

Pilot Radio Procedures

Almost all initial communication on a CTAF, with a tower, or with radar control follow the same general format:

	CTAF	Tower	Radar Control
<Who you are talking to>	Placerville Traffic	Executive Tower	NorCal Approach
<Who you are>	Diamond 175JP	Diamond 175JP	Diamond 175JP
<Where you are>	5 miles to the southwest	5 miles to the northeast	3 miles south of Cameron Park
<What are you intentions>	Landing Runway 23	Landing with Information A	VFR to Sac Exec

See <http://flighttraining.aopa.org/students/presolo/special/atccomm.html> for general guidance
http://www.faa.gov/air_traffic/publications/atpubs/aim/Chap4/aim0401.html for the complete FAA guidance.

Operation	Controlled Field (example Mather)	Uncontrolled Field (example Placerville)
Departure: Ready to taxi to runway	Listen to ATIS: Get numbers and identifier Contact Ground: Mather Ground, <Aircraft Type> <N-Number>,<VFR/IFR> <Destination>, Ready to taxi for departure, with information <letter identifier> You will hear: <Aircraft Type> <N-Number>, Mather Ground, taxi to runway _____ via taxiway _____ <cross runway _____, hold short runway _____. Read back these instructions before proceeding.	Placerville Traffic, <Aircraft Type> <N-Number>, taxing from <ramp, fuel> to runway <id> via taxiway <id>, Placerville
Departure: Before entering runway	Contact Tower: Mather Tower, <Aircraft Type> <N-Number>,<VFR/IFR> <Destination>, Ready for departure at <runway identifier/taxiway identifier> You will hear: <Aircraft Type> <N-Number>, Mather Tower, cleared for takeoff runway _____. Read back these instructions before proceeding.	Placerville Traffic, <Aircraft Type> <N-Number>, Departing runway _____, (Straight out, to the N, S, E, W, staying in the pattern/closed traffic),Placerville
Arrival: 10 NM from the field	Listen to ATIS: Get numbers and identifier Contact Tower: Mather Tower, <Aircraft Type> <N-Number>, <location>, landing with Information <letter identifier>	Placerville Traffic, <Aircraft Type> <N-Number>, 10 miles to the (N, NE, E, SE, S, SW, W, NW) landing Placerville.

	You will hear: <Aircraft Type> <N-Number>, Mather Tower, make <left/right traffic, left/right base, straight in <runway>, report <downwind, ____ mile base/final>. Read back these instructions before proceeding.	
Arrival: 5 NM from the field	No radio call necessary unless requested by the tower.	Placerville Traffic, <Aircraft Type> <N-Number>, 5 miles to the (N, NE, E, SE, S, SW, W, NW) landing Placerville.
Pattern Entry	If previously requested by the tower, report location. You will hear: <Aircraft Type> <N-Number>, Mather Tower, cleared to land, runway XXX. Read back the clearance.	Placerville Traffic, <Aircraft Type> <N-Number>, Entering the 45 for (left/right) traffic <runway number>, Placerville.
Downwind	No radio call necessary unless requested by the tower.	Placerville Traffic, <Aircraft Type> <N-Number>, Entering (left/right) downwind runway<runway number>, Placerville.
Base	No radio call necessary unless requested by the tower.	Placerville Traffic, <Aircraft Type> <N-Number>, turning <left/right> base, runway <runway number>, Placerville.
Final	No radio call necessary unless requested by the tower.	Placerville Traffic, <Aircraft Type> <N-Number>, turning final, runway <runway number>, Placerville.
Upwind	No radio call necessary unless requested by the tower.	Placerville Traffic, <Aircraft Type> <N-Number>, upwind, runway <runway number>, Placerville.
Crosswind	No radio call necessary unless requested by the tower, however if you are departing the pattern en-route with flight following, you can expect to hear: <Aircraft Type> <N-Number>, Mather Tower, contact departure on XXX.XX. Good day. Read back these instructions before changing frequencies.	Placerville Traffic, <Aircraft Type> <N-Number>, turning <left/right> crosswind, runway <runway number>, Placerville.

Flight Following

	You say (example NorCal Approach)	ATC says
Initial Call-up	NorCal Approach, <aircraft type> <N-Number>, <location>, VFR to	<aircraft type> <N-Number>, NorCal Approach, standby for squawk code,

	<destination> Roger, <last three of N-number> Squawk 0331, <last three of N-number> Level at 4,500, <last three of N-Number>	Sacramento altimeter 29.92. <aircraft type> <N-Number>, Squawk 0331. <aircraft type> <N-Number>, Say altitude
Traffic Advisory	Traffic in sight, <last three of N-Number> Negative contact, looking, <last three of N-Number>	<Aircraft type> <N-Number>, traffic twelve o'clock, 3 miles, same altitude, opposite direction
Altitude Restriction	At or above 3000, , <last three of N-Number>	<Aircraft type> <N-Number>, maintain at or above 3000 for traffic.
Vector	<right/left> to <XXX>, <last three of N-Number>	<Aircraft type> <N-Number>, NorCal Approach, turn <right/left> heading <XXX>, vectors for traffic>

Phonetic Alphabet

Letter Code word

A	Alfa	I	India	S	Sierra
B	Bravo	J	Juliet	T	Tango
C	Charlie	K	Kilo	U	Uniform
D	Delta	L	Lima	V	Victor
E	Echo	M	Mike	W	Whiskey
F	Foxtrot	N	November	X	X-ray
G	Golf	O	Oscar	Y	Yankee
H	Hotel	P	Papa	Z	Zulu
		Q	Quebec		
		R	Romeo		

Number Pronunciation

1	Wun
2	Too
3	Tree
4	Fow-er
5	Fife
6	Six
7	Seven
8	Eight
9	Niner
0	Zero
100	Hundred
1000	Thousand

Sample terms from Pilot/Controller Glossary

ABEAM—An aircraft is "abeam" a fix, point, or object when that fix, point, or object is approximately 90 degrees to the right or left of the aircraft track. Abeam indicates a general position rather than a precise point.

ACKNOWLEDGE—Let me know that you have received my message.

AFFIRMATIVE—Yes.

BLOCKED—Phraseology used to indicate that a radio transmission has been distorted or interrupted due to multiple simultaneous radio transmissions.

CLEARED FOR TAKEOFF—ATC authorization for an aircraft to depart.

CLEARED FOR THE OPTION—ATC authorization for an aircraft to make a touch and go, low approach, missed approach, stop and go, or full-stop landing at the discretion of the pilot. It is normally used in training so that an instructor can evaluate a student's performance under changing situations.

CLEARED TO LAND—ATC authorization for an aircraft to land. It is predicated on known traffic and known physical airport conditions.

CLOSED TRAFFIC—Successive operations involving takeoffs and landings [touch-and-goes] or low approaches where the aircraft does not exit the traffic pattern.

EXPEDITE—Used by ATC when prompt compliance is required to avoid the development of an imminent situation.

FLY HEADING (Degrees)—Informs the pilot of the heading he should fly. The pilot may have to turn to, or continue on, a specific compass direction in order to comply with the instructions. The pilot is expected to turn in the shorter direction to the heading unless otherwise instructed by ATC.

FUEL REMAINING—A phrase used by either pilots or controllers when relating to the fuel remaining on board until actual fuel exhaustion. When transmitting such information in response to either a controller question or pilot initiated cautionary advisory to air traffic control, pilots will state the APPROXIMATE NUMBER OF MINUTES the flight can continue with the fuel remaining. All reserve fuel SHOULD BE INCLUDED in the time stated, as should an allowance for established fuel gauge system error.

GO AROUND—Instructions for a pilot to abandon his approach to landing. Additional instructions may follow. Unless otherwise advised by ATC, a VFR aircraft or an aircraft conducting visual approach should overfly the runway while climbing to traffic pattern altitude and enter the traffic pattern via the crosswind leg. A pilot on an IFR flight plan making an instrument approach should execute the published missed approach procedure or proceed as instructed by ATC; e.g., "Go around" (additional instructions if required).

HAVE NUMBERS—Used by pilots to inform ATC that they have received runway, wind, and altimeter information only.

HOW DO YOU HEAR ME?—A question relating to the quality of the transmission or to determine how well the transmission is being received.

IDENT—A request for a pilot to activate the aircraft transponder identification feature. This will help the controller to confirm an aircraft identity or to identify an aircraft. Do not confuse this with squawk, which means to tune the transponder code or transponder operating mode, such as Mode C, altitude reporting, a controller gives you.

IMMEDIATELY—Used by ATC when such action compliance is required to avoid an imminent situation.

MAINTAIN—Concerning altitude/flight level, the term means to remain at the altitude/flight level specified. The phrase "climb and" or "descend and" normally precedes "maintain" and the altitude assignment; e.g., "descend and maintain 5,000." Concerning other ATC instructions, the term is used in its literal sense; e.g., maintain VFR.

MAKE SHORT APPROACH—Used by ATC to inform a pilot to alter his traffic pattern so as to make a short final approach.

MAYDAY—The international radio telephony distress signal. When repeated three times, it indicates imminent and grave danger and that immediate assistance is requested.

MINIMUM FUEL—Indicates that an aircraft's fuel supply has reached a state where, upon reaching the destination, it can accept little or no delay. This is not an emergency situation but merely indicates an emergency situation is possible should any undue delay occur.

NEGATIVE—"No," or "permission not granted," or "that is not correct."

NEGATIVE CONTACT—Used by pilots to inform ATC that the previously issued traffic is not in sight. It may be followed by the pilot's request for the controller to provide assistance in avoiding the traffic. Used by pilots to inform ATC they were unable to contact ATC on a particular frequency.

RADAR CONTACT—Used by ATC to inform an aircraft that it is identified on the radar display and radar flight following will be provided until radar identification is terminated.

RADAR SERVICE TERMINATED—Used by ATC to inform a pilot that he will no longer be provided any of the services that could be received while in radar contact. Radar service is automatically terminated, and the pilot is not advised in the following cases: 1. An aircraft cancels its IFR flight plan, except within Class B airspace, Class C airspace, a TRSA, or where Basic Radar service is provided. 2. An aircraft conducting an instrument, visual, or contact approach has landed or has been instructed to change to advisory frequency. 3. An arriving VFR aircraft, receiving radar service to a tower controlled airport within Class B airspace, Class C airspace, a TRSA, or where sequencing service is provided, has landed; or to all other airports, is instructed to change to tower or advisory frequency. 4. An aircraft completes a radar approach.

READ BACK—Repeat my message back to me.

REPORT—Used to instruct pilots to advise ATC of specified information; e.g., "Report passing Hamilton VOR."

SAY AGAIN—Used to request a repeat of the last transmission. Usually specifies transmission or portion thereof not understood or received; e.g., "Say again all after ABRAM VOR."

SAY ALTITUDE—Used by ATC to ascertain an aircraft's specific altitude/flight level. When the aircraft is climbing or descending, the pilot should state the indicated altitude rounded to the nearest 100 feet.

SAY HEADING—Used by ATC to request an aircraft heading. The pilot should state the actual heading of the aircraft.

SPEAK SLOWER—Used in verbal communications as a request to reduce speech rate.

SQUAWK (Mode, Code, Function)—Activate specific modes/ codes/functions on the aircraft transponder, e.g., "Squawk two—one-zero-five." Squawk does not mean pilot should press the transponder's IDENT button.

STAND BY—Means the controller or pilot must pause for a few seconds, usually to attend to other duties of a higher priority. Also means to wait as in "stand by for clearance." The caller should reestablish contact if a delay is lengthy. "Stand by" is not an approval or denial.

TAXI INTO POSITION AND HOLD—Used by ATC to inform a pilot to taxi onto the departure runway in takeoff position and hold. It is not authorization for takeoff. It is used when takeoff clearance cannot immediately be issued because of traffic or other reasons.

THAT IS CORRECT—The understanding you have is right.

TRAFFIC—A term used by ATC to refer to one or more aircraft.

TRAFFIC IN SIGHT—Used by pilots to inform a controller that previously issued traffic is in sight.

UNABLE—Indicates inability to comply with a specific instruction, request, or clearance.

VERIFY—Request confirmation of information; e.g., "verify assigned altitude."