

CFI Bootcamp

Flight Instructor Training

Radio Communications

Simulating ATC in Training

Introducing Radio Work Before the First Towered Airport

Today's Bootcamp+ Network Programming

What's on for Today?



Live Show – 1st Hour – Wings Credit
Open Mic – 2nd Hour – End
Monitor the Chat – Links/Info
Wings Credit - End of the Live Show

Today's Bootcamp+ Network Programming

What's New?



PH Rebroadcasts Wed – 8 pm EDT
Power Hour Podcasts – Full shows
CFI Knowledge Gaps Course

Introducing Radio Communications

- Teach what will encountered first
- Phonetic alphabet – A little at a time
- Sound out license plates and signs when driving



Common Instructions

Pilot/Controller Common Phraseology	
"ACKNOWLEDGE"	Let me know that you have received my message.
"ADVISE INTENTIONS"	Tell me what you plan to do.
"AFFIRMATIVE"	Yes.
"FINAL"	Commonly used to mean that an aircraft is on the final approach course or is aligned with a landing area.
"HOLD FOR"	(takeoff clearance, release, landing/taxiing aircraft, etc.) Stay in place where you are currently located.
"HOLD SHORT"	November 477ZA, runway four, taxi via Echo, hold short runway two five at taxiway Delta.
"HOW DO YOU HEAR ME?"	A question relating to the quality of the transmission or to determine how well the transmission is being received.
"IMMEDIATELY"	Used by ATC or pilots when such action compliance is required to avoid an imminent situation.
"LINE UP AND WAIT"	Used by ATC to inform a pilot to taxi onto the departure runway in takeoff position and LINE UP and WAIT. <i>It is not authorization for takeoff.</i> It is used when takeoff clearance cannot immediately be issued because of traffic or other reasons.

Common Instructions

“NEGATIVE”	“No” or “permission not granted” or “that is not correct.”
“READ BACK”	Repeat my message back to me.
“ROGER”	I have received all of your last transmission. <u>It should not be used to answer a question requiring a yes or no answer.</u> (See Affirmative, Negative)
“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.
“UNABLE”	Indicates inability to comply with a specific instruction, request, or clearance.
“VERIFY”	Request confirmation of information (for example, “verify assigned altitude”).
“WILCO”	I have received your message, understand it, and will comply with it.
“WITHOUT DELAY”	With a sense of urgency, proceed with approved instructions in a rapid manner.

The Basics

- Who you are – Aircraft Type and Call Sign
- Where you are – Location
- What you want to do – Is a clearance required

Establishing Two Way Communications

- The exchange of facility name and call sign
- Required for Class D and C airspace

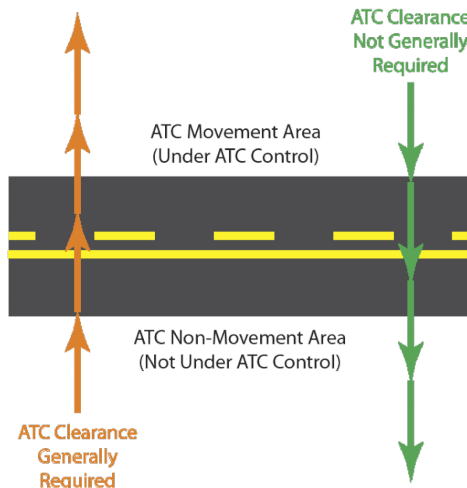
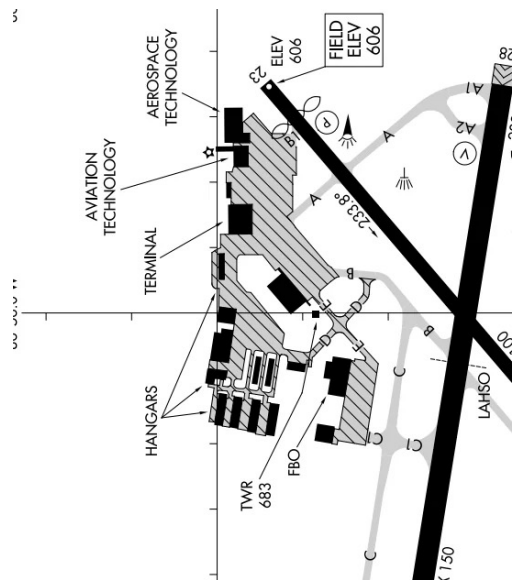
Obtaining a Clearance

- Has the words “Cleared” in the instructions from ATC
- Required for Class B airspace, Restricted Areas, SFRA



Movement Areas and Non-Movement Areas

- Pavement Marking – Solid Yellow Line and Dashed Yellow
- Crossing the solid line side requires a clearance – Movement Area
- Crossing the dashed line side – Clearance Not Required
- FAA is updating Airport Diagrams to show Non-Movement Area

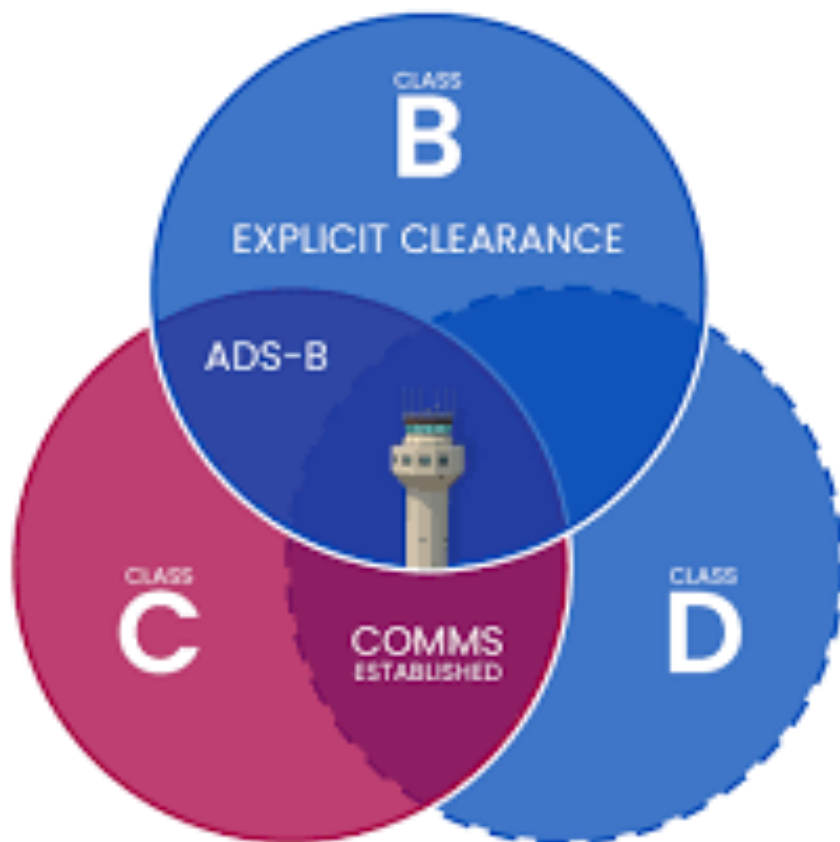


The Law of Intensity

- Using a AATD with a PTT and headset works well
- Setting the correct frequency, adjusting volume etc.
- Determining the correct frequency and the facility name



What is Required to Enter Airspace



Class D Communications on Approach

- ATIS/AWOS
- Contact tower and give ATIS code, location, and intentions
- Establish two-way radio communications

EXAMPLE: Palo Alto tower Cessna N784SP 8 miles east, inbound for landing with information Papa.

Cessna N784SP, Palo Alto tower, enter the downwind for runway 31

Class D Communications in the Pattern

- Expect instructions/landing clearance on the downwind leg
- If instructed to follow, comply
- If given a sequence, locate the other traffic

EXAMPLE: Cessna 784SP, number two, follow the Cherokee turning right base, cleared to land runway 31.

Number two, cleared to land runway 31, traffic in sight, N784SP

Class D Communications After Landing

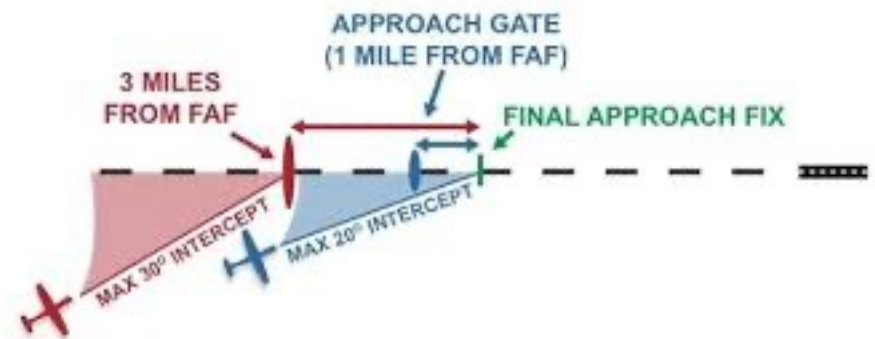
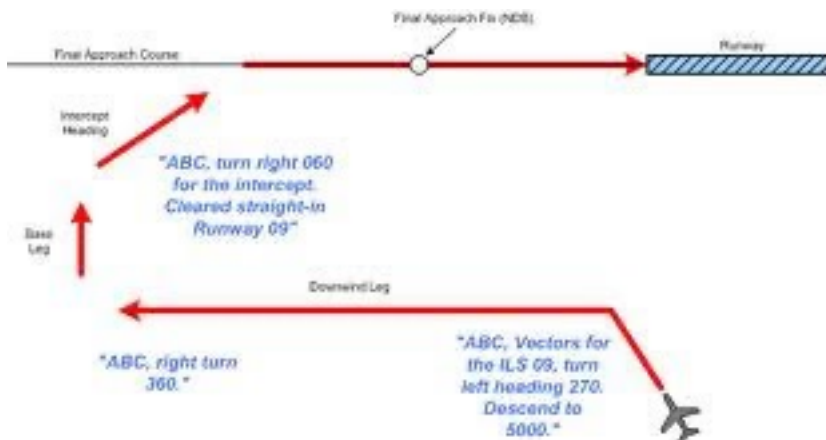
- Tower will switch you to ground
- Contact ground with full call sign
- Tell the ground controller what you want to do

EXAMPLE: Cessna 784SP contact ground on 125 point zero

125 Point zero, Cessna N784SP

IFR - Vectoring

- Vector to the downwind with adequate space to make turns and not overshoot the final approach
- Vector outside of the approach gate - >1 nm from FAF and no closer than 5 nm from the landing threshold
- Vector to Base leg – Possible angled vector to final
- Vector within 30 degrees of final before issuing approach clearance



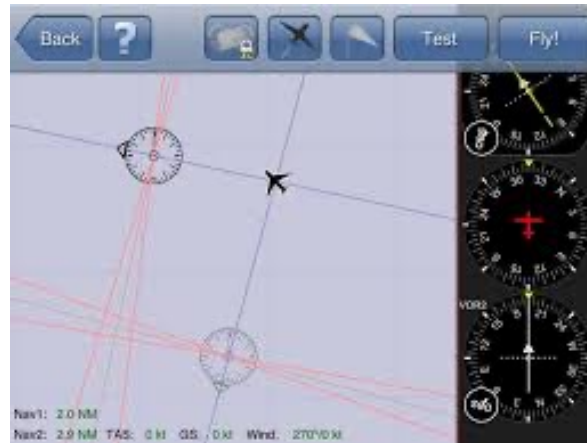
IFR - Vectoring

- If ILS, LPV or LNAV/VNAV – Glideslope vectoring altitude
- Check the plate for the GS intercept altitude
- Look at GS on the indicator and ensure GS is well above before intercepting it

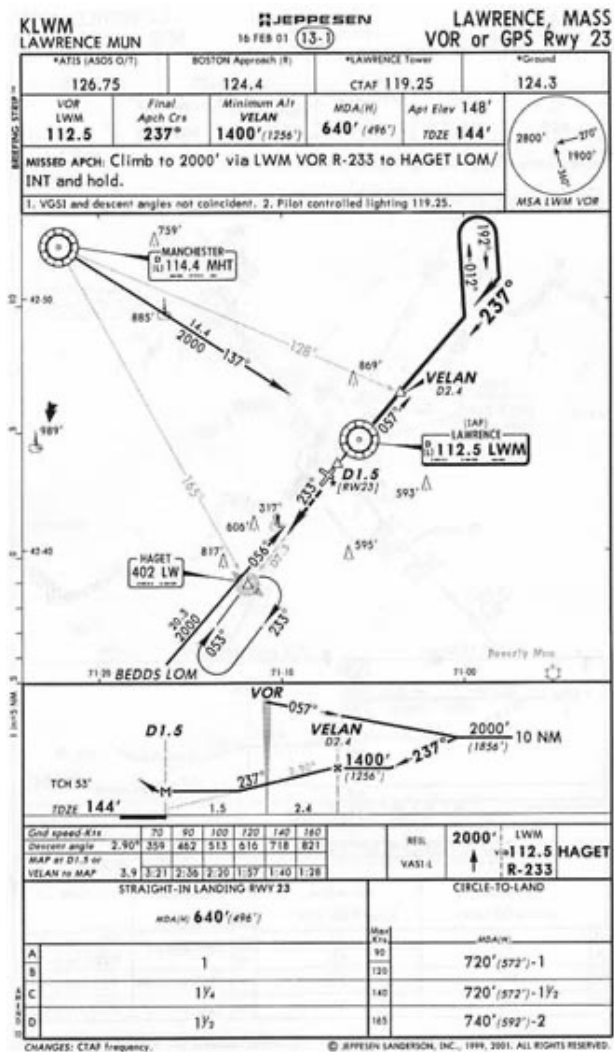


Using NavTrainer

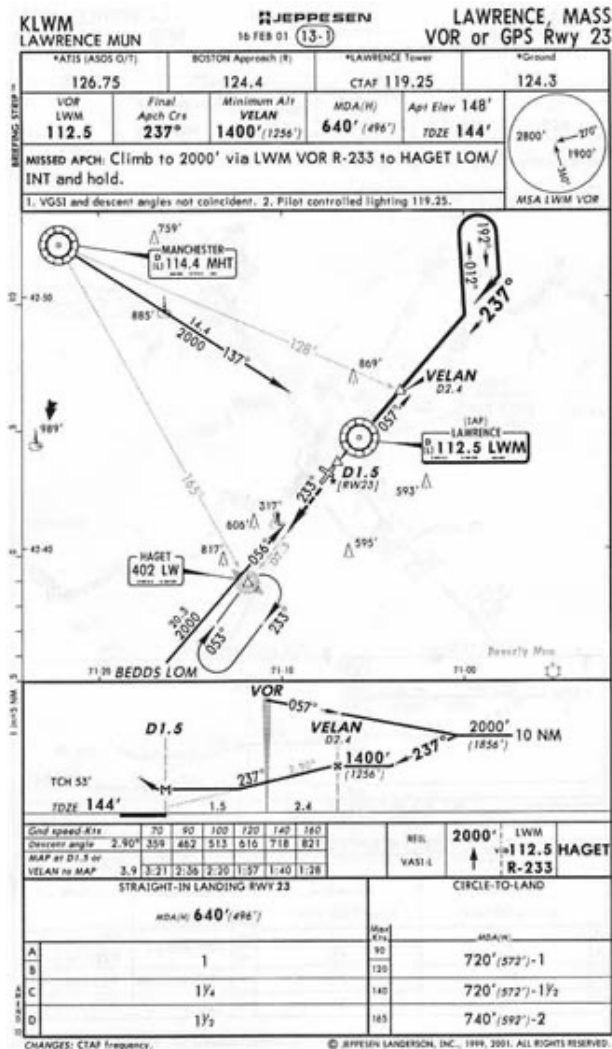
- Live example of how to vector to final approach
- Differences between VOR indicator and HIS
- Giving a holding clearance



VOR Approach



Hold From a Missed Approach



Elements of a Hold

- Fix, Direction of holding course, Left/Right turns, Legs, EFC
- Use the heading indicator to determine entry
- Give clearance using the heading indicator



Special Announcement!

Reminders!



CFI Study Group on FaceBook



National Association of
Flight Instructors

Join SAFE, NAFI and the CFI Study Group by Clicking on the Images Above

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