Fly Safe! - Training for Pilot Competence
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Quick Reference Handbook

Non-Normal-Checklist

Piper PA-28-181
Archer III

Memory Items

Checklist steps up to the dashed line should be memorized for accomplishment without reference to the procedure.

Checklistenschritte bis zur gestrichelten Linie sollten auswendig gelernt werden, um sie ohne Bezugnahme auf das Verfahren ausführen können.

Emergency Descent

Condition

One or more of these occurs:

- The oxygen supply is interrupted
- A rapid descent is needed

1. Without delay, descend to the lowest safe altitude or 10.000 feet, whichever is higher.
2. Throttle CLOSE
3. Mixture lever ENRICH
4. Maintain speed 125 KIAS

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5. When approaching level off altitude
   - Smoothly reduce rate of descent and level off
   - Add power and stabilize on altitude and airspeed.
6. The new course of action is based on weather, oxygen, fuel remaining and available airports.

Autopilot Mailfunction

Condition

One or more of these occurs:

- Autopilot Malfunction
- Autopilot is not performing as expected or commanded

1. AP Disconnect Switch PUSH
2. AP Circuit Braker PULL
3. Fly the airplane manually

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Electric Trim Malfunction

Condition

One or more of these occurs:

- Trim Malfunction
- Trim Runaway

1. Trim Interup / AP Disconnect Switch PUSH and Hold
2. Trim Circuit Braker PULL
3. **Release** Trim Interup / AP Disconnect Switch
4. Fly the airplane manually and do not re-engage the AP

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AHRS* Failure PFD

Condition

One or more of these occurs:

- Attitude and / or Heading Data on the PFD is lost
- Completed PFD failure

1. Maintain control by reference to standby Instruments
2. AHRS Circuit Braker CHECKED

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3. AHRS Circuit Braker RESET
4. During alignment keep wings straight and level in un-accelerated flight
5. Choose one:
    - AHRS Alignment successful
      Continue normal operation
    - AHRS Alignment not successfully
      Go to step 6
6. Continue flight in reference to standby instruments
7. Try to avoid IMC
8. Divert to the nearest suitable airport providing SRA or PAR approach

* Attitude and Heading Reference System

Engine Failure in Flight

Condition

Engine severe damage or engine failure

1. Safe Airspeed — 76 KIAS
2. Suitable Field — SELECT

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3. Choose one:
   - Engine restart is considered or required

     Go to step 4
   - No engine restart is considered

     Go to the Engine Inoperative Landing Checklist
4. Flaps — UP
5. Fuel Pump — ON
6. Fuel Selector — Other Tank
7. Mixture lever — RICH
8. Magnets — BOTH ON
9. Starter — ENGAGE
10. Choose one
    - Engine restart is successful

      Go to step 11
    - Engine restart is not successful

      Go to the Engine Inoperative Landing Checklist
11. Fuel Pump — OFF
12. Power — SET

Engine Roughness

Condition

1.	Mixture lever	ADJUST
2.	Alternate Air	OPEN
3.	Fuel Pump	ON
4.	Fuel Selector	SWITCH
5.	Engine Gauges	CHECKED
6.	Magnetos	L / R / BOTH

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7. Choose one:
   - Engine is running smoothly again
     Go to step 8
   - Engine roughness persists
     Go to step 9
8. If engine operation is satisfactory on either magneto, proceed on that magneto at reduced power, with full rich mixture to next available airport.

9. If engine roughness persists, prepare for a power off landing
10. Land nearest suitable airport

Deferred Items

Approach Checklist

Altimeter	_____
Approach Briefing	Completed

Landing Checklist

Mixture	RICH
Flaps	40° SET

Engine Inoperative Landing

Condition

A landing will be made without engine power

1.	Throttle lever	CLOSE
2.	Mixture lever	CUTOFF
3.	Fuel Selector	OFF
4.	Fuel Pump	OFF
5.	Magneto SWITCHES	OFF

Deferred Items

Approach Checklist

Altimeter	_____
Approach Briefing	Completed
Passenger Briefing	Completed

Landing Checklist

Flaps	40° SET

Short prior touchdown and landing assured

Advice the tower	
Battery Master	OFF

If evacuation will be needed after landing, go to the last page of this non-normal checkllist for evacuation procedure.

FUEL Imbalance

Condition

There is a fuel imbalance between the main tanks.

1.	Fuel Pump	ON
2.	Check no fuel leak exists	
3.	Fuel Selector	L / R TANK

Fire in Flight / Cabin Smoke

Condition

Smoke, fire or fumes occur.

1. Diversion may be needed
2. Self protection — DONE
3. Source of Fire — CHECK
4. Choose one:
    - Source of smoke, fire or fumes is obvious and can be extinguished quickly
      Go to step 5
    - Source of smoke, fire or fumes is not obvious or can not be extinguished quickly
      Go to step 14
5. Isolate and extinguish source — DONE
6. Electrical Power — REMOVE
   Remove power from the affected equipment by switch or CB
7. Fresh Air vents — OPEN
8. Cabin Heat — OFF
9. Maintain speed — 125 KIAS
10. Cockpit Emergency Window — OPEN
11. Choose one
    - Source is visually confirmed to be extinguished and the smoke or fumes are decreasing
      Go to step 12
    - Source is <u>not</u> visually confirmed to be extinguished and the smoke or fumes are decreasing
      Go to step 14
12. Continue the flight at the captains discretion
13. Consider diversion to the nearest suitable airport

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14. Divert to the nearest suitable airport while continue the checklist
15. Descent to the lowest safe altitude
16. Fresh Air vents — OPEN
17. Cabin Heat — OFF
18. Maintain speed — 129 KIAS
19. Cockpit Emergency Window — OPEN
20. Consider an immediate landing if the smoke, fire or fumes situation becomes uncontrollable
21. If evacuation will be needed after landing, go to the last page of this non-normal checklist for evacuation procedure.

Generator Malfunction

Condition

A generator malfunction occur.

1. Ammeter CHECKED
2. Electrical load REDUCE
3. Alternator Switch OFF
4. Alternator Circuit Brakers RESET
5. Alternator Switch ON
6. Choose one:
    - Alternator light **stays illuminated**
      Go to step 7
    - Alternator light **extinguishes** and comes back **online**
      Continue normal operation

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7. Electrical load REDUCE
8. Plan to land at the nearest suitable airport. Remaining battery power last approx. 30 minutes only, with a well charged battery. The battery is the only remaining source of electrical power
9. If the battery is depleted, the landing gear must be lowered using the emergency extension procedure. The gear position light will be inoperative.

Pitot Heat

Condition

The probe heat system has failed.

1. Check Circuit Braker CHECKED
2. Pitot Heat switch OFF
3. Pitot Heat switch RESET ON
4. Choose one:
    - Pitot Heat annunciator extinguished
      Continue normal operation
    - Pitot Heat annunciator **not** extinguished
      Avoid icing conditions

Static Port Blocked

Condition

Static ports are blocked by ice accumulation or obstacle

Note

A blocked static port will cause the altimeter to freeze at a constant value, the altitude at which the static port became blocked.

The vertical speed indicator will read zero and will not change.

1. Alternate static source valve OPEN

Suction Pump Failure

Condition

One or more of these occurs:

- One or more suctions instruments are failed
- Suction pressure is not in the green band
- Suction pump fail annunciation is illuminated

1. Maintain control by reference to Turn & Bank indicator only
2. Cover ADI to avoid distraction by false indications

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3. Continue flight in reference to standby instruments
4. Use all remaining resources / equipment as available
5. Try to avoid IMC
6. Divert to the nearest suitable airport providing SRA or PAR approach

Ditching

Condition

A landing will be made in water

Note:

- High Winds / Heavy Seas plan a approach into the wind
- Light Winds / Heavy Swells plan approach parallel to the swells

1.	ATC	MAYDAY
2.	ELT	ACTIVATE
3.	Speed	65 KIAS
4.	Descent Rate	300 ft/min
5.	Doors	UNLATCH
6.	Seats	UPRIGHT
7.	Seatbelts	FASTENED
8.	Jettison or secure heavy objects in the cabin	
9.	Flaps	40° SET

Ditching Procedure Review

Touch Down with a level attitude at a descent rate of 300 ft/min.

Prior Touch Down cushion your face with a folded coat or other soft items.

After Touch Down and a complete stop of the aircraft, evacuate the aircraft via all available exist. Do not inflate the life vests in the cabin.

Evacuation

Condition

Evacuation is needed.

1.	Parking Brake	SET
2.	Flaps	UP
3.	Mixture lever	CUTOFF
4.	Fuel selectors	OFF
5.	Magnetos	OFF
6.	Advise the passengers to evacuate	
7.	Advise the tower	
8.	Battery Master	OFF