



Lock-On Modern Air Combat
Check-lists

Su-27 Flanker Volume
Air to Air superiority fighter.

**Not suited for Real Operations
For Lomac use only.**

Each lomac aircraft will have its checklists volume.
Use the checklists as an in flight aide for aircraft handling and
procedures, systems managment and weapons delivery
techniques.

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This volume is to be used with the Russian aircraft annexes volume.

Where specific russian systems are developed.

See also additional volumes

- Su33 main checklists
- Mig29 main checklists
- Su25 main checklists
- Russian aircraft annexes
- A10 main checklists
- F15 main checklist
- Nato aircraft annexes
- Navigation in Crimea (Map and airbase charts)

ENGINE START

| | | |
|----------------------|---------------------------------------|----------|
| 1. Cockpit lights | As required | I |
| 2. Canopy | Close | CTL c |
| 3. Navigation lights | Turn ON | CTL I |
| 4. Throttles | Idle | |
| 5. Right engine (#2) | Start | SHF PgUp |
| 5a. RPM | Check increasing to 65% | |
| 5b. EGT | Check increasing to 300° when 40% RPM | |
| 6. Left engine (#1) | Start | ALT PgUp |
| 6a. RPM | Check increasing to 65% | |
| 6b. EGT | Check increasing to 300° when 40% RPM | |
| 7. Engines gauges | Check within limits | |
| 8. Flaps | Check Down (Take-off position) | f |
| 9. Trim | Reset | CTL t |
| 10. Hud | Set colours | CTL h |

TAXI-OUT

| | | |
|--------------------------|--|-------------|
| 1. Landing / Taxi lights | ON (once for taxi light - twice for ldg light) | ALT I |
| 2. Radio Tower | Request Taxi clearance | radio/F6/F1 |
| 3. Trim | Take-Off settings | |
| 4. Wheelbrakes | Test - Throttle 70% - 80% - aircraft static | |
| 5. Airbrake | Check Closed | |
| 6. Runway | Take position | |
| 7. Tower | Request Take-Off clearance | radio/F6/F2 |

NORMAL TAKE-OFF

| | | |
|------------------|---|---|
| 1. Runway | Align on centerline for solo take-off Align on briefed side for formation take-off | |
| 2. Wheelbrakes | Engage and maintain. | w |
| 3. Power | 90% RPM | |
| 4. Engine gauges | Check in the green | |
| 5. Wheelbrakes | Release (Call release for wingman) | |
| 6. Reheat | As required | |
| 7. Speed | Increasing to 260 km/h rotate 10° | |
| 8. Radio | Call Airborne | |

AIRBORNE

| | | |
|--------------------------|---------------------------------|-------|
| 1. Landing Light | Turn OFF | ALT I |
| 2. Gear | Up at positive climb | g |
| 3. Flight attitude | 10° Climb | |
| 4. Flaps | Up at 100m | CTL f |
| 5. Thrust | As required for 600km/h | |
| 6. Engine gauges | Check in the green | |
| 7. Secondary flight ctls | Check lights OFF (gear & flaps) | |
| 8. NAV | Set MAPW mode (enroute) | 1 |

ABORTED TAKE-OFF

| | | |
|----------------|--|-------|
| 1. Throttle | Idle | |
| 2. Speedbrake | Extend | SHF b |
| 3. Dragchute | Deploy | p |
| 3. Wheelbrakes | Apply | w |
| 4. Runway | Vacate | |
| 5. Aircraft | Stop | |
| 6. Gauges | Check and abandon aircraft if required | |

Note:

Past V1, continue the take-off run and deal with the problem once airborne. If less than 600m of runway is available at the time of the emergency, eject.

FENCE IN

| | | |
|----------------------|---|-------|
| 1. Navigation Lights | Turn OFF | CTL I |
| 2. AWACS | Check if airborne as briefed | |
| 3. Engines Gauges | In the green | |
| 4. Fuel Checks | Check remaining quantities and estimate time to Bingo. Perform wingman check. | |
| 5. Radar | As required | |
| 6. EOS | As required (ON) | |
| 7. Master mode | Set ДВБ (BVR) or ДРЛО (Dlink) if awacs is available. | |
| 8. Formation | Set for Wingman | |

Note:

The Su-27 requires constant trimming in flight

FENCE OUT

- | | | |
|----------------------|--|-------|
| 1. Threat for egress | Assume (RWS and Awacs) | |
| 2. Master Mode | HAB (Nav) or MAP \downarrow (enroute) mode | |
| 3. Navigation Lights | Turn ON or as required | CTL I |
| 4. Sensors | Turn OFF or as required | |
| 5. ECM | Check OFF (Sorbtziya-S) | e |

SINGLE ENGINE FAILURE / DAMAGE

- | | | |
|-------------------------|--|-----------------|
| 1. Throttle dead engine | Stop | |
| 2. Caution Panel | Check for engine fire | |
| 3. Fire Detected | Shut down engine | SHF or ALT PgDn |
| | If fire is out of control EJECT | |
| 4. Engine Gauges | Check and assess (EGT) | |
| 5. Rudder Trim | Balance assymetric thrust | |
| 6. Stores | Consider Jettisoning | CTL w |
| 7. Fuel | Consider Dumping fuel | CTL r |
| 7. Engine relight | If engine relight is possible, follow inflight engine restart checks | |
| 7. Mission | Abort and land as soon as possible. | |

INFLIGHT ENGINE RESTARTNote:

The following conditions must be met before attempting an air relight:

-AIRSPEED between 400 and 1000 km/h below 12000m.

-AIRSPEED between 550km/h and Mach1.8 between 12000 and 17000m.

There is sufficient oxygen in the aircraft for 5 relight attempts.

- | | | |
|----------------------------|--|-----------------|
| 1. Throttle of dead engine | Stop | |
| 2. Dead Engine switch | ON | SHF or ALT PgUp |
| 3. Dead engineThrottle | Idle | |
| 4. Engines Gauges | Check for relight RPM increasing EGT Check | |

SPIN RECOVERY

- | | | |
|------------------|--|-------|
| 1. Trim settings | reset | CTL t |
| 2. Throttle | Idle | |
| 3. Flight Stick | Neutralize Push slightly forward | |
| 4. Rudder | Apply rudder opposite the spin rotation Step on the ball - check on the ADI | |
| 5. Recovery | Apply full throttle | |
| 6. Attitude | Dive for increased speed (if possible) Level off by pulling slowly the stick. | |

Warning:

1. If Spin is not recovered at 1000m, Eject.
2. At recovery speed is near stall speed, make sure you increase speed before levelling off or another spin might occur.

INVERTED SPIN RECOVERY

Note:

An inverted spin is when the aircraft is upside down. It is much tricky to get out of an inverted spin because you need to react the opposite way from a normal spin.

Use your ADI for spin direction.

Warning

Eject at 1000m
or use ALT p for automatic spin recovery

- | | | |
|------------------|---|-------|
| 1. Trim settings | reset | CTL t |
| 2. Throttle | Idle | |
| 3. Flight Stick | Neutralize pull slightly backward | |
| 4. Rudder | Apply rudder opposite the spin rotation Step opposite of the ball on the ADI | |
| 5. Recovery | Apply full throttle | |
| 6. Attitude | Dive for increased speed Pull back on the stick for dive. Perform half roll when speed is sufficient Level off | |

APPROACH

- | | | |
|-----------------|---------------------------------------|-------------|
| 1. Nav submode | Select BO3B and fly to the IAF | 1 |
| 2. Radio Tower | Call inbound | radio/F6/F3 |
| 3. Attitude | Attain IAF altitude displayed in HUD | |
| 4. Speed | Slow to 400 km/h | |
| 5. Flaps | Extend at 400 km/h | f |
| 6. Gross weight | Dump fuel if required | CTL r |
| 7. Sensors | Check all OFF | |

BEFORE LANDING (ILS)

- | | | |
|--------------------------|--|-------|
| 1. At IAF | Check □□□ mode engaged Confirm ILS bars in the HUD | |
| 2. On glideslope | Gear Down | |
| 3. Landing lights | ON (once for taxi light - twice for Idg light) | Alt I |
| 4. Secondary Flight ctls | Check lights (gear & flaps) | |
| 5. Engine settings | 80% RPM | |
| 6. Speed | 330 - 350 km/h | |
| 7. Airbrake | As required | |
| 8. Vertical speed | 5 m/s descent rate - ILS needles centred | |

VISUAL LANDING

1. Distance from Runway: 10 km:

| | |
|----------|----------------|
| Altitude | 500m |
| Speed | 500 - 600 km/h |

Fly runway heading to overfly the runway at 300m
2. End of runway:

Execute left 180° break turn 60° bank angle to kill speed.
3. Downwind:

| | |
|------------|-----------------|
| Speed | 400 - 300 km/h |
| Flaps | Deploy |
| Gear | Down and locked |
| Speedbrake | As required. |
4. Base Leg:

Start the turn when the runway is on your wingtip
Adjust bank angle to level out aligned with runway centerline.
5. Final approach checks.

FINAL APPROACH

- | | |
|---------------------|--|
| 1. Speed | 300km/h |
| 2. Runway threshold | Flare-retard throttles to idle-speed 250km/h |
| 3. Vertical speed | Maximum 5m/s on touchdown - (3.5m/s) |
| 4. Landing roll | Release braking chute p |
| 5. Wheelbrakes | Engage at 90km/h |

SINGLE ENGINE LANDING

Warning:

Landing on one engine is a dangerous task. Be sure to rudder trim the aircraft correctly to counter yaw. Stay a little high on the glidepath and increase your reference speeds by 10-20%.

If you drop below glidepath or run out of airspeed - EJECT.

Remember a good landing is a good approach.

Perform straight in approaches only.

- | | |
|--------------------|---|
| 1. Gross weight | Lighten aircraft. Jettison stores and fuel. |
| 2. At IAF | Check <input type="checkbox"/> mode engaged Confirm ILS bars in the HUD |
| 3. Speed | 450km/h |
| 4. Altitude | 1000m |
| 5. ILS | Remain slightly above glidepath |
| 6. Gear | Drop at last moment |
| 7. Landing lights | Turn ON Alt I |
| 8. Flaps | No flaps - no airbrake. |
| 9. RunwayThreshold | Speed 320 km/h |
| 10. Vertical speed | 3.5 m/s descent rate |
| 10. Touchdown | Deploy Airbrake & dragchute Maintain aerodynamic braking Engage wheelbrakes |

MISSED APPROACH

| | | |
|-------------------|--|-------|
| 1. Airbrake | Check Closed | |
| 2. Throttles | Full power - reheat as required | |
| 3. Attitude | Pitch Up 10 - 15° | |
| 4. Landing light | Turn OFF | |
| 4. Positive climb | Gear up | g |
| 5. Flaps | Retract at 100m | CTL f |
| 6. Nav | Climb to 1000m and fly to IAF or alternate | |

AFTER LANDING

| | | |
|-----------------------|---------------------------------|----------|
| 1. Runway | Vacate as soon as possible | |
| 2. Aircraft | Stop on taxiway | |
| 3. Flaps | Retract | CTL f |
| 4. Airbrake | Check closed | CTL b |
| 5. Taxi | To the briefed parking position | |
| 6. Landing lights | Turn OFF | ALT I |
| 7. Throttles | Stops | |
| 8. Left engine (#1) | Shutdown | ALT PgDn |
| 8a. EGT | Check decreasing | |
| 8b. RPM | Check decreasing | |
| 9. Right engine (#2) | Shutdown | SHF PgDn |
| 9a. EGT | Check decreasing | |
| 9b. RPM | Check decreasing | |
| 10. Canopy | Open | CTL c |
| 11. Cockpit lights | Turn OFF | I |
| 12. Navigation lights | Turn OFF | CTL I |
| 13. Ground refuel | If required | CTL r |

Note: