

PA28-201RT Checklist

Preflight Inspection

Parking brake	Set
Hobbs/Tach	Check
Battery	On
Fuel quantity	Check
Lights/Stall warning	Check
Electrical equipment	Off
Battery	Off
Flaps	Check/Up
Trim	Check
Pitot/Static drains	Drain/Close
Acft documents	On board
Tow bar, Baggage	Secure
Baggage door	Close

Right Wing

Flap Hinges	Check
Aileron	Check hinges
Wingtip Lights	Check
Leading edge	Clean
Fuel quantity	Check
Fuel vent	Clear
Fuel strainer	Drain
Landing gear/Tire	Check
Fresh air inlet	Clear

Nose

Engine condition	Check
Cowling, Windshield	Check
Propeller & Spinner	Check
Air inlets	Clear
Alternator belt	Check
Nose gear & Tire	Check
Oil quantity	Check
Landing light	Check
Fuel strainer	Drain

Left Wing

Same as right wing	
(In reverse)	
Also: Check Pitot / Static mast	
and Stall warning horn	
Fresh air inlet	Clear

Fuselage & Empennage

Antenna's	Check
Fresh air inlet	Clear
Stabilator & Trim	Check
Rudder	Check
Master switch	On
Nav strobe lights	Check
Stall warning	Check
Pitot heat	Check
All switches	Off

Before Start

Cabin door	Close, Secure
Seat belts	Fastened
Avionics master	Off
Parking brake	Set
Gear switch	Down
Fuel selector	Desired tank
Alternate Air	Off

Battery & Alternator	On
Anti-Collision lights	On
Nav lights	As req'd

Engine Start

Mixture	Full rich
Propeller	Full forward
Throttle	Full forward
Auxiliary fuel pump	Off
Primer (Table!)	4- 6 seconds
Throttle	Close
Prop area	"Clear"
Starter	Engage
Primer (< -6°C)	Continue
Throttle	1000 RPM
Engine instruments	Check
Annunciators	Out

Before Taxi

Gyro suction	Check
Avionic master	On
Ammeter, Pitot heat on/off	
Circuit breakers	In
Wing flaps	Check, T/O
Electric trim	Test, T/O
Gyro instruments	Check, set
Heading bug	Set RWY Hdg
Altimeters	Set/compare
Avionics	Set for departure
Mixture	Leaned for taxi?

Taxi

Taxi clearance	Obtain
Taxi light	On
Brakes	Check
Flight instruments	Check

Before Take off, Run Up

Taxi light	Off
Parking brake	Set
Fuel selector	Fuller tank
Mixture	Full rich
Prop	Full increase
Throttle	2000 RPM
Engine instruments	In limits
Magnetos Check (150/50 max)	
Prop Exercise (Then full)	
Mixture	Function check
Alternate air	Check
Annunciators	Test
Vacuum	4.8" ~ 5.1" Hg
Throttle	Full closed
RPM & Oil pressure	In limits
Throttle	1000 RPM
Manifold pressure line	Drain
Parking brake	Release
Departure briefing	Complete
T/O briefing	Complete

Line up / Take off

Pitot heat	On/as requ.
Landing light	On
Transponder	Set ALT
Flaps	Set

Aux fuel pump	Verify off
Door & Window	Secured
Parking Brake	Released
Landing Light	On
Runway	Identify
Time off	Noted
T/O power	36" 2575RPM
Rotate	70-77 KIAS
Initial climb	79/97 KIAS

V-Speeds (in KIAS)

Vr	70-77	Va	97-124
Vx	79	Vfe	108
Vy	97	Vle	133
Climb	104	Vlo	133 Dn
		Vlo	111 Up
Vs	66	Vno	152
Vs0	61	Vne	193

Vref Flaps 40°	75
Best Glide	97
Max Dem XW	17

After Take off

Flaps	Check up
Gear	Up (<111KIAS)
Power	41" Hg Max
Propeller	2575 RPM
Landing light	OFF

Cruise Climb

Power	33" Hg
Propeller	2450 RPM
Mixture	As req'd
Climb speed	104 KIAS

Cruise

Power	33.8" Hg
Propeller	2400 RPM
Altimeters	Set+compare
Mixture (Best Eco)	Peak EGT
Mixture (Best Pwr)	100° Rich

Approach

Approach briefing	Completed
Altimeters	QNH+compare
Fuel balance L/R	Check
Landing light	On
Seat belts	Tighten
Parking brake	Released
Fuel selector	Fullest tank
Mixture	Set

Final Approach

Propeller	Full increase
Flaps	Set (108 max)
Speeds	100/90/75 KIAS
Gear	Down (133 max)
Brakes	Check

After Landing

Alternate air	Off
Time	Check
Transponder	As req'd

Flaps	Up
Landing light	Off
Taxi light	On
Pitot heat	Off
Mixture	Leaned?

Parking

Taxi light	Off
All electric except ACL	Off
Turbo cool down	5 Min
Throttle	Idle
Avionic master	Off
Mixture	Idle cut-off
Magnetos	Off
Battery & Alternator	Off

Securing the Aircraft

Hobbs/Tach	Record
Controls	Secure
Door & Window	Secure
Tie downs	Secure

Soft Field Takeoff

Flaps (2 nd notch)	25°
Accelerate	53-64 KIAS
Ctrl wheel back pressure	
Lift off accel.	59- 68 KIAS
Flaps up	79 KIAS

PRIMING TABLE (TIME IN SECONDS)

OAT [°C]	-20	-10	0	+10	+20	+30
minimum	22	14	9	5	3	3
maximum	27	18	12	7	4	4

FINAL SPEED CALCULATION

MASS FACTOR

Speed reduction on Final: 1 kt per 100 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}
75 KIAS	6 KT	Windspeed below 10%	0 KT	75 KIAS
75 KIAS	20 KT	Windspeed above 10%	10 KT	85 KIAS
75 KIAS	20 up to 36 KT	Gustspeed above 10%	18 KT	97 KIAS

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

BANK FACTOR

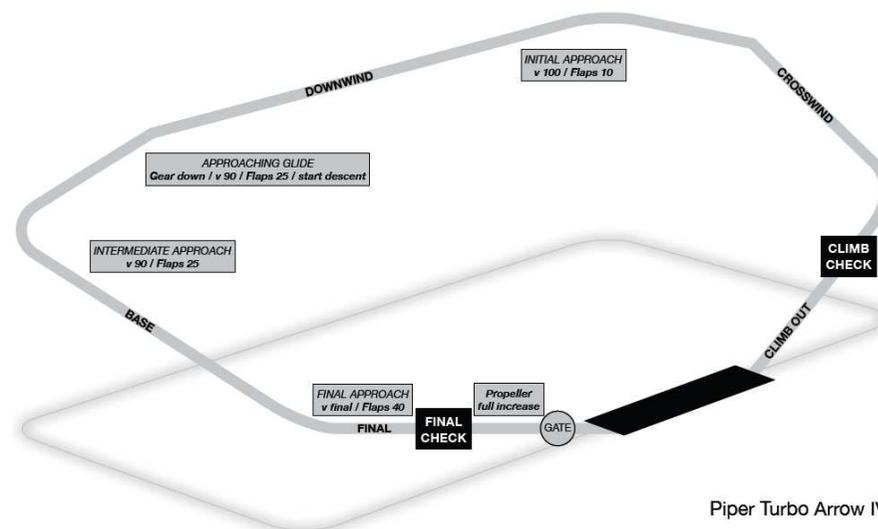
if bankangle for turning final is more than 25°:

Add 5 kt to $V_{intermediate}$

FLIGHTPATH CALCULATION

Flight angle	Gradient [ft/NM], [%]	ROD/ROC [ft/min]	
3°	300 ft/NM = 5%	GS x 5	
4°	400 ft/NM = 7%	GS x 7	
5°	500 ft/NM = 9%	GS x 9	

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



Engine Failure

Altitude sufficient for restart?

NO

Glide 97 KIAS	Establish
Landing site	Select
Mixture	Cut-Off
Battery/Alternator	Off
Magnetos	Off
Fuel selector	Off
Landing gear	As req'd
Cabin door	As req'd

Loss of Fuel Pressure

Aux fuel pump	On
Fuel selector	Opposite tank

Flooded Engine Start

Throttle	Full fwd
Battery & Alternator	On
Aux fuel pump	Off
Mixture	Idle cut-off
Starter	Engage
Mixture (firering)	Full rich
Throttle	1000 RPM
Engine instruments	Check

Hot Engine Start

Throttle	½ open
Battery & Alternator	On
Mixture	Full rich
Starter	Engage
Throttle	1000 RPM
Engine Instruments	Check

Engine Roughness

Alternate air On

If roughness continues after one minute:

Mixture	Adjust
Aux fuel pump	On
Fuel selector	Opposite tank
Engine instruments	Check
Magnetos	Check

If operation on either magneto is satisfactory, continue on that magneto at reduced power with mixture full rich. Land as soon as practicable.

Propeller Overspeed

Throttle	Retard
Oil pressure	Check
Propeller	Full decrease
Airspeed	Reduce
Throttle	As req'd

YES

Glide 97 KIAS	Establish
Landing site	Select
Fuel selector	Opposite tank
Aux fuel pump	Unlatch - HI
Mixture	Full rich
Alternate air	On
Throttle	Set
Magnetos	Check

Engine restarted?

NO

Mayday	Transmit
Mixture	Cut-off
Battery/Alternator	Off
Magnetos	Off
Fuel selector	Off
Landing gear	As req'd
Cabin door	As req'd

Engine Fire during Start

Starter	Engage
Mixture	Cut-off
Throttle	Open
Primer	Off
Aux fuel pump	Off
Fuel selector	Off

Evacuate if fire continues

Engine Fire during Taxi

Airplane	Stop
Mixture	Cut-off
Fuel selector	Off
Battery & Alternator	Off

Evacuate aircraft

Engine Fire In Flight

Fuel selector	Off
Throttle	Closed
Mixture	Cut-off
Glide	Establish
Landing site	Select
Mayday	Transmit
Magnetos	Off
Battery & Alternator	Off

Cabin Fire In Flight

Battery & Alternator	Off
Electrical equipment	Off
Vents	Open

Loss of Oil Pressure/ High Oil Temperature

Land as soon as practicable. prepare for imminent engine failure

Spin Recovery

Throttle	Idle
Ailerons	Neutral
Rudder	Opposite of spin
Control wheel	Full forward

Rudder and control wheel neutral when rotation stops

Pitch	Level
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YES

Aux fuel pump	Off
Alternate air	Closed

Leave fuel selector on present tank and land as soon as practicable

Emergency Gear Extend

Master switch	On
Circuit breakers	Check in
Panel lights	Off (daytime)
Gear bulbs	Check

Airspeed Below 88 KIAS

Gear selector Down

Gear circuit breaker Pull out

Emerg.gear lever Push down

- Main Gear Failure Remains -

Yaw AC with the rudder abruptly from side to side

- Nose gear not lock down -

Speed Reduce lowest

Power lowest safe operation

-Nose Gear still not down-

Gear circuit breaker In

Gear selector UP

Gear selector Down

Electrical Failure

Ammeter Check

If Ammeter indicates zero

ALT switch Off

Reduce electrical load to min

ALT circuit breaker Check

ALT switch On

If power not restored

ALT switch Off

Land as soon as practicable

Electrical Overload

Alternator switch	On
Battery switch	Off

If alternator loads reduced

Electrical load Reduced

If alternator loads NOT reduced

Alternator switch	Off
Battery switch	As req'd