

**PROCEDURES FOR NORMAL OPERATION PIPER P28A**

Parameters, restrictions, procedures and emergency procedures see AFM

**BEFORE ENGINE START**

1. Ground clearance ..... ON
2. ATIS ..... RECEIVED
3. IFR & special VFR: startup ..... RECEIVED
4. Ground clearance ..... OFF

**ENGINE START (NORMAL)**

1. Fuel pump ..... ON
2. Mixture..... RICH
3. Magneto left ..... ON
4. Prime ..... according PRIMING TABLE
5. Throttle ..... 1-2 MM OPEN
6. Starter..... ENGAGE
7. Magneto right ..... ON
8. Power..... SET 1000 RPM
9. Oil pressure..... OBSERVE
10. Fuel pump ..... OFF

**PRIMING TABLE (STROKES)**

OAT [°C]	-10	0	+10	+20	+30
Engine cold	5-6	3-4	2	1-2	1
Engine hot	1-3	1	0-1	0	0

**BEFORE FIRST TAXI**

1. Time (Block off) ..... TABULATED
2. Directional gyro ..... SET
3. Taxi area ..... FREE

**TAXI**

1. Taxi light..... ON
2. Power..... SET
3. Parking brake..... RELEASED

**AFTER FIRST TAXI**

1. Brakes ..... CHECKED
2. Attitude indicator ..... ERECTED / STABLE
3. Turn coordinator ..... L/R TURNING
4. Directional gyro ..... L/R TURN: DECREASING/INCREASING

**STOP**

1. Power..... SET
2. Parking brake..... SET
3. Taxi light..... OFF

**ENGINE TEST**

1. Power..... 2000 RPM SET
2. Oil pressure..... CHECK / GREEN ARC
3. Fuel pressure..... CHECK / GREEN ARC
4. Gyro suction..... CHECK / GREEN ARC
5. Alternator output..... POSITIVE
6. Annunciator warnings..... OFF
7. Left Magneto..... DROP \_\_\_ RPM (MAX 175)
8. Right Magneto..... DROP \_\_\_ RPM (MAX 175)
9. Difference L/R Magneto..... \_\_\_ RPM (MAX 50)
10. Carburetor heat..... FUNCTION CHECKED
11. Mixture..... FUNCTION CHECKED
12. Throttle idle..... BETWEEN 500 AND 700 RPM
13. Power..... SET 1000 RPM

**LINING UP**

1. Wind (RTF / Windssock)..... DIRECTION / SPEED
2. Runway..... IDENTIFIED
3. Approach sector..... FREE
4. Lights (Landing / Strobe)..... ON

**LINED UP & TAKE OFF**

1. Brakes..... PUSH
2. Runway & Gyro heading..... COMPARE
3. Time..... CHECKED
4. Take off power..... SET
5. Power (min. RPM)..... CHECKED
6. Brakes..... RELEASED
7. Speed..... RISE

**SAVE ALTITUDE (MIN 400 FT AAL)**

1. Fuel pump ..... OFF except Circuits
2. Fuel pressure ..... GREEN ARC

**2000 FT AGL**

1. Speed ..... V CC 87

**200 FT BEFORE LEVEL OFF**

1. Reaching ..... (... FT / FL ...)

**LEVEL OFF**

1. Altitude ..... (... FT / FL ...)
2. Attitude ..... ADJUST
3. Power ..... RPM \_\_\_\_
4. Trim ..... ADJUST
5. Mixture ..... ADJUST

**STARTING DESCENT**

1. Mixture ..... ADJUST
2. Attitude ..... FOR DESCENT
3. Power ..... RPM \_\_\_\_
4. Trim ..... ADJUST

**INITIAL APPROACH**

1. Speed ..... BELOW 102
2. Flaps ..... 10
3. Speed ..... 80

**APPROACHING GLIDE PATH**

1. Power ..... SET
2. Speed ..... BELOW 102
3. Flaps ..... 25
4. Speed ..... 75
5. Starting ..... DESCENT

**FINAL APPROACH**

1. Speed ..... BELOW 102
2. Flaps ..... 40
3. Speed ..... V FINAL \_\_\_\_

**BEFORE GATE**

1. Carburetor heat ..... OFF

**GO AROUND**

1. Power..... FULL OPEN
2. Carburetor heat ..... OFF
3. Attitude ..... ROTATE according Speed
4. Speed above 57 + pos ROC ..... FLAPS RETRACT

**ENGINE SHUT DOWN**

1. Electrical consumers ..... OFF except Avionic master
2. Alternator ..... OFF
3. Throttle ..... IDLE
4. Magnetos grounding ..... AS REQUIRED
5. Mixture..... CUT OFF
6. Magnetos ..... OFF

**TAKEOFF BRIEFING****Departure**

Takeoff procedure.....	Wind, Temperatur, Gewicht, Pistenzustand
Climb profil .....	Safe altitude, $V_x$ , $V_y$ , $V_{cc}$
Airspace.....	Einschränkungen
Routing .....	Flugweg zum verlassen Flugplatzbereich

**Emergency**

Malfunction on Ground.....	Massnahmen vor dem Abheben
Engine failure TO & Climbout .....	erste Massnahmen nach dem Start
Major Malfunction after TO .....	Massnahmen und Flugweg nach dem Start

**APPROACH BRIEFING**

Runway.....	Wind, Landerichtung, Landezone
Airspace.....	Einschränkungen auf dem Flugweg
Routing .....	Flugweg und Höhengates beim Anflug
Missed approach.....	GA-Marke, Flugweg nach einem Durchstart

**FINAL SPEED CALCULATION****MASS FACTOR**

Speed reduction on Final: 1 kt per 30 kg below MTOM

**WIND FACTOR**

Speed increments on Final: if windspeed or gust is exceeding 10% of  $V_{final}$   
Add 1/2 of headwind component to  $V_{final}$

**EXAMPLE FINAL-SPEED INCREMENT**

$V_{final}$	$V_{headwind}$		increment	$V_{final}$
66 KIAS	6 KT	Windspeed below 10%	0 KT	66 KIAS
66 KIAS	20 KT	Windspeed above 10%	10 KT	76 KIAS
66 KIAS	20 up to 36 KT	Gustspeed above 10%	18 KT	84 KIAS

FINAL APPROACH SPEED =  $V_{final}$  - Mass factor + Wind factor

**BANK FACTOR**

if bankangle for turning final is more than 25°: Add 5 kt to  $V_{intermediate}$

**FLIGHTPATH CALCULATION**

Flight angle	Gradient [ft/NM], [%]	ROD/ROC [ft/min]	ref. RPM (no wind)
3°	300 ft/NM = 5%	GS x 5	1700
4°	400 ft/NM = 7%	GS x 7	1600
5°	500 ft/NM = 9%	GS x 9	1500

ROD/ROC [ft/min] = GS [kt] x Gradient [%]

**Climb with obstacles**

2000 ft AGL  
accelerate to  $V_{cc}$

**CLIMB  
CHECK**

400 ft AAL Safe altitude  
no turns below

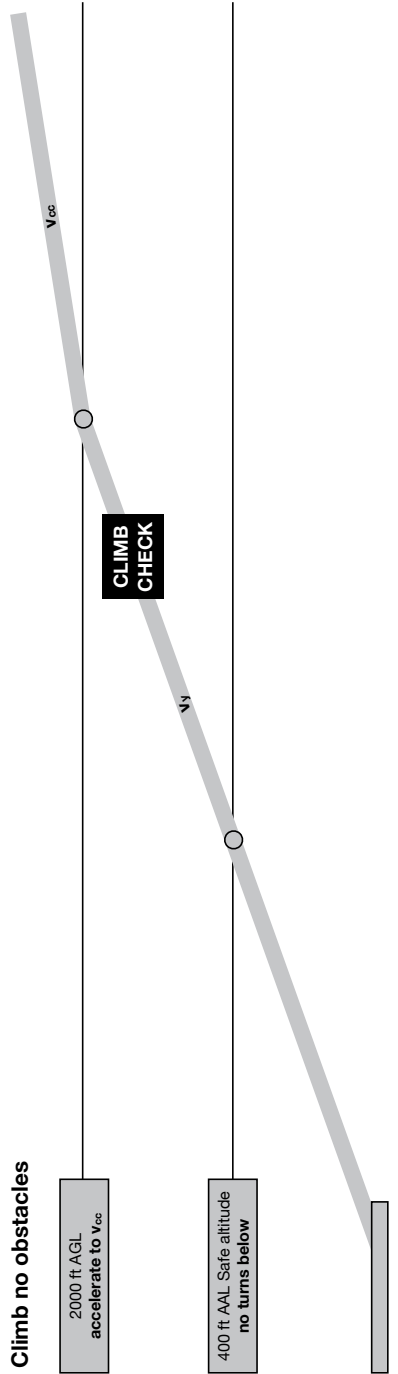
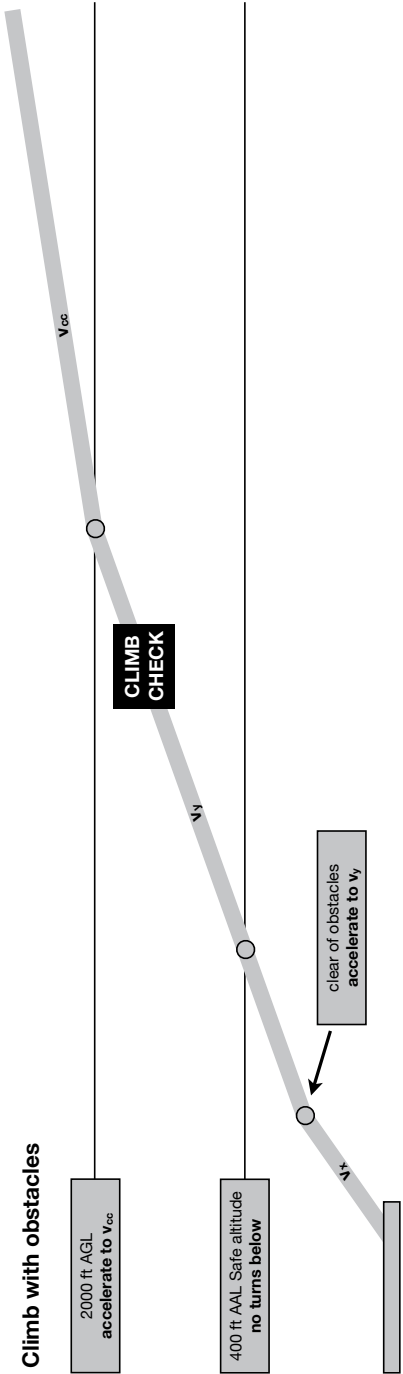
clear of obstacles  
accelerate to  $V_y$

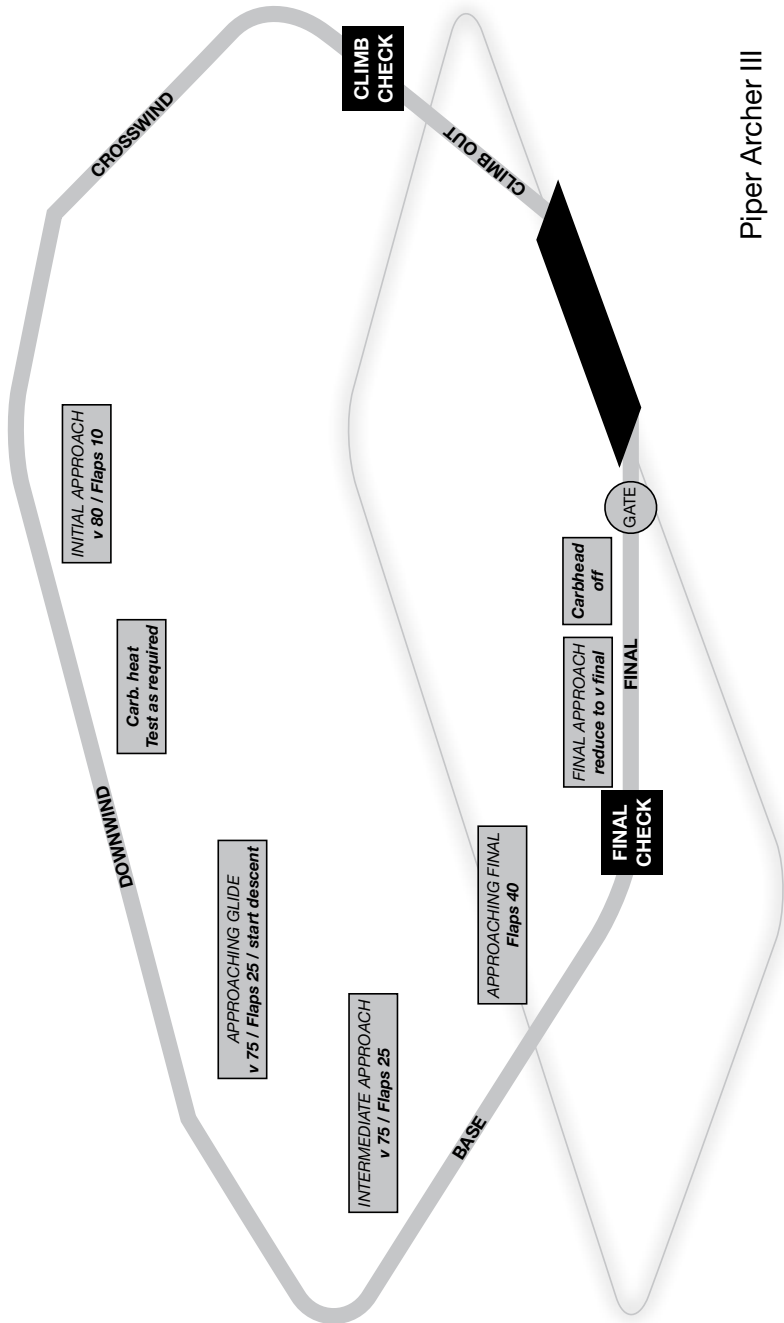
**Climb no obstacles**

2000 ft AGL  
accelerate to  $V_{cc}$

**CLIMB  
CHECK**

400 ft AAL Safe altitude  
no turns below





Jan11  
v5.2

***FLUGSCHULE GRENCHEN***

**PROCEDURES**

**Piper Archer III**

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