Webinar will begin shortly...

Welcome!

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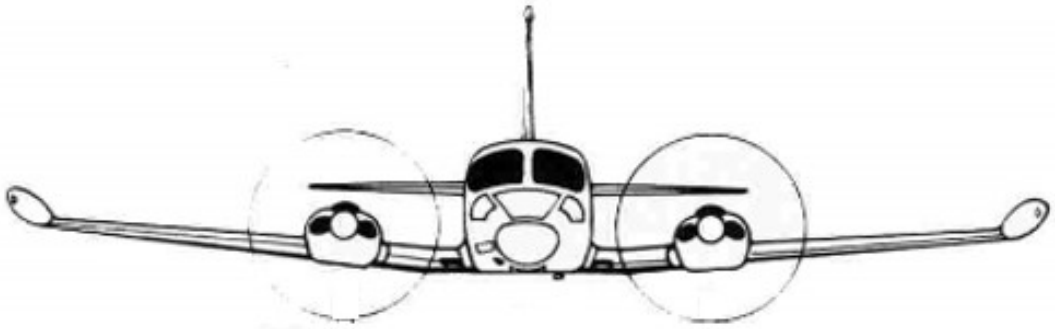
Let Yourself Down Easy:

Low-Workload Approaches and Landings



Thomas P. Turner

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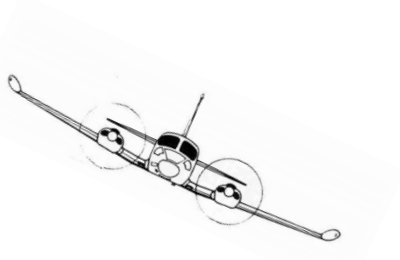

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FLYING LESSONS Weekly

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Download these RECENT FLYING LESSONS REPORTS

Spherically speaking; Fly-by-night airline stories; Avionics questions

Compliance fatigue; There and back in time; *LESSONS* from recollection

MASTERY OF FLIGHT

Donate

FLYING LESSONS uses recent mishap reports to consider what *might* have contributed to accidents, so you can make better decisions if you face similar circumstances. In almost all cases design characteristics of a specific airplane have little direct bearing on the possible causes of aircraft accidents—but knowing how your airplane's systems respond can make the difference as a scenario unfolds. So apply these *FLYING LESSONS* to the specific airplane you fly. Verify all technical information before applying it to your aircraft or operation, with manufacturers' data and recommendations taking precedence. **You are pilot in command, and are ultimately responsible for the decisions you make.**

Read ***FLYING LESSONS* for May 28, 2020** *(downloadable pdf)*

> Going through a phase

> Listen to the airplane

> *Those in peril in the air*

***FLYING LESSONS* special:**

Notes and commentary on Wolfgang Langewiesche's classic *Stick and Rudder*:

Chapters 1 and 2 | Chapter 3 | Chapter 4 notes

Chapter 5 notes | Chapter 6 notes | Chapter 7 notes | Chapter 8 notes

Chapter 9 notes | Chapter 10 notes | Chapter 11 notes

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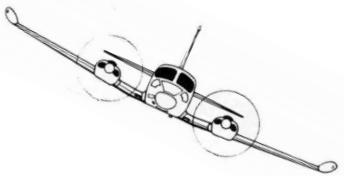
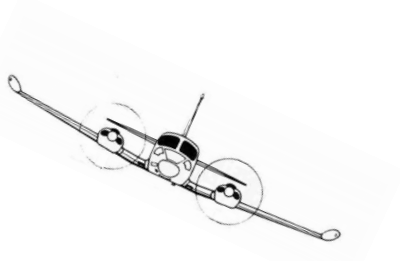


Reducing Workload for Approaches and Landings

- Descent
- Creating your custom Approach checklist
- Altitude, Distance, Missed
- On the missed
- Balked landing
- After landing



Descent Checklist

DESCENT

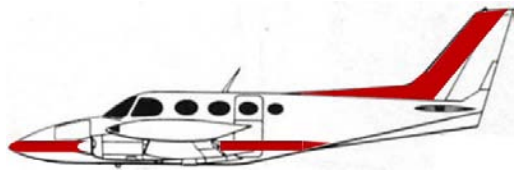
1. Fuel Selectors - Left Engine - LEFT MAIN (Feel For Detent).
   Right Engine - RIGHT MAIN (Feel For Detent).
2. Auxiliary Fuel Pumps - ON.
3. Power - AS REQUIRED to maintain engine temperatures in the green.
4. Cabin Pressurization - SET (Optional System).
   a. Cabin Altitude - SET SLOWLY. During the initial portion of the letdown, set the cabin altitude control to field pressure altitude plus 500 feet (outer scale) (Optional System).
   b. Cabin Rate Control - SET to reach selected cabin altitude (zero cabin pressure) at approximately the same time the airplane reaches field pressure altitude plus 500 feet (Optional System).

NOTE

Maintain sufficient power for pressurization requirements (manifold pressure in the green arc).

5. Mixtures - ADJUST for smooth operation with gradual enrichment as altitude is lost.
6. Cowl Flaps - CLOSED.
7. Propeller Synchrophaser - AS REQUIRED.
8. Altimeter - SET.

Before Descent Checklist



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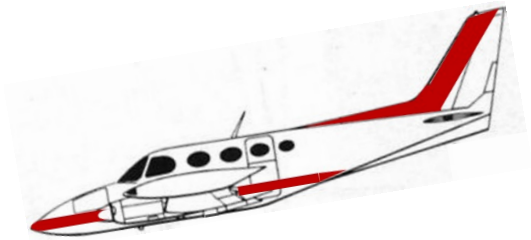
Descent Checklists



DESCENT

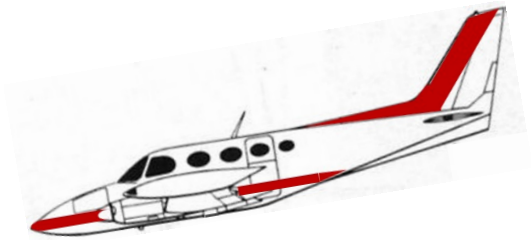
1. Power – AS REQUIRED
2. Mixtures – AS REQUIRED

BEFORE DESCENT

1. Fuel selectors – MAINS
2. Auxiliary Fuel Pumps – ON
3. Cabin Pressurization – SET
4. Cowl Flaps – CLOSED
5. Propeller Synchrophaser – AS REQUIRED
6. Altimeter - SET

Descent Checklists

Transition Altitude



PASSING FL180

1. Altimeter - SET

DESCENT

1. Power – AS REQUIRED
2. Mixtures – AS REQUIRED

BEFORE DESCENT

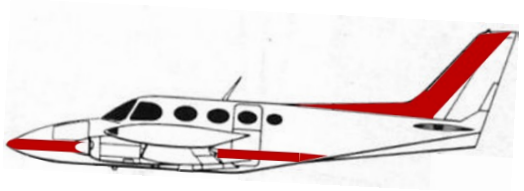
1. Fuel selectors – MAINS
2. Auxiliary Fuel Pumps – ON
3. Cabin Pressurization – SET
4. Cowl Flaps – CLOSED
5. Propeller Synchrophaser – AS REQUIRED

Before Landing

BEFORE LANDING

1. Seat Belts and Shoulder Harness - SECURE.
2. Propeller Synchrophaser - OFF.
3. Alternate Air Controls - CHECK IN.
4. Wing Flaps - DOWN 15° below 160 KIAS.
5. Landing Gear - DOWN below 140 KIAS.
6. Landing Gear Position Indicator Lights - Check down lights ON; Unlocked Light - OFF.
7. Mixtures - FULL RICH or lean as required for smooth operation.
8. Propellers - FULL FORWARD.
9. Cabin Differential Pressure - ZERO DIFFERENTIAL.
10. Wing Flaps - DOWN 45° below 140 KIAS.
11. Minimum Multi-Engine Approach Speed - 94 KIAS at 5990 pounds. Refer to Section 5 for speeds at reduced weights.

Descent and Landing Checklists



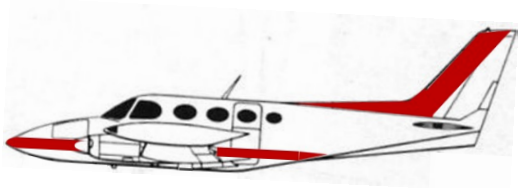
APPROACH

1. Power – AS REQUIRED
2. Mixtures – AS REQUIRED
3. Propeller Synchrophasers – OFF
4. Flaps - 15° BELOW 160 KTS
5. Cabin Differential Pressure – ZERO DIFFERENTIAL

BEFORE DESCENT

1. Seat Belts and Shoulder Harnesses – SECURE
2. Alternate Air Controls - IN
3. Auxiliary Fuel Pumps – ON
4. Cabin Pressurization – SET
5. Cowl Flaps – CLOSED
6. Propeller Synchrophaser – AS REQUIRED
7. Altimeter - SET

Approach and Landing Checklists



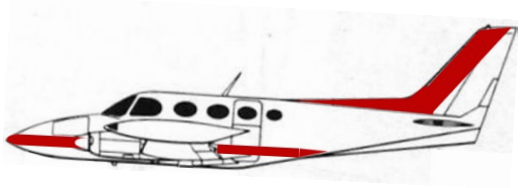
APPROACH

1. Power – AS REQUIRED
2. Mixtures – AS REQUIRED
3. Propeller Synchrophasers – OFF
4. Flaps - 15° BELOW 160 KTS
5. Cabin Differential Pressure – ZERO DIFFERENTIAL

BEFORE LANDING

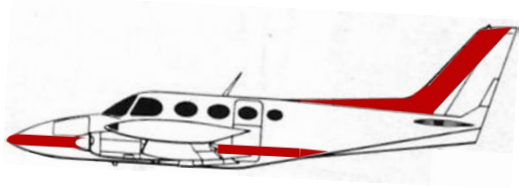
1. Landing Gear – DOWN
2. Flaps – FULL
3. Propellers – FULL FORWARD
4. Mixture – AS REQUIRED
5. Yaw Damper - OFF

Approach Checklists



APPROACH 1

1. Approach – BRIEFED
2. Avionics – SET
3. Approach – LOADED
4. Lights – ON AS DESIRED



APPROACH 2

1. Approach – ACTIVATED
2. Approach Mode – AS REQUIRED
3. Power – AS REQUIRED
4. Mixtures – AS REQUIRED
5. Propeller Synchrophasers – OFF
6. Flaps - 15° BELOW 160 KTS
7. Cabin Differential Pressure – ZERO DIFFERENTIAL

Distributed Checklist Steps

BEFORE LANDING

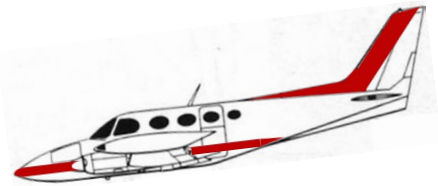
11

5

APPROACH

0

5



DESCENT

8 + 4

2

BEFORE DESCENT

0

6 + 4

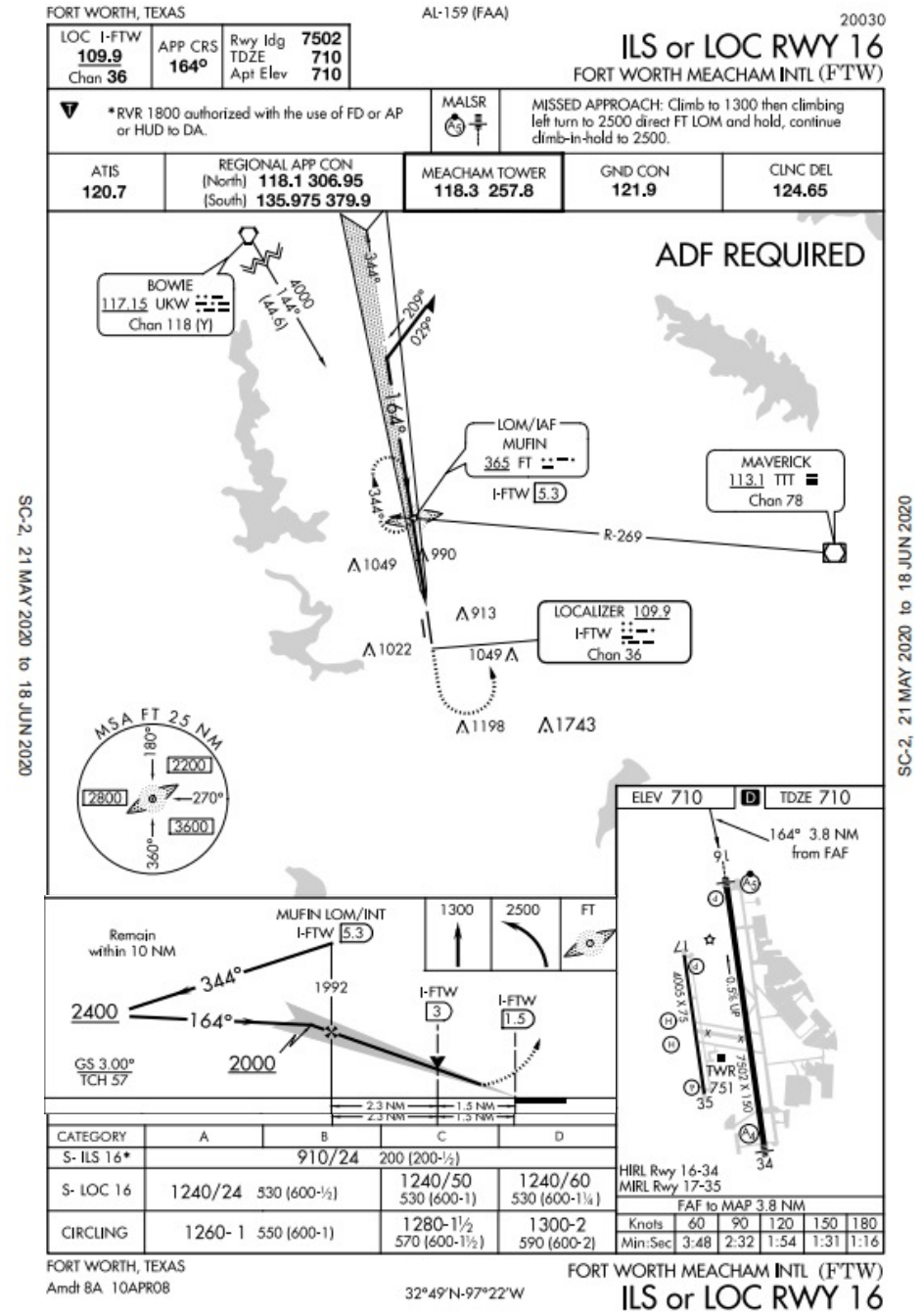
AFM Checklist Steps

Distributed Checklist Steps

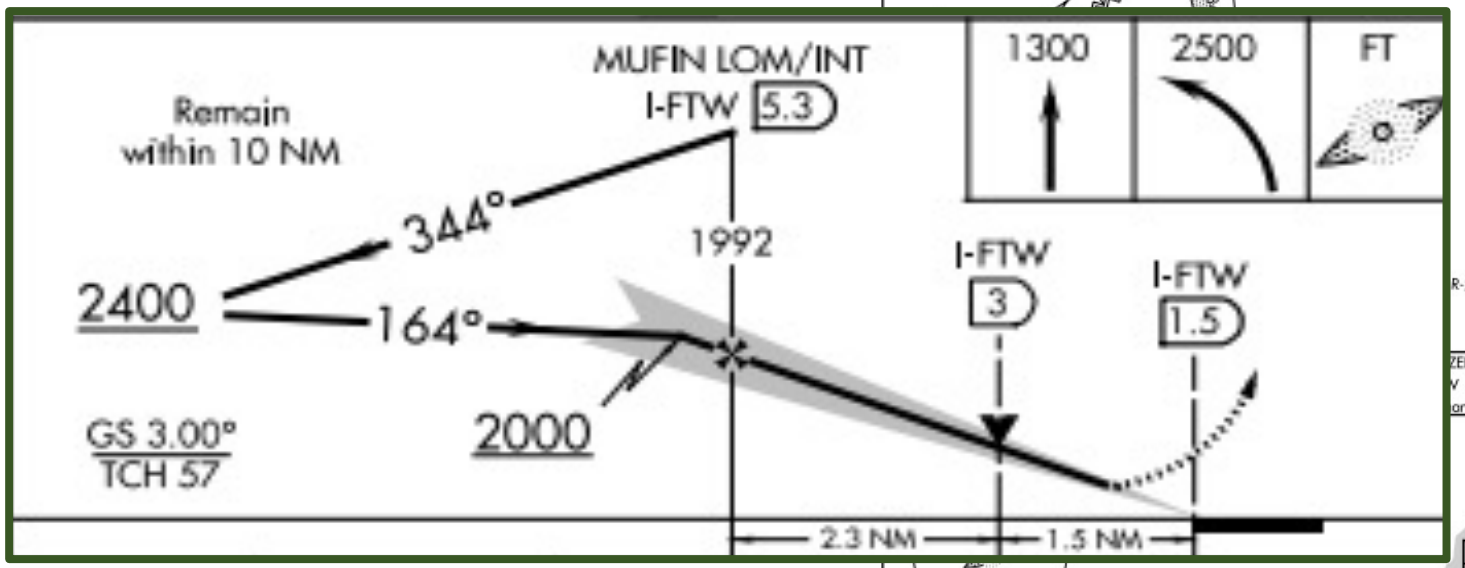
APPROACH 1 Checklist Steps


FUEL QTY
C-340

Approach Briefing



Approach Briefing



Altitude
Distance/Decision
Missed

FORT WORTH, TEXAS AL-159 (FAA) 20030

LOC I-FTW 109.9 Chan 36 | APP CRS 164° | Rwy Idg 7502 | TDZE 710 | Apt Elev 710

ILS or LOC RWY 16
FORT WORTH MEACHAM INTL (FTW)

*RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 1300 then climbing left turn to 2500 direct FT LOM and hold, continue climb-in-hold to 2500.

ATIS	REGIONAL APP CON	MEACHAM TOWER	GND CON	CLNC DEL
120.7	(North) 118.1 306.95 (South) 135.975 379.9	118.3 257.8	121.9	124.65

ADF REQUIRED

MAVERICK 113.1 TTT Chan 78

R-269

ZER 109.9 an 36

SC-2, 21 MAY 2020 to 18 JUN 2020

ELEV 710 D TDZE 710

164° 3.8 NM from FAF

HIRL Rwy 16-34
MIRL Rwy 17-35

FAF to MAP 3.8 NM					
Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

CATEGORY	A	B	C	D
S- ILS 16*	910/24 200 (200-½)			
S- LOC 16	1240/24 530 (600-½)		1240/50 530 (600-1)	1240/60 530 (600-1¼)
CIRCLING	1260- 1 550 (600-1)		1280-1½ 570 (600-1½)	1300-2 590 (600-2)

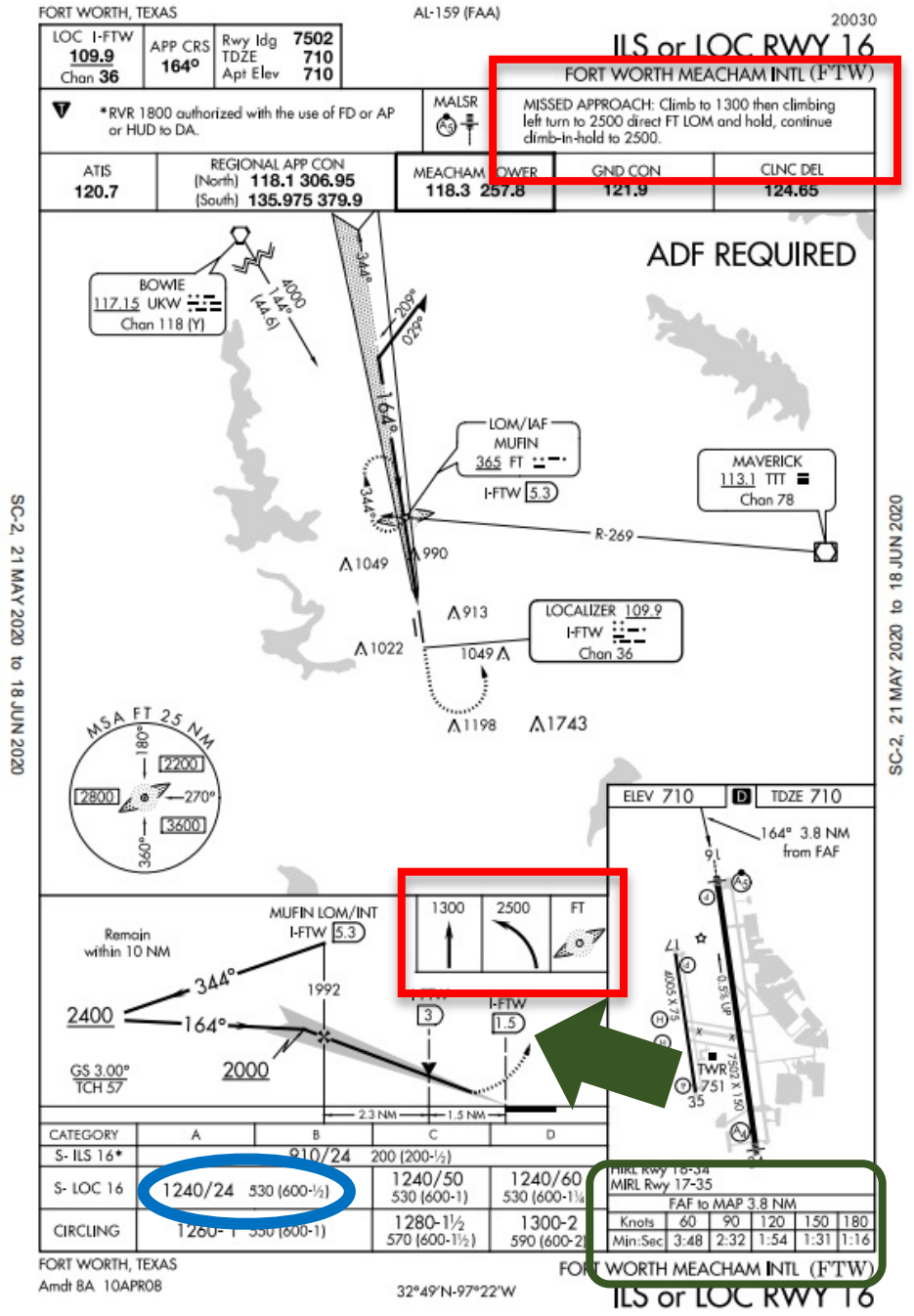
FORT WORTH, TEXAS
Amdt 8A 10APR08

32°49'N-97°22'W

FORT WORTH MEACHAM INTL (FTW)
ILS or LOC RWY 16

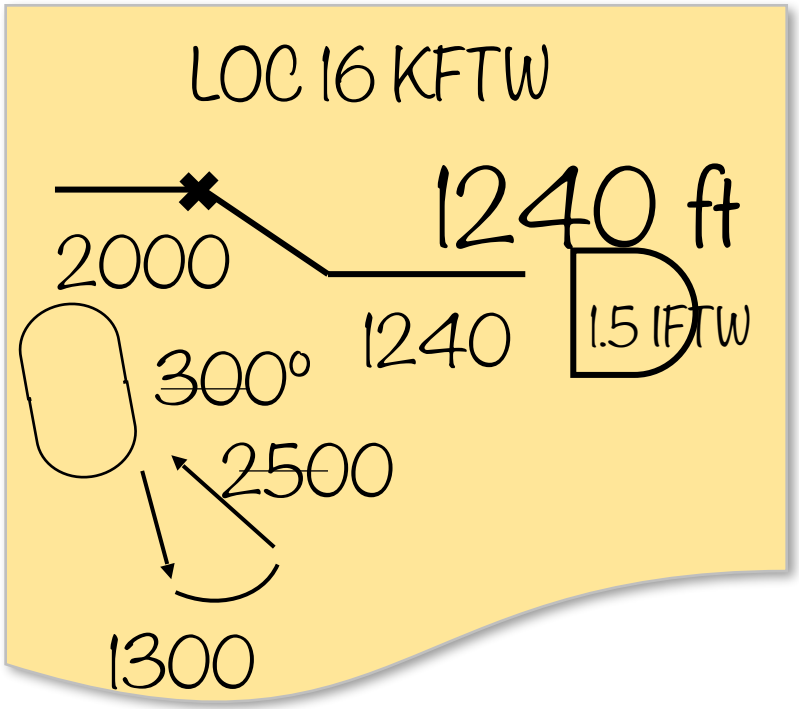
Approach Briefing

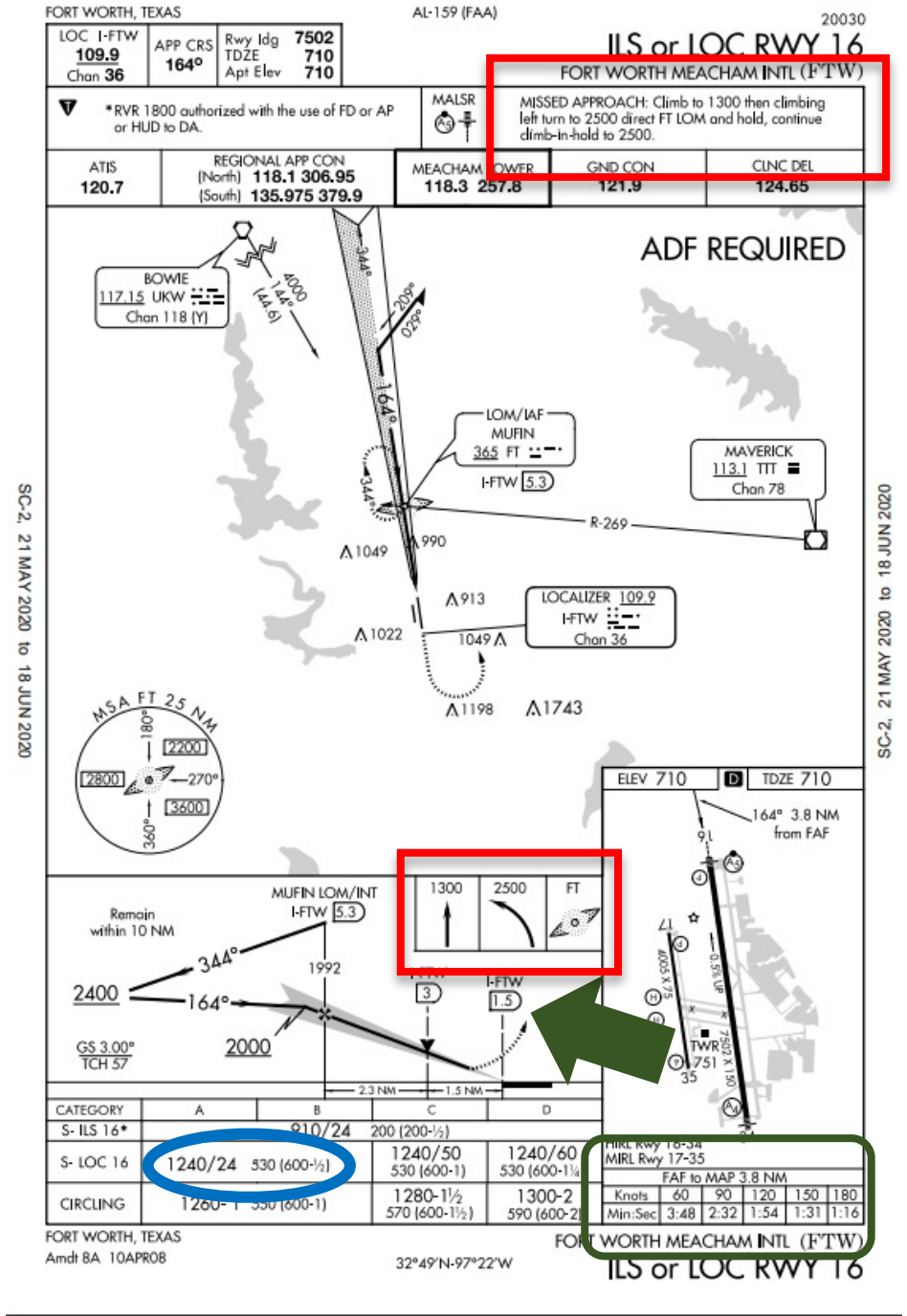
Altitude
Distance/Decision
Missed



Approach Briefing

Altitude
Distance/Decision
Missed






LOC 16 KFTW
1240 ft
2000
1240
1.5 IFTW
300
2500
1300
C-340

Missed Approach

AVIATE: Fly the Airplane

- Power, pitch, positive rate
- Gear up, flaps up
- Cowl flaps open

AVIATE: Fly the Airplane

Missed Approach

NAVIGATE

- Runway heading
- Climb attitude
- Suspend mode
- Missed procedure or as directed

AVIATE: Fly the Airplane

Missed Approach

NAVIGATE

COMMUNICATE

- Cleared for the approach, cleared for the missed
- Communication sets off a series of ATC calls and actions
- Establish climb on course, and complete any turns, before “calling the missed”

Missed Approach:

AVIATE: Fly the Airplane

NAVIGATE

COMMUNICATE

Go-Around/Balked Landing

AVIATE: Fly the Airplane

- Power, pitch, positive rate
- Flaps up
- Gear up
- Cowl flaps open

NAVIGATE

COMMUNICATE

Go-Around/Balked Landing

AVIATE: Fly the Airplane

NAVIGATE

COMMUNICATE

- Runway heading or sidestep
- Climb attitude
- Straight ahead to at least 400 AGL before turns (FAA recommends 700 AGL)

Go-Around/Balked Landing

AVIATE: Fly the Airplane

NAVIGATE

COMMUNICATE

- No transmission below at least 400 AGL before turns (recommend 700 AGL)

Landing and After Landing

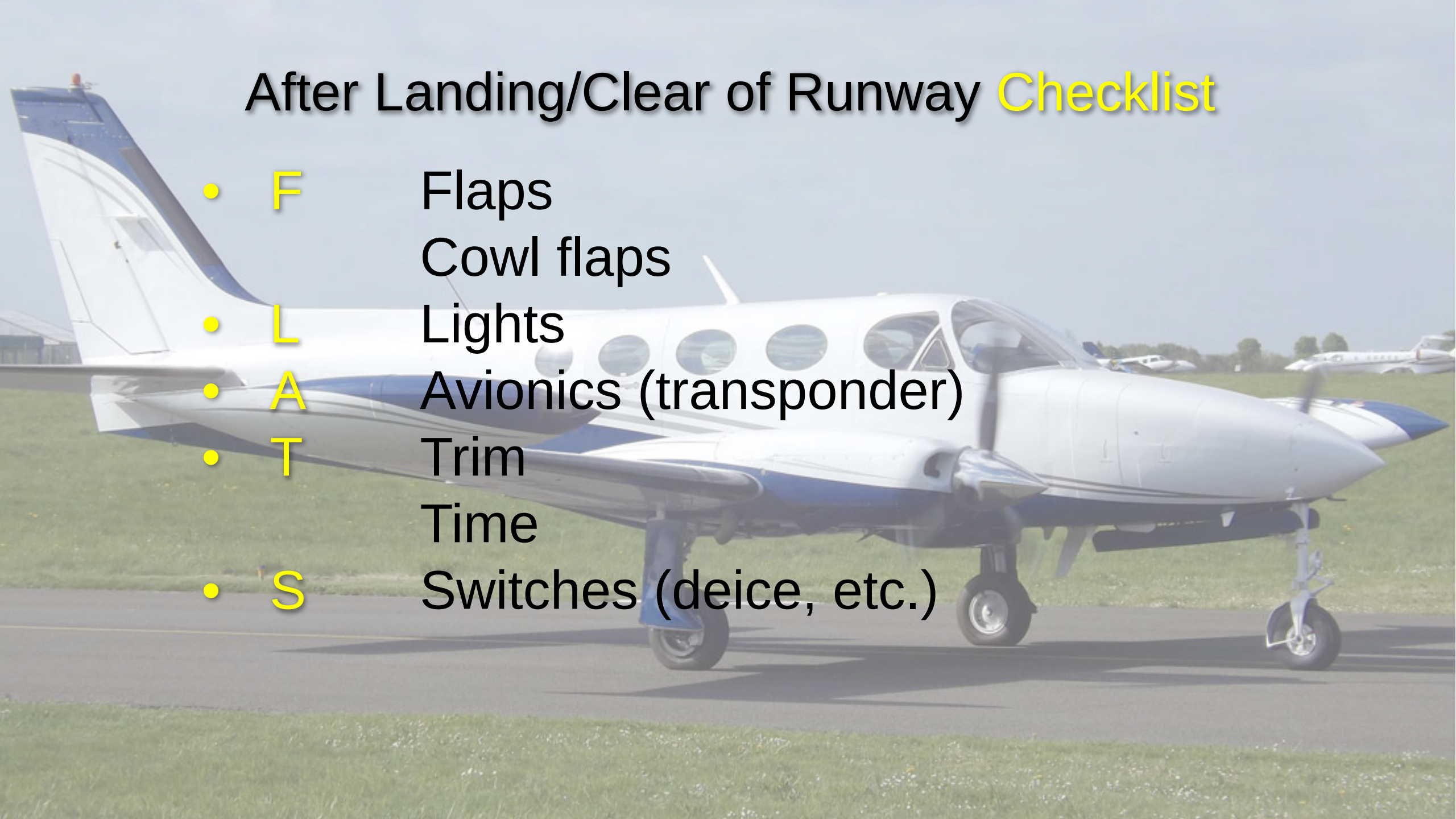
Landing and After Landing

AFTER LANDING

1. Auxiliary Fuel Pumps - LOW during landing roll.
2. Cowl Flaps - OPEN.
3. Wing Flaps - UP.

Landing

- Do not reconfigure aircraft during the landing roll
- Preferably come to a complete stop on the taxiway before retracting flaps, etc.



After Landing/Clear of Runway Checklist

- F Flaps
  Cowl flaps
- L Lights
- A Avionics (transponder)
- T Trim
  Time
- S Switches (deice, etc.)

Let Yourself Down Easy

- Not less to do, but manage time better
- Move actions away from high workload times
- Create short, usable custom checklists
- Actually use them


Questions?

Thomas P. Turner

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