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UAV and Drone Fleet Operations Management Training Course

3 – 7 January 2027
Istanbul (Turkey)



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UAV and Drone Fleet Operations Management Training Course

Ref: 38_1082372 **Date:** 3 – 7 January 2027 **Location:** Istanbul (Turkey) **Fees:** 5500 Euro

The UAV and Drone Fleet Operations Management Training Course is a one-week course for flight coordinators, remote operations supervisors, and safety managers directing multi-aircraft commercial deployments. Working with regulatory authorization pathways, airworthiness logs, and risk matrices, you develop an operational Drone Fleet Operations Manual. Mercury Training Center delivers this course to help you establish standard operational control across complex unmanned aerial assignments.

About This Course

Fragmented flight logs, uncoordinated airspace filings, and inconsistent airworthiness protocols introduce serious operational downtime and safety breaches across commercial drone programs. To follow this course, you must already manage or supervise unmanned flight activities or aviation dispatch tasks at work. Through scenario evaluations and regulatory workflows, you establish reliable multi-crew operational governance.

Who It Is For

- Professionals responsible for scheduling multi-aircraft missions and coordinating remote pilot flight crews
- Professionals responsible for airworthiness tracking, preventative maintenance logs, and battery life-cycle audits
- Professionals responsible for filing airspace authorizations and securing multi-agency operational approvals
- Professionals responsible for implementing safety management systems and evaluating flight risk assessments

This course is not for novice pilots seeking recreational flight stick training, nor is it for avionics software developers seeking hardware circuit design courses.

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Competencies You Will Build

- Regulatory Authorization Management: Aligning fleet operational profiles with GACAR Part 107 and GACA AC 107-01 permit requirements.
- Operational Risk Assessment: Applying the JARUS SORA methodology to determine ground and air risk mitigations.
- Fleet Airworthiness Assurance: Establishing scheduled maintenance intervals, battery health tracking, and airworthiness inspections under ISO 21384-3:2023.
- Crew Resource Coordination: Structuring standard operating procedures and qualification matrices in line with ISO 23665 personnel benchmarks.
- Geospatial Compliance Clearance: Managing mission submissions to GEOSA and verifying digital sensor compliance under GACAR Part 48.
- Incident Response Control: Directing emergency response procedures, lost-link fail-safes, and technical reporting workflows.

What You Will Be Able to Do

By the end of the course you will be able to:

- From GACAR Part 107 rules and GACA AC 107-01 guidance, determine operational category requirements and prepare authorization dossiers.
- Using JARUS SORA Edition 2.5 guidelines, calculate Ground Risk Classes and Air Risk Classes to establish required integrity levels.
- Given mission parameters and sensor payloads, organize aerial survey clearance documentation for submission to GEOSA.
- From ISO 21384-3:2023 operational standards, structure flight planning checklists, visual line of sight protocols, and flight logs.
- Using manufacturer maintenance manuals, establish fleet airworthiness tracking sheets and battery life-cycle replacement schedules.
- Given emergency lost-link scenarios, execute contingency response matrices and notification protocols for fly-away incidents.

Course Content

Day 1: Civil Aviation Frameworks and Operational Authorization

- GACAR Part 107 Provisions and Commercial Remote Pilot Certificate Requirements
- GACAR Part 48 Aircraft Registration Thresholds for Small Unmanned Aircraft
- Open Versus Specific Operational Pathways Under GACA AC 107-01
- Visual Line of Sight Maintenance and Unaided Vision Rules for Fleet Watch
- Import Clearance Protocols and Serial Registration Steps Involving ZATCA

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Day 2: Specific Operations Risk Assessment and Safety Management

- JARUS SORA Edition 2.5 Ten-Step Process for Fleet Risk Classification
- Ground Risk Class Calculations and Population Buffer Mitigations
- Air Risk Class Determinations and Tactical Mitigation Performance Requirements
- Specific Assurance and Integrity Level Assignment for Advanced Operations
- Flight Risk Assessment Tools and Pre-Deployment Mission Checklists

Day 3: Multi-Agency Geospatial Clearances and Traffic Management

- GEOSA Review Protocols and Data Clearance for Aerial Survey Missions
- Sensor Payload Registration for Optical and Photogrammetric Data Collection
- ISO 23629-12:2022 Standards for Unmanned Traffic Management Coordination
- Airspace Deconfliction Workflows in Controlled and Industrial Enclosures
- Permit Scheduling and Timeline Management for Complex Infrastructure Zones

Day 4: Fleet Airworthiness and Technical Maintenance Management

- ISO 21384-3:2023 Requirements for Continuous Operational Procedures
- Airworthiness Inspection Checklists and Scheduled Maintenance Intervals
- Lithium-Polymer Battery Telemetry Tracking and Storage Fire Precautions
- Command and Control Link Integrity and Ground Control Station Auditing
- UAV Maintenance Technician Qualifications and Logbook Sign-Off Standards

Day 5: Operational Simulations and Manual Consolidation

- Exercise on Commercial Authorization Filings and Permit Dossier Preparation
- Exercise on SORA Quantitative Risk Calculations for Industrial Assets
- Exercise on Critical Lost-Link Fail-Safe Execution and Incident Reporting
- Exercise on Crew Resource Briefings Under ISO 23665 Competency Models
- Finalization of the Drone Fleet Operations Manual

Case Studies and Exercises

These suggested activities provide practical application of unmanned fleet governance across varied operational environments:

- Case study: An industrial oil and gas refinery where you evaluate containment flare inspections, assign SORA risk classes, and establish unaided visual line of sight observer boundaries.
- Case study: A large civil construction project where you reconcile photogrammetry drone flight plans with GEOSA geospatial clearance requirements and GACAR Part 48 payload rules.
- Exercise: A linear utility inspection corridor where you design emergency lost-link fail-safe routes and calculate ground risk buffers away from uninvolved persons.
- Exercise: A commercial logistics fleet base where you configure battery duty cycles, preventative maintenance checklists, and technician sign-off logs under ISO 21384-3:2023.

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What You Take Back

The Drone Fleet Operations Manual provides standardized flight checklists, risk assessment templates, and airworthiness schedules to govern organizational drone deployments during your first month back at work. You will use it to coordinate pilot rosters, ensure regulatory alignment, and track maintenance.

- Standard operating procedure checklists for flight planning and dispatch
- JARUS SORA risk calculation and hazard mitigation worksheets
- Fleet airworthiness maintenance logs and battery health tracking sheets
- Multi-agency regulatory permit filing templates and geospatial checklists

Quick Answers FAQ

What background is required before attending the UAV and Drone Fleet Operations Management Training Course?

You need prior familiarity with commercial drone flight operations, mission dispatch, or aviation safety management. Practical experience supervising flight activities or coordinating field survey crews ensures you can immediately apply the operational policies, risk models, and fleet tracking systems.

How does this course differ from remote pilot licensing preparation courses?

Pilot licensing preparation courses focus on stick handling skills and basic aeronautical knowledge to pass pilot exams. This course addresses fleet management, including organizational airworthiness systems, JARUS SORA evaluations, multi-agency regulatory permits, and multi-crew resource coordination.

Why is structured airworthiness tracking essential for commercial drone fleets?

Structured airworthiness tracking prevents mid-air component failures, extends battery operational lifespan, and satisfies civil aviation inspection audits. Documented maintenance logs ensure that aircraft meet defined airworthiness standards before every mission dispatch.

What work product do you take back from the UAV and Drone Fleet Operations Management Training Course?

You take back a Drone Fleet Operations Manual containing standard operating procedure templates, SORA risk assessment sheets, airworthiness tracking registers, and multi-agency permit submission checklists ready for organizational adoption.

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For Your Manager

Your team member will return equipped to establish standardized operational governance across commercial drone activities, reducing mission downtime and ensuring complete compliance with civil aviation mandates. They will implement the Drone Fleet Operations Manual to formalize flight risk assessments, standardize fleet airworthiness tracking, and streamline multi-agency permit applications on upcoming organizational flight operations.