Preparing for check ride

Resources

- Great article on check ride reasons for failure:
    - https://chesapeakesportpilot.com/wp-content/uploads/2019/01/JanuaryFebruary2018Mentor_p16-20.pdf
    - Oral: National airspace system and airworthiness
    - Practical: short field landings
        - **Where is the wind coming from?**
        - Do clearing turns **every time!!**
- Best prep videos
    - Garmin 430 tutorial: https://youtu.be/RRU8vVIe-cQ
    - https://youtu.be/c14-XXKDubQ - mid air
    - https://youtu.be/zofn3skychQ (Garmin)
    - https://youtu.be/HOUVwHMc6Zw
    - https://youtu.be/8jz_QKnPVDg
    - https://youtu.be/qZefYUkhXZM
    - http://youtube.com/watch?feature=ios_messages_extension&v=M4MD27ifZFA
    - https://youtu.be/FqxrTKZkZJ8
    - https://youtu.be/nXLaQXOpfmY
    - https://youtu.be/WFqxFbTJqKQ
    - https://youtu.be/zVE-gIeZUpk
    - https://youtu.be/kr483zBbQKw
    - https://youtu.be/UITURVxnqn0
    - How to tag FAR-AIM: https://youtu.be/w4-9dEd2EpA
- Make flash cards for everything including types of hypoxia!!

KPTV Weather briefing - Day of check ride

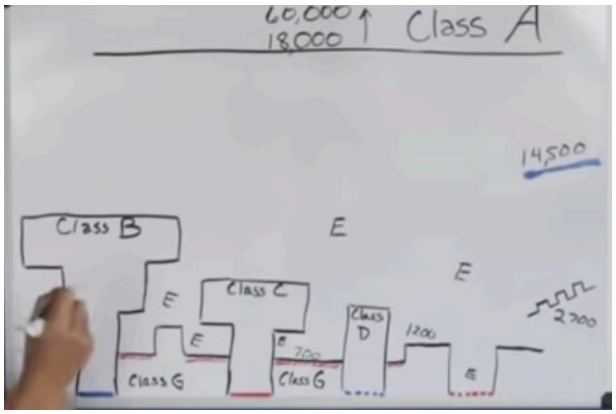
12/30/21

- Airmet
    - Ceiling below 1,000, less
    - Most of San Joaquin (Stockton and south) is IFR
    - VFR not recommended at present time
    - Updated every 30min
    - Mountain obscuration
        - East for first half of route
        - Part of route for next 6 hours
    - Turbulence: moderate to 18k to 25 east north east. Beyond 21-00z.
    - Icing: covers southern half of route. SFC to 7k. Through 21z
- Synopsis
    - Low level moisture due to low pressure
    - Occluded northeast
    - Low pressure along cost
        - Warm front to Tijuana
        - Moisture / rain showers
        - Rain showers on radar and advancing in land + clouds
    - Cold front
    - Tule dog in Central Valley / low IFR Merced / Bakersfield.
    - Jet stream: dropped south over northern Mexico / southern plains
        - Sets up upper level troughing along coast + high clouds from cold front in Pac NW
- Forecasts:

    - Wind: 180 @ 6. Vis. Ceiling 10k broken. Few clouds at 2k.
    - Sac Valley: high cirrus / clouds over sierras. 6-8k broken. Tops 7-11k.
    - SJ valley: few layers at 2-3k beneath ceiling.
    - IFR ceilings 1000k should dissipate
    - Drizzly / light rain staying near Tehachapees.
    - En route: light wind and variable
- KPTV: Visalia.
    - After 9am: clear skies. Wind 330 @ 3 knots
    - KFAT: 6k scattered 6sm vis
    - Winds clam at SFC
    - Bit misty at Merced
- Winds aloft
    - 3k: 1pm - light and variable
    - Sac: 240 / west to east.
    - Winds shift: south and southeast (from low pressure near channel)
- NOtAMS
    - Flying drones at Mather (700AGl) and Rancho Murietta (400AGL)
- Reference
    - Story of Airfrance 447 (Colgan - Buffalo NY)

Airspace prep before checkride
12/29/21

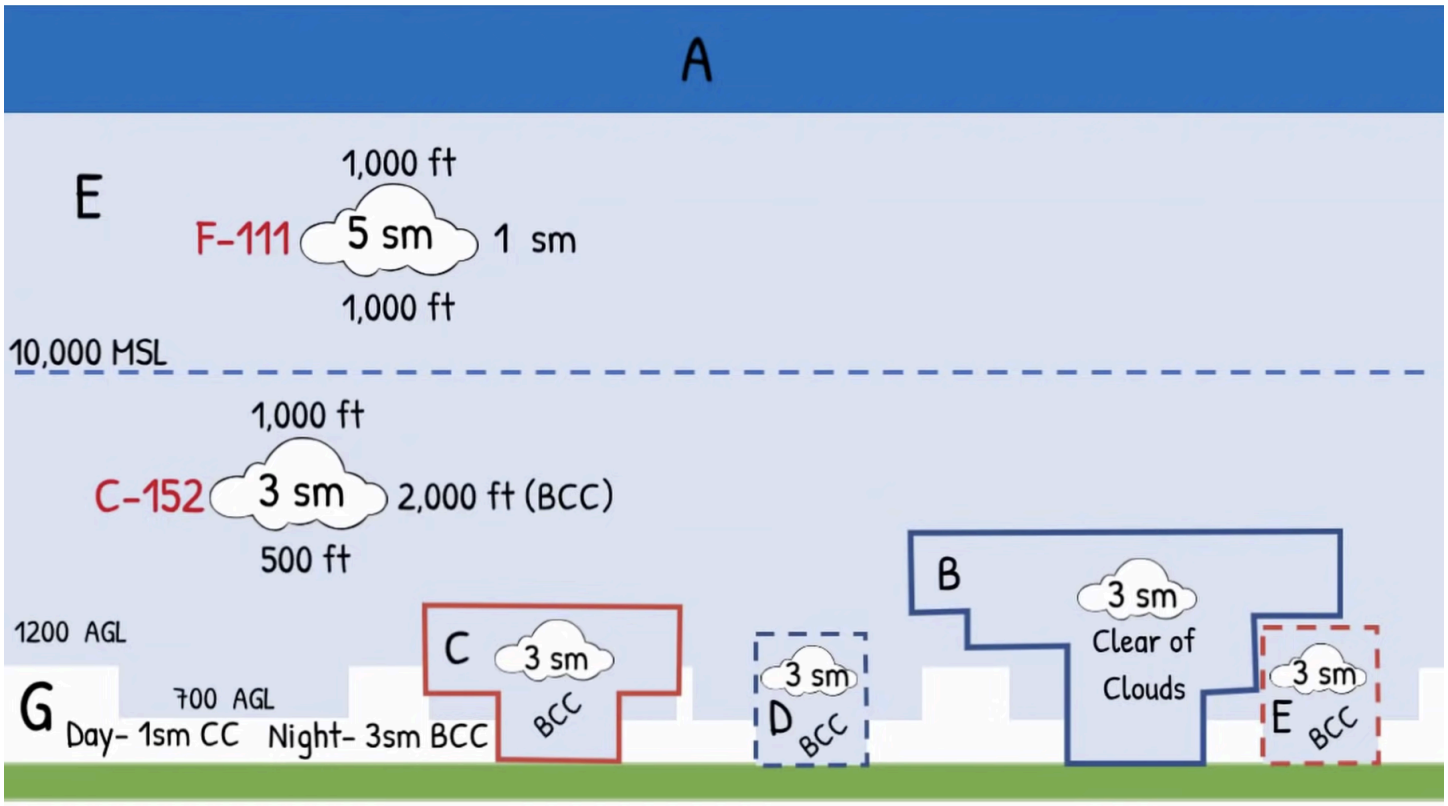
- Watched this video: class B, C and D all have **control towers**.
    - **Class G** starts at the SURFACE and goes up to 1,200 ft (unless otherwise depicted)
        - **Magenta shading = 700 feet (stop Gs lower)**
        - Magenta dashed lines: no class G at all
        - Blue shading: G can go up to **14,500 MSL**
        - Zipper line: if they want Class G to stop sooner than 14,500 - specified
        - Class G is considered **uncontrolled** airspace - no ATC
        - Rural, rockies, dessert
    - **Class E:** everywhere else / Echo. E is considered controlled, but it is more accurate to consider Class E as *controllable.* IFR in Class E - must be controlled. VFR: come and go in E and G without talking to anyone (until you ask for flight following)
- B: requires **clearance** and a Mode C transponder (altitude encoding)
    - 10,000 ceiling, 30nm radius (mode c veil drapes down - magenta circle around B
    - “Mode C - 30nm”
- C: requires 2-way **comms** + Mode C transponder (altitude encoding) - **they say your call sign**
    - **5nm radius, 10nm radius** (shelf 1,200, top 4,000)
- D: only requires 2-way radios.
    - Top: 2,500-feet, 4-mile radius.



- Airspeed limits
    - 10,000 or above: no speed limit:
    - Below 10,000: 281 mph or less (250knots)
        - VFR corridor through Bravo: 200 knots (230mph)
        - Underneath B: 200 knots (230mph)
        - Class B/C within 4nm and 2,500 ft: 200 knots (230mph)
- Visibility
    - Above 10,000: 5-111 (or F-111)
    - Below 10,000: 3-152
        - G: 1sm + clear of clouds (day); **3-152 (night)**
        - B: 3sm + clear of clouds
    - Special VFR: controlled airspace. Vis <3sm. Request from ATC. 1sm + clear of clouds.
- **Mode C transponder is required in**
    - B: in, under, above
    - C: in and above C
    - Anywhere above 10,000 feet (excluding 2,500 AGL)

- When class G is lowered to SFC or 700, it is really to protect IFR traffic

- Also watched this video which I quite liked:



- Also watched this video which was just okay
  - Prohibited: don't even think about it (Camp David)
  - Restricted: you can fly there, but have to contact them to see if they're active
  - MOA: can fly through, don't need permission
  - National Security Area: ground facility protection
  - ATC: prevent collision, organize/expedite traffic

Check ride prep w/ Eduardo & Alex
12/28/21

- Angle of incident
- Relative wind: direction of wind opposite of flight path
- Angle of attack: chord line vs. relative wind
- Utility category vs. normal category: 1,650 lbs
- What causes a spin: exceeding the critical and of attack (excessive or insufficient rudder)
    - Engine failure on takeoff on climb out and try to save it (below pattern altitude)
    - Too much back pressure when stretching the glide
    - Cross control stall when correcting an overshot base
    - Go-around: retract flaps too quickly, resulting in rapid sink rate, pull back (mistake)
    - Approach: nose up trim stall
- How to break a spin? Power, Aileron, Rudder, Elevator
- Adverse yaw: opposite aileron drags more (and therefore the nose) away from the intended turn direction. **Rudder counteracts this.**
- Ground effect: 40% less drag (within 3 feet of SFC). Too much airspeed - FLOAT. Short field landing with full flaps, excess speed with SAIL past point.
- “Aircraft performance” (9 items): stability, fuel efficiency, airspeed, rate of climb, maneuverability, stability
- Takeoffs and landings (5): weight, surface wind, density altitude, runway condition & slope

Check ride prep w/ Eduardo & Alex
12/22/21 & 12/23/21

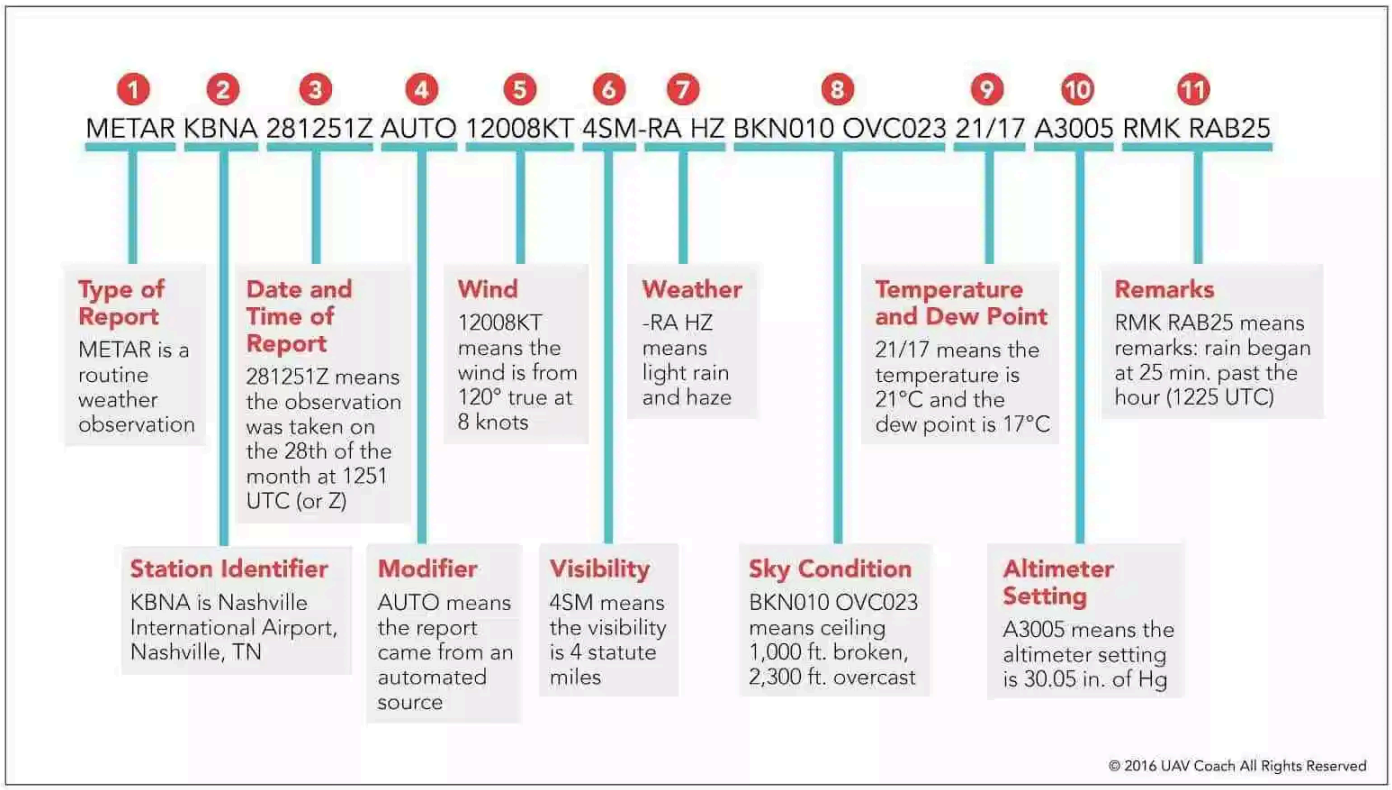
- Story from Alex & Eduardo (never happened in ASEL!) in 150
    - Stalls at 3k feet: carb ice - PROPELLER STOPS
        - Could also have been mechanical, fuel line partical,
    - Carb ice! Moisture in the venturi due to high humidity (80%+)
    - Eduardo immediately turned the airplane to the airport
        - Restarted the engine after 15 seconds
        - Did runup on the ground - no anomalies
    - Chris updated the CFI text group about the incident
    - Barack has had a prop stoppage before in 150 - high humidity, small engine (carburetor is situated such that its less warm) - 1800rpm (on the cessna) = carb heat
- Today’s topic: Weather
    - Covered low pressure, high pressure systems
    - Types of fronts
        - Cold
        - Warm
        - Occluded
        - Stationary:
        - *Fronts are anchored to pressure systems*
    - **The jet stream at 18-50k feet.** Moves these fronts all around the world in a counter-clockwise motion (from the above north pole perspective)
        - South pole: clockwise
    - Front-related weather really depends on humidity, stability and slope
    - Lapse rate
        - 2°C per 1,000-ft

        - 3.5°F per 1,000-ft
        - Pressure: 1” per 1k feet (EU: millibars - 1013.2 millibars at standard)
    - Isobars: lines that connect equal pressure; closer lines = high winds
        - **Surface Area Chart** - Synoptic Chart
        - Similar to contour altitude lines
    - Dew point
        - Saturation point
        - Base of clouds: less than 4° spread = clouds (temp vs. dew point)
    - Stability → K index. Good one to ask FSS about”
        - Do we have stable or unstable air along our course of flight?
        - Everything gets moderated
        - Stead rain/showers = stable air
    - Looked at Pireps for today’s weather
        - UA = PIREP
        - DURC = during climb
    - Flight planning: what meteorological information are you required to get? **Icing**
        - **Fronts:** type (cold = riskier), speed, direction
        - Cloud layers (close = riskier)
        - Pireps
        - Freezing level: Winds aloft = freezing point
        - Temp & pressure
    - Freezing point: Airmets, sigmets, lapse rate, pireps, winds aloft
        - Icing requires visible moisture
    - 3 types of icing: clear, rime, mixed
        - If you encounter: TURN AROUND
            - Descend
            - Climb above
            - Especially in mountainous terrain
    - **Frost during preflight = BIG DEAL, QUITE DANGEROUS**
        - Can increase stall speed by disrupting airflow (loss of lift)
            - Moderate gusts or turning could induce a stall
    - Thunderstorm requires:
        - “Convective activity”: **water vapor, unstable lapse rate/air mass, boost!**
        - Cumulus + mature + dissipating
    - Doppler radar = **where gusts are descending**
    - Temperature inversion: hot air above cold layer. Happens in Sac quite often, especially on cold winter days. Chimneys? Trap smoke and haze below.
    - Fog requires
        - Cooling air to dew point
        - Moisture in air / humidity
        - Fog humidity: 83-95% (forum)
        - Upslope fog: moist stable fog being cooled as wind pushes it upwards (dense, high)
    - Wind shear: **very dangerous, especially on final.**
        - low level temperature inversion
        - Frontal zone:
        - Clear air turbulence - jet stream, strong circulation
        - Unexpected change is windspeed & direction
        - ATC: amount of airspeed lost/increased on final

- Primary source: Flight Service 800-WX-BRIEF (national)
    - Talk to a professionals - sent to meteorological school (16 weeks) - 8 hours/day!!
    - Eduardo starts a long x-country with visible satellite picture
        - Blue, warm, surface (day only)
- Briefings
    - Outlook
    - FSS: in mid-2000s, over 2,000 employees in FSS got RIF'd and outsourced to Lockhead Martin
    - Standard: VFR don't fly, adverse conditions, current conditions, en route forecast, destination forecast, synopsis of pressure systems and fronts, NOTAMS/TFRs, ATC delays
    - Abbreviated
    - In-Flight: update on destination weather when opening flight plan
    - **Any GPS notices or outages?**
    - **Good question to ask: along my route, will I be flying in stable or unstable air?**
- **Special Use Airspace**

○ Restricted ○ Prohibited ○ MOAs ○ ADIZ	○ Warning area ○ Alert areas ○ National Security Airspace ○ Presidential TFR

- Thunderstorms: you need **20nm of spacing**. 40nm if you're flying between 'em.
- Where can you get in-flight weather? Radio FSS (122.2), radio ATC (precipitation), ATIS/AWOS/SOS, ADS-B weather info on map, "Center Weather Advisory"
- What is a METAR?
    - **This is the current hourly weather at the nearest towered airport**
    - 2 types: hourly/routine vs. SPECI (significant changes within the hour)
    - Reading a METAR in foreflight = TRUE heading. If you hear it/controller, it is MAGNETIC. (due to runway #s etc).
        - Isogonic variation
    - Also: "runway visual range" - applies to commercial airports with optical sensors that tell you how many feet you can visually se/



Check ride oral prep (6:30-8pm)
12/21/21

- ARROW is now SPARROW, so include **Supplements** and **Placards**
- Annual inspection: complete inspection of the aircraft + engine. Every 12 calendar months.
    - A&P = underneath the Airworthiness Inspector, so they can't do annual inspections (only 100 hours) but not certify them. Christopher is a A&P, but not an IA
        - Inspection Authorization (IA) is required to certify airworthiness
        - Ken is an IA
- Max VFR weight: <12,500 pounds.
    - Multi-engine + turbine = 100 hour
    - Turbo jet: 100 hour
- Aircraft for hire: can 100-hour inspection satisfy an annual? No. But an annual will satisfy the 100-hour.
- Difference between
    - **Annual:** Only and A&P with IA can perform and annual inspection
    - **100-hour:** can be done by any A&P, but no IA required.
    - **Mechanics are $75-100/hour, not including parts.**
- *Exceeding the 100-hour limit is illegal*
    - While in route to inspection location
    - At KLHM: no. At KCIC: yes.
- Overdue annual inspection? Only with:
    - **Special flight permit required**, but ADs must be complied with *prior to flight*
- Special flight permits: 91.213 - when are they necessary?
    - Ferry permit
    - Delivering/exporting new aircraft
    - Production testing
    - Evacuating impending danger

    - Customer demonstration
- Where do you get one?
    - FAA District Office with jurisdiction
    - We have one in downtown Sac
    - Online
    - For new runways, the state/county also gets involved
- Called out INOP on pitot heat switch
- What is icing?
    - -10C to 5C + visible precipitation
    - PIREP confirms icing at 8k feet
    - PIREPs are perishable and only valid for 1hr
    - **PIREP makes it known**
    - Eduardo has only encountered icing a handful of times while flying cargo (Burbank, Long Beach, Phoenix, Sac/Oak) - 2500 hours! 2 years.
        - Clear ice: wings
        - Rime ice: snowy buildup (½ inch)
    - **If icing: GET OUT OF THERE RIGHT AWAY**
        - Descend, climb above clouds, or land
- **91.407** - unsafe alterations “appreciably changed it’s limitations” - rated pilot must fly the aircraft.
    - VGs: vortex generators; little blades. **Must be tested by private pilot for operational check, and logs the flight in the aircraft records.**
        - Modifications: somebody needs to test it.
    - Can a pilot
- Systems: must know how they work
- **Suction: 5 inches of mercury, plus or minus 1 inch**
    - **Suction powers heading indicator**
- **Don’t offer any extra information: just answer the question.**
- Equipment
    - Fuses vs. circuit breakers
        - Fuses: little lightbulbs
        - CB: pops when current exceeds the limit (half white, half red)
    - Pops once: push it back in. Pops twice, leave it out and have it checked out.
- Sources of electricity
    - Battery + alternator
    - Battery volts
        - How does it all work?
    - Battery is dead? Get jumper cables. Master ON.
        - Some newer aircrafts have an external plug for easy access to auxiliary
- Preventative maintenance must be duly noted in maintenance logs
    - Engine has exceed **time before overhaul (TBO)**
        - TBO: engine manufacturer = reliable forecast / recommendation
            - Crank shaft, cams, connecting rods, pistorn
            - Make and model specific and available in bulletins
- Good reasons for owner to comply with TBO
    - Ensure safety, reliability
    - Usually less expensive than pushing it 200-300 hours
        - A remanufacturer will give you credit for a pre-TBO engine
    - Plating and nitrating. . .

- What are the primary and secondary components of the flight control systems?
    - *Primary:* ailerons (longitudinal), stabilator (lateral), rudder - **THE BIG 3**
    - *Secondary*: flaps, trim - SMALL 2
        - Scenario: lose your stabilator cable
            - Pitch with throttle
            - Use a little trim
        - Scenario: lose your ailerons
            - Use rudder

Practice flight on 12/17/21

- Don't descend to Franklin until you have the airport in sight
- Checklist, checklist, checklist!!!
- Full stop taxi back, is that correct
- Overshot the runway
- 65-70 on short final = good for short field
- 75-80 on short final = bad. Go around
- Emergency: turn toward airport!
    - Delayed 30 seconds
    - Cost you 800 feet
- Hold the comm switch to get 121.5!!
    - Squawk 7700!!
    - Approach:
        - Location, "engine failure" people onboard, fuel, intention
- Mather approach: tell the tower
    - I don't have the traffic in sight
    - I'd like to request a right 360 for increased visibility and orientation
- **Rick Savage**, potential DPE - "tough but fair"
    - Lots of emphasis on systems
        - PFD primary vs. secondary
        - Pitot static: ram blocked, static port blocked - what would it indicate?
        - Engine systems
        - Basically everything in the POH
    - **Please plan a VFR Cross country from KMHR to KPVT (Porterville). My weight is 190 lbs**. DPE Fee is $800 cash USD. Retest or continuation fee is $400 cash USD. If we meet for the test and I can't conduct the test due to ineligibility of either applicant or airplane $200 cash USD. Please bring aircraft and Alex's logbooks to the checkride. I also need Alex's full legal name, FTN and cert number for DMS. Thank you. Please forward this email to Alex.

12/15/21

- Review with Eduardo
- Complex
    - Full Authority Digital Engine Control (FADEC)
        - Rec'd logged ground/flight
        - Cirrus has a FADEC, also TBMs have one (anything turboprop), new PC12
- Review category, class, type
    - Class: ASEL
    - Type: Piper Cherokee
- I can fly any CLASS / ASEL
- What is the max gross within ASEL
    - 12,500 lbs, PC12 (9-10k)
        - Need high performance, high-altitude, complex

        - FADEC comes with complex
- 12/16/21 continued
    - ACS - privileges, limitations, qualifications
    - Flight review: 1hr flying, 1hr ground training (can also be an online FAA course)
        - Instructor will endorse if pilot passes ACS
        - Type rating can substitute for a flight review, i.e. IFR = flight review
            - RATING = flight review
        - **Night landings qualify for day time currency**
    - SIC driven by rating and aircraft cert
        - Only for flight time during which the person is qualified to SIC 61.55 and occupies aircraft type certificate (or cat/class if IFR required)
    - Judgment: weather at origin vs. destination (get their early, vs depart)
        - **Darkness in another kind of weather - treat it as bad weather**
        - Time allocation
    - **My personal minimums: 5sm, 5k ceiling, 5 knot cross wind component**
        - Set the expectation about personal minimums and have them make alternate plans
    - Unfamiliarity with an aircraft component: hazard! (not a mitigated risk)
        - Story of Sac Executive pilot forgetting to uncage his attitude indicator
    - Basic Med - requires a previous 3rd class med (5 total req's)
        - Comprehensive (CMEC) by physican
        - BasicMed online (FAA)
        - Physician
        - Can't fly above 18k
        - 5 passengers, 6k lbs
        - Can't fly for hire/comp
    - Questions on meds? Call AME. do not use list? Faa website.
    - Is a compass deviation card required?
        - Aircraft certification: yes
        - Equipment: effectively yes
    - Preflight: documents, currency
    - 2 types of airworthiness
        - Standard: white paper, FAA issues to manufac
        - Special: pink paper; restricted or light sport (1300 lbs)
            - Experimental; Van's aircraft - kit airplanes
            - If you build it, you are the mechanic as well, i.e. 100 hours
            - If you buy one, you can only do required minor maintenance (APP mech)
        - Valid so long as it meets the design requires and is safe and altered conformingly
        - Displayed visibly for crewed
        - Wear and tear can make an airplane not airworth
    - Aircraft maintenance logs
        - Will add dates to eduardo's print out
        - **Go through the airplane logbooks + preflight**
    - Airworthiness Directives
        - Emergency: airplane is grounded, e.g. 737 MAX; computer program = kaput
        - As-needed:
        - Not in compliance? AD has no expiration date
            - Assumption:
    - Expired AD: ferry permit
        - Apply special flight permit
        - FAR 21.199
    - ~~Supplemental Type Certificate -~~ skipping
    - Story of Commercial Pilot student - NO REG CERTIFICATE
        - Left it at co-owners house

        - Couldn't fax it! It must be the original.
        - Could have grounded them at Chico
        - The DPE is an officer of the court. . . and he quickly left - "I didn't see this"
        - Registration = 36 months
    - Information placards:
    - **Placards** source of info: **Aircraft Flight Manual (AFM)**
        - Examples: airspeed indicators, oil color; compass deviation card, fuel oil,
            - **Permitted maneuvers: shandells, lazy 8s, spins**
            - Day VFR/IFR only
            - Pitot cover flag
            - Rudder lock + streamers
            - Plugs
    - Maintenance: know where to find inspection dates for AAV1ATE
        - Last date + due date (post-it note)
    - **Make a decision that favors Luke on weather**
        - "The weather is not up to my minimums." Is is okay with you if we do the check ride some other day?

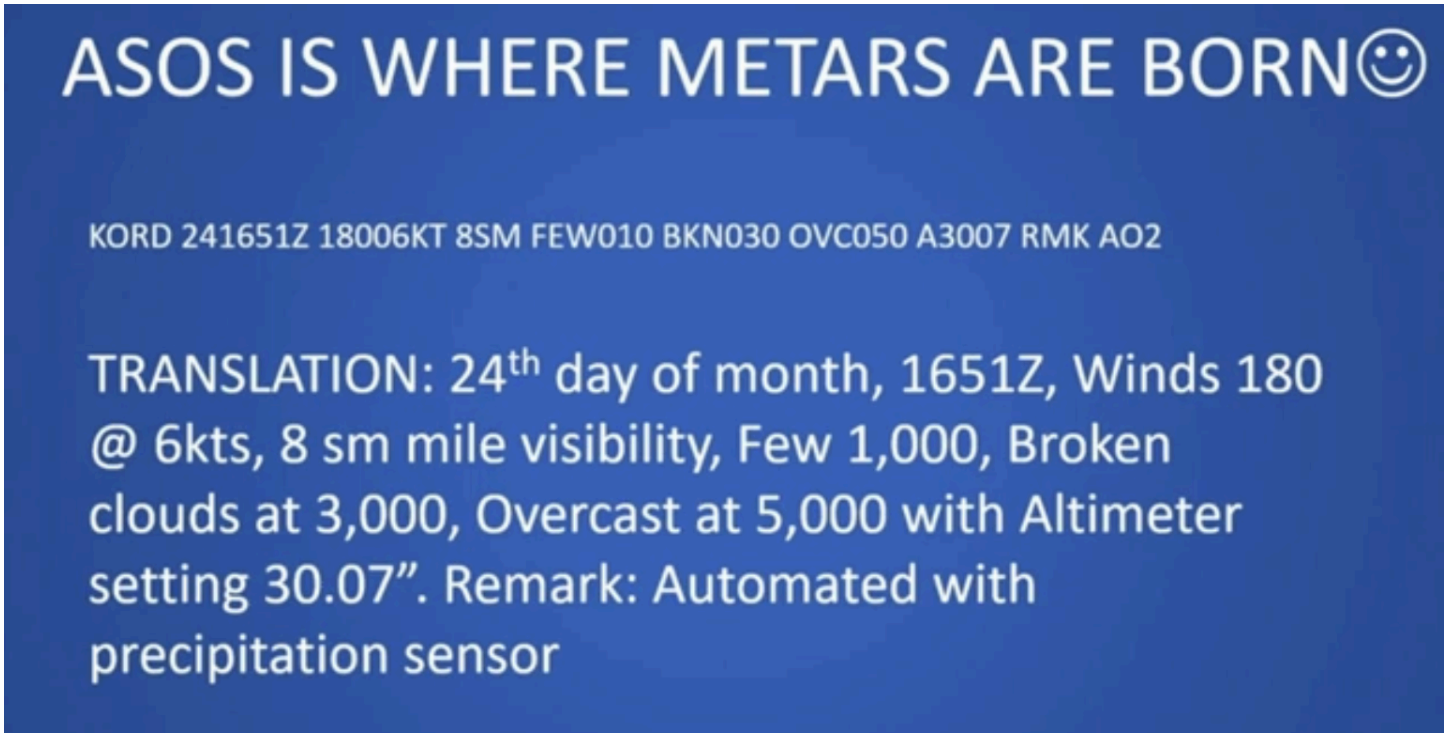
12/12/21

- Check ride booked for 12/19/21!!
    - I got lucky because Alex got rained out (today) and couldn't fly, and he also couldn't reschedule for next Sunday—this presented an opportunity to slide in, albeit with a DPE that's an "unknown entity," i.e. Eduardo has never sent a student to him. Therefore, I will be the guinea pig. Although he's an unknown entity, what is known is he has a phenomenal name: **Rick Savage.** I already like him.
- **Prep on check ride / practical test: destination is Porterville (KPTV)**
    - Field ele: 443' MSL
    - **Pattern ele: 1,443'**
    - CTAF: 122.8
    - Runways: 12, 30 (5,960' x 150')
        - 12: landing SE (heading 4pm on a clock
        - 30: landing NW (heading 10pm on a clock) - 10-4!
    - VASI 4-box on right

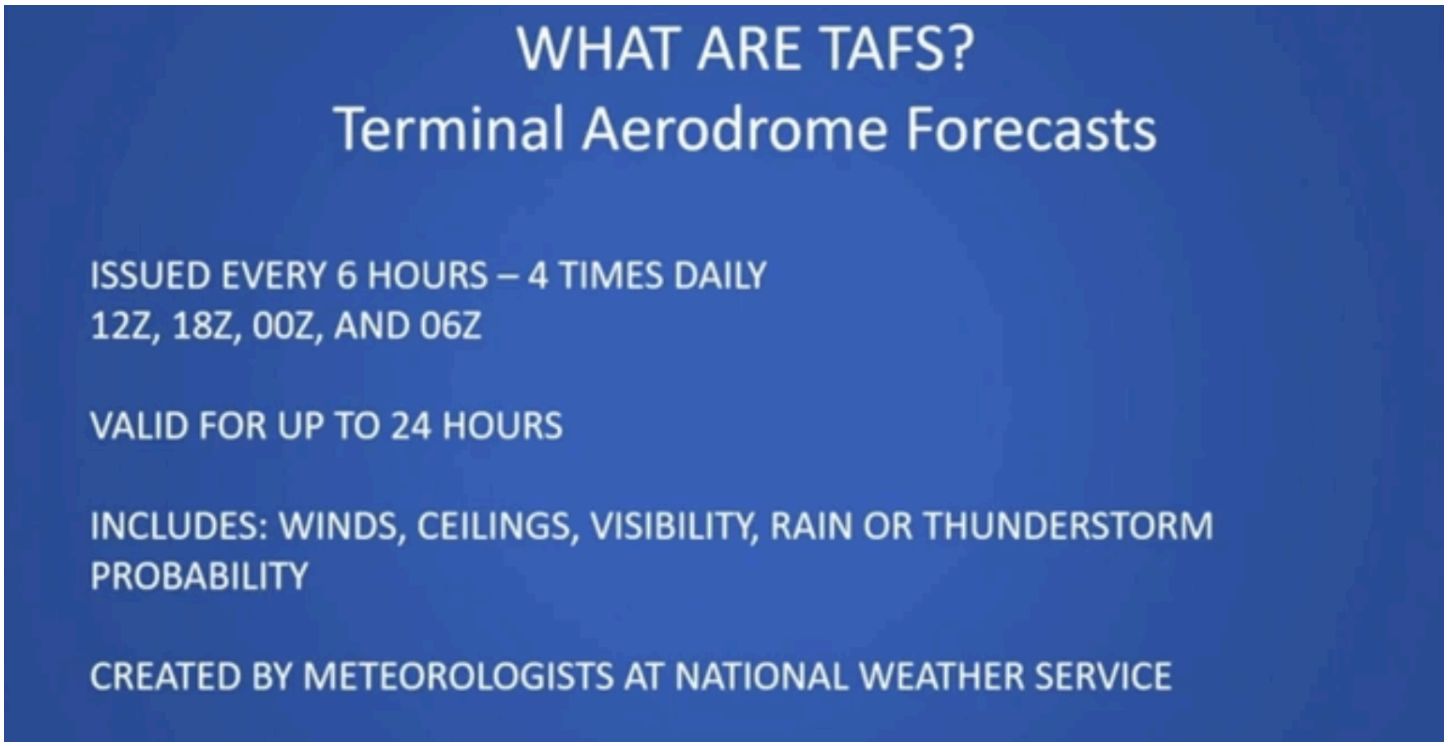
12/13/21 weather prep

- ASOS and AWOS
    - Surface and weather observation
    - They produce METARs
    - Visibility is always in statute miles
    - Ceilings are always in AGL

- Winds are always magnetic heading



- **Don't use MOS for die hard flight planning**



- TAF is solid, valid for 24 hours, and released every 6. Composed by meteorologists at the NWS
    - Got caught in 25 knot cross winds because he didn't heck the weather on a short sunny day flight

WHERE DO YOU GET ALL OF THIS INFORMATION?

FOREFLIGHT, GARMIN PILOT, OR ONE OF THE OTHER EFB APPLICATIONS

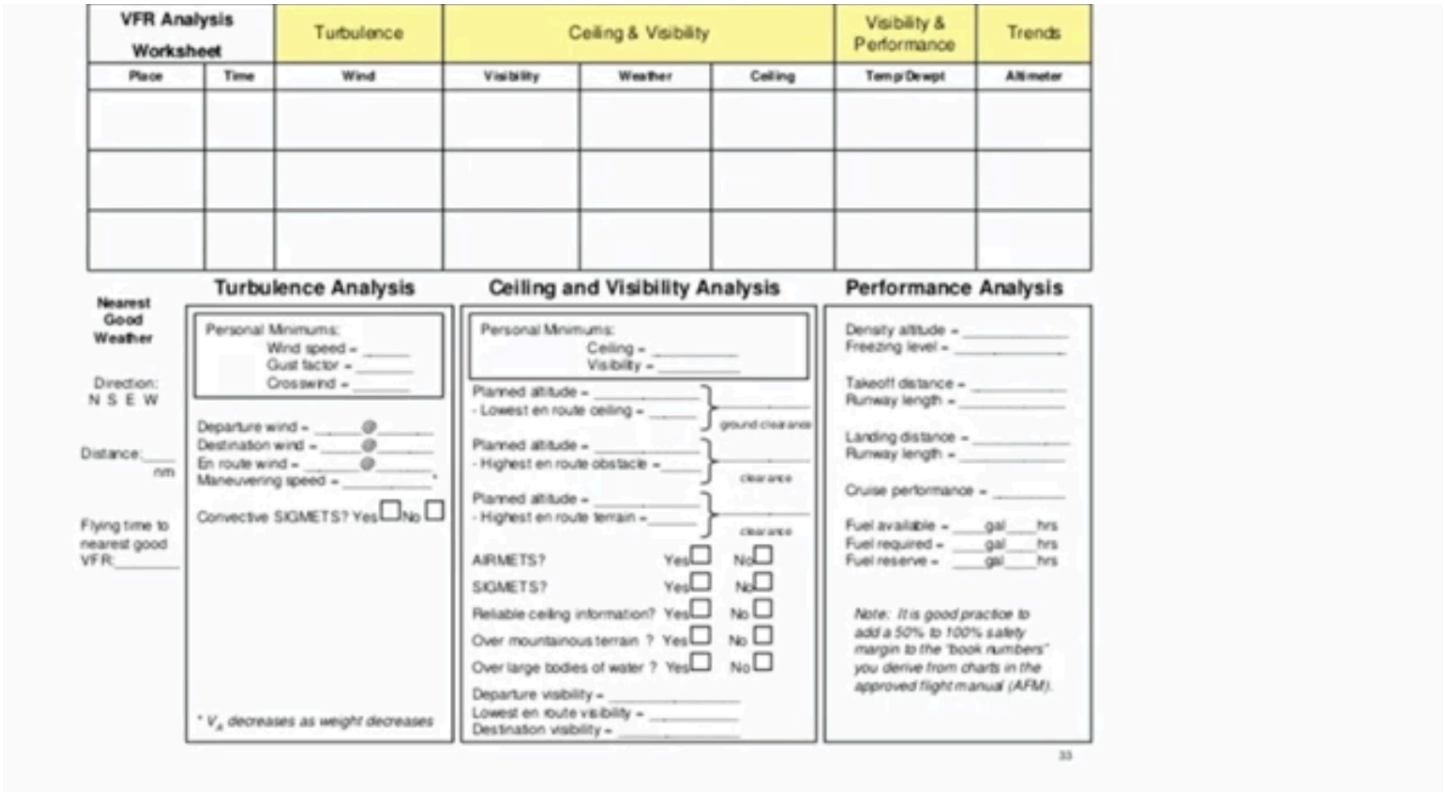
1-800 WX BRIEF (PHONE, MOBILE APP, OR WEBSITE

AVIATIONWEATHER.GOV

ALWAYS CHECK THE WEATHER BEFORE YOUR FLY – THIS IS NON-NEGOTIABLE.

Ask yourself? What are the winds, what are the forecast winds, what are the ceilings, what are the forecast ceilings, are we expecting hazardous weather, precipitation, thunderstorms? Plus airport NOTAMS.

- FAA fast team weather chart



VFR Analysis Worksheet		Turbulence	Ceiling & Visibility			Visibility & Performance	Trends
Place	Time	Wind	Visibility	Weather	Ceiling	Temp/Dewpt	Altimeter

Turbulence Analysis

Nearest Good Weather

Direction: N S E W

Distance: ____ nm

Flying time to nearest good VFR: _____

Personal Minimums:
Wind speed = _____
Gust factor = _____
Crosswind = _____

Departure wind = _____@_____
Destination wind = _____@_____
En route wind = _____@_____
Maneuvering speed = _____*

Convective SIGMETS? Yes ☐ No ☐

* V_A decreases as weight decreases

Ceiling and Visibility Analysis

Personal Minimums:
Ceiling = _____
Visibility = _____

Planned altitude = _____
- Lowest en route ceiling = _____ } ground clearance

Planned altitude = _____
- Highest en route obstacle = _____ } clearance

Planned altitude = _____
- Highest en route terrain = _____ } clearance

AIRMETS? Yes ☐ No ☐
SIGMETS? Yes ☐ No ☐
Reliable ceiling information? Yes ☐ No ☐
Over mountainous terrain ? Yes ☐ No ☐
Over large bodies of water ? Yes ☐ No ☐

Departure visibility = _____
Lowest en route visibility = _____
Destination visibility = _____

Performance Analysis

Density altitude = _____
Freezing level = _____

Takeoff distance = _____
Runway length = _____

Landing distance = _____
Runway length = _____

Cruise performance = _____

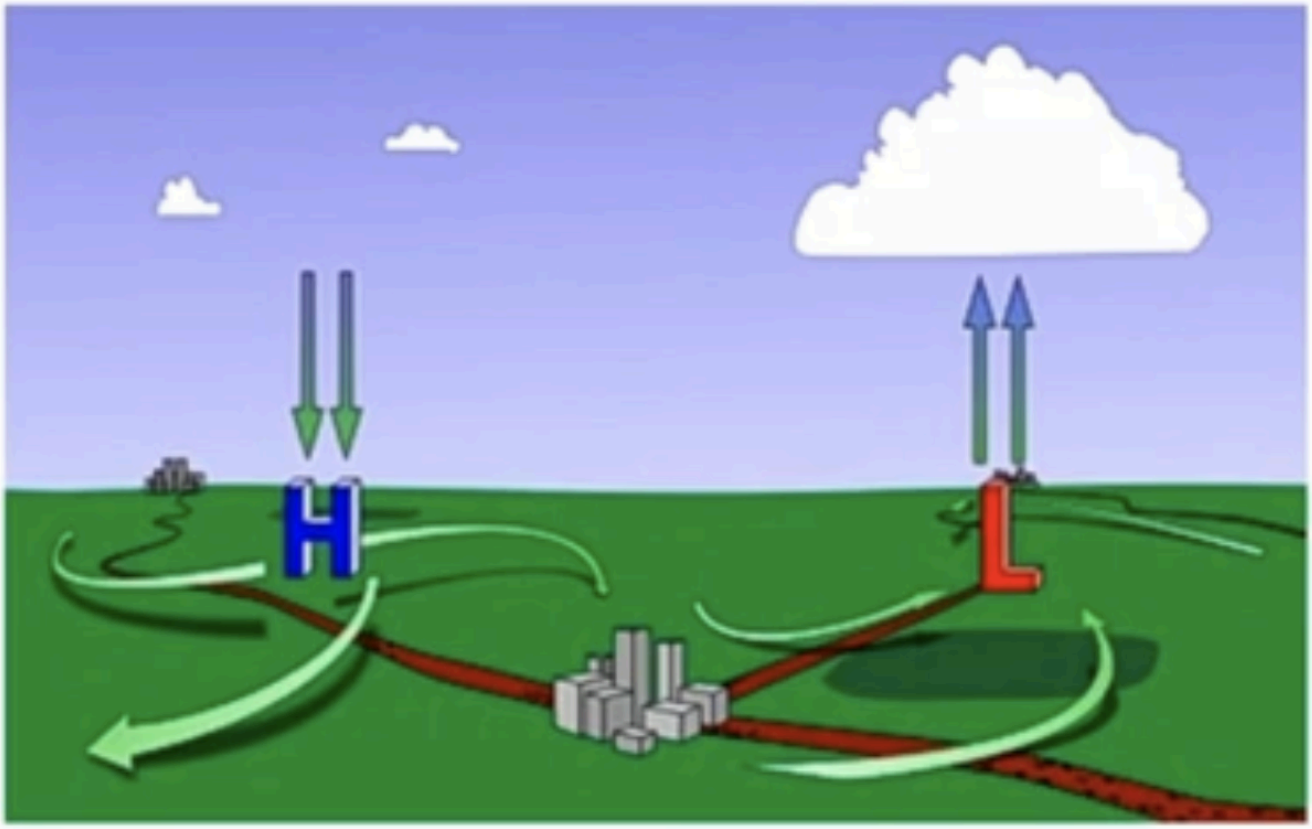
Fuel available = ____gal ____hrs
Fuel required = ____gal ____hrs
Fuel reserve = ____gal ____hrs

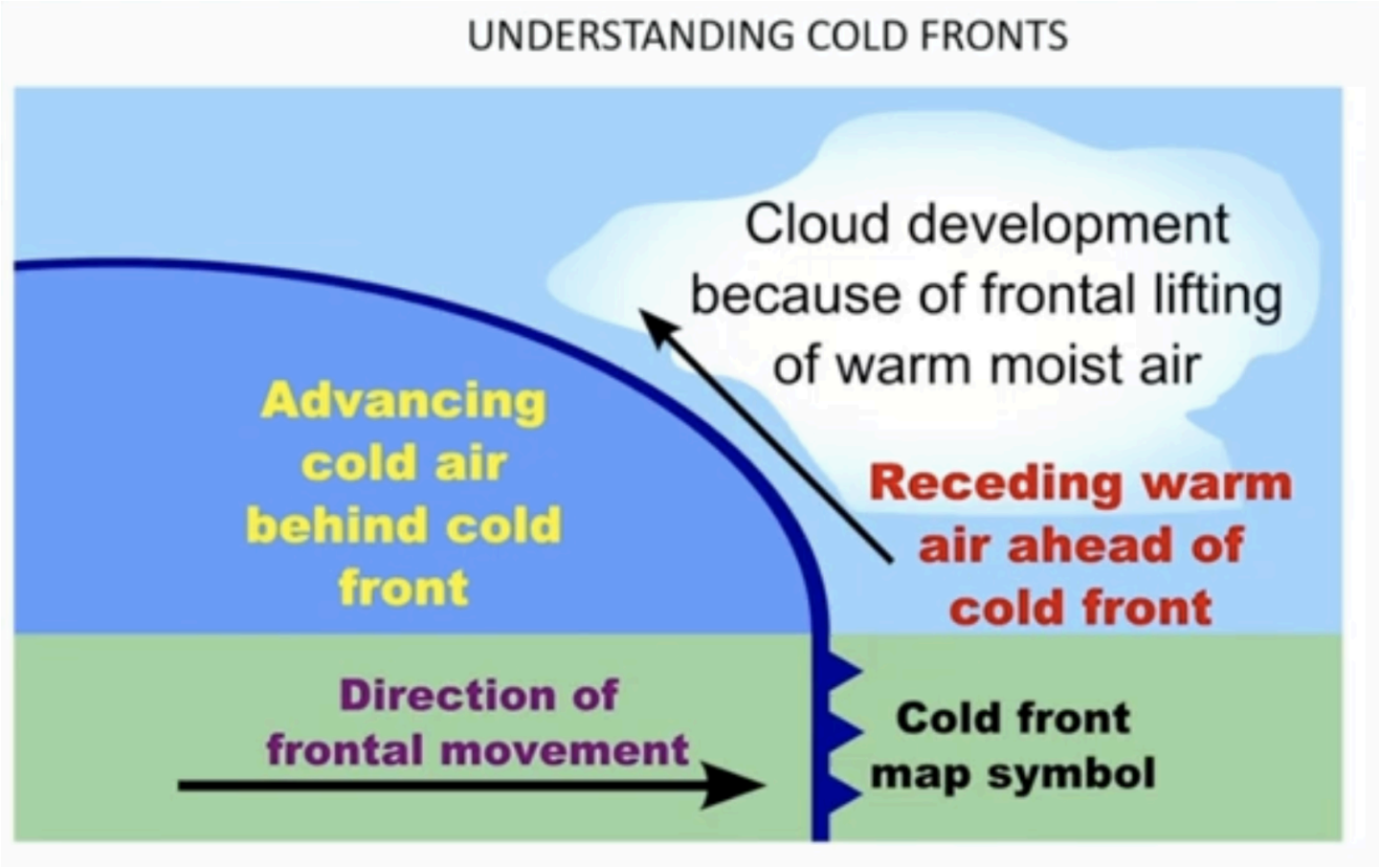
Note: It is good practice to add a 50% to 100% safety margin to the "book numbers" you derive from charts in the approved flight manual (AFM).

33

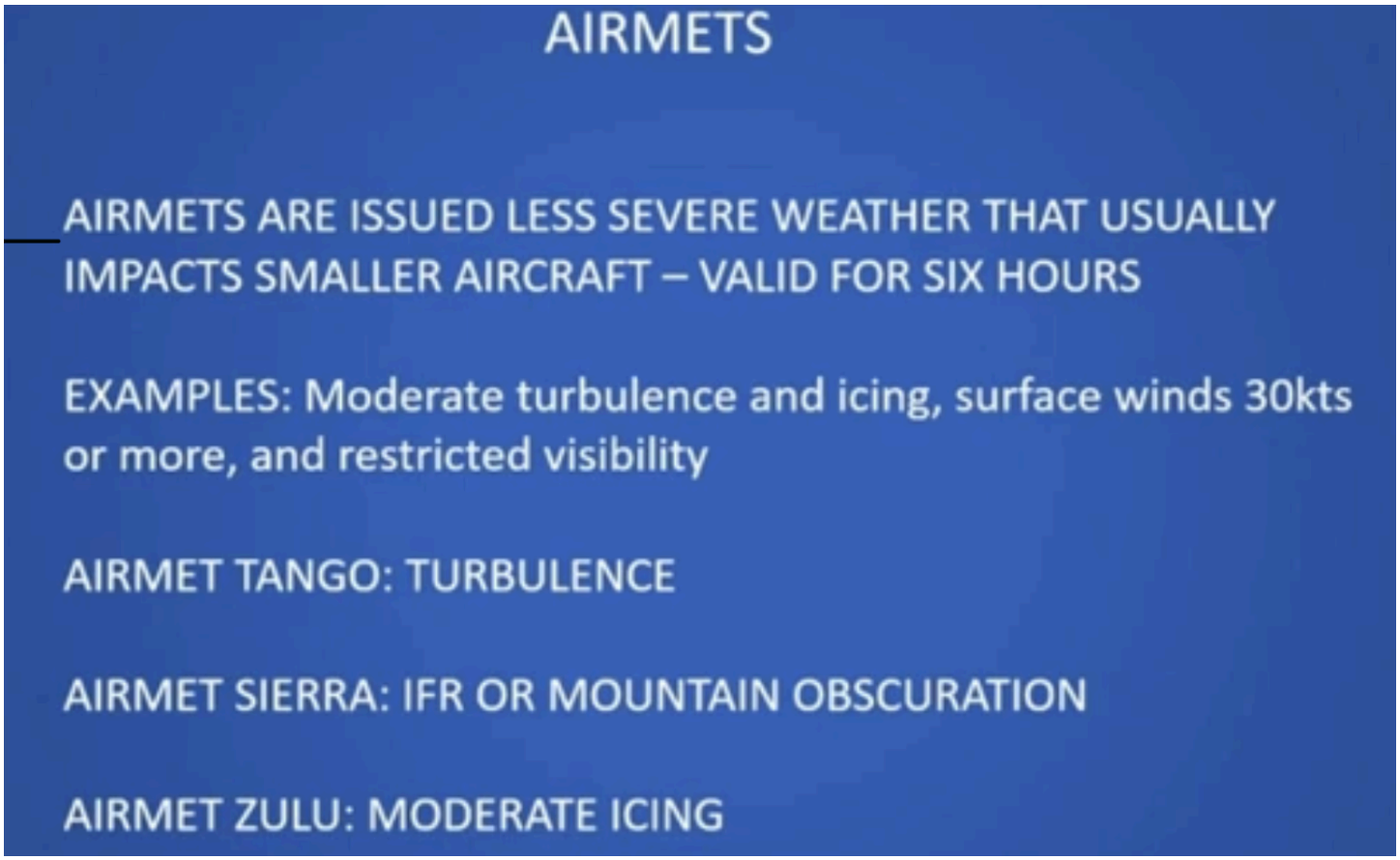
High pressure = good for flying
Low pressure = shitty for flying

HIGH AND LOW PRESSURE SYSTEMS





Warm front: light rain, soggy, not volatile
Stationary: extended shifty weather
Occluded: cold catching up on warm. Rain, thunderstorms
By the book: stay 20nm away from thunderstorms. In the mature stage, updrafts can be 6000 ft per minute!



Sigmets are a big deal. Turbulence, high wind, severe icing. Watch out,

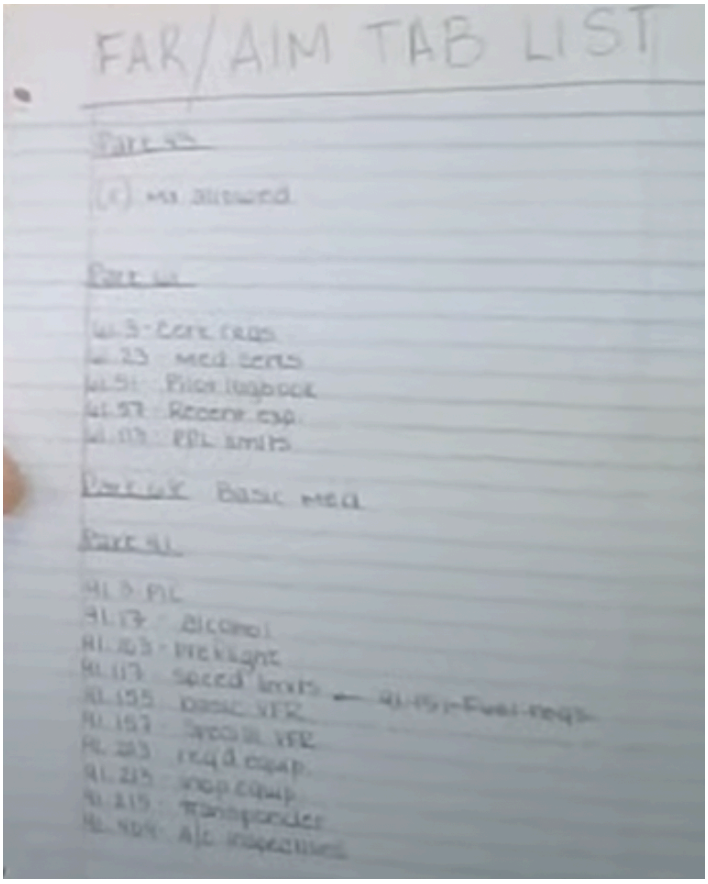
11/13/21

- Taxi: didn't specify taxi route
- Forgot to do pre take off briefing - read the script!
- NorCal: didn't say cross country from Lincoln to Tracy. Flight following.
    - Helps him know where I am
    - Don't need to request altitude change unless assigned
        - When able, request 3 thousand 500
- Forgot fuel pump off on run up
- Didn't do a flight plan due to weather
- Took too long to dump flaps
    - Short field: don't need flaps for as long beyond obstacle altitude (delayed)
- Cameron Park: circling - dont descend y til you see it
    - Misread the pattern altitude
    - Pattern altitude 2,237
        - Thank bought it was 1,237
- Altitude: 3,000
    - Declare and hold
    - +/- 100 ft
- Landings
    - Short field landing : 25 feet short
- Collision course with Cessna near log pile
- Cessna got close on left downwind and did t see us - always check

10/18/21

- Bit rusty - haven't flown in 24 days!
- Schedule 2 hours with Eduardo
- Homework: plan a flight to Rio Linda
    - Garmin 430

9/9/21 - Little hard to see but here is the tab list for FAR/AIM from the video I watched.



9/7/21 - [oral exam practice #5]

- Top takeaways
    - The student was not credible (low confidence is skill level)
    - Examiners can't do any teaching during the check ride so you won't know if you get something wrong
    - If you're renting the airplane (operating for hire), a landing light is required equipment.
    - Risk management: If you're not sure, divert!
    - Sectional big blue numbers: didn't know they were rounded to nearest 100' +100'—in MSL.
    - Review weather charts again, i.e. ground school, foreflight + sectional symbols.
    - The airworthiness certificate and registration need to be visible in the airplane.
    - Add to weather source checklist: Aviationweather.gov
- Expanded notes

9/6/21 - Oral exam practice #4

- Top takeaways

    - The cross-country cruise altitudes—west-even-thousand-five hundred, and east-odd-thousand-five hundred—is actually a rule. If you don't abide, you are breaking a rule.
    - Victor airways begin at 1200 feet AGL and I can fly in them
    - Ask Eduardo: Will I have to navigate to a VOR under the hood on my check ride?
    - At checkpoints: denote if you're ahead or behind on flight plan
    - Reminder: Zulu → subtract 7 to get PDT
    - Pressure altitude is the indicated altitude when an altimeter is set to 29.92
    - Density altitude is pressure altitude corrected for non-standard temperature
    - Altimeter errors: affect you during flight, and minimize as you descend
    - Hypoxia / oxygen thresholds
    - About 12,500 - use of supplemental O2 for 30min
    - Above 14k - continuous
    - 15k - supplied to everyone
    - Recommended at 10k during day, and 5k at night (because vision needs lots of O2)
    - Do I have a fire extinguisher on the Piper?
- Expanded notes

9/5/21 - Oral practice #3
- Top takeaways
    - Read PTS cover to cover at least twice
    - When you yell clear out the window, also look around—**especially for little kids**
    - Go-around: part of the PTS/ACS. You have to do one! Humble mindset.
    - What are the ways to ID nav aids?
    - BE IN COMMAND (FAR 61.47 Bravo)
    - Fly through your mistakes and move on.
    - Study: 91.205 (tomato flames) vs. 91.213 (when can I fly with inop equip)
    - RUAC is a good framework for your level of learning for various tasks
    - Add to ramp briefing: You gotta have it on for taxi, takeoff and landing.
    - Calibrated airspeed is in the POH
    - **Tighten up your checkpoints: 14 miles tops**
    - For cross-country plan on sectional: point at each part of route and know:
        - What type of airspace?
        - What do I need to stay in VFR?
    - 3-152 applies below 10k with only 3 exceptions
        - 1) Bravo: 3-CC
            - 3sm + fly clear of clouds
        - 2) Golf/day: at or below 1,200: 1-CC
            - 1sm + fly clear of clouds
        - 3) Golf/day: between 1200 AGL-10,000: 5-111*
            - 5sm + 1,000 ft above, 1000 ft below, 1sm horizontal
- Expanded notes

9/4/21 - Oral practice #2
- Top takeaways
    - Resources
        - Wow, here is an actual markup of an examiner's test
        - I also really like this VFR symbols readout
        - Shares his whole gDrive!

        - Resource: Windy.com - webcams.
    - Print out: safety briefing process + airport diagram (to force the habit)
    - Review 91.103 for cross-country planning must knows
    - **Safety brief before you start the plane**
    - **Reset heading indicator every 15 minutes**
    - Confirm unusable fuel quantity in Piper 140
    - #1 missed questions: what heading do you use to determine cruising altitude?
        - Magnetic
    - Flow check chart is AWESOME
    - Combustion engine: “Suck, squeeze, bang, blow”
    - **Always have a backup plan**
    - *“A lot of people die from weather, so be careful.”*
    - Shadowing a 100hr would be really cool
- Expanded notes

9/4/21 - Oral practice #1 (Jason)

- Top takeaways
    - Don’t be afraid to call or text your examiner!
    - Confirm my medical cert is valid for 4 years
    - Memorize/flash card for SPAROW
    - Study what a pilot can self-maintenance; tag in FAR/AIM
    - Review aircraft systems in POH
    - Risk of CO-poisoning = get on the ground
    - Memorize/flashcard for cross-country prep resources
- Expanded notes

9/4/21

- Completing private pilot application on IACRA website. Got this notification at the very end. Useful to have the relevant identifying numbers handy, printed out, and in a separate file.

Tips for IACRA Applicants

1. Your application will be validated and any error messages will be displayed above.
2. Your application will not be accepted until all validation errors are corrected.
3. Be sure to thoroughly review the certificate summary and application then make appropriate corrections before clicking the Submit Application button. **If you're not sure that your application is completed correctly, please consult with your Recommending Instructor or Examiner/Evaluator.** You may edit the application after submittal and resubmit if necessary.
4. Know your FTN, IACRA Username and IACRA Password. You will need to give your FTN to your Recommending Instructor or Examiner/Evaluator to proceed. You may also need to log into IACRA to make corrections.
5. If you have questions about how to enter data into IACRA, contact National AVS IT Service Desk. (See Below).

Phone - **1-844-FAA-MYIT (322-6948)**
Email - helpdesk@faa.gov

9/3/21

Reviewed check ride process with Eduardo. General comments on oral + flight:

- **Don't be afraid to go around:** it's safe, good judgement, and a check ride required task.
- **You must clear the area** in between steep turns and before every maneuver. Failure to do so will result in failure.
- Oral portions will take ~4 hours
- Eduardo still needs to endorse for: knowledge of ground deficient areas + something else I forget
- Alex (another Eduardo student) also needs a check ride - we might be able to do same day.
- Luse starts at 6am.
- **September is the goal (!!)**

Oral practice

- Reviewed aircraft logbook
    - Engine logbook
    - Propeller logbook
    - Airworthiness Directives
- ELT: 3 beats allowed in first 5min after the hour
- ELT: part 91.207
- Part 61: how to get your license
- Part 91: how to lose your license :)
    - 103 - preflight action
- Flight surgeon: can ask about meds, aka Dr Priest
    - Could also ask FSDO - the cop
    - Add to speed dial
    - Their job: 1) promote aviation, 2) regulate the use
- FAA, FSDO, NTSB
    - NTSB: investigate accident, root cause, make recommendations.
- If you violate, you could self-confess with nasa form with NTSB (could be a get out of jail card if ATC tries to violate you).

Prep for oral: https://youtu.be/UITURVxnqn0

How to tag FAR-AIM: https://youtu.be/w4-9dEd2EpA

ORal

https://www.youtube.com/watch?v=EdUZ1eC1WrE
2hrs oral - online, ground school. 30min teaser ^^

- Proficiency (safety) vs currency (legal)
    - Situation: 6 mos no flying
    - Fly in the pattern to
    - CFI could join you / brush up
- ARROW
    - Airworthiness: annual inspection
    - Required: AVIATE:
        - altimeter
        - VOR
        - ELt: annual. Battery:
        - Transponder: 24
        - Pitot static check: what is involved? Ask mechanic.

- Pilot
    - License
    - No logbook

FAR 91.205(a)(b)(c) = Must know for oral on check-ride, per Eduardo

chapter containing that portion of the operations specifications issued under §21.197(c), or an authorization under §91.611) must have on it the registration number assigned to the aircraft under part 47 of this chapter. However, the airworthiness certificate need not have on it an assigned special identification number before 10 days after that number is first affixed to the aircraft. A revised airworthiness certificate having on it an assigned special identification number, that has been affixed to an aircraft, may only be obtained upon application to the responsible Flight Standards office.

(2) An effective U.S. registration certificate issued to its owner or, for operation within the United States, the second copy of the Aircraft Registration Application as provided for in §47.31(c), a Certificate of Aircraft Registration as provided in part 48, or a registration certification issued under the laws of a foreign country.

(b) No person may operate a civil aircraft unless the airworthiness certificate required by paragraph (a) of this section or a special flight authorization issued under §91.715 is displayed at the cabin or cockpit entrance so that it is legible to passengers or crew.

(c) No person may operate an aircraft with a fuel tank installed within the passenger compartment or a baggage compartment unless the installation was accomplished pursuant to part 43 of this chapter, and a copy of FAA Form 337 authorizing that installation is on board the aircraft.

(d) No person may operate a civil airplane (domestic or foreign) into or out of an airport in the United States unless it complies with the fuel venting and exhaust emissions requirements of part 34 of this chapter.

[Docket No. 18334, 54 FR 34292, Aug. 18, 1989; as amended by Amdt. 91–218, 55 FR 32861, Aug. 10, 1990; Amdt. 91–318, 75 FR 41983, July 20, 2010; Amdt. 91–338, 80 FR 78648, Dec. 16, 2015; Amdt. 91–350, 83 FR 9171, March 5, 2018]

§91.205 Powered civil aircraft with standard category U.S. airworthiness certificates: Instrument and equipment requirements.

(a) ***General.*** Except as provided in paragraphs (c)(3) and (e) of this section, no person may operate a powered civil aircraft with a standard category U.S. airworthiness certificate in any operation described in paragraphs (b) through (f) of this section unless that aircraft contains the instruments and equipment specified in those paragraphs (or FAA-approved equivalents) for that type of operation, and those instruments and items of equipment are in operable condition.

(b) ***Visual-flight rules (day).*** For VFR flight during the day, the following instruments and equipment are required:

(1) Airspeed indicator.
(2) Altimeter.
(3) Magnetic direction indicator.
(4) Tachometer for each engine.
(5) Oil pressure gauge for each engine using pressure system.
(6) Temperature gauge for each liquid-cooled engine.
(7) Oil temperature gauge for each air-cooled engine.
(8) Manifold pressure gauge for each altitude engine.
(9) Fuel gauge indicating the quantity of fuel in each tank.
(10) Landing gear position indicator, if the aircraft has a retractable landing gear.
(11) For small civil airplanes certificated after March 11, 1996, in accordance with part 23 of this chapter, an approved aviation red or aviation white anticollision light system. In the event of failure of any light of the anticollision light system, operation of the aircraft may continue to a location where repairs or replacement can be made.
(12) If the aircraft is operated for hire over water and beyond power-off gliding distance from shore, approved flotation gear readily available to each occupant and, unless the aircraft is operating under part 121 of this subchapter, at least one pyrotechnic signaling device. As used in this section, "shore" means that area of the land adjacent to the water which is above the high water mark and excludes land areas which are intermittently under water.
(13) An approved safety belt with an approved metal-to-metal latching device, or other approved restraint system for each occupant 2 years of age or older.
(14) For small civil airplanes manufactured after July 18, 1978, an approved shoulder harness or restraint system for each front seat. For small civil airplanes manufactured after December 12, 1986, an approved shoulder harness or restraint system for all seats. Shoulder harnesses installed at flightcrew stations must permit the flightcrew member, when seated and with the safety belt and shoulder harness fastened, to perform all functions necessary for flight operations. For purposes of this paragraph—
(i) The date of manufacture of an airplane is the date the inspection acceptance records reflect that the airplane is complete and meets the FAA-approved type design data; and
(ii) A front seat is a seat located at a flightcrew member station or any seat located alongside such a seat.
(15) An emergency locator transmitter, if required by §91.207.

(16) [Reserved].
(17) For rotorcraft manufactured after September 16, 1992, a shoulder harness for each seat that meets the requirements of §27.2 or §29.2 of this chapter in effect on September 16, 1991.

(c) ***Visual flight rules (night).*** For VFR flight at night, the following instruments and equipment are required:

(1) Instruments and equipment specified in paragraph (b) of this section.
(2) Approved position lights.
(3) An approved aviation red or aviation white anticollision light system on all U.S.-registered civil aircraft. Anticollision light systems initially installed after August 11, 1971, on aircraft for which a type certificate was issued or applied for before August 11, 1971, must at least meet the anticollision light standards of part 23, 25, 27, or 29 of this chapter, as applicable, that were in effect on August 10, 1971, except that the color may be either aviation red or aviation white. In the event of failure of any light of the anticollision light system, operations with the aircraft may be continued to a stop where repairs or replacement can be made.
(4) If the aircraft is operated for hire, one electric landing light.
(5) An adequate source of electrical energy for all installed electrical and radio equipment.
(6) One spare set of fuses, or three spare fuses of each kind required, that are accessible to the pilot in flight.

(d) ***Instrument flight rules.*** For IFR flight, the following instruments and equipment are required:

(1) Instruments and equipment specified in paragraph (b) of this section, and, for night flight, instruments and equipment specified in paragraph (c) of this section.
(2) Two-way radio communication and navigation equipment suitable for the route to be flown.
(3) Gyroscopic rate-of-turn indicator, except on the following aircraft:
(i) Airplanes with a third attitude instrument system usable through flight attitudes of 360 degrees of pitch and roll and installed in accordance with the instrument requirements prescribed in §121.305(j) of this chapter; and
(ii) Rotorcraft with a third attitude instrument system usable through flight attitudes of ±80 degrees of pitch and ±120 degrees of roll and installed in accordance with §29.1303(g) of this chapter.
(4) Slip-skid indicator.
(5) Sensitive altimeter adjustable for barometric pressure.
(6) A clock displaying hours, minutes, and seconds with a sweep-second pointer or digital presentation.
(7) Generator or alternator of adequate capacity.
(8) Gyroscopic pitch
cial horizon).
(9) Gyroscopic dire
gyro or equivalent).

(e) ***Flight at and a
240).*** If VOR navigat
under paragraph (d)(2
may operate a U.S.-re
the 50 states and the
above FL 240 unless t
approved DME or a su
the DME or RNAV sy
graph fails at and abo
mand of the aircraft m
and then may continu
FL 240 to the next a
where repairs or rep
can be made.

(f) ***Category II op***
for Category II operat
equipment specified
(1) Paragraph (d) o
(2) Appendix A to

(g) ***Category III o***
and equipment requ
tions are specified in

(h) ***Night vision***
night vision goggle
struments and equip
aircraft, functioning i
proved for use by the
(1) Instruments a
paragraph (b) of thi
equipment specified
tion;
(2) Night vision go
(3) Interior and ex
required for night vis
(4) Two-way radio
(5) Gyroscopic pi
cial horizon);
(6) Generator or a
ity for the required
and
(7) Radar altimet

(i) ***Exclusions.*** F
section do not appl
a holder of a certifi
part 135 of this cha

[Docket No. 18334, 5
amended by Amdt. 91-
Amdt. 91–223, 56 FR
231, 57 FR 42672, Se
5171, Feb. 9, 1996; An
1996; Amdt. 91–285, 6
91–296, 72 FR 31679
FR 42563, Aug. 21, 20
Dec. 30, 2016]

https://www.youtube.com/watch?v=1N-9SQeKY-4

Next video to watch (link): Sporty's on how to pass your check ride.

Oral: ~3hrs
Flight: 2.5-3hrs

Watched a video (link)
7/20/21

- Did his check ride at 17 years old: N6711J (1968 cherokee 140) - oral was close.
    - Examiner watched him preflight. 20 yards: how much horsepower?
        - Cherokee 140 has 140 hp? So that 172 has 172 hp? Yes sir :)
    - He passed his check ride, but said stupid things

- My best advice is to "be calm, answer the questions, and fly the plane".
- Why might people fail a check ride?
    - They goof up a steep turn by 50-100 feet. That's not grounds for immediate failure. Failure comes when they **keep thinking about it**, then they suck during slow flight, stalls, under the hood.
    - Forgot about the mistakes - STAY OPTIMISTIC.
    - Your check ride won't be perfect, and mistakes don't have to follow you.
- Think beyond the check ride: envision your first ride with family and the pursuit of **aviation mastery**
- Check ride pitfalls: get beyond the rote memorization
- Examiner was 250lbs! Try flying with another instructor.
- Nerve racking: new person in the seat!
- Mock check ride: Treat it like it's a deposition. Answer the question they ask. Then zip it.
- Sample question: What are the oxygen requirements?
    - If we're flying at or above 12,500 feet for >30min, the required crew must be on oxygen
    - If we're flying at or above 14,500 feet, the required crew must be on oxygen at all times

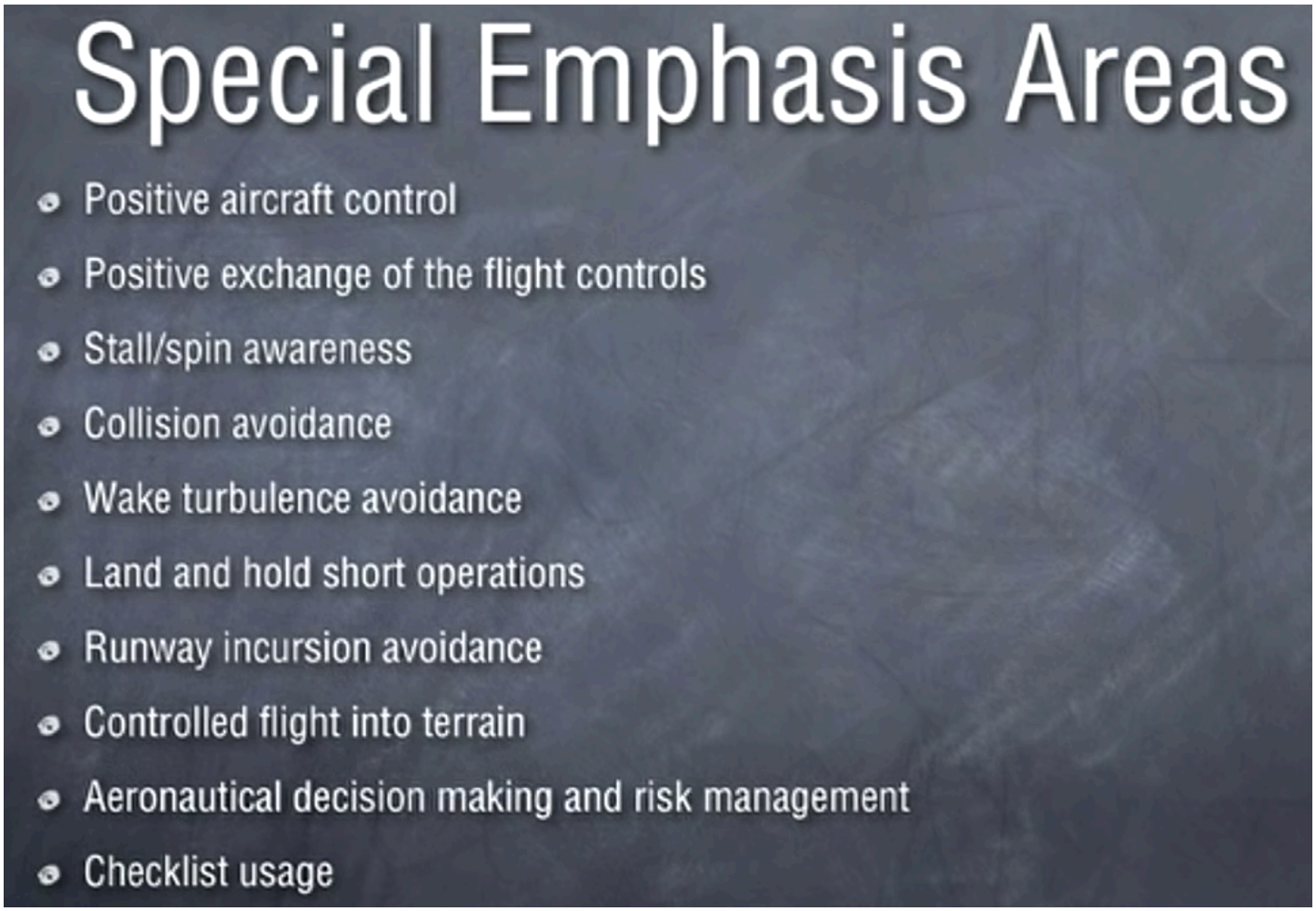
        - Above 15,000 feet, I'm still on oxygen, I must offer it to my passengers but they don't have to accept it.
        - **ZIP IT**
            - Avoid: adding superfluous detail, e.g. hypoxia, etc. Don't lead yourself into more questions.
- Sample question: what is hypoxia?
    - Hypoxia is a lack of oxygen to our vital organs.
    - **ZIP IT**
- Sample question: what are the four types of hypoxia?
    - Hypoxic
    - Hypemic
    - Stagnant
    - Histotoxic
- **Private Pilot Podcast** (itunes)
    - Mock check rides
    - Followed on podcasts.

Watched a video (link)
7/20/21

Will be a diversion.
Know the frequencies of diversion airports + runway layouts and lengths
Have a backup plan

- ex/flying through Class Bravo (instead went to
- Examiner was impressed with having 2 routes planned out

Special Emphasis Areas



You need to consult your checklist. Flow checks for emergency procedures, but then consult checklist.

FAR/AIM

- Part 61: private pilot limitations and privileges
- Part 91: rules of road, supplemental oxygen requirements, right of way, VFR day and night instruments
- Know how to find answers: they don't expect you to know everything!

This guy also wrote a pass your check ride book ($40)