PIF 2-10-1
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CHECK LISTS

Use the check lists in the cockpit of your airplane. No matter how familiar you become with your plane, there is always a chance that you'll forget something. Do not rely on your memory. Always use check lists.

Check Lists In Cockpit

EVERY AIRPLANE HAS CHECK LISTS PROVIDED FOR THE FOLLOWING:

1. **Before starting engine or engines.**
2. **During warm-up.**
3. **Before takeoff.**
4. **During flight.**
5. **Before landing.**
6. **After landing.**

If the check lists are not in the airplane, report it at once to the crew chief and see that the proper lists are provided before you prepare for flight.

These check lists are required by regulation, and are to be used not only by pilots who are unfamiliar with the operating procedures of the aircraft, but also by experienced pilots as a continuous refresher in essential operations.

Check List Habit

In training type airplanes it may seem unnecessary to use the check lists, but it is during your training that you form your flying habits.

The Check list habit is a must in combat equipment. There is too much to remember, and every item is important. One mistake, one switch improperly set, one instrument overlooked, may spell disaster. Make the check list habit a part of your procedure on every flight whether it's in a PT or a VHB.

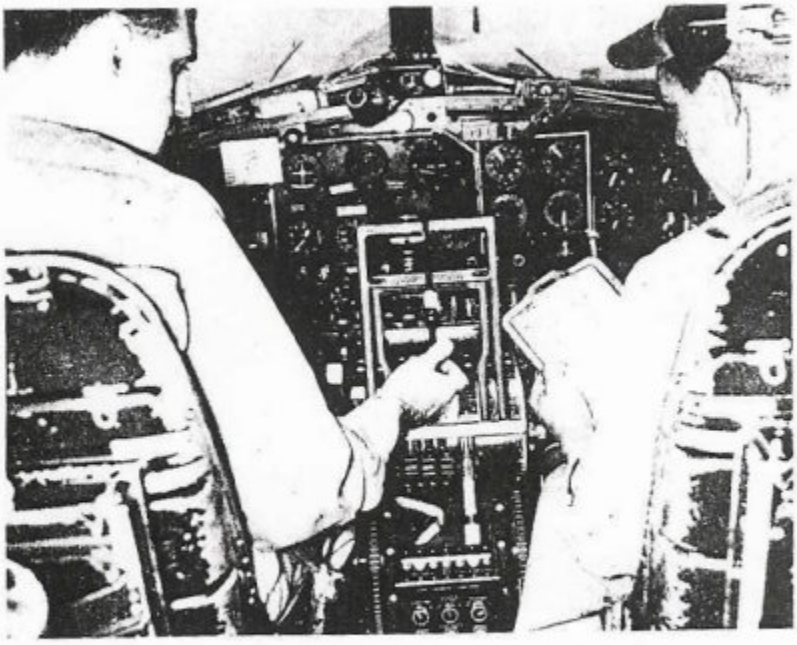
Don't Use Memory Checks

The standard memory checks which some pilots use, are no substitutes for the printed check lists in the airplane.

Every model has its own specific check procedure, so don't try to learn a general check list. It will not be applicable to every airplane and may lead to improper procedure. So don't use any standard memory check system.

REFERENCE: AAF Regulation 62-2

Cockpit Checklist



Every B-17 has a checklist on the copilot's side of the cockpit. Individual sections of the cockpit checklist are described at length in the chapters that follow.

Bear this in mind: **It is absolutely essential that the cockpit checklist be used properly by pilot and copilot at all times.**

The number of procedures necessary for the safe and efficient operation of the B-17 are far too many for even the most experienced pilot to carry in his head. The best trained pilots are likely to forget things occasionally. **There is no place for forgetfulness in flying the B-17!** Your cockpit checklist is the only sure safeguard against it.

Proper use of the checklist requires a **definite procedure** and **active cooperation** between the pilot and copilot.

1. The copilot takes the checklist in his hand and, in a clear, loud voice, calls out each item.

2. The specific operation or check is then performed, either by pilot or copilot (as specified by the checklist), whereupon pilot or copilot repeats aloud the item as "Checked!"

For example:

Copilot: **"Gear switch . . ."**

The pilot places his hand on the landing gear switch and ascertains that it is in the neutral position.

Pilot: **"Gear switch neutral."**

Copilot: **"Intercoolers . . ."**

The intercooler controls are on a separate stand to the right of the copilot. Therefore, the copilot places his hand on the controls and makes sure that they are in the "COLD" position.

Copilot: **"Intercoolers cold."**

There are some duties which must be performed by both the pilot and copilot, as in the case of checking the fire guard and calling "Clear!" before starting engines.

The copilot, with checklist in hand, has the responsibility of seeing that no item on it is left unchecked inadvertently. He must keep his finger on each item as it is called aloud, and not move on to the next item until he has personally seen the pilot check the first item or checked it himself.

Practical necessity demands that a few portions of the checklist (such as After Takeoff, After Landing, Running Takeoff, Go-Around, Approach, Before Takeoff) be memorized by pilot and copilot, since both will be too busy during these operations to refer to the printed checklist. In such cases, the checklist is called aloud from memory; but both pilot and copilot have the same responsibility to see that the checks and double-checks are made.

APPROVED B-17F and G CHECKLIST

REVISED 3-1-44

PILOT'S DUTIES IN RED

COPILOT'S DUTIES IN BLACK

BEFORE STARTING

1. Pilot's Preflight—COMPLETE
2. Form 1A—CHECKED
3. Controls and Seats—CHECKED
4. Fuel Transfer Valves & Switch—OFF
5. Intercoolers—Cold
6. Gyros—UNCAGED
7. Fuel Shut-off Switches—OPEN
8. Gear Switch—NEUTRAL
9. Cowl Flaps—Open Right—OPEN LEFT—Locked
10. Turbos—OFF
11. Idle cut-off—CHECKED
12. Throttles—CLOSED
13. High RPM—CHECKED
14. Autopilot—OFF
15. De-icers and Anti-icers, Wing and Prop—OFF
16. Cabin Heat—OFF
17. Generators—OFF

STARTING ENGINES

1. Fire Guard and Call Clear—LEFT Right
2. Master Switch—ON
3. Battery switches and inverters—ON & CHECKED
4. Parking Brakes—Hydraulic Check—On-CHECKED
5. Booster Pumps—Pressure—ON & CHECKED
6. Carburetor Filters—Open
7. Fuel Quantity—Gallons per tank
8. Start Engines: both magnetos on after one revolution
9. Flight Indicator & Vacuum Pressures CHECKED
10. Radio—On
11. Check Instruments—CHECKED
12. Crew Report
13. Radio Call & Altimeter—SET

ENGINE RUN-UP

1. Brakes—Locked
2. Trim Tabs—SET
3. Exercise Turbos and Props
4. Check Generators—CHECKED & OFF
5. Run up Engines

BEFORE TAKEOFF

1. Tailwheel—Locked
2. Gyro—Set
3. Generators—ON

AFTER TAKEOFF

1. Wheel—PILOT'S SIGNAL
2. Power Reduction
3. Cowl Flaps
4. Wheel Check—OK right—OK LEFT

BEFORE LANDING

1. Radio Call, Altimeter—SET
2. Crew Positions—OK
3. Autopilot—OFF
4. Booster Pumps—On
5. Mixture Controls—AUTO-RICH
6. Intercooler—Set
7. Carburetor Filters—Open
8. Wing De-icers—Off
9. Landing Gear
   a. Visual—Down Right—DOWN LEFT Tailwheel Down, Antenna in, Ball Turret Checked
   b. Light—OK
   c. Switch Off—Neutral
10. Hydraulic Pressure—OK Valve closed
11. RPM 2100—Set
12. Turbos—Set
13. Flaps ⅓—⅓ Down

FINAL APPROACH

14. Flaps—PILOT'S SIGNAL
15. RPM 2200—PILOT'S SIGNAL

AFTER LANDING
1. Hydraulic Pressure—OK
2. Cowl Flaps—Open and Locked
3. Turbos—Off
4. Booster Pumps—Off
5. Wing Flaps—Up
6. Tailwheel—Unlocked
7. Generators—OFF

END OF MISSION
1. Engines—Cut
2. Radio—On ramp
3. Switches—OFF
4. Chocks
5. Controls—LOCKED
6. Form 1

GO-AROUND
1. High RPM & Power—High RPM
2. Wing Flaps—Coming Up
3. Power reduction
4. Wheel Check—OK Right—OK LEFT

RUNNING TAKEOFF
1. Wing Flaps—Coming Up
2. Power
3. Wheel Check—OK Right—OK LEFT

SUBSEQUENT TAKEOFF
1. Trim Tabs—SET
2. Wing Flaps—UP
3. Cowl Flaps—Open Right—OPEN LEFT
4. High RPM—CHECKED
5. Fuel—Gals per tank
6. Booster Pumps—ON
7. Turbos—SET
8. Flight Controls—UNLOCKED
9. Radio Call

SUBSEQUENT LANDING
1. Landing Gear
   a. Visual—Down Right—DOWN LEFT
   Tailwheel Down, Ball Turret
   Checked
   b. Light—ON
2. Hydraulic Pressure—OK
3. RPM 2100—Set
4. Turbo Controls—Set
5. Wing Flaps ⅓—⅓ Down
6. Radio Call

FINAL APPROACH
7. Flaps—PILOT'S SIGNAL
8. RPM 2200—PILOT'S SIGNAL

FEATHERING
1. Throttle Back
2. Feather
3. Mixture and Fuel Booster—Off
4. Turbo Off
5. Prop Low RPM
6. Ignition Off
7. Generator Off
8. Fuel Valve Off

UNFEATHERING
1. Fuel Valve On
2. Ignition On
3. Prop Low RPM
4. Throttle Cracked
5. Supercharger Off
6. Unfeather
7. Mixture Auto-Rich
8. Warm up Engine
9. Generator On

SEQUENCE OF POWER CHANGES

INCREASING POWER
1. Mixture Controls
2. Propellers
3. Throttles
4. Superchargers

DECREASING POWER
1. Superchargers
2. Throttles
3. Propellers
4. Mixture Controls