

TOWERED AIRPORT RADIO PROCEDURES SGU



Reference Materials:

FAA Reference Materials:

- AIM
- Pilot/Controller Glossary

NON- FAA Reference Materials:

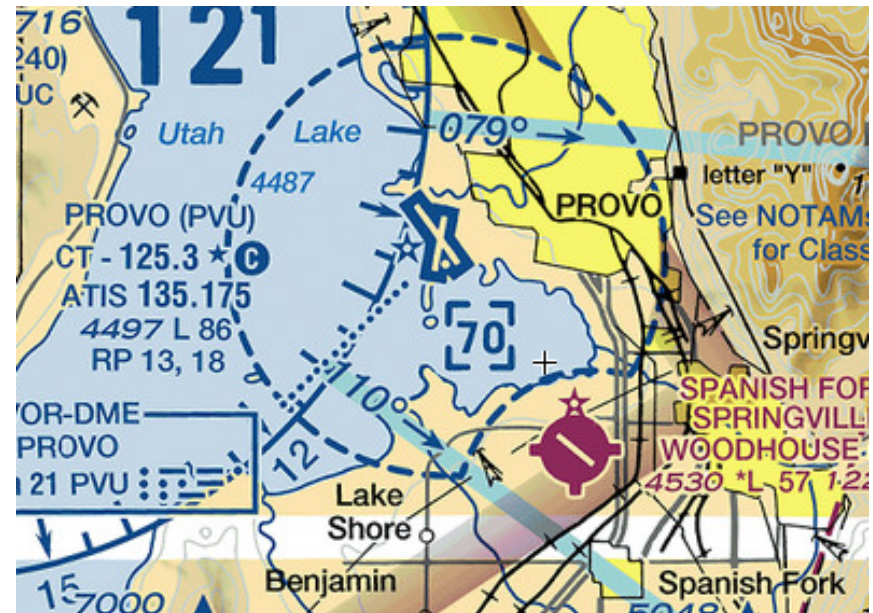
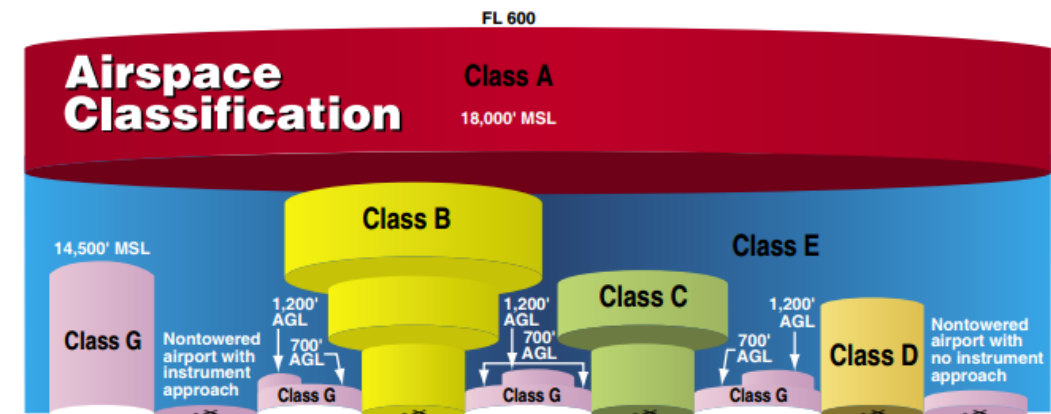
- Pilot's Radio Communication Guide by Darren Smith
- ASA's "Say Again Please"

Airspace Class Descriptions

Airspace Classes & General Information

Class D:

- Generally from the surface to 2500' AGL and a 4 mile radius from the airport
- Control tower & may have radar capability
- Configuration of the airspace is individually tailored
 - Looks like a cylinder
 - Dashed blue lines on sectional
- Unless otherwise authorized, **two-way** radio communications must be established with ATC before entry (YOU MUST HEAR YOUR N-NUMBER FROM THE TOWER)



VFR Airspace Weather Minimums

Altitude	Type of Airspace	Flight Visibility	Cloud Clearance
10,000 MSL	E	5 statute miles	111 → 1,000 below, → 1,000 above, → 1 sm horizontal
Below 10,000 MSL	C	3 statute miles	152 → 500 below → 1,000 above → 2,000 horizontal
	D		
	F		
	B	3 statute miles	Clear of clouds
1,200 AGL or higher	G (night)	3 statute miles	152 → 500 below → 1,000 above → 2,000 horizontal
	G (day)	1 statute mile	152 → 500 below → 1,000 above → 2,000 horizontal
Below 1,200 AGL	G (night)	3 statute miles	152 → 500 below → 1,000 above → 2,000 horizontal
	G (day)	1 statute mile	Clear of clouds

No pilot may operate an aircraft under basic VFR when the flight visibility is less, or at a distance from clouds that is less, than that prescribed for the corresponding altitude and class of airspace.

Traffic Pattern Operations

Take-off, Approach & Landing Verbiage

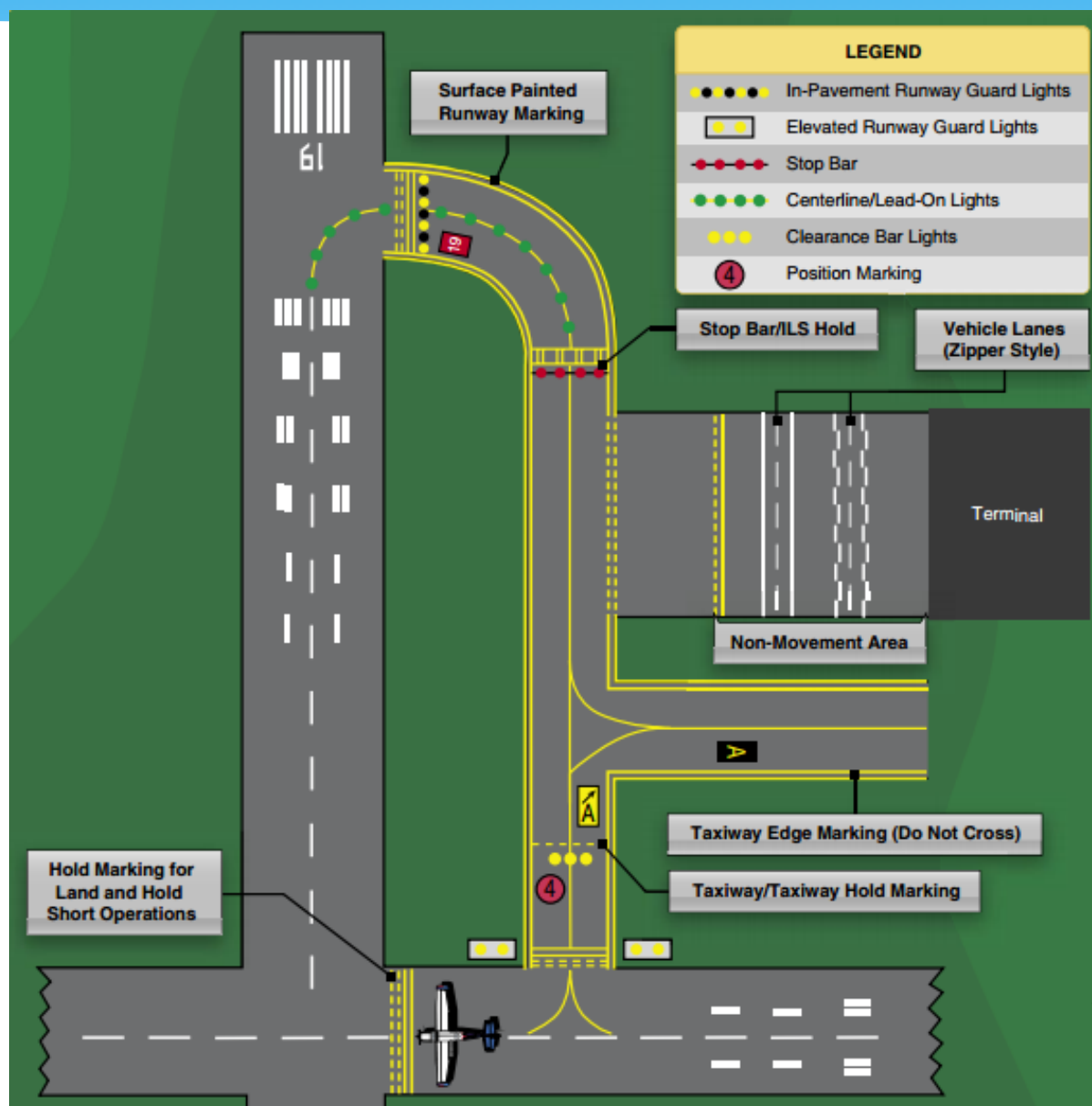
- **Full Stop Landing**
 - Land and exit the runway via a taxi way
- **Touch & Go**
 - Touch down on the runway and without stopping execute a take-off
- **Stop & Go**
 - Come to a full stop on the runway and then immediately execute a take-off
- **Low Approach**
 - Execute a go-around without touching the runway
- **Option**
 - Can execute any of the above
- **Closed Traffic**
 - Remaining in the pattern
- **Line up and Wait**
 - Cleared to taxi onto runway and hold. DO NOT depart until a take-off **CLEARANCE** is given

Radio Notes:

-At a towered airport- you must ALWAYS hear the word “CLEARED**” before departing or before each type of landing in order to execute them.**

Avoiding Runway Incursions

Airport Signs & Markings



Source: FAA Pilots Handbook of Aeronautical Knowledge

Recommended Radio Procedures

Proper Format for Radio Communication

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. <u>It is not authorization for takeoff.</u> It is used when takeoff clearance cannot immediately be issued because of traffic or other reasons.

"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.
For a complete listing of all ATC phraseology, consult the Aeronautical Information Manual (AIM).	

Recommended Radio Procedures

Initial Contact with an ATC Facility

Use the 5 W's as a Guide

1. **WHOM:** Whom you are talking to
2. **WHO:** Who you are
3. **WHERE:** Where you are (include altitude)
4. **WHAT:** What you want / your intentions
5. **WITH:** Airport information (ATIS)- Towered Only

	<u>ITEM</u>	<u>MEANS</u>	<u>EXAMPLE 1</u>	<u>EXAMPLE 2</u>
YOU	1. Whom you're talking to	Control	<i>Hanscom Ground</i>	<i>Lawrence Tower</i>
ME	2. Who you are	Aircraft ID	<i>Katana 505EC*</i>	<i>Cessna 92747*</i>
WHERE	3. Where you are	Position	<i>On the West Ramp</i>	<i>Eight miles southwest</i>
WHAT	4. What you want	Request	<i>Ready for taxi</i>	<i>Inbound for landing</i>
[WITH]	5. Are you informed	ATIS	<i>With X-Ray</i>	<i>We have Bravo</i>

Note: **ATIS** needs only be mentioned on first contact with a new control facility.

AUTOMATIC TERMINAL INFORMATION SERVICE

ATIS- WHAT TO EXPECT

- Recorded & repeating broadcast that is usually updated between 5 minutes before the hour and the top of the hour
 - Can be updated more often if there is a significant change in the information (such as weather or NOTAMS)
 - Each updated recording is given a revision letter using the phenetic alphabet
- Provides weather from the AWOS or ASOS System at the time the broadcast was created
- Usually is on the same frequency as the AWOS/ASOS and is active while the tower is in operation
- Reverts to the AWOS/ASOS broadcast when the tower is closed
- Some airports provide digital ATIS via EFB's or Text Messaging
- In addition to weather information, it can include:
 - Active runways in use
 - Instrument approaches to expect
 - Important NOTAMS
 - Special Cautions (Birds, Significant weather forecasts, etc.)

**Audio Example from Oxnard
Class D Airport**

Anticipated SGU VFR Towered Airport Radio Procedures

What is Required

For a typical VFR flight in and out of a towered airport, here is the order in which you'll talk to each entity on the radio:

Departure:

1. Listen to the ATIS
2. GROUND 1, 2, 3, 4, 5
3. TOWER 1, 2, 3, 4
- (4) LA Center for

Flight Following

- 1- **WHOM:** Whom you are talking to
- 2- **WHO:** Who you are
- 3- **WHERE:** Where you are
- 4- **WHAT:** What you want
- 5- **WITH:** Airport information (ATIS)

Arrival:

1. Listen to ATIS
2. TOWER 1, 2, 3, 4, 5 (will be handed off if utilizing flight following)
3. GROUND 1, 2, 3, 4

When given a clearance or specific instructions by ATC, that clearance or those instructions should be read back (repeated) to ATC verbatim... if something is not correct, they will let you know

Towered Radio Procedures

VFR Departure

1. **LISTEN** to the ATIS
2. **Contact Ground** when ready to taxi:
You: “St. George Ground, RV68SF at Million Air with information C, VFR departure to the Northeast, 7500, ready to taxi”
3. **Ground Control:** “RV68SF, taxi Runway 19 via A2, A, A1”
You: “Taxi Runway 19 via A2, A, A1, RV68SF”
4. **Contact Tower** when ready to depart at the hold short line:
5. **You:** “St. George Tower, RV68SF holding short Runway 19 at A1, ready for VFR Northeast departure”
6. **TOWER:** RV68SF, CLEARED for takeoff, Runway 19, left turnout for a northeast departure
You: “Cleared for takeoff, Runway 19, left turnout for a NE departure, RV68SF”
5. **TOWER:** “N68SF, Frequency Change Approved” or “Contact LA Center on 124.2 for Flight Following”
You: “Frequency Change Approved” or “Contact LA Center on 124.2, RV68SF”

VFR Departure Example Roll Play

Towered Radio Procedures

INITIAL ARRIVAL CONTACT (10 Miles Out)

1. **WHOM:** To whom you are talking to
“St. George Tower”
2. **WHO:** Who you are
“Skyhawk 783CH”
3. **WHERE:** Where you are (include altitude)
“10 Miles Southwest, Descending thru 8300”
4. **WHAT:** What are you doing or your intentions/request
“Inbound for Full Stop Landing”
5. **WITH:** ATIS Revision
“With information X”

Notes:

- **ATIS** needs only be stated on the first contact with a new control facility.
- -If in contact with LA Center on a IFR flight plan or VFR flight following, ATC will hand you off to the tower at the appropriate distance

Towered Radio Procedures

AFTER INITIAL CONTACT

1. TOWER WILL PROVIDE INSTRUCTIONS ON ENTERING THE PATTERN, LANDING RUNWAY, AND LANDING CLEARANCE

- * Repeat back instructions verbatim and follow them.
- * A standard pattern may not be part of the instructions
- * The expectation is that you only talk on the radio to respond to the instructions or if you need a request.
- * If "unable" to follow instructions, let the controller know with a reason

2. ONCE ON THE GROUND, FOLLOW THE INSTRUCTIONS AS GIVEN OR EXIT THE RUNWAY AS SOON AS PRACTICAL

- * Pull past the hold short line to clear the runway
- * Tower direction for taxi instructions will include one of the following:
 - "contact ground on"
 - "monitor ground on"
 - "remain on this frequency"



QUESTIONS & COMMENTS