



# NAV CANADA would like to thank the following organizations for their contributions to this document.



Transport Canada Transports Canada





























































# **Table of Contents**

About This Document	<u>1</u>
Document Format	<u>1</u>
Phraseology Examples	<u>2</u>
Phonetic Alphabet	<u>2</u>
Numbers	<u>3</u>
Decimals	<u>3</u>
Transponder Phraseology	<u>4</u>
Standard Words and Phrases	<u>5</u>
Helicopter Specific Words and Phrases	<u>6</u>
Aircraft Identification	<u>7</u>
Similar Call Signs	<u>8</u>
Air Traffic Service (ATS) Units	<u>9</u>
What to Expect From Different ATS Units	<u>10</u>
Language	<u>12</u>
Radio Operation	<u>13</u>
Good Practices	<u>13</u>
General Format of Radio Communication	<u>14</u>
Hearback/Readback	<u>15</u>
Initial Contact	<u>16</u>
Stand By	<u>16</u>
Unfamiliar	<u>17</u>
Radio Check	<u>17</u>
Initial Clearance/Clearance To or Out of the Zone	18

Taxi	<u>19</u>
Helicopter Taxi	<u>20</u>
Progressive Taxi	<u>21</u>
Hold Short	<u>22</u>
Crossing a Runway	<u>22</u>
Line Up/Line Up and Wait	<u>23</u>
Departure Instructions	<u>24</u>
Takeoff	<u>24</u>
Immediate Takeoff	<u>25</u>
Helicopter Takeoff	<u>26</u>
Take off at Your Discretion	<u>26</u>
Basic Circuit Pattern	<u>27</u>
ATC Circuit Instructions	<u>29</u>
Cleared for the Option	<u>30</u>
Autorotation	<u>31</u>
Traffic	32
Frequency Change	33
Position Report	<u>34</u>
Arrival/Approach	37
VFR Hold	38
Remain Outside of Class D Airspace	38

Landing39	9
Helicopter Landing40	<u>C</u>
External Loads4	1
Overshoot	2
Taxi Instructions After Landing4	3
Arrival Report4	3
Emergency Communications44	4
Mayday44	4
Pan Pan44	4
Fuel Emergency4	<u>5</u>
Minimum Fuel4	<u>5</u>
Request VDF Steer46	3
Request Special VFR4	7
VFR Over-The-Top (OTT)48	3
PIREP48	3
Change to Flight Plan49	9
Mandatory Frequency (MF) – Circuits <u>50</u>	<u>C</u>
MF – Start Up/Taxi/Takeoff <u>50</u>	3
MF – Flying Through Area <u>55</u>	<u>5</u>
ATF – Circuits56	3
ATF – Start Up/Taxi/Takeoff56	3

# Legend



Safety-Related Content



Best Practice-Related Content



Phraseology Used by All Pilots



Phraseology Specific to Helicopter Pilots



Phraseology Used by Air Traffic Controllers



Phraseology Used by Flight Service Specialists



Phraseology Used by Flight Service Specialists at a Flight Information Centre



While the airplane icon denotes phraseology used by pilots, it should be recognized that this is phraseology for both fixed and rotary wing aircraft. Where the phraseology for helicopters is different, based on the operational capabilities of rotary wing aircraft, an additional example is given.

#### **About This Document**

This document is intended as a learning tool and reference guide to phraseology for all pilots flying within Canadian airspace. This document has been created using resources including the *Canadian Aviation Regulations* (CARs), *Transport Canada Aeronautical Information Manual* (TC AIM) and *Glossary for Pilots and Air Traffic Services Personnel*, as well as input from Air Traffic Controllers (ATC), Flight Service Specialists (FSS), Flight Information Centres (FIC), flight training units and commercial aviation leaders from across the country.

Safety is a driving force in aviation. Communications are an important contributing factor to safety and many incidents and occurrences cite communications as a primary cause. It is easy to forget that the voice on the other end of the radio is a person too. If everyone begins with the same foundation of standard phraseology, there is less room for error or misinterpretation.

#### **Document Format**

Examples of phraseology in this document are laid out as follows:

- any pertinent information is given
- the example is broken down into its critical parts
- a fictitious example is then shown to give the user a clear idea as to how the phraseology might be spoken



These examples are not intended to be exhaustive and if uncertain, or when the standard phraseology falls short, use plain language to communicate your request or intentions.



While these are standard transmissions, local procedures may vary. If you are familiar with local procedures, adjust your transmissions accordingly.



For definitions of unfamiliar or aviation-specific words found in the document, consult <u>Terminav</u><sup>©</sup> or the <u>Transport Canada Glossary for Pilots and Air Traffic Services Personnel.</u>

# **Phraseology Examples**

In the examples given, the critical parts will be designated as follows:

**UPPERCASE** indicates words that are to be spoken exactly as written

(in parentheses) describes the information to be inserted

/ slash indicates that there are alternative words or information; use only one

#### **Example:**

Reads as: SPEAK LOUDLY AT/IN (location)

Spoken as: Speak loudly at home ...or... Speak loudly in the hangar

# **Phonetic Alphabet**

Alphabet	Pronunciation	Alphabet	Pronunciation
A – Alfa	AL fah	N – November	No VEM ber
B – Bravo	BRAH VOH	O – Oscar	OSS cahr
C - Charlie	CHAR lee	P – Papa	Pah PAH
D - Delta	DELL tah	Q – Quebec	Keh BECK
E – Echo	ECK oh	R – Romeo	ROW me oh
F – Foxtrot	FOKS trot	S – Sierra	See AIR ah
G – Golf	GOLF	T – Tango	TANG go
H – Hotel	Hoh TELL	U – Uniform	YOU nee form
I – India	IN dee ah	V – Victor	VIK tah
J – Juliett	JEW lee ETT	W – Whiskey	WISS key
K – Kilo	KEY loh	X – X-Ray	ECKS Ray
L – Lima	LEE mah	Y – Yankee	YANG key
M – Mike	MIKE	Z – Zulu	ZOO loo

#### **Numbers**

Term	Pronunciation	Term	Pronunciation
0	ZE RO	7	SEV en
1	WUN	8	AIT
2	TOO	9	NIN er
3	TREE	decimal	DAY SEE MAL
4	FOW er	hundred	HUN dred
5	FIFE	thousand	TOU SAND
6	SIX		

Altitude	Pronunciation	Time	Pronunciation
2 000	Two Thousand	1700Z	One Seven Zero Zero Zulu
2 500	Two Thousand Five Hundred	Distance	Pronunciation
11 000	One One Thousand	25 Nautical Miles	Two Five Miles
FL180	Flight Level One Eight Zero	25 Nautical Miles DME	Two Five D M E
Heading	Pronunciation	Speed	Pronunciation
005 Magnetic	Heading Zero Zero Five	110 Knots	Speed One One Zero Knots
180 True	Heading One Eight Zero True		

# **Decimals**

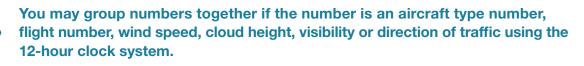
Numbers with a decimal point, such as an altimeter setting or radio frequency may be spoken as:

29.95 TWO NINER DECIMAL NINER FIFE TWO NINE NINE FIVE or 127.7 ONE TWO SEVEN DECIMAL SEVEN ONE TWO SEVEN SEVEN



ATS will use NINER and FIFE, however, pilots are not required to use these terms and may use NINE and FIVE.

3



Example	Pronunciation
Airbus 320	Airbus Three Twenty
West Jet 620	West Jet Six Twenty
Wind 270/10	Wind Two Seven Zero at Ten
BKN035	Thirty Five Hundred Broken
Traffic 10 O'clock	Traffic Ten O'clock

# **Transponder Phraseology**

ATC Phraseology	Meaning
SQUAWK (numerical code)	Input assigned transponder code
SQUAWK IDENT	Press the "ident" feature of transponder
SQUAWK MODE CHARLIE	Ensure MODE C function is selected
STOP SQUAWK MODE CHARLIE	Turn off MODE C function
RESET/RECYCLE TRANSPONDER	Turn transponder off, and then back on
CONFIRM SQUAWK	Visually and then vocally confirm the selected mode/code
SQUAWK STANDBY	Select "standby" function
ROGER IDENT	Used by FSS to acknowledge a request to squawk ident or change to a new code
YOUR TRANSPONDER APPEARS UNSERVICABLE/MALFUNCTIONING	You are not showing up properly on the radar screen. Cycle transponder OFF and back ON to see if this fixes the issue

# **Standard Words and Phrases**

Word	Meaning
ACKNOWLEDGE	Let me know you have received and understood this message
AFFIRMATIVE	Yes
APPROVED	Permission granted
BREAK	Separation between portions of the message
BREAK BREAK	Separation between messages for two different aircraft
CHECK	Examine a system or procedure
CONFIRM	Verify (clearance, instruction, action, information) given
CONTACT	Establish communication with
CORRECT	True/accurate
CORRECTION	An error was made in transmission, the correction will follow
DISREGARD	Ignore
EXPEDITE	Comply with instruction as soon as safely able
GO AHEAD	Proceed with transmission
HOW DO YOU READ	Can you hear my transmissions clearly?
I DO NOT UNDERSTAND	I do not understand, please rephrase your last transmission
I SAY AGAIN	I repeat for clarity or emphasis
IMMEDIATELY	Immediate action required for safety reasons
MONITOR	Listen to (frequency)
NEGATIVE	No/permission not granted/not correct/not capable
OVER	End of transmission, requires response
READ BACK	Repeat all, or specified part of message back
ROGER	I have received your transmission (generally used by ATC rather than pilots)
SAY AGAIN	Repeat all, or specified part of last transmission
SPEAK SLOWER	Reduce rate of speech
STAND BY	Wait and monitor frequency, caller will re-establish contact
UNABLE	Cannot comply with instruction/clearance/request
WILCO	I understand message, will comply
WORDS TWICE	Communication difficult: please say every word/group of words twice Communication difficult: therefore I will repeat every word/group of words twice

# **Helicopter Specific Words and Phrases**

Word	Meaning
AIR TAXI	To taxi while airborne: generally above twenty knots airspeed, altitude at pilot's discretion, generally below one hundred feet AGL
AUTOROTATION	An emergency procedure in which the helicopter has no engine power and manoeuvres the aircraft to the ground safely. This is done by maintaining airflow over the rotors
EXTERNAL LOAD	Helicopters are capable of suspending material under the helicopter during flight. When operating with a load, a helicopter may fly slower and will avoid overflying built up areas
GROUND TAXI	For wheel-equipped helicopters: to taxi on the ground
HOLD	To hold short of a designated location in current state (i.e. on ground, in hover) or position
HOVER	To hold a position while airborne: done in ground effect, further movement requires ATC instruction
HOVER TAXI	To taxi while in ground effect: generally less than twenty knots airspeed, altitude less than twenty five feet AGL unless higher required for operational reasons
HELIPAD	Designated area in which helicopters may take off and land
LONG LINE	An external load suspended on a line from the helicopter. A length may be specified. Expect helicopter to operate as with external load, but also with the extra altitude required to accommodate the length of the line
ROTOR DOWNWASH	Wake turbulence caused by the movement of the rotors while hovering

# **Aircraft Identification**

Aircraft identification (call sign) will be different depending on whether you are a general aviation flight/small operator, or an operator with a telephony designator and flight number (i.e. Air Canada, First Air, Helijet).

On initial contact with any ATS unit you must identify yourself using your full identification (call sign). If ATS refers to your aircraft using an abbreviated call sign, you may then begin using that abbreviation.

	Full Call Sign	Abbreviated Call Sign
With Telephony Designator	Designator + Flight Number i.e. Air Canada 452	N/A
Without Telephony	Aircraft Manufacturer/Type + Last 4 Characters of Aircraft Registration	Last 3 Characters of Aircraft Registration
Designator	i.e. Katana Golf Delta India Bravo, Robinson 22 Foxtrot Lima Mike Victor	i.e. Delta India Bravo, Lima Mike Victor
Foreign Private Aircraft	Aircraft Manufacturer/Type + Full Registration	Last Three Characters of Aircraft Registration
	i.e. Challenger November 6739 X-ray	i.e. 39 X-ray
	CANFORCE + Last 4 Numbers of Registration	N/A
Military	CANFORCE + Flight Number	N/A
	Tactical Call Sign, i.e. Gonzo Zero Eight, Royal + Flight Number	N/A
Coast Guard	Canadian Coast Guard + Flight Number	N/A
	i.e. Canadian Coast Guard 305	
Ice Patrol CANICE + Flight Number		N/A
Civil Air Search and Rescue Association	RESCUE + Flight Number CASARA + Aircraft Registration	N/A

Helicopters, gliders and ultralights may prefix their call sign with "Helicopter", "Glider" or "Ultralight" instead of the manufacturer name or type.



**Ultralight Golf Echo Echo Hotel** 

In addition to the aircraft call sign, large aircraft may also designate weight category:

Heavy: This refers to an aircraft with a maximum take-off weight of over 136,000 kilograms (300,000 lbs)

**Super:** This refers to an Airbus A380



FEDEX three seven two heavy, wind zero seven zero at fifteen, cleared to land runway zero five



Heavy aircraft are required to designate themselves as "Heavy" on their initial contact with ATS. After this, they may abbreviate their call sign to only the telephony designator and flight number, removing the term "Heavy". Keep this in mind while listening to transmissions around an airport.



It is important to recognize these terms and the wake turbulence associated with that category of aircraft as you may be required to provide your own separation behind these types of aircraft.

# **Similar Call Signs**

When two or more aircraft with similar call signs are operating on the same frequency, ATS may:

- · advise aircraft to be aware and listen carefully
- add aircraft type to call sign (i.e. Piper GRF, Cessna GFR)
- instruct one pilot to use full four-letter registration (i.e. GRF, FGRF)
- instruct one pilot to use telephony designator followed by two characters of registration (i.e. Air Canada 452 and Jazz 4425 could become Air Canada November Charlie, Jazz Echo Papa)

Maintain a careful listening watch; there is always potential for miscommunication.

# **Air Traffic Service (ATS) Units**

ATS units also have a designated call sign and associated frequency. This call sign is comprised of geographic location, followed by the type of service provided.

ATS Unit		Service		Call Sign
		Cleara	nce Delivery	(location) CLEARANCE DELIVERY
Airport Con	Airport Control		d Control	(location) GROUND
		Tower	Control	(location) TOWER
		Arrival	Control	(location) ARRIVAL
Terminal Control		Depar	ture Control	(location) DEPARTURE
		Termin	nal Control	(location) TERMINAL
Area Control				(location) CENTRE
Flight Service Station and Flight Information Centre (FSS/FIC)		Airpor	t Advisory Service (FSS)	(location) RADIO
		Flight Information Service Enroute-FISE (FIC)		(location) RADIO
Example:	Ottawa Clearance D	elivery	Montreal Arrival	Vancouver Terminal
	Toronto Ground		Calgary Departure	Edmonton Radio



## What to Expect From Different ATS Units

#### **Area Control Centres (Terminal/Centre)**

Area Control Centres (ACC) provide control, advisory and alerting services for IFR and controlled VFR aircraft. Air traffic controllers located at these centres across the country coordinate the safe, efficient and orderly flow of air traffic as it travels across Canada.

Each ACC is responsible for air traffic in a large section of Canadian airspace known as a Flight Information Region (FIR). Each FIR is divided into smaller "sectors" and assigned to controllers who know that airspace. Using radar and advanced flight data management systems, controllers track all flights within a sector, give pilots enroute instructions and provide terminal clearances at certain airports.





# Control Towers (Tower, Ground, Clearance Delivery, etc.)

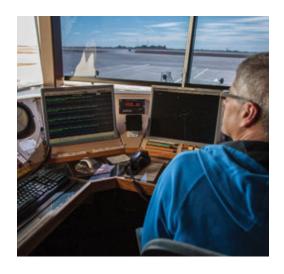
Control towers provide air traffic control and information services within a defined control zone around busy airports.

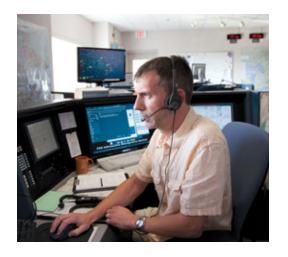
Controllers at these locations provide pilots approaching and departing the airport with clearances and instructions to help them maintain separation from other aircraft. They also provide flight information to aircraft operating in airspace around their airports and issue clearances and instructions to aircraft as well as vehicles on the ground.

#### **Airport Advisory Services (FSS, MF)**

At some airports with a lower density of traffic, pilots are responsible for maintaining a safe distance from other aircraft, and control services are not provided.

Airport advisory services may be provided by Flight Service Specialists working at Flight Service Stations (FSS) located at these airports or via Remote Communication Outlet (RCO). The services they provide include local weather information and airport advisory services (information on traffic in the area, runway conditions, wind, altimeter and other information required by pilots), vehicle control and emergency assistance. They can relay ATC clearances and make suggestions to pilots, but do not issue instructions.





# Flight Information Services (FIC, WXBRIEF, Enroute Services)

Flight Information Centres (FIC) are centralized Air Traffic Services units responsible for providing pre-flight, enroute flight information and VFR alerting service.

Flight Service Specialists working at these centres are trained to interpret meteorological information and use this information to provide in-depth interpretive weather briefings and Notice to Airmen (NOTAMs) information to pilots operating anywhere in Canadian airspace. They are also responsible for managing VFR flight plans and for providing alerting service and coordination with search and rescue.

### **Community Aerodrome Radio Stations**

NAV CANADA provides specified flight information services in northern and remote areas, utilizing Community Aerodrome Radio Station (CARS) facilities to provide aviation weather and communication service at designated sites in the Yukon, Northwest Territories, Nunavut and Northern Quebec along James Bay Coast.

CARS facilities consist of meteorological equipment for producing aviation surface weather observations (METARs) and office space equipped with a communications console for providing operational information to pilots. CARS operators provide aviation support in the form of air/ground communication, flight planning, aviation weather observation, and emergency response.



#### **Frequency Coupling**

When frequencies are coupled together, any transmission received on a frequency is automatically re-broadcast on all other frequencies that are coupled within that group. This allows for all users on all frequencies within a coupled group to hear all transmissions regardless of which frequency they originate on. The main advantages of this are a reduction/elimination of two users transmitting on two separate frequencies at the same time and thereby stepping on each other on the receiving (ATS) end, as well as an increased situational awareness of all users. This may occur at both FSS and ATC units.

## Language

CARs 602.133, 602.134, 602.135

Canada is unique in that within the boundaries of Quebec, as well as at Ottawa-Macdonald Cartier International Airport, a pilot may choose to communicate in either English or French.

The initial contact sets the language for the entire communication. You must initiate contact in the desired language of communication and continue communicating in that language for the duration of your contact.

All ATS units in Canada provide service in English, and it is important to note that in Quebec and Ottawa not all pilots are bilingual.





Communication is of paramount importance in aviation. If a communication is misunderstood, incorrect, or garbled, even the simplest message can lead to a lapse in safety. The goal of all communications is to provide unambiguous, correct, and current information and clearances to aircrews and controllers.

National Aeronautics and Space Administration

## **Radio Operation**

Familiarize yourself with the VHF radio in your aircraft prior to initiating communications. Set volume and squelch accordingly, and listen briefly to the desired frequency. Ensure microphone or boom is positioned so that speech will be clear and continuous. When ready to transmit, press the "push-to talk" button firmly and hold down with constant pressure. Once finished your transmission, release the push-to-talk button.

#### **Good Practices**

#### CARs 602.136

Maintain a continuous listening watch on the appropriate frequency. This will ensure you do not miss any transmissions directed to or affecting you, and will help you maintain situational awareness.

Remember, your voice is a tool. Speaking calmly and clearly indicates you are calm and in control in the cockpit, whereas quick, frenzied or excessively loud communications are more difficult to understand and may indicate urgency, or even panic.

The following practices are recommended to make communications easier for yourself as well as the receiver:

- · listen on frequency before speaking to avoid making a call while another aircraft is also transmitting
- think about and plan what you are going to say before beginning transmission
- after pressing the push-to-talk button, a slight pause before beginning to speak (and again when you are finished) ensures that your entire transmission will be heard and not cut off
- use a normal, conversational tone and volume of speech
- keep calls brief using concise, standard phraseology
- remember that the information being relayed may need to be written down, speak slightly slower than during normal conversation, and transmit no more than three ideas (phrases, information, instructions) at once
- only operational transmissions should be made (i.e. avoid general conversation)

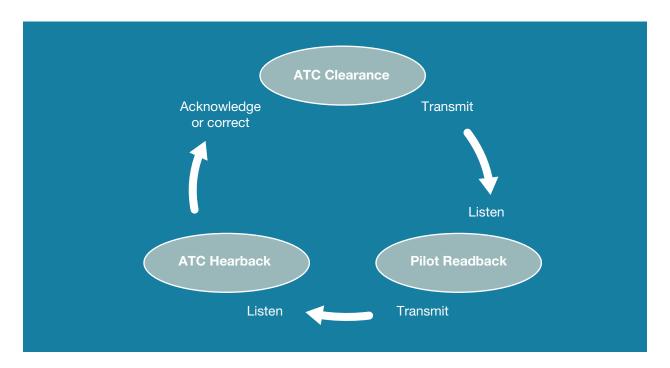


Writing down long, complex or unfamiliar instructions will aid in your recall of the instruction and may mitigate incorrect readbacks and miscommunication.

#### **General Format of Radio Communication**

A complete radio transmission is made up of a number of parts and is cyclical in nature. Both persons involved must state their request/intentions, listen for feedback and acknowledge the other person's response.

The listening portion of the cycle is just as important as the speaking portion. Careful listening (hearback) may prevent errors from occurring.





State your call sign in each transmission. This allows ATC to confirm that the message/instruction/clearance was received and acknowledged by the intended aircraft.

If you do not understand, ask.



If the frequency is busy, ATC will ensure the highest priority calls are made first. If you have contacted ATC and they do not respond immediately, wait. They may be attending to a higher priority task such as an emergency call.

# Hearback/Readback

CARs 602.31

The communications between ATS and pilots are intended to ensure the safe passage of all aircraft travelling through designated airspace. An important aspect of this communication is hearback/readback. While operating in VFR flight, the pilot is not required to read back each transmission, unless requested by ATS.



Reading back instructions as well as clearances allows both you and ATS to correct any mistakes in what has been said and heard.

Some of the most safety-critical clearances and instructions that may be read back are:

- clearance or instruction to enter, land on, take off from, hold short, cross or backtrack on any runway
- route clearances
- the runway in use, altimeter settings, level/heading/speed instructions
- transponder codes



An instruction to HOLD SHORT of a runway must be read back.

Note that in many of the examples given within this document, it would be acceptable to respond with just the aircraft call sign.



If you are unsure, if something is unclear, or not what you expected, it is important that you ask for clarification.

This document attempts to find consistencies in expected readbacks based on feedback from ATS units across Canada. However, as noted in the Document Format section, local procedures may vary.



Taking time to visit your local Air Traffic Service Unit is recommended.

#### **Initial Contact**

On initial contact, tell ATS not only the manufacturer, but the type of aircraft. For example, a Cessna 150 and a Cessna Citation have very different flight capabilities and characteristics.

Aircraft: (ATS unit call sign) THIS IS (aircraft call sign)



Montreal Terminal, this is Piper Meridian Foxtrot Romeo Juliett Delta



If you are in airspace with high frequency congestion, you may adjust your calls by taking out unimportant words like "this is" and only transmitting the most important information:

**Example: Montreal Terminal, Piper Foxtrot Romeo Juliett Delta** 

# **Stand By**

"Stand By" is generally used when there is time needed between transmissions. This may be to verify or gather information, or because there is another task being performed. "Stand by" means wait, the individual (ATS unit or pilot) who initiated the stand by will re-establish contact when they are ready to do so.



Whitehorse Radio, Helicopter Golf Juliett Uniform Kilo, I would like to update my flight plan



Helicopter Golf Juliett Uniform Kilo, Whitehorse Radio, stand by



Juliett Uniform Kilo, go ahead



The phrase **GO AHEAD** is only used as an instruction to proceed with your transmission. It is not used as an authorization for an aircraft or vehicle to taxi, or to approve a request.

#### **Unfamiliar**

You may utilize the term "unfamiliar" when in a new airspace or airport. This alerts ATS to the fact that you may not be ready to receive abbreviated, complex or fast-paced information. The ATS unit will try to offer you direct or uncomplicated routing and will be prepared to pay particular attention to you and your safety.



Fort McMurray Tower, Helicopter Foxtrot Sierra Mike Lima inbound from the South to land, unfamiliar with the area



Helicopter Foxtrot Sierra Mike Lima, McMurray Tower, roger, are you GPS-equipped?



**Affirmative, Foxtrot Sierra Mike Lima** 

#### **Radio Check**

ATS may ask you to verify the readability of their radio transmission. Conversely, you may ask ATS to verify the readability of your radio transmissions.

Aircraft: (ATS unit call sign) (aircraft call sign) RADIO CHECK (frequency)/HOW DO YOU READ?

ATS: (aircraft call sign) READ YOU (readability number)

Readability	Description
1	Unreadable
2	Readable now and then
3	Readable but with difficulty
4	Readable
5	Perfectly readable



Boundary Bay Tower, Seneca Golf Oscar Mike Golf, how do you read?



Seneca Golf Oscar Mike Golf, read you three, background static



Seneca Golf Oscar Mike Golf

## Initial Clearance/Clearance To or Out of the Zone

Check in Canada Flight Supplement (CFS) before initial contact to determine whether your call should be directed to Ground, Clearance Delivery or Tower. If ATIS is available, listen to the information given and note the ATIS identifier before contacting the appropriate unit.

Inform ATC of what you intend to do during your flight. This allows ATC to plan your entry and/or exit from the airspace.

Circuits: If you intend to do circuits at the airport



Abbotsford Ground, Cessna 172 Golf Charlie Yankee Golf, with information Sierra, for circuits



Cessna 172 Golf Charlie Yankee Golf, Abbotsford Ground, squawk six two two six, runway zero seven, taxi via Alpha, hold short runway zero seven, contact Tower one one niner decimal four



Six two two six, taxi Alpha, hold short runway zero seven, Cessna 172 Golf Charlie Yankee Golf

Practice Area: If you intend to go out to the practice area



Fredericton Ground, Katana Golf Echo Echo Mike, with information Yankee, practice area, two thousand feet

**Cross Country:** If departing on a cross country, or a simulated cross country, ensure that you inform ATC. If on a flight plan, state this. If using a set heading point or specific routing out of the airspace, inform ATC so that they can plan for your departure.



Ottawa Clearance Delivery, Katana Foxtrot Whiskey Sierra Hotel, with information Juliett, on VFR flight plan to Mirabel, set heading point Russell



If you receive a clearance or instruction that you do not understand, say I DO NOT UNDERSTAND.

The instruction/clearance will be explained to you using different words.

#### **Taxi**

#### CARs 602.96

Aircraft: (ATC unit call sign) (aircraft call sign) WITH INFORMATION (ATIS identifier) (intentions/request)

**ATC:** (aircraft call sign) (ATC unit call sign) RUNWAY (number) WIND (direction/speed) ALTIMETER (setting) TAXI (taxi instructions)

Aircraft: (read back clearance/instruction) (aircraft call sign)



Ottawa Ground, Piper Meridian Foxtrot Romeo Juliett Delta with information Delta, at Shell Aerocentre, ready to taxi



Piper Foxtrot Romeo Juliett Delta, Ottawa Ground, runway two five, taxi Bravo, contact tower one one eight decimal eight, holding short



**Foxtrot Romeo Juliett Delta** 



In order to enter or cross a runway, a specific instruction or clearance is required (cross runway 25; line up runway 25; taxi via runway 25; cleared takeoff runway 25).



#### **Helicopter Taxi**

ATC will clear the helicopter to air taxi, unless otherwise requested by the pilot.

Aircraft: (ATC unit call sign) (aircraft call sign) WITH INFORMATION (ATIS identifier) REQUEST TAXI

**ATC:** (aircraft call sign) AIR TAXI/AIR TAXI VIA (route), TO (location) (restrictions or special instructions), (traffic and hazard information), (wind information)



Montreal Ground, Helicopter Golf X-Ray Alpha Charlie, with information Golf at Hellibellule, request taxi



Helicopter Golf X-Ray Alpha Charlie air taxi via Papa Echo Delta hold short runway two nine



Air taxi Papa Echo Delta, hold short two nine, Golf X-Ray Alpha Charlie



Be aware of rotor tip vortices and rotor downwash while manoeuvring near light fixed wing aircraft.

#### If ground taxi is required:

Aircraft: (ATC unit call sign) (aircraft call sign) REQUEST GROUND TAXI



Springbank Ground, Bell 206 Foxtrot Juliett Yankee Tango Medevac, request ground taxi



Bell 206 Foxtrot Juliett Yankee Tango Medevac, ground taxi Alpha Charlie Delta, hold short runway two six



Ground taxi Alpha Charlie Delta, hold short runway two six, Foxtrot Juliett Yankee Tango Medevac



## **Progressive Taxi**

Progressive taxiing may be requested in unfamiliar airports, airports with complex/long taxiways, or at night when visibility on the ground may be difficult. If you request progressive taxiing, the controller will divide your taxi route into manageable sections and issue your instructions accordingly. They will guide you step by step.



Windsor Ground, Caravan Golf Victor India India, requesting progressive taxi to apron three



Caravan Golf Victor India India, Windsor Ground, roger, taxi right onto Hotel, left on Foxtrot, hold short runway one two



Hotel, Foxtrot, hold short runway one two, Golf Victor India India



Windsor Ground, Golf Victor India India, holding short runway one two, ready to continue taxi



Victor India India, cross runway one two, continue Foxtrot, left on Golf, enter apron straight ahead at your discretion



Foxtrot, Golf, apron at my discretion, Victor India India



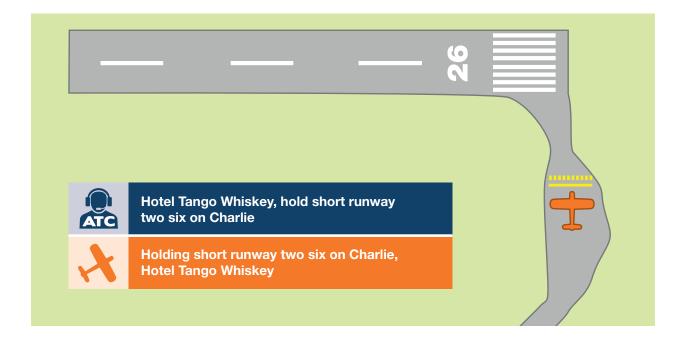
#### **Hold Short**



You may be given an instruction to **HOLD SHORT** of a runway. This means that you must stay on the taxiway behind the hold short line and cannot enter the runway until further instructions are received. **A HOLD SHORT instruction** requires a readback.

ATC: (aircraft call sign) HOLD SHORT (runway number)

Aircraft: HOLDING SHORT (runway number) (aircraft call sign)



# **Crossing a Runway**



Before crossing any runway, you must be given a clearance by ATS.

ATS: (aircraft call sign) CROSS RUNWAY (runway number)



Romeo Echo Mike, cross runway one four



Cross runway one four, Romeo Echo Mike

# Line Up/Line Up and Wait



You may be instructed to LINE UP or LINE UP AND WAIT. This may occur when the ATC has another aircraft to arrive or depart ahead of you, or for wake turbulence separation. LINE UP and LINE UP AND WAIT are NOT take-off clearances.

**Aircraft:** (ATC unit call sign) (aircraft call sign) (HOLDING SHORT RUNWAY (runway number)/ ready for departure)

**ATC:** (aircraft call sign) LINE UP/LINE UP AND WAIT RUNWAY (runway number) (reason to wait: other aircraft or vehicles/wake turbulence/etc.)

Aircraft: LINE UP/LINE UP AND WAIT RUNWAY (runway number) (aircraft call sign)



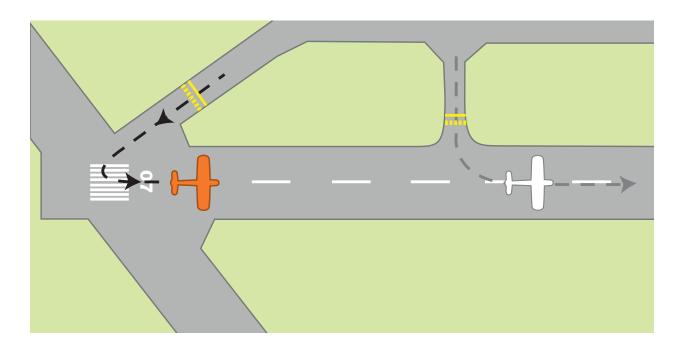
Boundary Bay Tower, Hotel India Golf, holding short runway zero seven, ready for departure



Hotel India Golf, line up and wait runway zero seven. Number two for departure, traffic Cessna 172 departing from Bravo.



Line up and wait runway zero seven, Hotel India Golf



# **Departure Instructions**



ATC may issue specific departure instructions. This is NOT a take-off clearance.

ATC: (aircraft call sign) (instruction)

Aircraft: (instruction) (aircraft call sign)



Zulu Yankee Zulu, after departure, right turn to Laberge when able, not above three thousand three hundred feet



Right turn to Laberge, not above three thousand three hundred, Zulu Yankee Zulu

# Takeoff CARs 602.96



In order to take off of a controlled runway, you must be issued a clearance containing the words **CLEARED FOR TAKEOFF**.

Ensure you are holding short of the appropriate runway and are ready to take off before contacting ATC. When you receive your take-off clearance, it is good practice to repeat the runway number in your read back. This helps to verify that you will be taking off of the correct runway.

**Aircraft:** (ATC unit call sign) (aircraft call sign) HOLDING SHORT RUNWAY (runway number/ready for departure)

ATC: (aircraft call sign) CLEARED FOR TAKEOFF RUNWAY (runway number)



Calgary Tower, Hotel India Golf, holding short runway zero eight, ready for departure



Hotel India Golf, cleared for takeoff runway zero eight



Cleared takeoff runway zero eight, Hotel India Golf

### **Immediate Takeoff**

Tower may ask if you are able to perform an immediate departure. This means that because of other traffic, there can be no extra time spent on the runway. You must taxi onto the runway and take off with no delay. If you are unable to do this, say "unable", remain holding short, and ATC will issue you a standard take-off clearance when able.



Fredericton Tower, Hotel India Golf, holding short runway one five, ready for departure



Hotel India Golf, are you able an immediate departure?



**Affirmative, Hotel India Golf** 



Hotel India Golf, cleared for immediate takeoff runway one five



Cleared immediate takeoff runway one five, Hotel India Golf



## **Helicopter Takeoff**

When taking off from a manoeuvring area of the airport, ATC will issue a take-off clearance.

Aircraft: (ATC unit call sign) (aircraft call sign) READY FOR DEPARTURE

**ATC:** (aircraft call sign) (hazard/obstruction information) (control instruction: a required turn or heading after takeoff) (wind information) CLEARED FOR TAKEOFF/TAKE OFF AT YOUR DISCRETION FROM (location)



Saskatoon Tower, Helicopter Golf Juliett Uniform Kilo, on Charlie, ready for departure



Helicopter Golf Juliett Uniform Kilo, there is a tower northwest of your location one hundred feet, wind calm, cleared for take off taxiway Charlie



Cleared takeoff Charlie, Helicopter Golf Juliett Uniform Kilo

#### **Take off at Your Discretion**

"At your discretion" is used in uncontrolled areas of an airport. This is frequently used for helicopters and seaplanes.

You are responsible for safety and separation. ATC has given you the instruction with the intent that you comply as soon as safely able and may be instructing surrounding traffic based on this assumption.



St. John's Tower, Helicopter Foxtrot Mike Oscar Golf, ready for departure



Helicopter Foxtrot Mike Oscar Golf, take off your discretion from Universal



Helicopter Foxtrot Mike Oscar Golf, take off my discretion from Universal

#### **Basic Circuit Pattern**

The following are examples of calls you may be requested to make in the circuit. These examples are assuming you are entering the circuit at an aerodrome from outside of the airspace. If available, listen to the ATIS before entering the airspace.

If entering circuit directly after takeoff, begin at downwind call.

Aircraft: (ATC unit call sign) (aircraft call sign) (position) (altitude) (intentions)

**ATC:** (aircraft call sign) (runway in use) (wind) (current altimeter setting) CLEARED TO THE CIRCUIT/LEFT BASE/DOWNWIND ETC. (specific requested reporting points, i.e. report final)

#### When established on downwind...

Aircraft: (aircraft call sign) DOWNWIND (runway number)

#### Additional requested reporting points...

Aircraft: (aircraft call sign) BASE/FINAL/LONG FINAL (runway number) (intentions)



Yellowknife Tower, Seminole Golf Bravo Charlie Charlie, with information India, ten miles south, six thousand five hundred feet, for landing



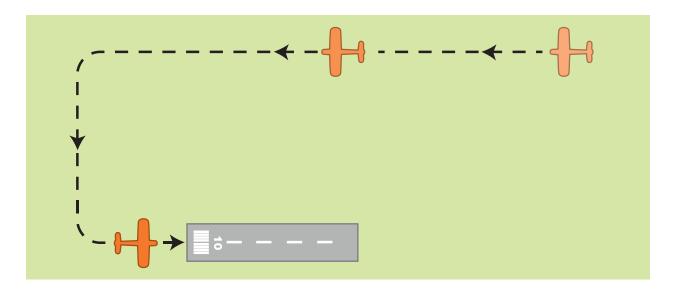
Seminole Golf Bravo Charlie Charlie, Yellowknife Tower, runway one zero, wind one four zero at ten, altimeter setting two niner niner fife, cleared left downwind, report final



Cleared left downwind one zero, report final, Golf Bravo Charlie Charlie



Golf Bravo Charlie Charlie, final runway one zero





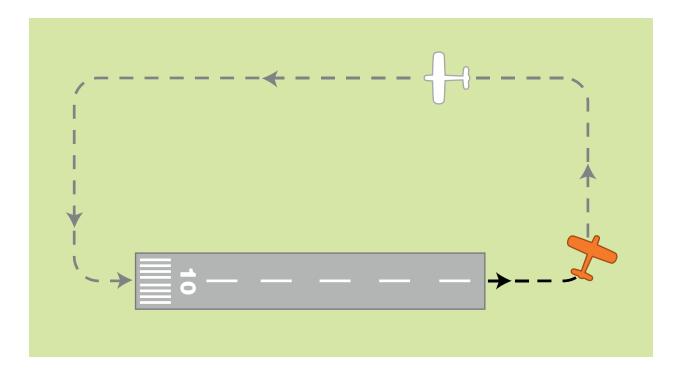
If you are given an instruction that includes NOW, comply immediately as long as you are safely able. If you are unable, inform ATC.



Bravo Charlie Charlie, turn crosswind now, you are number two, traffic on downwind



Turning crosswind, number two, traffic in sight, Bravo Charlie Charlie



# **ATC Circuit Instructions**

After ATC has advised you of traffic and you have confirmed traffic in sight, ATC may issue one of the following instructions.

ATC Instruction	Meaning	
Turn crosswind to follow traffic	Do not turn crosswind until you are in a position to follow traffic on downwind	7
Extend downwind to follow traffic on final	Continue on the downwind leg so that you can turn base to follow traffic	
Continue downwind, I will advise base turn	Continue on the downwind until instructed to turn base	
Do a right hand 360	Perform a three hundred and sixty degree turn to the right and rejoin the circuit	
Make the next circuit right hand	Change from a left to a right hand circuit	
Direct to threshold	From your current position, fly in a straight line to the threshold of the specified runway	7

## **Cleared for the Option**

You may request a variety of options for the final leg and touchdown portion of your circuit. These options include: touch-and-go, low approach, missed approach, stop-and-go, full stop landing, simulated rejected takeoff, reduced power takeoff or simulated engine failure. This request should be made as part of your downwind call. If the circuit or airport is busy, you may not be issued clearance for the option.

Aircraft: (ATC unit call sign) (aircraft call sign) DOWNWIND (runway number) REQUEST (your request)

ATC: (aircraft call sign) UNABLE DUE TO (reason)

or...

ATC: (aircraft call sign) CLEARED FOR THE OPTION RUNWAY (runway number)

Aircraft: (aircraft call sign)/CLEARED FOR THE OPTION RUNWAY (runway number) (aircraft call sign)



Fredericton Tower, Romeo Echo Mike downwind two seven, request the option



Romeo Echo Mike, cleared for the option runway two seven



Cleared for the option runway two seven, Romeo Echo Mike



Fredericton Tower, Romeo Echo Mike, downwind two seven, request stop-and-go



Romeo Echo Mike, unable stop-and-go due to traffic on long final



Request touch-and-go, Romeo Echo Mike



Fredericton Tower, Romeo Echo Mike, downwind two seven, request power off one eighty



Romeo Echo Mike, power off one eighty approved, cleared to land runway two seven



Power off one eighty approved, cleared to land runway two seven, Romeo Echo Mike

#### **Autorotation**

It is important to inform ATS and other aircraft in the area when you will be performing autorotations at an aerodrome from within the circuit. This allows for better planning and situational awareness.

Due to the typically high rate of descent, the aircraft will begin the manoeuvre at a high altitude, close to the touchdown point.

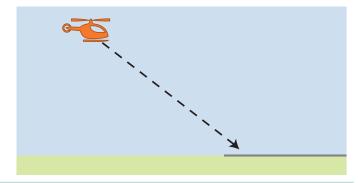
**Aircraft:** (ATS unit call sign) (aircraft call sign) REQUEST/WILL BE PERFORMING STRAIGHT IN/180/360 AUTOROTATION TO (touchdown point)



Fort St. John Radio, Helicopter Golf Golf Lima Oscar will be performing straight in autorotation to threshold two zero

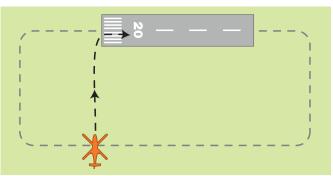
## **Straight In:**

During a straight in autorotation, the helicopter begins the manoeuvre on the final leg of the circuit. This means that the aircraft will be high on final.



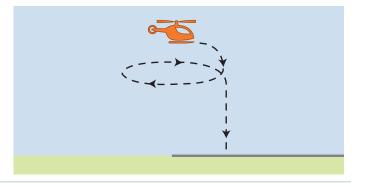
#### 180:

A 180 autorotation begins in the downwind, abeam the intended touchdown point. This is similar to a fixed wing power off 180.



#### 360:

The 360 autorotation begins above the touchdown point. A descending turn of three hundred and sixty degrees is completed before touching down. The helicopter will be high over the runway to begin this manœuvre.



#### **Traffic**

While flying VFR you are responsible for looking for traffic around you. In controlled airspace, if workload permits, ATC may advise you of traffic and provide separation; however, this does not relieve you of the responsibility to look for traffic as well.



Use the phrase LOOKING FOR TRAFFIC if you do not see the traffic. Use the phrase TRAFFIC IN SIGHT only if you see the traffic.

If you lose sight of traffic, inform ATS.

ATC: (aircraft call sign) TRAFFIC (position based on 12hr clock, direction, altitude, aircraft type)

Aircraft: LOOKING FOR TRAFFIC/TRAFFIC IN SIGHT (aircraft call sign)



Romeo Juliett Delta, traffic two o'clock, five miles, northbound Cessna, two thousand feet

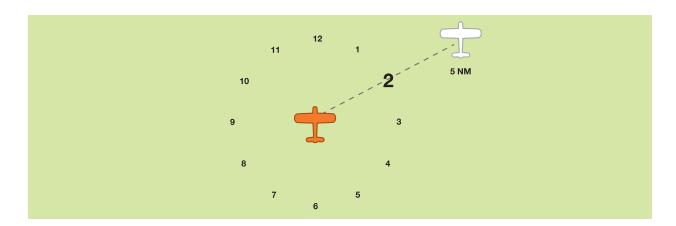


Looking for traffic, Romeo Juliett Delta

When traffic is in sight...



Traffic in sight, Romeo Juliett Delta





The phrase "with the traffic" has been identified as contributing to communication errors and should not be used or accepted by either pilots or ATS.

## **Frequency Change**

When transferring aircraft to a new frequency, ATC may provide frequency change instructions. If no frequency change is received and you are clear of Class C or Class D airspace, you may change to the next appropriate frequency.

**ATC:** (aircraft call sign) (CONTACT/MONITOR) (unit to be transferred to) ON (frequency of new unit) AT (time)/OVER (location)

Aircraft: (new frequency) (call sign)/(call sign)



Delta Mike Oscar, contact Montreal Terminal on one three four decimal one five



One three four decimal one five, Delta Mike Oscar



Montreal Terminal, Duchess Foxtrot Delta Mike Oscar with information Lima

**ATC:** (aircraft call sign) (change to enroute frequency/leaving terminal airspace/radar terminated etc.) AT (time)/OVER (location)

**Aircraft:** (change to enroute/leaving terminal etc.) (aircraft call sign)



Sierra Echo Lima, radar service terminated, change to enroute frequency at your discretion



Sierra Echo Lima



## **Position Report**

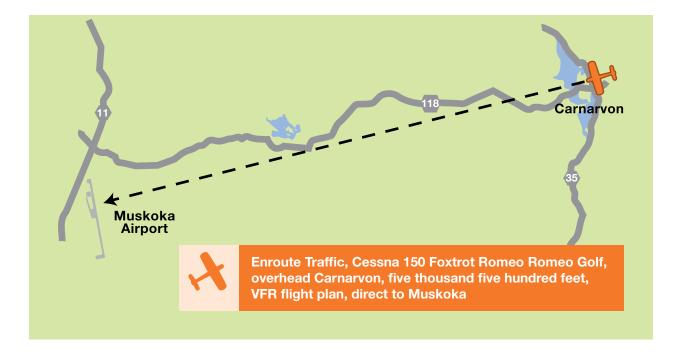
Position reports may vary slightly whether you are on a cross country, in a practice area, etc.

If directed to a FIC, make initial contact before giving position report.

#### **General Position Report**

May be directed to a FIC during a flight plan filed cross country to update them on your progress. Reports may also be broadcast on the appropriate area frequency to allow others who may be flying in the area to know where you are.

Aircraft: (ATS Unit/Enroute Traffic) (aircraft call sign) (position) (altitude) (intentions/flight plan/destination)





You must be on a flight plan when flying across the Canada-United States border. Ensure that your flight plan is both opened and closed. Do not assume that this will be done automatically.

Additional information on cross-border flights can be found on the COPA website.

#### **Practice Area Position Report (may be in controlled or uncontrolled airspace)**

A good practice area position report enables other pilots operating in the area to visualize where you are and where you will be.

Prior to entering a practice area, inquire whether the area you intend to operate in is occupied. Once established in the practice area, outline the boundaries of your chosen space by referencing easily identifiable landmarks. Also specify the altitude (or block of altitudes) that you will be operating in.

**Aircraft:** (aircraft call sign) (position) (altitude) (intentions)



Cessna 172 Foxtrot Echo Uniform Hotel, approaching practice area from the East, two thousand feet over Constance Lake, planning to operate east side Dunrobin Road to the river, between Constance Lake and Constance Bay



Subsequent position reports should only be made when necessary, for instance when an aircraft is moving into an area adjacent to yours, or if you are moving or changing altitude. Unnecessary calls may cause frequency congestion and may hinder concentration and instruction in the cockpit.

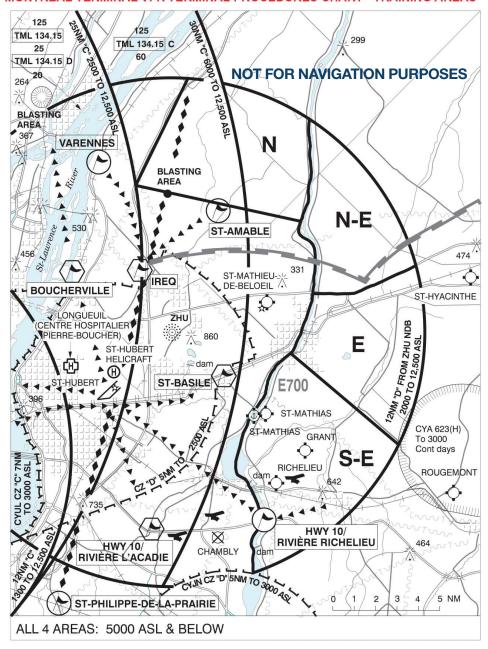


Cessna Foxtrot Echo Uniform Hotel, working east side of Dunrobin Road to the river, between the lake and the bay, three thousand feet and below

Some practice areas in Canada are divided into predetermined sections and printed in the CFS entry for the corresponding aerodrome.

Reference the CFS prior to entering practice area zone to familiarize yourself with the available areas. You may be required to contact Terminal Control or another ATS unit before working in the area. This will be stated in the CFS entry.

#### MONTRÉAL TERMINAL VFR TERMINAL PROCEDURES CHART - TRAINING AREAS



#### TRAINING OPERATIONS

Training flight will be carried out in one or many areas described on the VTPC, fr the surface to 5000 ASL. Ctc Montréal tml (freq 134.15) to inquire about the status of these areas. Acft that wish to train in one of these areas will, when obtaining their VFR codes, specify the requested area & altitude.

## **Arrival/Approach**

Before arrival to land at an airport, you must establish initial contact with the appropriate airspace controller. You may be asked to remain outside of the zone temporarily or orbit if the airspace is very busy. As VFR traffic, you will be cleared into the circuit to land. ATC will also issue you a sequence number. This number tells you when you can expect to land (and also the traffic ahead of you) i.e. "you are number three". This means that you are third in line to land and that there are two aircraft ahead of you.

Aircraft: (ATS unit call sign) (aircraft call sign) WITH INFORMATION (ATIS identifier) (intentions)

ATC: (aircraft call sign) NUMBER (number in sequence) (approach instructions)

Aircraft: NUMBER (number in sequence) (approach instructions) (aircraft call sign)



Halifax Tower, Cessna 150 Foxtrot Uniform Whiskey Lima with information Mike, inbound to land



Cessna 150 Uniform Whiskey Lima, altimeter three zero one four, cleared to left base runway three two, you are number two, follow the Katana on base



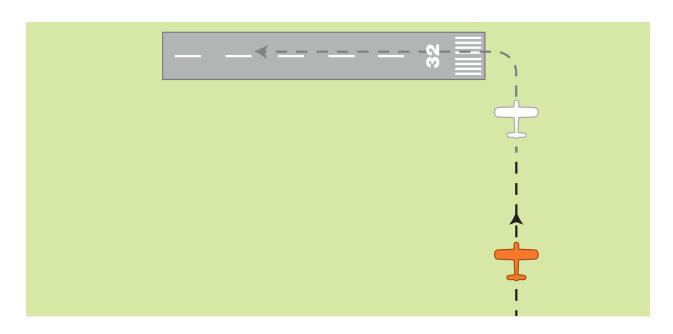
Three zero one four, number two left base three two, traffic in sight, Uniform Whiskey Lima



Uniform Whiskey Lima, cleared to left base runway three two



Cleared left base runway three two, Uniform Whiskey Lima



#### **VFR Hold**

ATC may require you to hold over a specific area due to traffic congestion. They will generally use the term "ORBIT", and give a geographic location or published checkpoint/call-up point for you to orbit over. Remain in the orbit until instructed otherwise by ATC.

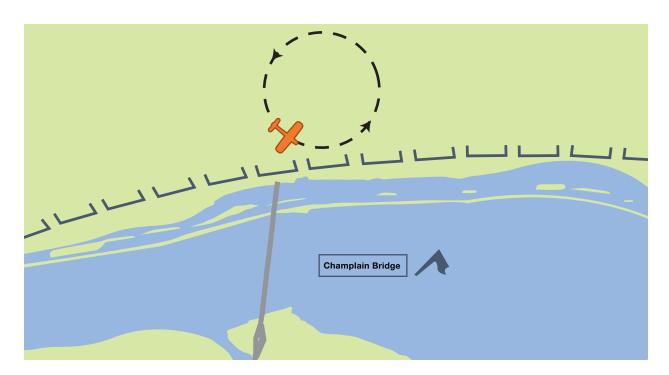
**ATC:** (aircraft call sign) ORBIT NORTH/EAST/SOUTH/WEST OF (location/checkpoint etc.) (instructions i.e. left/right turn) (expected length of hold/number of orbits)



Foxtrot Foxtrot X-Ray, orbit north of Champlain Bridge, left turns, expect three minute delay



Left turns, north of Champlain Bridge, Foxtrot Foxtrot X-Ray



# Remain Outside of Class D Airspace

When establishing contact prior to entering Class D airspace, you may be instructed to remain outside of the airspace due to traffic.



Golf Alpha Bravo Charlie, due traffic, remain outside the control zone until further advised



Remain outside of zone, Golf Alpha Bravo Charlie

## Landing

CARs 602.96



A landing clearance provides authorization to land. However, the decision whether to land or pull up and go around is yours. If you initiate an overshoot, advise ATC as soon as safely able.

Once issued a landing clearance, you may land the aircraft on the designated runway and exit via an appropriate taxiway.

**ATC:** (aircraft call sign) (traffic/hazard/obstacle information if necessary) (landing and exit instructions) (wind) CLEARED (land/touch-and-go/etc.) RUNWAY (runway number)

Aircraft: CLEARED (land/touch-and-go/etc.) RUNWAY (runway number)



Mike Foxtrot Foxtrot, wind one three zero at fifteen knots, cleared to land runway one one



Cleared to land runway one one, Mike Foxtrot Foxtrot

After landing, you do not require a clearance to exit that runway onto a taxiway.



If you must backtrack on the runway back to a taxiway in order to exit or cross a runway during taxi, you will need a clearance.



## **Helicopter Landing**

If you will be landing on the manoeuvring area of the airport, you will be issued a landing clearance. If you will be landing outside of the manoeuvring area or out of sight of the ATC, landing will be at your discretion.

ATC: (aircraft call sign) CLEARED TO LAND/LAND AT YOUR DISCRETION (location)

Aircraft: CLEARED TO LAND/LAND AT MY DISCRETION (location) (aircraft call sign)



November Mike Victor, wind three two zero at five knots, cleared to land taxiway Alpha



**Cleared to land taxiway Alpha, November Mike Victor** 



The use of the phrase "at your discretion" in association with taxiing, taking off or landing refers only to the pilot's decision on whether or not to perform the action. It does not change the expectation that the action will be completed as soon as safely able.

Any delay in taxiing, taking off or landing should be reported to ATC.



#### **External Loads**

CARs 602.16, 602.23

Helicopters operating with an external, or sling load, will generally try to avoid flight over built-up areas in case of accidental or emergency release of the load. When operating with an external load, inform ATS, or in case of uncontrolled airspace, inform the surrounding aircraft.

If you are operating with a long line, state this, as the increased height required may affect routing for you or traffic in the area.

Aircraft: (ATS unit call sign) (aircraft call sign) WITH AN EXTERNAL LOAD (intentions/request)



Springbank Tower, Helicopter Foxtrot Lima Mike Victor, with information Bravo, with an external load inbound for landing

Aircraft: (ATS unit call sign) (aircraft call sign) WITH (length) LONG LINE (intentions/request)



Abbotsford Tower, Helicopter Golf Mike India Charlie, with information Romeo, with fifty foot long line inbound for pad Alpha



#### **Overshoot**

If there is an obstruction on the runway or other hazard to landing, ATC may direct you to overshoot using the instruction "pull up and go around". ATC is expecting you to stop your descent and begin climbing back to circuit altitude.

ATC: (aircraft call sign) PULL UP AND GO AROUND (reason)

Aircraft: GOING AROUND (aircraft call sign)



Golf Tango Foxtrot, pull up and go around, aircraft on the runway



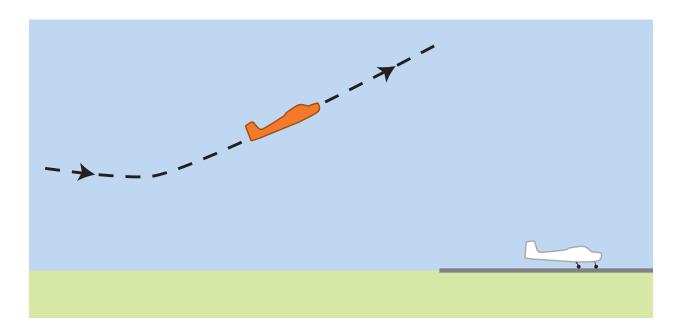
Going around, Golf Tango Foxtrot



If you initiate the overshoot, inform ATS as soon as practicable.



**Golf Tango Foxtrot going around** 



## **Taxi Instructions After Landing**

Runway exit instructions may be included in landing clearance, or provided in a separate transmission. If unable to comply with exit instructions, inform ATC as soon as safely able.

ATC: (aircraft call sign) (runway exit instructions) CONTACT GROUND (frequency) NOW/WHEN OFF/AT (location)

Aircraft: (frequency)/(frequency AT location) (aircraft call sign)



Hotel Tango Whiskey exit left on Delta, contact ground one two one decimal eight when off



One two one decimal eight when off, Hotel Tango Whiskey



Once transferred to Ground Control, they will provide appropriate taxi instructions.

Aircraft: (ATC unit call sign) THIS IS (aircraft call sign) (current location) REQUEST TAXI TO (location)

ATC: (aircraft call sign) (taxi instructions)

Aircraft: (taxi instructions) (aircraft call sign)



Springbank Ground, this is Hotel Tango Whiskey on Delta, request taxi to flying club



Hotel Tango Whiskey, taxi Charlie, Alpha to the flying club



Taxi Charlie Alpha, Hotel Tango Whiskey

## **Arrival Report**

CARs 602.77, 602.78

Arrival reports are required to close flight plans. They may be directed to ATC, FSS or FIC. They may also be done via telephone or through the <u>Collaborative Flight Planning System (CFPS)</u>. Ensure that you establish initial contact prior to giving your arrival report.

**Aircraft:** (ATS unit call sign) (aircraft call sign) (type of flight plan/itinerary) (departure aerodrome) (arrival aerodrome) (date and time of arrival)



Winnipeg Radio, Cessna 172 Golf Bravo Uniform Delta to close VFR flight plan from Boundary Bay Charlie Zulu Bravo Bravo to Collins Bay Charlie Yankee Kilo Charlie. Arrive Charlie Yankee Kilo Charlie May two five, time one two zero zero zulu

## **Emergency Communications**



It is important to make detailed and correct emergency calls. If you are in an emergency situation, the sooner you are able to make your MAYDAY call, the sooner Emergency Services can be deployed to help you. If you are in an urgent situation that does not require immediate assistance, making a PAN PAN call will ensure that ATS are aware you may need assistance.

## **Mayday**

To be used when the aircraft is threatened by serious and/or imminent danger and requires immediate assistance. Mayday signifies a distress situation.

Aircraft: MAYDAY MAYDAY (aircraft call sign) (situation/location/request/intentions) (number of persons on board) (fuel/endurance)



Mayday mayday, Cessna 172 Foxtrot Oscar India Juliet, engine fire, landing in field two miles southwest of Gander, three persons on board, endurance two hours

#### **Pan Pan**

To be used when there is concern for the safety of an aircraft, vehicle or person on board or within sight, and does not require immediate assistance. Pan Pan signifies an urgency message.

Aircraft: PAN PAN PAN PAN PAN PAN (aircraft call sign) (situation/location/request/intentions) (number of persons on board) (fuel/endurance)



Pan pan, pan pan, pan pan, Helicopter Foxtrot Golf November Bravo, passenger aboard in medical distress, request land threshold one nine, two persons on board



Once you are safely on the ground, if able, contact the ATS unit to update them on your situation.

## **Fuel Emergency**

A fuel emergency should be declared when the aircraft must land at the nearest safe aerodrome (not necessarily destination aerodrome) and will do so with less than minimum fuel.

Aircraft: MAYDAY MAYDAY FUEL (ATS unit call sign if applicable) (aircraft call sign)



Mayday mayday mayday fuel, Lethbridge Radio, Cessna 152 Golf India November Kilo

#### **Minimum Fuel**

This call alerts ATC that you do not have enough fuel to divert to another airport or enter an orbit, extended downwind, etc. You must land at the destination airport in order to maintain minimum fuel reserve. Similar to a Pan Pan, if a pilot notifies ATC of having minimum fuel, it is not an emergency.

Aircraft: (ATC unit call) (aircraft call sign) MINIMUM FUEL



Iqaluit Radio, this is DC-3 Foxtrot Hotel Golf India, minimum fuel



It is recommended to have the telephone number of the ATS units you will be flying near saved in your cell phone. These telephone numbers can be found in the CFS.

In the event of a communications failure, you may contact the ATS unit by telephone when it is safe and appropriate to do so.



## **Request VDF Steer**

VDF steers are available to VFR traffic needing directional assistance. You must request this service. Be aware that despite getting directional information from the FSS, they may not have you on radar. It is your responsibility to maintain visual contact with terrain and traffic.

Aircraft: (FSS unit call sign) (aircraft call sign) REQUEST VDF STEER (current location) (heading) (altitude)

FSS: (aircraft call sign) VDF NAVIGATION ASSISTANCE WILL BE PROVIDED TO THE (location) VDF

FSS: WHEN ASKED TO TRANSMIT FOR BEARING, GIVE CALL SIGN, HOLD MIKE BUTTON FOR (number) SECONDS AND REPEAT CALL SIGN, MAINTAIN VFR

Aircraft: (aircraft call sign) wait given number seconds (aircraft call sign)

FSS: YOUR HEADING TO THE (location) VDF SITE IS (heading) REPORT AIRPORT IN SIGHT

Aircraft: (heading) TO (location) REPORT AIRPORT IN SIGHT (aircraft call sign)



St. Catharines Radio, Cessna 150 Foxtrot Lima Lima Mike, requesting VDF steer to St Catharines Airport, over Smithville five thousand five hundred feet, heading zero eight five



Cessna Foxtrot Lima Lima Mike, St Catharines Radio, VDF navigation assistance will be provided to St Catharines VDF



Lima Lima Mike, transmit for bearing by holding mike button, give call sign, wait two seconds, repeat call sign



Cessna Foxtrot Lima Lima Mike.....Cessna Foxtrot Lima Lima Mike



Lima Lima Mike, altimeter two niner niner six, maintain VFR



Lima Lima Mike, your heading to St Catharines is zero six zero, report aerodrome in sight



Zero six zero to St Catharines, report aerodrome in sight, Lima Lima Mike

### **Request Special VFR**

CARs 602.117

The pilot must request and receive authorization to conduct Special VFR operations. Once requested, you will either be issued a clearance (to arrive, depart or operate within a control zone) or you will be informed that weather is below special VFR minima

**ATC:** (aircraft call sign) (ATC unit call sign) WEATHER BELOW VFR MINIMA, VISIBILITY (number) MILES, ONLY IFR OR SPECIAL VFR OPERATIONS ARE PERMITTED. WHAT ARE YOUR INTENTIONS?

Aircraft: (ATC unit call sign)(aircraft call sign) REQUEST SPECIAL VFR (intentions)

If approved...

ATC: SPECIAL VFR IS APPROVED IN THE (location) CONTROL ZONE (any additional instructions)

If visibility is below special VFR minima,

**ATC:** (aircraft call sign) WEATHER BELOW SPECIAL VFR MINIMA, VISIBILITY (number) MILES, ONLY IFR OPERATIONS ARE PERMITTED. WHAT ARE YOUR INTENTIONS?



St Andrews Tower, Bonanza Golf Echo Foxtrot Delta, inbound to land with information Delta, requesting special VFR



Bonanza Golf Echo Foxtrot Delta, St Andrews Tower, special VFR is approved in the St Andrews control zone. Cleared straight in runway three six



Special VFR approved, cleared straight in runway three six, Golf Echo Foxtrot Delta



St. Andrews Ground, Caravan Foxtrot Kilo Lima Romeo on apron three with information Delta, request special VFR and taxi



Caravan Foxtrot Kilo Lima Romeo St. Andrews Ground, weather below special VFR minima, visibility one half mile, only IFR operations are permitted. What are your intentions?



Foxtrot Kilo Lima Romeo will return to the hangar and file an IFR flight plan



Kilo Lima Romeo, roger

## **VFR Over-The-Top (OTT)**

If flying through a MF zone, inform FSS that you are operating VFR OTT.

VFR OTT through control zones and terminal control areas requires clearance.

Aircraft: (ATC unit call sign) (aircraft call sign) REQUEST VFR OVER THE TOP

ATC: (aircraft call sign) CLEARED THROUGH THE (station name) CONTROL ZONE VFR OVER THE TOP



Hamilton Tower, Grob Golf Victor Papa Foxtrot with information Oscar



**Grob Golf Victor Papa Foxtrot, Hamilton Tower** 



Hamilton Tower, Grob Golf Victor Papa Foxtrot request VFR Over-The-Top to Kingston



Victor Papa Foxtrot cleared through the Hamilton control zone VFR Over-The-Top

#### **PIREP**

ATC/FSS units rely on PIREPs from pilots to ensure that the most current and accurate weather is available for all those traversing the airspace. Try to include as much detailed information as possible. If practicable, direct PIREPs to a FIC as they can quickly and easily spread the information to all relevant units/users. If unable to transmit to a FIC, direct PIREP to the nearest ATS unit.

**Aircraft:** (ATS unit call sign) (aircraft call sign: including aircraft type) (position of weather phenomena) (altitude) (weather conditions encountered: cloud-base, amount, top; temperature; wind direction, speed; turbulence-intensity, type, altitude; icing-intensity, type, altitude) (any additional pertinent information)



London Radio, Katana Foxtrot Papa Bravo Kilo with PIREP



Papa Bravo Kilo, roger



Katana Foxtrot Papa Bravo Kilo, east of Campbellford VOR, over the town of Madoc, three thousand feet, overcast at four thousand feet, moderate turbulence

## **Change to Flight Plan**

CARs 602.76

If you must make a change in the route, duration or destination to your flight plan, direct this change to the appropriate ATS unit as soon as practicable.

Aircraft: (FIC unit call sign) THIS IS (aircraft call sign)

FIC: (aircraft call sign)

Aircraft: (aircraft call sign) VFR FLIGHT PLAN FROM (point of origin) TO (destination) REQUEST CHANGE

FLIGHT PLAN

FIC: ROGER (aircraft call sign)

Aircraft: (outline the change to be made) (aircraft call sign)

**FIC:** (repeat your change)

Aircraft: (aircraft call sign)/AFFIRMATIVE (aircraft call sign)



Edmonton Radio, this is Piper Seminole Foxtrot Romeo Echo Mike



Seminole Foxtrot Romeo Echo Mike, Edmonton Radio



Seminole Foxtrot Romeo Echo Mike on VFR flight plan from Red Deer to Saskatoon, I would like to make a change to my flight plan



**Romeo Echo Mike** 



Divert to Vermilion Airport for three zero minute stopover, then continue from Vermilion to Saskatoon. New ETA at Saskatoon one seven zero, Romeo Echo Mike



Romeo Echo Mike, Vermilion three zero minute stop, proceed to Saskatoon, new ETA one seven zero zero



**Romeo Echo Mike** 

## Mandatory Frequency (MF) - Circuits

CARs 602.97, 602.98, 602.101, 602.102

You are required to report to the MF unit five minutes prior to entry into the zone. It is important to make initial contact with the unit before giving your intentions. The FSS may be monitoring multiple frequencies, preparing the weather report or performing other operational tasks, and may not be immediately prepared to receive a full report in the initial call.



The ATIS is made available at busy units to help alleviate frequency congestion. If you are able to listen to the ATIS before making initial contact, you can use the ATIS identifier (e.g. information Kilo) to let the FSS know that you have the information and they do not need to relay it to you again.

Aircraft: (FSS unit call sign) THIS IS (aircraft call sign)

FSS: (aircraft call sign) THIS IS (FSS unit call sign), GO AHEAD

**Aircraft:** (aircraft call sign) (position) (altitude) (intentions) REQUEST ADVISORY (if ATIS was available – WITH INFORMATION (information identifier))

**FSS:** (aircraft call sign) PREFERRED RUNWAY (runway number) WIND (direction and speed) CURRENT ALTIMETER SETTING (altimeter numbers) (any aircraft or ground traffic/wake turbulence/conditions)

Aircraft: (intentions) (aircraft call sign)

FSS: ROGER (aircraft call sign)

Aircraft: (position) (aircraft call sign)

**FSS:** ROGER (aircraft call sign)





Fort St. John Radio, Navaho Golf Lima India Golf, five miles to the north at five thousand five hundred feet, inbound for circuits, request advisory



Navaho Golf Lima India Golf, Fort St. John Radio, active runway two nine, wind two seven zero at seven, altimeter two niner niner six, traffic Cessna Caravan circuits runway two nine



Golf Lima India Golf, descending to circuit altitude to join left downwind runway two nine looking for traffic



Lima India Golf, Caravan long final runway two nine



Lima India Golf, downwind two nine, Caravan traffic in sight



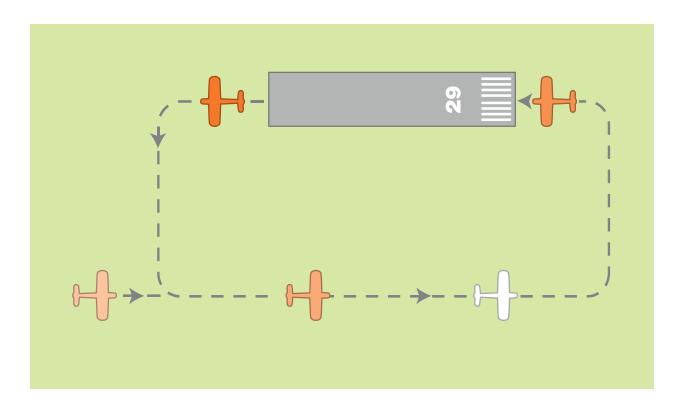
Lima India Golf, roger



Lima India Golf, final runway two nine touch-and-go



Lima India Golf, airborne runway two nine, rejoin left circuit



Not all MF areas are equipped with radar. The information that an FSS is able to provide regarding traffic depends heavily on the information they receive from pilots. Ensure that your reports are clear and concise. If you change your plan, inform the FSS.

The FSS is the point of contact for all communications in the MF area. All transmissions must be directed to the FSS.

#### If landing at aerodrome, report clear of landing surface.

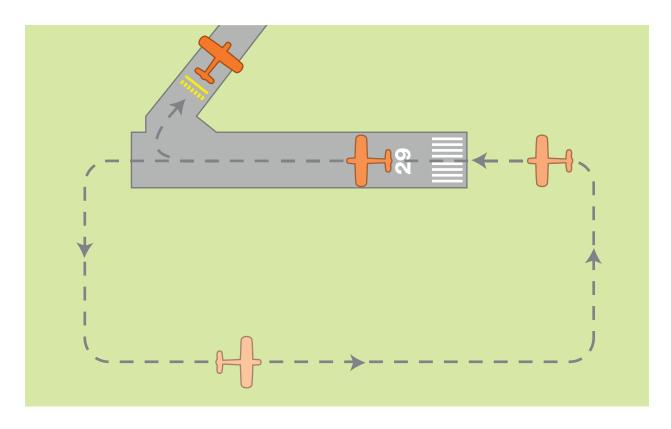
Aircraft: (FSS unit call sign) (aircraft call sign) CLEAR OF (runway number)



Fort St. John Radio, Lima India Golf clear of runway two nine



Roger, Lima India Golf



## MF - Start Up/Taxi/Takeoff

CARs 602.97, 602.98, 602.99, 602.100

Before entering manoeuvring area, report intentions. Ensure to make initial contact first, listen to the ATIS if available.

Aircraft: (FSS unit call sign) (aircraft call sign) (intentions)



Kuujjuaq Radio, King Air Foxtrot Hotel Uniform Yankee, with Bravo



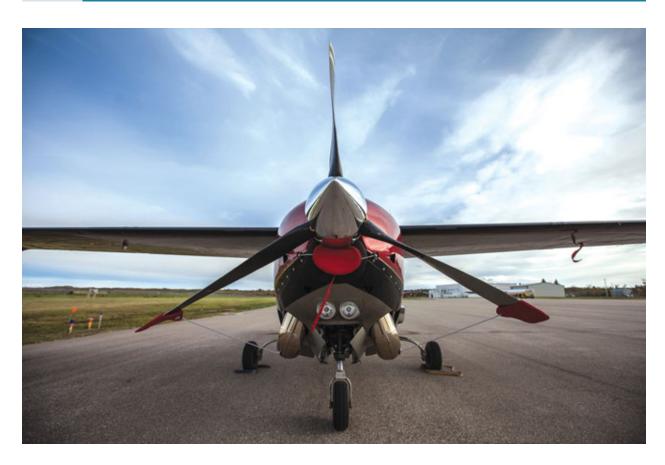
King Air Foxtrot Hotel Uniform Yankee, Kuujjuaq Radio



Kuujjuaq Radio, King Air Foxtrot Hotel Uniform Yankee taxiing Alpha to hold short runway three one, northbound departure

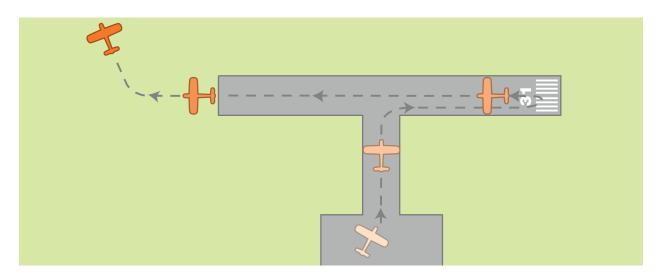


Hotel Uniform Yankee, roger



# Before moving onto take-off surface, inform FSS. Relay departure procedures before takeoff: CARs 602.100

Aircraft: (FSS unit call sign) (aircraft call sign) (intentions)





Kuujjuaq Radio, Hotel Uniform Yankee backtracking runway three one



Hotel Uniform Yankee, roger



Kuujjuaq Radio, Hotel Uniform Yankee taking off runway three one, climb runway heading to circuit altitude, right turn out, westbound one zero thousand feet

#### Report airborne:



Hotel Uniform Yankee, airborne runway three one

# Report departing circuit:

CARs 602.100

Aircraft: (FSS unit call sign) (aircraft call sign) (intentions)



Kuujjuaq Radio, Hotel Uniform Yankee clear of circuit, westbound



Hotel Uniform Yankee, roger, contact Quebec Radio on one two three two seven for enroute information

## MF - Flying Through Area

CARs 602.103

If you will be passing through the MF area without the intent to land or do circuits, you must report at least five minutes prior to entering the area. Begin with initial call.

Aircraft: (FSS unit call sign) THIS IS (aircraft call sign)

Aircraft: (FSS unit call sign) (aircraft call sign) (position) (altitude)



Thompson Radio, this is Duchess Foxtrot Whiskey Yankee Uniform



**Duchess Foxtrot Whiskey Yankee Uniform, Thompson Radio** 



Thompson Radio, Foxtrot Whiskey Yankee Uniform, five minutes northeast of field, five thousand five hundred feet, flying through the area to the river

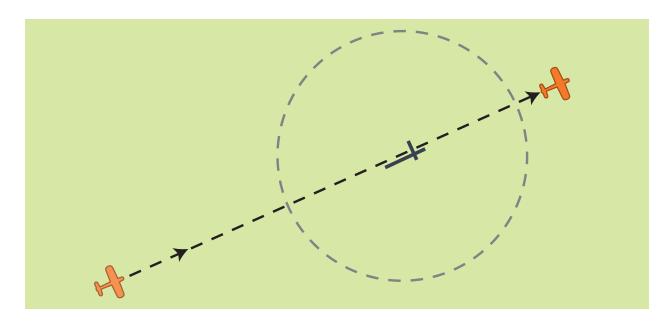


You must also report when clear of the MF zone.

Aircraft: (FSS unit call sign) (aircraft call sign) CLEAR OF THE ZONE



Thompson Radio, Whiskey Yankee Uniform, clear of the zone



#### **ATF - Circuits**

These calls are recommended at an ATF site for safety purposes. By letting other aircraft know where you are and what your intentions are, everyone in the airspace is able to plan accordingly. Keep in mind that there may be NORDO aircraft at an ATF site.

#### Five minutes prior to entering ATF zone:

**Aircraft:** (aerodrome location UNICOM/TRAFFIC) (aircraft call sign) (direction from aerodrome)/(position) (altitude) (intentions)

**Aircraft:** (aerodrome location UNICOM/TRAFFIC) (aircraft call sign) (distance from aerodrome) (direction from aerodrome) (intentions)

#### All calls after this will be in the following format:

Aircraft: (aerodrome location TRAFFIC) (aircraft call sign) (position) (intention)



Cartwright Traffic, Piper Golf Charlie Alpha Golf, five minutes northeast of zone over Good Enough Big Pond, five thousand five hundred feet, inbound for circuits



Cartwright Traffic, Piper Charlie Alpha Golf, five miles to the south, three thousand five hundred feet, will descend to one thousand five hundred to overfly the field



Cartwright Traffic, Charlie Alpha Golf overhead field one thousand five hundred feet, descending to join mid right downwind runway two six



Cartwright Traffic, Charlie Alpha Golf, right downwind runway two six



Cartwright Traffic, Charlie Alpha Golf, final runway two six, touch and go



Cartwright Traffic, Charlie Alpha Golf, airborne runway two six, to rejoin circuit



Cartwright Traffic, Charlie Alpha Golf, landed runway two six, clear of the active

# ATF - Start Up/Taxi/Takeoff



While there is no requirement in the CARs about reporting intentions at an ATF facility, in the interest of safety, all aircraft in the area capable of radio communications should treat the zone as an MF. All radio-equipped aircraft must maintain a listening watch on appropriate frequency CARs 602.96. Refer to MF-Start Up/Taxi/Takeoff section for suggested phraseology.

## Remember

If you have not clearly heard a transmission, reply "say again".

The transmission will be repeated.

If you did not understand a transmission, reply "I do not understand".

The transmission will be explained.

Questions, comments and feedback can be directed to: service@navcanada.ca





#### navcanada.ca

SERVING A WORLD IN MOTION