

**Factual Report – Attachment 20**  
**FAA Surveillance of Sport Parachute Activities**

**OPERATIONAL FACTORS**

WPR19MA177

**VOLUME 6 SURVEILLANCE****CHAPTER 11 OTHER SURVEILLANCE****Section 5 Surveillance of Sport Parachute Activities****6-2246 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.**

**A. Operations:** 1661, 1696.

**B. Maintenance:** 3627, 3628, 3678, 3694. 3681.

**C. Avionics:** 5627, 5681, 5694.

**6-2247 OBJECTIVE.** This section contains surveillance procedures conducted at Drop Zones (DZ) for inspectors when observing sport parachute operations. Sport parachute surveillance usually involves aircraft, pilots, parachute riggers, owners, operators, aircraft mechanics, and parachutists. This does not include surveillance of a parachute demonstration conducted under a Certificate of Authorization (COA) (e.g., sporting events, stadiums, over or into open-air assembly of persons, or congested areas). See [Volume 6, Chapter 11, Section 10](#), paragraph 6-2378, Observance of Parachute Jumps, for surveillance procedures related to these activities.

**A. Recommendations.** The National Transportation Safety Board's (NTSB) findings have raised safety concerns regarding the sport parachute operations industry, which may increase Federal Aviation Administration (FAA) surveillance per current Federal regulations. Refer to Title 14 of the Code of Federal Regulations (14 CFR) parts [43](#), [61](#), [65](#), [91](#), and [105](#) for legal regulatory requirements.

**B. Parachute Operations.** The 14 CFR parts noted in this section address issues such as aircraft maintenance, pilot certification, rigger certification, aircraft operations, and inspection recording requirements, including parachute operations. Additionally, aircraft may be subject to the applicability of 14 CFR part [125](#) (20-seat capacity or more, or a maximum payload capacity of 6,000 pounds or more, and performing operations when common carriage is not involved) when operations meet the requirements of part [125](#).

**C. Code of Federal Regulations (CFR) Compliance.** This increased surveillance and reporting of sport parachute operations will help determine compliance with the current 14 CFR parts that are applicable to sport parachute operations.

**6-2248 GENERAL.**

**A. DZ.** A DZ, by definition per part 105, § 105.3, is “any pre-determined area upon which parachutists or objects land after making an intentional parachute jump or drop. The center-point target of a drop zone is expressed in nautical miles from the nearest VOR facility when 30 nautical miles or less; or from the nearest airport, town, or city depicted on the appropriate Coast and Geodetic Survey World Aeronautical Chart or Sectional Aeronautical Chart, when the nearest VOR facility is more than 30 nautical miles from the drop zone.”

**B. Parachute Operation.** Parachute operation staff includes owners, operators, pilots, parachute instructors, aircraft mechanics, and parachute riggers.

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**C. Sport Parachutist Seatbelt Requirements.** The FAA does not consider sport parachutists as passengers when evaluating the regulatory compliance status of such operations. However, this does not eliminate the requirement for the use of safety belts set forth in part 91, § 91.107. Parachutists may use the floor of the aircraft as a seat, provided that the person is on board for the purpose of engaging in sport parachuting and the aircraft is approved for and equipped with floor-mounted seatbelt installations adequate for all parachutists.

**D. United States Parachute Association (USPA).** The sport parachute industry is largely self-regulated, with most sport parachute operators belonging to the USPA.

1) The USPA has established a group member program as a way for sport parachute schools, centers, and clubs to provide its affiliates with resources, such as recommended aircraft inspection programs, pilot safety information, and safety procedures.

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2) The USPA is the only national skydiving organization currently recognized by the FAA.

3) The USPA “D” license is the only license that meets the master parachute license requirement of § 105.45.

4) Inspectors may verify USPA credentials by emailing [uspa@uspa.org](mailto:uspa@uspa.org).

**E. Aircraft Accident Notification.** Per Title 49 of the Code of Federal Regulations (49 CFR) part 800, the NTSB requires notification and reporting of aircraft accidents or incidents under 49 CFR part 830. NTSB investigations involving accident aircraft during sport parachute operations have uncovered numerous safety concerns. The safety concerns listed below include pilot operations, parachute riggers, and aircraft operation and maintenance:

- Lack of use of an approved restraint system by parachutists during flight.
- Inadequate aircraft maintenance and inspections.
- Contaminated fuel.
- Pilot inattention to aircraft Weight and Balance (W&B).
- Aircraft modifications without proper FAA approvals.

- Lack of approved Flight Manual Supplements (FMS).
- Issues with pilot certification, flight currency, and training.
- Problems with parachute airworthiness, to include lack of compliance with Technical Standard Order (TSO)-C23, Personnel Parachutes Assemblies and Components.
- Lack of aircraft operational placards installed at certification, if required (see Supplemental Type Certificate (STC), aircraft Type Certificate Data Sheet (TCDS), or pilot's operating handbook (POH)).

#### **6-2249 COORDINATION REQUIREMENTS.**

**A. Aviation Safety Inspector (ASI) Duties.** When performing surveillance on parachute operations, it is helpful to coordinate the inspection with the operator.

**B. District Surveillance.** Each Flight Standards District Office (FSDO) should conduct sport parachute surveillance occurring within district boundaries as stipulated in FAA Order [1800.56](#), National Flight Standards Work Program Guidelines. ASIs can perform surveillance as a team, and an ASI experienced in sport parachute activities is recommended as a part of the inspection team when performing parachute operation surveillance.

#### **6-2250 REFERENCES AND JOB AIDS (current editions).**

**A. References:**

- Title 14 CFR Part 65 Subpart F.
- Title 14 CFR Part 91, § 91.409.
- Title 14 CFR Part 105.
- TSO-C23, Personnel Parachute Assemblies and Components.
- Advisory Circular (AC) 105-2, Sport Parachuting.
- FAA-H-8083-17, Parachute Rigger Handbook.



#### **B. Job Aids:**

- TCDS of applicable aircraft.
- FAA Order 8130.2, Airworthiness Certification of Aircraft.
- Volume 4, Chapter 9, Section 1, Perform Field Approval of Major Repairs and Major Alterations.
- USPA website: <http://www.uspa.org>.
- AC 43.9-1, Instructions for Completion of FAA Form 337.
- AC 90-66, Recommended Standard Traffic Patterns and Practices for Aeronautical Operations at Airports Without Operating Control Towers.
- FAA Orders & Notices website: [https://employees.faa.gov/tools\\_resources/orders\\_notices](https://employees.faa.gov/tools_resources/orders_notices).

#### **6-2251 PROCEDURES.**

**A. Preparation.** Prior to performing the parachute operation inspection, the ASI or ASI teams should be familiar with the following five points as they apply to parachute operations.

##### **1) Aircraft.**

- Aircraft maintenance and inspection.

- Aircraft modifications for sport parachute operations in accordance with FAA certification procedures.

NOTE: Modifications include type certificates (TC), STCs, amended TCs, alterations, and field approvals.

## **2) Pilots.**

- Pilot certification—minimum commercial certificate, medical certification, and recent flight experience.
- Experience levels regarding parachute operations.
- Skydive aircraft formation flying (if applicable).

## **3) Parachute Harness and Container.**

- Sport parachute harness and reserve parachutes (verify these are labeled per a TSO-C23 specification).
- TSO parachute pack date (refer to § [105.43\(b\)\(1\)](#) and [\(2\)](#)).

**4) Part 65 Parachute Rigger.** Parachute riggers working with the operator: verify compliance with part [65](#) subpart F.

**5) Parachute Operation.** Section [105.3](#) defines parachute operations as “the performance of all activity for the purpose of, or in support of, a parachute jump or a parachute drop. This parachute operation can involve, but is not limited to, the following persons: parachutist, parachutist in command and passenger in tandem parachute operations, drop zone or owner or operator, jump master, certificated parachute rigger, or pilot.”

## **B. Inspection Guidance.**

**1) Aircraft Inspection Programs.** Aircraft inspection programs may vary between piston- and turbine-powered aircraft. The inspection program must satisfy applicable requirements of § [91.409](#). For part [125](#) aircraft, refer to part [125](#), § [125.247\(e\)\(1\)](#) through [\(3\)](#). A maintenance record review can verify the inspection program used.

**2) Modified or Altered Aircraft.** Modified or altered aircraft used for sport parachute operations may have an FAA-approved flight manual supplement in the Aircraft Flight Manual (AFM), and/or placarded instructions installed per the applicable TC, STC, or field approval. Some older aircraft using FAA Form [337](#), Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance), field approvals may list only placarded instructions for speed and door operation and may include installed skydiver restraint systems.

**3) Pilot in Command (PIC).** The PIC of an aircraft performing sport parachute operations for hire must hold at least a Commercial Pilot Certificate and a second class medical certificate. They must also meet the recent flight experience for the category of aircraft being flown per part 61, § 61.57. Pilots may have received specialized training for sport parachute flight operations. The training experience should include aircraft-type-specific performance data training, skydive aircraft formation flying (if applicable), preflight performance, postflight inspections, W&B, airport and traffic pattern operations, specific airplane limitations needed to comply with as a result of STC changes or modifications, maintenance reporting procedures of discrepancies, and emergency procedures for each aircraft flown. Special attention should be given to ensure that the subject aircraft's W&B limitations are not exceeded under the loading conditions described in 14 CFR part 23, §§ 23.23 and 23.25, or equivalent standard under which the subject aircraft was certificated and a current and up-to-date equipment list is available. PICs should be familiar with the maintenance status and requirements of the aircraft. No PIC of an aircraft may allow any person to conduct a parachute operation from that aircraft unless the requirements of §§ 105.21, 105.23, 105.25, 105.43, and 105.45 are met. Verification of load manifest for the operations along with certifications of parachutists performing jump operations from an aircraft is validation the requirements are met. The PIC shall ensure all operations are conducted in accordance with the requirements of part 105.

**4) Aircraft Operating with a Door Open or Removed.** Aircraft may operate with a door opened or removed, in accordance with the AFM, a TC, amended TC, STC, or other FAA approvals. For instructions to attain a door open or removed FAA authorization, refer to Order 8130.2.

**5) Single-Harness Dual-Parachute System.** The sport skydiver single-harness dual-parachute system has one main parachute, one reserve parachute approved per TSO-C23, and a single-person harness and container approved per TSO-C23. The main parachute must have been packed within 180 days before the date of its use by a certificated parachute rigger, the person making the next jump with that parachute, or a noncertificated person under the direct supervision of a certificated parachute rigger, as required by § 105.43. Refer to § 105.45(a) for parachutist-in-command requirements and operations and § 105.45(b) for tandem parachute system requirements, which includes tandem parachute manufacturers' approved Automatic Activation Devices (AAD).

**6) Parachute Rigger.** A parachute rigger certificated through part 65, § 65.111 packs the TSO-C23-approved reserve or emergency parachute, and it must have been packed within 180 days of its use if using synthetic material, or within 60 days if using organic materials. Check the reserve parachute packing card for pack date compliance. Refer to § 65.131 and § 105.43.

**7) One-Time Demonstration Skydive Operation.** A one-time demonstration skydive operation may have a FSDO (ASI-Operations)-issued COA to operate per § 105.21. For demonstration jumps located in certain Class B, C, or D airspaces, a COA may be required. The COA coordinates aircraft operations with the FAA air traffic control (ATC) facility having jurisdiction over the airspace. Refer to § 91.145, if applicable. Refer to § 105.23 for parachute operations into airports.

**8) Observe Parachute Packing Operations.** If you observe parachute packing operations by a parachute rigger, the person making the next jump, or a noncertificated person under the direct supervision of a certificated parachute rigger, confirm they are working per part 105 subpart C.

**9) Aircraft Fuel Supply.** Visually verify that the fuel supply used to fuel the operator's aircraft is filtered and changed within the manufacturers' recommended period. Also, visually verify the pump or fuel truck can be operated safely, and is properly equipped for aircraft-to-fuel supply bonding.

**10) AADs.** AADs are used by parachutists for increased parachute operational safety. AADs must be maintained in accordance with the manufacturers' provided instructions for maintenance and inspection. For tandem parachute operations under § 105.45, AADs are mandatory equipment per 14 CFR, and are approved for use by the parachute manufacturer, not the FAA.

## **6-2252 OUTCOME OF THIS SURVEILLANCE.**

**A. PTRS Input.** Inspectors will identify any surveillance and findings by entering "SPORTJUMP" in the "National Use" field of the PTRS record. Use the following PTRS codes, as they apply:

- Ramp (1661, 3627, or 5627);
- Parachute Jumps (1696);
- Spot (3628 or 5681);
- Aircraft Records (3694 or 5694); and
- Part 65 Rigger, Senior, or Master (3678 or 5677).

**B. Inspections.** In accordance with Order 1800.56, conduct inspections on each parachute operation/DZ located within the FSDO jurisdiction.

**RESERVED.** Paragraphs 6-2253 through 6-2265.