



# Expanded Checklist and Procedures

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# 0 Administration

## 0.1 Log of Revision

Date	Issue	Revision (REV)	Changes
24.08.2023	1	0	Erstausgabe

## 0.2 Highlights of Revision

Date	Issue	Revision (REV)	Highlights of Revision
24.08.2023	1	0	Erstausgabe gemäss OM ATT07 mit verschiedenen Anpassungen und Änderungen. Annäherung an Sphair Checklisten und Procedures.

# 1 Einleitung

Die Expanded Checklist der SwissPSA ist eine Lernhilfe für die Grundschulung sowie für Einweisungen und Umschulungen. Dieses Dokument dient als Leitfaden für das Erlernen von Checks und Verfahren und gibt wo nötig zusätzliche Informationen, um die Checks und Verfahren auf das Schulflugzeug anzupassen. Es ersetzt in keiner Weise das Airplane Flight Manual noch das Buch "Grundlagen und Verfahren"(GuV). Im Gegenteil, die erwähnten Unterlagen dienen als Grundlage für dieses Dokument. Das AFM in der letztgültigen Version ist rechtlich bindend. Die Checks und Procedures in dieser Expanded Checklist müssen zusammen mit dem GuV und dem AFM erarbeitet werden.

Grundsätzlich wird in einem Flugzeug unterschieden zwischen Procedures (Verfahren) und Checks (Kontrollen) [2.9.2, 2.9.3].

Eine Checkliste enthält vor allem Checks, die zur sicheren Operation des Flugzeuges notwendig sind. Die erweiterte Checkliste enthält jedoch nicht nur die eigentlichen Checks, sondern auch Hinweise auf Manipulationen und Verfahren. Der Unterschied zwischen Procedures und Checks besteht darin, dass Procedures zu einem bestimmten Zeitpunkt durchgeführt werden müssen und meistens die Konfiguration oder den Flugweg (Flugprofil) des Flugzeuges beeinflussen. Checks hingegen sind Kontrollen, die die sichere Flugzeugoperation gewährleistet, sich aber nicht auf die Konfiguration des Flugzeuges auswirken.

In der vorliegenden erweiterten Checkliste können unter Anleitung eines Fluglehrers alle notwendigen Hinweise, Manipulationen und Verfahren gefunden werden und soll damit eine Hilfe während der Ausbildung auf dem neuen Flugzeugtyp sein.

Die nachstehenden Punkte sind bei der Anwendung der Flugzeugcheckliste zu berücksichtigen:

- Mit einem vertikalen schwarzen Balken markierte Checks sollen, wenn sich das Flugzeug im Flug oder in Bewegung befindet, auswendig durchgeführt werden. Ein grauer vertikaler Balken bedeutet, dass das auswendige Durchführen eines Checks optional ist. Während dem sich das Flugzeug am Boden befindet, ist die Zuhilfenahme der Checkliste erlaubt.
- Alle anderen Checks am Boden (Flugzeug im Stillstand), **müssen** mit der Checkliste ausgeführt werden.
- Jeder Check beginnt mit dem Namen des Checks (z.B. „CLIMB CHECK“) und wird mit z.B. „CLIMB CHECK COMPLETED“ abgeschlossen.
- „AS REQUIRED“ in der Checkliste verlangt eine Antwort, die der aktuellen Situation entspricht. Z.B. „Canopy CLOSED“ oder „Canopy OPEN“.

( ) Nummern in Klammern verweisen auf die entsprechenden Kapitel im Airplane Flight Manual.

[ ] Nummern in eckigen Klammern verweisen auf die entsprechenden Kapitel im Buch Grundlagen und Verfahren (GuV).

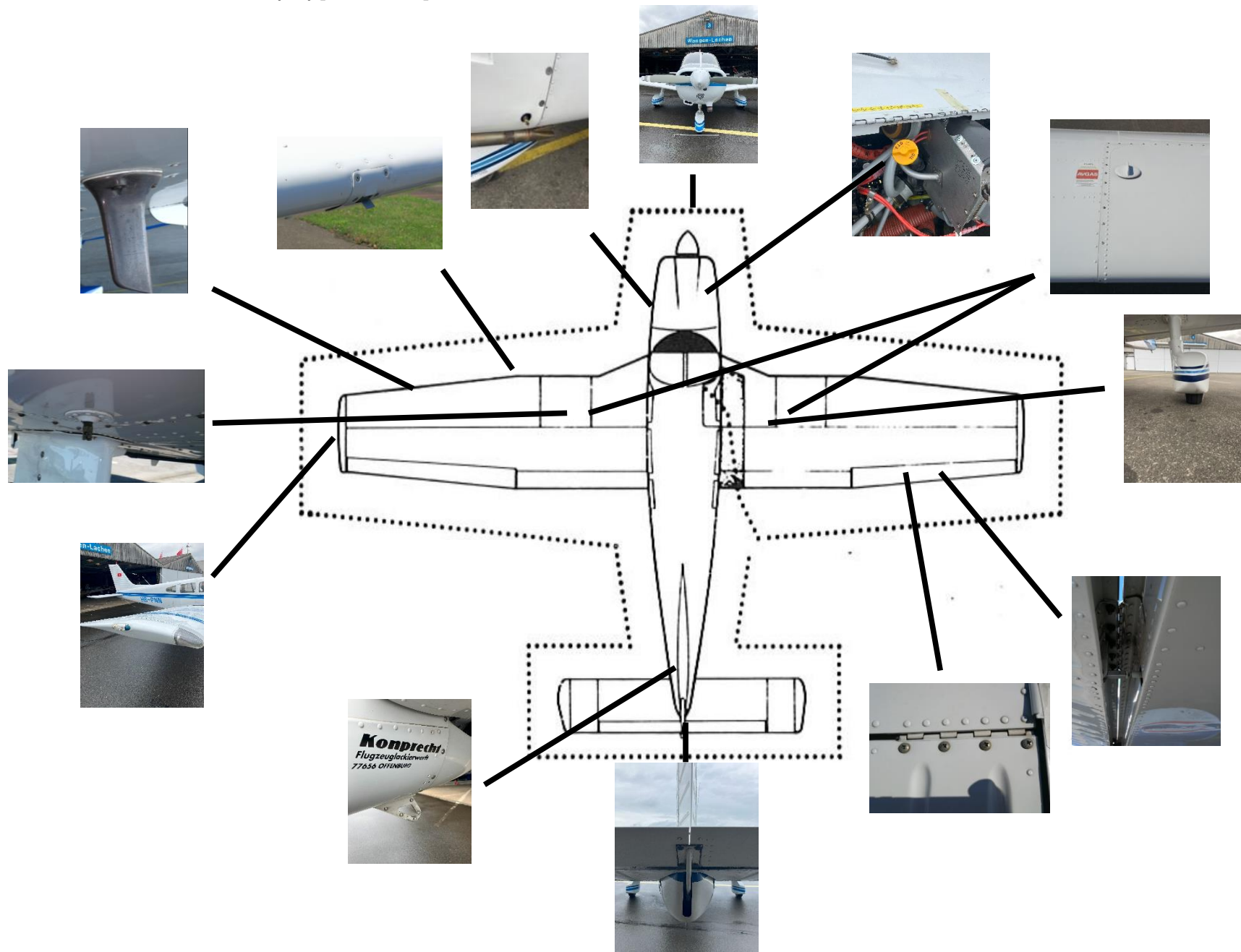
## 2 Verwendung von Lichtern

- **Rotating Beacon** (rotes Drehlicht)  
Vor Inbetriebnahme des Triebwerks ein, nach Abstellen aus.
- **Navigation Lights** (Positions-Lichter)  
Nach Inbetriebnahme des Triebwerks, bis vor Abstellen des Triebwerks.
- **Taxi Lights** (Rollscheinwerfer)  
Werden gemäss AFM und nachfolgenden Procedere (GuV) verwendet.
- **Landing Lights** (Landescheinwerfer)  
Werden beim Line Up Check ein- und beim After Landing Check wieder ausgeschaltet.
- **Anti Collision Lights** (Weisse Blitzlichter)  
Die Antikollisions-Warnlichter werden beim Line Up Check ein- und beim After Landing Check wieder ausgeschaltet  
***Dürfen nicht als Rotating Beacon-Ersatz verwendet werden!***

## 3 Verwendung von HDG-Bug & ALT-Selector

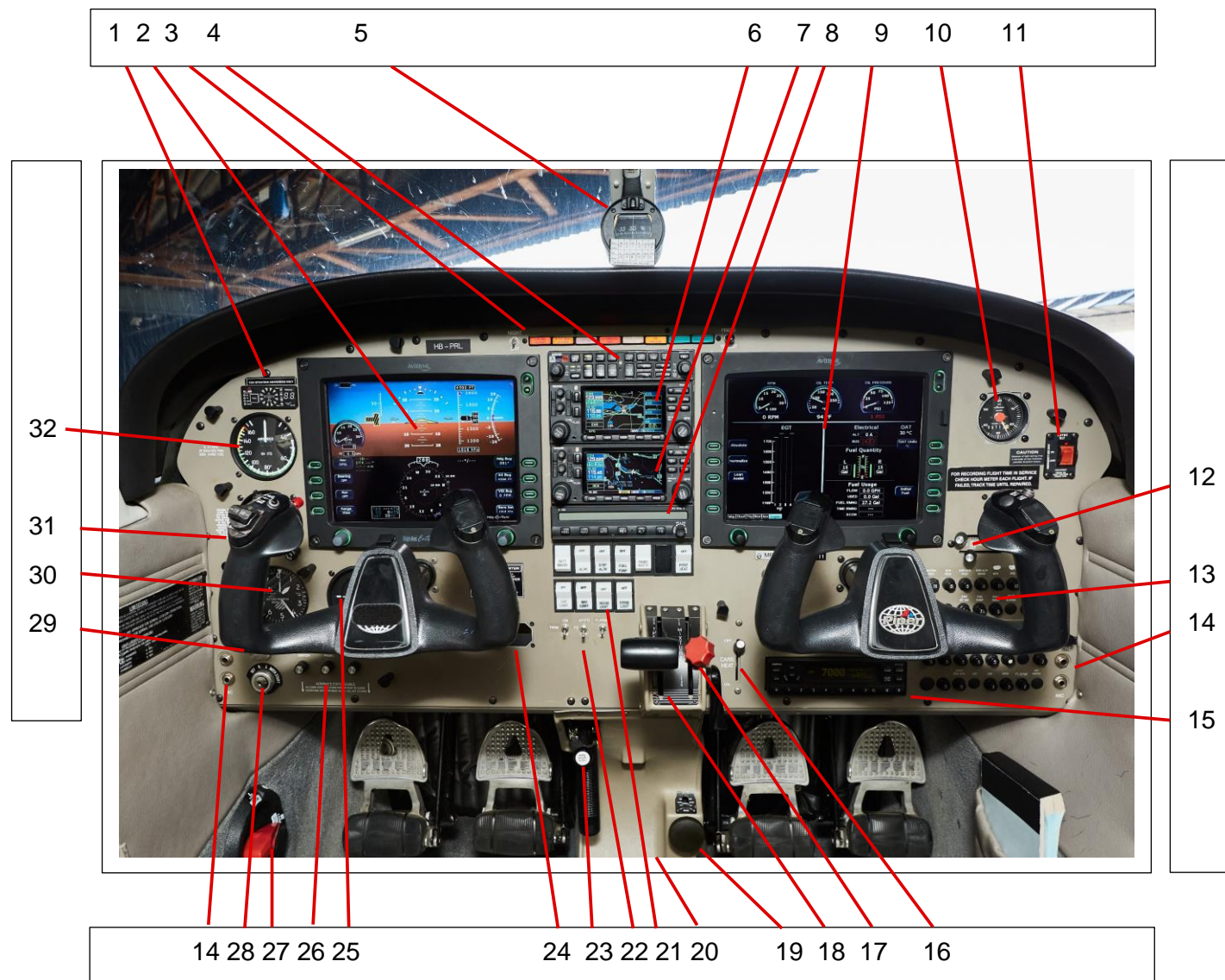
Heading Bug und Altitude Selector sind Zusatzhilfen, welche in Zuge der Procedures gesetzt werden sollten und nicht zwingend in den Flow der Checkliste eingebaut werden müssen. Sie sollen an sinnvollen Stellen wie z.B. DEP- oder ARR-Briefing gesetzt werden. Im Flug werden sie kontinuierlich der Situation angepasst nachgeführt.

## 4 Aircraft Walk-Around (4.5) [2.3.4; 2.3.5]



## 5 Cockpit Piper PA-28-161 Warrior III (7.19)

- 1 FLARM
- 2 PFD (Flight instruments / CDI)
- 3 Annunciator lights
- 4 Audio panel
- 5 Magentic compass
- 6 COM / NAV (GNS430)
- 7 2. COM / NAV (GNS430)
- 8 Autopilot
- 9 MFD (Engine Instruments / Fuel)
- 10 Flight time counter
- 11 ELT
- 12 Heat & defrost control
- 13 Circuit breakers
- 14 Headset jacks
- 15 Transponder (GTX330)
- 16 Carburetor heat control
- 17 Mixture control
- 18 Throttle
- 19 Rudder trim
- 20 Flaps lever
- 21 Switches for Batterie/Master –  
Alternator – Standby Alternator –  
Fuel pump – Radio Master -  
Pitot Heat - Landing lights –  
NAV lights – Recog. Lights –  
Strobe Lights
- 22 Switches for Trim – AP/FD  
(Autopilot/Flightdirector) - FLARM
- 23 Parking brake
- 24 DME
- 25 Turn Coordinator (Standby)
- 26 Cockpit Lights
- 27 Fuel tank selector
- 28 Ignition
- 29 Primer
- 30 Altimeter (Standby)
- 31 Attitude Indicator (Standby)
- 32 Airspeed Indicator (Standby)



## 6 Korrekte Ölstandkontrolle (Operator's Manual Lycoming O-360, HO-360, IO-360, AIO-360, HIO-360 & TIO-360 Series, page 3-11)



### Ablauf der Kontrolle

Haubenschluss (2fach) mittels Flügelschrauben öffnen und die Haube aufklappen. Den Ölmesstab (gelber Deckel) im Gegenuhrzeigersinn losschrauben und aus der Führung ziehen. Der Ölmesstab enthält eine Skala in Quarts. Die minimale, sichere Ölmenge beträgt 2 Quarts. Das Minimum bei der ASFG liegt bei 4 Quarts. Vor dem Flug muss so viel Öl im Motor sein, dass diese Minimalmenge von 4 Quarts während der gesamten Flugdauer nicht unterschritten wird. Der Motor fasst maximal 8 Quarts. Nach der Kontrolle den Ölmesstab nur mit geringer Kraft festschrauben, damit er auch nach Wärmeentwicklung durch den laufenden Motor lösbar bleibt. Nach dem Schliessen der Motorhaube auf den korrekten Sitz des Haubenschlusses und der Flügelschrauben achten.

Die ASFG verwendet Mehrbereichs ÖL 15/W50

### Achtung!

- Vor dem Durchdrehen des Propellers, Zündung OFF und Schlüssel entfernen
- Bei heissem Motor keine Ölkontrolle durchführen – Verbrennungsgefahr!
- Niemals darf der Propeller gegen die Drehrichtung gedreht werden!

## 7 Betankung (...) [2.3.2]

### Zuerst Flugzeug erden, danach erst tanken!



**Erden:** Anbringen des Kabels am Auspuff zur Erdung.

**Tanken:** Tankdeckel entfernen und vorsichtig auf dem Flügel ablegen. Griff der Zapfpistole nicht auf dem Flügel aufsetzen



**Drainen:** Unter jedem Flügel und unter dem Motor auf der linken Seite sind die entsprechenden Drain-Ventile.

Nach erfolgter Sichtprüfung (Wasser, sonstige Kontaminationen) kommt der abgelassene Treibstoff in den Drain-Abfluss an der Tankstelle. Kraftstoff (ohne Verunreinigungen) kann wieder in den Tank geleert werden



# 8 Checks und Procedures

CHECK / PROCEDURE	Wording (if different from CHECKLIST)	Remarks
<b>8.1 AIRCRAFT PREPARATION (4.5, 4.9) [2.3, 2.4, 2.10]</b>		
1. Control wheel.....RELEASE BELTS Avionics .....OFF Fuel quantity.....CHECK VISUALLY Ignition.....OFF		Check Fuel Quantity by open filler caps and check indication visually.
2. Exterior .....CHECK FOR DAMAGE Control surfaces .....CHECK FOR INTERFERENCE Hinges .....CHECK FOR INTERFERENCE Wings .....FREE OF ICE, SNOW, FROST		...
3. Stall warning.....CHECK		
4. Fuel tanks.....CHECK VISUALLY, SECURE CAPS Fuel tank sumps .....DRAIN AND CHECK FOR SEDIMENT Fuel vents.....OPEN		
5. Main gear struts.....PROPER INFLATION (4.5 in.) Tires .....CHECK Brake blocks.....CHECK	...	
6. Pitot head .....REMOVE COVER – HOLES CLEAR		
7. Windshield.....CLEAN		
8. Propeller and spinner .....CHECK Fuel and oil.....CHECK FOR LEAKS Oil.....CHECK LEVEL		

**CHECK / PROCEDURE****Wording (if different from CHECKLIST) Remarks**

- 
- Dipstick..... PROPERLY SEATED
  - Cowling..... SECURE
  - Inspection covers..... SECURE
  - 8. Nose wheel tire..... CHECK
  - Nose gear strut..... PROPER INFLATION (3.25 in.)
  - Air inlets..... CLEAR
  - Alternator belt ..... CHECK TENSION
  - 9. Tow bar and control locks..... STOW
  - Baggage ..... STOWED PROPERLY – SECURE
  - Baggage door ..... CLOSE AND SECURE
  - 10. Fuel strainer..... DRAIN AND CHECK FOR SEDIMENT
  - 11. Primary flight controls ..... PROPER OPERATION
  - Cabin door..... CLOSE AND SECURE
  - Required papers ..... ON BOARD
  - Seat belts and harness ..... FASTEN / ADJUST – CHECK INERTIA REEL

**AIRCRAFT PREPARATION COMPLETED**

**CHECK / PROCEDURE****Wording (if different from CHECKLIST) Remarks****8.2 PREFLIGHT CHECK (4.5)**

1. Outside check .....COMPLETED ..... 1
2. Baggage Door .....CLOSED..... 2
3. Aircraft papers .....CHECKED..... 3
4. Aircraft log .....CHECKED..... 4
5. Tow bar .....REMOVED & SECURED ..... 5
6. Cabin .....CHECKED..... 6
7. Loadsheet.....CHECKED..... 7

For details see above & AFM

Baggage, Document-box, Oil-box and any other items must be stored and secured

All flight relevant documents must be available and stowed.

Check for service relevant entries/deficiencies, correctness and remaining hours till maintenance is due.

Tow bar will be stored at hangar wall/pillar for local flights, for flights to other airfields stow it in the baggage compartment.

Acc. AFM & Aircraft Preparation. Check for foreign objects. Baggage, Document-box, Oil-box and any other items must be stored and secured.

ACC. OM 3.3 and OM ANX02 "Leitfaden PPL Ausbildung"

**PREFLIGHT CHECK COMPLETED****8.3 CHECK BEFORE ENGINE START (4.5) [2.5.1]**

1. Cabin door .....CLOSED..... 1
2. Seats .....ADJUSTED & LOCKED ..... 2

In hot conditions door may remain open

Panel must be reachable

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

3.	Parking brake .....SET ..... 3		Pull brake lever and depress knob
4.	Seat belts & harness .....FASTENED ..... 4		
5.	Electrical consumers .....OFF ..... 5		
6.	Circuit breakers .....CHECKED ..... 6		Check visually and if necessary tactile, if all the CB are in (no white collar visible)
7.	Radio master .....OFF ..... 7		...
8.	Battery master & alternator .....ON ..... 8	...	
9.	Fuel quantity .....LEFT, RIGHT; ENDURANCE ..... 9	Left tank .... litres, right tank .... litres, total .... litres, endurance .... hours	Calculate the endurance according to the total fuel on board with a fuel flow of 10 Gal/hour.
10.	Fuel selector .....FULLER TANK ..... 10		...
11.	Mixture .....RICH ..... 11		
12.	Carburetor heat .....OFF ..... 12		
13.	Throttle .....IDLE ..... 13		...

**CHECK BEFORE ENGINE START COMPLETED**

**8.4 ENGINE START (4.5) [2.5.2, 2.5.3]**

1.	Electric fuel pump .....ON ..... 1		Fuel pump will be audible.
2.	Priming .....ACC. AFM ..... 2		Cold: 5-10° / hot: NIL

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

3.	Throttle .....	0.5 cm.....	3
4.	Propeller area .....	CLEAR .....	4
5.	Ignition key .....	START.....	5
6.	Engine running .....	SET 1000 RPM .....	6
7.	Oil pressure .....	NO ANNUNCIATOR IND. (within 10").....	7

...

There must be **no** Annunciator (low oil pressure) within 10 seconds after engine start, otherwise shut down the engine immediately!

**ENGINE START COMPLETED**

**8.5 CHECK AFTER ENGINE START (4.5) [2.5.3]**

1.	PDF & MFD .....	ON .....	1
2.	Alternator output .....	CHECKED.....	2
3.	Annunciator lights .....	CHECKED.....	3
4.	Electric fuel pump .....	OFF, PRESSURE CHECKED .....	3
4.	Ventilation, heater, defroster.....	AS REQUIRED.....	4

...

Startup PFD and MFD takes a while, check brightness of PFD.

...

Check the alternator ammeter for an indication of output.

Press-to-test the function of the annunciator lights. All lights should be off after releasing the test button.

Switch off fuel pump and keep the finger on the switch to be able to immediately switch it back on again should the mechanical pump fail. "Pressure checked" serves as verification of the mechanical fuel pump functionality.

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

5. Navigation lights .....ON ..... 5

6. Radio Master .....ON ..... 6

7. PFD, MFD & Flight instruments .....SET & CHECKED..... 7

Flight instruments: Air Speed indicator zero, Attitude indicator erected and stable, Altimeter set to field elevation, Turn coordinator level and ball centered, Directional gyro set to magnetic heading, Vertical speed indicator indicating zero.

**Check from left to right, from top to bottom.**  
Due to the fact, that LSPV has no ATIS, the altimeter will be set to the field elevation. Altitude of LSPV is 1335 ft. Verify the QNH with the actual weather data, if possible.

8. Engine instruments.....CHECKED..... 8

Oil pressure ..., Oil temperature ..., Fuel pressure

Announce values or at least ranges (green, yellow, red)  
Point out the values which are not green.

9. Avionics COM, NAV, SSR .....SET & PRESELECTED..... 9

121.500 checked  
COM ... (LSPV: 123.205) / STBY 121.500 (124.7 or next working frequency), NAV not required (or insert the correct setting),  
Transponder: ALT 7000 (or acc. ATC)

Usually on COM the emergency frequency 121.500 is active. Push the Volume/Squelch Button to verify the volume. Then set COM to AD FREQ (123.205 for LSPV) and 121.500 or the next working frequency on STBY. Usually, no action is required for Navigation equipment, else set it up. Verify Transponder-code set to 7000 and ALT or acc. ATC instructions.

**CHECK AFTER ENGINE START COMPLETED**

**8.6 Taxi (4.5) [5.3.3, 5.3.4]**

TIME ..... - NOTE

Only at the first taxiing for departure:  
Note block off time and flight time counter

Taxi area..... - CLEAR

...

**CHECK / PROCEDURE****Wording (if different from CHECKLIST) Remarks**

Power ..... - 1000 RPM SET

Parking brake ..... - RELEASED

**8.7 TAXI CHECK (4.5) [5.3.5]**

1. Brakes &amp; steering ..... CHECKED ..... 1

2. Gyro instruments ..... CHECKED ..... 2

**TAXI CHECK COMPLETED****8.8 Stop taxi (4.17) [5.3.3]**

Parking brake ..... - SET

Power ..... - 800-1000 RPM

Perform the Taxi Check items during taxi when convenient as a procedure. Thereafter perform the "TAXI CHECK". In this respect the Taxi Check is an exception, where the items are performed first as a procedure and then checked according to the checklist.

Brakes checked  
Steering checked

Check function of the brakes  
Check function of the steering

Attitude indicator erected / stable,  
Directional gyro right increasing / left decreasing,

Check flight instruments during turn

Pull brake lever and depress knob

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

**8.9 RUN UP (4.5) [2.6.6]**

1.	Parking brake .....SET ..... 1		Pull brake lever and depress knob
2.	Oil temperature.....CHECKED..... 2		At least 3min of engine running
3.	Zone behind aircraft.....CLEAR ..... 3		...
4.	Throttle .....SET 1700 RPM ..... 4		...
5.	Oil pressure, Suction .....GREEN ARC ..... 5		...
6.	Magnetos / Ignition (L-B-R-L-B).....CHECKED (max. -175 /Δ50 RPM)..... 6	Magnetos: Left drop ..., right drop ..., difference ..., within limits	Sequence of magnetos: Check on BOTH, then LEFT – BOTH – RIGHT via LEFT back to BOTH Max. drop is -175 RPM and max. difference between left and right magneto is 50 RPM.
7.	Mixture.....CHECK FUNCTION ..... 7	Mixture...checked	Verify a drop of the RPM and simultaneously an increase of the EGT
8.	Carburetor heat .....CHECK FUNCTION ..... 8	Carburetor heat...checked	Verify a RPM-drop, PUSH DOWN the carburetor heat knob, then wait for a few seconds, if a drop of the RPM is recognizable the function is ok. PULL UP the carburetor heat knob (OFF)
9.	Throttle idle.....CHECKED (500 – 700 RPM)..... 9		Pull the throttle slowly to the idle position. The indication should be between 500 and 700 RPM
10.	Throttle .....SET 1000 RPM ..... 10		

**RUN UP COMPLETED**

CHECK / PROCEDURE

Wording (if different from CHECKLIST) Remarks

**8.10 \*\*ATIS / AD information\*\* [13.2.2]**

If available check. At uncontrolled Airfields normally neither ATIS nor AD information is available

**8.11 \*\*Departure Briefing\*\* [12.2.1]**

For LSPV Airfield 1335 ft AMSL, Runway in use... , HDG bug set, condition ... , wind ...  
 Outbound ... , initial climb to ...ft, ALT selector set,  $V_{ROT}$  50 KIAS,  $V_{climb (init)}$  63 KIAS,  $V_Y$  79 KIAS,  $V_{Best\ Glide}$  73 KIAS  
 Engine failure on ground: Call "Stop", power idle and apply brakes  
 Any malfunction after Take-off below 1000ft AAL, which is ...ft AMSL: nose down, land straight ahead (within 30° L/R).  
 Above .... ft AMSL return on airfield possible

1. Airfield and Runway in use (LSPV 1335 ft AMSL: 26 or 08), Set and confirm HDG bug to RWY HDG / condition of the ground (wet, dry, soft, ...) / wind (light head wind, wind from the left, ....)
2. Routing and altitude: Outbound (LSPV: Seedamm or Schmerikon), initial climb to ...ft.
3. Speeds (acc. table at the end)
4. Abnormal Situation; calculate Field elevation plus 1'000 ft; from there a return to the field is possible considering wind (for LSPV: 1335 ft)

**8.12 CHECK BEFORE DEPARTURE (...) [12.2.3]**

1. Seat position.....CHECKED AND LOCKED..... 1
2. Electric fuel pump .....ON ..... 2
3. Fuel quantity .....LEFT, RIGHT; ENDURANCE ..... 3
4. Fuel selector valve.....FULLER TANK ..... 4
5. Mixture.....RICH / AS REQUIRED ..... 5
6. Carburetor heat .....OFF ..... 6
7. Friction lock .....SET ..... 7
8. Magnetos.....BOTH ..... 8

Left tank .... litres, right tank .... litres, total .... litres, endurance .... hours

Recheck the Fuel quantity, which must be about the same amount as before

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

9.	Trims .....SET FOR DEPARTURE (2) ..... 9		Elevator and rudder trim
10.	Flaps.....SET FOR DEPARTURE ..... 10		Flaps position according to AFM section 4.5
11.	Controls .....FREE AND CORRECT ..... 11	Left up, rear up, right up, rear down	CHECK for free movement and correct control surface deflections
12.	Flight instruments & avionics .....SET FOR DEPARTURE ..... 12	E.G.: Re-Checked and Transponder set.	Recheck or adjust Transponder to ALT 7000 (or acc. ATC) and only other relevant items according to situation
13.	Cabin and pax .....SECURED ..... 13		
14.	Departure briefing.....COMPLETED ..... 14		Refer to Chapter 8.11

**CHECK BEFORE DEPARTURE COMPLETED**

**8.13 LINE UP CHECK (...) [12.3.1]**

1.	Door and window.....CLOSED & LOCKED..... 1		
2.	Landing light or. recog. Lights..... ON ..... 2		
3.	Strobe Lights .....ON ..... 3		
4.	Time .....NOTED ..... 4		Take off time: actual time plus 1 minute
5.	FLARM .....ON ..... 5		
6.	Approach sector & runway .....CLEAR ..... 6		No traffic on Final and Runway

**LINE UP CHECK COMPLETED**

**CHECK / PROCEDURE****Wording (if different from CHECKLIST) Remarks****8.13.1 Runway identification [12.3.3]**

RUNWAY (L/R, CONCRETE / GRASS) ..... - IDENTIFIED

RWY ... identified

Check and say the correct runway (LSPV: 08 or 26; RWY) before lining up

**8.13.2 RWY / Gyro comparison [12.3.4]**

RUNWAY AND DIRECTIONAL GYRO..... - COMPARED

On centreline, check if runway heading and Directional gyro are identical

**8.13.3 Wind check [12.3.5]**

WIND..... - ...

E.g.: calm, weak head wind, strong wind from the left

For Take-off, no wind, or head wind; Change runway with tail wind.

**8.13.4 Verify takeoff time [12.3.7]**

TIME..... - CHECK

Start timer

CHECK / PROCEDURE	Wording (if different from CHECKLIST)	Remarks
<p><b>8.14 Take off (4.5, 4.23) [12.4.1]</b></p> <p>Brakes ..... - RELEASED AND FREE</p> <p>Power ..... - SET</p>		<p>Static or rolling T/O acc. Situation.</p> <p>Verify that your feet are not applying brakes (heels on the floor).</p> <p>Move Throttle gently full forward. Check if T/O Power is attained.</p>
<p><b>8.14.1 Acceleration checks (4.23) [12.4.2]</b></p> <p>Power ..... - T/O Power SET</p> <p>Air speed ..... - RISING</p>	<p>T/O PWR SET, PWR MIN 2200 RPM</p>	<p>Check if T/O PWR is attained and maintained.</p> <p>Verify that the Air speed is increasing while the aircraft is accelerating.</p>
<p><b>8.14.2 Rotation (4.23) [12.4.7]</b></p> <p>At <math>V_{rotate}</math></p>	<p>Rotate</p>	<p>At <math>V_{rot}</math> (50 kts), rotate the aircraft slowly to the initial climb attitude and accelerate to <math>V_x</math> (63 kts).</p>
<p><b>8.14.3 Clean configuration (4.23) [12.5.2]</b></p> <p>Clear of obstacles ..... - SPEED CHECKED, FLAPS UP</p> <p>Speed ..... - <math>V_Y</math></p>	<p>Clear of obstacles, speed above 63 kts, Flaps Up</p> <p>Speed: 79 KIAS</p>	<p>Clean up Altitude: At or above 300 ft AAL <b>and</b> clear of obstacles, accelerate speed with attitude to above 63 KIAS then flaps up</p> <p>Maintain speed with attitude</p>

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

**8.14.4 Power setting [12.5.4]**

Climb power..... - SET

Power remains at full throttle for climb.

**8.15 CLIMB CHECK (4.5) [12.5.5]**

- 1. Flaps..... UP ..... 1
- 2. Climb power..... SET ..... 2
- 3. Electric fuel pump ..... OFF, FUEL FLOW REMAIN ..... 3

Check climb power set to correct values

Switch off fuel pump and keep the finger on the switch to be able to immediately switch it back on again should the mechanical pump fail.  
"Pressure checked" serves as verification of the mechanical fuel pump functionality.

**CLIMB CHECK COMPLETED**

**8.15.1 Level Off (4.27) [7.4.2]**

**Approaching .... ft**

**Call out ~300 ft prior reaching alt/level**

ATTITUDE..... - SET

POWER..... - SET

2400 RPM... set

Accelerate to approximately cruise speed before setting the cruise power (trim change).  
Set Throttle to 2450 RPM for cruise or 2100

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST)**

**Remarks**

TRIM..... - SET

MIXTURE ..... - SET, (ACC AFM)

RPM for downwind.

Take time to trim the aircraft properly!

Below 5000 ft the mixture should be leaned only if 75% power or less is being used.

**8.15.2 Entry into the climb (4.25) [7.2.3]**

LOOKOUT

MIXTURE ..... - RICH, (OR ACC AFM)

POWER..... - SET (REQUIRED) FULL POWER

ATTITUDE..... - ADJUST FOR TYPE OF CLIMB

TRIM..... - REDUCE LOAD ON CONTROLS

Below 5000 ft the mixture should be leaned only if 75% power or less is being used.

Take time to trim the aircraft properly!

**8.16 CRUISE CHECK (4.5) [6.4]**

1. Altimeter ..... CHECKED (STD / QNH) ..... 1

2. MFD..... CHECKED ..... 2

3. Cruise power ..... SET ..... 3

4. Mixture..... SET ..... 4

Set actual / available QNH

Check Engine Parameters

Periodically verify cruise power setting acc. AFM

Lean to max. EGT, then enrich until EGT is

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

- 5. Fuel quantity .....LEFT, RIGHT; ENDURANCE ..... 5
- 6. Lights .....AS REQUIRED ..... 6

Left tank .... litres, right tank .... litres, total  
.... litres, endurance .... hours

100°F rich of max. EGT.  
Calculate the endurance according to the final fuel amount with the expected consumption

**CRUISE CHECK COMPLETED**

**8.17 \*\*ATIS / AD information\*\* [13.2.2]**

If available check. At uncontrolled Airfields normally neither ATIS nor AD information is available.

**8.18 \*\*Approach briefing\*\* [13.2.6 ff.]**

For Wangen Aerodrome 1335 ft AMSL;  
Expect Runway in use ..., HDG bug set,  
Inbound via ... .. ft, Overhead ... ft,  
Downwind 85 KIAS, base 75 KIAS, final 65 KIAS,  
Missed approach: Circuit acc. VAC,  
Alternate...

1. Airfield and expected Runway in use (LSPV 1335 ft AMSL: 08 or 26), Set and confirm HDG bug to RWY HDG
2. Routing and altitude: Inbound via (LSPV: sector south, 3500ft), Overhead (LSPV: 2500 ft) and Downwind (LSPV: 2500 ft)
3. Speeds (acc. table at the end)
4. Abnormal (Alternate for LSPV are: LSZM / LSZE / LSZK).

**8.19 DESCENT CHECK (4.5) [8.2.5]**

- 1. ATIS .....NOTED ..... 1
- 2. Approach briefing .....COMPLETED ..... 2
- 3. Avionics .....SET & CHECKED ..... 3

COM ... (123.205) / STBY ... (121.500, or next working frequency)  
NAV not required (or as required).  
Transponder: 7000 checked

Refer to Chapter 8.17  
Refer to Chapter 8.18  
COM to AD FREQ (123.205 for LSPV) and 121.500 or the next working frequency on STBY. Usually, no action is required for Navigation equipment, else set it up. Verify Transponder-code set to 7000 or as assigned

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

- 4. Gyro.....CHECKED / SET ..... 4
- 5. Cabin and Pax ..... SECURED ..... 5

**DESCENT CHECK COMPLETED**

**8.19.1 Descent (4.29) [8.2.4]**

LOOKOUT

MIXTURE ..... - RICH, \*(ENRICH)

ATTITUDE ..... - FOR DESCENT

ENGINE POWER ..... - ADJUST

TRIM..... - ADJUST

Throttle 2100 RPM

by ATC.

Set Directional gyro to Magnetic compass.

Normally 2100 RPM, for steep descent use 1500 RPM, for CRZ DES use CRZ PWR

Take time to trim the aircraft properly!

**8.19.2 Level Off From Descent (4.29) [8.6]**

POWER ..... - SET

ATTITUDE ..... - SET

TRIM..... - SET

**Approaching altitude**

Throttle 2450 RPM

**Call out ~300 ft prior reaching alt/level**

100 ft before reaching desired altitude increase Throttle to 2450 RPM for cruise or 2100 RPM for downwind.

Take time to trim the aircraft properly!

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

MIXTURE ..... - SET, (ACC AFM)

**8.20 APPROACH CHECK (4.5) [13.12.2]**

- 1. Altimeter .....QNH SET ..... 1
- 2. Electric fuel pump .....ON ..... 2
- 3. Fuel quantity .....LEFT, RIGHT; ENDURANCE ..... 3
- 4. Fuel selector .....FULLER TANK ..... 4
- 5. Mixture.....RICH / AS REQUIRED ..... 5
- 6. Carburetor heat .....ON / AS REQUIRED ..... 6

Left tank .... litres, right tank .... litres, total  
.... litres, endurance .... hours

Calculate the endurance according to the final fuel amount with the expected consumption

**APPROACH CHECK COMPLETED**

**8.20.1 Initial approach configuration (4.31) [13.3.6 & 13.3.7]**

- POWER ..... - SET / REDUCE
- SPEED ..... - CHECKED
- FLAPS ..... - SET FOR APPROACH
- POWER ..... - ADJUST TO MAINTAIN 85 KIAS

...

**On Downwind, latest abeam threshold**

Throttle 2100 RPM

Set Throttle to approx. 2100 RPM

Speed 85 KIAS  
Speed below 102 KIAS

Speed within white Band

Flaps 1

Set flaps to first Position

Maintain 85 KIAS

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

**8.20.2 Starting final descent (4.31) [13.4.2, 13.4.3]**

POWER ..... - SET / REDUCE

Throttle 1500 RPM

Reduce Throttle to approx. 1500 RPM

SPEED ..... - CHECKED

Speed below 102 KIAS

Speed within white Band

FLAPS ..... - 2

Flaps 2

Set flaps to second position

ATTITUDE ..... - AND (Attitude Nose Down)

Start descent

SPEED ..... - REDUCING TO 75 KIAS

Maintain 75 KIAS with pitch / power until Final

**8.20.3 Landing configuration (4.31) [13.5.1]**

SPEED ..... - CHECKED

Speed below 102 KIAS

...

FLAPS ..... - SET FOR LANDING

Flaps landing

Set flaps full down (Flaps 3 position)

POWER ..... - ADJUST TO MAINTAIN  $V_{FINAL APP}$

Earliest on Final, reduce to  $V_{FINAL APP}$  add possible wind correction, and PAX correction

**8.21 LANDING CHECK (4.5) [13.5.2]**

1. Flaps.....SET FOR LANDING ..... 1

2. Mixture.....RICH / AS REQUIRED ..... 2

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

3. Carburetor heat .....OFF ..... 3

**LANDING CHECK COMPLETED**

**8.21.1 Before Landing (4.31) [13.5.2]**

POWER ..... - IDLE

**GATE**

Power reduction, move throttle gently to Idle position

**8.21.2 Brake check (4.31) [13.7.5]**

BRAKES ..... - CHECKED

Gently check the brakes

**8.22 AFTER LANDING CHECK (4.5) [5.3.7, 13.7.6]**

1. Transponder .....GND / STBY ..... 1

2. Time .....NOTED ..... 2

3. Landing light and recog. Lights .....OFF or AS REQUIRED ..... 3

4. Strobe Lights .....OFF ..... 4

5. Electric fuel pump .....OFF ..... 5

6. Flaps .....UP ..... 6

Note LDG time

**CHECK / PROCEDURE****Wording (if different from CHECKLIST) Remarks**

7. FLARM .....OFF ..... 7

**AFTER LANDING CHECK COMPLETED****8.22.1 Stop taxi (at the parking after the flight (4.33) [5.3.3]**

Parking brake ..... - SET

Pull brake lever and depress knob

Throttle ..... - 1000 RPM

Landing light ..... - OFF

If Taxi by night with landing light.

Time ..... - NOTED

Note Block on time at final stop at parking position

**8.23 ENGING SHUT DOWN AND PARKING****(4.5, 4.33, 4.35) [2.5.7]**

1. Parking brake .....SET ..... 1

Pull brake lever and depress knob

2. Throttle .....SET 1000 RPM ..... 2

3. Electrical consumers .....OFF ..... 3

4. 121.5 .....CHECKED ..... 4

Change to 121,50 and use squelch to adjust the volume and listening no emergency signal is audible.

5. Radio Master .....OFF ..... 5

**CHECK / PROCEDURE**

**Wording (if different from CHECKLIST) Remarks**

- 6. PFD & MFD .....OFF ..... 6
- 7. Mixture.....LEAN / CUT OFF..... 7
- 8. Ignition.....OFF, KEY REMOVED ..... 8
- 9. Battery master & alternator.....OFF ..... 9
- 10. Stby horizon light amber flashing.....DO NOT PRESS ANY BUTTON ..... 10
- 11. Flight data and documents .....NOTED & COMPLETED ..... 11
- 12. Parking brake .....SET AS REQUIRED..... 12

Turn ignition key slowly from both to right, left then off. Remove key.

Do not press any button to avoid Stby horizon stays on.

Note flight time counter.

If the intention is to move the aircraft, release brakes, else keep them on. After disembarking close door.

**ENGINE SHUT DOWN AND PARKING CHECK COMPLETED**

**Go Around**

**8.24 Go Around (4.5.11) [13.8]**

- 1. Attitude

Control Aircraft Attitude! Immediately a slight NOSE UP attitude or at least level flight

**Simultaneously**

- 2. Throttle

Set Throttle to Take Off Power – full forward!

**Then**

Do not rush! FLY the Airplane first

**CHECK / PROCEDURE****Wording (if different from CHECKLIST)****Remarks**

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3.	Carburetor heat	Carburetor off	Check OFF
4.	Speed	Speed above 63 kts	Efficiently increase speed to $V_x$ 63 kts
5.	Flaps	Flaps 2	One step up (Flaps 2 position)
6.	Flaps	Flaps 1	One step up (Flaps 1 position)
7.	proceed according to normal Take Off procedure after lift off!		

## 8.25 SPEEDS

$V_{rot}$	50 KIAS	$V_{FE \text{ Flaps 1}}$	102 KIAS
$V_x$	63 KIAS	$V_{FE \text{ Flaps 2}}$	102 KIAS
$V_y$	79 KIAS	$V_{initial \text{ approach}}$	85 KIAS
$V_{CC}$	87 KIAS	$V_{intermediate \text{ approach}}$	75 KIAS
$V_A$	111 KIAS	$V_{final \text{ (Full Flaps)}}$	65 KIAS (1 kt less per missing pax)
$V_{best \text{ glide}}$	73 KIAS	X-wind component max.	17 KTS

Wind increments on Final: for wind  $\geq 10$  kts, add 1/3 of headwind comp or full wind gust spread, whichever is higher, to  $V_{final}$ .

# 9 Reinigung

## Ziel

- Saubere und gepflegt wirkende Flugzeuge
- Der Pilot / Flugschüler übernimmt **immer** ein sauberes Flugzeug

## Bewandtnis

Vor allem in den Sommermonaten werden Flügeleintrittskanten, Flugzeugnase und Cockpitscheiben durch Insekten verschmutzt. Dies kann unter anderem zu Einbußen in der Flugleistung und auch Schäden am Flugzeug führen. Oft werden die Flugzeuge unzureichend oder gar nicht gereinigt und das Problem dem nächsten Piloten überlassen.

## Direktive

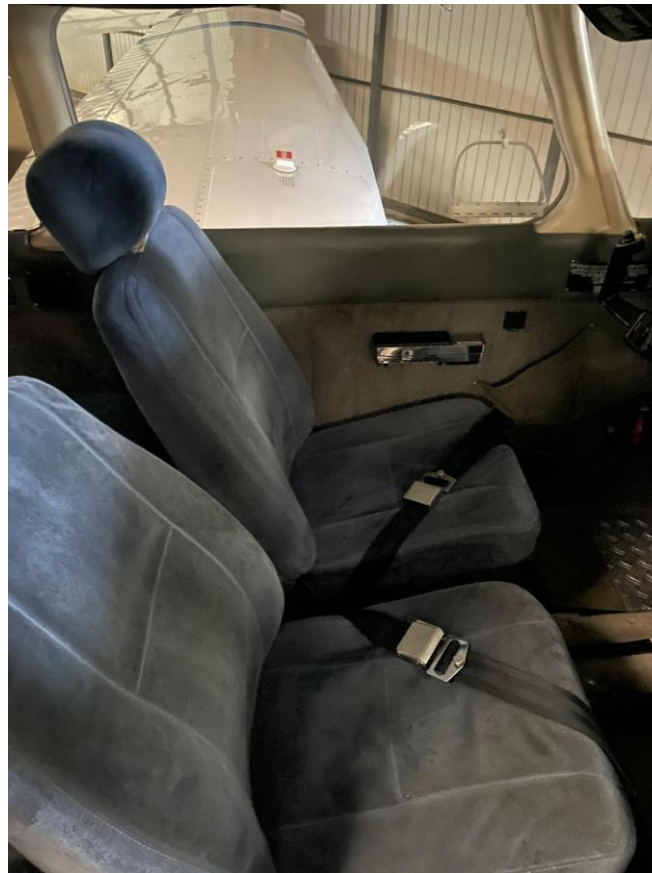
Die Flugzeuge sind nach dem Flug zu reinigen! Die Zeit für die Reinigung (10 Minuten) muss in der Reservationszeit berücksichtigt werden. Die Flügeleintrittskanten, Flügel, Stabilo, Rumpf, Spinner, Propeller sowie Radverschalungen sind von Insektenresten und anderen Schmutzpartikel zu befreien. Am einfachsten bei einem ersten Rundgang Verschmutzung grob reinigen und Schmutz einweichen lassen. Bei einem zweiten Rundgang endreinigen und trocknen. Vor Allem die Windschutzscheiben / Canopy müssen gut gereinigt werden. Dazu speziell dafür vorgesehenes Reinigungsmittel und Papier (kein Schwamm oder andere Reinigungsmittel verwenden – Gefahr von Kratzer und/oder Trübung der Scheiben) verwenden. Das Cockpit soll, wenn nötig ebenfalls gereinigt und sauber hinterlassen werden. Die Sitzgurten sind wie in den nachfolgenden Bildern zu arrangieren.

Weitere Information zum Thema Reinigung und Pflege der Flugzeuge können dem jeweiligen AFM entnommen werden.

Alle Reinigungsutensilien befinden sich im Flugzeug (Eimer, Lappen) oder an den Tankstellen (Papier)

Für den Betrieb aller ASFG Flugzeuge sind die Haftungsbestimmungen (Reglemente) in der letzten gültigen Version verbindlich.

## 10 Sitzgurte



Das Flugzeug wird immer sauber und aufgeräumt zurückgelassen.