AIRSPACE FOR DUMMIES

OR

How Hard Can It Really Be!

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Long long ago in a galaxy far far away
IT WAS A MUCH SIMPLER TIME
...there were “CONTROL ZONES” and “TERMINAL CONTROL AREAS”.
...and you could go pretty much anywhere you wanted as long as you stayed clear of them.
there were TRSA’s, too, but they don’t really count
But, on September 16, 1993
That all changed.
The FAA adopted a slightly modified version of ICAO (International Civil Aviation Organization) airspace classifications: A thru E, and G.

There’s no “F” in the US. We’ll talk about that later.
Los Angeles Sectional from the 1940s!
Los Angeles TODAY!
Most pilots get rusty on their airspace rules, yet, particularly in today’s post 9/11 environment, it’s the thing that can get you in the most trouble!

BTW, when was the last time you checked NOTAMS before flying to Brenham for lunch.....
We’ve ALL seen this!

U.S. Airspace Classes at a Glance

FL 600
18,000 MSL

CLASS A

14,500
MSL

CLASS B

Nontowered
Airport

700 AGL

CLASS C

1,200 AGL

CLASS D

CLASS E

AGL - above ground level
FL - flight level
MSL - mean sea level

Effective September 16, 1993
Let’s talk about: Class A Airspace

- From 18,000 to 60,000 msl.
- Not shown on Sectionals or WACs
- Altimeter setting at 29.92
- Need Transponder
- Instrument Rating
- On Instrument Flight Plan
- DME above 24,000 feet
- EXCEPTION: Gliders may operate in CLASS A airspace with ATC’s blessing!
- AIRSPACE TRIVIA: WHAT AIRSPACE IS ABOVE CLASS A?
- CLASS E
What’s This?

- Class B Airspace
  - 30 mi but could be more
  - 3 statute miles
  - Clear of Clouds
  - Two-way communication
  - Mode C Transponder
  - Specific permission to enter “Cleared into Bravo”. If you’re not sure, ask!!!
  - 250 kias speed limit within Class B
  - Student access limited
What’s This:

- Mode C Veil
- Within 30nm of most Class B airports
- Mode C Transponder required
- Except: Aircraft not originally certified with electrical system
- Gliders, Balloons
What’s This:

- Class C Airspace
  - 10nm-20nm in diameter
  - Generally to 4000’ agl
  - 3 Miles
  - 1000 above, 500 below, 2000 horizontal (think 3-152s)
  - Class C, Mode C…even when flying over, but outside of, Class C airspace
  - Two-Way Communication: MUST hear your tail number before entering
What’s This:

- **Class D**
- 10nm diameter
- 200 kias speed limit within 4nm
- Ground to 2500’ agl
- 3 Miles
- 1000 above, 500 below, 2000 horizontal (think 3-152s)
- No Mode C if outside the veil
- Two-Way Communication: MUST hear your tail number fore entering
- Generally reverts to Class E when the tower closes
What’s This:

- **Class E Airspace Transition Area**
  - Transitions traffic to/from the terminal or en route environment
  - 3 Miles
  - 1000 above, 500 below, 2000 horizontal (think 3-152s)
  - Outside the “hard” boundary, “E” starts at...
    - 1200’ agl
  - Inside the ‘soft’ boundary, “E” starts at...
    - 700’ agl
Uh oh…What’s This!!

- **Class E, but…**
  - To the ground (Class E Surface Area) within the dashed line
  - 3 Miles
  - 1000 above, 500 below, 2000 horizontal (think 3-152s)
  - Outside the “hard” boundary, “E” starts at…
  - 1200’ agl
  - Inside the ‘soft’ boundary, “E” starts at…
  - 700’ agl
  - Must have a weather observer or functioning ASOS/AWOS on the field to be considered Class E Surface Area.
Bet you’ve never seen THIS before!

- **Class G Airspace**
  - You won’t generally see this on a chart unless you fly in VERY remote areas!
  - 1 Mile / Clear of Clouds below 1200’ agl during the day
  - 1 Mile / 1000’/500’/2000’ above 1200’ agl (think 1-152)
  - AT NIGHT: 3 Miles, 1000’ above, 500’ below, 2000’ horizontal (think 3-152s)
  - Extends from the ground to the base of overlying airspace OR up to but not including 14,500’ msl
Cloud Clearance and Visibility Requirements are EASY:

Class C,  
Class D,  
Class E and  
(at night) Class G  
are ALL  
3-152
But what about ABOVE 10,000’

- 5 statute miles
- 1000 feet above
- 1000 feet below
- 1 statute mile horizontally
- REMEMBER “5111”
- AND, you need a (working!) transponder.
And, have you noticed?  
This is all very logical!

“B” is Blue
“C” is Magenta
“D” is Blue
“E” is Magenta
“G” is Blue

If you can figure out one, you can figure out the rest!
And, what about the TRSA?

- **Terminal Radar Service Area – TRSA**
- Transponder and 2 way communication for participating pilots
- Participation not required but recommended
- Generally surrounds Class D airports and all Class D rules apply
Watch out now..

- **RESTRICTED AREA!**
  - Separates civilian traffic from potentially hazardous military traffic.
  - STAY OUT when active.
  - OK to penetrate when inactive, but best to communicate with the controlling authority before doing so.
  - Check your sectional for the controlling authority
Can you guess what this one is?

- Duh…
- …it’s a Prohibited Area
- Stay out.
- Go directly to jail
- Do Not Pass “GO”
- Do Not Collect $200.00…..
- ‘Nuff said
The “A” Gives It Away…

- Alert Area
- No clearance required
- Denotes heavy pilot training or unusual activity
Here’s another tough one

- You guessed it... a Warning Area...
- Extends from 3nm off the coast
- Indicates possible hazardous activities
- No permission required to enter, but...
- Why would you want to?
And, how about this?

- Military Operations Area (MOA)
- No permission required to penetrate, but communication with ATC is recommended because of....
- Duh....
- MILITARY OPERATIONS!
Watch out for these!

- Military Training Routes
- Low altitude, high speed training
- IR = Instrument
- VR = Visual
- 4 numbers = 1500 agl and below
- 3 numbers = above 1500 agl
A little out of context, but...

- Air Defense Identification Zone (ADIZ)
- Requires an IFR or DVFR (Defense VFR) flight plan to penetrate
- Discrete transponder code
Remember P-49?

- TFR – Temporary Flight Restriction
- Surrounding a Prohibited Area
- Flight within an active TFR can be permitted with:
  - IFR or VFR Flight Plan and:
  - Discreet Transponder Code
- CAUTION: TFR’s are often NOT charted and the FAA is not good about disseminating this information!
Hmmm...looks kinda like a TFR but is it?

- National Security Area
- Pilots are requested, but not generally required, to avoid it or overfly above a specified altitude.
- Can be forbidden by TFR so, watch out!
You Are **Not** Welcome Here!

- Hmmm…where to start
- The dotted magenta ring is a land-based ADIZ surrounding Washington DC
- Airspeed restrictions
- Permission to enter the ADIZ doesn’t mean permission to enter Class B
- Discrete transponder code and lots of other crap
We’re not done yet. There’s more.

- Inside the ADIZ is an Flight Restricted Zone
- GA flight prohibited with very few exceptions
- Requires background check and special procedures
- **IMPORTANT**: If you intend to fly within 60nm of Washington DC, you must undergo special training
AND WHERE CAN YOU GET IT?

- It is strongly recommended that all pilots flying under Visual Flight Rules (VFR) within 100 NM of the DCA VOR/DME complete special awareness training for the Washington DC Metropolitan Area. This training is mandatory for all pilots that fly under VFR within 60 NM of the DCA VOR/DME (14 CFR Parts 61 and 91, effective February 9, 2009). This training is available in the Aviation Learning Center at http://www.faasafety.gov.
And, just for fun

- **Special Conservation Area**
  - The “Atwater Prairie Chicken Preserve” is at Eagle Lake
  - Not “Special Use”
  - No particular requirements
  - “Requested” not to fly lower than 2000’
And, Finally….Class F
Betcha thought I forgot

- Class F is common in Europe
- It is for IFR flight in UNCONTROLLED airspace (say what?!)
- From the ICAO: Operations may be conducted under IFR or VFR. ATC separation will be provided, so far as practical, to aircraft operating under IFR. Traffic Information may be given as far as is practical in respect of other flights. (Uh-huh….)
- In Canada, they define it as: “Airspace of defined dimensions within which activities must be confined because of their nature, or within which limitations are imposed upon aircraft operations that are not a part of those activities, or both. Special use airspace may be classified as Class F advisory or Class F restricted” (Right….)
- Which is, of course,
- Clear as mud
A Very Helpful Publication
Thank you for coming tonight!
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