# The

# *CIX*

# VFR Club

# BASIC RADIO PROCEDURE

# For

# CIX VFR P2 PILOTS

# A SHORT PRACTICAL COURSE

Version 2.1.        Prepared by                Neville Munro,
October 2018                                    Manager, Cix Air Traffic Services

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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 P1and 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 colu**mn for the pil**ot and the controller dialogue and a column for explanatory notes.

| YOUR TRANSMISSIONS | THE CONTROLLER'S TRANSMISSIONS | NOTES,COMMENTS, QUESTIONS Etc. |
|---|---|---|

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. Above all, make sure, as you progress through the manual that you **UNDERSTAND the procedures** - What is happening, When and Why. Your phraseology will then, with practice become fluent and confident

**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 2

# BASIC RADIO PROCEDURE

# For

# CIX VFR P2 PILOTS

The included exercises/examples in Part 2 are the calls which may be required during your P2 Flight Test, (plus everything in the part1 manual) irrespective of the airport where it takes place.

They **DO NOT** indicate where your Flight Test will take place. Some locations and VRPs are fictitious.

For your Flight 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. 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**". Do not forget, this is **YOUR COURSE**, the team are there to help you to be successful.

<span style="color:red">**NOT TO BE USED FOR REAL WORLD AVIATION**</span>

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# 1. THE BASICS OF VOICE PROCEDURE

## 1.1 GENERAL NOTES AND RULES (repeated because they <u>are</u> important) 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 entered in the text box and transmitted if the return key is pressed.  Recommended keys are Left or Right Control (depending on which hand you need on your Yoke or Joystick).

Prior to the P2 Flight test, 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 <u>NOT directly in front of your mouth.</u> 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 Controller 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.  <u>He will do so, if he can</u>, unless it causes confusion with other traffic, perhaps with a very similar callsign.

<u>**NEVER SHORTEN YOUR CALLSIGN FIRST**</u>. **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.)

During an extended converse with a single A/C, the controller will occasionally use his callsign.
This is a legal requirement for all radio operators.

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### 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; "**Biggin Tower, 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) 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 it's 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.**
On the other hand, WILCO is short for "**I will comply** (with that request/instruction.)".
It <u>CAN BE</u> an appropriate reply to an instruction, **BUT NOT CLEARANCES & certain instructions**. (see list in 2.3 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 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.

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## 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 P2 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. ALWAYS switch to standby BRFORE changing a Squawk code.

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 else'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.
**NEVER ALLOW YOUR TRANSPONDER TO SQUAWK  7500. Basic VATSIM rule.**

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# 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 <u>CLEARANCE OR CLEARED</u>**),

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 ;**

**TYPES OF SERVICE;          ALTIMETER (PRESSURE) SETTINGS;          (TRANSITION LEVELS.).          ALL HOLDS;**

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

<u>**IF YOU do not understand or agree with any clearance or instruction**</u>, **ASK FOR A REPEAT or CLARIFICATION; <u>AT O</u>**NCE.

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 <u>is not a crime</u>.  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; 5 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 level**", "**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.

## 2.6   ALWAYS REMEMBER.

**T**he most important part of aviation radio telephony, is to understand the procedures. What happens next (what do I want to do). What information is needed by whom, from whom. Anticipate, be aware of what/who is happening around you and listen. The phraseology will come with practice. Just make sure that what you say, is short, clear and means what you intended to say.

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## 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, <u>unless the Ground or Tower Controller is VERY busy (or it is local practice)</u> 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.**

### 4.2   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.**

### 4.3   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 (AIRSPACE) WITHOUT AUTHORITY** (Except class E)

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**4. POSITION REPORTS -** If you have, do, or are likely to fly real world, use this version and inform your Flight Instructor.

This is used for initial en route communication and is **one of the few procedures you should try to <u>strictly follow</u>**. It should almost be 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);

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 <u>a page on the website</u> 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** | **C**ALLSIGN AND A/C TYPE | **G-GATC, (is a) C172,** | |
| **E** | **E**N ROUTE | **from/out of Biggin (at 15)** | |
| **P** | **P**OSITION | **O/H Sevenoaks,** | |
| **H** | **H**EADING | **Heading 180** | if inbound to/outbound from a VOR = 005 Radial, MAYFIELD |
| **A** | **A**LTITUDE (& QNH SET) | **Alt. 2300' (on) 1008 QNH** | |
| **C** | **C**ONDITION | **VFR** | |
| **E** | **E**STIMATE (NEXT WAYPOINT) | **(Inbound) Mayfield at 35** | |
| **R** | **R**EQUEST (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.**

**4.3**    NOTE. During your Flight Training, you will be expected to use the Full Format, as above. However, when flying normally, try NOT to tell the controller something he already knows.

**4.4**    A 'controller friendly' flight plan will contain ONLY your main turning points(navaids/airfields/published VRPs), plus any extra bits (following M6) to describe your general route. That will mean your Flight plan is short and easy to read and check that that is what you are doing.

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## 5. VACATING THE RUNWAY.

**If Taxi instructions are not issued <u>BEFORE</u> you vacate the runway; <span style="color:red">VACATE, STOP & <u>WAIT</u> AT/AFTER THE HOLD.</span>**

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

<span style="color:red">**"G-TC vacate at Charlie (and taxi to the GA Apron via taxiway alpha.)"**</span>

<span style="color:green">**"Vacate (at) Charlie (and taxi to (the) GA Apron via alpha, G-TC)"**</span>

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.

<span style="color:green">**"Runway vacated G-TC"**</span>

### 5.2 Another A/C Close Behind

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

<span style="color:red">**"G-TC runway 27, cleared to land, surface wind is calm, land long to vacate Bravo"**</span>

<span style="color:green">**"G-TC runway 27 cleared to land, (landing) long to vacate Bravo"**</span>

<span style="color:red">**"G-GA Continue approach, expect to vacate Delta"**</span>

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 '<span style="color:red">**taxi best safe speed to vacate Bravo**</span>", 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** **I**f 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

**"G-TC Behind the A/C ahead, vacate B, behind"** or **"G-TC 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 vacatedGTC

**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.

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## 5.4   'BASHING THE CIRCUIT' / 'CIRCUITS AND BUMPS' / 'TOUCH AND GOES' (T&GS)

These are all terms used to describe a continuous flight in the circuit. Below are some notes to remember.

### 5.4.1  YOUR DEPARTURE CLEARANCE.

Because you are not departing from the circuit / ATZ, you do not require one. When you report
 "**Ready to depart**" **AT THE RUNWAY HOLD,** You will be given any '**AFTER departure clearance**'
Note that the controller will normally pass your Circuit (after departure) clearance and then your take off clearance separately, unless he knows you can deal with them both at the same time.

### 5.4.2  THE DOWNWIND CALL.

For your first circuit, when you report 'Downwind', the controller will reply
"**Report final, Runway XX, touch and go**".
Once he is happy that you know what you are doing, he will reply (as normal) –especially if busy,
"**Report final runway XX**".

### 5.4.3  BE AWARE of the intended actions of OTHER A/C – ESPECIALLY the one(s) AHEAD of you.

If required, the controller can have a number of A/C 'doing circuits' at the same time, (I am OK with 3-4 A/C at Shoreham, as long as I do not have too many arrivals/departures). In that situation you may have a spacing of 1.5 – 2.5nm downwind, **FINE if the A/C ahead is also T&G**, but if he calls '**To land**' **CHECK YOUR SEPARATION**.
The controller **CANNOT clear you to Touch and Go UNTIL** the landing A/C is **off (or clearing) the runway.**

### 5.4.4  WHEN YOU HAVE HAD ENOUGH.

Once you have started T&Gs, **UNLESS** you requested a **SPECIFIC NUMBER** of circuits, the controller will assume your next final approach is another T&G **UNTIL YOU TELL HIM OTHERWISE**. You should call **to land**, **on your last downwind leg**,

"**GTC, Downwind request/to land/full stop**".

**YOU should ONLY change your mind on final if it is VERY urgent**, see 5.4.3 above.

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### 5.4.5 APPROACHING YOUR DESTINATION, you decide you want to 'bash a few circuits' before you land.

IF THE A/F has a lot of traffic, **CALL EARLY** with your request, gives the controller more time to make room for you.
"**Shoreham Tower G-GATC 12miles inbound from the north request join and circuits**".
If not a problem he will reply,
"**G-GATC, Shoreham tower, continue inbound, expect straight in approach runway 20, report 5 dme SQWK 3763**."
This means **WHEN you report at 5dme** you should be **ON THE CENTRE-LINE, 20**. He may tell you circuits approved or not. If as above, you can assume you will be able to do circuits (or he is leaving his decision until you call in at 5dme, due current traffic).

### 5.4.6 The ZONE (ATZ/CTA/CTR) ENTRY CALL

When you reach 5dme (or **AS ADVISED**), Do not forget, you were asked to "**Report 5dme**", **THAT IS WHAT (and ALL)** you need to do.
"**(Shoreham Tower) 5dme GTC**". (unless your circuits have already 'been approved')
"**GTC Report final 20, Circuits approved**". Great, it's fun time. **BUT.**

### 5.4.7 The AIRBORNE CIRCUIT CLEARANCE.

If your request for circuits was made **WHILST AIRBOURNE** (inbound to land),
**BE AWARE. The controller IS REQUIRED TO PASS YOUR CIRCUIT CLEARANCE AFTER YOU REPORT 'ON FINAL'** –
**SO ALLOW TIME and SPACE for the following** (I would recommend calling final at 3-4nm)
"**GTC Final runway 20, T&G**",
"**GTC After departure, left hand circuits VFR, circuit altitude 1100ft QNH 1015. Runway 20 Clear touch and go**".
An instruction and a clearance, both **MUST be read-back**.
"**Left hand circuits VFR, 1100ft QNH/on 1015, runway 20 clear touch and go, GTC**".
**NOTE** that the readback is not word perfect, **BUT** the essential information is there, (If not, the controller will correct, which will probably mean a 'go-around').


The secret of good circuits is, know what is going on, keep the controller informed, fly the A/C, learn & enjoy.

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# A FLIGHT FROM A to B

## 6. THE DEPARTURE

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

(for departure and destination airports plus En-route)

**6.1.1.** Get a plan of the airfield layout– available from VATSIM/CIX (Links/NATS)

**6.1.2.** Note the circuit direction for each runway and the circuit Altitude.

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

**6.1.4.** 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

**6.1.5.** 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.

**6.1.6**. Plan route/winds/track true/track magnetic/ fuel etc

### 6.2. 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**.

## 6.3. 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.)

**6.3.1** 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.

## 6.4 Automated Terminal Information Service (ATIS)

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

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

| |
|---|
| **(This is) Biggin Arrival & Departure Information** <u>**Hotel**</u> **, Time 1350Z Runway in use** <u>**21 Right Hand**</u> **Circuit, Surface Wind** <u>**200, 11**</u> **knots, Visibility 10 Kilometres or more, Few 3500 feet, Temperature +12, Dewpoint +9, <u>QNH 1009</u>, QFE 989 Hectopascals, IFR expect an instrument approach Runway 21, All aircraft contact Biggin Tower frequency <u>134.80</u>, Acknowledge receipt of information Hotel, on First Contact.** <br><br> **You need to note down the important bits:-  H   21RH   200/11   (12/9)    1009  (0989, If circuits)    134.80** <br> (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. <br> If **ALL RUNWAYS** at the airfield have left hand (standard) circuits, the circuit direction may be omitted |

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## 7. AIR TRAFFIC SERVICES AVAILABLE TO THE VFR PILOT

**7.1.1** **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.

**7.1.2** **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**.

**7.2** **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**.

**7.3** **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) <u>IS SOLELEY YOUR RESPONSIBILITY;</u>**

**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.

NOTE. On VATSIM, entry to controlled airspace may be refused if you have no valid Flight Plan.

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**7.4** **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 routi**ng'; **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.** REMEMBER, even when under a 'radar service',
**IN ANY AIRSPACE, AVOIDANCE OF OTHER TRAFFIC (VFR/IFR) <u>IS SOLELEY YOUR RESPONSIBILITY</u>.**

**7.5** **GENERAL RESTRICTIONS**

**7.5.1** 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.

**7.5.2.** **VFR FLIGHT IN CLASS A AIRSPACE IS <u>NOT ALLOWED</u>;**
**Now, all CTAs/CTRs, that used to be class A, (allowing SVFR flight) is now class D (with prior permission to enter, required)**

**7.6.** **CLASS E Airspace;**
Under the new rules **'FREE FLIGHT' IN CLASS E (CONTROLLED) AIRSPACE IS PERMITTED FOR THE VFR PILOT**, <u>within the following rules</u>.

**7.6.1** **Prior permission** to enter is **NOT** a requirement.
However, you **ARE REQUIRED** to **REPORT ENTRY AND EXIT** of Class E airspace & **remain VMC**.

**7.6.2** **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 instructions, he would only give them to you for a **VERY GOOD REASON**!

**7.6.3** Entry to class E airspace will be **denied to AIRCRAFT NOT squawking** (RW mode S) **mode Charlie**. **A REQUIREMENT OF FLYING ON VATSIM.**

**7.6.4** 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.**

## 8. En ROUTE  TRANSFERING TO/CALLING A NEW CONTROLLER, EN-ROUTE (IN THE AIR)

**8.1. 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 <mark>Position Report or CEPHACER</mark>**

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

**8.3.** "**CONTACT**" MEANS **I HAVE PASSED YOUR DETAILS. ATC Co-ordination has taken place.**

"**FREECALL**" MEANS **I HAVE NOT PASSED YOUR DETAILS. ATC Co-ordination has NOT taken place - although he may know about you.**

"**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, 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, OVERHEAD 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 3763, 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) |

8.4       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 INFOMATION 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. |
| 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 3763, REPORT BEFORE RETURNING TO SHOREHAM | |
| c | G-TC BASIC SERVICE SQUAWK 3733, TO REPORT BEFORE RETURN TO SHOREHAM. | G-TC NEGATIVE, SQUAWK 3763 | |
| d | Squawk 3763 GTC | G-TC, READBACK CORRECT, TRAFFIC INFORMATION, GLIDERS OPERATING FROM WASHINGTON VRP SOUTH TO THE DOWNS. | Having been told, we keep a look out for the traffic, and adjust where we were going, if required. |
| e | G-TC COPY THE TRAFFIC | Having said Basic service, why this information? | If we make a major change, don't forget to tell the controller |

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# 9. ZONE TRANSITS;

**9.1.** If you cannot clear the **TOP** of an ATZ (**by more than 1000'**) or you need to go through controlled airspace,

You will need to (**should – for safety**) do a **ZONE TRANSIT**; The basic rules are:

**9.1.1.** <u>**NEVER ENTER CONTROLLED AIRSPACE UNTIL CLEARED TO DO SO.**</u> **Ensure you make a request call in good time** (why?)

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

**9.1.3.** **REMEMBER TRAFFIC AVOIDANCE IS ULTIMATELY <u>YOUR RESPONSIBILITY</u>,**

**9.2.** 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 <u>NORMALLY</u> TRANSIT OVERHEAD THE RUNWAY(S); (PLAN YOUR ROUTE ACCORDINGLY)**

**9.3.** **LISTEN and LOOK** for other traffic so that you are ready for any avoiding manoeuvres. (you may need approval)

**9.4.** 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**".

**9.5.** **A ZONE TRANSIT THROUGH EGLC LONDON CITY, FROM NORTH TO SOUTH.** You are **NOT** with any controller, you **freecall**.

**9.5.1.** **If you where 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 5-8 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 AT 2000FT ON THE QNH 1008.** | Your 'entry reporting point. If with another controller, he would now be talking to CITY_TWR to confirm your clearance |
| c | **REPORT M11 JUNCTION, 2000' QNH 1008GTC** | | |

| | | | |
|---|---|---|---|
| d | ... (CITY TOWER) M11 JUNCTION, GTC | GTC (IS) CLEARED TO ENTER THE/CITY ZONE VIA M11 JUNCTION AT/NOT ABOVE/BELOW (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. +/- 200ft |
| 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 CONTOLLER 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. | |

**9.5.2** If you had been with Thames or LONDON and requested / confirmed a transit with them, they would have co-ordinated with City and may have given you your clearance to enter, "report runway in sight, 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 agree with City and give you your transit altitude/height. Maintain it!

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## 10.     ZONE ENTRIES;

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

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

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

**10.1.3.**     REMEMBER TRAFFIC AVOIDANCE IS ULTIMATELY YOUR RESPONSIBILITY, **even WHEN UNDER 'RADAR' CONTROL**

**10.2.**     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**.

**10.2.1.**     **LISTEN and LOOK** for other traffic so that you are ready for any avoiding manoeuvres.
Make sure you have filed a valid Flight Plan including your destination. Try to have everything you can set-up, (frequencies ready).

## 10.3     Let us look at a flight into Stansted EGSS.

**10.3.1**     As you cross the Thames, South to North, you could be with no-one, a **LON**don_**C**on**T**rolle**R** or **Thames Radar**; The approach to Stansted, 'top down' will be covered by a **LON_XX_CTR or Essex radar/Stansted approach**, if on. You will need to talk / be transferred to them at least 15-20 miles from Stansted ZONE. (If under Thames, they will give you a reporting point at that sort of distance, to hand you over.)

**10.3.2**     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 |
|---|---|---|---|
| b | REPORT BILLERICEY VRP, GTC | | POINT FROM THAMES |

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

| | | | |
|---|---|---|---|
| c | STANSTED 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 STANSTED APP. Gives you time to listen. |
| g | REPORT CHELMSFORD VRP NOT ABOVE 2000' QNH 1010, SQUAWK 7087, GTC | READBACK CORRECT, CALL STANSTED APPROACH ON 120.62 | |
| h | STANSTED APPROACH ON 120.62 GTC | | |
| i | ... STANSTED APPROACH, G-GATC, CHELMSFORD VRP, 2000' (FOR) ZONE ENTRY FOR JOIN | G-GATC STANSTED APPROACH, ROGER, (YOU ARE) CLEAR TO ENTER THE/STANSTED ZONE, REPORT GREAT DUNMOW AT 1500' QFE 999 Hectopascals | NB YOUR SERVICE REQUEST/POSITION REPORT DOES CONTAIN ALL INFORMATION; YOU DON'T KNOW YOUR NEXT VRP YET. |
| j | CLEAR TO ENTER THE/STANSTED ZONE, REPORT GREAT DUNMOW AT 1500' QFE, 999 Hectopascals, G-GATC | (G-TC, correct)<br><br>BE READY! You may have to give way/orbit for IFR traffic | |
| k | ...(APPROACH) G-GATC, GREAT DUNMOW | GTC REPORT LEFT BASE FOR RUNWAY 23 | |
| l | REPORT LEFT BASE RUNWAY 23 GTC | GTC CONTACT TOWER ON 123.8. | |
| m | TOWER ON 123.8 GTC | That will be 2-2.5nm from the runway c/l (The ATZ width) | THERE IS UNLIKELY TO BE CO-ORDINATION BETWEEN APP. & TWR. AS TWR WILL HAVE AN 'INBOUND LIST' & AGREED PROCEDURES (known as 'silent coordination') |
| n | .. STANSTED TOWER G-GATC, LEFT BASE (TO LAND) | G-GATC , STANSTED TOWER, REPORT FINAL RUNWAY 23, No 1 TO LAND | |
| o | REPORT FINAL TO LAND RUNWAY 23, G-GATC | | |
| p | G-GATC RUNWAY 23 FINAL (TO LAND) | GTC RUNWAY 23 CLEAR TO LAND SURFACE WIND IS CALM | |
| q | RUNWAY 23 CLEAR TO LAND GTC | ... GTC VACATE RIGHT WHEN ABLE, REPORT VACATED | |
| r | VACATE RIGHT AND REPORT 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/Move to THE MAIN TAXIWAY UNTIL INSTRUCTED TO DO SO – Taxi-to-parking. | |
| s | ... GTC VACATED (THE ACTIVE) | | |

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## 11. THE 'GO-AROUND':- Just in case you are getting rusty.

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

**11.1.2.** 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**).

**11.2** 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 (for all A/C) is 600' AGL.** (QFE)

**11.3.** **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!)**

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

**11.3.2.** **MOVE TO THE SIDE OF THE RUNWAY**. Unless instructed, the choice is yours. Runway on your LEFT will give you a clear view.
  **Why move to the 'circuit side' of the runway? -** Two reasons.

**11.3.3.** If on the **LIVE SIDE** of the CIRCUIT and 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**);

**11.3.4.** Under some circumstances you may be instructed **to make an IMMEDIATE TURN into/return to the circuit. DO SO. - The problem is close behind you!** Then perform a normal circuit to land/T&G. If **you want to do either**, **you MUST get approval FIRST**.

**11.4.** **IF YOU ARE ON THE DEAD SIDE, DO NOT turn crosswind UNTIL YOU ARE AT CIRCUIT HEIGHT** and your normal crosswind turn (2-2.5nm)
  **REMEMBER, turning into the circuit YOU MUST NOT CROSS THE RUNWAY CENTRE LINE close to the runway or below circuit height..**
  **UNLESS INSTRUCTED. Even then, check, BE SAFE, If the problem is/might depart/missed approach, call to extend upwind** for vertical separation. YOU ARE responsible for your safety, be safe BUT TELL/REQUEST what you intend, to the controller.

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

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

## 11.5    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 | | |

## 11.6   OR IF YOU INITIATE IT

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

## 11.7   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 (approved), (REPORT DOWNWIND) | THESE ARE BOTH INSTRUCTIONS/CLEARENCES, READ BACK. |
|---|---|---|---|
| f | WILCO/EARLY TURN, (REPORT DOWNWIND) GTC | Wilco should only be used if there is a lot of traffic/big problem | 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) |
| 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) | 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. |
| j | (IMMEDIATE/EARLY) TURN APPROVED GTC | | |

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## 12.  EMERGENCIES (ON VATSIM)

**12.1**  If you have a (Flying) **EMERGENCY ON VATSIM** and you declare it, if his airspace is busy, **the controller MAY (politely) ask you to disconnect or Cancel your emergency**. Likewise, if you request a practice.
**HIS DECISION, please do it**. **If he can, he will enable you to continue.**
**If you request a practice emergency (**'Pan'/'Mayday' or EFATO)**, again HIS DECISION**

**12.2**  **IT IS STRICLY AGAINST VATSIM RULES TO DECLARE OR ATTEMPT TO SIMULATE A HIJACK ON VATSIM**

## 13.  WHAT EMERGENCIES

**13.1**  **For your P2 you do need to be prepared to fly a 'problem situation'**. (which should **NOT** amount to an emergency- **if you see it in time!**)

**13.1.2**  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, immediate actions** required.

**13.1.3.**  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.**

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

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

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

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

**13.2.4**  **NATURE OF EMERGENCY**; **BRIEF BUT CONCISE AND CLEAR**

**13.2.5**  **PILOTS INTENTIONS**;    EITHER **WHAT YOU ARE GOING to/need to DO** (FORCED LANDING)
                      OR **WHAT YOU INTEND TO DO** (REQUEST IMMEDIATE/EMERGENCY/PRIORITY) (DOWNWIND) LANDING

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

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

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

## 13.3    We are en-route to Cambridge from Shoreham, Passing Sevenoaks, a passenger needs URGENT medical attention

| | | |
|---|---|---|
| a | THAMES RADAR, GTC, PASSENGER UNWELL, REQUEST PRIOITY 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 |
| c | FOLLOW M25 NORTH, TURN LEFT AT NEXT JUNCTION. BIGGIN VOR 115.10 GTC | Thames would take this to mean unwell but no danger of death |
| d | THAMES WOULD CONTACT BIGGIN (IF ON) AND WOULD PASS DETAILS AND REQUEST A PRIORITY APPROACH AND LANDING, **NOT NECCASSARILY** ON THE ACTIVE RUNWAY. The controller, unless asked, in this scenario would probably ask if an Ambulance/Doctor was required on arrival. | |
| e | **If the controller decided it was an EMERGENCY, you would SQWK 7700** | GTC, HAS A PRIORITY STRAIGHT IN JOIN, RUNWAY 21, QFE 1014 |
| f | STRAIGHT IN PRIORITY JOIN AT BIGGIN, RUNWAY 21, 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 BIGIN 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 "

　　　　"GTC. NEGATIVE, MAKE YOUR HEADING 360 FOR 2MILES, THEN 270, RESUMING DOWNWIND, NUMBER 3, REPORT DOWNWIND."

**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.

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**For your notes**

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**EXTRA BITS AND PIECES FOR VATSIM PILOTS**.

It is suggested you download and use 'CIRCUITS at EGLC'. Circuits are one of the best ways to practice Control of your Aircraft AND knowing what is going on around you AND radio procedure.

a)      **LOW VISIBILITY OPERATIONS (VFR)**

If the Airport Visual Range is below the VFR minima for that Airport, the VFR pilot MUST adhere to the Low Visibility Rules for that Airport. EVEN IF YOU ARE set up to fly CAVOK.

LONDON CITY EGLC;

Visibility <5,000m &/or ceiling<1500' AGL; VFR go SVFR/IFR (VFR AIRCRAFT in the air)

Visibility <5,000m, no further **VFR CLEARANCES ISSUED**; other than helicopters.(SVFR or IFR only)

Visibility <1,900m or ceiling 500'or less, **NO FIXED WING SVFR** operations within the zone (IFR only)

Visibility <1,500m, no further **HELICOPTER** operations within city zone.

Visibility 1,100m or less or ceiling 500' or less. Air Traffic Control Low Visibility Procedures in force (ALL IFR operations)

These minima/rules may not be the same everywhere, differences will be due to local conditions/environment/operations.

Whether or not the controller exercises these rules on VATSIM will probably depend on his/hers knowledge/confidence.

Please keep an eye on the 'Pilots Help Notes' available. As of this date; Helpnotes

1:-AFISO procedures for pilots; Helpnotes 2:-The OVERHEAD JOIN.

In hand; The METAR explained; EGKR Redhill operations;

Using Radio Navigation Aids; What the VATSIM Controller sees.