

Aerospace & Defense Calibration & Testing

Traceable calibration and independent verification for aviation, defense and ground-support workshops in Syria



Electrical calibrations — traceable to international standards, so every airworthy and mission-critical measurement can be trusted.

Aerospace and defense activities — civil aviation maintenance, ground-support equipment, navigation aids, weighing of airframes, hydraulic test rigs, ammunition handling and instrumentation — all depend on one thing: every measuring instrument used on the asset must itself be measurably correct. As Syrian aviation and defense workshops resume routine operations, that traceability chain has to be rebuilt before the equipment is signed back into service. Mizan provides the on-site and laboratory calibration, condition assessment and independent verification needed so that maintainers, quality managers and regulators can demonstrate compliance with international metrology and airworthiness practice.

Why It Matters

In aerospace and defense, an out-of-tolerance instrument hides an out-of-tolerance asset:

- An uncalibrated torque wrench can under- or over-tighten flight-critical fasteners.
- An out-of-spec pressure gauge silently certifies a leaking hydraulic or oxygen circuit.
- Mass, force and dimensional drift on workshop standards propagates into every aircraft, vehicle and weapon system that passes through.

What We Verify

Mizan calibrates and inspects the full measurement chain used in the workshop and on the line:

- Mechanical calibration — torque, force, mass, pressure and dimensional standards.
- Electrical, temperature and humidity calibration of test, navigation and avionics equipment.
- Independent verification of ground-support, hydraulic and pneumatic test rigs.

Airworthiness, mission readiness and safety begin with one principle — every instrument that signs off the asset must itself be calibrated and traceable.



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Scope of Services

A structured calibration and verification programme for aerospace and defense workshops, executed in our laboratory or on site with reference standards traceable through recognised national metrology institutes.

• Mechanical & Dimensional Calibration

- torque wrench, torque screwdriver and torque tester calibration per ISO 6789.
- Force calibration of load cells, push-pull gauges and test rigs per ISO 376.
- Mass, balance and aircraft weighing-platform calibration traceable to OIML R 111 standards.
- Dimensional calibration of calipers, micrometers, height gauges, dial indicators and gauge blocks.
- Pressure calibration of gauges, transmitters and hydraulic / pneumatic test stands.

• Electrical, Temperature & Avionics Support

- Multifunction calibration of multimeters, clamp meters, oscilloscopes and process calibrators.
- Temperature calibration of thermocouples, RTDs, dry blocks, ovens and chambers.
- Humidity-chamber and environmental-chamber characterisation for component conditioning.
- Electrical safety verification of ground power units and battery test equipment.

• Workshop Verification & Compliance Support

- Calibration and verification of ground-support equipment — jacks, GPUs, fuel meters, oxygen systems.
- Periodic verification of test stands against documented uncertainty budgets per the GUM (ISO/IEC Guide 98-3).
- Calibration-programme set-up aligned with ISO 10012 and ANSI/NCSL Z540 measurement-management principles.

Technical Reports to ISO, OIML, IEC & Metrology Standards

Every calibration and verification is documented in a structured certificate or report that states the reference standard, the procedure, the measured value, the uncertainty, the environmental conditions and the conformity decision against the applicable tolerance.

The technical reports issued by Mizan include the following:

- IISO 6789 torque-tool calibration certificates.
- ISO 376 force-instrument calibration certificates.
- OIML R 111 traceable mass and weighing-platform calibration certificates.
- Dimensional calibration certificates for hand-held and bench metrology.
- Pressure-instrument calibration certificates with stated uncertainty per the GUM.
- Electrical and temperature calibration certificates for workshop test equipment.
- Ground-support and test-rig verification reports for the quality-management file.



Essential for mission readiness and aircrew safety, Testing & Calibration ensures that navigation, weapons, and flight control systems meet rigorous military standards



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