command of the English Language, and acted as interpreter throughout.

The lecture covered all subjects necessary to efficient operating - ranging from simple technicalities to precise information on the layout - functions and operating of a Radar Chain. After two weeks of lectures, the operators spent most of their time at the Technical Site Operating the gear and undergoing practical training under the supervision of the Controller and the R.A.F. Operators.

Height Finding and D/R Navigation were found to be the two most difficult problems, and consequently they were extensively practiced and lectured on.

At the completion of the course each u/t Operator was sufficiently practiced in the main operating duties, i.e. P.P.I. Reading,

Height Finding,
 Counting,
 D/R Navigation.

See Pin 1

pkM
25/2



SECTION "B".

Six Italian u/t Radar Mechanics and one Italian Technical Officer were trained in the following subjects:-

(a) Theory.

General description of use and construction of CRT's, their Power supplies and methods of using a PPI Height - Range, etc.
 Description of different types of CRT's.
 Detailed Lectures on all basic circuits as applied to radar generally.
 Aerial theory as applied to Radar, use of transmission lines, standing waves and method of balancing and matching.
 Centimeter valves, Magnetrons, Klytrons, and waveguides - leaky waveguides.
 Airborne equipment covering general principle of H2S - AI - GEE & IFF.
 Aerodrome approach beacons - Eureka - BABS.
 Frequency modulation & SSB transmission circuits used in this type of equipment.
 General detailed description of BTH tuning gear & SELSEM motors.
 Detailed description of circuits and operation of Type 15 GCI and Type 6 Light Warning Equipment. Survey of VHF R/T Equipment in use with Type 15.
 Detailed description of the T/R Switching unit fitted in aerial vehicle of the Type 15.

(b) Practical.

Practical Training was given on spare Radar equipment at the Technical Site.

SECTION "C".Training of Lt. Montorsi as a GCI Controller.

The Italian u/t Controller has not been sufficiently trained to successfully control aircraft in interception work. During the course he gained a sound theoretical knowledge of Radar, both in the Technical and operational side, and undoubtedly learnt far more than the rest of the course. His superior intelligence and command of the English language gave him an outstanding advantage which he took to the full. However, when he came to handling aircraft on the PPI through an interception he showed an exitable temperament and inability to cope with an adverse situation. This however might well be attributed to his attempting the interception in English. Lt. Montorsi certainly has no doubts as to how to carry out interceptions and it is considered that given further practice with a trained Controller he will prove quite capable.

COMMANDING OFFICER'S SUMMARY.

6564

During the course, the course progressed quite smoothly, and

Centimeter valves, Magnetrons, Klytrons, and waveguides - IFF.
 waveguides.
 Airborne equipment covering general principle of H2S - AI - GEE & IFF.
 Aerodrome approach beacons - Eureka - BARS.
 Frequency modulation & SSB transmission circuits used in this type
 of equipment.
 General detailed description of BTH tuning gear & SELSEM motors.
 Detailed description of circuits and operation of Type 15 GCI and Type 6
 Light Warning Equipment. Survey of VHF R/T Equipment in use with Type
 15.
 Detailed description of the T/R Switching unit fitted in aerial
 vehicle of the Type 15.

(b) Practical.

Practical training was given on spare Radar equipment at the
 Technical Site.

SECTION "C".

Training of Lt. Montorsi as a GCI Controller.

The Italian u/t Controller has not been sufficiently trained to successfully control aircraft in interception work. During the course he gained a sound theoretical knowledge of Radar, both in the Technical and operational side, and undoubtedly learnt far more than the rest of the course. His superior intelligence and command of the English language gave him an outstanding advantage which he took to the full. However, when he came to handling aircraft on the PFI through an interception he showed an excitable temperament and inability to cope with an adverse situation. This however might well be attributed to his attempting the interception in English. Lt. Montorsi certainly has no doubts as to how to carry out interceptions and it is considered that given further practice with a trained Controller he will prove quite capable.

6564

COMMANDING OFFICER'S SUMMARY.

Considering the many difficulties the course progressed quite smoothly, and the fourteen Italians trained as Mechanics - Operators - and the one Controller should be quite capable as taking over and running an Operational Radar Unit similar to the Mobile Type 15.

The success of the Technical training was largely due to the hard work applied by P/O. Cartwright. This Officer gave all the preliminary lectures to both Mechanics and Operators for the first week, after which they divided into two, P/O. Cartwright dealing with the Mechanics, and Technical Officer-P/Lt. Wesley trained the Operators and Controllers. To overcome the language problem, P/O. Cartwright gave all his lectures to the Italian Technical Officer in French, who in turn passed this on to his Mechanics.

The Operators were more easily dealt with, as the lectures were given to them all, and translated by Lt. Montorsi as they progressed.

Once the lectures were over, the Course switched to the Technical Site, - the Mechanics working on spare equipment, the Operators in the Receiver Room Operating

the tubes and D/R under supervision.

The Controlling side of the Course was the least successful; owing to the bad weather and also to the changing over of the Wing's only two Practice Interception periods were demonstrated. An attempt was made to utilise two Italian pilots to be controlled by Lt. Montorsi, but very unfortunately it had to be abandoned owing to R/T failure. The next attempt was made with RAF pilots and after a bad start Lt. Montorsi controlled them into two interceptions. In spite of this however, this Italian Officer needs considerably more practice before being capable of carrying out successful interceptions without supervision.

It is the opinion of both the Technical Officer and Controller that whilst this course has been of great value to the Italians by way of an introduction to Radar, and whilst they should possess a sufficient working knowledge to operate an existing station, they can in no way be considered fully trained Radar Mechanics and Operators.

[Signature]
F/Lt.

Officer Commanding,

No. 15052 AMES. RAF. C.M.F.

(3A)

Air Ministry, London.
Copy to:- Air Headquarters, Italy.

Courses in U. S. for I.A.F. Personnel.

THAS/80/TAG/AF.

17/2/1947.

Reference is made to this Headquarters letter THAS/367/Arg dated 20 June 46.

2. It is understood that approval has now been given in principle to the attendance of I.A.F. personnel on Signals Engineering and Flying Courses in the United Kingdom but as far as notification to that effect has been received at this Sub-Section.
3. Lists of names have been received from the Italian Air Ministry and as soon as the detailed arrangements will have been notified by you it will be possible to send the students to the United Kingdom by air.
4. With particular reference to the Radar and Signals courses the Italian Air Ministry has notified that they cannot fill all the vacancies with English speaking Italian personnel and has accordingly requested that a small number of naval personnel may be included to make up the quota. This will include two Italian Naval Officers and four ratings. You are requested to notify this Sub-Section as soon as possible as to whether these Italian naval personnel may be included in the lists of pupils.

Chubb

for C.M.W. GUNCE W/COM.
Air Vice Marshal,
Director,
Air Forces Sub Section.

Copy on File THAS/Air/5544/Sign/AF.

Note Included Airtel (on 80/TAG) to send copy to Navy SB.

19/2

6567

(2A)

From : Allied Forces Headquarters, Italian Military Affairs Section,
Air Forces Sub Section, A.F.S. 734.
To : Italian Naval Ministry - Cabinet.
Date : 5th February 1947.
Ref. : CHAS/AIR/1.544/1100/AF.

RADIO AND NAVAL COURSES - ITALIAN PERSONNEL.

(1A)

Reference is made to your 1839/2 dated 27th January 1947.

2. Approval for Italian Air Force personnel to attend the above courses in England is still awaited from the Air Ministry in London.

3. No confirmation can be given that Italian Naval personnel will be allowed to attend these courses should approval be given for the attendance of I.A.F. personnel. Approval will be requested however and it is felt that there will be no objection.

Cawthay sk

A.F.S. 734, S/Ldr
for Air Vice Marshal, Director.
Air Forces Sub Section
I.M.A.S., A.F.S. 734.

Copy to:-

Italian Air Ministry
Directorate of Telecommunication.
Naval Sub Section, I.M.A.S., A.F.S. 734.

*ACW
Hro Sigs*

*Suggest you take action
with Br A.D. (direct & copy to HQ)
& refer to previous correspondence
& understand that principle of course
has been approved by Br A.D. though not yet notified to me. 6/2
us. 11/2*

From : Naval Ministry
Cabinet.

To : A.F.S.C. A.C. Rome
and for information:
Navy Sub-Commission

Ref. : 1896/2

Date : 27th January 1947

Subject: REFRESHER COURSES ON W.T. AND RADAR TO BE
HELD IN ENGLAND.

1) Following invitation from the A.F.S.C., Italian Air Head
Quarters will very shortly, send a number of Air Force personnel
to England, to take up a refresher course on W.T. and Radar.

These courses are to start at the end of the month.

2) Considering that owing to language difficulties (the cour-
ses are to be held in English), Italian Air Head Quarters could
not find the number of qualified personnel to fulfill the number
of vacancies allocated by the A.F.S.C. (5 officers, 15 O.R.),
it suggested that the Navy Head Quarters chose two officers and
4 O.R. to cover the vacancies as follows:

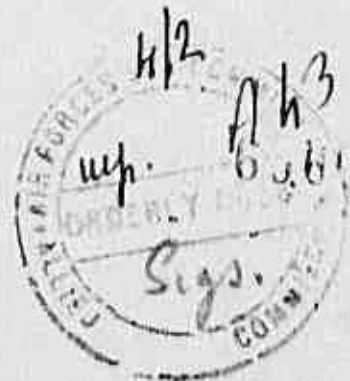
Officers	:	1 for Radar Course
		1 G.C.I. Course
O.R.	:	1 stores, workshop mechanic courses
		2 wireless mechanic courses
		1 instructor's course.

3) It would be greatly appreciated if the A.F.S.C. kindly
authorise Naval personnel to make most of the courses offered
as per above.

by Order

Translated by Sgt. P. KIAN

g/km
7/12



Mod. 39

Roma, 27 GEN 1947

LB

Ministero della Marina

GABINETTO

AIR FORCES SUB COMMISSION, HQ A.C.
e, per opportuna conoscenza:

NAVY SUB COMMISSION, HQ A.C.

INDIRIZZO TELEGRAFICO: MARINA - ROMA

Prot. N° 1399/2 Allegati =

ARGOMENTO: Corsi di aggiornamento su apparati R.T. e Radar
in Inghilterra.

URGENTISSIMO

1. Lo Stato Maggiore dell'Aeronautica, su invito di codesta Air Forces Sub Commission, invierà prossimamente in Inghilterra un'aliquota del suo personale per frequentare corsi di aggiornamento su apparecchi R.T. e Radar, i quali avranno inizio alla fine del corrente mese.

2. Poiché lo Stato Maggiore dell'Aeronautica, a causa delle difficoltà derivanti dal fatto che i corsi si svolgeranno in lingua inglese non ha trovato personale sufficiente a ricoprire i posti messi a disposizione da codesta Air Forces Sub Commission, (6 Ufficiali, 15 Sottufficiali o truppe), ha proposto allo Stato Maggiore della Marina di prescelgere fra il personale della Marina Militare due Ufficiali e quattro Sottufficiali, così suddivisi:

UFFICIALI: 1 posto per corso Radar.

1 posto per Corso Intercettazione (G.C.I.).

SOTTUFFICIALI: 1 posto per corso Meccanici officine e magazzini.
2 posti per corso meccanici apparati di bordo.
1 posto per corso istruttori.

3. Si prega pertanto codesta Air Forces Sub Commission voler autorizzare la partecipazione ai corsi suddetti da parte del personale della Marina Militare sopra specificato.

d'ordine

IL CAPO DI GABINETTO

6059

Ord. N° 1899/2 *M. 1899/2*

NAVY SUB COMMISSION, HQ.A.C.

ARGOMENTO: Corsi di aggiornamento su apparati R.T. e Radar
in Inghilterra.

URGENTISSIMO

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1 posto per corso istruttori.

3. Si prega pertanto codesta Air Forces Sub Commission voler autorizzare la partecipazione ai corsi suddetti da parte del personale della Marina Militare sopra specificato.

d'ordine
IL CAPO DI CABINETTO 6059
C. di V. G. MARINI

M. 1899/2

1158