



Lock-On Modern Air Combat Check-lists

Mig-29A FulcrumA & Mig-29S FulcrumC
Short range air to air fighter with limited
air to ground capability.

**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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Check-lists

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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

- Su27 main checklists
- Su33 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 450° when 40% RPM	
6. Left engine (#1)	Start	ALT PgUp
6a. RPM	Check increasing to 65%	
6b. EGT	Check increasing to 450° 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	100% RPM	
4. Engine gauges	Check in the green	
5. Wheelbrakes	Release (Call release for wingman)	
6. Reheat	As required	
7. Speed	Increasing to 230-250 km/h rotate 10-11°	
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 MAP 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 Mig-29 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 (Sorbtsiya-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 RESTART**Note:**

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 B03B 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 | |
| 6. Gross weight | Dump fuel if required | CTL r |
| 7. Sensors | Check all OFF | |

BEFORE LANDING (ILS)

- | | |
|--------------------------|--|
| 1. At IAF | Check ΠOC 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 | 280 km/h - 5° pitch up |
| 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 | 280km/h |
| 2. Runway threshold | Flare-retard throttles to idle-speed 235km/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 310 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: