VATNZ Pilot Talk Guide

1342 - 720

Flying in the Virtual New Zealand FIR - from the basics of VFR, all the way to flying your first IFR flight.

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Version: 1.4 Effective: 09 Nov 2022 Authority: Operations Director

Scope

This document aims to provides all pilots with the most up-to-date information about procedures while flying in New Zealand. New pilots can pick up this document, learn it, and carry out a successful flight within the VATNZ FIR.

The content contained will be friendly for new pilots, equally serving as a 'refresher course' for more experienced pilots

<u>The content contained in this guide is for flight simulation use only, and should not be</u> <u>used for real world flight training.</u>

Changes

Any members wishing to submit changes or feedback can email the Operations Director at <u>operations@vatnz.net</u> or use the <u>VATNZ Feedback</u> <u>System</u>.

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2. Document Control

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3. Phonetic Alphabet

The Phonetic Alphabet is the standard language used across aviation, this is used so that letters and words do not get mixed up during a transmission, as this could cause an accident. You can see how to pronounce each letter on the chart below.

(A)	(B)	(C)	(D)	(E)	(F)
Alpha	Bravo	Charlie	Delta	Echo	Foxtrot
"AL fah"	"BRAH voh"	"CHAR lee"	"DELL tah"	"ECK oh"	"FOKS trot"
(G)	(H)	(1)	(J)	(K)	(L)
Golf	Hotel	India	Juliet	Kilo	Lima
"GOLF"	"ho TELL"	"IN dee ah"	<i>"JEW lee ETT"</i>	"KEY loh"	"LEE mah"
(M)	(N)	(0)	(P)	(Q)	(R)
Mike	November	Oscar	Рара	Quebec	Romeo
"MIKE"	"no VEM ber"	"OSS cah"	"pah PAH"	"keh BECK"	"ROW me oh"
(S)	(T)	(U)	(V)	(W)	(X)
Sierra	Tango	Uniform	Victor	Whiskey	X-Ray
"see AIR rah"	"TANG go"	"OO nee form"	"VIK tah"	"WISS key"	"ECKS ray"
(Y)	(Z)				
Yankee	Zulu				
"YANG key	"ZOO loo"				

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4. Squawk Codes

Aircraft in New Zealand airspace get assigned different squawk codes based on their aircraft type.

02xx	International IFR
0300-0377	Controlled VFR
1200	VFR – Fixed Wing
1400	VFR – Aircraft in GA Areas
1500	VFR - Helicopters
2200	VFR Circuit Traffic
3000-3777	Controlled VFR
5000-5777	Domestic - IFR
6000	Military Aircraft
6500	Military Helicopters

5. Obligations & Responsibilities

This document is designed for all pilots, of all skill levels and serves as your go to document when flying within VATNZ airspace. As a pilot on the VATSIM network you have a few obligations and responsibilities.

- To comply with all instructions given by ATC.
- Say when you are **UNABLE** to comply with ATC instructions.
- Keep a look out for traffic and threats at all times.
- Operate as per your flight rules, VFR must remain VMC at all times.
- Operate under and within the VATSIM Code of Conduct

6. Getting Started on VATSIM

This guide is more focused on flying in VATNZ airspace, please familiarise yourself with VATSIM itself before reading this guide as operating procedures vary around the world. Only New Zealand specific procedures are included in this guide.

For a step-by-step guide on VATSIM you can visit their website: <u>VATSIM Pilot</u> <u>Basics</u>

Instrument Flight Rules (IFR)

This section contains all you need to know about flying IFR in the Virtual New Zealand FIR.

7. Instrument Flight Rules within the VATNZ FIR

Most people who fly in VATNZ airspace will be flying IFR. Due to the unique nature of our airports, it is imperative that pilots have a good understanding of IFR flying in New Zealand. This section will walk you through an IFR flight from Auckland (NZAA) to Queenstown (NZQN), one of the most popular routes to fly in New Zealand.

7.1 Standard Routes

Standard Routes are used to help separate domestic IFR aircraft in New Zealand. They are designed by Airways and the CAA, and are published in the <u>New Zealand AIP</u> as well as on our in-house <u>Standard Route Tool</u>. Most airports in New Zealand will have published standard routes going to other airports which are regularly flown to by airlines or flight schools, Auckland has two standard routes to Queenstown.

 QN
 AAQN2
 Y320

 QN
 AAQN4
 Y320 LAKAR Y628 UPNIX Y266

Reference: NZAA Standard Routes 61.1 Found at aip.net.nz © Civil Aviation Authority New Zealand

For our flight today we will use the AAQN2, which is known telephonically as "Queenstown Two"

To use a standard route, simply enter the waypoint and airways information into your aircrafts FMC and copy and paste the route from either the AIP or VATNZs Standard Route Tool into your VATSIM flight plan.

Simbrief will often automatically issue standard routes as they are commonly used by Simbrief users, this can vary so make sure the route you are flying is appropriate for where you are flying.

7.2 Requesting IFR Clearance

An IFR clearance must be issued if ATC is online. This can be obtained from any Air Traffic Controller online that has jurisdiction of your current area. If there are multiple controllers connected, an IFR clearance will usually be obtained from the *lowest* controller.

Example: If both NZAA_CTR and NZAA_TWR are online, NZAA_TWR issues the clearance.

An IFR clearance is made up of multiple elements, in New Zealand an IFR clearance contains the following:

- Clearance Limit (i.e. where you are cleared to)
- Routing instructions (the waypoints or route you will take)
- Cleared altitude*
- Departure instructions
- Squawk code

*If the SID terminates at the Oceanic boundary, you will only be initially cleared to FL250

Using our Auckland to Queenstown route from earlier, here is an example of a conversation between a controller and a pilot.

"Auckland Delivery, New Zealand 621"

"New Zealand 621, Auckland Delivery, go ahead"

"New Zealand 621, Information Alpha 1013, request IFR / airways clearance to Queenstown"

(airways clearance is another word for IFR clearance and indicates that the pilot has planned routing on a published airways standard route.)

"New Zealand 621, Cleared Queenstown Two (Standard Route AAQN2), flight level 360, LEVRA1P departure, KAPAI transition, Squawk 5034"

"Cleared Queenstown Two, FL360, LEVRA1P departure, KAPAI transition, Squawk 5034. New Zealand 621"

As you may notice, there are no initial climb instructions issued with the clearance. That is because any climb restrictions are contained within the SID. The same goes for the departure frequency, as that is also published on the SID. That is why it is imperative that all pilots read and familiarise themselves with the SIDs and relevant charts.



Please note the above clearance example is the most used clearance within the Virtual New Zealand FIR, variations to this can be found later in this guide.

7.3 Pushback and Start-up Clearance

Once you have received your IFR clearance, and you are ready, you will request push and start (or just a start clearance depending on your aircraft type). On some occasions, if you have an Approach or Enroute controller covering the airport you are flying out of they may provide you with the following clearance:

"New Zealand 621, readback correct, push and start your discretion call ready for taxi".

This means that the controller wants you to push back when you are ready to and then for taxi call them. A standard push-back clearance will usually contain the clearance and the current time (the time is given to ensure that the time in the sim/aircraft is correct, this is also done in the real world). For example:

"New Zealand 621, push and start approved, time now 30"

The controller will only give you the time in minutes (A readback of the time is not required). A push back clearance with specific instructions can be given due to other aircraft operating around and the controller needs to shuffle aircraft around so everyone can move around. An example pushing back from gate 30 at Auckland since it is right in the middle of a taxiway:

"New Zealand 621, push and start approved, time now 30, face west clear of Bravo 5".



Reference: NZAA Ground Movements Found at aip.net.nz © Civil Aviation Authority New Zealand

7.4 Taxi & Takeoff Clearances

When requesting taxi, the controller will issue instructions, starting with which holding point and what runway you will be going to, following with the taxiways which you need to take to get there. Here are a few examples.

"New Zealand 621 request taxi"

"New Zealand 621, taxi holding point alpha 2 (A2), Runway 23 Left via bravo 5 and alpha"

In New Zealand when you are approaching the holding point you should report ready to the controller. If it is a ground controller they will then tell you to contact the tower, and then you will report ready to the tower controller, an example;

"Auckland Tower, New Zealand 621 approaching Alpha 2 ready"

There are a few different responses that the controller can come back to you with including:

"New Zealand 621, Auckland Tower, hold A2"

"New Zealand 621, Auckland Tower, line up runway 23 left"

"New Zealand 621, Auckland Tower, behind the Airbus short finals runway 23 left line up behind"

"New Zealand 621, Auckland Tower, runway 23 left cleared for takeoff".

7.5 Climbing Clearances & Instructions

In New Zealand, departing any controlled airport, unless specifically stated by the controller, you will either switch to the enroute or approach controller's frequency unless already on the appropriate frequency. Pilots are required to report airborne before passing 1500 feet, although it is normally published on the charts for each SID. As you become airborne when most practical for the pilot, they should advise the appropriate controller that they are airborne. In New Zealand this includes, your current altitude passing and your altitude climbing to. If you have been assigned a heading on departure you must include this in your departure call. For example:

"Auckland Approach g'day New Zealand 621 passing 1,100 feet climbing FL340"

"New Zealand 621, Auckland Approach, identified"

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"New Zealand 621, Auckland Approach identified, cancel SID turn left track direct KARRL climbing FL340".

In New Zealand controllers use "**climbing**" to acknowledge/verify the altitude you are climbing to and a read back of this is **NOT** required (this is used by both approach and area controllers), where-as "**climb**" is an instruction and must be readback/acknowledged. Once clear of the approach controller's airspace they will instruct you to contact the enroute controller (if online).

7.6 Enroute & Descent Clearances

After a while you will be transferred from an approach controller to an enroute controller, assuming one is online. Contacting an enroute controller, as you would for an approach controller, you will need to advise them of your level that you are climbing to.

"Auckland Control, New Zealand 621 climbing flight level 360"

"New Zealand 621, Auckland Control g'day climbing FL360"

Arrival Clearances (STARs) are issued by enroute controllers and vary depending on where they are flying to/from. Here's an example:

"New Zealand 621, Cleared UBDAM4B arrival runway 23"

"Cleared UBDAM4B arrival runway 23, New Zealand 621"

Both the arrival procedure and arrival runway are stated in this clearance, you will need to reference the NZ AIP or your chart source to check the requirements of the STAR. If you are unable, you must notify the controller.

With descents, in New Zealand they are normally issued as "when ready" so therefore this means that when you reach your top of descent you start descending, and not before then. For example:

"New Zealand 621, when ready descend (to) 11,000ft, Queenstown information delta QNH 1015"

"When ready descend (to) 11,000ft, delta 1015, New Zealand 621".

Pilots must acknowledge the ATIS information and QNH when it is given to them. If there is no ATIS at an Airport, then only the QNH will be issued. When approaching 11,000ft, and an approach controller is online, the enroute controller will hand you back to the approach controller. For Example:

"New Zealand 621, contact Queenstown approach, One Two Five Decimal Seven Five Zero (125.750)"

In response you would say:

"Contact Queenstown approach on 125.750 New Zealand 621"

7.7 Approach Clearances

On first contact with the approach controller, you must advise the level you are descending to, as well as the ATIS information and QNH. For example:

"Queenstown Approach g'day New Zealand 621 descending 11,000ft, delta 1015"

There are a few ways controllers can respond including:

"New Zealand 621, Queenstown Approach, descend via STAR to 10,000ft"

Or

"New Zealand 621, Queenstown Approach g'day, descend 10,000ft track direct DOVOT"

7.8 Separation

Within New Zealand airspace, controllers use many different methods of separation methods, that may be slowing an aircraft down, speeding them up or giving them extra track miles, or "vectors"

When IFR it is the responsibility of the controller to separate traffic, therefore it is important that you listen to instructions when given, making sure not to deviate from them unless asked or if you feel your aircraft is in danger.

Controllers also have the option to "hold" an aircraft at waypoints or present positions (if it is not a published hold, a clearance will look something like this).

"New Zealand 621, enter the hold at DOVOT (altitude) left hand turns, 1 minute legs, expect further clearance at time XX"

OR (if it is a published hold)

"New Zealand 621 enter the published hold at UBDAM maintain FL180, expect further clearance at time XX"

7.9 Area QNH Zones



 $\label{eq:constraint} \mbox{Reference: } \underline{\mbox{CAA GAP Booklet}} \mbox{Found at aviation.govt.nz } \textcircled{O} \mbox{\it Civil Aviation Authority New Zealand}$

In New Zealand there are 11 QNH Zones, these zones separate the country into different areas where there are different QNH levels so that aircraft have the same reading within that defined area. The QNH in a specific zone where a pilot is will be supplied to pilots where no airfield ATIS is available and is based off an airfield in that defined area. The area QNH can be also requested by any pilot from the appropriate controller at any time.

"Ohakea Control, Foxtrot Mike Lima request Manawatu area QNH"

"Foxtrot Mike Lima, Manawatu area QNH 1025"

"QNH 1025 thanks Foxtrot Mike Lima"

7.10 Extended Services

In New Zealand, due to our relatively low traffic levels, it is quite common for a single controller to extend their coverage across the entire country. With extended services, Enroute Controllers provide a top-down service to all of the controlled airspace within New Zealand. If they're offering this service, they'll annotate this in their controller information.

For example, if you are on the ground at Queenstown (NZQN), and you see that NZCH-T_CTR is online and no other sector, look at their controller information. It'll give you the allocated frequency for your area, which is 129.3. If you're unsure whether this frequency is right or not, just ask for a radio check!

This image below shows a diagram of the different Enroute Sectors within New Zealand that a controller can log on to.



Airspace Map



7.11 Uncontrolled Airspace Procedures (CFZ/MBZ)

All airspace in New Zealand which is not otherwise assigned a classification is considered to be Class G or uncontrolled airspace. You do not require a clearance to operate at uncontrolled aerodromes or within uncontrolled airspace. As there is no air traffic controller, it is the pilot's responsibility to safely separate themselves from other aircraft and as such you should make regular radio calls on the UNICOM frequency (122.800MHz).

IFR aircraft departing from an uncontrolled aerodrome, must file a flight plan and request IFR clearance from either an approach or enroute controller if they are online. The air traffic controller will then issue the IFR clearance. Please note that an IFR clearance does not automatically grant clearance into controlled airspace.

Aircraft must not enter controlled airspace until you receive a valid entry clearance from the controller. See the example below;

* "Auckland Control, New Zealand 217 Lima"

"New Zealand 217 Lima, Auckland Control"

"New Zealand 217 Lima on the ground Whangarei. Request IFR clearance to Auckland, 11,000ft, estimated time of departure 0330 zulu"

"New Zealand 217 Lima, Cleared Auckland 2, 11,000ft, squawk 5256"

"Cleared Auckland 2, 11,000ft, squawk 5256, New Zealand 217 Lima"

"New Zealand 217 Lima, clearance not valid. Report on the taxi for clearance validation"

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Wilco, New Zealand 217 Lima"

"Auckland Control, New Zealand 217 Lima on the taxi"

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"New Zealand 217 Lima, IFR clearance valid time 30, enter controlled airspace climbing 11,000ft report passing 6000ft"

"Clearance valid time 30, enter controlled airspace climbing 11,000, report passing 6000ft New Zealand 217 Lima"

ANZ217L would then monitor and make radio calls on UNICOM for their taxi, take off and departure. Once they are getting close to 6000ft, they would switch back to the controller's frequency, which in this case is Auckland Control on 123.9.

"Auckland Control, New Zealand 217 Lima is airborne passing 6000ft"

"New Zealand 217 Lima, identified. Climb (to) 11,000ft"

Visual Flight Rules (VFR)

VFR is popular in New Zealand Airspace due to the unique surroundings - your guide to flying VFR in the Virtual New Zealand FIR



8. VFR Procedures (Visual Flight Rules)

The majority of Light Aircraft in New Zealand airspace fly under Visual Flight Rules, NZ VFR procedures are very different to everywhere else in the world, therefore this guide will not cover how to fly your airplane VFR but instead will cover the unique radio operation procedures and compliance with the controllers regarding their instructions.

In New Zealand VFR aircraft can navigate Via:

- Pre-planned headings
- Visual Reporting Points
- Landmarks

Some of these cues can include landmarks like Mt Cook, Auckland City or other destinations that you are familiar with. In the real-world pilots usually navigate via a list of visual reporting points or VRPs, these are standard and updated by airways which keep controllers and pilots on the same page.

See an example below for the visual reporting points in and around Auckland, having good geographical knowledge of New Zealand will help you with VFR flying.



8.1 Flight Plans

In New Zealand airspace it is a requirement to file a flight plan no matter what type of aircraft you are flying, IFR or VFR.

Some resources that will help with making VFR flying in New Zealand a bit easier include charts which can be found on the <u>VATNZ Website</u> and the <u>AIP NZ</u>

VFR Flight Plans should consist of the following information:

 The Aircraft's full registration 	"ZKJRA"
Aircraft Type	"C172"
 Intended Route 	"NZWV-NZGA"

This should include any intermediate tracking points and any aerodromes you intend to stop at, this can be formatted like this WV-WK-GA.

You should also include any relevant safety or operational info in the remarks section

•	POB	"4"
•	SARTIME	"2100z"

8.2 VFR Introduction

So now that you know how the New Zealand system works let's put that knowledge into use on the network with some examples of what you can expect once you are ready to go flying!

When you initially log on the network you will be greeted with the usual screen prompting you to enter a callsign and aircraft, you should enter the whole registration of the aircraft e.g. "*ZKTAC*". Even though you might log on with the whole registration of the aircraft you should only say the last three letters of the registration over the radio e.g. "*Tango Alpha Charlie*".

The callsign is abbreviated as the prefix of the registration is never said over radios, it is important to reinforce that you should be pronouncing all the letters as they appear in the phonetic alphabet which can be found on <u>page 4</u>.

Now you are logged on the network you are probably ready to contact the controller, let's start off simple with some circuits at Tauranga (NZTG).

For Circuits it is very important to check the aerodrome charts before you go flying, this chart is from Tauranga, and it shows us all the aerodrome information we need to know such as:

- Runway Identifiers
- Airport Layout
- Circuit Direction and Height.
- Obstacles and Safety Information.
- List of Services Available

"Jet A-1 Fuel, Fire Service"



Reference: NZTG 51.1-51.2 Found at aip.net.nz © Civil Aviation Authority New Zealand

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Now that you are familiar with Tauranga let's go over an example clearance with Tauranga Tower.

Just like IFR you need to use your positive communication techniques to pre alert the controller:

** "Tauranga Tower, Tango Alpha Charlie"

Just like IFR the controller will respond.

"Tango Alpha Charlie Tauranga Tower go ahead"

"Tango Alpha Charlie outside the aero club type C152 with 2 POB request clearance to remain in the circuit, in receipt of (ATIS) information alpha 1013"

Tango Alpha Charlie cleared to operate in the Grass 25 circuit, Taxi to holding point Foxtrot"

* "Remain in the circuit, taxi to holding point Foxtrot, Tango Alpha Charlie"

Taxi to holding point

- "Tango Alpha Charlie ready at Foxtrot"
- "Tango Alpha Charlie Grass 25 Cleared for takeoff"
- "Grass 25 cleared for takeoff, Tango Alpha Charlie"

Takeoff

Now you are flying, you will fly the circuit legs like normal and your next interaction with the controller will be in the downwind leg where you will report your intentions, common options for a circuit are either a "Touch and Go" or a "full stop"

"Tango Alpha Charlie is downwind Grass 25, request a touch and go"

"Tango Alpha Charlie Grass 25 cleared touch and go"

*Cleared touch and go Grass 25, Tango Alpha Charlie"

completes touch and go and reports down-wind

* "Tango Alpha Charlie is downwind Grass 25, request full stop"

"Tango Alpha Charlie Grass 25 cleared to land"

completes landing and returns to base

Important things to note include making sure you have the aerodrome ATIS (if available) if an ATIS cannot be obtained make sure you at least have the local weather for the area you are flying in or simply ask the controller for the <u>Area QNH</u>

One of new words that is included in the examples is P.O.B, This stands for persons on board and is there for a safety barrier if something was to go wrong while you were flying such as a medical event, if something was to happen the search and rescue crew will know how many survivors to look for, you are required to notify the first controller you talk to of your POB, this will be passed along as you talk to each controller and you do not need to mention it to every controller.

This example was for an aircraft doing a "touch and go" but many other options are available such as glide approach, low approach and overshoot & full stop, the pilot usually has control over what approach they will be conducting, however if the controller cannot accommodate your request for whatever reason they may give you another option.

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Flying circuits at an uncontrolled aerodrome is much like flying at a controlled aerodrome except instead of requesting a procedure you state what you are doing and how long you will be operating for, so that other aircraft in the area can hear your intentions.

For example, if you were at Fielding and doing circuits in PML you would say something like this:

"Fielding Traffic PML is a Cessna 152 over at the aeroclub, taxiing to operate in circuit for approximately 15 minutes.

"Fielding Traffic PML is backtracking runway 28"

Ready on the runway

"Fielding Traffic PML rolling sealed 28, remaining in the right hand circuit, 1100 feet"

That is the basics of VFR circuit flying, in the next session we will cover VFR navigation so that you can know how to navigate the country visually.

8.3 VFR Navigation

After you have departed you should make a position every so often to broadcast your position to other aircraft in the area, these should be made every 10-15 minutes as you progress along your intended route. A good format to use for position reports is *P.A.I.D.*

P Position	"5 North of Matakana Island"
A Altitude	"5500 Feet"
I Intentions	"On Track"
D Destination	"Waihi Beach"

This format gives all other aircraft the information they need to know where you are and what you are doing while in uncontrolled airspace, use this format for all of your position reports when talking to a controller or on unicom.

8.4 Departing and Arriving at an aerodrome while VFR

Much like IFR, VFR aircraft depart from different aerodromes all over the country, usually the aerodrome you are departing from will be controlled and covered by a controller. There are multiple procedures used to clear aircraft in or out of a Control Zone. The controller will issue you with one of the following instructions.

- AIP Published Procedure *"34 City Departure"*
- Plain Language Instructions
 "Leave the Control Zone to the South 1500ft or Below"

- Via A Control Zone Sector
 "Leave the Zone via the North Sector 2500ft or below"
- Direct to your Destination
 "Leave Direct to Hamilton 4500 ft VFR"

On the right is a picture of a control zone It is something you will need to become familiar with if you are to fly VFR in New Zealand.



Reference: <u>Wellington - VFR Departures</u> Found at aip.net.nz © *Civil Aviation Authority New Zealand*

As you can appreciate things can get very busy in an airspace as complex as this, so it remains of high importance that you use positive and correct radio techniques and use the radio as little as possible.

So, what do one of these clearances look like?

<u>*" Remember, Phraseology such as "Go ahead" and "G'Day" might be in place of more formal phraseology or</u> <u>omitted entirely. Assume this means the controller is ready to receive your message.</u>

"Wellington Tower, EKE"

"EKE Wellington Tower, go ahead"

"EKE outside the aero club with information oscar 1013, request a runway 34 city departure on track Paraparaumu , 4 POB"

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"EKE Roger, Information O 1013 confirmed. Cleared Runway 34 City Departure, Taxi Holding Point M5"

"Cleared a Runway 34 City Departure. Taxi to M5. EKE"

Taxi's to holding point

"EKE ready at M5"

"EKE Runway 34 cleared for take-off"

On leaving the zone

"EKE is clear of the zone on track Paraparaumu"

"EKE"

When you depart an uncontrolled aerodrome, operations are similar except you are advising other traffic on your movements so that they are aware of where you are.

You should provide the following information in your initial call:

- Callsign
- Aircraft Type
- POB
- Location on the Aerodrome
- Intentions and Destination.

For example, the sequence for an aircraft departing Paraparaumu (NZPP) would look like this:

* "Paraparam Traffic, KAL is a Cessna 172 with 4 POB at the aero club shortly to taxi to depart to Wellington tracking via the coast at 4500ft"

Taxi's to holding point

"Paraparam Traffic KAL entering backtrack line up runway 34 via taxiway C"

* "Paraparam Traffic KAL taking off Runway 34 tracking via the coast south to Wellington climbing to 4500ft"

If you require a frequency change to talk to an ATS unit or controller you must let local traffic know you are switching.

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"Paraparam Traffic KAL on climb to 4500ft via the coast. Switching to Wellington approach 119.3"

After you have departed your departure aerodrome it probably won't be long until you need to transit a control zone or stop over somewhere for a fuel stop. Just like departures you will be assigned some sort of instructions to join at the aerodrome;

"Wellington Tower G'day TAI, alpha 1013."

"TAI Wellington Tower, G'day, alpha 1013 Confirmed."

"TAI is 3 seawards of Sinclair Head at 1500ft. Request a 34 Owhiro Arrival. 4 POB."

TAI Cleared a 34 Owhiro Arrival, report again at Island Bay for joining"

"Cleared a 34 Owhiro Arrival, report at Island Bay, TAI"

Continues to Island Bay

"TAI overhead Island Bay"

- "TAI join right base runway 34, 1500ft or below"
- "Join Right Base Runway 34 1500ft or below. TAI"

8.5 The Standard Overhead Join

The same goes for uncontrolled aerodromes, however as you can probably guess we are advising aircraft of our intentions rather than requesting instructions from a controller. Joining at an uncontrolled aerodrome is a little bit different as there are usually no published procedures for the airport and there no controller to designate the active runway, pilots in training learn a procedure called the "standard overhead join" which is a standard procedure used to join at uncontrolled or unfamiliar aerodromes.

The standard overhead join (SOHJ) consists of a few legs where the pilot must fly over the airfield to assess the conditions and decide which runway to land on. It is important that joining aircraft join at 500 feet above the circuit height of the aerodrome to avoid conflict with traffic operating locally, for example aircraft joining at Waihi, which has a circuit altitude of 1500ft should approach and join Waihi at 2000ft initially.



Reference: Standard Overhead Join Found at aviation.net.nz © Civil Aviation Authority New Zealand

An aircraft who is conducting a standard overhead join at Waihi Beach (NZWV) would sound like this on the radio:

 "Harbour Traffic EBA is a Piper Arrow approximately 2 east of Waihi Harbour at 2000ft joining overhead"

Once established in the first leg of the SOHJ the aircraft will descend in the non-traffic side, the non-traffic side is considered the opposite side to normal circuit direction.

🛪 "Harbour Traffic EBA is overhead, joining runway 13"

"Harbour Traffic EBA turns finals runway 13 full stop"

8.6 Controlled VFR (Radar Monitoring) Procedures

Controlled VFR is the service given to aircraft to enter controlled airspace enroute to their destination, this service can only be provided to VFR aircraft and can only be issued by TMA/Approach (S3) and Enroute (C1) controllers.

As discussed before, you should have a flight plan filed consisting of all the information needed for a VFR flight.

Next you should check the lower limit (LL) of the airspace around you so that you don't inadvertently bust controlled airspace, which doesn't please controllers. These can be found on <u>PreFlight</u>. In order for you to be identified on the controllers' scope you will be issued a unique squawk code starting with a 3 or a 4, i.e. 3050 or 4572. You will need to enter this code into your transponder so that the controller can identify you.

Once you have squawked the correct code the controller will issue you with some instructions on how he wants you to enter controlled airspace, usually it will be on track to your destination, remember NOSE WEED applies for VFR as well, however VFR aircraft above 3000ft must travel at 500ft increments, eg 3500ft.

Example:

- 🛪 "Bay Approach G'day WAM"
- "WAM Bay Approach G'day"
- * WAM is approximately 5 east of Whakatane, 2500ft request clearance into controlled airspace on track Great Barrier, 7500ft VFR.
- "WAM Squawk 3035"
- ******* "Squawk 3035, WAM"
- * WAM Bay Approach, identified. Enter controlled airspace on track Great Barrier climbing 7500 ft VFR. Thermal Area QNH 1013"
- "Enter Controlled Airspace on track Great Barrier climbing 7500 ft VFR, Copy 1013, WAM"

Another option compared to controlled VFR is Radar Monitoring which is given to aircraft as a basic service containing information relative to the safety of their flight. Radar monitoring is frequently given to light aircraft crossing the Cook Strait as an additional safety precaution. The controller will not provide tracking instructions but instead will ask for a squawk to be set so that the aircraft can be tracked to it's destination. The controller will offer:

- The local area QNH
- Traffic information observed inside or outside of controlled airspace.
- Any Significant Weather observed on the Intended route.

This is not a controlling service but for more safety monitoring as the name suggests.



Helicopter Procedures

Helicopters follow very specific procedures when flying in New Zealand - this is your guide to flying Helicopters in New Zealand Airspace

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9. Helicopter Operations

While not as popular as fixed wing aircraft, helicopters are semi frequent users of VATNZ airspace, and they operate differently from your average Cessna 152 so it is important that you know what to say and do when it comes to flying helicopters.

Most of what we have covered above still applies to helicopters so you still need to advise ATC of the ATIS and POB just like normal, the only differences are how you fly and what procedures should be followed.

As almost all helicopters are equipped with gas turbine engines you require a start-up clearance from ATC, this is to ensure that no aircraft around you are going to be in danger from the rotor-blades, this is just like a normal start up clearance.

"Queenstown Tower, HLF request start"



"HLF, start is approved"

9.1 Departure Clearance

After you have started your engines, you are going to need a departure.

Helicopter circuits do exist however these are quite rare and flown just like a normal circuit. For all intents and purposes helicopters are assigned a squawk of <u>1500.</u>

This should only be changed if a controller issues you with another code. Because helicopters do not require a runway to takeoff the aerodrome effectively becomes their operating area, therefore all helicopters require a clearance to lift from their position.

This also means that the controller can only deny a lift clearance if there is a traffic conflict like an aircraft taking off, you can expect one of 3 responses from the controller when you ask for your lift clearance.

- "Cleared to lift"
- *"Due traffic, do not lift, expect further clearance in x minutes"*
- "Lift/takeoff at your discretion"

If you get given the option to lift at your discretion you should still be aware of your surroundings as there could be aircraft around that pose a threat.

Helicopter departures are usually designed to get helicopters out of the way as fast as possible, therefore the instructions on these departures are usually to leave on a heading or a bearing.

Usually, these departures cross over the centreline of the active runway however, in the published procedures such as the 'Copter West Departure" you can see that you are given clearance to cross the active centreline if you have received a plain language clearance the controller must clear you to cross all runways.



before Ryans Road tracking towards Ricca se to intercept assigned departure proced off at your discretion, track west bound remaining Y A6 (and parallel to RWY 29) until crossing Po-intercept the assigned departure procedure.

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(continued)

CHRISTCHURCH

To help with this here are some examples:

"Christchurch Tower g'day, AirMed 10"

"AirMed 10 Christchurch Tower g'day"

* "AirMed 10 outside Garden City with 4 POB, request a Copter West departure on track West Melton, in receipt of alpha 1013"

*AirMed 10, cleared a Copter West departure direct to West Melton report when ready to lift"

* "Cleared a Copter West departure direct West Melton, ready to lift AirMed 10"

"AirMed 10 lift approved, report clear to the west 1500 feet or below"

* "Lift Approved, report clear west 1500ft or below, lifting now, AirMed 10"

After you have lifted, carry out the procedure as stated and ensure you use LAI constantly to lookout, as a reminder LAI stands for.

- Lookout
- Altitude
- Instruments

Once you are clear of the control zone you can report clear to the controller and continue unicom or with the next ATS unit

9.2 Helicopter Arrival Procedures

With Helicopter arrivals, they are designed to keep helicopters clear of other traffic, usually IFR within a control zone (CTR), and like the helicopter departures are designed to keep helicopters clear of all runways.

Helicopters will generally be assigned an arrival procedure, if one exists otherwise plain language will be used.

When requesting instructions from ATC, helicopters will usually be told one of three instructions, remember that helicopters do not usually land on runways and proceed straight to their hangar or apron immediately.

- *"Land at your discretion, call again when on the ground"*
- *"Hover in position x, expect further joining in x minutes"*
- "Runway XX land your discretion, call for hover taxi"

Helicopter pilots must also be aware of their position to their landing spot, sometimes ATC will request that they make a special routing to remain clear of obstacles or other restricted areas, for example.

"Hotel Lima Uniform remain east of the hangars/control tower, land at your discretion, call me on the ground."

Generally, helicopter joining procedures are relatively easy, however it is important that pilots always remain aware of their surroundings.

10. Credits

Charts: <u>Aeronautical Information Publication New Zealand</u> (AIPNZ)

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