



**PRACTICAL INTRODUCTION TO
RADIO PROCEDURE
For
VATSIM
VFR PILOTS**

NOT TO BE USED FOR REAL WORLD AVIATION

Version 5.0
SEPTEMBER 2015

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INTRODUCTION

Talking to Air Traffic Control (ATC) either on VATSIM or in the real world, is one of the most daunting exercises the new pilot faces. However, with only a small amount of practice, it becomes almost second nature.

THIS document provides a simple explanation of the basic ATC dialogue required on VATSIM for all VFR online operations, needed to complete the CIX Radio Procedure License course successfully. It doesn't look simple, as you scan down the document, but with the help of the Club's R/T Specialists, it will actually become simple with practice. Three or four flights, with an experienced controller online, and it will become quite familiar.

The Course has been designed to help you self study and practice radio procedures and calls. Parts 1 and 2 are the calls you will need for your CIX P1 and P2 Flight Tests with Club.

Note: If you wish to print this document, please ensure printer is set to landscape mode and selected to print colour.

HOW THIS MANUAL SHOULD BE USED

NOTE: The test for the full licence, and P2 RT qualifications are 'non-flying' desk exercises.

A table is used within the exercises to illustrate who will be talking; a column for the pilot and the controller dialogue and a column for explanatory notes.

YOUR TRANSMISSIONS	THE CONTROLLER'S TRANSMISSION	NOTES, COMMENTS, QUESTIONS Etc.
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The calls illustrated should not be regarded as all you will need, but follow the basics and you will be able to deal with any call from/to any controller.

Abbreviations used; **IFR** = INSTRUMENT FLIGHT RULES (ALWAYS UNDER FULL ATC CONTROL)
A/C = AIRCRAFT **A/D** = AERODROME/AIRFIELD **VFR** = VISUAL FLIGHT RULES **nm** = NAUTICAL MILES
kts = KNOTS (NAUTICAL MILES PER HOUR) **ATIS** = AERODROME TRAFFIC INFORMATION SERVICE
TX = TRANSMISSION **RX** = RECIEVE(ING) **WX** = WEATHER **GND** = GROUND CONTROLLER
TWR = TOWER CONTROLLER **APP** = APPROACH CONTROLLER **DME** = DISTANCE MEASURING EQUIPEMENT

Part 1

BASIC RADIO PROCEDURE

For

CIX VFR P1 PILOTS

The included exercises/examples in Part 1 are the calls which may be required during your P1 flight test, irrespective of the airport where it takes place.

For your test, it is up to you to familiarise yourself beforehand with the local area, its navigational facilities and any special requirements for flight in that area.

The P1 RT test is practical, it will be part of a flight undertaken by you, on line, with the examiner acting as Tower controller at the your 'home' airport.

NOT TO BE USED FOR REAL WORLD AVIATION

1. THE BASICS OF VOICE PROCEDURE

1.1 GENERAL NOTES AND RULES Some important Dos and Dont's.

1.1.1 EQUIPMENT

Make sure you have selected and tested your “Press-to-Talk” (PTT or Transmit) key. Select a key which does not auto-repeat. Most character keys auto-repeat, which causes a series of characters to be printed in the text box and transmitted, when you hit ‘return’. Recommended keys are Left or Right Control (depending on which hand you need on your Yoke or Joystick).

Prior to flying, get a voice check with a Club member or Instructor, or you may find the Controller using Text because he cannot understand you! Check that the selected key will not stick; that you are NOT using voice activation and that your microphone is NOT directly in front of your mouth. Slightly to one side and below is best, (unless you are using a headset so designed (at least £250.00).

1.1.2 CALLSIGNS On first contact both Pilot and Ctlr MUST use their FULL CALLSIGN.

“Shoreham TOWER, G-GATC, request Radio Check.” “G-GATC, Shoreham TOWER, readability five.”

AFTER first contact, the Controller **MAY** shorten your callsign. He will do so, if he can, unless it causes confusion with other traffic, perhaps with a very similar callsign.

NEVER SHORTEN YOUR CALLSIGN FIRST. ALWAYS USE THE ‘VERSION’ OF YOUR CALLSIGN THAT THE CONTROLLER USES.

1.1.3 EVERY TRANSMISSION

EVERY PILOT TRANSMISSION should include the ‘callers’ callsign. When making the **INITIAL CALL of a conversation** state the station being called, followed by your own callsign, the person **RESPONDING** does the same. **After** the initial call, **THE PILOT ends** his transmission with **his callsign**, whilst the **CONTROLLER will start** his transmission with **the pilot’s callsign**. Occasionally, the pilot may start his transmission with his callsign, this usually occurs naturally in the context of the message. The examples below illustrate this, if you are confused.

Also note that an A/C engaged in a particular procedure (transiting a zone; approach to land; circuits; taxiing.) Unless either party needs to vary the expected procedure, only the A/C callsign will be used after the initial contact and response. (one controller, many A/C.)

1.1.4 PILOT'S INITIAL CALL

The Pilot's initial call **MUST INCLUDE THE TYPE OF 'SERVICE' REQUIRED, BOTH IN THE AIR AND ON THE GROUND.**

Examples; **“Thames Radar, G-GATC, request; start/taxi for fuel/circuits or clearance for local flight to..or departure clearance to. (in the air) Thames Radar, G-GATC, request; Flight Information (or other ATS) service or join or zone transit or land/full stop. “G-GATC, Thames Radar, pass your message”.**

You then continue with your details (CEPHACER/Position Report) and requested service.

The Controller will confirm the service provided after receiving your details.

This format applies, whatever you want to do, whether on the ground or, in the air, as explained in the following pages.

1.1.5 Shorthand Calls: - ROGER and WILCO

There are two shorthand calls which need to be carefully understood. **ROGER** and **WILCO**. Everyone has heard of ROGER, he features in any film which includes sequences in an aircraft. This is why its use is so often misunderstood.

ROGER means “I have heard what you say and acknowledge that I have heard you”. **It means nothing more.**

It is not an appropriate reply to an instruction or clearance.

On the other hand, **WILCO** is short for “**I will comply** (with that request/instruction.)”.

It **CAN BE** an appropriate reply to an **instruction, BUT NOT CLEARANCES & certain instructions.** (see list in 3.3 below)

1.1.6 Connecting to VATSIM

You will be told during flight training, **AND ALWAYS REMEMBER: - A BASIC VATSIM RULE is;**

NEVER CONNECT TO VATSIM WITH YOUR AIRCRAFT AT THE THRESHOLD OR ON THE ACTIVE RUNWAY of your selected airport. It is the easiest way to receive a VERY short, sharp message from the controller. **“MOVE or DISCONNECT please”.** Failure to do either, quickly, could gain you an ‘interview’ with a VATSIM SUPERVISOR.

FSX FLIGHT PLAN PROGRAMME WILL start up with your aircraft on the active runway if you aren't very careful in selecting the correct airport options during FSX start-up, so make sure you know how to connect where YOU want to be, not where FSX would like to be.

1.1.7 Keep Up-to-Date

Real World (RW) UK Air Traffic Services are being ‘harmonised’ to a common European-wide set of procedures/phraseology. Vatsim always tries to ‘keep up’ with RW procedures, so keep an eye on the Club forum and do your best to stay ‘up-to-date’. BUT, as you will learn later, if you cannot remember the EXACT phrase, make sure that what you say is clear and means the same thing.

1.2 Fly the Aircraft!

One of the hundreds of aviation "Sayings" is 'AVIATE: NAVIGATE: COMMUNICATE.'

AVIATE: - Fly the aircraft first and foremost. Maintain airspeed, heading and altitude.

NAVIGATE: -Make sure you know where you are and where you are going,

COMMUNICATE: - THEN talk to a controller.

This is especially important for the student who will be still learning how to Aviate, Navigate and Communicate, at the same time!

IT IS UP TO THE VFR PILOT TO INFORM THE CONTROLLER OF ANY DEVELOPING PROBLEM AFFECTING HIS FLIGHT/FLIGHT PLAN, ESPECIALLY IF IT MEANS HE CANNOT CARRY OUT THE CONTROLLER'S INSTRUCTIONS.

1.3 Setting the Transponder

The standard "Conspicuity Code" in the UK is 7000, and 1200 (VFR) in most other parts of the world. With the Transponder set to 7000, an aircraft can be seen on a Radar Screen with NO INFORMATION, indicating to the Controller "I am here WHOEVER or WHATEVER I am". That is all. To be 'seen' – to show your A/C and flight details, You MUST, when flying on VATSIM, also set your Transponder to Mode C, which transmits your A/C information to the 'Radar receiver'. It is commonly referred to as "Mode Charlie". Transmitting on a transponder is commonly referred to as "Squawking". In the real world, squawking Mode Charlie is optional, unless requested by ATC. Many light aircraft are not fitted with transponders, but the rules are changing about this in the next few years as "Mode S" is introduced. There's no need to worry about that on VATSIM, it is unlikely to be changed as a) VATSIM MODE C is versatile. b) Due to the technical design of the VATSIM system.

ON VATSIM, squawking Mode Charlie is mandatory. Unless you file a valid flight plan and Squawk "Mode Charlie" the controllers cannot see any details about you, or see your flight plan on their screens. This spoils everyone's enjoyment of the hobby.

REMEMBER: If not given a squawk code, when VFR, set 7000 in the UK, 1200 almost everywhere else, AT THE HOLD, BEFORE YOU ENTER THE RUNWAY, but not before, CHECK that you are squawking Mode Charlie.

Except at a very complex airfield like Heathrow, Kennedy etc. Where a ground controller will NEED to be able to track every A/C moving around the taxiways..

If asked to "Squawk IDENT" hit the Ident key on the A/C transponder module or, **if using FSInn, CLICK the 'C' TWICE**, (mode Charlie indicator, top right INN control panel) – It will change to 'I' for a few seconds. The CONTROLLER will see your A/C display with a ring around it.

2. CONTROLLER COMMUNICATIONS

The controller will pass **CLEARANCES, INSTRUCTIONS, INFORMATION** and **ADVICE** – (ESPECIALLY ON VATSIM)

2.1 Valuable Tip

WRITE DOWN all Clearances and Instructions. It makes it MUCH easier to read them back! Try to develop your own 'shorthand' – it will help you to make sure you have received all of the information correctly and will make reading it back in the right order much easier.

2.2 Clearances

CLEARANCES; (always includes the word CLEARANCE OR CLEARED),

Requires **STRICT COMPLIANCE** and must be repeated word for word as issued ('readback') **if possible**, but always complete (**all of it**). Controllers will normally use your full callsign when giving a clearance; it is good practice for you to do the same when reading back clearances.

2.3 Instructions

INSTRUCTIONS **MUST** be followed **UNLESS** you believe it will put your aircraft in danger.

The following instructions should **ALWAYS BE READ-BACK IN FULL**;

TAXI INSTRUCTIONS; **ALTITUDES and FLIGHT LEVELS;** **HEADINGS; SPEED;** **RUNWAY-IN-USE ;** **ALL**
HOLDS; ALTIMETER (PRESSURE) SETTINGS; **TYPES OF SERVICE;** **(TRANSITION LEVELS.).**

Although not obligatory, a good idea to **always** readback the instruction following your 'downwind' call

IF YOU do not understand or agree with any clearance or instruction, ASK FOR A REPEAT or CLARIFICATION; AT ONCE.

If, for some reason, you are unable to readback immediately, or the instruction is very short and clear and not in the list above, acknowledge with 'WILCO' then clarify, with reason for delay if relevant.

REMEMBER: Incorrect read-back is not a crime. It happens. The Controller will satisfy himself that you understand what he wants you to do.

2.4 Information

INFORMATION (including TRAFFIC INFORMATION) Should **NOT** be read back, but can be acknowledged (an appropriate use of “Roger”, perhaps). It is detail that the Controller needs to make sure you have because it could affect your flight IMMEDIATELY, (or later). In some cases it will be useful for the Controller to know you have heard and understand the information passed, in which case acknowledge receipt.

E.g. “**G-TC, Runway 27, clear to land, surface wind 360 degrees; 8 knots**”,

“**Runway 27, clear to land, have the winds, G-TC**” (“Roger the winds” never sounds quite right, though!).

[Question: Why will the controller be ‘happy’ with the above and what are the legal aspects?]

The controller will always welcome (brief) acknowledgment of Traffic information. Plus any relevant action by you.

E.g. “**G-TC, traffic is a fast jet in your 11 o'clock range 4 miles, reporting 5,000ft**”, “**G-TC copy the traffic, looking**” or similarly “**G-TC has the fast jet (in my 10 O'clock high)**”

2.5 Advice

Is the VATSIM controller trying to help you? It is up to you what you do about it!

Often this will be in the form of a private text message, so be alert to private messages on your Pilot Client software.

3. THE INITIAL CALL

The initial call to a new Controller should contain (**AT LEAST**) the information necessary to tell the Controller the service required/requested. It is most commonly a request.

3.1 Departure - Talking To Tower or Ground.

State the Clearance or Information required (for joining/departing/moving on the ground)

“Shoreham Tower, G-GATC request taxi (for) local flight” [Question; what is incorrect(RW), but informative with this call on VATSIM?]

Sometimes, unless the Ground or Tower Controller is VERY busy (or it is local practice) the minimum first call is not required, and the Ground or Tower controller will not need to say ‘Pass your message.’ which would require two transmissions.

(for example)

NOT **“SHOREHAM-TOWER, G-GATC request clearance, for departure to Southend”**, **“G-GATC, Shoreham Tower, pass your message”**

BUT **“SHOREHAM_TOWER, G-GATC, C172 at tower parking, 1 POB, with information Alpha, request clearance for departure to Southend, VFR”**

OR **“SHOREHAM_TOWER, G-GATC, C172 at tower parking, Information Alpha, request clearance instructions for local flight to the west, VFR”**

The controller will then give you your clearance instructions, and if you will be taking off into Class D airspace, your after departure clearance at the runway.

Remember, on VATSIM flights ‘away’ (out of the ATZ) – OBTAIN CLEARANCE BEFORE MOVING.

3.2 Airborne en Route

“Thames Radar, G-GATC (Request) Flight Information Service” or **“Shoreham Approach, G-GATC request Zone Transit (North to South)”**

In EACH case the Controller will reply with the **FULL CALLSIGN** and EITHER **“Pass your Message”** or the clearance requested (if handed over from another Controller).

The Controller will confirm the service provided with his en-route instruction. You will confirm with your read back.

3.3 Inbound to an Airfield

“Shoreham Tower, G-GATC, request join” NOTE: **“Request Join”** Means “I request to join/enter your ATZ **TO LAND”**

The Controller will reply with the **FULL CALLSIGN** and EITHER **“Pass your Message”** or the joining instructions for the airfield (if handed over from another Controller). **MAKE SURE YOU ALLOW ENOUGH TIME/DISTANCE FOR THIS.**

DO NOT ENTER A CONTROLLED ZONE WITHOUT AUTHORITY (Except class E)

4. POSITION REPORTS

This is used for initial en route communication and is **one of the few procedures you should try to strictly follow**. It should be almost a learned speech, confident, clear and in the correct order with no 'ers' or 'ums'!

It comprises **5 elements, in a set order**;

1. **A/C ID** (callsign/type); Other relevant information; POB, Student.
2. **Position** (can be geographic and/or radio-nav, heading);
3. **Time** (departure or position, whichever is more relevant);
4. **Level** (state Height/Altitude/Flight Level);
5. **Next position** (waypoint/feature/VRP/Navaid) and **ETA**

“G-GATC, (is a) C172, from/out of Biggin (at 15) to Shoreham (VFR), O/H Sevenoaks, Alt. 2300’ (on) 1008 QNH, (Inbound) Mayfield at 35”

This, in a slightly different format, is known as a **CEPHACER** call and is described fully in [a page on the website](#) in the Training Section.

It does not matter which of these you use, BUT, be consistent, one or the other, so that you always 'get it all in'.

4.1 The CEPHACER

C	CALLSIGN AND A/C TYPE	G-GATC, (is a) C172,	
E	EN ROUTE	from/out of Biggin (at 15)	
P	POSITION	O/H Sevenoaks,	
H	HEADING	Heading 180	if inbound to/outbound from a VOR = 005 Radial, MAYFIELD
A	ALTITUDE (& QNH SET)	Alt. 2300’ (on) 1008 QNH	
C	CONDITION	VFR	
E	ESTIMATE (NEXT WAYPOINT)	(Inbound) Mayfield at 35	
R	REQUEST (EN-ROUTE PLAN)	to Land Shoreham	Remember your 'service request' was in your initial call.

4.2 REMEMBER. This is what **YOU** would like to do. The Controller will now tell you what **HE NEEDS you to do, an INSTRUCTION.**

5. VACATING THE RUNWAY.

If Taxi instructions are not issued **BEFORE** you vacate the runway; **VACATE, STOP & WAIT AT THE HOLD**

When you land on a runway, the Controller may have a number of situations requiring you to follow his instructions for leaving the Active runway. Below are some typical examples and the calls that should be made.

5.1 No other Traffic in the Vicinity

“G-TC vacate at Charlie (and taxi to the GA Apron via taxiway alpha.)”

“Vacate (at) Charlie (and taxi to (the) GA Apron via alpha, G-TC)”

This instruction would only be given **AFTER** the aircraft has landed and with taxiway/hold Charlie a safe distance ahead of the aircraft.

Sharp turns at speed can tip the aircraft over, and the controller will be well aware of this and so should you.

Then, after entering the taxiway: - Not required, unless instructed, but good practice, if it will help the controller.

“(Runway) vacated G-TC”

5.2 Another A/C Close Behind

The Controller asks you to "Land Long" because G-BAGA is on approach behind you.

“G-GATC runway 27, cleared to land, surface wind is calm, land long to vacate Bravo”

“G-TC runway 27 cleared to land, (landing) long to vacate Bravo”

“G-BAGA Continue approach, expect to vacate Delta”

This **can only be done on a runway at least twice the average landing run of both A/C concerned**, with exits that enable the runway to be 'divided in two'. This would include most Regional Airports, but exclude most small G.A. Airfields.

G-BAGA will **NOT** get a landing clearance until G-GATC is on the runway and beyond Charlie (EGLC).

You may be asked to **‘taxi best safe speed to vacate Bravo’**, after you land.

The second A/C **CANNOT be given clearance to land, until you are beyond his exit.**

I would take that to mean there could be a problem behind you, so get out of the way, as requested!

–ONCE on the runway, go to best (**SAFE**) taxi speed anyway (he could miss his exit).

5.3 A Request to Leave the Runway at a Specific Turn Off

There could be many reasons why the Controller needs you to vacate at a particular exit onto the taxiway. **It is an instruction.**

5.3.1 **“G-TC runway 27, Clear to land, vacate Charlie (if able)”**. **If able** means, IF you can, I NEED you to vacate Charlie, **BUT** if it isn't safe, or possible, **then clearly you do not** (If not possible, say so).

“G-TC runway 27, clear to land, to vacate Charlie”

5.3.2 If you are the second aircraft in a “Land long” situation, and you go past Charlie, you will have an aircraft ahead, **on the runway**. You had warning, your problem, **but do tell ATC!**

“G-TC, (Missed C), request B, have the traffic ahead, my separation”.

5.3.3 Question; You will need a conditional vacation instruction, will it be

“Behind the A/C ahead, vacate B, behind” or **“After the A/C ahead vacate B”**

5.3.4 You may get a call which means get off the runway as soon as you can.

“G-TC Vacate runway when able”

or an implied “ I will be busy – I may not be watching you.” type of instruction.

“G-TC Vacate runway when able and report vacated”

5.3.5 If NOT asked to report vacated, good practice to do so anyway WITH A SHORT report.

“G-TC vacated (the active/27)”

5.3.6 If YOU want to vacate via a specific exit (to shorten your taxi route), make sure you are capable of doing so, then **ASK**.

“G-TC runway 27, cleared to land”

“G-TC runway 27, cleared to land, request vacate E”

“G-TC vacate E approved, (report vacated)” Echo approved/(to) vacate E (to report vacated)GTC

or not, as the case may be. **“G-TC negative. Vacate at Foxtrot (and report vacated)”**

Do NOT forget, If you cannot comply with an instruction, say so ASAP, with (a short) reason why. – On the ground or in the air.

6. ON THE GROUND/MOVING AROUND THE A/D

6.1 The Initial Call

If you have a new system or your equipment is temperamental it is a good idea to start with a radio check. It also means that you have made your INITIAL CALL. – RW you would do this anyway, unless this is NOT YOUR first trip of the day in this A/C.

NOTE: - On VATSIM Controllers work a “Top down” arrangement. If no Tower Controller is on line; the next controller above, e.g. Approach, will issue Tower instructions as if he were a Tower controller. **He will use his own callsign (APPROACH) not TOWER.**

	Aircraft	Controller	Notes
a	GLOUCESTER TOWER, G-GATC RADIO CHECK - (No ground position)	G-GATC, GLOUCESTER TOWER, READABILITY, 5, slight echo	5=Perfectly readable; 4=Readable; 3=readable with difficulty; 2=readable now and then; 1=unreadable. Conditional report may be added. Distorted, Hum etc
b	G-GATC readability 5 also		
c	G-GATC. C172 at CIX parking, with Alpha, REQUEST TAXI for local flight to the south	G-GATC clear to leave the zone to the south, VFR Squawk 7005, remain clear of controlled airspace	Controller will usually use your full callsign for a departure clearance.
d	clear to leave the zone to the south, VFR Squawk 7005, remain clear of controlled airspace G-GATC	G-TC READBACK CORRECT, TAXI HOLD ECHO 1, RUNWAY 22, VIA Taxiways ALPHA & ECHO. REPORT (AT THE) HOLD (ECHO ONE).	WE HAVE BEEN TOLD WHERE TO GO, AND HOW TO GET THERE; An instruction; Read it back.
e	TAXI (and) report, (HOLD) ECHO 1, RUNWAY 22 VIA ALPHA & ECHO G-TC	Other Possible Controller taxi instructions, below	

Possible Controller TAXI Instructions

HOLD = STOP AT THE HOLD POINT.
HOLD SHORT = STOP BEFORE AN IDENTIFIABLE POSITION. **If for another aircraft, your responsibility to leave enough space.**
HOLD POSITION = STOP NOW, WHERE YOU ARE! IF NOT MOVING, DON'T!
REPORT AT HOLD ECHO ONE = TELL ME WHEN YOU ARE THERE
STOP, STOP = EMERGENCY STOP IMMEDIATE!

Do not forget, If, during taxi you are told to stop/hold. DO NOT MOVE AGAIN WITHOUT PERMISSION.

6.2 Start-up

Before even starting the engine, you need to know; The active runway; Any route restrictions; The circuit altitude/height; in other words - **The ATIS**. NOTE; **CLEARANCE to leave the Airport Traffic Zone, Is given BEFORE YOU MOVE;**

NOTE: Most light aircraft have a very short battery life, which FSX mimics, unless you enable 'everlasting battery', so you may need to start engine(s) BEFORE switching on your avionics, unlike commercial heavy aircraft who must request main engine start. However, light aircraft MUST request engine start at a few, e.g. Bristol, so be prepared for that possibility. If a start request is required, switch on the battery and avionics, make your "Request Engine Start" call, then switch the radio off again until you have started the engine.

6.3 Taxiing Out

When you are fully ready you can move off. Take your time, don't panic, there is no rush.

Double check that you are fully ready for flight before moving.

	Aircraft	Controller	Notes Wind 210/07 Q1022
a	SHOREHAM TOWER, G-GATC, RADIO CHECK	G-GATC, SHOREHAM TOWER, READABILITY 5	IF YOU ARE NOT HAPPY WITH THIS BIT PLEASE SAY SO – YOU NEED HELP.
b	G-GATC, (I read you) READABILITY 5 ALSO		Why do we use full call sign again at 2.1.c?
c	G-GATC, C172 AT TOWER PARKING, INFORMATION ALPHA, REQUEST TAXI INSTRUCTIONS FOR LOCAL FLIGHT (to the west).	G-GATC, clear to leave (the zone) to the west, to remain clear of controlled air space, Squawk 7033	As TWR will know we are preparing for a departure, we can pass our 'service request' straight away. (UNLESS HE IS VERY BUSY). ATC should only pass 3 pieces of information to the pilot in any one transmission, but this recommendation (it isn't a rule) is widely ignored on VATSIM. It is recommended because it has been demonstrated that pilots can only reliably remember 3 pieces of information while writing them down. So the squawk and/or QNH MIGHT BE transmitted separately.
d	clear to leave (the zone) to the west, remain clear of controlled airspace, Squawk 7033 G-GATC	GTC (readback) Correct, TAXI (& REPORT) HOLD KILO 1, RUNWAY 20, VIA TAXIWAY KILO. QNH 1002	
e	TAXI and report HOLD KILO1 RUNWAY 20 QNH 1002 G-TC		

6.3.1 NOTE: In this example (at Shoreham) to get to hold Kilo1 you need to cross the starter extension of runway 25. However, so far, you have been given NO instruction about 'crossing' runway 25. BE SAFE! So when you get there, consider a call in; **"G-TC (Kilo 3) to cross /Request cross 25"**. AND/OR HAVE A GOOD LOOK! **REMEMBER, YOU are responsible for the safety of YOUR flight.**

6.4 Crossing an Active Runway

The Airport may have more than one runway. To get to the specified hold, you may have to cross one or more of these other runways.

At any airport, especially dealing with mixed traffic, more than one runway can be in use at the same time.

IF GIVEN AN INSTRUCTION concerning a runway crossing, YOU MUST NOT CROSS the runway without specific ATC clearance to do so.

IF NO SPECIFIC INSTRUCTION, take care, check and check again. (see 7.3.1 above)

6.4.1 Crossing Clearance Required:- INITIAL CALL AND CLEARANCE HAVE BEEN COMPLETED

You must stop at the hold for the runway you wish to cross and obtain clearance.

a	G-TC, REQUEST/READY FOR/TO TAXI. Make it quite clear if needed	GTC TAXI HOLD ALPHA 1 VIA JULIET AND ALPHA. CALL TO CROSS (RUNWAY) 29	CONTROLLER WANTS YOU TO STOP FOR PERMISSION TO CROSS RNWY 29
b	TAXI HOLD A1 VIA J AND A, CALL TO CROSS 29, G-TC		Off we go.
c	HOLDING (AT RUNWAY) 29 G-TC Or Holding Juliet2 for (runway) 29 G-TC	GTC CONTINUE TAXI, CROSS(RUNWAY) 29	CONTINUE TAXI means continue with your (previous) taxi clearance -that is why we write it down!
d	CONTINUE TAXI, CROSS 29, G-TC	If you think that 29 IS active, call vacated.	

6.4.2 Straight through Clearance

If the controller has **no or no conflicting traffic**, you will be given **permission to cross in the initial taxi clearance**.

a	G-TC, READY TO TAXI (FOR LOCAL FLIGHT to the west). Make it quite clear if needed	GTC TAXI HOLD ALPHA 1 VIA JULIET AND ALPHA. CALL CROSSING (RUNWAY) 29	CONTROLLER HAS NO CONFLICTING TRAFFIC AND GIVES US PERMISSION TO CROSS RNWY 29 ON REACHING
b	TAXI HOLD A1 VIA J AND A, CALL CROSSING (RUNWAY) 29 G-TC .	(GTC correct)	BUT! BEFORE YOU DO! CHECK BOTH WAYS! COLLISION AVOIDANCE IS <u>YOUR</u> RESPONSIBILITY!
c	CROSSING 29 G-TC	GTC ROGER, (CONTINUE TAXI/call vacated)	
d	(continue taxi/call vacated GTC)		

Normally your taxi instruction would be as at section 7.2.d above; This would usually mean the Controller will be waiting for you to arrive there to give you your after departure and/or takeoff clearance. **If he has other A/C to deal with, he may ask you to 'report at the hold' this means he will be getting on with something else, just paying enough attention to you to ensure you don't have/cause a problem. So in the first instance, give him time to talk to you. He will not (normally) do so whilst you are moving.**

7. DEPARTURE

“Departure” is the term used for **TAKING OFF, climbing away** from the airfield and **commencing the “en route”** phase of the flight.

In this situation “en route” includes flying in the circuit.

7.1 Your Clearance and After Departure Instructions

BE READY TO COPY THE INSTRUCTIONS IN YOUR SHORTHAND - ACCURATELY!

Departure Clearances vary depending on the airport and current traffic situation.

If the Airport is surrounded by a Class D Control Zone, as many regional airports are, you will be given specific instructions about how to leave the control zone. It will be via a designated location, usually a **Visual Reference Point (VRP)** and a **specific altitude/height**.

ATC may also require you take a particular route whilst at low level. (For noise abatement reasons to avoid annoying the local inhabitants).

For departure clearances, ATC will usually use the aircraft's full callsign. Clearances should be read back exactly as given, if possible.

	Aircraft	Controller	Notes Wind 210/07 Q1022
a	G-TC HOLDING K1 or AT HOLD C, G-TC	G-GATC HOLD POSITION, AFTER DEPARTURE, (CLIMB STRAIGHT AHEAD, AFTER PASSING 1000') WITH A LEFT TURNOUT, REPORT DME 2 MILES	THIS IS YOUR AFTER DEPARTURE CLEARANCE, ALL OF IT, SO MAKE SURE YOU READ BACK EACH BIT, EVEN IF YOU CANNOT GET IT IN THE SAME ORDER. Did you write it down? (your shorthand)
b	HOLD POSITION AFTER DEPARTURE, CLIMB STRAIGHT AHEAD, (AFTER) PASSING 1000' LEFT TURNOUT, REPORT 2 DME G-TC	G-GTC, READBACK CORRECT REPORT READY FOR DEPARTURE	IF THE CONTROLLER SEES YOU ARE NOT CONFIDENT, HE WILL PROBABLY GIVE YOU TIME TO SORT YOURSELF OUT,
c	READY FOR DEPARTURE G-GATC	G-GATC RUNWAY 20 CLEARED TAKEOFF, SURFACE WIND 210 DEGREES 07 KNOTS	THE TAKEOFF CLEARANCE IS AN INSTRUCTION, THE WIND IS INFORMATION
d	G-GATC (RUNWAY 20) CLEARED TAKEOFF (Copied the wind)	Note The phrase ' TAKE OFF ' is <u>ONLY EVER</u> used, by ATC or PILOT as part of your <u>takeoff</u> <u>clearance and read back</u>	IN YOUR OWN TIME, BUT DON'T 'SPEND ALL DAY' (YOU SHOULD BE READY) - TAKE OFF.

If you have severe (for your A/C) cross winds OR gusting, a good idea to let the Controller know you have the wind information.

NOTE '**with a left turn-out**' means, 'as instructed, turn left 90 degrees to the runway heading, and maintain that heading until advised'

7.2 Leaving the Aerodrome Traffic Zone

After climbing out, you turn en route and either you or the Controller will “Sign off” the frequency. It doesn't matter which of you it is. It is simply a matter of who calls first and this probably depends mostly on the Controller's workload. If he wants to “get rid of you quickly” he will call quite soon after you turn off the runway heading as you climb. You can remain on his frequency if you wish, to monitor traffic information (often very useful in busy skies) – but not too long. Once outside his ‘zone’ he will only be concerned with you if you are about to cause any of his other traffic a problem. He **‘HANDED YOU OFF’**, therefore you are **no longer ‘HIS’ problem**.

7.2.1 Below, 4 VARIATIONS OF ‘HANDOFF’:-

	Aircraft	Controller	Notes Wind 210/07 Q1022
a	GLOSTER TOWER G-TC DEPARTING TO THE NORTH REQUEST FREQUENCY CHANGE TO UNICOM 122.80	G-TC FREQUENCY CHANGE APPROVED MONITOR UNICOM 122.80 (GOODBYE)	You called first!
b		GTC, YOU ARE LEAVING MY AIRSPACE, REPORT LEAVING THE FREQUENCY	The Controller called first, he may not give you your next frequency
	WILCO G-TC or (roger, going to UNICOM 122.8 GTC)	(GTC roger Unicom 122.8) Why did he read it back?	
c	GLOSTER TOWER G-TC REQUEST FREQUENCY CHANGE TO BIRMINGHAM RADAR 118.050	G-TC FREQUENCY CHANGE APPROVED CONTACT/FRECALL/GOTO BIRMINGHAM RADAR 118.050 (GOODBYE)	Being VATSIM, there may or may not be another Controller you can contact for an ATC service. If there is, then this is the dialogue you choose. (Real world of course there is always another service available).
d		G-TC YOU ARE LEAVING MY AIRSPACE FRECALL BIRMINGHAM RADAR 118.050 (GOODBYE)	Again, the Controller may get in first.
	FRECALL BIRMINGHAM RADAR 118.050 G-TC (GOODBYE)	‘CONTACT’ / ‘FRECALL’ WHAT’S THE DIFFERENCE?	

Note: - Courtesies, “Goodbye; “Thank you for the service” are customary but not mandatory on VATSIM. They are rarely heard real world though. Too busy!

8. EN ROUTE

8.1 Talking to a New Controller

If you are asked to, or need to contact another controller, you need to “pass your details” (the information the new controller needs relevant to your flight). This section is not part of the P1 requirement, but is included here for completeness of information & ‘just in case...’

	Aircraft	Controller	Notes Wind 210/07 Q1022
a	THAMES RADAR, (STUDENT) G-GATC, FLIGHT INFORMATION SERVICE	(STUDENT) G-GATC, THAMES RADAR, PASS YOUR MESSAGE	The CEPHACER call (position report) tells the Controller. Who, what, where we are and what we are going to do, and for how long. He gives us his squawk code so that he can keep an eye on us. We got it wrong when reading it back, so he corrects that part. Having been told, we keep a look out for the traffic, and adjust where we were going, if required. If we make a major change, don't forget to tell the controller
b	G-GATC, C172 OUT OF SHOREHAM, LOCAL FLIGHT, TO THE WEST FOR GENERAL HANDLING, EXERCISE DURATION 30 MINUTES NOT ABOVE ALT 3,000',QNH 1022, 2 POB, SQUAWKING 7000	G-TC, BASIC SERVICE, DUE WORKLOAD, SQUAWK 7033, REPORT BEFORE RETURNING TO SHOREHAM	
c	G-TC BASIC SERVICE SQUAWK 7043, TO REPORT BEFORE RETURN TO SHOREHAM.	G-TC NEGATIVE, SQUAWK 7033	
d	Squawk 7033 GTC	G-TC, READBACK CORRECT, TRAFFIC INFORMATION, GLIDERS OPERATING FROM WASHINGTON VRP SOUTH TO THE DOWNS.	
e	G-TC COPY THE TRAFFIC	Having said Basic service, why this information?	

For more information see CIX_BASIC_RT_P2 section Page 42

9. ARRIVAL

9.1 Time to Return To Shoreham

First, you need to determine which controller, if any, is online. It could be Shoreham Approach. VATSIM code KA_APP, who will also cover Shoreham Tower, or just Shoreham Tower (KA_TWR who cannot give approach instructions) Ground Movement Control (GND) is done by Tower at Shoreham, but at larger airports, a separate GND controller may be online..

You will need permission to enter controlled airspace. **Let us assume only TWR is manned.**

You need to 'call for entry' if possible, **AT LEAST 10 minutes away**, otherwise you may not get your entry clearance before you reach the zone boundary (in which case **YOU MAY NOT ENTER**).

9.1.1 REMEMBER, UNDER 230KTS, EVERY 6 MINUTES WE TRAVEL APPROXIMATELY 1/10TH OF OUR SPEED.

E.g. at 90KTS; 9 NM every 6 MINS. (=1.5nm/minute)

9.2 Automated Terminal Information Service (ATIS)

Approaching the airfield – you MUST tune in the ATIS frequency (130.975) – if available - and listen to the broadcast.

You will hear (and / or read as a scrolling message across the computer screen) the following: -

The METAR (5TH of the month) will look like this: **EGKA 051350Z 200/11 9999 FEW035 12/09 1009 - Available from VATSPY**

(This is) Shoreham Arrival & Departure Information Hotel , Time 1350Z Runway in use 20 (Left Hand Circuit), Surface Wind 200, 11 knots, Visibility 10 Kilometres or more, Few 3500 feet, Temperature +12, Dewpoint +9, QNH 1009, QFE 1009, IFR expect an instrument approach Runway 20, All aircraft contact Shoreham Tower frequency 123.15, Acknowledge receipt of information Hotel, on First Contact.

a

You need to note down the important bits:- H 20LH 200/11 (12/9) 1009 123.15

(You did note other important things like circuit height in your planning? At Shoreham it is 1100' (above the airfield) but it may not be included in the ATIS) At Shoreham QNH and QFE are the same, not enough difference between them

If **ALL RUNWAYS** at the airfield have left hand (standard) circuits, the circuit direction may be omitted

10. Joining the Circuit

10.1 There are five methods of joining a VFR circuit.

1. **THE STRAIGHT IN JOIN**
2. **THE BASE LEG JOIN**
3. **THE CROSSWIND JOIN**
4. **THE DOWNWIND JOIN**
5. **THE STANDARD OVERHEAD JOIN** Not normally part of the P1 Flight Test, but you never know.

10.2 At P1 level, **a straight in or an overhead join will not normally be required**, but any of the other three may be. The ATC dialogue needed is slightly different for each. You can request a particular join, depending on your position relative to the airfield, but in the P1 flight test this will not be necessary. The P1 examiner will position you by suitable instructions so that an ATC issued join can be accomplished with normal manoeuvring.

10.3 At more than 3nm DME. The Tower Controller CANNOT issue control instructions to you, (Except a permission to enter the traffic zone or join the circuit) because you are outside his zone, so call in good time. Give a position report and remember to include **the ATIS information letter** in your initial call. If Tower is very busy just call sign and service request, **“SHOREHAM TOWER, G-GATC, REQUEST/TO JOIN”** **“G-GATC, SHOREHAM TOWER, PASS YOUR MESSAGE”**

	Aircraft	Controller	Notes Wind 210/07 Q1022
a	SHOREHAM TOWER, G-GATC INBOUND FROM THE WEST PASSING LITTLEHAMPTON 2000FT QNH 1022, VFR, WITH INFORMATION HOTEL, REQUEST JOIN	G-GATC SHOREHAM TOWER, RUNWAY 20 (IN USE LEFT HAND CIRCUIT), EXPECT CROSSWIND JOIN (FOR RUNWAY 20) REPORT 4 DME	CROSSWIND IS GIVEN AS AN EXAMPLE. REMEMBER THAT A STRAIGHT IN, BASE LEG, DOWNWIND or STANDARD OVERHEAD JOIN MAY ALTERNATIVELY BE GIVEN.
b	RUNWAY 20 (LEFT HAND CIRCUIT), EXPECT CROSSWIND JOIN (FOR RUNWAY 20) 1022 REPORT 4 DME G-GATC	GTC READBACK CORRECT -	WRITE DOWN THE DETAILS e.g. “20, LH, XWIND, 4 DME.

	Aircraft	Controller	Notes Wind 210/07 Q1022
c	SHOREHAM TOWER G-TC 4 DME Although 'frowned upon' by some, the shortened reply in b is just OK. All the relevant information has been read back.	- G-TC JOIN & REPORT CROSSWIND FOR RUNWAY 20 (at Altitude 1600')	A CROSSWIND JOIN AT SHOREHAM IS VERY COMMON FOR TRAFFIC INBOUND FROM THE WEST. NOTE: THE CONTROLLER HAD SHORTENED THE CALLSIGN. YOU MAY NOW DO THE SAME.
d	JOIN & REPORT CROSSWIND FOR RUNWAY 20 (at 1600') G-TC	JOIN AND REPORT; requires you to report joining the CIRCUIT (Standard 'full' circuit dimensions)- 2-2.5 nm from the centre line.	
e	G-TC CROSSWIND FOR 20 If NOT 2DME, STATE your DME	G-TC REPORT DOWNWIND FOR RUNWAY 20, CIRCUIT Altitude 1100FT	ONCE ON THE CROSSWIND LEG, MAKE THE STANDARD "DOWNWIND" "BASE" (IF REQUIRED) AND "FINAL" CIRCUIT CALLS AS DESCRIBED
f	DOWNWIND, GTC	GTC, REPORT FINAL, RUNWAY 20	
g	REPORT FINAL RUNWAY 20, G-TC		
h	G-TC, FINAL (runway 20)	GTC RUNWAY 20, CLEAR TO LAND, SURFACE WIND 210 DEGREES, 07 KNOTS	
i	CLEAR TO LAND, RUNWAY 20 G-TC		NOTE: YOU DO NOT READ BACK THE WIND But can 'have/copy the wind' if relevant.
j	G-TC VACATED AT ALPHA, REQUEST TAXI TO (TOWER/GA) PARKING Remember NOT to move beyond the 'off runway' hold without permission.	GTC TAXI TO TOWER PARKING VIA TAXIWAY ALPHA	REMEMBER THE CONTROLLER IS THERE TO PROVIDE A SERVICE. IF YOU DO NOT TELL HIM WHERE YOU WANT TO GO, HE WILL USE HIS OWN JUDGEMENT (SENSE OF HUMOUR?)
k	TAXI TO TOWER PARKING VIA TAXI A. GTC		
l	GTC AT TOWER PARKING, SHUTTING DOWN	G-TC ROGER	WELL DONE!!

10.4 AIRFIELD DIAGRAMS. The three CIX training Bases.

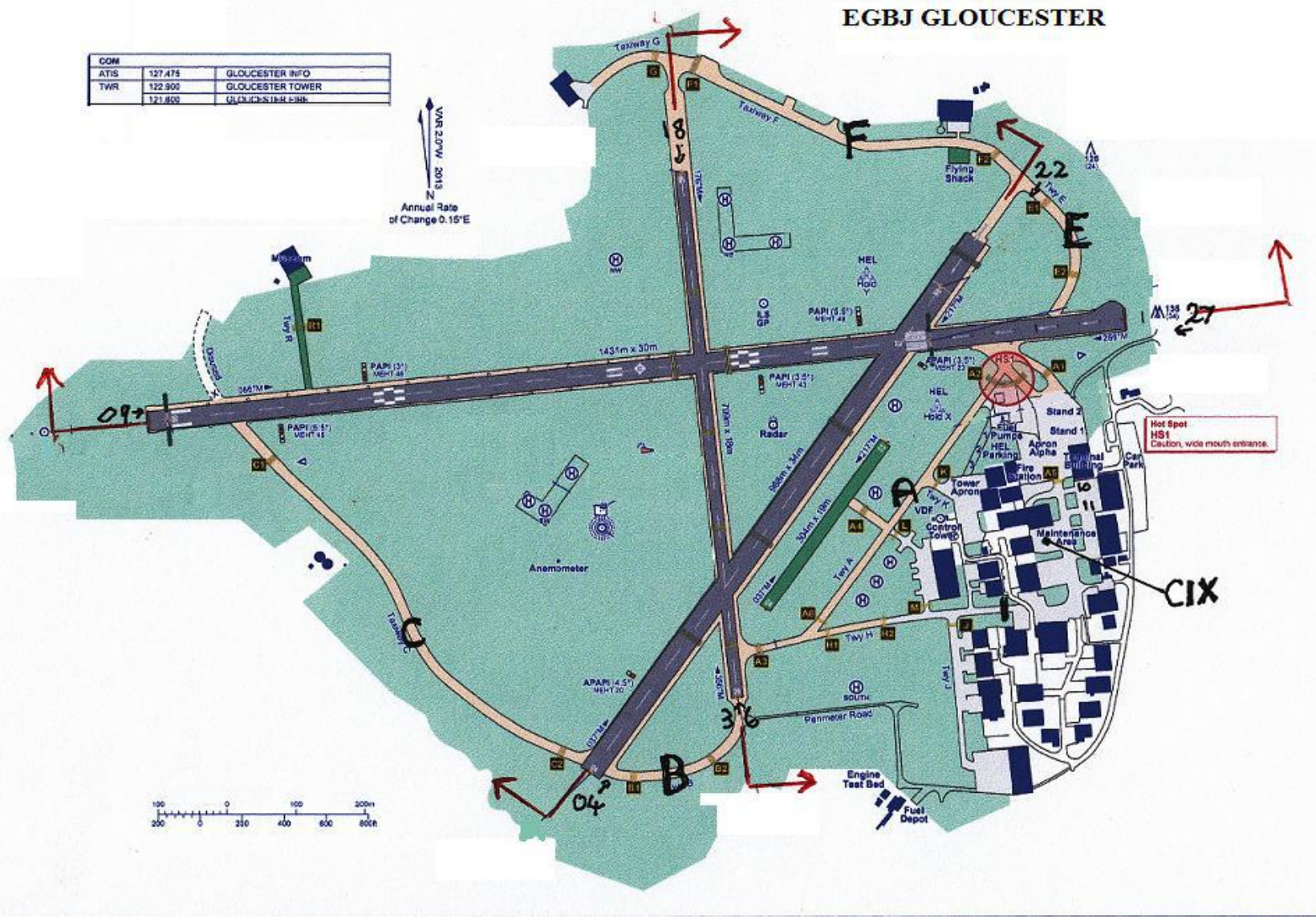


ALL CIRCUITS ARE LEFT HAND

EGBJ GLOUCESTER

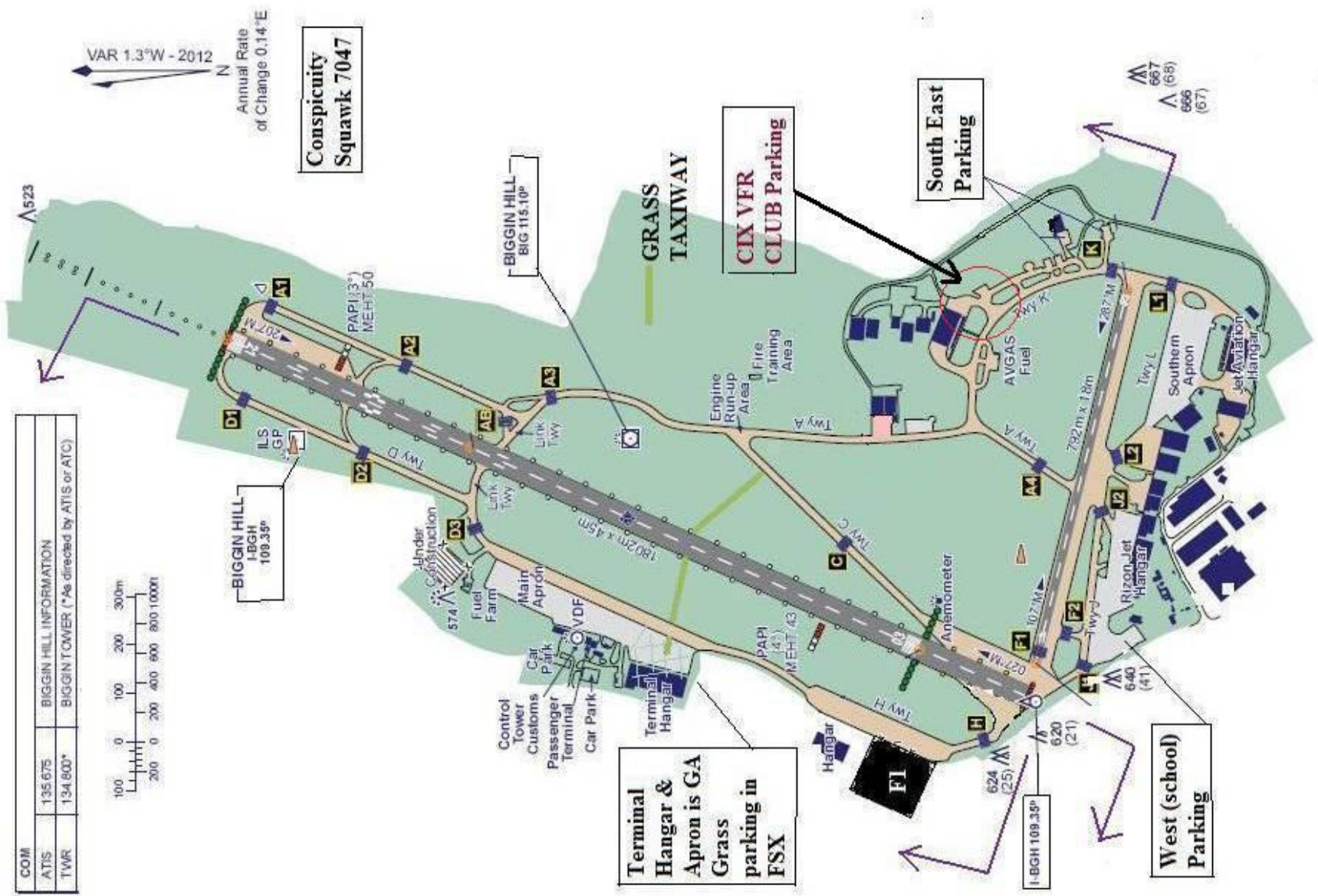
COM		GLOUCESTER INFO
ATIS	127.475	GLOUCESTER TOWER
TWR	122.900	GLOUCESTER INFO

VAR 2.0°W 2018
N
Annual Rate of Change 0.15°E

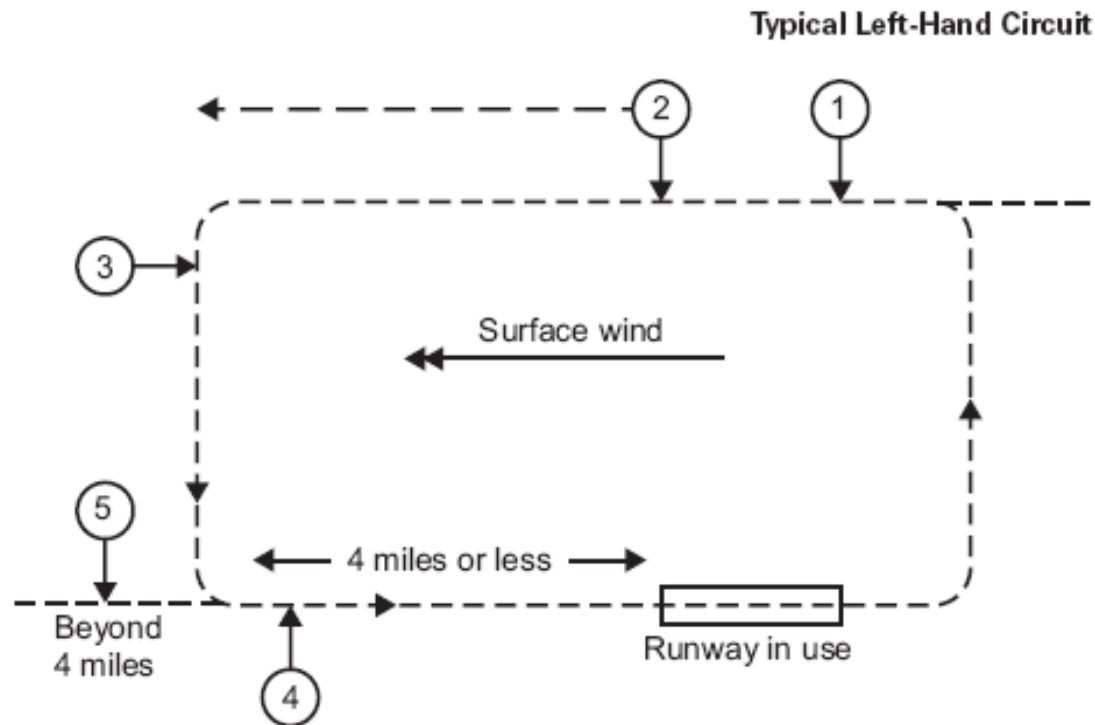


CIX

Hot Spot
HS1
Caution, wide mouth entrance.



10.5 POSITIONS IN THE TRAFFIC CIRCUIT



BEFORE 1. (between crosswind & runway)
you are 'coming downwind'

1 – 2 A/C In circuit, Reports "Downwind"
(Opposite the runway.)

> 2. A/C Beyond downwind end of runway,
calls "Late Downwind".

3. A/C Reports "base Leg", if required.

4. A/C Reports "Final". Clearance to
land/T&G issued.

5. A/C reports "Long Final", between
8 & 4 nm, when A/C on straight in
approach.

Note 1: For GA operations, circuit dimensions may be reduced but relative calls are still maintained.

Note 2: If within 1 to 1.5nm of threshold, A/C may call "**short final**", especially if a late call (due traffic/late turn/ 'fighter' approach).

Note 3: There are **only TWO MANDATORY CALLS** in the circuit; **DOWNWIND** (1-2 above) and **FINAL** (4 above-also see note 2 above).

Other calls in the circuit should be made only: -


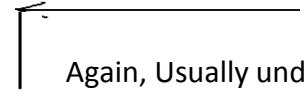
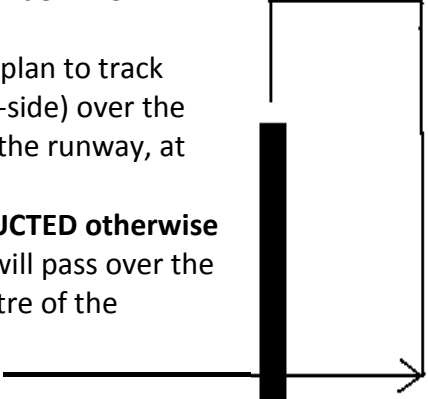
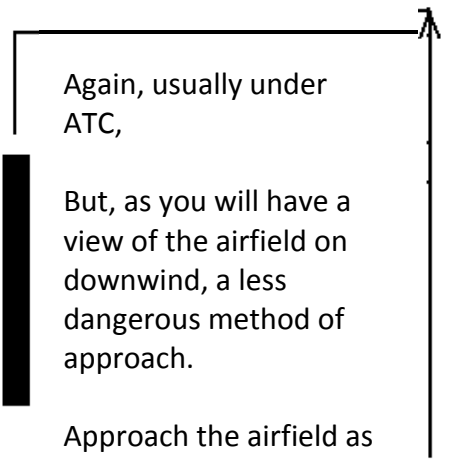
- A) If instructed by the controller or
- B) As dictated by circumstance (uncontrolled Airfield/You have a problem)

10.6 THE STANDARD METHODS OF JOINING THE CIRCUIT

BUT always remember, local situations may mean a non standard approach or circuit will operate at particular airfields,

BE PREPARED! GET THE CHARTS! READ THE AIRPORT INFORMATION! (NATS AIS)

Remember, Tower cannot CONTROL us outside the ATZ, but he will give us places (VRP's) to report at.

STRAIGHT IN JOIN	THE LEFT/RT BASE JOIN	THE CROSSWIND JOIN	THE DOWNWIND JOIN
<p>Usually only under App/Twr control,</p> <p>UNLESS you are ABSOLUTELY sure there is no other traffic and/or you know the airfield.</p>  <p>Approach the runway to be at circuit height at about 2nm out (airfield ATZ)</p>	 <p>Again, Usually under ATC, unless you know the airfield well.</p> <p>Approach the airfield above circuit height.</p> <p>Position for a base join by 2nm (or as instructed), at circuit height.</p> <p>At uncontrolled Airfields, Right base unusual- Very hazardous! WHY?</p>	<p>Again, usually under ATC.</p> <p>Aircraft should plan to track (from the dead-side) over the upwind end of the runway, at circuit height.</p> <p>UNLESS INSTRUCTED otherwise (At Biggin you will pass over the Tower, the centre of the runway).</p>  <p>At City ALWAYS over the 27 numbers/NDB, due to buildings to the west)</p>	 <p>Again, usually under ATC,</p> <p>But, as you will have a view of the airfield on downwind, a less dangerous method of approach.</p> <p>Approach the airfield as instructed, or above circuit height, descend to be at circuit height by upwind threshold. (Xwind turn)</p>

NOTE; A common method of **joining downwind** is to approach 'inbound to the airfield NDB/VOR' – You will be heading for the centre of the runway, from the Live side.

You will then get an instruction “**GTC Runway XX Join and report downwind**”; continue inbound the NAVAID until you need to turn downwind, do so and call “**GTC (turning) downwind (XX)**”

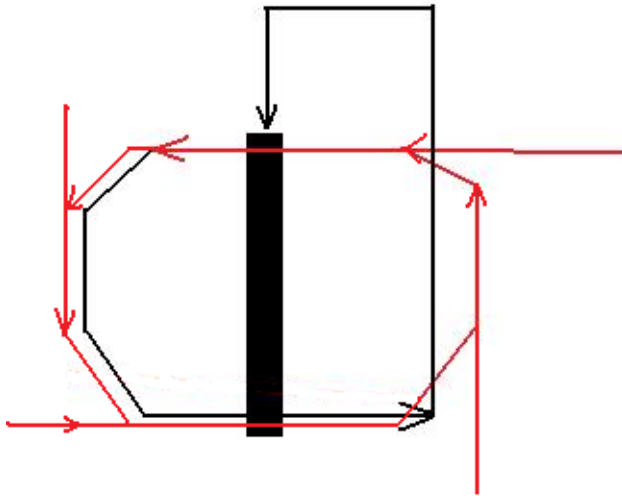
THE STANDARD OVERHEAD JOIN

This is the method of joining the circuit which should be used at all uncontrolled airfields.

It is also the method which will be used at airfields with an 'Air Radio' or 'Aerodrome Traffic information' Ctr.

- Full ATC not available – no radar cover (Controller might not have a view of the airfield!).

Many smaller airfields, with full ATC cover will require this approach, particularly from the dead-side. (Shoreham)- training.



Fly overhead the airfield at 2000' (or minimum at Circuit height plus 500') AGL (QFE).

Descend on the dead side to circuit height and complete a crosswind join.

THE RADIO CALLS

REMEMBER, if TOWER does it differently, that is how it is done! Otherwise,

First call,

“approaching for an overhead join at (Hgt/Alt)”

(Then as you pass overhead, **AT 2000'** or **NOT LESS THAN CIRCUIT HEIGHT +500'**)

“(in the) overhead join for runway xx”; then

“descending (on the) dead side”; **“crosswind runway xx”**; **“Downwind runway xx to land”**; **“(on) finals runway xx to land”**

and don't forget **“vacated the active/runway xx”**.

MOST IMPORTANT! KEEP A SHARP LOOKOUT! SQUAWK to standby!

The RT CALLS

1. In each case, If you have ATC, when you call APP/TWR (say @20nm) you will be told when and where to report.
2. Otherwise, make an early call, then entering the ATZ, - Callsign, position and intentions. Then use standard circuit calls
UNLES INSTRUCTED OTHERWISE.

For example, Biggin app. will ask you to report M25 Junction and then report 5nm dead side.

If you intend to do a lot of flying at a particular airport (EGKK, EGKB, EGBJ, EGLC) as well as downloading the charts and A/D plans, consider downloading a copy of the 'V-Mats'. You will then know EXACTLY how ATC is expected to operate, plus a lot more information related to on-line flying at that A/D.

Q. How do we fly the standard OH join over a SHORT runway? – shorter than the radius of our hold.

Which end of the runway is 'key' –threshold or upwind?

A good idea for you to look at The GO-AROUND. Page 43

10.7 THE STANDARD OVERHEAD JOIN: The most complicated join. (until it makes sense) – MIGHT be needed for P1 Flt Test.

Unless you know the airfield, if it is **UNCONTROLLED**, you **SHOULD ALWAYS** perform a standard overhead join, to determine wind/active runway direction and possible traffic.

At Shoreham, (Vatsim and RW) and similar places, it will be used for training, but more importantly, when there is a lot of traffic.

At Shoreham a Maximum of 4 AIRCRAFT can be cleared for the same joining procedure. Further inbound traffic **MUST** be given an O/H join. A Maximum of 4 AIRCRAFT can be given instruction for an O/H join at any one time, (e.g. 2 in the O/H, 2 on their way). Further AIRCRAFT must hold at a VRP if required, due traffic.

If APP is on, O/H joins are handed over, over the airfield (joining the hold). The O/H join can also be used, on request, as a training exercise. The Standard O/H join can be broken down into four basic phases: The approach & overhead; ‘In the overhead’; The descent and join; The landing pattern.

We have come down to MAY VOR, THIS IS AN EXTREME EXAMPLE – Like, one of Mel’s Monday night ‘fun-bits’!

First let us assume the O/H is busy with TWR and APP manned		ATIS; W 20LH 210/12 14/08 QNH 1009, QFE 1007	
1a	Shoreham APP Student G-GATC	Student G-GATC Shoreham APP, Pass your message	That gives us time to PLAN and LISTEN, what service will we have? why? Got a crib card/notes for local procedures?
1b	G-GATC, Cessna 172, with information W, 3 miles south of Mayfield VOR 3000’ QNH 1009, 2POB, Request join to land; (not correct but he is a student)	GTC Roger, expect standard overhead join, report LEWES VRP 3000’ on the QNH Squawk 3765	
1c	Expect standard O/H join, report Lewes VRP 3000’, Squawk 3765 GTC	GTC, Correct, break, break GOY Join from the East, standard o/h join runway 20, 2000’ QFE 1008, Trfc Information is a PA28, holding in the O/H. contact tower on 125.4	
2	Standard O/H join for 20 2000’ QFE1008, have the trfc. contact TWR 125.4 GOY	GOY correct,	So, Where is GOY?
3a	GTC Lewes VRP	GTC O/H is busy Hold at LEWES LH Alt 3000’	Do you know the difference between a ‘Hold’ (in the air) and an Orbit?

3b	Hold LEWES VRP, LH, 3000' on the QNH, GTC	GTC Correct,	
4a	Shoreham Approach G-GGER	G-GGER Shoreham APP. Pass your message	
4b	G-GGER is a twin Comanche, VFR 3 miles to run, BILLINGHURST VRP, 2500' QNH1009, with Whiskey, 4 POB. Request join, straight in if possible.	GER circuit very active, report Washington intersection. Squawk 3765	APP would now contact TWR to see if he will accept a straight in join- he said yes.
4c	Report Washington intersection, Squawk 3765 GER	... GER cleared for straight in approach, route Direct and report at STEYNING VRP at 1600' QFE1008	
4d	cleared for straight in approach, route Direct and report STEYNING 1600' QFE1008 GER	GER correct, break, break, GTC Leave LEWES, Report A27 tunnels RP, descend to 2500' QFE 1008, expect to hold e O/H.	
5a	Leave LEWES VRP, Report A27 tunnels RP, 2500' QFE 1008, expect to hold O/H. GTC	GTC correct	We are half way round the hold. When should we change frequency? – At once, completing the orbit, halfway to the O/H or when we are O/H, (AT 2500' or AT 2000')?
5b	...App, A27 Tunnels GTC	GTC Roger, Continue approach, report and hold overhead Left hand at 2500' QFE.	
5c	Continue approach, report holding overhead AT 2500' left hand, GTC Remember, the ATZ goes up to 2000' QFE, above 2000' we are NOT in the ATZ, TOWER CANNOT control us, at 2500' we are OVERHEAD (THE AIRFIELD). We are IN THE OVERHEAD at 2000' or less.	GTC correct	
6a	GER is Steyning (RP)	GER Roger, contact tower on 125.4 for straight in app.	
6b	Contact tower 125.4, straight in, thanks GER	Correct, Bye.	
6c	Shoreham APP G-AGAA	G-AGAA Shoreham approach, pass your message	
6d	G-AGAA PA28 5miles to run, Littlehampton, request crosswind join	GAA negative, circuit very busy expect standard O/H join. Report Littlehampton 2000' on the QNH squawk 3765.	

6e	Standard O/H join, report Littlehampton at 2000' squawk 3765 GAA	GAA, Correct	Which end of the runway? 20 or 02? And why no direction of hold?
7a	G-TC is overhead at 2500'	GTC descend and report in the overhead at 2000' QFE possible hold, contact Tower 125.4	
7b	Descend to report in the overhead, 2000' QFE possible hold, contact Tower 125.4 GTC	GTC, Correct, break, break, GAA hold at Littlehampton, 2000' QFE 1008.....	You are 'in the overhead' at 2000' or below. Above 2000' you are 'overhead'
	Change frequency to 125.4	GTC, Correct, break, break, GAA hold at Littlehampton, 2000' QFE 1008.....	
Ta	..Y vacated the active	GOY taxi grass parking, in front of the tower Via taxi A, vacate A, left at A4	
Tb	taxi grass parking, in front of the tower Via taxi A, vacate A left at A4 GOY	correct	
Tc	Shoreham tower, Student G-GATC, in the overhead, height 2000' 1008	Student G-GATC, roger, Hold in the overhead, LH 2000' QFE, caution the Cessna 150, also holding	Is our transmission OK, With reference to our level?
Td	Hold in the overhead, LH 2000' QFE, copy the trfc, G-GATC	GER, Runway 20, Cleared to land, surface wind 210 degrees 12 kts	
	What do we mean copy the trfc ? Is this OK? What is good and bad practice here? (clue, C172)		
Te	Runway 20, cleared to land GER	GSZ descend dead side, not below 1100' report turning crosswind.	
Tf	Descend on the dead side, not below 1100' report turning crosswind. GSZ	GSZ traffic is a Twin Comanche on a 1 mile final for 20.	
Tg	Have the traffic, GSZ	GTT behind the landing twin Comanche, line up and wait, behind	

Th	Behind the landing twin Comanche, line up and wait, behind, GTT		
Ti	GSZ turning crosswind,	GSZ continue crosswind report dead side 1100'	
Tj	Continue crosswind, report dead side at 1100' GSZ	GER vacate left at A, taxi Tower parking via Taxi A, vacate onto apron at A5.	
Tk	vacating A, taxi Tower parking via Taxi A, vacate onto apron at A5 GER	GER, Roger.	Where are we? Where is everyone else? Have you been keeping a mental picture? Who is the nearest AIRCRAFT to us?
	GSZ late deadside at 1100' late deadside'? What does it tell the Twr.?	GSZ roger, break, break GTC, After the 20 numbers descend and report dead side, circuit height 1100'	
Tl	After the 20 numbers descend to 1100' and report dead side, GTC	GTT runway 20 cleared T/O surface wind 210 degrees, 12 kts	
Tm	Cleared T/O, GTT	GSZ report downwind 1100', break, break GTT contact Shoreham app. 123.15 bye	
Tn	123.15 GTT bye....Late downwind to land GSZ	GSZ Runway 20, report finals to land.	
To	Runway 20 report finals, GSZ ... Descending Dead side, GTC	GTC roger. Report downwind, circuit height 1100', No 2 to a 172 on base.	
Tp	Report downwind 1100', have the traffic, GTC...	Basically, that is it! A VERY busy day at Shoreham, we are now in the landing pattern. Can you tell me the next 4 instructions/conversations you are likely to hear/have with tower? This will test your ability to make, 'hold' and update a mental picture of what is happening around you.	

To get more from this set of exercises, try going through them by yourself. First, by trying to 'know who is where, in your mind, then do it again, using pen and paper, make a table of positions and 'plot' each AIRCRAFT. This should help you to understand how 'knowing' where everyone else is and what they are doing, can help you to anticipate and plan your next action/transmission. Thus, helping you to avoid the unexpected. You are unlikely to have a situation this complicated for your P1 or P2 Flight Test, but, if on-line, you never know!

12. THE 'GO-AROUND'; You might need this at any time, even during your P1 Flight Test.

12.1.1. IF THERE IS A PROBLEM AFFECTING YOUR APPROACH to the runway, EITHER YOU or THE CONTROLLER can initiate a 'GO-AROUND'.

12.1.2. The **GO-AROUND** is a **VFR** procedure, if **IFR** you would perform a '**MISSED APPROACH**', (similar, but follows a **published procedure/route**), but the initial call might still be for **A GO-AROUND (on VATSIM)**.

12.2 You should always have in mind a '**DECISION HEIGHT**'; - A **minimum height** below which a clearance (or controller go-around) might make it difficult to avoid hitting the problem or landing on the runway. **The standard height is 600' AGL.** (QFE)

12.3. **IF YOU ARE NOT HAPPY WITH THE SAFETY OF YOUR APPROACH DO NOT WAIT FOR THE CONTROLLER TO TELL YOU, CALL IT YOURSELF (he may be busy!)**

12.3.1. **AS SOON AS A GO-AROUND IS INITIATED, FULL POWER, CLIMB TO CIRCUIT HEIGHT/(ALTITUDE) , FLAPS & U/C UP ,-**
And UNLESS INSTRUCTED OTHERWISE;

12.3.2. **MOVE TO THE CIRCUIT SIDE OF THE RUNWAY.** A Left hand circuit, move left (runway on your right); A right hand circuit, move right, (runway on your left). You then (re-)join the circuit **as normal or as instructed.**

REMEMBER, turning into the circuit YOU MUST NOT CROSS THE RUNWAY CENTRE LINE

12.3.3. If the problem is traffic in the circuit or to save time you may request/be instructed to **make an early turn into the circuit** (commence your turn at the **upwind threshold**);

12.3.4. Under some circumstances you may be instructed **to make an immediate turn into/return to the circuit. DO SO.** Then perform a normal circuit to land/T&G. If you want to do either, **you MUST get approval FIRST.**

12.4. **Why move to the 'circuit side' of the runway?** - Two reasons;

12.4.1. **You must NOT cross the runway centre line when joining the circuit. Or at any other time unless instructed.**

12.4.2. If the problem is a departing AIRCRAFT, **he will not come up UNDERNEATH you.**

12.5 IF THE CONTROLLER INITIATES IT

a	GTC RUNWAY 23 FINAL TO LAND	GTC CONTINUE APPROACH, 1 DEPARTING/ON THE RUNWAY	AS SOON AS YOU REALISE THERE MAY BE A PROBLEM, NOTHING TO STOP YOU REDUCING TO SAFE MINIMUM SPEED AND PREPARING FOR A GO-AROUND
b	CONTINUE APPROACH GTC	... GTC GO AROUND, I SAY AGAIN GO AROUND	
c	GTC GOING AROUND		

12.6 OR IF YOU INITIATE IT

a	GTC RUNWAY 23 FINAL TO LAND	GTC CONTINUE APPROACH, 1 DEPARTING/ON THE RUNWAY	KEEP IT THAT SHORT; THE CONTROLLER WILL BE BUSY SORTING SOME-ONE! YOU MAY EVEN GET, THANKYOU.
b	CONTINUE APPROACH GTC		
c	GOING AROUND, GTC	GTC ROGER, GO AROUND	

12.7 IF YOU DO NOT GET ONE OF THE FOLLOWING, DO A NORMAL CIRCUIT; OUT TO NORMAL XWIND; REPORT DOWNWIND.

e		GTC (MAKE) EARLY TURN INTO THE CIRCUIT, (REPORT DOWNWIND)	THESE ARE BOTH INSTRUCTIONS/CLEARANCES, READ BACK. BUT AS THEY ARE FAIRLY SIMPLE, THE READBACK CAN BE SHORTENED, IF APPROPRIATE TO CIRCUMSTANCES WITH “ WILCO GTC ” – (HE IS TRYING TO SORT A.N.OTHER) This is YOU requesting an early/immediate turn. This could be added to your call at 12.6.c above; Or it could be an independent call- Avoiding action on takeoff.
f	WILCO/EARLY TURN, (REPORT DOWNWIND) GTC	Wilco should only be used if there is a lot of traffic/big problem	
g		GTC IMMEDIATE TURN INTO THE CIRCUIT (REPORT TURNING/LATE DOWNWIND)	
h	IMMEDIATE TURN INTO THE CIRCUIT (REPORT TURNING/LATE DOWNWIND) GTC		
i	GTC REQUEST IMMEDIATE/EARLY TURN (INTO THE CIRCUIT	GTC IMMEDIATE/EARLY TURN APPROVED (report turning on downwind leg/late downwind)	
j	(IMMEDIATE/EARLY) TURN APPROVED GTC		

That is all you will need for your P1 flight test (plus a bit more so that you can practice with confidence).

Part 2

BASIC RADIO PROCEDURE

For

CIX VFR P2 PILOTS

The included exercises/examples in part 2, are the calls that will be required during your P2 flight test (plus everything in Part1) irrespective of the airport where it is to take place.

They **DO NOT** indicate where your Flight test will take place. Some of the locations and VRPs used are fictitious.

For your RT test, it is up to you to familiarise yourself beforehand with the local area and its navigational facilities and any special requirements for flight in that area. That is:- **Your Flight Planning**.

Note: the test for this course is a **'non flying' desk exercise**. Make sure you download and understand **"Conduct of RT Desk Tests"**.

NOT TO BE USED FOR REAL WORLD AVIATION

13. INTRODUCTION

THIS IS THE INFORMATION / PROCEDURES / CALLS (in addition to the P1 course) YOU WILL NEED FOR YOUR P2 FLIGHT TEST.

The exercises form a typical flight from A to B, including a ZONE transit; entering a CTA (major airport control zone) to land; Basic Emergencies.

Talking to Air Traffic Control (ATC) either on VATSIM or in the Real World, is one of the most daunting exercises the new pilot faces.

However, with only a small amount of practice, it becomes almost second nature.

Note: If you wish to print this section, please ensure printer is set to landscape mode and selected to print colour.

A table is used within the exercises to illustrate who will be talking; a column for the pilot and the controller dialogue and a column for explanatory notes.

YOUR TRANSMISSIONS	THE CONTROLLER'S TRANSMISSION	NOTES, COMMENTS, QUESTIONS Etc.
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Only those calls 'essential' for your P1 flight test are included. There are many other situations which require dialogue with ATC, but these are dealt with in the higher ratings.

Abbreviations used; **IFR** = INSTRUMENT FLIGHT RULES (ALWAYS UNDER FULL ATC CONTROL)
A/C = AIRCRAFT **A/D** = AERODROME/AIRFIELD **VFR** = VISUAL FLIGHT RULES **nm** = NAUTICAL MILES
kts = KNOTS (NAUTICAL MILES PER HOUR) **ATIS** = AERODROME TRAFFIC INFORMATION SERVICE
TX = TRANSMISSION **RX** = RECIEVE(ING) **WX** = WEATHER **GND** = GROUND CONTROLLER
TWR = TOWER CONTROLLER **APP** = APPROACH CONTROLLER **DME** = DISTANCE MEASURING EQUIPEMENT

13.1 General Notes and Rules:

Before you look at the new (P2) information, it is strongly recommended that you go back and re-read sections 2 to 6.

13.2 If there is ANYTHING in sections 2 – 6 that you do not understand, or are not confident with, Discuss it with a member of the CIX RT Training Team BEFORE you progress further.

13.3 The same applies to the rest of the P1 RT examples. **In particular section 10. The CIRCUIT and JOINS.**
Do not forget, this is **YOUR COURSE**, the team are there to help you to be successful.

A FLIGHT FROM A to B

14. THE DEPARTURE

14.1. PLANNING BEFORE YOU SET OFF (THE MOST IMPORTANT PART OF YOUR FLIGHT):-

(for departure and destination airports plus En-route)

14.1.1. Get a plan of the airfield layout– available from vatsim/CIX (Links/NATS)

14.1.2. Note the circuit direction for each runway and the circuit Altitude.

14.1.3. Note all useful radio/nav aids, and their frequencies. On site/nearby/en-route; VOR's; NDB's, ILS's, DME's, (VRP's);

14.1.4. Note the controller frequencies; Atis; Gnd; Twr; App. (en-route & destination); The same for any diversion A/Ds?- or know how to get the data? – PlanG3

14.1.5. Note any special 'bits & pieces' especially related to 'on-line': (EGLC- have you got default A/P or enhanced? With the new holds/taxiways) When you begin/continue your flight training you will be introduced to the **VFR Flight Planning Sheet**. This will help get all these organised easily. USE IT- even if only in part! It WILL add to the experience of your flight, and reduce problems. For the following journey our 'home' A/P is EGKB, Biggin Hill and we are going to Shoreham, EGKA.

14.1.6. Plan route/winds/track true/track magnetic/ fuel etc

14.2. DEPARTING FROM A GA AIRFIELD (EGKA, EGBJ or EGKB-with differences)

The first thing that we need to know is the start-up procedures for the A/D; At Biggin, because they also handle a lot of Business jets, as well as the occasional Military Aircraft and Helicopters. **Permission to start may be required**. It is good practice anyway! **LISTEN** to confirm local practice.

However, **ON VATSIM/FSX**,

If you are using an AIRCRAFT with a short battery life, start before first call and make it clear, **request TAXI not START**.

14.3. RADIO CHECK

If the Aircraft has not been used recently/by you, a good idea to check your radios. Also no point in SENDING your Flt.Pln. unless your radios work! – No radio, no flight! NOTE At Biggin, Shoreham & Gloucester, no Ground position. (except for air shows.)

14.3.1 It is good practice, after the controller reports YOUR signals, to let him know how you hear him. It could flag up a comms problem for either of you.

14.4 Automated Terminal Information Service (ATIS) (yes, again)

You will hear (and / or read as a scrolling message across the computer screen) the following: -

The METAR (5TH of the month) will look like this:- **EGKB 051350Z 200/11 9999 FEW035 12/09 1009**

(This is) Biggin Arrival & Departure Information **Hotel** , Time **1350Z** Runway in use **21 Right Hand** Circuit, Surface Wind **200, 11** knots, Visibility **10** Kilometres or more, Few **3500** feet, Temperature **+12**, Dewpoint **+9**, **QNH 1009**, QFE **989** Hectopascals, IFR expect an instrument approach Runway **21**, All aircraft contact Biggin Tower frequency **134.80**, Acknowledge receipt of information **Hotel**, on First Contact.

a You need to note down the important bits:- **H 21RH 200/11 (12/9) 1009 (0989, If circuits) 134.80**

(You did note other important things like circuit height in your planning? At Biggin 1600' QNH or 1000' QFE (above the airfield) but it may not be included in the ATIS). At Shoreham QNH and QFE are the same, not enough difference between them.

If **ALL RUNWAYS** at the airfield have left hand (standard) circuits, the circuit direction may be omitted

15. AIR TRAFFIC SERVICES AVAILABLE TO THE VFR PILOT

15.1.1 With the deletion of Class F airspace within the UK, a FIS (Flight Information Service) has REPLACED ATSOCAS (Air Traffic Service Outside Controlled Air Space). This is because the FIS is available in both Class E (controlled) & Class G (uncontrolled) airspace.

15.1.2 THE FIS – Flight Information Service

The new FIS, for the VFR Pilot, contains 'a suite of services available'. Namely: **Basic Service**; **Traffic Service** and of course **No Service**.

15.2 NO SERVICE; Means what it says, you are on your own! The Controller will not talk to you, **unless HE NEEDS TO**. This means that on VATSIM you can, ignore the Controller. However, in controlled airspace, the VFR pilot will be expected to **COMPLY WITH ANY INSTRUCTION** from the Controller. NB If you do not want a service (in class E) and monitor the Controller Frequency,

- a) You will know what is going on around you and
- b) He will be able to contact you, if needed. – Good practice in Class G as well.

Make sure you know the rules for flight within **each class of Airspace**.

15.3 BASIC SERVICE: This is an en-route Air Traffic Service you can request from your controller. It means

1. You will be identified.
2. The controller will confirm your intentions (CEPHACER)
3. You will be passed relevant traffic (and other) information.

HOWEVER 1.The level and 'quality' of traffic (and other) information passed will depend on Controller workload.

2. He is **NOT** required to monitor your flight.

SO REMEMBER; AVOIDANCE OF OTHER TRAFFIC (VFR/IFR) IS SOLELY YOUR RESPONSIBILITY;

Therefore keep a good look-out at all times: and LISTEN.

BUT if you need help or advice or need to notify a change in your Flt Pln. **TALK TO HIM**, he will **AT LEAST** advise you.

15.4 TRAFFIC SERVICE: This is a surveillance (radar) based service. The Controller will provide **Basic Service plus** radar derived information to **ASSIST** in keeping you clear of other traffic, plus other information (weather, radio nav. malfunction etc) Your AIRCRAFT will be **identified** and your flight **monitored**. **Headings will be issued** for '**sequencing and routing**'; **NOT deconfliction**. If you decide to change levels, notify the Controller. – He may approve or provide a different level (if he has other traffic). You **will be expected to comply with all Controller Instructions** (or tell him why not- '**GTC negative 4000', unable to maintain VFR due weather**')
Again, The level and 'quality' of traffic (and other) information passed will depend on Controller workload.
So LISTEN and keep a sharp LOOKOUT. REMEBER, even when under a 'radar service',
IN ANY AIRSPACE, AVOIDANCE OF OTHER TRAFFIC (VFR/IFR) IS SOLELEY YOUR RESPONSIBILITY.

15.5 GENERAL RESTRICTIONS

15.5.1 The VFR pilot may NOT request a higher level of service BUT in any controlled Airspace you are 'effectively', whether notified or not, under radar (or procedural) control.

15.5.2. VFR FLIGHT IN CLASS A AIRSPACE IS NOT ALLOWED;

It is likely that all class A that allowed SVFR flight will become class D (with prior permission required)

15.6. CLASS E Airspace;

Under the new rules '**FREE FLIGHT' IN CLASS E (CONTROLLED) AIRSPACE IS PERMITTED FOR THE VFR PILOT, within the following rules.**

15.6.1 Prior permission to enter is **NOT** a requirement.

However, you **ARE REQUIRED** to **REPORT ENTRY AND EXIT** of Class E airspace & **remain VMC**.

15.6.2 VFR AIRCRAFT are not REQUIRED to follow ATC instruction. However, if receiving a **FIS** they will be EXCPECTED to follow ATC instructions- or say why not. If you requested '**NO SERVICE**', silly not to follow instruction, he would only give them to you for a **VERY GOOD REASON!**

15.6.3 Entry to class E airspace will be **denied to AIRCRAFT NOT squawking (RW mode S) mode Charlie.** **A requirement of flying on VATSIM anyway.**

15.6.4 If you decide '**no service**' in Class E. A good idea to monitor the frequency, and let ATC know you will, - You will know what is going on and both you and ATC can make contact if required.

NOTE If the class E is under an **APPROACH** controller; **you WILL be under a traffic service. Whether Notified / requested or not.**

16. En ROUTE TRANSFERRING TO/CALLING A NEW CONTROLLER, EN-ROUTE (IN THE AIR)

16.1. ON HANDOVER / TRANSFERRING TO A NEW CONTROLLER. The information he will need to have, (should be in the following order).
AIRCRAFT CALLSIGN/TYPE; TYPE OF SERVICE; DEPARTURE (TIME) AND DESTINATION; PRESENT POSITION (TIME); LEVEL / ALTITUDE; ADDITIONAL DETAILS (flight rule/service; Next waypoint &ETA; **any changes to flt.pln.**): -

This is a **Position Report or CEPHACER**

16.2. Your first handoff (to Thames Radar) will be expected, Thames is likely to have your information.

16.3. "CONTACT" MEANS I HAVE PASSED YOUR DETAILS; "FREECALL" MEANS I HAVE NOT PASSED YOUR DETAILS;
"GOTO" NO SPECIAL MEANING (CAP413) NB On Vatsim, 'DETAILS'= a co-ordinated transfer from one controller to the next.

a		GTC YOU ARE LEAVING MY AIRSPACE, REPORT (OVERHEAD) SEVENOAKS; CONTACT THAMES RADAR, 132.7	THIS IS BIGGIN TOWER(APP) HANDING US OFF TO THE NEXT CONTROLLER, EN-ROUTE
b	REPORT SEVENOAKS, (CONTACT/GOTO) THAMES RADAR 132.7 GTC (pleasantries)	NB. 'Next report point' instruction BEFORE handoff instruction = 'contact next controller ON REACHING that VRP; NOT BEFORE (unless you have a problem or need to). So, ON REACING SEVENOAKS VRP:-...	
c	THAMES RADAR, G-GATC, OVERHEAD SEVENOAKS, BASIC SERVICE.	G-GATC THAMES RADAR, PASS YOUR MESSAGE.	LATER ON YOU WILL BE SHOWN HOW AND WHEN YOU CAN MERGE THESE TWO CALLS.
d	G-GATC, C172 OUT OF BIGGIN, ROUTING TO SHOREHAM VIA SEVENOAKS AND MAYFIELD, 2MILES FROM SEVENOAKS, 2300' QNH 1009, EXPECT MAYFIELD AT 45	GTC ROGER, BASIC SERVICE, REMAIN OUTSIDE CONTROLLED AIRSPACE, REPORT MAYFIELD, SQUAWK 7075,	(Do it like this for your test) HE CONFIRMS THE SERVICE YOU CAN HAVE
e	REPORT MAYFIELD, (TO) REMAIN OUTSIDE CONTROLLED AIRSPACE, SQUAWK 7075, BASIC SERVICE GTC	GTC (READBACK) CORRECT You should, but will not always hear 'readback...'	IT WAS ALL AN INSTRUCTION, SO MUST BE READ BACK. YOU ACKNOWLEDGE THE SERVICE TO BE PROVIDED
f	GTC (OVERHEAD) MAYFIELD (VOR)	GTC, ROGER, REPORT HAYWARDS HEATH VRP	YOUR NEXT REPORTING POINT
g	REPORT HAYWARDS HEATH (VRP) GTC		

NOTE Thames radar is responsible for lower airspace within a radius of 40nm of London City &/or 30nm radius of Biggin, up to 4000' QNH. That means he could 'keep you' almost to Shoreham (you did note that in your planning, yes?). So if he is busy with IFR, or we want to give ourselves plenty of time to prepare our approach, we can transfer/or be transferred to Shoreham tower or approach just SW of Mayfield. (We have done Controller 'moves' us). If he is VERY busy he is likely to put you to UNICOM at Sevenoaks.

As we see that Shoreham approach is on, we decide to talk to them as soon as we can, so **WE will now make the request.**

(Shoreham approach can control A/C “within ten minutes flying time of Shoreham airport”. @90kts about 12nm.

h	THAMES RADAR GTC (3nm SOUTH OF MAYFIELD), REQUEST FREQUENCY CHANGE (to SHOREHAM APPROACH ON 123.15)	GTC, FREQUENCY CHANGE APPROVED, (GOTO SHOREHAM APPROACH ON 123.15)	YOU MAY ALSO GET A CHANGE OF SQUAWK CODE, READ IT BACK
i	(GOING TO) SHOREHAM APPROACH 123.15 GTC		RE-TUNE (YOU DID HAVE IT SET UP IN 'STAND-BY!)
j	SHOREHAM APPROACH G-GATC REQUEST STRAIGHT-IN JOIN	G-GATC SHOREHAM APPROACH, EXPECT O/Hd JOIN, DUE TRAFFIC, PASS YOUR MESSAGE	SERVICE REQUEST, AMMENDED BY APP. TWR only- this would include a VRP
k	G-GATC, C172 OUT OF BIGGIN HILL, 3MILES TO RUN HAYWARDS HEATH VRP, 2300' QNH 1009, SQUAWKING 7075	GTC ROGER, CONTINUE APPROACH, EXCPECT O/Hd JOIN AT 2000' QNH 1007, RUNWAY 20 (LEFT HAND) SQUAWK 7033, REPORT 3 MILES DME	READ IT BACK AND CONTINUE AS PER P1 If only TWR on, this would be at your ATZ ENTRY VRP (3-4 miles out)

16.4 In this case we are going to a 'training area' for general handling exercises, then returning to Shoreham. TWR has handed us to Thames.

Aircraft		Controller	Notes Wind 210/07 Q1022
a	THAMES RADAR, (STUDENT) G-GATC, FLIGHT INFORMATION SERVICE	(STUDENT) G-GATC, THAMES RADAR, PASS YOUR MESSAGE	<p>The CEPHACER call (position report) tells the Controller. Who, what, where we are and what we are going to do, and for how long. He gives us his squawk code so that he can keep an eye on us. We got it wrong when reading it back, so he corrects that part.</p> <p>Having been told, we keep a look out for the traffic, and adjust where we were going, if required.</p> <p>If we make a major change, don't forget to tell the controller</p>
b	G-GATC, C172 OUT OF SHOREHAM, LOCAL FLIGHT, TO THE WEST FOR GENERAL HANDLING, EXERCISE DURATION 30 MINUTES NOT ABOVE ALT 3,000' QNH 1022 SQUAWKING 7000	G-TC, BASIC SERVICE, (due workload/traffic), SQUAWK 7033, REPORT BEFORE RETURNING TO SHOREHAM	
c	G-TC BASIC SERVICE SQUAWK 7043, TO REPORT BEFORE RETURN TO SHOREHAM.	G-TC NEGATIVE, SQUAWK 7033	
d	Squawk 7033 GTC	G-TC, READBACK CORRECT, TRAFFIC INFORMATION, GLIDERS OPERATING FROM WASHINGTON VRP SOUTH TO THE DOWNS.	
e	G-TC COPY THE TRAFFIC	Having said Basic service, why this information?	

17. ZONE TRANSITS;

- 17.1.** If you cannot clear the top of an ATZ (by more than 1000') or you need to go through (or very close to) controlled airspace, You will need to (should – for safety) do a **ZONE TRANSIT**; The basic rules are
- 17.1.1.** **NEVER ENTER CONTROLLED AIRSPACE UNTIL CLEARED TO DO SO.** Ensure you make a request call in good time (why?)
- 17.1.2.** **Follow (and read back)** any instructions concerning reporting points, levels, headings or Squawk codes.
- 17.1.3.** **REMEMBER TRAFFIC AVOIDANCE IS ULTIMATELY YOUR RESPONSIBILITY,**
- 17.2.** You will be given an **ENTRY POINT(VRP)**; a **TRANSIT ALTITUDE (OR HEIGHT)**; a **TRANSIT ROUTE**; and an **EXIT POINT (VRP)**.
(Rarely at the same time) You may have a **Squawk code change**.
YOU WILL NORMALLY TRANSIT OVERHEAD THE RUNWAY(S); (PLAN YOUR ROUTE ACCORDINGLY)
- 17.3.** **LISTEN and LOOK** for other traffic so that you are ready for any avoiding manoeuvres. (you may need approval)
- 17.4.** It will help en-route Controllers if you have indicated a **zone transit** in your Flt Pln. E.g. “**BPK Dct BIG**” goes **through City zone**; or in notes “**to transit Gatwick zone**”.
- 17.5.** **A ZONE TRANSIT THROUGH EGLC LONDON CITY, FROM NORTH TO SOUTH.** You are **NOT** with any controller, you freecall.
- 17.5.1.** **If you were with Thames Radar**, the 2 controllers would talk to each other to agree your entry, / City Tower will need to plan your route with other traffic. **THAT IS WHY YOU CALL IN GOOD TIME**

a	CITY TOWER G-GATC REQUEST ZONE TRANSIT, NTH TO STH. (10miles DME/entry in 5-7 mins)	G-GATC CITY TOWER, (REMAIN OUTSIDE THE ZONE if too close) PASS YOUR MESSAGE	IF A BIT CLOSE, YOU WILL BE TOLD TO REMAIN OUTSIDE (UNTIL CLEARED) <u>DO SO</u>
b	G-GATC C172, 2MILES SOUTH OF BPK, 2300' QNH 1009 SQUAWKING 7000 (REQUESTING) TO TRANSIT CITY ZONE NTH TO SOUTH	GTC, REPORT M11 JUNCTION	Your 'pre-entry reporting point. If with another controller, he would now be talking to CITY_TWR to confirm your clearance
c	REPORT M11 JUNCTION GTC		

d	... (CITY TOWER) M11 JUNCTION, GTC	GTC (IS) CLEARED TO ENTER THE/CITY ZONE VIA M11 JUNCTION AT/NOT ABOVE (Alt.)2000' QNH 1008, SQUAWK 7057	YOU HAVE CLEARANCE TO ENTER; ENTRY POINT; ENTRY ALTITUDE AND CITY SQUAWK. NOT ABOVE= NO HIGHER THAN; AT =MAINTAIN THAT ALTITUDE/HGT.
e	CLEARED TO ENTER CITY ZONE VIA M11 JUNCTION AT/NOT ABOVE 2000' QNH 1008, SQUAWK 7057 GTC	GTC READ BACK CORRECT, REPORT AIRFIELD/RUNWAY IN SIGHT	THE CONTROLLER WILL ASSUME YOU ARE USING THE NDB TO 'HOME' ON THE A/P. (AND THE DME [at City, the ILS] for RANGE)
f	(TO) REPORT RUNWAY IN SIGHT, GTC		IT WAS AN INSTRUCTION; READ IT BACK
g	... GTC RUNWAY / A/P IN SIGHT	GTC CROSS THE 27 NUMBERS/THRESHOLD, REPORT SOUTH OF THE RIVER	YOUR ROUTE AND NEXT REPORTING POINT NB; NO CHANGE IN LEVEL GIVEN (or approved)
h	CROSS THE 27 NUMBERS/THRESHOLD, REPORT SOUTH OF THE RIVER, GTC	GTC CORRECT	UNLESS ASKED TO DO SO, DO NOT REPORT PASSING OVERHEAD; REPORT AT YOUR NEXT 'GIVEN' REPORTING POINT;
i	GTC SOUTH OF THE RIVER	GTC ROGER, CLEAR TO LEAVE THE ZONE (TO THE SOUTH) REMAIN CLEAR OF CONTROLLED AIRSPACE, SQUAWK 7000 MONITOR UNICOM 122.80	
j	CLEAR TO LEAVE THE ZONE (TO THE SOUTH) REMAIN CLEAR OF CONTROLLED AIRSPACE, UNICOM 122.80 SQUAWK 7000 GTC	You will be 'returned' to whatever service you entered with, if you had been with Thames before, you would be handed back to them.	

17.5.2 If you had been with Thames or LONDON and requested or confirmed a transit with them, they would have co-ordinated with City and may have given you your clearance to enter, "report runway insight, contact City Tower, 118.070 "You would NOT have a squawk code change, and your first transmission to City Tower would be 'g' above (with full callsign)

NOTE: THAMES may also coordinate with City and give you your transit altitude or height. Maintain it!

18. ZONE ENTRIES;

18.1. If you wish to land at an airport within its own CTA/CTR – Class D or higher, or class D with PPR (prior permission required) EGLL, You will need to do a **ZONE ENTRY (JOIN)**. The basic rules are

18.1.1. **DO NOT ENTER CONTROLLED AIRSPACE UNTIL CLEARED TO DO SO** Ensure you make a request call in good time.

18.1.2. **Follow (and read back)** any instructions concerning reporting points, levels, headings or Squawk codes.

18.1.3. **REMEMBER TRAFFIC AVOIDANCE IS ULTIMATELY YOUR RESPONSIBILITY, even WHEN UNDER ‘RADAR’ CONTROL**

18.2. AGAIN, you will be given an **entry point**; a **transit Altitude (or Height)**; a **transit route**; possibly a **further VRP and circuit joining instructions**. You **may** have a **Squawk code change, as well as a controller change**. Be prepared, plan and pre-set as much as possible.

18.2.1. **LISTEN and LOOK** for other traffic so that you are ready for any avoiding manoeuvres.

Make sure you have filed a valid Flt.Pln including your destination. Try to have everything you can set-up, (frequencies ready).

18.3 Let us look at a flight into Stanstead EGSS.

18.3.1 As you cross the Thames, South to North, you could be with no-one, a **LONdon_ConTrolleR** or **Thames Radar**; The approach to Stanstead, ‘top down’ will be covered by a **LON_XX_CTR** or **Essex radar/Stanstead approach**, if on. You will need to talk / be transferred to them at least 15-20 miles from Stanstead ZONE. (If under Thames, they will give you a reporting point at that sort of distance, to hand you over.)

18.3.2 If you are handed from one controller to another, especially for a join to land, **they will have co-ordinated** (talked to) each other to get you set up for the approach controller.

This will be clear on your first call – If he has your details, you will be given an en-route instruction, instead of “**pass your message**”.

a		GTC REPORT BILLERICEY VRP (Thames radar)	YOUR LAST EN-ROUTE REPORTING POINT FROM THAMES
b	REPORT BILLERICEY VRP, GTC		

Coordination will now take place between **Thames Radar** and **Stanstead Approach**.

c	STANSTEAD APP, THAMES	APP , pass message.	ON VATSIM, THIS CONVERSATION MAY BE BY TEXT, THAT IS WHY, YOU NEED THAT SORT OF DISTANCE AWAY
d	G-GATC C172, VFR, COMMING BILLERICAY, ZONE ENTRY FOR JOIN (TO LAND)	ROGER, REPORT CHELMSFORD VRP, NOT ABOVE 2000' QNH 1010, SQUAWK 7087	
e	REPORT CHELMSFORD VRP, NOT ABOVE 2000 QNH 1010, SQUAWK 7087, THAMES	CORRECT	
f	...GTC (AT/OVERHEAD) BILLERICEY VRP	GTC REPORT CHELMSFORD VRP, NOT ABOVE 2000' QNH 1010, SQUAWK 7087	YOUR LAST INSTRUCTION FROM THAMES, & YOUR NEXT REPORT POINT, IT REMAINS VALID AFTER TRANSFER TO STANSTEAD APP. Gives you time to listen.
g	REPORT CHELMSFORD VRP NOT ABOVE 2000' QNH 1010, SQUAWK 7087, GTC	READBACK CORRECT, CALL STANSTEAD APPROACH ON 120.62	
h	STANSTEAD APPROACH ON 120.62 GTC		
i	... STANSTEAD APPROACH, G-GATC, CHELMSFORD VRP, 2000' (FOR) ZONE ENTRY FOR JOIN	G-GATC STANSTEAD APPROACH, ROGER, (YOU ARE) CLEAR TO ENTER THE/STANSTEAD ZONE, REPORT GREAT DUNMOW AT 1500'	NB YOUR SERVICE REQUEST/POSITION REPORT DOES CONTAIN ALL INFORMATION; YOU DON'T KNOW YOUR NEXT VRP YET.
j	CLEAR TO ENTER THE/STANSTEAD ZONE, REPORT GREAT DUNMOW AT 1500', G-GATC	(GTC correct)	
k	...(APPROACH) G-GATC, GREAT DUNMOW	GTC REPORT LEFT BASE FOR RUNWAY 23	
l	REPORT LEFT BASE RUNWAY 23 GTC	That will be 2-2.5nm from the runway c/l	
m	...GTC (IS) LEFT BASE (RUNWAY 23)	GTC CONTACT TOWER ON 123.8. BE PREPARED!	
n	TOWER ON 123.8 GTC	You may have to orbit to give way to IFR traffic	THERE IS UNLIKELY TO BE CO-ORDINATION BETWEEN APP. & TWR. AS TWR WILL HAVE AN 'INBOUND LIST' & AGREED PROCEDURES (known as 'silent coordination')
o	.. STANSTED TOWER G-GATC, LEFT BASE (TO LAND)	G-GATC , STANSTEAD TOWER, REPORT FINAL RUNWAY 23, No 1 TO LAND	
p	REPORT FINAL TO LAND RUNWAY 23, G-GATC		
q	G-GATC RUNWAY 23 FINAL (TO LAND)	GTC RUNWAY 23 CLEAR TO LAND SURFACE WIND IS CALM	
r	RUNWAY 23 CLEAR TO LAND GTC	... GTC VACATE RIGHT WHEN ABLE, REPORT VACATED	
s	VACATE RIGHT AND REPORT GTC (WILCO GTC)	If GROUND is on you will get handed to them for taxi instructions to parking, if not, Tower will do it. REMEMBER; YOU MUST NOT ENTER THE MAIN TAXIWAY UNTIL INSTRUCTED TO DO SO – Taxi-to-parking.	
t	... GTC VACATED (THE ACTIVE)		

19. EMERGENCIES (ON VATSIM).

If you have one during your P2 Flight Test or RT Test it will be a minor problem (if not seen could lead to a minor emergency).

- 19.1 If you have an EMERGENCY ON VATSIM and you declare it, if his airspace is busy, the controller MAY (politely) ask you to disconnect. **HIS DECISION, please do it.** If he can, he will enable you to continue.

If you ask for a practice emergency, again **HIS DECISION**

- 19.2 **IT IS STRICTLY AGAINST VATSIM RULES TO DECLARE OR ATTEMPT TO SIMULATE A HIJACK ON VATSIM**

19. WHAT EMERGENCIES

- 19.1 For your P2 you do need to be prepared to fly a 'problem situation'. (which should not amount to an emergency.)

- 19.1.2 The worst/scariest, VFR, is an engine failure in the circuit, especially on take-off (EFATO);

VERY little time to 'get it sorted' before you find yourself 'approaching the scene of...'. **Correct and immediate** actions required.

- 19.1.3. Anything that goes wrong with the AIRCRAFT or its' systems, which affects your control of the flight, can **become** an emergency, rather than a problem. The difference is usually 'how high am I'. **You are UNLIKELY to get an EMERGENCY as part of your P2 flight test.**

- 19.2. However, if something happens which means you need a **PRIORITY service**, for instance to land or divert, the controller will require your information in a set order, **AS RELEVANT TO THE SITUATION. AFTER YOU HAVE AVIATED & NAVIGATED**

- 19.2.1 **TYPE OF EMERGENCY ('URGENT/PRIORITY REQUEST'; PAN ; MAYDAY).** PAN or MAYDAY ARE FULL EMERGENCIES, (not P2.)

- 19.2.2 **STATION BEING CALLED** (IF APPROPRIATE AND POSSIBLE-TIME); **NOT REQUIRED IF YOU HAVE BEEN TALKING TO THEM RECENTLY.**

- 19.2.3. **CALLSIGN; IF ALREADY WITH THE STATION CALLED, USE SHORTENED CALLSIGN**

- 19.2.4 **NATURE OF EMERGENCY; BRIEF BUT CONCISE AND CLEAR**

- 19.2.5 **PILOTS INTENTIONS;** EITHER WHAT YOU ARE DOING (FORCED LANDING)

OR WHAT YOU INTEND TO DO (REQUEST/EMERGENCY/PRIORITY) (DOWNWIND) LANDING

- 19.2.6 **PRESENT (or LAST KNOWN) POSITION,** -LOCATION, HEIGHT/ALTITUDE, HEADING; A VOR Radial and DME makes a good fix.

- 19.2.7 **PILOT QUALIFICATION** (not required, but RW can guide assistance given); Not usually on VATSIM EXCEPT 'STUDENT'

- 19.2.8. **OTHER USEFUL INFORMATION** (endurance; people on board; AIRCRAFT markings/colour; survival aids/emergency equipment) not valid on vatsim but good practice for RW

19.3 We are en-route to Cambridge from Shoreham, passing Sevenoaks, a passenger needs URGENT medical attention

a	THAMES RADAR, GTC, PASSENGER UNWELL, REQUEST PRIORITY DIVERSION TO BIGGIN TO LAND. CROSSING M25 NORTH OF SEVENOAKS, ALTITUDE. 2300' HEADING NORTH, 3 POB, SQUAWKING 7043	GTC PASSENGER UNWELL DIVERTING TO BIGGIN, PRIORITY. ARE YOU DECLARING AN EMERGENCY?
b	NEGATIVE AT THIS TIME, URGENT MEDICAL ATTENTION REQUIRED GTC	GTC ROGER, FOLLOW M25 NORTH, TURN LEFT AT NEXT JUNCTION. BIGGIN VOR 115.10 Thames would take this to mean unwell but no danger of death
c	FOLLOW M25 NORTH, TURN LEFT AT NEXT JUNCTION. BIGGIN VOR 115.10 GTC	
d	THAMES WOULD CONTACT BIGGIN (IF ON) AND WOULD PASS DETAILS AND REQUEST A PRIORITY APPROACH AND LANDING, NOT NECESSARILY ON THE ACTIVE RUNWAY. The controller, unless asked, in this scenario would probably ask if an Ambulance/Doctor was required on arrival.	
e		GTC, HAS A PRIORITY STRAIGHT IN JOIN, RUNWAY 29, QFE 1014
f	STRAIGHT IN PRIORITY JOIN AT BIGGIN, RUNWAY 29, QFE 1014 GTC	GTC, CORRECT, DO YOU REQUIRE MEDICAL SERVICES ON ARRIVAL
g	GTC, AFFIRM	GTC, ROGER, TOWER HAS THAT REQUEST. CONTACT BIGGIN TOWER ON 134.80 WITH RUNWAY IN SIGHT.
h	CONTACT BIGGIN TOWER 134.80, RUNWAY IN SIGHT, THANK YOU, GTC	GTC NO PROBLEM, GOOD LUCK.

BIGGIN TOWER WOULD NOW ASSIST IN A CROSSWIND LANDING AND CO-ORDINATE WITH THE PILOT TO MEET UP WITH THE AMBULANCE (WHERE?)

These are the essential radio procedures required for the P2 flight test,

if anything else comes up remember, a clearance/instruction, read it back, do it.

Traffic and other information (winds/weather) acknowledge, if you think it relevant. Cross wind on landing, traffic getting close.

Finally if you need to deviate from the instructions given, or your Flight plan, – **FOR THE SAFETY OF YOUR FLIGHT;**

INFORM THE CONTROLLER what you are doing and why. He may have to sort out other AIRCRAFT as a result and/or provide an easier solution.

“TOWER, FOR SEPARATION (from AIRCRAFT x), ORBITING LEFT HAND GTC “

That is everything you should need for your P2 Flight Test (plus a bit more). Good Luck

Enjoy Flying the CIX way. We no longer fly alone.

Part 3
ADVANCED
RADIO PROCEDURE
For the
CIX Full RT Licence

This section contains the remaining calls and procedures you might expect to use on VATSIM.

When CIX VFR CLUB is able to train and examine the P3 Flight Test,
You may expect to use anything within the 3 parts of this document.

NOT TO BE USED FOR REAL WORLD AVIATION

20 SERIOUS EMERGENCIES (ON VATSIM)

20.1. Because we try to 'reflect' RW operations and things can and do go wrong with our AIRCRAFT and systems. It is possible to have and or practice **AIRCRAFT in-flight emergencies on-line.**

20.1.1 However, if the airspace is busy, it is likely to 'disrupt' many other flights and if you read VATSIM rules and regulations. **This is frowned upon.**

20.1.2 This means, if you ask the controller if you can do a practice emergency, he may (politely – too busy) refuse. **IT IS HIS DECISION.**

20.1.3 If on the other hand your AIRCRAFT genuinely 'goes sick', when you declare your emergency, if his airspace is busy, he may (again, politely) ask you to disconnect.

Again, It is **HIS DECISION.** In fact most of the time controllers on vatsim will provide the service, for the practice themselves, if possible.

20.2 WHAT EMERGENCIES

20.2.1 You do need to prepare to fly an emergency situation. The worst and 'scariest', VFR, is an **engine failure in the circuit**, especially on take-off (EFATO); **VERY** little time to 'get it sorted' before you find yourself 'approaching the scene of....'. "Do not even try, just get it on the ground!"

20.2.2 An **instrument failure**, depending which one fails, (P2!) could easily lead to an emergency situation, the AIRCRAFT becomes difficult to control.

20.2.3 As above, Full engine failures fall into 3 main types a)En-route; b)In the circuit and c)On take-off. They are listed in ascending order of difficulty. That is, the Altitude likely to be beneath you! Thus indicating how long before you hit or reach the ground.

20.2.4 The other difficult one is RADIO failure. Difficult to 'justify' on line, as you will usually have UNICOM or no connection at all, if you lose 'voice', but could be practiced.

PLEASE NOTE; THE SIMULATION OF HIJACK SITUATIONS IS STRICTLY FORBIDDEN IN VATSIM RULES

20.3. THERE ARE 3 LEVELS OF 'EMERGENCIES'

1. 'URGENT REQUEST' – No immediate danger to life or the AIRCRAFT, but continued flight is 'not a good idea'. – need 'advice'/diversion/cautionary action, or just need to advise.
2. 'PAN PAN PAN' call – No immediate danger to life (in the air or on the ground) but 'continued flight is unlikely' (we are (only) coming down). –need help, NOW.
3. 'MAYDAY MAYDAY MAYDAY' call means there is an **immediate/imminent 'danger to life'** (in the air and/or on the ground) – need help and assistance, NOW.

20.3.1 INSTRUMENT FAILURE; An emergency can be avoided by learning to 'scan' them, regularly. Also learn what information will be lacking/wrongly indicated when particular instruments fail. Understanding the reasons for possible failures in each instrument can save lives. E.g. ICE

You will 'unconsciously' know what you should see, if you don't 'bells will ring' – take note.

20.3.2 As you will learn in your flight training **AVIATE: NAVIGATE: COMMUNICATE. IN THAT ORDER.**

1. Do we have control of the AIRCRAFT? 2. Can we go where we need to? 3. Now, get help.

Obviously, **if you can, WHILST sorting out 1. and 2.** Above, **SAY SOMETHING.** The sooner controller knows you have a problem, the more help can be made available. For example:-

20.3.3 As you trim out, in the climb, **EFATO!** (most training airfields have 'earmarked' EFATO landing grounds) **“(GTC) Engine failure (on T/O)”.**

Until you're happy that's ok, (who else is taking off?). It will be enough for Tower to decide whether to 'ring the bells'.

Now, get the A/C under control, select your landing site, set up the approach. NOW see if you can sort the problem, the let Tower know the situation, 'recovered (request land immediate)' or 'forced landing, (location)'.

20.4.1 EMERGENCY 1. URGENT REQUEST: No immediate danger to life or A/C, but continued flight ‘unwise’.

	PILOT	CONTROLLER	NOTES
a	...THAMES RADAR GTC	GTC THAMES RADAR, PASS YOUR MESSAGE	
b	ON EMERGENCY RADIO, ELECTRICAL FAILURE, SHOREHAM TO CAMBRIDGE, COMMING SEVENOAKS, REQUEST PRIORITY DIVERSION TO BIGGIN, GTC	GTC ELECTRICAL FAILURE, DIVERTING TO BIGGIN, PRIORITY, CAN YOU MAINTAIN ALTITUDE 2300’? Are you declaring an emergency?	SO, WHAT NAVAIDS DOES HE HAVE How did Thames know he was at 2300’? OR DID HE? If not, why 2300’?
c	AFFIRM, maintaining 2300’ ; negative emergency; request priority diversion GTC	GTC FOLLOW M25, Squawk 7600 if able, STANDBY	Thames will change HIS GTC squawk to 7600, WHY?
d	FOLLOW M25 GTC		If on, Thames talks to Biggin tower, else, he does it. Thames will inform Biggin of the diversion and get A/P info and clearance. He will also talk to London. There could be IFR inbound to Biggin.
e		GTC IS CLEARED STRAIGHT IN APPROACH FROM THE NEXT M25 JUNCTION, RUNWAYS 21, 03, 29, 11. SURFACE WIND 250@05 RUNWAY 29 RECOMEMNED. REMAIN THIS FREQUENCY.	
f	CLEARED STRAIGHT IN APPROACH FROM THE NEXT M25 JUNCTION, REQUEST 29, COPY THE WINDS, TO REMAIN THIS FREQUENCY, GTC	GTC REPORT AT THE JUNCTION	
g	JUNCTION IN SIGHT ABOUT 3 MILES GTC	GTC FROM THE JUNCTION, HEADING 260, REPORT AIRFIELD IN SIGHT, RECOMMEND YOU MAINTAIN HEIGHT AND PREPARE FOR POSSIBLE GLIDE APPROACH.	ANYTHING WRONG HERE?
h	TURNING ONTO 260, TO REPORT AIRFIELD IN SIGHT THANK YOU. I CAN CHANGE TO BIGGIN TOWER. GTC	GTC ROGER, standby. In this context what does ‘standby’ mean?	Thames would now update Biggin tower and ask him where he wants handover.
i	AIRFIELD IN SIGHT, VISUAL RUNWAY 29 GTC	GTC ROGER, QFE 1008, CONTACT BIGGIN TOWER, 129.40, GOOD LUCK	“CONTACT XYZ” MEANS NOW TALK TO XYZ, HE HAS YOUR DETAILS –
j	QFE 1008, CONTACT BIGGIN 129.40, THANKS... GTC		controller co-ordination has taken place.

k	BIGGIN TOWER, G-GATC LONG FINALS 29, HIGH APPROACH	G-GATC BIGGIN TOWER, RUNWAY 29 CLEARED TO LAND, OWN APPROACH, REPORT ON THE GROUND, NO OTHER TRAFFIC	WHY THAT, OR SIMMILAR REPORTING POINT?
l	CLEARED TO LAND 29, REPORT LANDED GTC	GTC CORRECT, SURFACE WIND 265 @4knts	WHAT IS WRONG HERE BUT OK UNDER THE CIRCUMSTANCES
m	THANKS GTC		

20.4.2 EMERGENCY 2. THE 'PAN' CALL: No immediate danger to life but 'situation is terminating flight', A/C is only coming down.

a	PAN-PAN-PAN, PAN-PAN-PAN, THAMES RADAR G-GATC C172, NO OIL PRESSURE, INTEND STRAIGHT IN RUNWAY 29 BIGGIN, TURNING AT M25 JUNCTION HEADING 260 INBOUND 8DME MAINTAINING 2300' QNH 1015, 100HRS PPL, 1 POB REQUEST 29	G-GATC THAMES RADAR, RECOMEND MAINATAIN ALTITUDE, CONTINUE FOR 29, (if tower on CONTACT TOWER ON 129.40 REPORT FINALS.) REPORT FINALS, Squawk 7600 if able.	THAMES WILL NOW TALK TO BIGGIN (IF ON) AND THEY WILL 'MOVE/HOLD/DIVERT' ANY TRAFFIC WHICH COULD CONFLICT. He will also change GTC's squawk code to 7600.
b	MAINTAINING ALTITUDE REPORT FINALS 29 GTC	GTC QFE 1008,	AS HE IS VERY CLOSE THAMES MAY WELL 'KEEP HIM' (WITH BIGGIN'S APPROVAL)
c	QFE 1008, RUNWAY 29, LONG FINALS GTC	GTC CORRECT, RUNWAY 29, CLEARED TO LAND, SURFACE WIND 250@5knts REPORT ON THE GROUND.	
d	GTC RUNWAY 29 CLEARED TO LAND REPORT... GTC ENGINE FAILURE, GLIDE APPROACH, HAVE SUFFICIENT HEIGHT	GTC ROGER, GOOD LUCK	BIGGIN TOWER WOULD BE LISTENING, BUT THAMES WOULD UPDATE HIM, AND BE UPDATED.
e GTC ON THE GROUND, STOPPED ON THE RUNWAY. VACATING AIRCRAFT	GTC ROGER, WELL DONE SIR, ACTIVE RUNWAY IS 21, ASSISTANCE IS ON ITS WAY	WHY?

A FAIRLY SIMPLE ONE. NOTE: Because the pilot was on a 'safe' approach, high enough to glide in, he did not change it to a Mayday situation.
LET'S LOOK AT THE SAME SITUATION, DIFFERENT SCENARIO.

20.4.3 EMERGENCY 3. THE 'MAYDAY' CALL: Imminent danger to life, in the air and/or on the ground

a	MAYDAY, MAYDAY, MAYDAY, G-GATC, C172, ENGINE FAILURE ATTEMPTING BIGGIN HILL, ABEAM BIGGIN M25, TURNING INBOUND 2300' ON QNH 4 POB	G-GATC, THAMES, ROGER MAYDAY, BIGGIN WIND 150 @15, UNLIKELY TO MAKE BIGGIN, RECOMMEND FORCED LANDING, SQUAWK 7700 IF ABLE	So, can you go through what would be the sequence of events in the AIRCRAFT BEFORE and as soon as a forced landing was certain. Why 'ground services'? Why no 'report on the ground'?
b	THANKS, PASSING 1800' LANDING WEST OF PRATTS BOTTOM GTC	GTC UNDERSTOOD, GROUND SERVICES ACTIVATED, GOOD LUCK	

In each case (2 & 3), if possible and relevant, the initial sequence should be the same;

TYPE OF EMERGENCY (PAN or MAYDAY); **STATION BEING CALLED** (IF APPROPRIATE AND POSSIBLE-TIME); **CALLSIGN**; **NATURE OF EMERGENCY**; **PILOTS INTENTIONS**; **PRESENT (or LAST KNOWN) POSITION**, -LOCATION, HEIGHT/ALTITUDE, HEADING; **PILOT QUALIFICATION**(not required, but can guide assistance given); **OTHER USEFUL INFORMATION** (endurance; POB; AIRCRAFT markings/colour; survival aids/emergency equipment)
 OBVIOUSLY, IF TIME IS SHORT, TRY AND GET THE ESSENTIAL BITS ACCROSS, - WHAT, WHO, WHY, WHERE. SO THAT THEY KNOW WHERE TO FIND YOU IF HELP IS LIKELY TO BE NEEDED.

DON'T FORGET, ON VATSIM AN EMERGENCY CALL CAN BE REPLIED WITH "NEGATIVE, HIGH TRAFFIC".

20.5. Do not forget, If possible, most controllers on VATSIM WILL allow you to practice an emergency. HOWEVER, be sensible and considerate of both the controller and other pilots. Your 'emergency' will cause much disruption and possible confusion, so be aware of the traffic situation and controller workload BEFORE you declare, or request a practice emergency.

If the controller cannot easily handle your emergency, even if it is 'real' he can (under VATSIM rules) say, "negative, due workload, I am unable to accept your emergency." You should then either continue your filed flight plan, or disconnect.
 IT IS HIS DECISION.

RADIO PROCEDURES AT AIRFIELDS WITHOUT A FULL AIR TRAFFIC CONTROL SERVICE

At airfields/aerodromes, not licensed to operate a full Air traffic Tower service, A service may be provided by an 'Aerodrome Flight Information Officer (AFISO) or a Ground Radio Operator (GRO). The service each is permitted and able to provide differs greatly to a full Tower Controllers' service, as well as to each other.

21. The **AFISO, AERODROME FLIGHT INFORMATION SERVICE OFFICER:**

"The AFISO must hold a valid AFISO LICENCE for the particular AIRFIELD. Which will show skills and competence to 'control' (as AFISO) as well as knowledge and compliance with the current/approved FLIGHT INFORMATION SERVICE MANUAL for that AIRFIELD." The AIRFIELD VMATS or CIX Airfield Data Sheets

Generally speaking the service provided is **PROCEDURAL**, for AIRCRAFT **WITHIN THE ATZ**. – The **AFISO MAY NOT INSTRUCT / PROVIDE CLEARANCES for any AIRCRAFT, IN THE AIR OR ON THE RUNWAY**. He can pass flight and other information. With the exception of a runway crossing, **"GTC (or Fire1) Cross runway 34, report vacated"**

On the ground the **AFISO does have authority to instruct AIRCRAFT & vehicles** and will usually be located in some form of control tower giving a view of **most** of the active areas of the airfield. The AFISO service is ALWAYS addressed as **"(Airfield name) INFORMATION"**

AIRCRAFT operating on parts of the A/F, out of view of the AFISO, will be given 'advisory information' (ground procedural) instruction.

In both cases the pilot is expected to follow the instruction/advisory, unless he feels his AIRCRAFT is endangered, in which case he should immediately notify the AFISO accordingly.

Both in the air and on the ground, the AFISO can (and will) request position reports from pilots, Pilots will be expected to comply with these requests.

Apart from the 'mark1 eyeball' (and binoculars), it is the only way he will know what and where everyone is.

AIRCRAFT entering, leaving or on the runway are the same as AIRCRAFT in the air. The AFISO **MAY NOT ISSUE INSTRUCTIONS**. For instance, if the AIRFIELD, or other relevant authority, wishes to refuse landing permission to an AIRCRAFT.

The AFISO **cannot issue** that instruction, **AS FROM HIMSELF**.

But “[AIRCRAFT callsign], Message from the AIRFIELD authorities, you may not land at this AIRFIELD”.

Also, an AIRCRAFT requiring a clearance before departure, (EGTO). The AFISO will get the clearance from Thames and pass it thus;

“GTC After leaving the ATZ Thames Radar clears you to enter City Zone from the east at 1500’ QNH 1008, sqk7071”

A correct readback is mandatory. Which will be acknowledged with **“Readback correct”**. Why?

Let us depart from EGTO – Rochester, to EGKA, Thames Radar is on. We are parked out of sight of the tower.

	AIRCRAFT	AFISO	NOTES
a	Rochester information, G-GATC request start for Shoreham.	G-GATC Rochester information, start approved, OAT 20 degrees, report ready for Taxi. Do you require en-route service?	AFISO will now phone Thames for a departure clearance, & read it back Start call required at EGTO
b	... G-GATC request Taxi,(to the active) Basic service.	GTC I have your after departure clearance when ready to copy	
c	Ready to copy, GTC	GTC, Message from Thames Radar, remain clear of controlled airspace, squawk 7074, and call Thames Radar on 132.70 on leaving the ATZ”	Must make it clear, message from Thames
d	GTC After departure to remain clear of controlled airspace, squawk 7074, and call Thames Radar on 132.70 on leaving the ATZ”	GTC Read back Correct, Taxi to hold A runway 34, [or Taxi to and hold short, runway 34] Surface wind 290 10kts. QNH 1009 report (when) ready to depart.	Instructions. Would the alternative be used at Rochester? an instruction or information?
e	taxi hold 34 QNH 1009 and report ready GTC .		A man of few words, is this OK?
f	Rochester Information, G-GRAA C172, 5nm East. Request join (to land)	G-GRAA Runway 34 Left Hand QFE 1007, Report downwind.	Instruction or request for information?
g	G-GRAA Runway 34 Left Hand QFE 1007.	GAA Roger	Why not “Correct”?
h	GAA downwind 34, to land.. ...	GAA Report Final 34, Traffic information, a 172 preparing to depart to the West,	Does this mean the AFISO is telling us to go, or that it is up to us to

i	GTC ready for departure (to depart)	GTC Traffic information is a C172 reported late downwind runway 34. Take off <u>at your discretion</u> Surface wind 290 10kts	decide? What would you do?
j	Rochester information, G-ZZAX , Piper P28, Hanger 1, (request) taxi for circuits	GZZAX Rochester information, taxi, hold short runway 34 QFE 1007, Traffic is a 172 departing 34 and a 172 Last reported Downwind to land.	Instruction; request or information?
k	Report final GAA ... Taking Off Runway 34, GTC	GTC Roger	
l	GAA Final 34 to land	GAA Roger, Traffic is a 172 climbing away. Land <u>at your discretion</u> , Surface wind 290 10kts (break, break).... GTC report leaving (the frequency/the ATZ)	Any questions? What is going on and why?
m	Wilco GTC.	...GAA, Report vacated.	What is happening here? Why was he asked to report vacated?
n	Roger GAA . GTC is going to Thames Radar 132.70 bye.	GTC Roger, (thanks), have a good flight.	
o	GAA vacated, request taxi	GAA taxi to school parking via the taxiway, give way to the PA28 taxiing to the active	
p	Roger, Taxi to school parking, visual the PA28. GAA	GAA report parked and shutting down	Why?

DO not forget, at an 'AFISO' A/F (A/D name – INFORMATION) you will NOT be controlled in the air or on the Runway.

If decisions have to be made IN THE AIR, 'do it or wait'. It is YOUR decision

The level and quality of the information you will receive will depend ENTIRELY on the information the AFISO is GIVEN by every PILOT. So keep him informed about where you are and your intentions. He is NOT a mind reader.

AVOIDANCE OF OTHER TRAFFIC IS SOLELY THE RESPONSIBILITY of the VFR PILOT, ALWAYS.

22 AERODROME AIR/GROUND COMMUNICATION SERVICE:- ‘GROUND RADIO’:- AGCS Radio Station Operator (AGO)

To operate an AGCS radio station, “an operator is required to hold a valid CERTIFICATE OF COMPETENCE for the Aerodrome concerned as well as knowledge and ‘demonstrated’ ability of the equipment and local procedures applicable to the Ground Radio Station, and the AIRFIELD. Further, the CAA may require the operator to undergo tests (& Training) to demonstrate this competence, EXCEPT in order to avoid immediate danger to AIRCRAFT and/or persons.

Any Transmission by any person not holding a certificate of competence to operate AT THAT AIRFIELD will be an UNLAWFUL act.”

The ‘registered’ AIRFIELD name must be followed, as appropriate, with the ‘identifier’ “**RADIO**” e.g. “**GTC Popham Radio, to land**”

The AGCSRSO (AGO) may only pass **INFORMATION relating to The AIRFIELD & its ATZ**; Weather, related to operations within the ATZ; Traffic information, related to AIRCRAFT on the ground, or within the ATZ, **derived from information received from AIRCRAFT**. The AGO will usually have **VERY** limited view of the AIRFIELD.

As with the AFISO, the AGO can pass REQUESTS, INSTRUCTIONS and CLEARANCES (not related to the AIRFIELD or the ATZ) from another authority for relay to an AIRCRAFT or Pilot. Such transmissions must make it **VERY** clear that the Station Operator is acting as a **RELAY STATION** under instruction (an agent for the authority concerned).

	AIRCRAFT	‘Air Ground radio Operator’	NOTES
a	Popham Radio, G-GATC radio Check, 129.8	G-GATC, popham radio, readability 5, runway 26 left hand circuit, QNH 1022	
b	G-GATC readability 5 also, taxiing runway 26, left hand QNH1022	GTC Roger	Why not Correct , it was a read-back.
c	GTC Runway 26, ready to depart (for departure)	GTC Roger, No reported traffic, surface wind 250 degrees 10knots	
d	Roger, taking off 26 GTC	(GTC roger + pleasantaries)	
Alternative scenario; you are about to line up.....			(f); Which and why? How (and whom) to decide?
e	GTC Roger, Ready to depart 26 (for departure),	GTC Roger, Traffic is a PA28, reported final, surface wind 250 degrees 10knots	

f	Taking off GTC or Roger, holding position GTC	In either case, no response {assume GTC holds}	Why no response?
g	{The PA28 lands} GTC, Lining up and taking off	GTC Roger, surface wind 250 degrees 10 kts	Happy with this?
h	GAA Vacated the active, taxiing to club parking	GAA roger, no reported traffic	
i	GTC Leaving the Zone to the west. Will report before rejoin	Roger two other Aircraft reported operating VFR to the West	Note that whatever the information passed by the pilot, requested by GRO or not, his response is always, no response or Roger . Why?
j	Popham Radio, G-BCDA, request traffic information	G-BCDA, Popham radio, pass your message	
k	G-BCDA, PA28, Bourn to Shoreham, position overhead Whitchurch, 1800' QNH1021 Estimate Popham at 15	GDA, roger runway 26 is active left hand with a PA28 just departed to the West, QNH 1022	
l	QNH1022, will report overhead GDA... .. GDA Overhead, will report leaving the frequency	GDA Roger	
m	GDA is leaving the ATZ changing to Southampton radar 128.25	GDA roger	

DO not forget, at an 'AGO' A/F (A/D name – RADIO) you will NOT be controlled in the air or on the GROUND.

If decisions have to be made, 'do it or wait'. It is YOUR decision

The level and quality of the information you will receive will depend ENTIRELY on the information the AGO is GIVEN by every PILOT. So keep him informed about where you are and your intentions. He is NOT a mind reader.

AVOIDANCE OF OTHER TRAFFIC IS SOLELY THE RESPONSIBILITY of the VFR PILOT, ALWAYS.

22.1 PLEASE NOTE, at airfields manned by an **AFISO** or **AGO**, effectively **YOU (The pilot)** are providing a large part of the service provided. If ALL PILOTS do not keep the controller informed of their position, their intentions and any situation around them, he cannot keep the traffic in his ATZ informed about the traffic around them.

22.2.1 Some **CIX AFISO** controllers will use a room in **TeamSpeak** to provide a service. **IT IS THEIR ROOM** to provide an ATS to CIX pilots, **NOT FOR GENERAL CHAT**. If you are asked to be quiet, or leave **PLEASE DO SO**.

22.2.2 NON_CIX A/C will be identified as 'unknown' by the controller. **He may NOT communicate with them**. Therefore, the only way the AFISO will know where they are, in the air, is if CIX pilots keep him informed.

23 COMMUNICATIONS AT UNATTENDED AERODROMES: SAFETYCOM and UNICOM

1. **REAL WORLD**, If an unattended AIRFIELD HAS an allocated frequency (TWR/GND; TWR & GND or 'RADIO') AIRCRAFT should '**open-call**' using the frequencies assigned to the AIRFIELD.
2. **RW** If the AIRFIELD has NO assigned frequency(ies) then AIRCRAFT should use **SAFETYCOM** – a standard frequency of 135.475 **IN THE UK**.
3. **ON VATSIM** 23.1 above should be observed. But **SAFETYCOM** is replaced by **UNICOM, which is TEXT ONLY**. The phraseology used is common to both, although in practice messages on Unicom are often minimal & abbreviated. Partially because, being TEXT your Msgs. Will appear in the 'chat' windows of ALL local AIRCRAFT. (Usually the last 4 or 5 msgs. Can be seen). If a group flight, you could all use the airfield frequency, as long as one A/C monitors UNICOM.

Let us assume we are going from Popham to Shoreham, but plan to land at Compton Abbas, When we 'phoned them, before leaving Popham, there was a recorded message, "Compton radio is off air today". It has 1 runway, 26/08, 122.7, used frequently by training helicopters. So, which of the approaches should we use, after departing Popham (to the north west)? On **UNICOM** your callsign is automatically put in front of **ALL YOUR txt** messages.

VOICE ('OPEN'CALL)ONLY; SAFETYCOM and/or UNICOM; UNICOM ONLY

WIND 250@10.QNH 1022

a	Compton traffic G-GATC 10 miles north west JOINING OVERHEAD Compton Trfc 10nm NW OH join	Not more than 10miles away, tune 122.7 /Unicom 122.80
b	Compton traffic G-GATC, Overhead, to land runway 26 (Compton) Trfc, OH, to Land (LND) Rn26	If it is OBVIOUS no other traffic, this is an optional TRANSMISSION
c	Compton traffic G-GATC, Dead side descending (or descending dead side) for runway 26 (Compton) Trfc, ded sde 26	As above; optional
d	Compton traffic G-GATC, Downwind (right hand – if applicable), Runway 26 (Compton) Trfc, dnwnd (RH) 26	Why only Right Hand? Why might we decide Rt.Hnd? if not specified. (where?)
e	Compton traffic G-GATC, Base leg runway 26 (to land/T&G/Go around) (Compton) Trfc, B(a)se (RH) 26, lnd/TG/GAR	Again, whether or not you state full intentions, more than once, and when, will depend on the traffic situation at the time.

f	Compton traffic G-GATC, Final Runway 26 (to land) Compton Trfc, Final, 26	Mandatory – always?
g	(later) Compton traffic G-GATC, Taxiing for runway 26 (departure to SE/Shoreham) Compton Trfc, txy Rnwy 26 dep SE > EGKA	
h	Compton traffic G-GATC, Taking off/ departing, runway 26 Compton Trfc, T/O Rn26	'mandatory'? – what do you think?
i	Compton traffic G-GATC, (Runway 26) Departing to the SE. Compton Trfc, Trng SE>EGKA	Personally, if trfc about, I would include this one Especially if you think/know another A/C is near, but not 'talking'.

Why might we have been transmitting the above anyway, AND keeping a very sharp lookout?

j	G-GGSS, Helicopter inbound Compton, from the north, low level, to land at the Tower. Helio, from Nth, Low to land Compton Tower	Bit naughty, but at least we know about him! – This Time!
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On UNICOM it is allowed to abbreviate all messages, HOWEVER, bear in mind **who will NEED to read AND UNDERSTAND** them.

In my opinion the above is the VERY MINIMUM of abbreviation.

Read your PILOT CLIENT MANUAL, these days most of them have a 'quick text' facility – built in text messages, requiring a VERY short activation.

You may find that yours has the ability for you to 'construct' your own text messages.

24. FLYING INTO AND THROUGH MILITARY AIR TRAFFIC ZONES (MATZ & CMATZ)

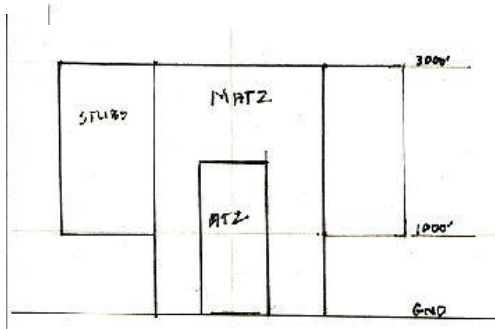
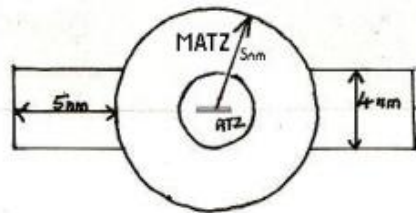
Within the UK, GA VFR flight over, as well as into Military Airfields is, in many cases permitted. There are however a number of strict rules and conditions.

24.1 LANDING AT A MILITARY AIR BASE; RW, PRIOR PERMISSION IS ALWAYS REQUIRED; It may **NOT** always be granted, even in an emergency (if an alternative is available/within range), dependant upon the Airfields role.

Some Military air bases will require PPR in the air; MOST, (RW), before departure, some NONE, or written permission(RW).

24.2 FLIGHT THROUGH (TRANSITING) A MATZ; usually ok (RW) by calling the **LARS** at least 15nm or 5mins flying time **BEFORE PENETRATION.** **ON VATSIM** pilots may transit and land at military bases, **by flight planning your intentions**, then following the correct en-route/in flight procedures.

Normally your flight through a MATZ/CMATZ, will be controlled by the area controller as there are not many 'military controllers' active on the network.



24.3.1 DESCRIPTION: A MATZ is controlled airspace surrounding a military airbase.

It has a standard ATZ over the airfield (up to 2000') inside a central zone, 5nm RADIUS from Sfc to 3000' AGL.

It also has 'stubs' based on the C/L of the main runway(s) extending out from the zone to a distance of 5nm from the main zone boundary (see sketches) The stubs are 4nm wide and extend FROM 1000' to 3000' QFE.

Inside the main zone the airfield will have a normal ATZ. They are not specifically classified on charts but should be considered as 'special' class D; You can fly through them UNDER (strict) RADAR CONTROL.

Each MATZ (or 'joined groups' – CMATZ) will have its own LARS: Lower Airspace Radar Service.

24.3.2 MATZ/CMATZ TRANSIT: Permission must be obtained to transit **BOTH the (C)MATZ and the ATZ(s) BEFORE entry.**

Although (ideally/RW) under Radar control, the VFR pilot should assume a service no higher than 'Traffic Service'.

The Transit will use the **airbase QFE** at all heights, from initiation/permission to enter to 'sign-off'.

If transiting a CMATZ the QFE of the LARS unit base will normally be used.

24.4 TRANSITING A MATZ

a	CONNINGSBY APPROACH, G-GATC, REQUEST MATZ AND ATZ PENETRATION	G-GATC CONNINGSBY APPROACH, PASS YOUR MESSAGE	5mins or 15nm BEFORE ENTRY call for permission.
b	G-GATC C172 FROM BIGGIN TO WICKENBY, OVERHEAD SPALDING, 2500' QNH 1010, VFR	GTC MATZ PENetration APPROVED REMAIN OUTSIDE THE ATZ. CROSS MATZ AT 2000' ON CONNINGSBY QFE 1009	INSIDE A MATZ, QFE IS ALWAYS USED.
c	MATZ PENetration APPROVED REMAIN OUTSIDE THE ATZ. CROSS MATZ AT 2000' ON CONNINGSBY QFE 1009, GTC	GTC (CORRECT) REPORT ENTERING AND LEAVING THE MATZ	
d	WILCO, GTC		
e	... GTC ENTERING THE MATZ	GTC ROGER (NOW CLEAR TO CROSS THE ATZ)	UNUSUAL, BUT POSSIBLE.
f	...GTC LEAVING THE MATZ	GTC CONTACT LONDON CONTROL 127.10	
g	CONTACT (RETURN TO) LONDON CONTROL 127.10 GTC (THANKS)	NOTE "CONTACT XYZ..." ; MEANS CALL XYZ, YOUR DETAILS HAVE BEEN PASSED. THEREFORE YOU NEED ONLY 'UPDATE' THE NEW CONTROLLER, WITH CURRENT POSITION AND ANY OTHER CHANGES HE DOES NOT KNOW ABOUT	

If landing at the airbase, this would be included in your 'service request'; **"CONNINGSBY APPROACH, G-GATC, REQUEST MATZ AND ATZ PENETRATION, TO LAND/JOIN"** You would then penetrate, as above (assuming clearance to enter ATZ), be 'set up' for approach and handed to Tower inside the ATZ. **NOTE:** If on VATSIM if you do get service from a military controller, listen carefully, the phraseology/procedures are slightly different, but easy to follow. When on VATSIM, if you have a military controller, ask for a practice **PAR (Precision Approach Radar)**; A Full talk-down, by radar to 600'. Interesting and tests your trust in your AIRCRAFT, the controller and your flying skills, especially with a piece of paper over your outside view!

Well Done, That covers all the most likely RT you will ever need as A VFR pilot on VATSIM. Now, when you download the more advanced, and detailed (reference) documents from CIX or VATSIM, you should find them easier to understand. Also, you should now have the confidence to practice and improve your RT skills.

Good Luck with you P3 Flight Test (when able).

Happy flying. – The CIX way.

Blank page below, for your notes

