

## BATTLE OF BRITAIN - Umpires Background Notes

**“What General Weygand called the Battle of France is over. I expect the Battle of Britain is about to begin”.** Churchill 18.6.40.

You are a duty controller, 11 Group, it is the summer of 1940. Your aim is the DESTRUCTION OF ENEMY BOMBERS (Fighter Command Tactical Memorandum Number 8, June 1940).

Now clearly 11 Group, covering London and the South East, will bear the brunt of the battle. 12 Group is our second line of defence and covers the industrial Midlands, while 13 Group covers Scotland and the North and 10 Group the West of England.

Information from the RDF chain goes to Fighter Command HQ at Stanmore, and is passed to Group at Uxbridge, which also gets sightings from the Observer Corps. Group controllers scramble the necessary squadrons and sector controllers guide our chaps to the interception. It has been tried and tested. It works. So don't blame the system if you're no good.

The Group Controller 11 Group was Wing Commander Lord Willoughby de Broke.

There were seven sector stations - Debden, Hornchurch, North Weald, Northolt, Biggin Hill, Kenley and Tangmere, each with three squadrons, which could fly from a number of satellite stations. In practice a sector controller (a squadron leader or wing commander) could manage two squadrons, subordinate controllers assisted. At the height of the Battle of Britain all 21 squadrons would be in action. On 2nd September 1940 following German bombing there two surviving sector airfields, Kenley and Tangmere

The RDF stations were Ventnor, Poling, Pevensey, Rye, Dover, and Dunkirk (Kent). There were a total of 21 Chain Home and 30 Chain Home Low stations.

- 12.8.40 3/4 of the stations attacked (out of five total) were off the air after bombing, but had been patched up by early evening, with only Ventnor off the air long term.
- 15.8.40 Goring doubted there was any point in attacking radar sites
- 16.8.40 Ventnor bombed again, and off air for 7 days
- 30.8.40 seven stations out due to electricity cut

RDF information sent simultaneously from the Filter Room at Stanmore to Operations Rooms at Fighter Command, Group and Sector level.

RDF only looked out from coast, overland the controllers relied on the Observer Corps.

To try to verify information on the plotting table, from 26.8.40 leaders of squadrons were asked to report the strength, height, course and approximate position of the enemy (the “Tally Ho! system”).

The player (= controller) **does not** move pieces on the plotting table - this is done by WAAF plotters, failing which the umpire will do it.

The governing principle is that a sufficient strength of Fighters must be assembled at the required height over a given place where it can intercept the oncoming enemy raid and break it up before it can reach its objective.

There is general agreement that the principle of employing Standing Patrols is impracticable owing to its wastefulness. To keep a sufficient strength of Fighters always in the air to guard our shores from any attack would be beyond the powers of the biggest Air Force imaginable.

the Fighter Force is therefore kept on the ground in the interests of economy of effort, and only ordered off the ground when raids appear to be imminent.

### Code Words

Hostile	an enemy raid - identified on the plotting table by a card showing "H" followed by the raid number, the strength and the height in feet
Vector	direction to fly in degrees
Angels	height in 1,000 feet. The RAF should attack from above the Germans, but if the difference in height is too great (say 5,000 feet) the raid will get away. Fighters sometimes get too high because sector controllers and squadron commanders add to the angels indicated by RDF to ensure that the fighters were above any German fighters covering the bombers from above.
Bandits	hostile aircraft (used in R/T procedure)
Tally Ho	about to attack
Buster	full throttle
Liner	Cruising speed
Bogey	unidentified aircraft, shown on the plotting table by the letter "X"
Pancake	emergency landing, sometimes come home and land

- The "plotting table" is marked with the 11 Group area and shows the adjoining groups.
- Three raid forming up boxes over France
- Three channel boxes
- Three Chain Home boxes - each with an RDF station - Ventnor, Rye and Dover
- Six airfields:
  - Tangmere - base of 203 and 602 squadrons
  - Kenley - base of 64, 85 and 253 squadrons
  - Biggin Hill - base of 32, 603 and 610 squadrons
  - Hawkinge - base of 501 squadron
  - Manston - base of 74 squadron
  - Hornchurch - base of 54 and 653 squadrons
- London
- Duxford - base of 12 Group's "Big Wing".
- Middle Wallop (for 10 Group)

The board has a compass rose showing vectors

The "Tote Board" shows the readiness state of the squadrons on the ground (showing "available" (20 minutes) "at readiness" (5 minutes) and "stand-by" (2 minutes). Squadrons were scrambled from "standby" or "advanced readiness". Each squadron has a marker (in red on white) for the plotting table (F = Friendly).

An abacus records RAF pilot's claims of "possibles", "probables" and "confirmed" kills".

Hostile Cards (16, numbered 15 to 29, with two 24s, plus 10 blanks, of which normally have 8 in play) show:

H raid number (black on yellow)

strength 10+ to 100+ (black on white) (change the strengths to allow a few 150+s and reduce the lower numbers, though the odd 10 should still be in the pack.

Height 12 to 20,000 feet (white on black)

The turn counter records the progress of the game which lasts four turns - At the height of the Battle of Britain the Luftwaffe could mount four heavy raids, a total of about 1,500 sorties, a day.

#### Heights

Mid August	most fighting was between 12 and 20,000 feet. 109s could fly at 34,000 feet, Spitfires practical ceiling was 30,000 feet.
25.8.50	German fighters back above bombers, at 20 - 25,000 feet. Bombers usually at 13,000 feet, with some bombing from 4,000 feet.
30.8.40	Luftwaffe pattern bombing from 20,000 feet. Biggin bombed from 12,000 feet and Kenley from 15,000 feet
7.9.40	Germans flying higher than usual, 16 to 20,000 feet
Bombers	at 16 to 20,000 feet

Playing pieces move along tracks between locations. Events occur at nodes.

#### Game sequence

- 1. Three raids are put on the plotting table** over France (details facing the controller if RDF working, otherwise facing away).
- 2 The controller makes the hand of "Angels" Cards up to five.** Cards may be discarded or played at any appropriate time except after the Tally Ho! or Bomben auf Engelland dice are rolled.

#### Card Set:

"Tea, Sir, bit gritty I'm afraid" "Foster, you are an inspiration. Remind me to have you promoted" - repairs any installation

"Put that cigarette out, the mains are gone, can't you smell gas?" Don't you yell at me Mr. Warwick" - repairs an airfield

"Don't any of you Jerries talk English?" "Corporal" "Sir" "Where are you taking those vultures?" "Officers to the mess, NCOs to the guard room sir", "Like hell you are, they are responsible for all that, get them to clear it up" "But what about the officers sir?" "Give them a bloody shovel" - repairs an airfield

"The station commander ordered every available man and woman on to the job or repairing the aerodrome surface and by four o'clock there was not a hole to be seen". Repairs an airfield.

12 Group lends a hand (this turn only), roll 1D6, 4, 5 or 6 = Big Wing scrambles from Duxford - 19, 242 and 310 (Czech) squadrons; 3 = 19 and 242 squadrons, 2 = only 19 squadron takes off in time, 1 = nothing gets to 11 Group.

12 Group lends a hand (this turn only), roll 1D6, 4, 5 or 6 and scramble 611 and 302 (Polish) squadrons from Duxford , 1, 2 or 3 only 611 squadron available

10 Group lends a hand 609 Squadron scrambles from Middle Wallop, this turn only

10 Group lends a hand 238 Squadron scrambles from Middle Wallop, this turn only

Y Service - signals intelligence predicts size of German raids. Information replaces damaged RDF stations this turn only

Anti-Aircraft Command - Luftwaffe bombers need a 6 to hit target this turn only

Balloon Command - Luftwaffe bombers need a 6 to hit London this turn only

"Achtung, Schpitfeuer!" - add 1 to Tally Ho! dice

"Never fly straight and level for more than 30 seconds in the combat zone" - play before dogfight to prevent RAF losses

"Beware of the Hun in the sun" - play before dogfight to prevent RAF losses

“You can teach MONKEYS to fly better than that” - play before dogfight to prevent RAF losses

“Easier to hit than a barn door” - add 1 to Tally Ho! dice

“Its like shooting rats in a barrel” - add 1 to Tally Ho! dice

“He who has the height controls the battle. He who has the sun achieves surprise. He who gets in close shoots them down”. Add 1 to Tally Ho! dice.

1 (Canadian) Squadron becomes operational - exchange for a non-operational squadron.

Spitfires produced by “shadow factory” at Castle Bromwich, Birmingham - restore a squadron to operational status

Spitfires produced at Supermarine factory at Southampton - restore a squadron to operational status

73 Squadron transferred from 12 Group, exchange for a non-operational squadron.

504 Squadron transferred from 12 Group, exchange for a non-operational squadron.

615 Squadron transferred from 12 Group, exchange for a non-operational squadron.

303 (Polish) Squadron becomes operational - add a new RAF squadron

312 (Czech) Squadron becomes operational - add a new RAF squadron

Civilian Repair Organization - restore a squadron to operational status (the CRO provided one third of “new” aircraft by cannibalising wrecks).

Spitfire Funds - restore a squadron to operational status

Pilots convert from Fleet Air Arm - restore a squadron to operational status

Pilots convert from Fairey Battle squadrons - restore a squadron to operational status

Pilots convert from Coastal Command - restore a squadron to operational status

Pilots convert from Army Air Co-operation squadrons - restore a squadron to operational status

Pilots transferred from 10, 12 and 13 Groups - restore a squadron to operational status

Let us therefore brace ourselves to our duties and so bear ourselves that, if the British Empire and its commonwealth lasts for a thousand years, men will say, “This was their finest hour”. (Churchill 18.7.40). + 3 to Tally Ho! dice or repair any installation.

BUSTER - One squadron may make an extra move to intercept a raid.

**3. The controller scrambles fighters at stand-by and detail the squadrons to raids or to patrol**, preferably using the appropriate code words, for example:

*“43 squadron scramble”* or *“Put up 222 and 653 squadrons to intercept hostile 36”* (the umpire will take the marker off the Tote Board and put it on the Plotting Table).

Following the order to scramble Spitfires needed 13 minutes, and Hurricanes took 16 minutes, to reach 20,000 feet.

*“43 squadron intercept hostile two one, angels one five, vector one two zero”* or, more informally *“43 Squadron, I have some trade for you over Maidstone, twenty plus bandits at angels two zero heading west”*. (The umpire will move the marker one node towards hostile two one, the angels should be the same as or a bit above the height of the raid, the vector is a three digit angle, south is one eight zero or one eight oh, the vector need only be approximate).

*“43 squadron, patrol Dover, angels one five”*. (The umpire will move the marker one node towards Dover).

Squadrons return to their bases if ordered to land after a dog fight or at the end of a turn, otherwise they are bingo fuel and pancake at the nearest airfield.

*“43 Squadron vector 135 and return to base”* (The umpire will move the marker back to the tote board).

The umpire might help a player who sends aircraft in the wrong direction by saying something like *“Bandits now 20 miles east of you heading south east, vector one two zero”*.

### **The Big Wing**

12 Group (Leigh-Mallory) preferred to operate a big wing of three or five squadrons, arguing that it shot down more enemy and took fewer losses. He claimed that a wing of five squadrons could be airborne in six minutes and over Hornchurch at 20,000 feet in 25 minutes. Park (11 Group) showed that on one occasion it took 17 minutes for the big wing to get off the ground, and that they didn't leave Duxford until 37 minutes after they were scrambled. In addition on three occasions when Duxford squadrons had come south they had not found, let alone engaged the enemy. Park felt that 12 Group failed to cover his airfields, and that the big wing roamed without control over 11 Groups area. Park was not necessarily against the idea of a big wing, but normally used his squadrons in pairs against big raids because there was insufficient time to assemble large formations, and he wanted to engage the enemy before it reached its targets.

### **4. Tally Ho!**

When a raid has been intercepted the umpire calls “Tally Ho!”, and gives the player a chance to play cards before rolling the Tally Ho! dice (1D6 per squadron):

- If the total plus modifiers exceeds the raid strength divided by 10 the enemy is turned back (removed from play).
- If the total plus modifiers is less than the raid strength divided by 10 an RAF squadron is non-operational
- If the total is equal to or less than the raid strength divided by 10 the bandits carry on.
- The total is kills.

After combat fighters are bingo fuel, and pancake at nearest airfield unless the controller orders them to land somewhere else.

### **5. Bomben auf Engelland**

When a raid passes over a target the umpire will roll dice to see if it drops bombs:

- RDF stations (5 or 6 on D6),
- Airfields (3, 4, 5 or 6 on D6). If the bombs are not dropped “Looks like London again, Sir”.
- London (anything left).

The umpire will throw 1D6 for each 10 raiders, a 5 or 6 is a hit (unless an AA or balloon command card is played, when a 6 is required).

If hit:

- RDF (Chain Home or Chain Home Low) station - the station bombed is out of action until repaired.
- Airfield is not operational - planes are stuck until repaired. Squadrons at readiness or standby may attempt to take off, roll 1D6, a 6 and the squadron is non-operational, otherwise it is in action next move.
- London - WE CAN TAKE IT!

6. **The Germans are moved one node**, then they go to phase 3 (British move) and repeat the sequence, until all raids are intercepted or Germans have dropped bombs and flown home
7. **Fighter squadrons move up the Tote Board.**
8. **Repair phase**  
RDF Stations and airfields may be repaired by an angel card **or** by rolling 5 or 6. Squadrons may only be made operational by the appropriate angel cards.
9. **Turn a page of the turn counter**

**After four turns the game is over - award the player a medal**

**“Never in the field of human conflict was so much owed by so many to so few”.**  
**Churchill 20.8.40**

### Quotes

Park	“Is everything up?”
Controller	“the lot Sir”
Park	“Reserves?”
Controller	“None”
Park	“That’s what I’ve just told the Prime Minister”.
Minister	German sources are saying our claims are wildly exaggerated.
Minister	“Hello. Are you there Dowding?”
Dowding	“Yes minister”
Minister	“Can you verify the figures?”
Dowding	“I’m not very interested in propoganda. If we’re right they’ll give up. If we’re wrong they’ll be in London in a week”.
Controller	“They are late this morning, Sir”
Park	“The bastards are up to something”

### Group’s Sectors

- 10 Group** - Middle Wallop, Filton, St Eval, Pembrey
- 11 Group** - Debden, Hornchurch, North Weald, Northolt, Biggin Hill, Kenley, Tangmere
- 12 Group** - Duxford, Coltishall, Wittering, Digby, Kirton in Lindsey. Church Fenton
- 13 Group** - Catterick, Usworth, Turnhouse, Wick

### Other Airfields in 11 Group

Castle Camps	sattelite of Debden
Eastchurch	sattelite field of Hornchurch
Gravesend	sattelite field of Hornchurch
Hawkinge	sattelite field of Hornchurch
Lympne	sattelite of Biggin Hill
Manston	sattelite field of Hornchurch - bombed and badly damaged, fighter command didn’t close the station, although many ground crew refused to leave air raid shelters except after dark. From 24.8.40 abandoned except as an emergency field.
Martlesham Heath	sattelite field of North Weald
Rochford	sattelite field of Hornchurch

Tawney	sattelite field of North Weald
Wattisham	sattelite of Debden
West Hampnett	sattelite of Tangmere
West Malling	sattelite of Biggin Hill

Eastchurch a coastal command airfield, no operational fighters, bombed by Luftwaffe  
 Detling bombed, 22 aircraft destroyed, not fighter command

### Squadrons

Fighter squadrons were moved regularly from airfield to airfield.

A full strength squadron would have 20 aircraft and two reserves, plus 16 operational pilots, and would be expected to fly 12 aircraft, either as four flights of three or three flights of four. If the strength fell below 9 they should have been relieved and posted to another Group, however some squadrons suffered exhaustion from persistent combat and heavy losses, and were far from efficient before being withdrawn. Some squadrons lasted 4 to 6 weeks, others had to be replaced after only a week to ten days. On 2.9.40 seven squadrons were reduced to less than half strength, and by 7.9.40 it was impossible to exchange squadrons quickly enough as their strength in operational pilots ran down.

A system of grading squadrons was introduced in early September:

- A 11 Group, plus Duxford and Middle Wallop, maintained constantly at a minimum of 16 operational pilots. Those in 10 and 12 Group had non-operational pilots in addition "as convenient".
- B Most of 10 and 12 Groups, kept up to strength a strength of 16 operational pilots plus six non-operational pilots - to relieve 11 Group squadrons.
- C In the quieter parts of the country, a minimum of three operational pilots act as leaders (except three named squadrons, which had eight), used for training pilots as replacements for 11 Group

All pilots posted to 11 Group were to be operational. Group commanders could post operational pilots to A or B squadrons, but should whenever possible maintain minimum strength by training non-operational pilots from the usual sources.

Each day Stanmore told 10, 12 and 13 Groups how many operational pilots were required for 11 Group.

- 1 film control room, Northolt, Canadian squadron, Hurricanes, operational end of August
- 19 Duxford (12 Group), Spitfires
- 32 film control room, Hurricanes based at Biggin Hill
- 54 film control room, and "covering Dover". Hornchurch, Spitfires. Rochford. retired for rest after 25.7.40. Manston, Kenley, withdrawn early September
- 64 film control room, based at Kenley Spitfires
- 73 Debden, Hurricanes, Originally in 12 Group at Church Fenton, exchanged into 11 Group 5.9.40
- 74 film control room, Spitfires, Hornchurch or Manston, "Tiger" squadron. Sailor Malan
- 85 Martlesham, Hurricanes, Squadron Leader Peter Townsend. moved to Croydon 19.8.40, by 2.9.40 patrols were half strength, exchanged with 73 squadron 5.9.40
- 203 Tangmere, Hurricanes
- 238 10 Group, Hurricanes
- 242 Duxford wing, Hurricanes, based at Coltishall, Douglas Bader's squadron.
- 253 Kenley, Hurricanes

- 302 Polish, Duxford, Hurricanes (see p152 of Roy for Park's criticism)
- 303 Polish, Northolt, Hurricanes
- 310 Czech - Duxford wing
- 312 Czech - Speke
- 501 (County of Gloucester) film control room, based at Biggin Hill or Kenley, Hurricanes Hawkinge Ginger Lacey, Gravesend, Hornchurch. Sent North 3.9.40
- 504 North Weald, Hurricanes, transferred from 12 Group (Catterick) 5.9.40
- 602 Westhampnett/Tangmere, Spitfires
- 603 (City of Edinburgh), Spitfires Richard Hillary's squadron, sent from Scotland to Hornchurch 10.8.40. Biggin Hill
- 609 (West Riding) Warmwell, Dorset, 10 Group, Spitfires
- 610 (County of Chester) film control room, based at Biggin Hill, Spitfires, transferred after climax of fighting to Acklington.
- 611 Duxford, Rochford, Digby, Spitfires
- 615 film control room, based at Kenley, Hawkinge, Hurricanes, transferred from 12 Group, wanted to go back!
- 653 film, at Hornchurch

### **Sources**

The Battle of Britain is based on the 1968 film of the same name. Additional details have been taken from:

The film "Angels One Five".

Aircraft of the Aces, The Legendary Spitfire Mk I/II 1939-41, by Alfred Price, Del Prado 1999.

Aircraft of the Battle of Britain, by William Green, Pan/MacDonald 1969

Fighter, by Len Deighton, Grafton Books, 1987

RAF Fighter Squadrons in the Battle of Britain, Anthony Robinson, Brockhampton Press, 1999.

The Battle of Britain, A Nation Alone, by Arthur Ward, Osprey Publishing 1989

The Battle of Britain, August - October 1940, Issued by the Ministry of Information on behalf of the Air Ministry, 1941

The Battle of Britain, New Perspectives, by John Ray, Arms and Armour Press 1994

The Last Enemy, by Richard Hillary, Pan, 1956

The Right of the Line, John Terraine, Wordsworth Military Library, 1997.