Information to make sure you have a good day with the Designated Pilot Examiner

Cell phones on vibrate, please.

Last revised 6/5/2020

Prepare For Your Checkride, and Pass!

A little info about me .....

- Larry Bothe, Seymour, Indiana
- Gold Seal & Master CFI
- DPE 15 years; Sport, Private & IFR
- Retired from DPE 1/31/2018, 1050 checkrides
- 8000+ hours in 90+ types of aircraft
- Prese[illegible]npion 7EC

Administrative things

- My contact info will be on the last slide
- You may take all the pictures you wish, but …
- You can download the entire slide deck from Google Drive. The URL is on the last slide.

Today's Presentation

- A checkride overview
- The ACS booklet & POH
- Required endorsements
- Scenario-based testing
- Oral portion helpful hints
- Flight portion helpful hints
- Questions & Answers – Please hold until the end, thank you.
- My contact info will be on the last slide

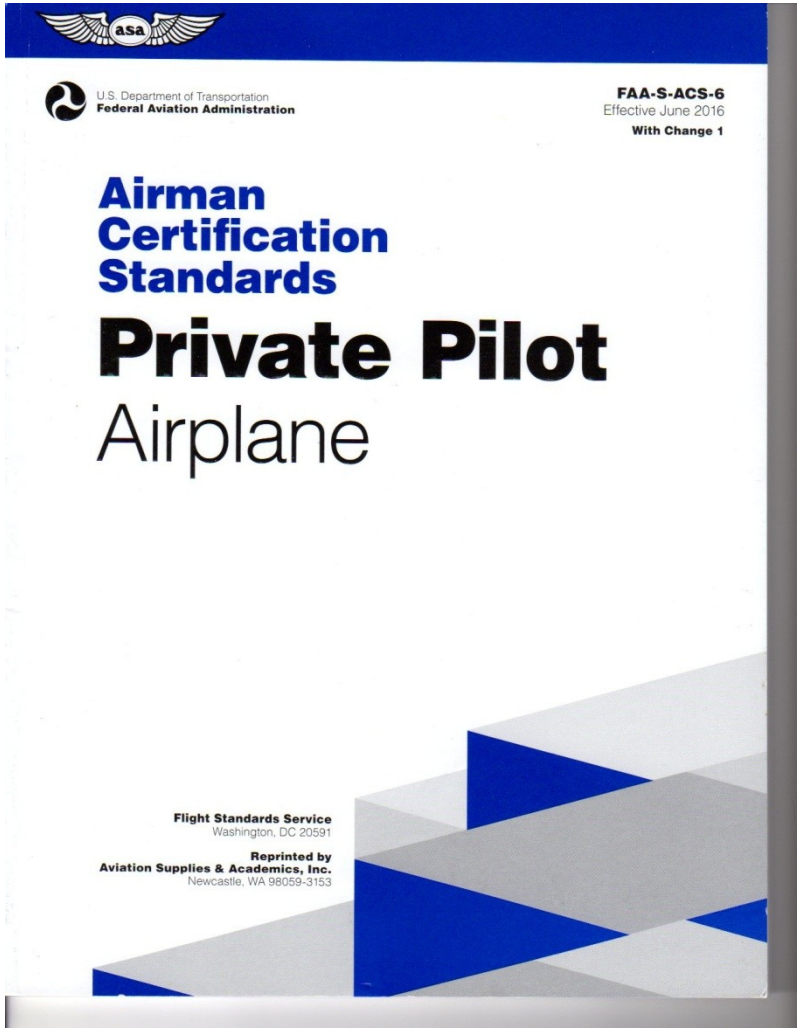
Know two things going in.....

- The examiner wants you to pass
  - Make it easy for him
  - ***Don't put examiner in bad humor***
- Perfection is not required; however,
  - Must know most things (“I don't know”)
  - You can look things up in books

Checkride Overview

- Pretest briefing (1st of 3)
- Check documentation; eligibility (IACRA)
- Oral quizzing
- Lunch break; Pre-flight briefing (2nd of 3)
- Flight portion
- Post-flight debriefing (3rd briefing)
- Issue pilot certificate (or disapproval)
- Total time for all this? - Plan on 5 hours

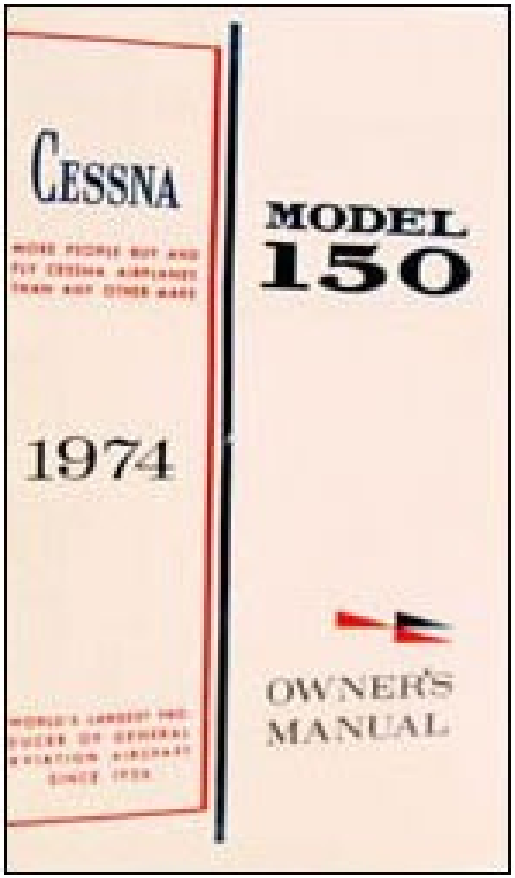
The ACS or PTS Booklet



- Tells exactly what you will be tested on
- Common ground
- Get one (new Private 6/11/18, chng 1)
- Read Introduction and Appendix
- $10 from Sporty's, or download from faa.gov (free)

Pilot's Operating Handbook

- Know how to use performance charts
- Read about systems
- You can look things up in POH if you get stuck on a question
- Search on the Internet for your POH



Make It Easy On Yourself

- Eat breakfast; don't go brain-dead
- Be on time, or call if running late
- Complete **ALL** your homework
- Have all required endorsements
- Bring everything you need; see "Applicant's Practical Test Checklist" in ACS, pg.A-11
- Get a POH for the plane you fly
- Have logbook ready for DPE – See next slide

Logbook Review

- Total logbook pages, and carry totals forward to last page
- Dual + Solo = Total
  - Only works for student pilots. After you get your first real certificate, there is overlap.
- Mark requirements
- Have all required endorsements; full text
- Log of ground instruction required

Logbook Endorsements

- Initial solo (make & model)
- 90-day solo, FAR 61.87(p)(v)
- Solo X-C
- 61.39 – Has two parts, need both
  - Received training in preceding 2 cal mo.....
  - Demonstrates satisfactory knowledge of.....
- 61.107 for Private
- Sport needs 61.39 & combined 61.309/311/313
- Logbook endorsements can be fill-in-the-blanks, written longhand, or on labels

Student Certificate Endorsements

- No longer endorsed on Student Cert.; (can’ t write on plastic)
- Now just in pilot logbook

IACRA

- Integrated Airman Certificate or Rating Application; just Google “IACRA”
- FAA's “paperless” system
- Take a paper copy of application to checkride
- Write on inside cover of logbook:
  - FTN number
  - User name
  - Password

Plans of Action

- An outline of the test
- We can't make it up as we go along
- For each task in the ACS
  - 1 knowledge item
  - 1 Risk item
  - All Skill items
- DPE's can give test in any order
- Can combine things if makes sense

Scenario Based Testing

- The Oral Exam Guide
- Can't be a “parrot”, not “what is…..”
- Must be able to apply knowledge to situation
- Scenarios; “What will you do if.....”

Helpful Hints – Oral Quizzing

Just the problem areas; not the entire test

Papers in the airplane

- “O” in the acronym AROW = Operating Limitations; not just “owner's manual”
  - POH
  - Instrument markings
  - Placards

Required Equipment

- GOOSE-A-CAT, TOMATO FLAMES
- FAR 91.205; know where to find
- Also as certified by manufacturer
- Must have or can't fly, not up to PIC

- **Fix it where it is, or…**
- **Get a “ferry permit” from FSDO**

Optional Equipment

- Everything else
- Up to PIC
- **Placard INOP or**
- **Remove from the airplane**
- “INOP” not an excuse for not knowing how to use installed equipment

Is your airplane airworthy?

- **Don’t** bring an unairworthy airplane for a checkride.
- Clock work? Need INOP placard
- Old, dead ADF or LORAN in the plane?
- ELT battery & transponder cert current?
- Cord showing on tires?
- The examiner WILL NOT FLY in an unairworthy airplane, no matter how trivial the reason.

Weather

- Current vs. forecast (history vs. future)
- Timing of forecasts
  - When, how often, how long
  - TAF: 0000Z, every 6hrs, 30 hours
  - Prog Charts go out 6 days, show precip areas
- Radar is not a forecasting tool
  - At least not for more than 30 minutes
- Enroute weather; call Flight Service on 122.2, or “Duplex” thru VOR. No more Flight Watch.

Airspace; Classes E & G

- Everywhere that B, C & D don't touch ground:
  - G is thin blanket near the ground; E above
  - E goes up to 17,999'
  - Inside magenta shading G is 700' thick
  - Outside magenta shading G is 1200' thick
  - Yes, I know, in some rare instances Class E goes to the surface, and
  - In places where nobody lives, G can go up to 14,500 feet

Milford
Greensburg
Oldenburg
Batesville
CLIFS
410
GREENSBURG-DECATUR CO (I34)
912 L 34 122.9
Hope
COLUMBUS (BAK)
Hartsville
COLUMBUS
See NOTAMs/Directory for Class D eff hrs
Westport
Alert
Grammer
Elizabethtown
NORTH VERNON
374 OVO
JPG D MOA
NORTH VERNON (OVO)
AWOS-3 120.625
Scipio
Azalia
N Vernon
Vernon
AEROBATIC PRACTICE
GREENER PASTURES
618 – 20
MUSCATATUCK NATIONAL WILDLIFE REFUGE
JPG A AND B MOA
JPG A MOA
JPG A AND C MOA
R-3403
Napoleon
OSGOOD RCO
TERRE HAUTE
Osgood
FRANCIS
920 – 18
ANDERSON (Pvt)
Versailles
Cross Plains
Friendship
Canaan
LEWIS (Pvt)
989 – 27
Pierceville
Milan
LITZINGER
PRUSS (Pvt)
890 – 31
Dillsboro
Sunman
Guilford
Harrison
HOOVEN
ACTION (I38)
LAWRENCEBURG
AURORA
JOSEPH
860 – 13
RISING SUN
Rising Sun
830 – 21 122.75
RIVERVIEW
465 – 16
Belleview
ESTES (Pvt)
890 – 15
Florence
CINCINNATI
117.3 Ch 120 CVG
LOUISVILLE
CINCINNATI WEST (I67)
584 L 28 123.0
Ross
CINCINNATI BLUE ASH
DOWNTOWN CINCINNATI
CINCINNATI/NORTHERN KENTUCKY INTL (CVG)
WALTON
East Enterprise
MARKLAND DAM
OHIO
Warsaw
Ghent
Vevay
ROBERTS (Pvt)
820 – 20
Glencoe
Dry Ridge
Sparta
Sanders
CONRADS (Pvt)
940 – 22
OWEN (Pvt)
890 – 23
SNYDER
Carrollton
CRAW DADDY
460 – 24
ROBINSON (8I1)
484 – 17 122.9
Milton
Madison
MADISON (IMS)
AWOS-3 119.175
816 L 44 122.8
Kent
Hanover
Deputy
Austin
WILKERSON (Pvt)
730 – 15
HARROD/ROSE
580 – 18
Scottsburg
SCOTTSBURG (3R8)
600 – 28
122.9
Lexington
Underwood
Nabb
Marysville
Henryville
LEE BOTTOM (64I)
470 – 31
122.9
NABB
112.4 Ch 71 ABB
TERRE HAUTE
Bedford
Bethlehem
INDIANA
KENTUCKY
cooling towers and stacks
Worthville
New Liberty
Owenton
SCHRODER (Pvt)
910 – 19
30 NM
MODE C
golf course
Campbellsburg
Gratz
Corinth

Airspace; Class B

- Mode-C veil around class B airspace
  - Need transponder with encoder
  - And now, ADS-B Out
  - NOT where you call from
- Weather minimums; different from C, D & E
  - 3 mi visibility (same)
  - Clear of clouds
  - Must have a clearance; "…is cleared into"

Milford
Greensburg
Oldenburg
Batesville
GREENSBURG-DECATUR CO (134)
CLIFS
COLUMBUS (BAK)
Hope
Hartsville
COLUMBUS
See NOTAMs/Directory for Class D eff hrs
Westport
Napoleon
OSGOOD RCO
TERRE HAUTE
Osgood
ANDERSON (Pvt)
LEWIS (Pvt)
Pierceville
Milan
Sunman
Guilford
Harrison
HOOVEN
ACTION (138)
LAWRENCEBURG
AURORA
CINCINNATI WEST (167)
Ross
CINCINNATI BLUE ASH
MADEIRA
DOWNTOWN CINCINNATI
Alert
Grammer
Elizabethtown
NORTH VERNON
JPG D MOA
NORTH VERNON (OVO)
AWOS-3 120.625
Scipio
Azalia
FRANCIS
Versailles
LITZINGER
JOSEPH
RIVERVIEW
AEROBATIC PRACTICE
institution
R-3403
JPG A MOA
N Vernon
Vernon
PRUSS (Pvt)
Dillsboro
RISING SUN
Belleview
substation
ESTES (Pvt)
Florence
CINCINNATI/NORTHERN KENTUCKY INTL (CVG)
CINCINNATI
LOUISVILLE
Friendship
Cross Plains
RISING SUN
GREENER PASTURES
MUSCATATUCK NATIONAL WILDLIFE REFUGE
JPG A AND C MOA
JPG A AND B MOA
Canaan
East Enterprise
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Muscatatuck R
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MADISON (IMS)
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Glencoe
Dry Ridge
SNYDER
HARROD/ROSE
WILKERSON (Pvt)
INDIANA
KENTUCKY
CRAW DADDY
Carrollton
Sparta
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Scottsburg
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Worthville
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OWEN (Pvt)
SCHRODER (Pvt)
Underwood
Nabb
LEE BOTTOM (64I)
Bedford
cooling towers and stacks
Marysville
Owenton
30 NM
MODE C
NABB
TERRE HAUTE
Henryville
Bethlehem
Campbellsburg
golf course
Gratz
Corinth

Special Flight Rules Areas

- Complicated airspace that doesn’ t fit a fixed set of rules. Each area is different.
- Examples: Greater Washington DC, Grand Canyon, Los Angeles area
- For Wash DC you must take an online course (faasafety.gov), print a certificate, have it with you in the plane in order to go there.
- No course/test required for the other areas. Get the knowledge on your own.

Performance Charts

- Again, get a POH for your plane
- Know how to use performance charts
- Use Cruise Performance for X-C on test day
- Speed & fuel consumption
  - From POH, Cruise Performance Chart
  - "My instructor told me" is not acceptable
- Takeoff/landing distance; header/footer notes

CRUISE PERFORMANCE

CONDITIONS:
2300 Pounds
Recommended Lean Mixture

PRESSURE ALTITUDE FT	RPM	20°C BELOW STANDARD TEMP			STANDARD TEMPERATURE			20°C ABOVE STANDARD TEMP		
		% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2000	2500	- - -	- - -	- - -	75	116	8.4	71	115	7.9
	2400	72	111	8.0	67	111	7.5	63	110	7.1
	2300	64	106	7.1	60	105	6.7	56	105	6.3
	2200	56	101	6.3	53	100	6.1	50	99	5.8
	2100	50	95	5.8	47	94	5.6	45	93	5.4
4000	2550	- - -	- - -	- - -	75	118	8.4	71	118	7.9
	2500	76	116	8.5	71	115	8.0	67	115	7.5
	2400	68	111	7.6	64	110	7.1	60	109	6.7
	2300	60	105	6.8	57	105	6.4	54	104	6.1
	2200	54	100	6.1	51	99	5.9	48	98	5.7
	2100	48	94	5.6	46	93	5.5	44	92	5.3
6000	2600	- - -	- - -	- - -	75	120	8.4	71	120	7.9
	2500	72	116	8.1	67	115	7.6	64	114	7.1
	2400	64	110	7.2	60	109	6.8	57	109	6.4
	2300	57	105	6.5	54	104	6.2	52	103	5.9
	2200	51	99	5.9	49	98	5.7	47	97	5.5
	2100	46	93	5.5	44	92	5.4	42	91	5.2
8000	2650	- - -	- - -	- - -	75	122	8.4	71	122	7.9
	2600	76	120	8.6	71	120	8.0	67	119	7.5
	2500	68	115	7.7	64	114	7.2	60	113	6.8
	2400	61	110	6.9	58	109	6.5	55	108	6.2
	2300	55	104	6.2	52	103	6.0	50	102	5.8
	2200	49	98	5.7	47	97	5.5	45	96	5.4
10,000	2650	76	122	8.5	71	122	8.0	67	121	7.5
	2600	72	120	8.1	68	119	7.6	64	118	7.1
	2500	65	114	7.3	61	114	6.8	58	112	6.5
	2400	58	109	6.5	55	108	6.2	52	107	6.0
	2300	52	103	6.0	50	102	5.8	48	101	5.6
	2200	47	97	5.6	45	96	5.4	44	95	5.3
12,000	2600	68	119	7.7	64	118	7.2	61	117	6.8
	2500	62	114	6.9	58	113	6.5	55	111	6.2
	2400	56	108	6.3	53	107	6.0	51	106	5.8
	2300	50	102	5.8	48	101	5.6	46	100	5.5
	2200	46	96	5.5	44	95	5.4	43	94	5.3

Figure 5-7. Cruise Performance

TAKEOFF DISTANCE

MAXIMUM WEIGHT 2300 LBS

SHORT FIELD

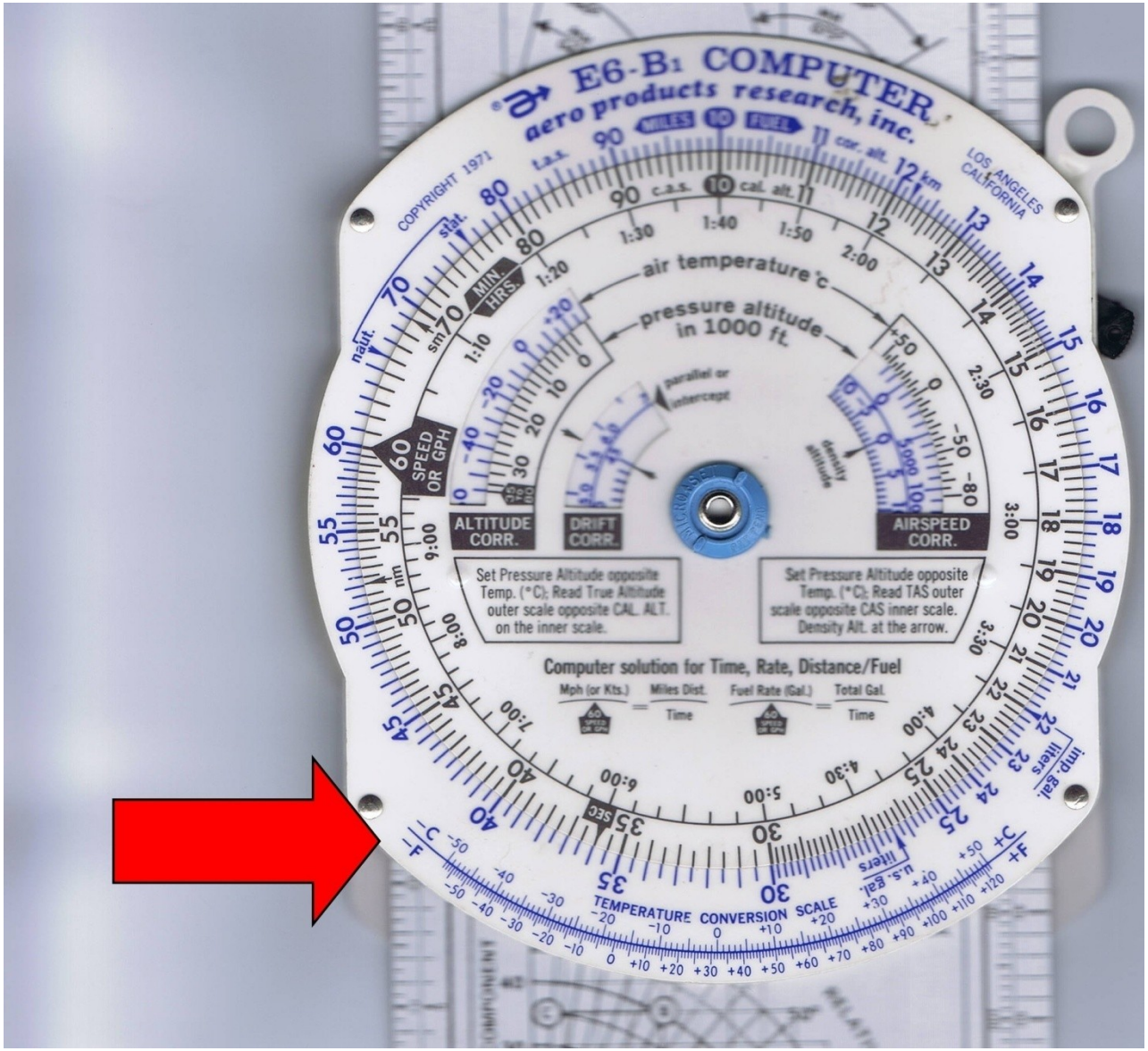
CONDITIONS:
Flaps Up
Full Throttle Prior to Brake Release
Paved, Level, Dry Runway
Zero Wind

NOTES:
1. Short field technique as specified in Section 4.
2. Prior to takeoff from fields above 3000 feet elevation, the mixture should be leaned to give maximum RPM in a full throttle, static runup.
3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.
4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

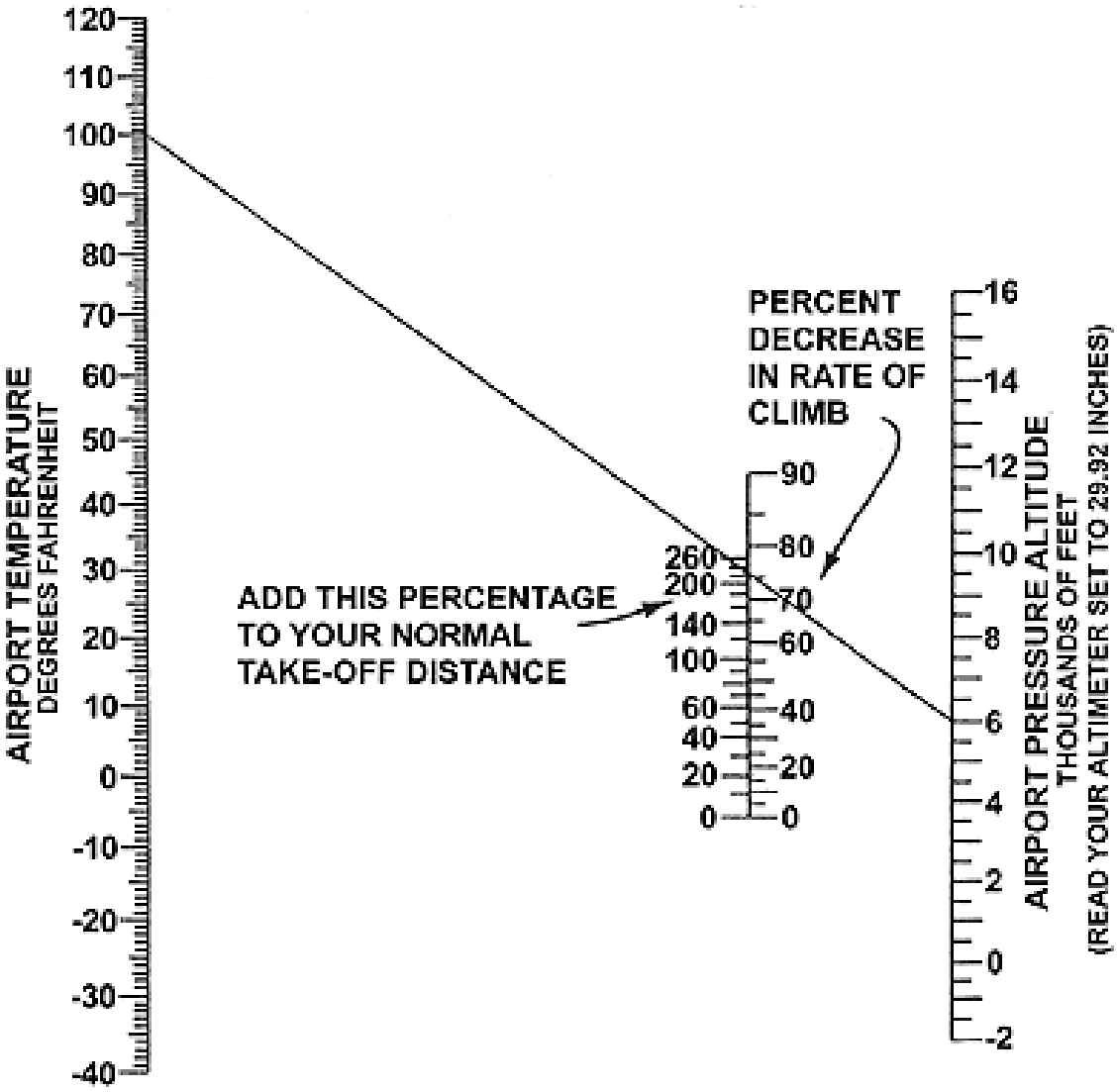
WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS
2300	52	59	S.L.	720	1300	775	1390	835	1490	895	1590	960	1700
			1000	790	1420	850	1525	915	1630	980	1745	1050	1865
			2000	865	1555	930	1670	1000	1790	1075	1915	1155	2055
			3000	950	1710	1025	1835	1100	1970	1185	2115	1270	2265
			4000	1045	1880	1125	2025	1210	2175	1300	2335	1400	2510
			5000	1150	2075	1240	2240	1335	2410	1435	2595	1540	2795
			6000	1265	2305	1365	2485	1475	2680	1585	2895	1705	3125
			7000	1400	2565	1510	2770	1630	3000	1755	3245	1890	3515
			8000	1550	2870	1675	3110	1805	3375	1945	3670	2095	3990

Figure 5-4. Takeoff Distance (Sheet 1 of 2)

Temperature Conversion



“Koch Chart” – Just Google It



FAA Flight Plan Form - ICAO

- The new ICAO form is more complicated
- I don’ t have time to teach it here
- Go online and learn about it
- Get your instructor to teach it to you
- Fill out a flight plan for the cross-country portion of your checkride
- Be prepared to demonstrate the simulated filing of a flight plan; the examiner may well ask (it’ s one of the tasks)

Aircraft Systems, and Malfunctions

- Tested together
- “Land” is not the answer
- Oil temperature and oil pressure
- Alternator (electrical) failure – Reset (or not)
- Battery goes dead; engine quit?
- Can't remember? – Look up in POH

Aeromedical Factors

- Middle ear & sinus; “ears hurt”
  - Valsalva maneuver the best
  - Go back up, as high as you were
  - Valsalva repeatedly coming back down
- Drugs & OTC medications – Ask an AME
  - Internet lists (FAA, AOPA) won't do
  - Drug interactions
- SCUBA – “Tomorrow”

Spin Awareness

- Aerodynamic factors that cause spins
  - Stall accompanied by uncoordinated flight
- Flight situation where pilots get into spin
  - Base-to-final turn in an overshoot
- Recovery (no, you can't look it up!): PARE
  - ***P***ower to idle
  - ***A***ilerons neutral
  - ***R***udder, full deflection opposite rotation
  - ***E***levator, control wheel (stick) briskly forward – Right after rudder!
    - Gently recover from dive

Flight Portion; Basic "Rules"

- Use good judgment
  - Nothing abominably stupid
  - Go-around; yes, once
- Take prompt corrective action; fix it
- "Can I do it over?"
- Notification if "unsatisfactory"; right now

Flight Portion Hints – On the Ground

- Preflight inspection; **USE CHECKLIST!!**
- Passenger briefing; how to get out
- Taxiing in wind: On the ground you should --
  - Dive away from a tailwind
  - Climb into a headwind
- Set up nav radios on ground, freq & OBS
- If GPS, put in waypoint, "Direct To….."
- Don't wait to set up radios in the air

Flight Hints; In the Air

- Takeoff: Where is the wind from?
  - Last person isn't always right
  - Listen to AWOS, look at wind sock
  - Hold controls appropriately
- Doing stalls, and slow-flight
  - Examiner expects full stall, not just horn
  - Don't “pump”
  - In slow-flight, don’t blow the horn

Simulated Engine Failure

- Best glide speed, and TRIM, full nose up
- Pick landing site, and TURN TO GO THERE
- Squawk 7700 & declare emergency on 121.5
- ***After*** declaring emergency, use a checklist to troubleshoot/attempt restart
- Take airplane to what would be short-final, regardless of altitude
- More than 1000' AGL at landing site; spiral
- No flaps to full flaps when field made
- Still high? Slip!!!

More Flight Hints

- Recovery from unusual attitude; adjust power, all the way, full-throttle or idle.
- Lost & diversion
  - Climb first
  - Turn to approximate heading
  - Then set up GPS
- Listen to AWOS when return to airport

Emergency Descent

- Not to be confused with engine failure
- Necessary if plane catches fire, or pax has stroke or heart attack
- Get on the ground right now!!!
- Power to idle, slow to flap speed, deploy full flaps (all at once), pitch for top-of-white-arc airspeed, roll into 45° bank
- Airplane comes down at 1500 to 2000 fpm

Takeoffs & Landings

- Short field landing; go extra downwind
- Short field takeoff; use ***ALL*** the runway
- Soft field landing
  - Airspeed 5 kts above short field speed
  - Carry power to touchdown; then idle
- Slip-to-landing
  - Drop wing on the side the wind is coming from
    - Use full opposite rudder; pin it to floor
    - Steer with the control wheel (like a truck)
- Go-around: Throttle first, not flaps

What happens if you fail?

- It's not the end of the world
- Continue or not?
- What is required?
  - Additional training
  - FAR 61.49 endorsement
  - New 8710 application in IACRA
- Retested only on what you failed and anything that wasn't tested
- Additional cost, but not usually the full amount

Questions?

Ask Away

LBothe@comcast.net
Want to talk? 812-521-7400
Link to slides:

Turn your cell phone back on
Thank you for attending