



# VATCAR Tower Training Manual



**\* For VATCAR member only**

**\* Not for real world use**



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## DEFINITIONS

**Aerodrome traffic circuit.** The specified path to be flown by aircraft operating in the vicinity of an aerodrome.

**Approach control service.** Air traffic control service for arriving or departing controlled flights.

**Approach sequence.** The order in which two or more aircraft are cleared to approach to land at the aerodrome.

**Area navigation route.** An ATS route established for the use of aircraft capable of employing area navigation.

**Base turn.** A turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track. The tracks are not reciprocal.

*Note.*— *Base turns may be designated as being made either in level flight or while descending, according to the circumstances of each individual procedure.*

**Expected approach time.** The time at which ATC expects that an arriving aircraft, following a delay, will leave the holding fix to complete its approach for a landing.

**Final approach.** That part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified,

a) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or

b) at the point of interception of the last track specified in the approach procedure; and

ends at a point in the vicinity of an aerodrome from which:

1) a landing can be made; or

2) a missed approach procedure is initiated.

**Glide path.** A descent profile determined for vertical guidance during a final approach.

**Holding fix.** A geographical location that serves as a reference for a holding procedure.

**Instrument approach procedure (IAP).** A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply.

**Instrument meteorological conditions (IMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

*Note 1.*— *In a control zone, a VFR flight may proceed under instrument meteorological conditions if and as authorized by air traffic control.*

**Landing area.** That part of a movement area intended for the landing or take-off of aircraft.

**Missed approach procedure.** The procedure to be followed if the approach cannot be continued.

**Radar approach.** An approach in which the final approach phase is executed under the direction of a controller using radar.

**Radar contact.** The situation which exists when the radar position of a particular aircraft is seen and identified on a situation display.

**Radar separation.** The separation used when aircraft position information is derived from radar sources.

**Threshold.** The beginning of that portion of the runway usable for landing.

**Touchdown.** The point where the nominal glide path intercepts the runway.

*Note.*— *“Touchdown” as defined above is only a datum and is not necessarily the actual point at which the aircraft will touch the runway.*

**Track.** The projection on the earth’s surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).

**Traffic information.** Information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision.

**Transition altitude.** The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

**Transition layer.** The airspace between the transition altitude and the transition level.

**Transition level.** The lowest usable flight level available above the transition altitude.

**Vectoring.** Provision of navigational guidance to aircraft in the form of specific headings, based on the use of an ATS surveillance system.

**Visual approach.** An approach by an IFR flight when either part or all of an instrument approach procedure is not completed and the approach is executed in visual reference to terrain.

**Visual meteorological conditions.** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

**Waypoint.** A specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation. Waypoints are identified as either:

*Flyover waypoint.* A waypoint at which a turn is initiated in order to join the next segment of a route or procedure.

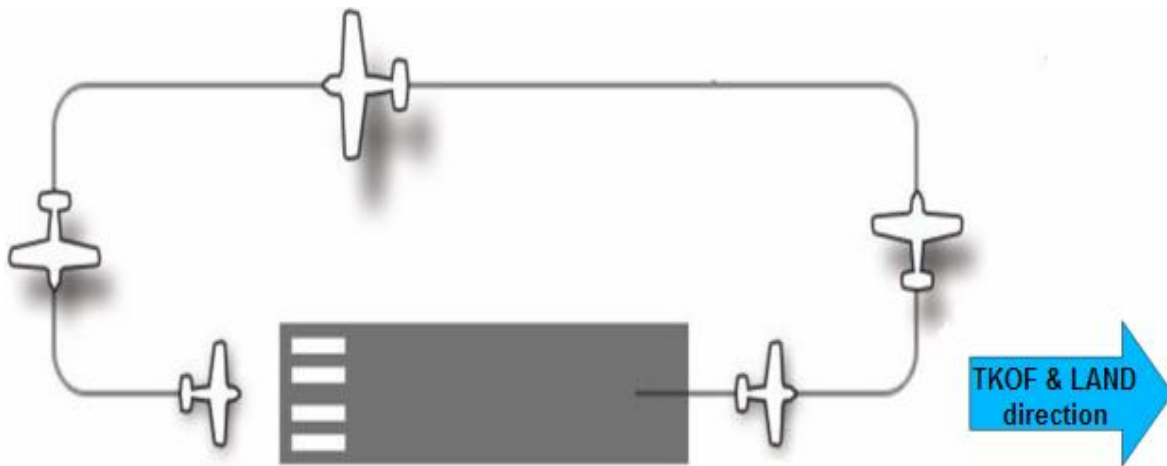
## THE PURPOSE OF THE TOWER/AERODROME CONTROLLER IS TO

1. To maintain necessary clearances and to prevent collisions between:
  - a. Aircraft flying in the Aerodrome Traffic Circuit;
  - b. Aircraft operating on the maneuvering area;
  - c. Aircraft and vehicles on the maneuvering area;
- a. Aircraft on the maneuvering area and obstructions on that area;
- b. Aircraft landing and Taking off
2. To issue information and clearances to aircraft under its control; and
3. expedite and maintain an orderly flow of aircraft.

## TRAFFIC CIRCUIT

The TRAFFIC CIRCUIT is an area set up within the Aerodrome Traffic Zone for the protection of Aerodrome traffic.

Example of a left hand circuit:



The vertical limit of an Aerodrome Traffic Circuit is generally 1,500FT above the airport elevation. Always check local regulations for specific circuit altitude restrictions.

At **controlled aerodromes**, the controllers instruct the pilots when, where and how to enter the aerodrome traffic circuit. At **uncontrolled aerodromes**, the VFR pilots are responsible themselves for complying with the local aerodrome traffic circuit rules and to maintain their own separation.

Faster aircraft fly a larger circuit than the slower ones. To stay behind slower aircraft in the circuit, faster aircraft may need to slow down or extend their downwind leg slightly.

## STANDARD AERODROME TRAFFIC CIRCUIT

In a **standard** aerodrome traffic circuit all turns are made to the left. However some aerodromes may file a *difference* with ICAO, and have a right hand traffic pattern e.g. Grantley Adams, BARBADOS. Still the basics are the same.

## UPWIND LEG

The upwind leg is a flight path parallel to the landing runway in the same direction of landing, with the runway at the left side or right side of the aircraft.

## CROSSWIND LEG

The crosswind leg is a flight path at a 90° angle to the takeoff direction. After making a left or right turn from the upwind leg, one enters the crosswind leg. This turn is made at a safe height, whilst the aircraft continues climbing to 1500FT or the altitude designated by the state.

## DOWNWIND LEG

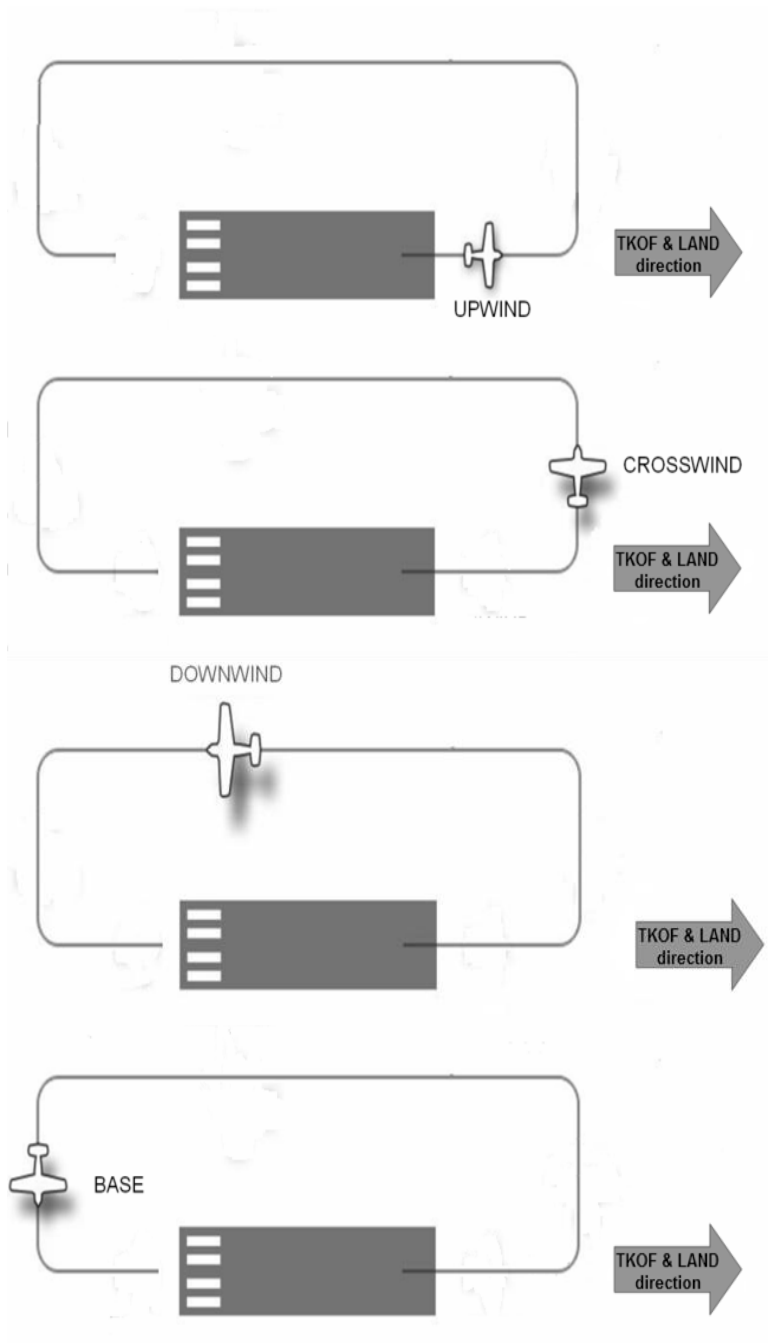
The downwind leg is a flight path parallel to the landing runway in the opposite direction of landing, with the runway at the left side or right side of the aircraft.

## BASE LEG

The base leg is a flight path at a 90° angle to the landing runway direction and connects the downwind leg to the final approach leg.

## FINAL LEG

The final approach leg is a flight path in the direction of landing from the base leg to the runway.



# CLEARANCES

*Note:* This document uses RTF examples showing both pilot (denoted by *blue italic text*) and ATCO (denoted by grey text) communication. For example: *Pilot - Metro Ground, Big Jet 345, request taxi*  
ATC - Big Jet 345, Metro Ground, taxi to holding point A1, hold short of Runway 18

## TAKE-OFF AND DEPARTURE

**'Take-off'** shall only be used when issuing a clearance to take-off.

- a. Do not use phrases such as 'prior to take-off' or 'after take-off'.
- b. If the controller uses 'after departure' or 'follow', this is NOT a clearance to take-off.

Any instructions to HOLD, HOLD POSITION or HOLD SHORT OF, shall be read back in full using the appropriate phrase – *HOLDING* or *HOLD SHORT OF*.

In the airport environment, the word **'cleared'** shall only be used in connection with a clearance to take-off or land. To aid clarity, a take-off clearance will always be issued separately.

*Metro Tower, Big Jet 345, approaching holding point C1*

Big Jet 345, Metro Tower, line up runway 27

*Lining up runway 27, Big Jet 345*

Big Jet 345, runway 27, cleared for take-off

*Cleared for take-off, Big Jet 345*

### **Once airborne:**

Big Jet 345, contact Metro Radar 124.6

*Contact Metro Radar on 124.6, Big Jet 345*

## AMENDMENT TO DEPARTURE CLEARANCE

The phraseology for amendments to departure clearances where the aircraft is approaching the runway will begin with **'hold position'**.

*Metro Tower, Big Jet 345, approaching holding point C1*

Big Jet 345, Metro Tower, hold at C1

*Hold at C1, Big Jet 345*

Big Jet 345, hold position, amendment to clearance, T3F departure, climb to 6000 feet

*Holding, T3F departure, climb to 6000 feet, Big Jet 345*

### **Or:**

Big Jet 345 hold position, after departure climb to altitude 6000 feet

*Holding, after departure climb to 6000 feet, Big Jet 345*

## CONDITIONAL LINE-UP CLEARANCE

Important points involving the active runway:

- a. The condition is always given directly after the call-sign and before the clearance.
- b. Conditional clearances must be read back in full and in exactly the same sequence as given plus a brief reiteration of the condition.
- c. The aircraft or vehicle that is the subject of the condition must be visible to the flight crew and the controller.
- d. The subject aircraft or vehicle of the condition shall be the first aircraft/vehicle to pass.
- e. The condition must relate to only one movement.
- f. Always clarify if unsure.

*Metro Tower, Big Jet 345, approaching holding point C1*

Big Jet 345, Metro Tower, hold at C1

*Hold at C1, Big Jet 345*

### **Or:**

Big Jet 345, behind landing Boeing 757, line up runway 27, behind

*Behind landing Boeing 757, line up runway 27, behind, Big Jet 345*

## **CANCELLING TAKE-OFF CLEARANCE**

If take-off clearance has to be cancelled before the take-off roll has commenced, the flight crew shall be instructed to hold position, stating reason. If it is necessary to cancel take-off clearance after the aircraft has commenced the take-off roll, the flight crew shall be instructed to stop immediately.

### **Aircraft has not commenced take-off roll:**

Big Jet 345 hold position, Cancel take-off, I say again cancel take-off due to vehicle on the runway

*Holding, Big Jet 345*

### **Aircraft has commenced take-off roll:**

Big Jet 345 stop immediately, (Big Jet 345 stop immediately)!

*Stopping, Big Jet 345*

## **CONTINUE APPROACH**

If the runway is obstructed when the aircraft reports ‘**final**’, but it is expected to be available in good time for the aircraft to make a safe landing, the controller will delay landing clearance by issuing an instruction to ‘continue approach’. The controller may explain why the landing clearance has been delayed. An instruction to ‘**continue**’ is **NOT** a clearance to land.

*Metro Tower, Big Jet 345, final runway 27 Right*

Big Jet 345, continue approach

*Continue approach, Big Jet 345*

Big Jet 345, cleared to land, runway 27 Right, wind 270 degrees ten knots

*Cleared to land runway 27 Right, Big Jet 345*

## **THE GO-AROUND OR MISSED APPROACH**

Instructions to carry out a missed approach may be given to avert an unsafe situation. When a missed approach is initiated cockpit workload is inevitably high.

- a. Any transmissions to aircraft going around shall be brief and kept to a minimum.
- b. In the event of a missed approach being initiated by the pilot, the phrase ‘going
- c. around’ should be used.

### **Controller Initiated:**

Big Jet 345, go around

*Going around, Big Jet 345*

### **Pilot initiated:**

*Big Jet 345, going around*

Roger (followed by suitable instruction)

## **AIRCRAFT OPERATING WITHIN THE TRAFFIC CIRCUIT**

All aircraft operating within the Traffic Circuit fly visually i.e. VFR. At times aircraft request training in the traffic circuit where they practice Take-offs and Landings. It is common for an aircraft to land, and without coming to a complete stop, accelerates and makes a take-off. This type of landing, followed by an immediate take-off is called a **TOUCH AND GO**.

*Metro Tower, Big Jet 345, right base*

Big Jet 345, roger, cleared final

*Cleared final, Big Jet 345*

*Metro Tower, Big Jet 345, on final*

Big Jet 345, cleared touch and go runway 09, wind 110 degrees 12 knots

*Cleared touch and go runway 09, copy winds, Big Jet 345*

## **VFR AIRCRAFT LEAVING TRAFFIC CIRCUIT BUT REMAINING WITHIN TERRITORIAL AIRSPACE**

All VFR traffic operating solely within the airspace of the territory of departure shall be informed of known estimates, and be advised to monitor the approach frequency.

Big Jet 345 airborne 34, cleared to leave the traffic circuit on a left turn, no estimates at this time, maintain a listening watch on this frequency. [Or...Monitor this frequency]

*Metro Tower, Big Jet 345, airborne 34, cleared to leave the traffic circuit on a left turn, will maintain a listening watch on this frequency.*

## EMERGENCY COMMUNICATIONS

As soon as there is any doubt as to the safe conduct of a flight, immediately request assistance from ATC. Flight crews should declare the situation early; it can always be cancelled.

- A distress call (situation where the aircraft requires immediate assistance) is prefixed: **MAYDAY, MAYDAY, MAYDAY**.
- An urgency message (situation not requiring immediate assistance) is prefixed:
- PAN-PAN, PAN-PAN, PAN-PAN**.
- Make the initial call on the frequency in use, but if that is not possible squawk 7700 and call on 121.5.
- The distress/urgency message shall contain (at least) the name of the station addressed, the call-sign, nature of the emergency, fuel endurance and persons on board; and any supporting information such as position, level, (descending), speed and heading, and pilot's intentions.

*MAYDAY, MAYDAY, MAYDAY, Metro Control, Big Jet 345, main electric failure, request immediate landing at Metro, position 35 miles north west of Metro, heading 120 flight level 80 descending, 150 persons on board, endurance three hours*

Big Jet 345, Roger the MAYDAY, turn left heading 090, radar vectors ILS runway 27

*Big Jet 345 request runway 09*

Big Jet 345, roger, turn right heading 140 for radar vectoring runway 09, descend to 3000 feet, QNH 1013.5, report established

*Big Jet 345, heading 140, descend to 3000 feet QNH 1013.5, report established localiser runway 09*

**NB. 'Fuel Emergency' or 'fuel priority' are not recognised terms. Flight crews short of fuel must declare a PAN or MAYDAY to be sure of being given the appropriate priority.**

## WAKE TURBULENCE

**Wake turbulence separation minima shall be based on a grouping of aircraft types into three categories according to the maximum certificated take-off mass as follows:**

- HEAVY (H) — all aircraft types of 136 000 kg or more;
- MEDIUM (M) — aircraft types less than 136 000 kg but more than 7 000 kg; and
- LIGHT (L) — aircraft types of 7 000 kg or less.
- Helicopters should be kept well clear of light aircraft when hovering or while air taxiing.

Leading Aircraft	Following Aircraft	Minimum Wake Turbulence Separation at the Time Aircraft are Airborne	
A380-800	Heavy (including A380-800)	Departing from the same position	2 minutes
	Medium (Upper and Lower) Small Light		3 minutes
Heavy	Medium (Upper and Lower) Small Light	or	2 minutes
Medium (Upper and Lower) or Small	Light	from a parallel runway separated by less than 760 m	2 minutes
A380-800	Heavy (including A380-800)	Departing from an intermediate point on the same runway	3 minutes
	Medium (Upper and Lower) Small Light		4 minutes
Heavy (Full length take-off)	Medium (Upper and Lower) Small Light	or	3 minutes
Medium or Small (Full length take-off)	Light	from an intermediate point of a parallel runway separated by less than 760 m	3 minutes

## **SEPERATION MINIMUM**

The lateral separation minima that shall exist at all times between aircraft in the air, shall be 5 NM Radar, or as otherwise prescribed by the appropriate VATSIM authority.

Lateral separation shall be applied so that the distance between those portions of the intended routes for which the aircraft are to be laterally separated is never less than the prescribed minimum.

Vertical separation is obtained by requiring aircraft using prescribed altimeter setting procedures to operate at different levels expressed in terms of flight levels above the transition altitude, or altitudes below the lowest usable flight level.

The vertical separation minima that shall exist at all times between aircraft in the air shall be a nominal 300 m (1000 ft) or as otherwise prescribed by the appropriate VATSIM authority.

## **REDUCTION OF SEPARATION MINIMA WITHIN THE TRAFFIC CIRCUIT**

Aircraft shall be controlled in accordance with the procedures above except that controllers are not required to apply the separation minima described to:

- a) Aircraft in formation with respect to other aircraft in the same formation;
- b) Aircraft operating in different areas or lanes on aerodromes equipped with runways suitable for simultaneous landings or take-offs;
- c) Aircraft operating under military necessity as determined by the appropriate authority;
- d) Aircraft operating within the Aerodrome Traffic Circuit.

## **INSTRUCTIONS TO AIRCRAFT IN THE FINAL STAGES OF APPROACHING TO LAND**

The final approach represents an increased period of flight deck workload. Unusual situations and emergencies during this period can be particularly demanding for the pilot. Therefore, with the exception of instructions to go-around, or to initiate the missed approach procedure, instructions shall not be issued to aircraft in the final stages of approach and landing that would require it to deviate from its expected flight path unless exceptional and overriding safety considerations apply.

In the event that a transmission has to be made to an aircraft at this stage in flight, and the transmission is one that does **NOT** require a response, then the pilot should be so informed first and then the transmission made.

Big Jet 345, no acknowledgement necessary, I say again, no acknowledgement necessary. Expect exit from runway to be taxiway Foxtrot.

## **INSTRUCTIONS TO AIRCRAFT IN THE EARLY STAGES OF CLIMB OUT**

The Take-off and initial climb out also represents an increased period of flight deck workload. The pilot and his crew must be ever vigilant of take-off and rotation speeds, power settings, takeoff distances, runway available, frequencies needed after takeoff for navigation and communication. Therefore instructions shall not be issued to an aircraft in the initial stages of take-off and climb out that would require it to deviate from its expected flight path, unless exceptional and overriding safety considerations apply.

As in the scenario above, in the event that a transmission has to be made to an aircraft at this stage in flight, and the transmission is one that does **NOT** require a response, then the pilot should be so informed first and then the transmission made.

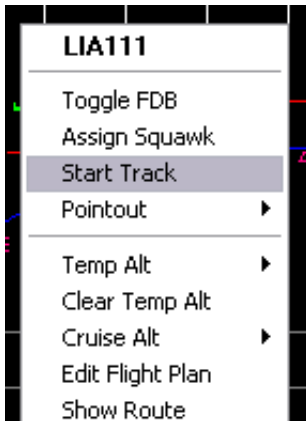
Big Jet 345, no acknowledgement necessary, I say again, no acknowledgement necessary. Fire observed by starboard engine.

## TRANSFER OF CONTROL

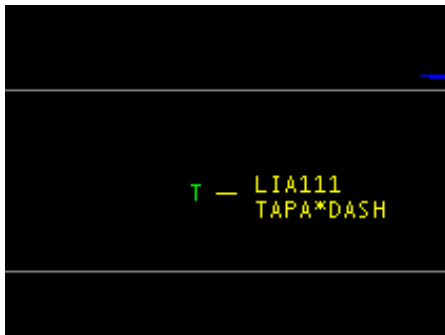
Unless specified otherwise, the responsibility for control of a departing aircraft shall be transferred from Tower/Aerodrome Control to Approach Control:

- a) In VMC: prior to the aircraft leaving the vicinity of the aerodrome, or prior to the aircraft entering IMC;
- b) In IMC: immediately after the aircraft is airborne.

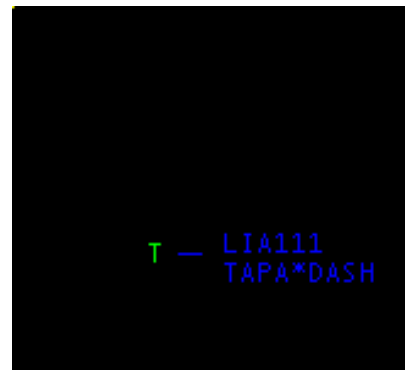
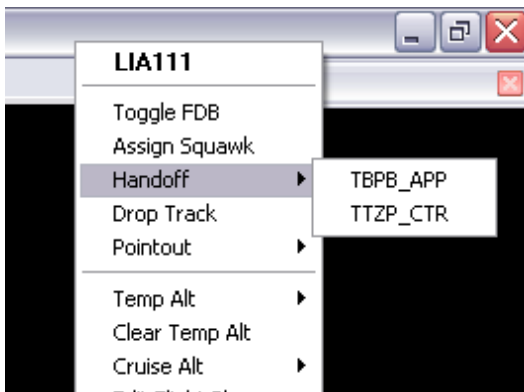
For radar based airports only, controllers are to utilize the VRC radar hand off feature. Once the aircraft is squawking Charlie/normal, the controller shall then begin tracking the aircraft. See example below:



Once the aircraft is being tracked by the controller, the letter **T** will appear attached to the aircraft's data tag (**T** representing that the aircraft is being tracked by **T**ower). See example below:



Once the aircraft is airborne and is climbing respectively between 1000 & FL50/ 5000 (VATSIM's Aerodrome's vertical limits), controllers should initiate the VRC hand-off procedures to the next controller as required. See example below:



## HELICOPTER OPERATIONS

The information contained herein describe standard phraseology and procedures to address the different requirements for a helicopter lifting, taxiing, taking-off, and landing (including the approach and departure phases), particularly at aerodromes where rotary-wing and fixed-wing operations are integrated.

Standard phraseology should be used in all situations for which it is specified. When standard phraseology cannot serve an intended transmission, plain language should be used. The use of plain language may further assist when describing rotary-wing aircraft manoeuvres. Care should be exercised to ensure that all parties involved achieve clear understanding.

### HELICOPTER PHRASEOLOGY FOR TAXIING

Phraseology and procedures are described below for helicopters taxiing for departure, or after landing, or for general maneuvering on the aerodrome. Phraseology and procedures for specific maneuvering on the aerodrome, for example for training purposes, should be described in local procedures.

The term '**LIFT**' shall describe a manoeuvre where the helicopter gets airborne and enters a hover. '**HOVER**' describes a manoeuvre where the helicopter holds position whilst airborne in ground effect, waiting to proceed. Hover allows spot/axial turns i.e. about the central axis of the helicopter. When required, further instructions should subsequently be transmitted to permit the helicopter to proceed.

The term '**AIR TAXI**' shall be used when it is necessary for a helicopter to proceed at a slow speed above the surface, normally below 20 knots and in ground effect.

The instruction '**GROUND TAXI**' shall be used for the movement of a helicopter, in contact with the surface of the aerodrome, under its own power. This could be required for a helicopter fitted with wheels, to reduce rotor downwash.

An instruction to 'TAXI' leaves the pilot free to select the most appropriate method, either ground taxi or air taxi. Pilots and controllers should use air taxi or ground taxi when required to differentiate between air taxiing and ground taxiing. Air taxiing helicopters shall be issued with detailed taxi routes and instructions as appropriate to prevent collisions with other aircraft and vehicles. Helicopters are expected to follow procedures/routes on aerodromes appropriate to aeroplanes unless otherwise authorised.

ATC units should avoid issuing instructions that result in taxiing helicopters coming into close proximity with small aircraft or other helicopters and should give consideration to the effect of turbulence from taxiing helicopters on arriving and departing light aircraft.

For a helicopter taxiing, the instruction “hold” shall indicate a requirement to come to a standstill. A helicopter air taxiing and instructed to “hold”, may hold in the hover or may touch down and hold on the ground at the pilot’s discretion. If touch down is not authorised, the ATC unit may instruct a helicopter to “**HOLD IN THE HOVER**”. A helicopter ground taxiing and instructed to “hold” shall hold on the ground, unless a hover maneuver is specifically authorised.

ATC should avoid issuing a frequency change instruction to a single-pilot helicopter hovering or air taxiing. If required, and in accordance with local procedures, control instructions from the next controller should be relayed until the pilot is able to change frequency.

## **HELICOPTER TAXIING**

### *TAXI INSTRUCTION*

VC Bird Tower, GABEX request taxi for departure runway 06

GABEX, VC Bird Tower, Taxi holding point H1 via taxiway Golf, runway 06

Roger, Taxi holding point H1 via taxiway Golf for runway 06, GABEX

*Note: The use of the phrase **TAXI** indicates that the pilot is free to **AIR TAXI**, or **GROUND TAXI** at his/her discretion.*

### *AIR TAXI INSTRUCTION*

VC Bird Tower, GABEX request air taxi for departure runway 06

GABEX, VC Bird Tower, Air Taxi holding point H1 via taxiway Golf, runway 06

Roger, Air Taxi holding point H1 via taxiway Golf for runway 06, GABEX

## **HELICOPTER PHRASEOLOGY FOR TAKE-OFF AND LANDING**

At aerodromes, helicopter take-offs and landings may not be restricted to designated runways or landing areas. Where appropriate, helicopters may be authorized by ATC to take-off and land at any location on the aerodrome.

At aerodromes provided with ATC, when helicopters land or take-off at locations not on the maneuvering area (e.g. aprons, maintenance areas, sites adjacent to the aerodrome), the phrase “**LAND AT YOUR DISCRETION**” or “**TAKE-OFF AT YOUR DISCRETION**”, as appropriate, shall be used to authorize the maneuvers. Relevant traffic information on other aircraft airborne or on the ground shall also be passed.

## **HELICOPTER TAKE-OFF AND LANDING**

### *TAKE-OFF ON THE RUNWAY*

GABEX ready for departure

GABEX, Cleared for take-off

Cleared for take-off, GABEX

### *LANDING ON THE RUNWAY*

GABEX, Final runway 06

GABEX, Cleared to land runway 06, wind 06010 knots

Cleared to land, GABEX

### *TAKE-OFF FROM THE APRON [DIRECT DEPARTURE]*

Adams Tower, [Helicopter] GABEX South Side ready for direct departure to North Point

[Helicopter]GABEX, Direct Departure, Wind 05009 knots, QNH 1012.4 millibars, No reported traffic, Take-off at your discretion

Taking Off, Departing direct, Wind 05009 knots, QNH 1012.4 millibars, [Helicopter] GABEX

### *LANDING ON THE APRON [DIRECT ARRIVAL]*

Adams Tower, [Helicopter] GABEX, Over Bridgetown inbound to land at the South Ramp

[Helicopter]GABEX, Route to South Ramp via left upwind, Report left upwind abeam threshold runway 09, Wind 08017 knots, QNH 1013.2 millibars

Route to South Ramp via left upwind, Wilco, Wind 08017 knots, QNH 1013.2 millibars, [Helicopter] GABEX

Or

Adams Tower, [Helicopter] GABEX, On left base

[Helicopter]GABEX, traffic is a B777 taxiing westward on Alpha from position 12, Land at your discretion on Parking Apron, Wind 12003 knots

Roger, Landing on Parking Apron, [Helicopter] GABEX

## CLASSIFICATION OF AIRSPACE

The classifications of airspace, which determines the Flight Rules which apply and the minimum services that shall be provided. The classification is as follows: -

Class	Flight Rules	Aircraft Requirements	Minimum Services by ATC Unit
A	IFR only	ATC clearance before entry. Comply with ATC instructions.	Separate all aircraft from each other.
B	IFR and VFR	ATC clearance before entry. Comply with ATC instructions.	Separate all aircraft from each other.
C	IFR and VFR	ATC clearance before entry. Comply with ATC instructions.	(a) Separate IFR flights from other IFR and VFR flights; (b) Separate VFR flights from IFR flights; (c) Pass traffic information to VFR flights on other VFR flights and give traffic avoidance advice if requested.
D	IFR and VFR	ATC clearance before entry. Comply with ATC instructions.	(a) Separate IFR flights from other IFR flights; (b) Pass traffic information to IFR flights on VFR flights and give traffic avoidance advice if requested; (c) Pass traffic information to VFR flights on IFR flights and other VFR flights.
E	IFR and VFR	IFR flights to obtain ATC clearance before entry and comply with ATC instructions.  VFR flights do not require clearance.	(a) Separate IFR flights from other IFR flights; (b) Pass traffic information, as far as practicable, to IFR flights on VFR flights; (c) VFR flights in contact are to be given traffic information as far as practicable.
F	IFR and VFR	Participating IFR flights are expected to comply with ATC instructions.	Separation provided, as far as possible, between aircraft that have flight planned to operate IFR on ADRs.
G	IFR and VFR	None.	None.

## AIR TRAFFIC SERVICES

ICAO defines an Air Traffic Service as a generic term meaning variously:

- a) Air Traffic Control Service;
- b) Air Traffic Advisory Service;
- c) Flight Information Service;
- d) Alerting Service.

### AIR TRAFFIC CONTROL SERVICE

An ATC service is provided according to the particular circumstances and class of airspace, for the purpose of:

- a) Preventing collisions between aircraft in the air;
- b) Assisting in preventing collisions between aircraft moving on the apron and the maneuvering area;
- c) Assisting in preventing collisions between aircraft and obstructions on the maneuvering area;
- d) Expediting and maintaining an orderly flow of air traffic.

An Air Traffic Control Service shall include the provision of the pertinent flight information as listed IN Flight Information Service below.

### AIR TRAFFIC ADVISORY SERVICE

The objective of the air traffic advisory service is to make information on collision hazards more effective than it would be in the mere provision of flight information service. It may be provided to aircraft conducting IFR flights in advisory airspace or on advisory routes (Class F airspace).

Air traffic advisory service does not afford the degree of safety and cannot assume the same responsibilities as air traffic control service in respect of the avoidance of collisions, since information regarding the disposition of traffic in the area concerned available to the unit providing air traffic advisory service may be incomplete. Air traffic advisory service does not deliver “clearances” but only “advisory information” and it uses the word “advise” or “suggest” when a course of action is proposed to an aircraft.

*Note. — If the flight plan is submitted for the purpose of obtaining air traffic control service, the aircraft is required to wait for an air traffic control clearance prior to proceeding under the conditions requiring compliance with air traffic control procedures. If the flight plan is submitted for the purpose of obtaining air traffic advisory service, the aircraft is required to wait for acknowledgment of receipt by the unit providing the service.*

IFR flights when operating within Class F airspaces are expected to comply with the same procedures as those applying to controlled flights except that:

- a) The flight plan and changes thereto are not subjected to a clearance, since the unit furnishing air traffic advisory service will only provide advice on the presence of essential traffic or suggestions as to a possible course of action;

*Note .1 — It is assumed that a pilot will not effect a change in the current flight plan until he or she has notified the intended change to the appropriate ATS unit, and has received acknowledgement or relevant advice.*

*Note 2.— When a flight is operating or about to operate in a control area to continue eventually into an advisory area or along an advisory route, a clearance may be issued for the whole route, but the clearance as such, or revisions thereto, applies only to those portions of the flight conducted within control areas and control zones. Advice or suggestions would be provided as necessary for the remaining portion of the route.*

- b) It is for the aircraft to decide whether or not it will comply with the advice or suggestion received and to inform the unit providing air traffic advisory service, without delay, of its decision;
- c) Air-ground contacts shall be made with the air traffic services unit designated to provide air traffic advisory service within the advisory airspace or portion thereof.

An air traffic services unit providing air traffic advisory service shall:

- a) *Advise* the aircraft to depart at the time specified and to cruise at the levels indicated in the flight plan if it does not foresee any conflict with other known traffic.
- b) *Suggest* to aircraft a course of action by which a potential hazard may be avoided, giving priority to an aircraft already in advisory airspace over other aircraft desiring to enter such advisory airspace.
- c) *Pass* to aircraft traffic information comprising the same information as that prescribed for area control service.
- d) The criteria used as a basis for action under b) and c) should be at least those laid down for aircraft operating in controlled airspace and should take into account the limitations inherent in the provision of air traffic advisory service, navigation facilities and air ground communications prevailing in the Region.

### **FLIGHT INFORMATION SERVICE**

Flight Information Service is a service provided for the purposes of supplying advice and information useful for the safe and efficient conduct of flight, together with pertinent information about:

- a) Weather;
- b) Changes to serviceability of facilities;
- c) Conditions at aerodromes;
- d) Any other information likely to affect safety

Flight information service provided to flights shall include, in addition to that outlined in above, the provision of information concerning:

- a) Weather conditions reported or forecast at departure, destination and alternate aerodromes;
- b) Collision hazards, to aircraft operating in airspace Classes D, E, F and G;
- c) For flight over water areas, in so far as practicable and when requested by a pilot, any available information such as radio call sign, position, true track, speed, etc., of surface vessels in the area.

*Note 1.— The information in b), including only known aircraft the presence of which might constitute a collision hazard to the aircraft informed, will sometimes be incomplete and air traffic services cannot assume responsibility for its issuance at all times or for its accuracy.*

### **ALERTING SERVICE**

An Alerting Service is provided to notify appropriate organizations regarding aircraft in need of SAR aid and assist such organizations as required.

Alerting service shall be provided:

- a) For all aircraft provided with air traffic control service;
- b) In so far as practicable, to all other aircraft having filed a flight plan or otherwise known to the air traffic services; and
- c) To any aircraft known or believed to be the subject of unlawful interference.

Flight information centres or area control centers shall serve as the central point for collecting all information relevant to a state of emergency of an aircraft operating within the flight information region or control area concerned and for forwarding such information to the appropriate rescue coordination centre.

In the event of a state of emergency arising to an aircraft while it is under the control of an aerodrome control tower or approach control unit, such unit shall notify immediately the flight information centre or area control center responsible

which shall in turn notify the rescue coordination centre, except that notification of the area control centre, flight information centre, or rescue coordination centre shall not be required when the nature of the emergency is such that the notification would be superfluous.

Nevertheless, whenever the urgency of the situation so requires, the aerodrome control tower or approach control unit responsible shall first alert and take other necessary steps to set in motion all appropriate local rescue and emergency organizations which can give the immediate assistance required.

**\*Controllers are reminded, an unattended connection as ATC can result in a suspension from VATSIM. While logged on as ATC, NEVER leave VRC unattended. If you are leaving the pc, it is advised you disconnect from VATSIM\***

**\*Also controllers are asked to ALWAYS be polite, respectful, courteous and cooperative to all pilots. It goes a very long way in helping not only your FIR but VATCAR as well \***