

## **IFR Radio Communications**

The most important objectives when communicating at non-towered airports are to inform VFR pilots of our position in a format THEY can understand, our altitude, and our intentions.

### **Practice Approaches at non-towered airport, own navigation:**

#### **Example: Greeley VOR-A Approach**

When approaching IAF before beginning the approach:

Greeley Weld County Traffic, Skyhawk 618MN

Three miles West of the Gill VOR

7000 feet

Planning to fly the VOR-A approach with the procedure turn

Greeley Weld County

Crossing IAF:

Greeley Weld County Traffic, Skyhawk 8MN

Outbound on the VOR approach

7000 feet

Greeley Weld County

Procedure turn outbound:

Greeley Weld County Traffic, Skyhawk 8MN

Four miles north of the Gill VOR

Procedure turn outbound

VOR approach

7000 feet

Greeley Weld County

Procedure turn inbound:

Greeley Weld County Traffic, Skyhawk 8MN

Three miles north of the Gill VOR

Procedure turn inbound

VOR approach

Descending 6300

Greeley Weld County

FAF inbound:

Greeley Weld County Traffic, Skyhawk 8MN

Five miles Northeast of the field

VOR approach

Descending 5200

Low approach only [or “circle to land 09 touch and go” if you will be landing or “full stop”]

Greeley Weld County

Two or Three miles from airport:

Greeley Weld County Traffic, Skyhawk 8MN

Two miles Northeast of the field

VOR approach

5100 feet

Low approach only [or “circle to land 09” if you will be touch and go or full stop]

Greeley Weld County

On Missed Approach:

Greeley Weld County Traffic, Skyhawk 8MN

One mile South of the field

Missed Approach

Returning to Gill VOR for another VOR approach, climbing 7000 feet

Greeley Weld County

## **Commentary on Practice Approaches at non-towered airports, own navigation:**

This may seem like a lot of radio calls. If you feel like it's too many, cut a few out. However, remember that safety is what this is all about. When multiple aircraft are flying the same approach simultaneously, the opportunity for head-on collisions is very high. Keeping everyone else informed of exactly where you are and what you are going to do next is fundamental to minimizing the risk of collision for yourself and everyone else sharing your airspace. Vigilant scanning for traffic is also crucial.

When you are first learning to fly approaches, or haven't been flying IFR for a while, have your instructor or safety pilot make some or all of the calls for you. Make more of the calls yourself as you are able. Do not consider yourself proficient to fly IFR until you can fly the whole approach correctly and make all of the radio calls.

Once you are inside the FAF, I fervently believe that your radio calls must be in a format that VFR pilots can understand. Do you remember how frustrated you felt when you were a student pilot turning base and heard "Cessna 123 Outer Marker Inbound"? If you were like me, you probably thought "Where is this guy? Is he a factor for me?" You might even ignore these calls because they don't make sense and your own work load is high. This is a very unsafe and unnecessary situation.

I feel the burden should be on the IFR pilot, the more experienced pilot, to make reasonable and accurate radio calls to increase safety for all.

So inside the FAF, give your direction and distance from the airport on every call, as well as your intentions: missed approach, low approach, full stop landing, whatever.

Do not use terms VFR pilots may not understand like outer marker inbound, over the final approach fix, Collin inbound, etc. Do not say "5 miles out on the approach." Five miles which way? North? East? South? Which approach? Do not omit your intended actions upon completion of the approach. If you are going to be doing a low approach over the runway (i.e. not landing), say so! This allows VFR traffic following you to follow more closely than if you were doing a full stop. Likewise, if you are going to do a full stop, say so! This permits following traffic to leave you more room so they aren't forced into an unnecessary go-around. The point of the suggested radio calls in the body of this document is to provide examples of clear and accurate radio calls that avoid these commonly heard ambiguities and problems.

Along these lines, when you are making calls outside the FAF or during the procedure turn, if you know your distance from the navaid, include that in your call. This helps other IFR traffic to avoid you. And definitely include your altitude on every single call outside the FAF.

In summary, make your calls accurate and concise.

**The whole point is to let others know where you are and what you are going to do.**

Remember to include your intentions. You might ask yourself, "If I were another aircraft in this vicinity, what would I want to know about my position and upcoming actions?"

### **Example: Fort Collins-Loveland ILS 33 Approach**

#### When approaching IAF:

Fort Collins-Loveland Traffic, Skyhawk 618MN  
Three miles East of Collin NDB  
7000 feet  
Planning to fly the ILS approach with the procedure turn  
Fort Collins-Loveland

#### Crossing IAF:

Fort Collins-Loveland Traffic, Skyhawk 8MN  
Outbound on the ILS approach  
7000 feet  
Fort Collins-Loveland

#### Procedure turn outbound:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Procedure turn outbound  
ILS 33  
7000 feet  
Fort Collins-Loveland

#### Procedure turn inbound:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Procedure turn inbound  
ILS 33  
7000 feet  
Fort Collins-Loveland

#### FAF inbound:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Five mile final  
ILS 33  
Touch and go, [or “circle to land 15 touch and go”, or “low approach only”, etc.]  
Fort Collins-Loveland Traffic

#### Two or Three miles from airport:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Two mile final  
ILS 33  
Touch and go, [or “circle to land 15 touch and go”, or “low approach only”, etc.]  
Fort Collins-Loveland

#### On Missed Approach:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Missed Approach  
Returning to Collin NDB for another ILS approach, climbing 7000 feet  
Fort Collins-Loveland

**Vectors from ATC, multiple approaches, non-towered airport**

**Example: Fort Collins-Loveland ILS 33 Approach**

**ATC:** Skyhawk 8MN  
Four miles from Collin  
Turn right heading 300  
Maintain 7000 until established  
Cleared ILS 33 Fort Collins-Loveland  
**8MN:** Three-Zero-Zero, Maintain 7000, Cleared for the approach, 8MN  
**ATC:** Skyhawk 8MN, Change to advisory frequency approved  
**8MN:** 8MN

Change to 122.7

Prior to FAF:

Fort Collins-Loveland Traffic  
Skyhawk 618MN  
Procedure turn inbound  
ILS 33, 7000 feet  
Fort Collins-Loveland

FAF inbound:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Five mile final, ILS 33  
Touch and go, [or “circle to land 15 touch and go”, or “low approach only”, etc.]  
Fort Collins-Loveland

Two or Three miles from airport:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Two mile final, ILS 33  
Touch and go, [or “circle to land 15 touch and go”, or “low approach only”, etc.]  
Fort Collins-Loveland

On Missed Approach:

Fort Collins-Loveland Traffic  
Skyhawk 8MN  
Missed Approach  
Returning to Collin NDB for another ILS approach, climbing 7000 feet  
Fort Collins-Loveland

Change back to Approach Control frequency

**8MN:** Denver Approach  
Skyhawk 618MN  
Missed Approach  
Climbing through 6500  
Request vectors for another ILS approach [or whatever your next request is]  
**ATC:** Skyhawk 8MN  
Radar Contact  
Fly heading 150  
Vectors ILS 33 Fort Collins-Loveland

## **Commentary on Vectors from ATC, multiple approaches, non-towered airport**

On readback of approach clearance: Simplify this call so you don't get tongue-tied. In the example above, the readback includes only heading, altitude, and the phrase "cleared for the approach". Don't try to read back the full "Cleared for the ILS 33 approach Fort Collins-Loveland Airport." That way, your readback for every approach clearance requires less thinking, conveys all the important information, and ties up the radio frequency for a shorter period of time.

When changing to advisory frequency, make a position and intentions report to VFR traffic right away so they know you are there and what you are going to do. There can easily be other VFR traffic flying the same approach on their own and not talking to ATC who are not expecting you to suddenly appear established inbound on the approach. You also need to provide some warning to aircraft in the pattern so they can plan their approach to allow room for your straight-in landing or circle-to-land entry.

When contacting ATC on the missed approach, tell them on your initial call which approach (or whatever it is) you want to do next. They are expecting this information. If you do not give it to them right away, they are going to call you back and ask you for your intentions, and then you'll have to call them back again to tell them. This ties up the radio three times longer than doing it right the first time and can be frustrating to ATC. AIM Paragraph 5-4-19 e., Missed Approach, says "When approach has been missed, request clearance for specific action; i.e. to alternative airport, another approach, etc." AIM paragraph 5-5-5, #7 specifically lists this as the pilot's responsibility upon missed approach.

## **Vectors from ATC, multiple approaches, Towered airport**

### **Example: Jeffco ILS 29R Approach**

Important: if you will be flying multiple approaches, you should let the right controllers know as early as possible to get good service. First, write "multiple approaches" in the remarks section of your IFR flight plan. Second, when you are handed off to the final approach controller (you will usually know it's the last one because it will be the approach control or center frequency printed on the approach plate), on your **initial call** to that last controller, report your altitude and your request for multiple approaches.

Example: "Denver approach, Skyhawk 618MN at 8000, requesting multiple approaches at Jeffco starting with the ILS, we have ATIS November."

Remember, it is a handoff. They are expecting you, and they WANT to know what you want to do. Don't make them ask you and start a game of twenty questions. Just keep it concise. Sometime after that and before they clear you for the approach, tell them what you want AFTER that approach. You could do this for example on a readback for a heading change:

**ATC:** Skyhawk 8MN, turn right heading 180

**8MN:** Heading 180, after this approach we'd like to come back for another ILS, 8MN

OR

**8MN:** Heading 180, after this approach we'd like vectors back to Fort Collins-Downtown, 8MN

OR

**8MN:** Heading 180, this will be a full-stop at Jeffco, 8MN

If you don't tell them what you want to do after this approach, at some point they will ask "How will this approach terminate?" This doesn't mean only are you going to do a full stop or a missed approach. This is actually secret code for "After this approach what are you going to want next? Another approach? Vectors to another airport? Please tell me." So the proper response would be something like. "Requesting a missed approach and then another ILS at Jeffco on our own navigation." Be specific and complete.

The phrase "How will this approach terminate" is a commonly misunderstood phrase. I can't tell you how many times I've heard the pilot respond with "A missed approach", then the controller repeats "How will this approach terminate?" and the pilot responds "with a missed approach" and wonders why the controller is so dense and the conversation continues until the frustrated controller finally says, "And what do you want to do after the missed approach?" You can avoid this unnecessary conversation by heeding the previous paragraph.

After you've done that and been given a few vectors to position you, the communications will eventually result in your approach clearance:

**ATC:** Skyhawk 8MN

Four miles from Alike

Turn right heading 260

Maintain 7200 until established

Cleared ILS 29R Jeffco

**8MN:** Two-Six-Zero, Maintain 7200, Cleared for the approach

**ATC:** Skyhawk 8MN, contact Jeffco Tower

**8MN:** 8MN

Change to Jeffco Tower

**8MN:** Jeffco Tower,  
Skyhawk 618MN with you on the ILS,  
planning a missed approach [or “requesting a touch and go”, or whatever it is you want to do]

[NOTE: if you tell the tower you want a low approach, they assume that means you want to over-fly the runway. This definitely be a problem if opposite direction operations are in progress, and may be a problem even if same-direction operations are in progress. To avoid upsetting them, tell them you are “planning a missed approach.”]

**ATC:** 8MN, upon missed approach  
Turn right heading 020  
Maintain 7200

**8MN:** On missed approach fly heading 020, maintain 7200

**8MN:** Jeffco Tower, Skyhawk 8MN missed approach

**ATC:** 8MN, contact Denver approach

**8MN:** 8MN

**8MN:** Denver Approach  
Skyhawk 618MN  
Missed Approach  
Climbing through 6500  
Request vectors for another ILS approach [or whatever your next request is]

**ATC:** Skyhawk 8MN  
Radar Contact  
Fly heading 110  
Maintain 7200  
Vectors ILS 29R Jeffco