

# RADIO PHRASEOLOGY

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GT AVIATION STANDARDIZATION SUPPLEMENT

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# RADIO COMMUNICATION IS CRITICAL

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- This guide is intended to provide basic procedures for new pilots and also highlight safe operating concepts for all pilots.
- It outlines best practices for Pilot/Controller communications and appropriate and preferred phraseology at non-towered airports.

# CLEAR LANGUAGE AIDS UNDERSTANDING

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- The single, most important element in pilot-controller communications is understanding.
- In our immediate environment is is ***essential*** that pilots develop effective skills for communication with ATC.

# THE BASICS

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- Effective communications are a key component of safe operations.
- Guidelines for clear and accurate communications include the use of standard phraseology at all times in order to facilitate clear and concise communications.
- This guide should be used to help in the development of good radio practices that aid achieving that goal.

# HOW IMPORTANT IS IT?

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- Of the 260 incidents referencing non-standard radio phraseology to be found in NASA's Aviation Safety Reporting System database, many only resulted in momentary confusion or annoyance for pilots and controllers.
- However, ***nearly half*** the reports involved near mid-air collisions, loss of standard ATC separation, runway transgressions, or other conflicts with potentially serious safety consequences.

# AVIANCA FLIGHT 52

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- On January 25, 1990, at 21:34 local time **Avianca Flight 52** ran out of fuel after a go-around at JFK and crashed onto a hillside in Cove Neck, New York on Long Island.

# WORDS MATTER

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- Eight of the nine crew members and 65 of the 149 passengers on board were killed.
- The NTSB determined there were several causes of the crash, chief among them were the crew's failure to properly declare a fuel emergency and ***the lack of standardized understandable terminology for pilots and controllers*** for minimum and emergency fuel states.

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- Even seemingly minor phraseology transgressions can lead to problems.



# WATCH OUT, YOU MAY GET WHAT YOU ASK FOR

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From the ASRS Database

"I called for clearance to St. Louis as follows: 'Clearance delivery, company ident, ATIS info, federal aid to St. Louis.' 'Federal aid' was meant to mean FAA clearance in a joking fashion. The Controller misinterpreted this to mean that we were being hijacked and called the FBI and airport police...I used no 'standard' phraseology to indicate nor was it my intent to indicate we had a hijacking...I will use absolutely standard phraseology in the future..."

The AIM calls for a less provocative phrase: "ABC Clearance, Nxxxxx I-F-R St. Louis."

# BE CLEAR

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- Brevity is important, and contacts should be kept as brief as possible, but clear communication must be the goal.
- The controller must know what you want.
- And you, the pilot, must know exactly what the controller wants.
- \*\*Since concise phraseology may not always be adequate, use whatever words are necessary to get your message across.

# OH, IN CASE YOU FORGOT

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- And remember - Calls to all ATC facilities over radio and ATC operational telephone lines may be monitored and recorded.

# PILOT/CONTROLLER GLOSSARY

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- The Pilot/Controller Glossary is a great resource that is very helpful in learning what certain words or phrases mean.
- It is the same glossary used in the ATC controller's handbook.
- Study and review it from time to time to stay sharp.
- The glossary can be found as an appendix to the Aeronautical Information Manual. The most recent version was published 2/28/2019

# RADIO TECHNIQUE

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- **Listen** before you transmit. If you hear someone else talking, keying your transmitter will be futile and will probably jam the frequency block all transmissions. If you have just changed frequencies, pause, listen and make sure the frequency is clear.
- **Think** before you speak. Know what you want to say and if it is lengthy. e.g., a flight plan or IFR position report, write it down.
- **Wait** for a response. The controller may be jotting down your number, looking for your flight plan, transmitting on a different frequency, or tuning his transmitter to your frequency.

# RADIO TECHNIQUE

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- Be alert to the sounds **or lack of sounds** in your receiver. Check your volume, recheck your frequency and **make sure that your microphone is not stuck in the transmit position.** Frequency blockage can, and has, occurred for extended periods of time due to unintentional transmitter operation. This type of interference is commonly referred to as a "stuck mike."

# NON-TOWERED FIELDS

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- 1. All radio-equipped aircraft transmit/receive on a common frequency identified for the purpose of airport advisories, as identified in appropriate aeronautical publications.
- 2. Pilots use the correct airport name when exchanging traffic information to reduce the risk of confusion. For example, using “Midwest National Traffic” instead of the town name “Mosby Traffic” or “Clay County Traffic” at KGPH when the airport name is printed “Midwest National” on aeronautical charts.
- 3. To help identify one airport from another, the correct airport name should be spoken at the beginning and end of each self-announce transmission.

# A TYPICAL TRAINING FLIGHT – DEPARTING KVKX A NON-TOWERED FIELD

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- Self announce all ground movements on the Common Traffic Advisory Frequency – CTAF - at Potomac Airfield 122.8
- (CESSNA 64776) “Potomac Traffic, Cessna SIX FOUR SEVEN SEVEN SIX taxi from GT Aviation parking to runway two four, Potomac Traffic”



# SELF ANNOUNCED DEPARTURE

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- “Potomac Traffic, Cessna six four seven seven six, departing runway two four, southbound. Potomac Traffic.”

# SELF ANNOUNCED DEPARTURE FROM AIRPORT TRAFFIC PATTERN

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- There is no need to self-announce departure from the traffic pattern.
- I know you frequently hear pilots say. –
  - “Potomac Traffic, Cessna six four seven seven six departing the pattern to the south, last call Potomac Traffic.”
  - It’s not listed in the Aeronautical Information Manual (AIM) so let’s not use it. In my view it has little value.

# NO LAST CALL – HERE’S WHY

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- As you know, CTAF frequencies are shared by many airports and many airplanes. When you are broadcasting on a CTAF frequency no one else on that frequency at any of those airports can communicate. While it is important to share needed information, it is even more important not to block the frequency with insignificant information.
- The phrase “*last call*” does not improve safety in any way.
- I know, “*last call*” is only two words, what could it hurt? Well, imagine while you are saying those two words, you may block a position report at yours or another airport, and a traffic conflict occurs.

# LAST ON – LAST CALL

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- And since the AIM suggests announcing, before taxiing onto the runway for departure – “*Remaining in the pattern*” or “*Departing to the (appropriate direction)*”. Since that is the last call suggested, it makes no sense to repeat that fact sometime after takeoff.
- The AIM also suggests when departing to monitor the CTAF frequency until 10 miles away, unless local procedures require otherwise. Naturally, we are required to contact ATC promptly in order to operate in the SFRA so we make that our priority and switch as soon as its safe to do so, just after leaving the traffic pattern.
- By making only the recommended announcements we leave the frequency available for others who need to communicate, thereby improving safety.”

# COMM CHALLENGES

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# WHAT'S YOUR VECTOR VICTOR

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- BRIEFER: In Hebrew the word for "hello" is "shalom."  
PRESIDENT: Ok.  
BRIEFER: And the word for "good bye" is "shalom."  
PRESIDENT: How do I know which one I said?  
BRIEFER: If she leaves after you said it, you've said good bye.

# SELF-ANNOUNCE POSITION AND/OR INTENTIONS

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- “ Self-announce” is a procedure whereby pilots broadcast their aircraft call sign, position, altitude, and intended flight activity or ground operation on the designated CTAF.
- This procedure is used almost exclusively at airports that do not have an operative control tower or an FSS on the airport.
- If an airport has a control tower that is either temporarily closed or operated on a part-time basis, and there is no operating FSS on the airport, pilots should use the published CTAF to self-announce position and/or intentions when entering within 10 miles of the airport.

# LEAVING POTOMAC – CONTACTING POTOMAC TRACON

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- **Use the following format:**

- Name of facility being called.
- Your full aircraft identification as filed in your FRZ/SFRA flight plan

Here is a typical such call.

- **EXAMPLE:**

“POTOMAC DEPARTURE, CESSNA SIX FOUR SEVEN SEVEN SIX DEPARTING KVKX ONE THOUSAND CLIMBING ONE THOUSAND THREE HUNDRED”



# POTOMAC APPROACH OR DEPARTURE?

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- Often the same controller is controlling both Approach and Departure.
- Use Potomac Approach when in-bound to an airport.
- Use Potomac Departure when outbound from an airport.
- How important is the distinction. Probably not very but it may help the controller know whether you're leaving or arriving at an airport in his/her sector.

# WHAT YOU READ BACK AFTER POTOMAC RESPONDS TO YOUR INITIAL CALL

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- (Potomac TRACON) *“November six four seven seven six radar contact 2 miles south of Potomac airport. Proceed on course. Remain outside Class Bravo airspace at all times. Washington altimeter two niner niner eight.”*
- (CESSNA 64776) WILCO. Altimeter two niner niner eight.. CESSNA SIX FOUR SEVEN SEVEN SIX.”

# TRY TO AVOID “TO” AND “FOR”

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- Avoid using the prepositions “to” and “for” when they could be mistaken for a number.
- Example - “Cessna 34150 one thousand to two thousand,” works better as...”Cessna 34150 one thousand CLIMBING two thousand.”

# RESPONSE TO TRAFFIC CALL OUTS FROM ATC

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- The AIM recommends two responses to traffic call outs from ATC.
- *Traffic in Sight* – used by pilots to inform a controller that previously issued traffic is in sight.
- *Negative Contact* – used by pilots to inform ATC that 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.
- “Looking for traffic” or “We’ll keep an eye out for the traffic” are superfluous.



SWITCH TO ADVISORY FREQUENCY - CTAF

# USE AIRCRAFT MAKE OR MODEL AND REGISTRATION NUMBER

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- Self-announce transmissions may include aircraft type to aid in identification and detection, *but should not use paint schemes or color descriptions to replace the use of the aircraft call sign.*
- For example, “MARYLAND TRAFFIC, SKYHAWK FIVE FOUR SEVEN SEVEN KILO TEN MILES SOUTHWEST” or “MARYLAND TRAFFIC, CESSNA FIVE FOUR SEVEN SEVEN KILO, TEN MILES SOUTHWEST” not “MARYLAND TRAFFIC, BURNT SIENNA AND WHITE SKYHAWK TEN MILES SOUTHWEST.”

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- For example, instead of saying, “MIDWEST TRAFFIC, SKYHAWK SIX FOUR SEVEN SEVEN SIX, TEN MILES TO THE WEST, INBOUND TO SIX MIDWEST” it is more advisable to say, “MIDWEST TRAFFIC, SKYHAWK SIX FOUR SEVEN SEVEN SIX, TEN MILES TO THE WEST STRAIGHT IN RUNWAY SIX MIDWEST,” so it does not confuse runway 6 and runway 26.

# IDENTIFY THE AIRPORT TWICE

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- To help identify one airport from another when sharing the same frequency with other airfields, the airport name should be spoken at the beginning and end of each self-announce transmission.



# BAD FORM – PHRASES TO AVOID

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- “I’ve got him on TCAS or on the Fish Finder.”
- Any of these phrases don’t really help much. It lets the controller know you are looking but does not relieve the controller of the requirement to establish visual contact.
- \*May be acceptable if concluded with the phrase Good Buddy.

# FLASH – TAKE THAT ATC!!!

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- ATC: November six four seven seven six ident.
- (YOU) There's your flash!



# RUNWAY NUMBERS NOT “THE ACTIVE”

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- When referring to a specific runway, pilots should use the runway number and not use the phrase “Active Runway,” because there is no official active runway at a non-towered airport.
- An appropriate use of “active” might be “Traffic in the vicinity of Kilauea be advised the volcano is active.”

# OTHER THINGS NOT TO SAY

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Do *NOT* say –

“Taking the runway for takeoff. We’ll be departing the pattern to the south.”

”Taking off from the active runway. Departing the pattern to the south.”

The only time to say “take-off” on the radio is at a tower-controlled field when you are reading back a takeoff clearance. i.e. “cleared for take-off.”

# ANY TRAFFIC IN THE AREA?????

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- “Pilots are reminded that the use of the phrase, “ANY TRAFFIC IN THE AREA, PLEASE ADVISE,” is not a recognized self-announce position and/or intention phrase and should not be used under any condition. Any traffic that is present at the time of your self-announcement that is capable of radio communications should reply without being prompted to do so.”
- AC 90-66B

# DISAGREEMENTS

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- Do not correct other pilots on frequency (unless it is safety critical), particularly if you are aware you are correcting a student pilot. If you disagree with what another pilot is doing, operate your aircraft safely, communicate as necessary, clarify their intentions and, if you feel you must discuss operations with another pilot, wait until you are on the ground to have that discussion.

# BETTER TO INFORM THAN BERATE

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- Keep in mind that while you are communicating, you may block transmissions from other aircraft that may be departing or landing in the opposite direction to your aircraft due to IFR operations, noise abatement, obstacle avoidance, or runway length requirements.
- An aircraft might be using a runway different from the one favoring the prevailing winds. In this case, one option is to simply point out the current winds to the other pilots and indicate which runway you plan on using because of the current meteorological conditions.

# GLOSSARY

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- What follows is glossary of terms commonly used in ground or surface operations. For a complete listing of all ATC phraseology, consult the FAA Aeronautical Information Manual (AIM), which can be accessed at: [http://www.faa.gov/air\\_traffic/publications/atpubs/aim/](http://www.faa.gov/air_traffic/publications/atpubs/aim/).
- Though many of the following terms are most often associated to communication with ATC they are good to know and often apply in all environments.



# GLOSSARY

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- • Acknowledge – Let me know that you have received and understood this message.
- • Advise Intentions – Tell me what you plan to do.
- • Affirmative – Yes.
- • Confirm – My understanding of your transmission is \_\_\_\_\_: Is that correct?
- • Correction – An error has been made in the transmission and the correct version follows.
- • Expedite - Used by ATC when prompt compliance is required to avoid the development of an imminent situation.
- • Final – Commonly used to mean that an aircraft is on the final approach course or is aligned with a landing area.

# GLOSSARY

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- • Go Ahead – Proceed with your message. Not to be used for any other purpose.
- • Hold or Hold Position or Hold For – Stay in place where you are currently located.
- • Hold Short of... – Proceed to, but hold short of a specific point and maintain appropriate distance to avoid interfering with other traffic.
- With respect to runways, always stop at the runway holding position marking unless otherwise directed by ATC. A read back confirmation to ATC is required anytime a “hold short” instruction is given

# GLOSSARY

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- Line Up and Wait (LUAW) – This phrase has replaced the “position and hold” instruction by a controller to direct a pilot to enter the runway and await takeoff clearance. It is not authorization for takeoff. It is used when a takeoff clearance cannot immediately be issued because of traffic or other reasons.
- • Negative – No; Permission not granted; That is not correct.
- • Proceed – You are authorized to begin or continue moving.
- • Read Back – Repeat my message back to me

# GLOSSARY

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- • Roger – I have received your last transmission; but not to be used to answer a question requiring a “yes” or “no” response (see Affirmative, Negative).
- Say Again – Repeat what you just said.
- • Stand By – Wait for further information, as in “stand by for clearance”. Means the controller or pilot must pause for a few seconds, usually to attend to other duties of a higher priority. The caller should reestablish contact if a delay is lengthy. “Stand by” is not an approval or denial.

# GLOSSARY

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- • Unable – Indicates inability to comply with a specific instruction, request or clearance.
- • Verify – Request confirmation of information.
- • Without Delay – Follow instructions expeditiously, specifically and safely.
- • Wilco – I have received your message, understand it and will comply.

# REFERENCES

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- •Aeronautical Information Manual (AIM).
- •Airport Chart Supplement  
[http://www.faa.gov/air\\_traffic/flight\\_info/aeronav/productcatalog/supplementalcharts/airportdirectory/](http://www.faa.gov/air_traffic/flight_info/aeronav/productcatalog/supplementalcharts/airportdirectory/).
- •Aircraft Owners and Pilots Association (AOPA) at <https://www.aopa.org/>.
- •FAA Aeronautical Chart User's Guide. •Fly Neighborly Guide, Helicopter Association International.
- •Notices to Airmen (NOTAM) at [https://www.faa.gov/air\\_traffic/publications/notices/](https://www.faa.gov/air_traffic/publications/notices/).

# REFERENCES

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- Operations at Non-Towered Airports, AOPA, Air Safety Institute pamphlet.
- Pilot's Handbook of Aeronautical Knowledge (PHAK) (FAA-H-8083-25B).
- State Aviation Publications. • United States Parachute Association at <http://www.uspa.org>. • United States Ultralight Association at <https://www.usua.org>. • Various Pilot Guides. 7.2ACs. The current editions of the following ACs also contain information applicable to operations at airports without operating control towers: • AC 90-23, Aircraft Wake Turbulence. • AC 90-48, Pilots' Role in Collision Avoidance. 2
- 3/13/18 AC 90-66B • AC 91-32, Safety In and Around Helicopters. • AC 103-6, Ultralight Vehicle Operations—Airports, Air Traffic Control, and Weather. • AC 105-2, Sport Parachuting. • AC 107-2, Small Unmanned Aircraft Systems (sUAS)

# RADIO PHRASEOLOGY

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- FAA Advisory Circular 90-66B lays out recommendations for traffic patterns, communications phraseology, and operational procedures for use at an airport without a control tower or an airport with a control tower that operates only part time.
- This AC stresses safety as the primary objective in these operations. This AC is related to the right-of-way rules under Title 14 of the Code of Federal Regulations (14 CFR) part 1, § 1.1 (traffic pattern), and part 91, §§ 91.113 and 91.126