IFR ATC RADIO COMMUNICATIONS

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HOW ARE IFR COMMUNICATIONS DIFFERENT?

The good news is, they're not much different from your Private pilot training. You're still talking to the same people in the same order. The main differences are:

- 1. HOW TO COPY AND READ BACK A CLEARANCE
- 2. HOW TO PICK UP A CLEARANCE
- 3. APPROACH CLEARANCES
- 4. HOLDING CLEARANCES

Everything else is pretty much the same.

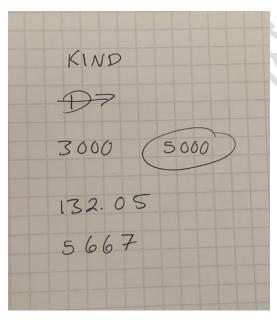
How to Copy and Read Back Clearances

You've most likely heard of "CRAFT"

C – Clearance	Cessna 12874, you are cleared to KIND
R – Route	Via direct
A – Altitude	Climb and maintain 3000, expect 5000, one-zero minutes after departure
F – Frequency	Departure frequency 132.05
T – Transponder	Squawk 5667
T – Time (at uncontrolled airports)	Clearance void if not off by [1010] and, if required, if not off by [1010] advise not later than [1020] of intentions. Time now 0950."

CLEARANCE ON REQUEST: This means that they've put in for your clearance, but they don't have it yet. Just respond "roger" and wait for them to call you back.

You will eventually come up with your own shorthand that makes sense to you. I still write my clearances vertically and it looks something like this:



Cleared to KIND

Via direct

Altitude 3000, and I circle the expected altitude in 10 minutes

Departure frequency

Squawk code

When you read it back, you read it back almost verbatim to what the controller told you: "Cessna 12874, cleared to KIND, via direct. Climb and maintain 3000, expect 5000 in one-zero minutes, departure frequency 132.05, squawk 5667."

Then wait for the magical words: "Readback correct."

Picking Up Clearances

For flying out of controlled airports:

Radio	Frequency		What
South Bend ATIS	120.67		Listen to ATIS, write it down ["Bravo"]
South Bend	121.9	WHO/YOU	Clearance, Cessna 12874
Clearance*		WHAT	Picking up IFR clearance to KIND
		ATIS	With Bravo
South Bend	121.7	WHO/YOU	Ground, Cessna 12874
Ground		WHERE	At Wings
		WHAT	Ready to taxi
		ATIS	With Bravo
South Bend	135.67	WHO/YOU	Tower, Cessna 12874
Tower		WHERE	Holding short of 27L
		WHAT	Ready for departure
South Bend	132.05	WHO/YOU	Departure, Cessna 12874
Departure		WHERE	1500' climbing 3000
			[Clearance has already told them WHAT]

^{*} not all airports have a Clearance Delivery. In that case you would go straight to Ground and tell them the same thing you would have told Clearance.

For flying out of uncontrolled airports WITH a Clearance frequency:

At some uncontrolled airports you can call an RCO, or call Center from the ground. Your Chart Supplement will give you that info.

You do not call them until you are at the end of the runway, just about ready to go.

Radio	Frequency		What
VPZ AWOS	125.87		Listen to AWOS
Call SBN	120.52	YOU	Cessna 12874
Clearance on the		WHERE	On the ground at VPZ, Runway 27
RCO		WHAT	Picking up IFR clearance to KIND
Clearance			 gives you your clearance and you read it back
			 they ask how soon you are ready to go
			 you tell them if your ready, or if you need [5]
			minutes
			 if you're not ready just yet, they'll ask you to call
			back when you are
			 if you're ready to go, they will give you a "void
			time"
VPZ CTAF	122.72	WHO/YOU	Valparaiso traffic, Cessna 12874
		WHERE	Departing 27
		WHAT	To the South
South Bend	132.05	WHO/YOU	South Bend Departure, Cessna 12874
Departure		WHERE	2000' climbing 5000
			(Clearance has already told them WHAT)
Grissom	121.05	WHO/YOU	Approach, Cessna 12874
Approach		WHERE	5000
(handoff)			
KIND ATIS	134.25		Listen to ATIS, write it down (Bravo)
KIND Approach	128.17	WHO/YOU	Approach, Cessna 12874
		WHERE	5000
		ATIS	With Bravo

For flying out of uncontrolled airports WITHOUT a Clearance frequency:

Again, you do not call Clearance until you are at the end of your departure runway, ready to go or very close to ready.

Radio	Frequency		What
RCR AWOS	118.77		Listen to AWOS
Call SBN		YOU	Cessna 12874
Clearance on cell		WHERE	On the ground at RCR, Runway 29
phone*		WHAT	Picking up IFR clearance to KIND
Clearance			 gives you your clearance and you read it back
			 they ask how soon you are ready to go
			 you tell them if your ready, or if you need [5]
			minutes
			 if you're not ready just yet, they'll ask you to call
			back when you are
			 if you're ready to go, they will give you a "void
			time"
RCR CTAF	122.7	WHO/YOU	Rochester traffic, Cessna 12874
		WHERE	Departing 29
		WHAT	To the South
South Bend	132.05	WHO/YOU	South Bend Departure, Cessna 12874
Departure		WHERE	2000' climbing 5000
			(Clearance has already told them WHAT)
Grissom	121.05	WHO/YOU	Approach, Cessna 12874
Approach		WHERE	5000
(handoff)			
KIND ATIS	134.25		Listen to ATIS, write it down (Bravo)
KIND Approach	128.17	WHO/YOU	Approach, Cessna 12874
		WHERE	5000
		ATIS	With Bravo

^{*}If weather permits, you can also pick up your clearance in the air with Departure. It is important that you are able to "maintain VFR" until they have given you your clearance. Sometimes they may ask you to "maintain VFR" for a few minutes because they do not have your clearance yet.

WHO/YOU: South Bend Departure, Cessna 12874

WHERE: 3 miles south of KRCR, 2000'

WHAT: picking up IFR to KIND

Reading Back Approach Clearances

This one feels daunting, but once you get used to the cadence, and what to pick out to repeat back, it's a piece of cake.

SCENARIO: VECTORS TO FINAL

ATC has been vectoring you to final for the ILS27L into SBN, then all of the sudden they spit out a mouthful of information and you're trying to listen, fly, repeat, and not die. Or so it feels.

ATC: "Skyhawk 12874 fly heading 300, maintain 2400 until established on the localizer, cleared for the ILS27L."

Pilot:

HEADING	300
ALTITUDE	2400 until established
CLEARED	Cleared ILS27L
YOU	12874

They will ALWAYS give it to you in this order.

- 1. Heading
- 2. Altitude
- 3. Cleared

Pro tip: as SOON as you hear what heading to turn to, TURN TO IT while you listen to the rest. Don't wait. They expect you to do this and it's critical you do because they are essentially calculating what the winds are doing to your groundspeed.

SCENARIO: FLYING THE PROCEDURE TURN

If you're flying an approach via the procedure turn, ATC will likely ask you to "report inbound."

- **1.** As soon as you are inbound on the approach after a procedure turn: "Approach, 12874 inbound."
- 2. ATC: "Cessna 12874, maintain 2400 until established on the final approach course, cleared ILS27L."
- 3. Pilot: "Maintain 2400 until established, cleared ILS27L, 12874."

As you can see, it's the same as vectors, you just get to skip the "heading" part.

Holding Clearances

A basic holding clearance consists of:

- 1. WHERE
- 2. HOW
- 3. ALTITUDE
- 4. EFC

WHERE:	Cessna 12874, hold south of the OXI VOR on the 180 radial
HOW:	Left turns, 4 mile legs
ALTITUDE:	Maintain 5000 feet
EFC:	Expect further clearance 1920Z

Just like the CRAFT clearance, you read it back verbatim:

"Cessna 12874, hold south of OXI on the 180 radial, left turns, 4 mile legs, maintain 5000, expect further clearance 1920Z."

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