

Airspace

with Andrew Traficante

Introduction

- Every point above the surface has been charted by the FAA and assigned an airspace designation
- Airspace may have operating hours
- Most types of airspace is anchored around a particular airport

Agenda

1. Airspace depictions on the sectional
2. Airspace operating rules
3. Airspace weather minimums
4. Airspace reversion
5. Special Use Airspace
6. References

Class D “Delta”

About

Surrounds moderately busy **airports** with corporate jet traffic or heavy flight training operations. Normally a 4nm radius up to and including 2500 ft AGL.

- Santa Monica, Lafayette, Concorde...

Entry Requirements

Radio Communications

Two-way comms. Means tower must say your tail number.

Equipment Requirements

None, other than radios!

Levels of ATC

Ground

“Edwards ground...”

Controls airport surface (movement area)

Tower

“Edwards tower...”

Controls takeoff/landing and entry/exit into the airspace

Weather Minimums

3sm visibility, must be 1000 ft below, 500 ft above, or 2000 ft horizontally from clouds



Class C “Charlie”

About

Surrounds airports with light-moderate airline operations. Not quite at the LAX/JKF/MIA level

- Burbank, Fort Lauderdale, Oakland

Entry Requirements

Radio Communications

Two-way comms. Means tower must say your tail number.

Equipment Requirements

Transponder with ADS-B

Levels of ATC

Ground

“Burbank ground...”

Controls airport surface

Tower

“Burbank tower...”

Controls takeoff/landing only

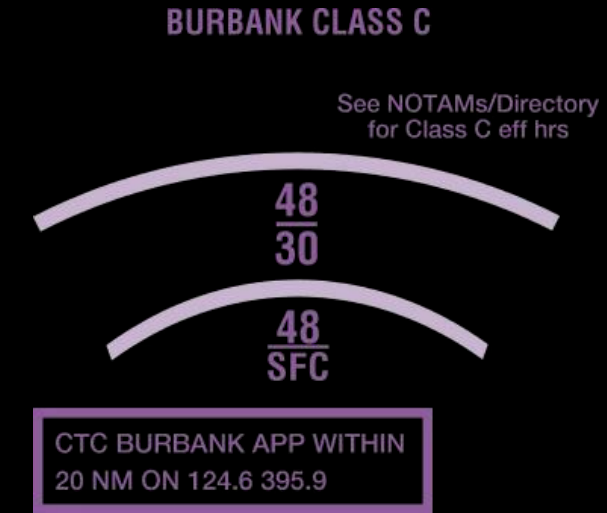
Approach

“Socal approach...”

Controls entry/exit into the airspace

Weather Minimums

3sm visibility, must be 1000 ft below, 500 ft above, or 2000 ft horizontally from clouds



Class B “Bravo”

About

Surrounds the busiest airports in the country

- LAX, JFK, SFO, MIA...

Entry Requirements

Radio Communications

Two-way comms. Means tower must say your tail number.

Equipment Requirements

Transponder with ADS-B

Levels of ATC

Ground

“Burbank ground...”

Controls airport surface

Tower

“Burbank tower...”

Controls takeoff/landing only

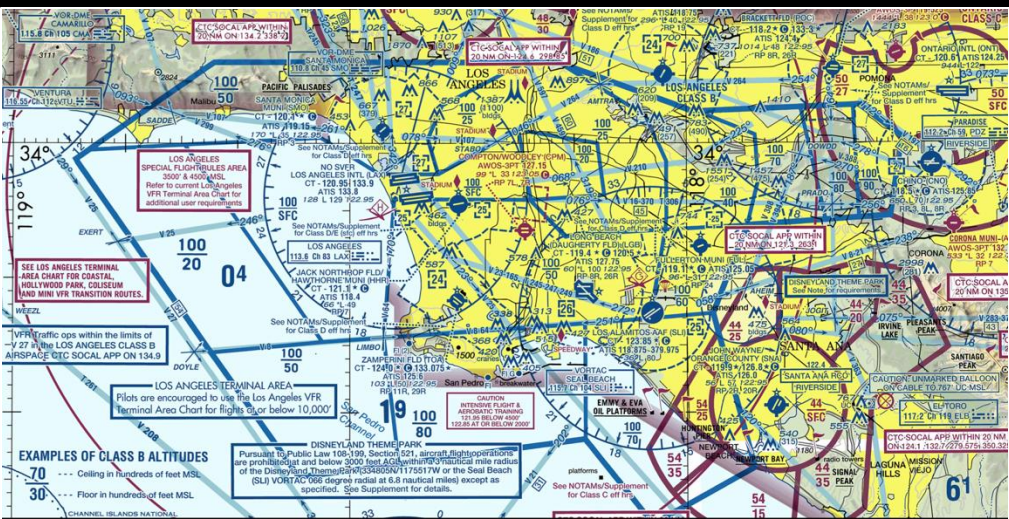
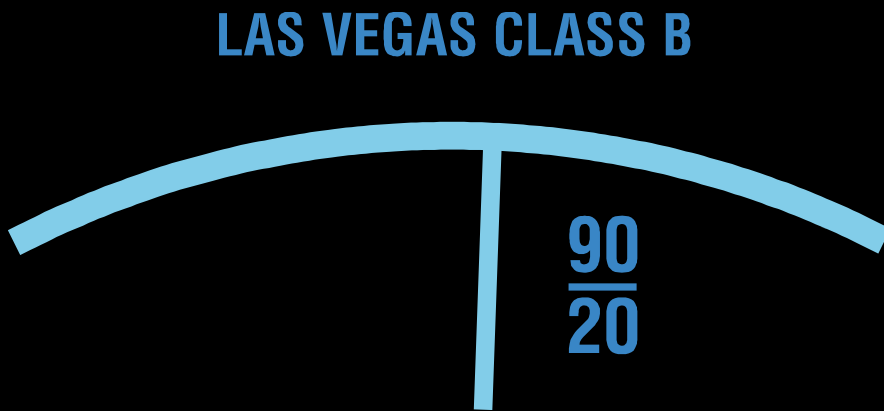
Approach

“Socal approach...”

Controls entry/exit into the airspace

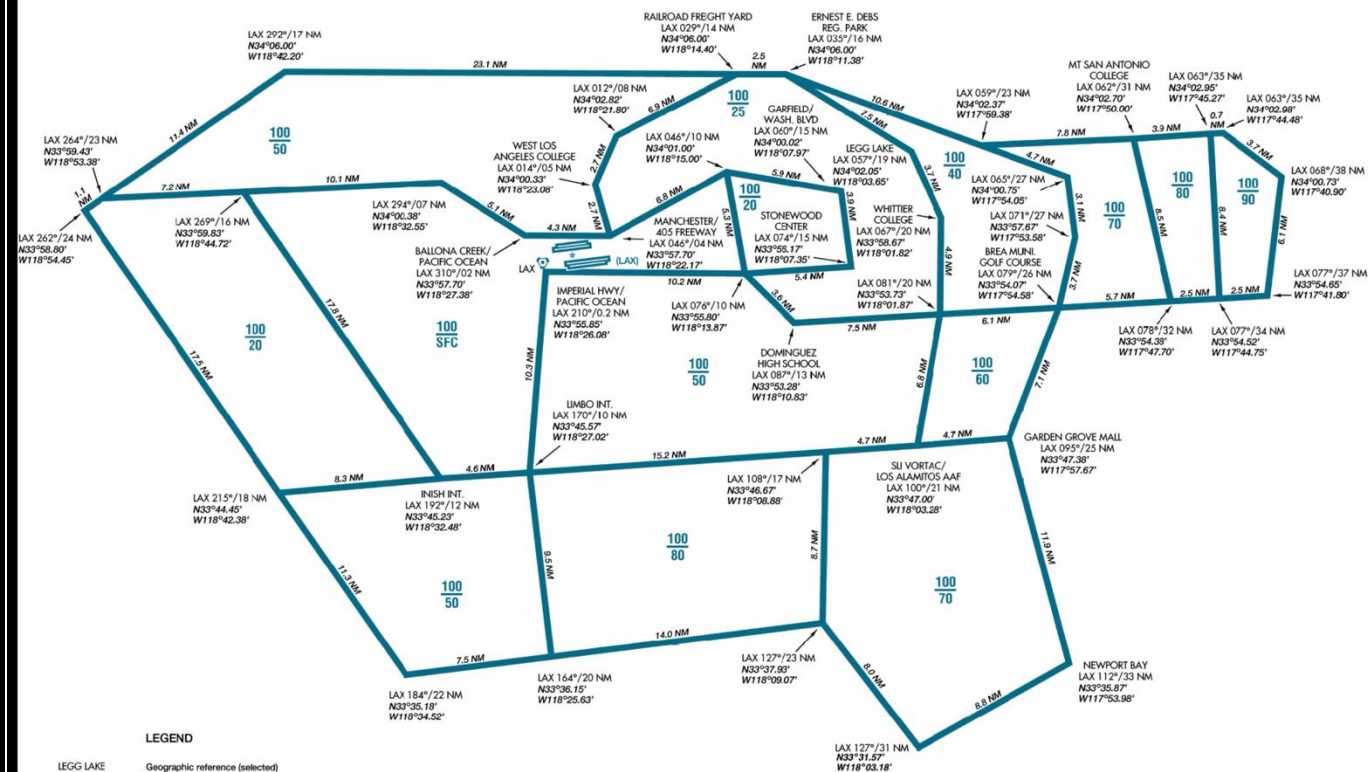
Weather Minimums

3sm visibility, must remain clear of clouds. Why not 152 rule?



LOS ANGELES CLASS B AIRSPACE

NOT TO BE USED FOR NAVIGATION



Class E “Echo”

About

Airspace that, in conjunction with Class G, fills in the gaps between B, C, and D airspace. It exists solely for IFR traffic but we do care where it is for VFR flying since it has specific weather minimums.

Entry Requirements

Radio Communications

None for VFR!

Equipment Requirements

None for VFR!

Levels of ATC

N/A

Weather Minimums

Below 10,000 MSL	3 sm, 1000 ft below, 500 ft above, or 2000 ft horizontally from clouds
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At or above 10,000 MSL	5 sm, 1000 ft below, 1000 ft above, or 1sm horizontally from clouds. Does this have anything to do with speed limits?
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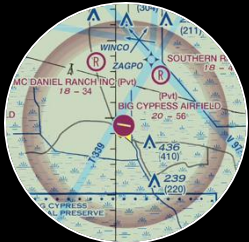
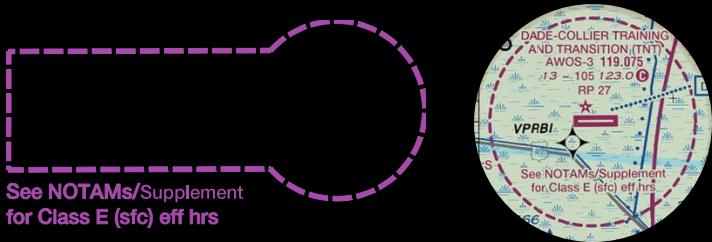
Class Echo

Depiction

Surface and upward

700 ft AGL and upward

1200 ft AGL and upward



No specific depiction

Dashed magenta line

Magenta vignette

Class E Airspace

Ground

Class Golf

About

Airspace that, in conjunction with Class E, fills in the gaps between B, C, and D airspace. It is known as “uncontrolled” airspace.

Entry Requirements

Radio Communications

None!

Equipment Requirements

None!

Levels of ATC

N/A

Review on Entry Requirements

Airspace	Entry Requirements	Equipment	Minimum Rating
Class A	IFR Flight Plan	IFR	Instrument Rating
Class B	Explicit ATC clearance	Radio and ADS-B Transponder	Private*
Class C	Two-way radio contact	Radio and ADS-B Transponder	No specific requirement
Class D	Two-way radio contact	Radio	No specific requirement
Class E	None for VFR	No specific requirement	No specific requirement
Class G	None	No specific requirement	No specific requirement
*Student pilots may enter if 61.95 is met.			

Review on Weather Requirements

FAR 91.155

Airspace		Visibility		Distance from Clouds
Class A		No VFR		No VFR
Class B		3 sm		Clear of Clouds
Class C		3 sm		152 Rule
Class D		3 sm		152 Rule
Class E	Below 10,000 MSL	3 sm		152 Rule
	At or above 10,000 MSL	5 sm		1000 feet above 1000 feet below 1 sm horizontal
Class G	At or below 1200 AGL	Day	1 sm	Clear of Clouds
		Night	3 sm	152 Rule
	Above 1200 AGL but below 10,000 MSL	Day	1 sm	152 Rule
		Night	3 sm	152 Rule
	Above 1200 AGL and 10,000 MSL		5 sm	1000 feet above 1000 feet below 1 sm horizontal

Airspace Reversion

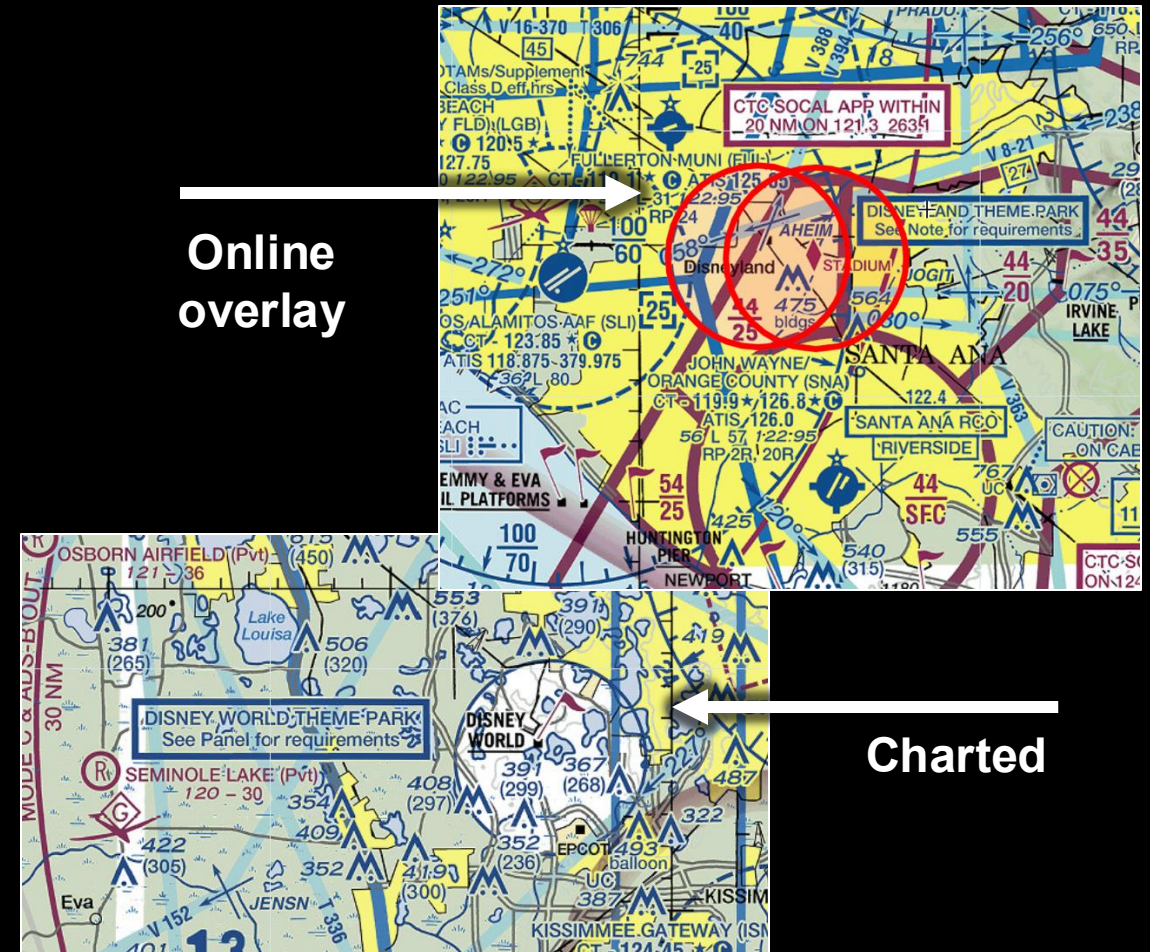
- Tower is not always open at Class D airports
- When that occurs, airspace does not stay a Class D. Who would allow entry into the airspace?
- Airspace reverts to either Class G or Class E. How do we know?
Chart supplement!

Airspace Reversion – Chart Supplement

Special Use Airspace

Temporary Flight Restrictions (TFRs)

- It may be necessary to establish an temporary restricted area to protect public figures, space launches, or disaster relief efforts
- Due to the temporary nature of TFRs, they are not charted* but appear in NOTAMs or at [tfr.faa.gov](https://www.faa.gov/tfr). Flight through these areas may be authorized by ATC

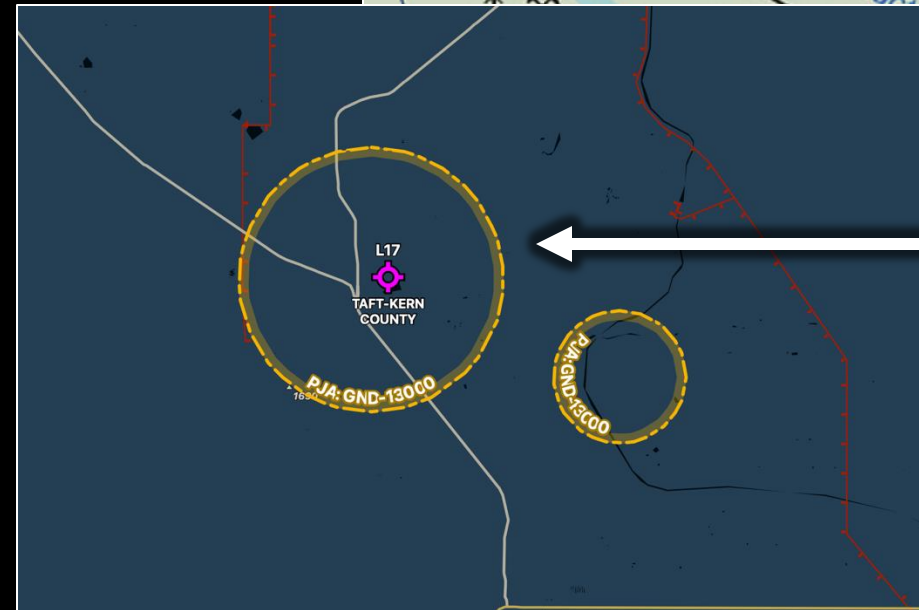


*with the notable exception of the Disney World theme park in Orlando

Parachute Jumping Areas (PJAs)

- Where parachute jumpers will be jumping

Parachute
symbol



Online
overlay

Prohibited Area

- Flight into a prohibited area is never permitted at any time
- Clearance will not be given nor will the prohibited area ever be inactive
- They are depicted with a blue hashed box and the prohibited area designation inside



PROHIBITED, RESTRICTED
or WARNING AREA

Restricted Area

- “Restricted areas denote the existence of unusual, often invisible, hazards to aircraft such as artillery firing, aerial gunnery, or guided missiles.”
- Entry is not completely prohibited, by subject to restrictions
- Sometimes active continuously, sometimes “hot” or “cold” by schedule
- Hours on side of sectional

P-56
OR
R-6401
OR
W-518

SPECIAL USE AIRSPACE ON MIAMI SECTIONAL CHART

Unless otherwise noted altitudes are MSL and in feet. Time is local.

TO an altitude means "to and including."

FL - Flight Level

NO A/G - No air to ground communications.

Contact Flight Service for information.

† Other times by NOTAM.

NOTAM - Use of this term in Restricted Areas indicates FAA and DoD NOTAM systems. Use of this term in all other Special Use areas indicates the DoD NOTAM system.

U.S. P-PROHIBITED, R-RESTRICTED, W-WARNING, A-ALERT, MOA-MILITARY OPERATIONS AREA

NUMBER	ALTITUDE	TIME OF USE	CONTROLLING AGENCY/ CONTACT FACILITY	FREQUENCIES
R-2901 A, C	TO BUT NOT INCL 14,000	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 B	14,000 TO BUT NOT INCL FL 180	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 D	500 TO BUT NOT INCL 4000 E OF 81°21'00"W, 1000 AGL TO BUT NOT INCL 4000 W OF 81°21'00"W	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 E, H	1000 TO BUT NOT INCL 4000	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 F	4000 TO BUT NOT INCL 5000	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 G	TO BUT NOT INCL 5000	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 I	1500 TO BUT NOT INCL 4000	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 M	4000 TO BUT NOT INCL 14,000	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2901 N	5000 TO BUT NOT INCL 14,000 N OF LINE 27°24'46"N, 81°10'59"W, TO 27°29'31"N, 81°05'27"W, 4000 TO BUT NOT INCL 14,000 S OF LINE	INTERMITTENT 0600-2400 MON-FRI 0800-1800 SAT-SUN 16 HRS IN ADVANCE	MIAMI CNTR	
R-2916	TO 14,000	CONTINUOUS	MIAMI CNTR	
W-168	UNLIMITED	INTERMITTENT BY NOTAM	MIAMI CNTR	
W-174 A, F	TO FL 700	INTERMITTENT 0700-2300 ET	MIAMI CNTR	
W-174 B, C, G	TO FL 700	INTERMITTENT 0700-2300 ET†	MIAMI CNTR	
W-174 E	TO 10,000	INTERMITTENT 0700-2300 ET†	MIAMI CNTR	
W-465 A, B, D	TO FL 700	INTERMITTENT 0700-2300†	MIAMI CNTR	
W-497 A, B	UNLIMITED	BY NOTAM	MIAMI CNTR	

Warning Area

- Warning areas serve to alert pilots of activity that may be hazardous to nonparticipating aircraft
- They usually exist over domestic or international bodies of water, and while IFR traffic is routed away from these areas
- VFR traffic may enter while active or inactive, but are discouraged from doing so



PROHIBITED, RESTRICTED
or WARNING AREA

Military Operations Area (MOA)

- MOAs indicate regions of military training operations
- VFR flight is permitted while the area is inactive or active.
- Pilots choosing to enter an active MOA should do so with extreme caution with contact with the controlling agency for traffic advisories.

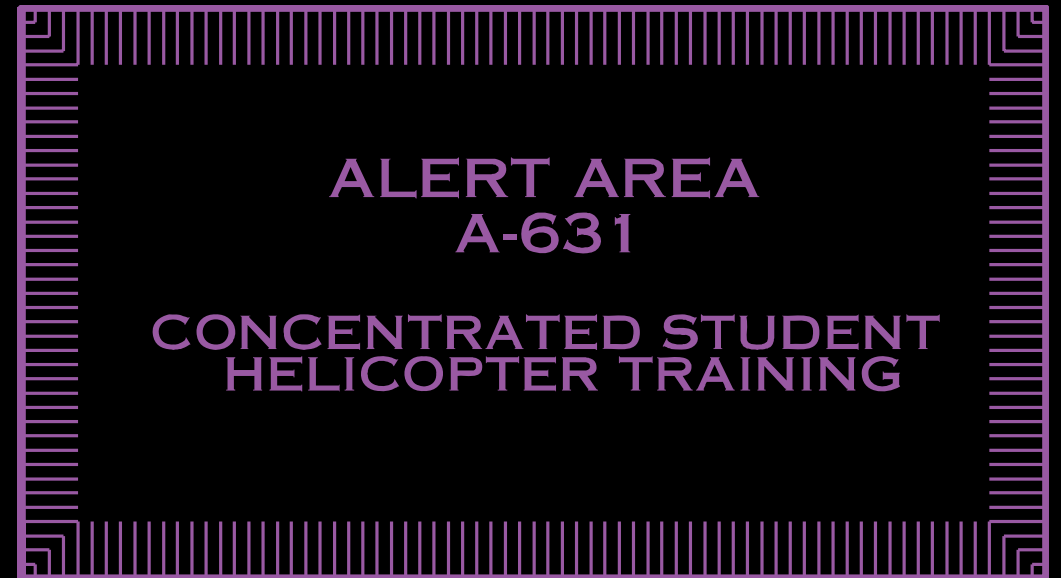


MOA NAME	ALTITUDE*	TIME OF USE†	CONTROLLING AGENCY/ CONTACT FACILITY	FREQUENCIES
AVON EAST	500 AGL TO BUT NOT INCL 14,000	INTERMITTENT SR-SS MON-FRI	MIAMI CNTR	
AVON EAST HIGH	14,000	INTERMITTENT, NORMALLY DAYLIGHT HOURS MON-FRI	MIAMI CNTR	
BASINGER	500 AGL TO 5000	INTERMITTENT, NORMALLY DAYLIGHT HOURS MON-FRI OCNL SAT-SUN	MIAMI CNTR	
LAKE PLACID EAST, NORTH, WEST	7000	INTERMITTENT, NORMALLY DAYLIGHT HOURS MON-FRI OCNL SAT-SUN	MIAMI CNTR	
MARIAN	500 AGL TO 5000	INTERMITTENT, NORMALLY DAYLIGHT HOURS MON-FRI OCNL SAT-SUN	MIAMI CNTR	
TORTUGAS	5000	INTERMITTENT 0700-2300	MIAMI CNTR	

*Altitudes indicate floor of MOA. All MOAs extend to but do not include FL 180 unless otherwise indicated in tabulation or on chart.
†Other times by DoD NOTAM.

Alert Areas

- Regions of intensive pilot training, high volume of air traffic, or unusual activity
- There are no controlling agencies nor requirements to enter, but pilots should be alert and vigilant, especially for collision avoidance, while transitioning the area
- Information about the alert area is also found on the border of the sectional



Controlled Firing Areas (CFA)

- CFAs contain activities which, if not conducted in a controlled environment, could be hazardous to nonparticipating aircraft.
- Activities are suspended immediately when spotter aircraft, radar, or ground lookout positions indicate an aircraft might be approaching the area.
- There is no need to chart CFAs since they do not cause a nonparticipating aircraft to change its flight path.

CONTROLLED FIRING

Camden, Harrell Fld, AR
6E Camden 2 NM radius surface—005 avoidance advised Mon–Fri daylight hours.
El Dorado, South Arkansas Rgnl
ELD 021/024 2 NM radius surface—500 AGL avoidance advised Mon–Fri daylight hours.
Texarkana Rgnl Webb Fld, AR.
.25 NM radius TXK 223010 2000/blo Mon–Thu. 1900–0500Z‡
.5 NM radius TXK 240014 1000/blo Mon–Sat SR–SS.

Further Questions

- What is the radius of the EDW delta?