

Flying Control

Flying control is a safety service to ensure the maximum safety for aircraft & crew. Aims at uniformity in procedure, lighting and other airfield equipment.

Responsibility of F.C.O.

Must be a good mixer with all air crew

Have a good technical knowledge (general)

Be able to see things from pilot point of view

History & Organisation. 1938-40

Copied from Imperial Airways scheme & first consisted of 6 Regional Control all of which were governed by air ministry direct.

Jan. 1941 Centre taken over by A.M. sign. I.H.

March 1941 A.D. of Reg. Cent. appointed (Msc. Fleeter)

School of Flying Control opened.

Sept. 1941 Director General of A/c safety appointed
Marshal of the Air Sir John Salmond

Jan. 1st 1943. Sir John Salmond retired owing to ill health & place taken by Alexander Haines. D.F.C.

Aims During War.

1. To give assistance to any friendly A/c demanding aid.
2. To assist A/c to land as required by pilot
3. To enable A/c to be diverted.
4. The organisation is continuous for 24 hrs.
5. Type I stations are normally in a better position

To assist a/c and drivers, should be instructed to apply to apply to apply to them first.

Central Flying Control.

This is maintained at HQ B.Command Southdown & its object is:

1. To advise (B) Comd. Controller regarding suitable airfields for diversions (on large scale) during the planning stages of operations.
2. To advise & coordinate diversions during ops. when groups can no longer land their own a/c.

Group Flying Control.

1. To assist the controller - who is usually a Supt. Offr. - in the control & safety of A/c during ops. up that group.
2. To ensure all information is immediately available
3. To generally supervise flying control stations in his group. Liaison between (B) command & stations; is also responsible for diversions with his group.

Group Flying Control at Costal Command is the same as for (B) command, but has special facilities for A.S.R.S.

Forms of Assistance Available to A/c.

Weather reports

State of Airfield's

Homing Bearing

Course to steer

Controlled Approaches

S.B.A.

Desky

Diversions

Delay due to enemy action.

Bomber Command Organisation

Bomber Comd. is divided into 8 separate groups
Each group consists of 5 parent or main stations and each main station has 2 satellites making a total of 15 stations in each group.

Staff.

Base Station. Does Ops. & planning

Air Commodore, Group Capt. & Wing Com.

Flying Control. Squadr. lots. 2 F/Lts

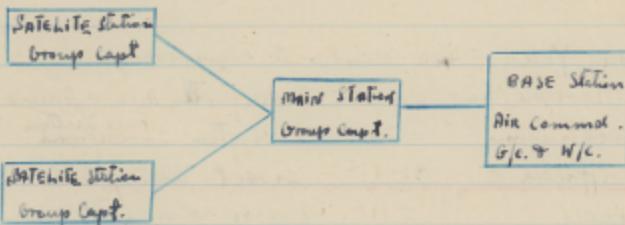
Main station. Group Capt.

Flying control. Squadr. lots. 2 F/Lts 2 F/O's

Satellites

Group Capt.

Flying control.



No 1 Group. HQ's Bawtry

Main St. Lindholme satellites Sandtoft Blyton

C/1A	Elsham Wold	C/1C	Killingholme	Hirnington
C/1B	Bimbrack	C/1D	Grimby	Kelstern
C/1E	Ludford	C/1F	Widby	Fobbingworth
C/1G	Hemswell	C/1H	Upton	Ingham

N2 Group HQs Bylaugh Hall Area covered North Norfolk
Main stat. Swanton Morley satellite Cullum Swannington
C 11~ Marsham C 11~ Snaffham Downham Market.
C 11~ Feltwell C 11~ Methwold Leyton Heath
C 11~ Fulsham C 11~ North Creake Little Snoring
C 11~ West Raynham C 11~ Southwold Great Massingham.

N3 Group HQs Ely Area Cambridgeshire.

Main stat. Mildenhall satellite Newmarket Laken Heath
C 11~ Stradishall C 11~ Thetford West Wickham
C 11~ Waterbeach C 11~ Nepal Ely
C 11~ Oakhampton C 11~ Baconsthorpe Loddon
C 11~ Templeford C 11~ Grangeby.

N4 Group HQs York Area Lumber to Flamborough

Main stat. Marston Moor satellite Ruthin Asterton Malton
Pocklington C 11~ Elvington Leconfield
Driffield C 11~ Lissett Leconfield
Riccall C 11~ Burn Snaith
Holme on Spalding Moor C 11~ Melton Mowbray

N5 Group HQs Norton Hall Area Lincolnshire

Main stat. Scawton satellite Draxholme ledge Fiskerton
C 11~ Swinderby C 11~ ~~Linton~~ Wigsthorpe Winterton
C 11~ Waddington C 11~ Skellingthorpe Bassetlaw
C 11~ Coningsby C 11~ Woodhall Spa Meltonshire
C 11~ East Kirby C 11~ Spilsby Scrubby

No 6. Group HQ's Allerton Hall Area Flamborough Hol to Tees

Main stat. Leeming satellite Shipton West Tanfield

< 117 Middleton Lodge < 117 Croft Pierbridge

< 117 Lynton on Dose < 117 Cessingwold Threlstone

< 117 Tapcliff < 117 Dalton Dishforth

< 117 East Askr < 117 Wembalten Strensall

No 7 Group HQ's Grantham Area Fen district

Main stat. Syerston satellite Fulbeck Belketton

< 117 Bathiford < 117 Langar Salter

< 117 Lottesmore < 117 Woolfox Lodge North Wirkshire

< 117 North Luffenham < 117 Wakerby Essenden

< 117 Berkholton Heath < 117 Folkingham Grinsthorpe

No 8 Group HQ's Nyten

station Nyten Pathfinder Groups.

P.F.F.

O.T. U.S.

91 Group

Abington

92 Group

Winslow

93 Group

Burton Trent

Costal Command.

Costal command organisation.

Headquarters Northwood

4 groups operational 15, 16, 18, 19.

15. Group H.Q. Liverpool Area Comtrol H.Q. No 2

Area : N. Western corner of B. Isles

Main control station. Sledg, Squires Gate, Nutts Corner,
Limaireddy Tree (Hebridies).

16 Group. H.Q. at Thorham. Area Combined H.Q. No 4.

Area: S. Eastern area.

Main Control Station. Thorney Island, Doaking

18 Group. H.Q. Pitmeavie. Area Combined H.Q. No 1.

Area: N. Eastern area

Main Control Station. Lossiemouth

19. Group. H.Q. Plymouth. Area Combined H.Q. No 3.

Area: Western area.

Main Control Station. Chivenor, H. E. R.

17 Group O.T.U. Coastal Comm. H.Q. Edinburgh.

Rejkjavik & Kildarnes. Iceland Area Combined H.Q.

Coastal Command Organisation 1.

Control's a/c at Coastal Command Groups. Headquarters at same place as Naval Command's Naval & RAF controllers with staff & operation's room. All use the same Group frequency and are in touch with Group to sid a/c. Group Cont. are in direct touch with MF. D/F station (fixing). and are in touch with Fighter Group H.Q. Group Flying Cont. responsibility for A/S rescue operations. All coastal comm. stations are to have 1 or more a/c ready for A/sea rescue work at 5 minutes notice. All coastal a/c are now fitted with A.S.V. (Anti-surface vessel) apparatus which is sensitized to vessels passed over it is also used for homing from Beacon. F.C.D. is responsible for this A.S.V. Beacon.

Fighter Command.

H.Q. Stanmore (S/Ldr. Miller)

9 Group H.Q. Preston

Area: N. West England and N. Wales

Station: Valley, High Treall

10 Groups. H.Q. Rudlows Monks (nr Bath)

Area: S. West England and S. Wales

Station: Exeter, Predannack, Middle Wallop,
Coleme and Fairwood Common

11 Group H.Q. Uxbridge

Area: S.EAST England

Station: Tongmire, West Malling, Manston.

12 Group H.Q. Watnall

Area: Midlands & Eastern England

Station: Wittering, Lullishall,

13. Group H.Q. Newcastle on Tyne

Area: NEast England & S. Scotland

Station: Acklington, Ayr.

14. Group H.Q. Inverness

Area: Scotland

RAF. N.I. H.Q. Belfast.

Fighter Groups.

Groups are subdivided into Sectors, which are again subdivided into 3 stations. Little or no navigation done in Fighter A/C but they rely on ground control for practically everything V.H.F. R/T control. He is vectored on his object and is often lost. The Sector has a fixer which is from 3 points and whenever he transmits on R/T in reply to vectors his position plotted. V.H.F. Set in A/C has 4 channels working from 4 buttons. Normally known as A.B.C.D.

A. button local control

B. GCI

D. Sector ops.

C. Command Guard.

High speed. Low endurance (homing must be accurate) Despatch of A/C is responsibility of F.C.O.

F.C.L.O. at Fighter Groups.

Was started by W/cr. Bulmer in 1941 at Beaufort Down, who realised that if a bomber had no communication with ground he was potential lost.

F.C.L.O. not just for fighter Command but to assist any A/C of any Command.

R.D/F. station on coast can pick up enemy A/C 60/70 mls away if will be up but not if hedge hopping.

Fighter rooms are for plotting and determining and identification A/C and forwarding that to Sector Ops room. Movement L.O. is to identify and designate A/C. Groups do not intercept, just detail squadrons, then Sector do interceptions.

Groups controller details squadron to interception. F.C.L.O.

O. watches operational a/c tracks on plotting table or any he is asked to. If any unusual behaviour or course is noticed will warn stations on it's track to switch lights on or call on "Darky" to assist them circling, erratic or incorrect track all noted for.

Broad I.F.F. is an automatic button for distress call. Blinking or flashing downward Recognition Light for firing Pyrotechnics as advised by R.D.C. or A.R.

S.O.S. on M.F. D/F. He can ask Army or aerodrome to switch on searchlights (London 4 searchlights on aerodrome) or canopy (Army searchlight a named aerodrome).

Ballon Barrages can be also used as illuminating incendiary. Searchlights hailing which is provided by Army co-operation.

Marine Lighthouses used for a/c los over sea and out of W/T will control will bring him over land from a distance of 30 miles or more. Fighters may be sent up to lead in a lost a/c by intercepting it after being vectored on to it as in case of enemy a/c. F.C.L.O. must watch for landing plotts, if near to land and no explanation commence A/see rescue operations.

By day F.C.L.O. acts as Central Bureau (air) for tracing lost lost a/c and endeavours to track lost a/c that have failed to reach their destination.

Is responsible for taking overdue action. It is essential that responsible for the safety of A/c. advise the F.C.L.O. of A/c missing, overdue, and out of W/T touch

Information as to type of A/c, W/T call sign, R/T call sign, the last known and present estimated position, petrol endurance, remaining and any other detail likely to be helpful.

Type of A/c:- So that correct type airfield foreiser or capability of pilot.

W/T call sign:- Enquiry can be made to see if M.D.F. touch has been made.

R/T call sign.- So that parley may be used.

Last Estimate Poston:- May be help to trace track of A/c.

Petrol endurance:- For length of time available to land A/c.

Procedure for fighter sent up to intercept & lead in last A/c.
During the day time a fighter pilots rocks his wings and gives the colours of the day. At night he flashes his navigation lights and the last A/c fires his colours of the period and follows him.

Liaison with Met.

Patrol work rely to greatest extenion Met. Met reports and observation and group forecast will be relied on.

Before accepting diversions, weather should be checked as to tendency with Met. At Bomber Command is leading Met. Office, Group nest, at Station there is a No 1 forecaster, No 2 six local forecasters.

Then the station forecasters or weather recorders.

Observation taken every hour Q.B.A. Q.B.B. Q.A.N. Q.F.E.
as vis ³⁰⁰⁰ ₅₀₀ cloud ¹⁵⁰ 15 mph. 1000 mph. 1900 hrs. Weather board should be kept up to date. Take own observations, cloud base vis etc. Q.F.F. To be obtained from Met. Office by the ordinary aneroid barometer.

1. Weather Command 15 minutes before the ETA. of your A/c. check G.F.E. with Met. It is their duty if it changes more than 1 milibars in one hour to let you know. If weather conditions are doubtful a re-report can be obtained from Met. every hour.

Snow warning.

As more plow is kept in every Ward Office in the charge of the F.C.O. (usually) M.T. must be warned of snow warning to prepare the snowplow.

Gale warning.

Warn all flights and in particular the duty flight. See light a/c are in hangars or fastened down.

Frost warning.

Warn flights and M.T. to clean radiators etc. to avoid damage to radiators in the case of no anti-freezing.

Deterioration warning.

If forecast in morning was good & conditions alter rapidly with exception of an early close down, warn flight commanders. You may be asked to watch for the A/c and keep in touch with him.

Fitness Code.

By day with 1000 yds vis. and cloud base of 500 feet fit anything less unfit.

By night 2000 yds vis. cloud base 1000 feet fit Notify changes of weather state to Group.

Fit Q.G.H. by day was 500 yds vis. cloud base 300 feet but now is according to station's Q.G.H. standards.

Night flying lights.

Visibility, Navigation, aids. Homing Light, night landing
light to emergency signals.

VIS: Nav. aids: (AS. 4)

Aerial Lighthouses. Code word Occults. S.D. 214. In good visibility can be seen 50-60 miles. They are permanent, nav. aids. Occult work from dusk to dawn. There are about 50 in this country. They flash single white characteristic light. Work always. Attached to parent station for address. Responsibility of F.C.O. at Station.

Each occult has 3 sites A.B+C, and is varied periodically.

S.D. 214 Table I Parent station Grid Reference and latitude & longitude

Table II Monthly movement list.

Table III Gives position to nearest large place in degrees & miles

Two occult can flash the same color but must be 200 miles distance between each other.

Occult keep Darky watch on equip. freq. F.C.O. must keep up to date list of any occult up or flashing red. In order to assist an crew whom briefing to know which occult are working.

Mobile Land Mark Beacons (D.L.64/43)

Code word Pursuit, usually station having light. Operation is responsibility of Station Cmdr. Has three sites. Change & used at discretion of station sites within 3-5 miles, usually not used if not night flying.

S.D.264. Consists of 3 tables.

Table I List Station with code number

Table II. Monthly amendment List

Table III. Peace time characteristic letter of all aerodrome.

Punxit is essentially a homing light but can be used as that's ok.

No.1	DAY OF MONTH.									
	1	2	3	4	5	6	7	8	9	
2										
3										
4										
5										

Procedure for obtaining assistance:

Aircraft circles the aerodrome, flashing on his downwind recognition light, the letters of the period followed by letter Q. Crew reply by flashing peace time characteristic letter/s of this aerodrome and illuminate white T pointing in direction of aerodrome.

If for any reason that aerodrome is u/s crew carry out same procedure but red T will be shown.

If punxit is actually on aerodrome crew flash Peace time characteristic letter on white side do not display T.

In the event of air raid 3 red flares displayed at safe distance and forming a 25 yds triangle

Request for punxit to be illuminated in opp. Groups. Request to be made through own Group. All other commands through A.S. 4.



Form of Request.

Pundit No.... required from 2100 to 2300 due
aerodrome can be asked for emergency illumination.
This is done by phoning direct. Saying
Request Pundit No.... flashing from ... to ...
local when finished.

Request for illumination of pundit automatically
conveys the request for night landing lights & vice versa.

List of reserve Pundit A.M.C.A. 12/42.

If pundit goes u/s sent signal A.S. 4. Repeated
Command, repeated Groups, Repeated Station holding
spare.

A.S. 4. Reply to you by signal.

Repeated Command, repeated Groups, Repeated
Station holding spare.

F.C.O. is authority for switching on or off of
beacon.

F.C.O. Responsible for pundit crew: Therefore

1. Briefing crew, see they have full instruction &
are familiar with procedures.
2. One of crew must keep strict look out always
while pundit flashing.
3. See crew have correct flamps (red) and correct calm.
4. Must be given letter & colours of period.
5. Test phone when on the place.
6. When signaling to a/c stand well clear of beacon.
7. Crew must report any request from a/c
8. If enemy raid inform crew (F.C.O.)



Landing Lights



Ordinary glass lamps flarepath. Portable lighting.
Red lamps at begining and end of ground

Dream Lighting Mark II.