



**Royal Air Force Virtual
Central Flying School
Advanced Flying Training
4 Flying Training School**



Training Syllabus

Introduction

Welcome to RAFv Valley, your last stop on your way to joining your chosen squadron.

Here you will be introduced to the exciting world of fast jet operations. You will be building on the skills and lessons you have already learned at CFS.

4FTS will give you an altogether different dimension to the flying you have completed so far. Once you have successfully completed this course you will graduate from Central Flying School and receive your posting to your chosen squadron for conversion to that squadron's aircraft type.

Aircraft

At 4FTS, you will be flying the BAe Hawk T/MK1. This is our representation of the RAF's premier jet trainer. Used by a vast number of the world's armed forces to train their pilots in fast jet flight, it is a high performance, single engine aircraft. The tandem seat arrangement allows the instructor to sit in the back and maintain an excellent field of view. It has a simple cockpit layout that allows you to focus on flying rather than monitoring a vast array of complicated instruments. That will come on your squadron OCU course.

Summary

Your course here should last approximately 8 to 10 hours. The course will hone the skills you have already gained as well as teaching you some new ones. Enjoy your time here at Valley.

Many experienced pilots at RAFv love to come back to fly the Hawk.

The aim here is to teach you to fly a fast military jet, and as such a new style of teaching and assessment is in place.

The Circuits, emergency drills, aerobatics and general aircraft handling are *your responsibility to practice*. A QFI will not teach you these and you can practice these on your own.

Remember though, a QFI can throw in an engine failure at any time, so be ready for it.

The sorties you will fly will be planned by you, briefed by you and led by you. You need to read the *Aims of the Sortie* details, then use your skills learnt so far to plan the flight.

When you have flown and practised the flight, request a QFI.

You will need to brief them, provide them with the necessary flightplans and then lead the formation.

This will ready you to be an active and skilled squadron pilot upon your qualification. The QFI's know that this will be very new to most students and a steep learning curve and as such you should use the

QFI's skills to help at any time. Feel free to PM, post on the forum or catch a QFI on teamspeak if you require help or tips.

To allow this a 60nm limit is in force at RAFv Valley and up to 10,000 feet.

British Aerospace Hawk T/MK1

Cockpit Layout Diagram & Performance Reference Chart

Maximum operating speed 560 KIAS/ 0.92 MACH.

Manoeuvring speed (sea level) 300 KIAS.

Maximum gear operating speed 260 KIAS.

Maximum flap extension speed 280 KIAS.

Rotation Speed 95 KIAS.

Approach speed 130 KIAS.

Threshold speed 110 KIAS.

Best glide speed 170 KIAS with gear and flaps up and engine inoperative.

Stall speed 80 KIAS flaps up.

Stall speed 70 KIAS flaps full.

Normal Operating Checklists

Pre- Start

Parking Brake	ON
Gear	CHECK DOWN
Battery Switch	ON
Aircraft Lights	AS REQUIRED
Avionics Master	OFF
Clearance	REQUEST FROM TOWER

Engine Start

Canopy	CLOSED AND LOCKED
Beacon	ON
Throttle Lever	IDLE
Starter Switch	ON
RPM	CHECK RISING
Engine Instruments	CHECK WITHIN NORMS
Avionics Master	ON

Altimeter **SET TO LOCAL**

Pre- Taxi Checks

Flight Controls **CHECK FOR FULL MOVEMENT**

Flaps **SET AS REQUIRED**

Lights **ON AS REQUIRED**

Brakes **RELEASE AND CHECK**

Flight Instruments **CHECK**

Engine Instruments **CHECK**

Navigation Equipment **SET AND CHECK**

Transponder **SET**

Take Off Checks

Throttle Lever **SET TO TAKE OFF POWER**

Brakes **RELEASE**

Instruments **MONITOR DURING TAKE OFF RUN**

Airspeed **AT ROTATION SPEED PULL TO 15 DEGREES NOSE UP**

Gear **UP ONCE POSITIVE CLIMB RATE ACHIEVED**

Flaps **UP BEFORE 200 KIAS**

Climb and Cruise Checks

Climb Speed **260 KIAS**

Throttle **90% ENGINE N2 RPM**

Altimeter **SET TO STANDARD AT 18000ft**

Engine **MONITOR OPERATION**

Navigation Equipment **MONITOR**

Descent and Approach Checks

Fuel **CHECK SUFFICIENT**

Engine Instruments **WITHIN NORM**

Avionics **CHECK SET**

Flaps **SET TO MID AT 200 KIAS**

Altimeter **SET TO LOCAL**

Approach **130 KIAS**

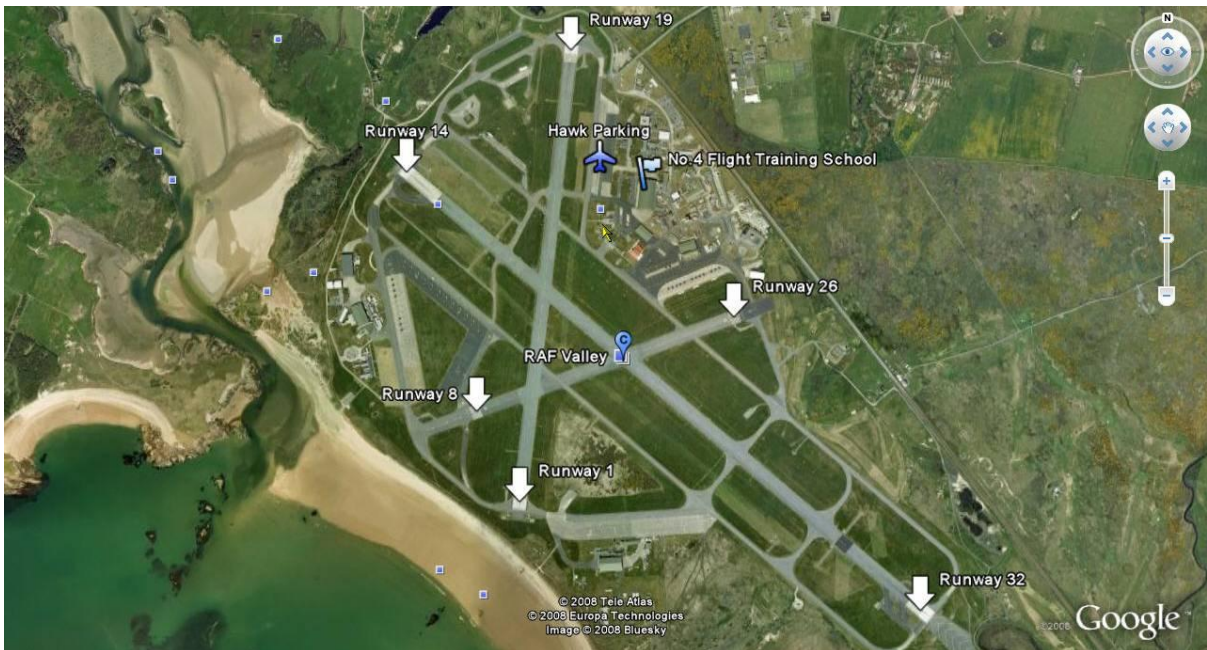
Flaps **FULL DOWN**

Gear **DOWN AND LOCKED**

Landing and Shutdown Checks

Threshold Speed	110 KIAS
Brakes	AS REQUIRED
Flaps	UP
On Ramp	PARKING BRAKE ON
Engine	STABILIZED
Fuel	CUT OFF
Avionics	OFF
Lights	OFF
Canopy	UNLOCK AND OPEN
Battery	OFF

RAFv Valley



No. 4 FTS Sorties

Sortie 1

Aims of the Sortie

This sortie will take you around the Low Flying Area (LFA) which covers the entire Welsh region. You will plan and fly a sortie taking the flight through the LFA to demonstrate your ability to fly low and fast through the terrain whilst maintaining contact with your QFI. This will be a stern test of your skills as

low flying can be both exhilarating and perilous, you must maintain 100% concentration at all times to avoid flying into the hills.

Requirements

- You are to fly no higher than 500ft AGL and speeds are to be maintained around 400 KIAS.
- You must pass over Welshpool airfield
- You must include at least 1 VOR and 1 NDB on your route
- The flight must be at least 30 minutes in duration

You are free to use whatever means you wish to plan the flight, i.e. FSNav, Flight Simulator default Planner, maps, visual navigation, but you must be able to brief your QFI on where you are going and provide a simple flightplan.

Your QFI will do exactly as instructed. You are the flight leader and will be expected to make all ATC calls. Keep an eye on your flights fuel.

Good luck.

Sortie 2

Aims of the Sortie

To plan and fly an instrument flight at mid altitude (10,000-15,000), at night, using navigation aids and two touch and go approaches using ILS and airfields/airports of your choice.

Requirements

- The sortie is to be done at night
- Altitude must be between 10 and 15 thousand
- 2 ILS approaches at different airfields

Again, plan the flight by any means you like, practice it, then brief your QFI

Sortie 3, Final General Handling Checkflight

Pre-flight briefing

Nearly there. It's time to put everything you have learned into practice and show your abilities. This is the last part of the course, the general handling checkride. During this flight you will be expected to show a good understanding of everything you have learned, not only at 4 FTS, but everything you have learned during your time at Central Flying School. There is no pre-flight briefing as the instructor is free to throw anything into the flight. Be aware that your instructor will be especially looking at the following.

1. Proper radio procedures.
2. Checklist knowledge.
3. Quality of aircraft control.
4. Use of navigation equipment.
5. Ability to follow instructions (headings, altitudes etc).
6. Emergency handling.
7. Interaction with other aircraft if encountered.
8. Aircraft safety at low level.
9. Quality of landings.

Sortie 4, Tactical Checkflight

You are required to plan a timed strike on the Pembury Range in South Wales. Immediately before takeoff you will tell your QFI what time (hour and minute) you will overfly the range. Your task is to overfly the range at that exact time.

Requirements

If you satisfy your instructor during this flight you will be awarded your pilots wings. It will be announced on the forum that you have passed and you will be posted to your desired squadron where you will receive your new callsign. You will be expected to make contact with your squadron commander who will give you details on how to get started with your operational conversion.

Congratulations on completing the Central Flying School syllabus. Have fun with your squadron, we looking forward to seeing you in the virtual skies and wish you every success with your RAFv career.