

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT SAFETY ELEMENT 3.1.4 -OPERATIONAL CONTROL JOB AID Revision 1

The Federal Aviation Administration (FAA) is proactively moving away from compliance-based safety surveillance programs to Systems Safety Risk Management programs to eliminate air carrier's accidents and incidents. System Safety Risk Management programs were initially implemented with all CFR Part 121 air carriers and are now being applied to CFR Part 135 air carriers.

The FAA reached the limit of its ability of utilizing compliance-based oversight programs in 1996 for CFR Part 121 air carriers. Compliance-based oversight program repeated the same surveillance activities without identifying the actual root causes that could lead to an unsafe operating practice and/or accident. It was based on only looking at meeting the minimum standards established by the rules and regulations. To react to any identified unsafe condition, new rules and regulations had to be enacted, which could expand over many years. The compliance-based oversight system was not an effective means in reducing the causal factors that lead to air carrier accidents.

System Safety Risk Management program, known as Surveillance Evaluation Program (SEP), was implemented in 2001, for CFR Part 121 air carriers to assess how an air carrier operations and maintenance organizations were operating as an integrated whole safety system. For their system to be considered safe, they have to be proactive in identifying potentially unsafe hazards and risk and mitigate it to a safe state. Safety must be built into the air carriers systems by addressing the FAA's primary seven System Elements and their associated sub-elements. Each System Element identifies questions regarding the effectiveness of that system by addressing the following topics: Responsibility, Authority, Procedures, Control, Process Measurement, and Interfaces.

In 2004 the FAA and the Helicopter Safety Advisory Conference (HSAC) established a workgroup to assess the reasons for the increase of helicopter accidents occurring in the Gulf of Mexico and develop intervention strategies. From this workgroup two of the primary root causes of GOMEX Helicopter accidents are "Operators not following Proper Procedures as an Operational Organization" and with "Poor Judgment/Incorrect Decisions – Operations (pilots)". These root causes resulted in the development of intervention questions for each of the applicable System Safety Attributes under System Safety Element 3.1.4, OPERATIONAL CONTROL.

The primary Safety Attribute questions defined within the System Safety Element will determine if an Operator's Policies and Procedures are adequately defined in having a System Safety program; the ability to identify Risk in its daily operations; and being able to mitigate that risk to prevent the future occurrences and/or accidents.

**FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT
SAFETY ELEMENT 3.1.4 - OPERATIONAL CONTROL JOB AID**

ELEMENT SUMMARY INFORMATION

A “YES” response to the questions means compliance with the statement or indicates the requirements were met. A “NO” response always indicates a negative response to the question and also means the requirements were not met. The air carrier is not complying with the requirements of the Safety Attribute question or the system is weak or inadequate in the area being evaluated. An explanation should always occur with a “NO” response.

Specific Regulator Requirements (SRR):

135.23, 135.23(e) through (k)
135.77,
135.79
119.47
135.203, 135.205 and 135.207
135.213
91.407

Other CFRs and/or FAA/Industry Guidance:

FAA Order 8400.10 Volume 3, Chapter 1, Section 3, Operations Specifications – Operations Control
FAA Order 8400.10 Volume 3, Chapter 6, Section 1, Operational Control, General Topics
FAA Order 8400.10 Volume 3, Chapter 8, Section 1, Air Carrier Management Effectiveness
FAA Order 8400.10 Volume 3, Chapter 13, Section 1, 2, 3, and 4, Lease and Interchange Agreements
HSAC RP 88-1 “Passenger Management”
HSAC RP 2004-8 “Equipment Fit”
HSAC RP 2004-05 “Night Flight
HSAC RP 2004-01 Helideck Inspection
HSAC RP 2004-07 Helideck Hazards.
HSAC RP 2004-2 Fuel Quality Control,
HSAC RP 94-1 Rapid Refueling
HSAC SA 2004-01 Bill of Rights
HSAC RP 2004-03 Pilot Commitment

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT
3.1.4 OPERATIONAL CONTROL –
SECTION 1 – RESPONSIBILITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable qualified and knowledgeable person who is accountable for the quality of the Operational Control processes.

To meet the objective, the auditor will accomplish the following task:

1. Identify the person who is responsible for the quality of the Operational Control process.
2. Review the description in the manual that delineates the duties and responsibilities of the person.
3. Evaluate the person’s qualifications and work experience (or resume if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Operational Control process with the person.

To meet the objective, the auditor will determine and record answers to the following questions:

1. Is there a clearly identifiable person in management who is responsible for the quality of the Operational Control processes?	Yes No (explain)
2. Does the person understand the Procedure Attributes associated with Operational Control process?	Yes No (explain)
3. Does the person understand the Control Attributes associated with Operational Control process?	Yes No (explain)
4. Does the person understand the Process Measurement Attributes associated with the Operational Control process?	Yes No (explain)
5. Does the person understand the Interface Attributes associated with the Operational Control process?	Yes No (explain)
6. Is the responsibility of this position clearly documented in the air carrier’s manual(s)?	Yes No (explain)
7. Are the qualification standards for this position clearly documented?	Yes No (explain)
8. Are the qualification standards for this position appropriate for the duties that are assigned?	Yes No (explain)
9. Does the person acknowledge that he/she has the responsibility for the Operational Control process?	Yes No (explain)
10. Does the person know who has authority to establish and modify the Operational Control process?	Yes No (explain)

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT**3.1.4 OPERATIONAL CONTROL****SECTION 2 – AUTHORITY ATTRIBUTE**

Objective: To determine if there is a clearly identifiable qualified and knowledgeable person who has the authority to establish and modify the Operational Control process.

To meet the objective, the auditor will accomplish the following task:

1. Identify the person who has the authority to establish or modify the Operational Control process.
2. Review the description in the manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Operational Control process with the person.

To meet the objective, the auditor will determine and record answers to the following questions:

1. Is there a clearly identifiable person who has the authority to establish and modify the air carrier's policies for Operational Control process?	Yes No (explain)
2. Does the person understand the Procedure Attributes associated with the operational Control process?	Yes No (explain)
3. Does the person understand the Control Attributes associated with the Operational Control process?	Yes No (explain)
4. Does the person understand the Process Measurement Attributes associated with the Operational Control process?	Yes No (explain)
5. Does the person understand the Interface Attributes associated with Operational Control process?	Yes No (explain)
6. Is the authority of this position clearly documented in the air carrier's manual(s)?	Yes No (explain)
7. Are the qualification standards for this position clearly documented?	Yes No (explain)
8. Are the qualification standards for this position appropriate for the duties that are assigned?	Yes No (explain)
9. Does the person acknowledge that he/she has authority for the Operational Control process?	Yes No (explain)
10. Does the individual know who has the Responsibility for the Operational Control process?	Yes No (explain)
11. Are the procedures for delegation of authority clearly documented for the Operational Control process?	Yes No (explain)

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT
3.1.4 OPERATIONAL CONTROL
SECTION 3 – PROCEDURES ATTRIBUTE

Objective: To determine if the company has documented procedures for accomplishing Operational Control process.

To meet the objective, the auditor will accomplish the following task:

1. Review the documented instructions and information related to the Operational Control process to ensure that they contain who, what, where, when, and how.
2. Discuss the Operational Control process with appropriate personnel to gain an understanding of the procedures.
3. Observe the Operational Control process with appropriate personnel to gain an understanding of the procedures.

To meet the objective, the auditor will determine and record answers to the following questions:

1. Does the Operations manual clearly define the procedures for maintaining Operational Control during all aircraft operations? (Flight Locating System, duty times, ATC clearances, and supervisory assistance) [SRRs:135.23, 135.77; 135.79]	Yes No (explain)
2. Does the Operations manual describe the facilities and their locations used by the operator in the exercise of Operational Control?[SRR 119.47]	Yes No (explain)
3. Does the manual describe the communication systems and procedures used by the operator to maintain contact with their crews? [SRR 135.79]	Yes No (explain)
4. Does the manual describe procedures for ensuring compliance with aircraft weight and balance limitations? [SRR 135.23(b)]	Yes No (explain)
5. Does the Operations manual clearly describe the area of operations authorized as depicted in Operations Specification? [SRR 135.23(c)]	Yes No (explain)
6. Does the Operations manual describe accident notification procedures to management and to the FAA? [SRR 135.23(d)]	Yes No (explain)
7. Does the Operations manual describe the coordination methods for determining the airworthiness of its aircraft prior to each flight? [SRR 135.23(e) through (i)]	Yes No (explain)
8. Does the Operations manual describe procedures for refueling aircraft, eliminating fuel contamination, protecting against fire, and supervision and the protection of passengers during refueling operations? [SRR 135.23(j), HSAC 2004-2 Fuel Quality Control, HSAC 94-1 Rapid Refueling]	Yes No (explain)
9. Does the air carrier require position reporting to include fuel-on-board during aircraft operations?	Yes No (explain)
10. Does the Operations manual describe procedures for recognizing and handling of hazardous materials? [SRR135.22(p)]	Yes No (explain)
11. Does the Operations manual describe procedure for briefing passengers and for Rotor in Motion operations? [SRR135.23(k) and 135.117]	Yes No (explain)
12. Does the Operations manual clearly define procedures and guidance to ensure the safety of passengers during line station or offshore operations? (Pilot duties during passenger management, equipment modifications for external speaker for single pilot operations and cyclic locks). [HSAC 88-1 “Passenger Management” and HSAC 2004-8 “Equipment Fit”]	Yes No (explain)
13. Does the Operations manual clearly define higher VFR minimum altitudes required by the regulations and visibility requirements that are necessary for takeoff and landings during day operations only while operating over GOMEX? (Single engine night operations not recommended practice per HSAC) [SRR135.203, 135.205 and 135.207 HSAC RP 2004-8 “Equipment Fit” and HSAC 2004-05 “Night Flight”]	Yes No (explain)

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT**3.1.4 OPERATIONAL CONTROL****SECTION 3 – PROCEDURES ATTRIBUTE**

14. Does the Operations manual clearly define supervisory procedures to obtaining and disseminating weather reports and forecast to its crews to avoid crews from making poor judgments during diminishing weather conditions? [SRR 135.213]	Yes No (explain)
15. Does the air carrier have a proactive helideck audit and reporting system for hazards? [HSAC 2004-01 Helideck Inspection 2004-07 Helideck Hazards.]	Yes No (explain)
16. Does the Operations manual clearly define procedures for controlling and/or restricting operations of aircraft during diminishing weather conditions and for handling diversion contingencies?	Yes No (explain)
17. Does the Operations manual clearly define procedures for landing on an obstructed helideck?	Yes No (explain)
18. Does the Operations manual clearly define procedures for landing more than one aircraft on a helideck?	Yes No (explain)
19. Does the air carrier manual define procedures and limitations for operating aircraft during high wind conditions?	Yes No (explain)
20. Does the air carrier manual define procedures for baggage handling, storage of baggage, and secure doors prior to operation and/or during rotors-in-motion? (Equipment modifications for baggage door security status) [HSAC 2004-01 “Bill of Rights” and HSAC 2004-03 “Pilot Commitment”]	Yes No (explain)
21. Does the Operations manual clearly define IFR flight procedures per ATC LOA?	Yes No (explain)
22. Do the procedures identify: who, what, where, when, and how?	Yes No (explain)
23. Do the procedures conform to other written guidance (e.g., operations Specifications, FAA Orders, Airworthiness Directives, Advisory Circulars, Handbook Bulletins, Directives, and Manufacturer’s Recommendations, and local Industry Safety Organization)?	Yes No (explain)
24. Does the air carrier have the resources to support the written procedures for the Operational Control process?	Yes No (explain)
25. If alternate procedures exist for use during irregular conditions, do they achieve the same desired results as the primary procedures so that an equivalent level of safety is maintained? (e.g., a manual system used as a result of equipment failure).	Yes No (explain)
26. Are the procedures published in different manuals relating to the Operational Control process consistent?	Yes No (explain)
27. Are procedures defined on who and how operational check-flights are conducted after maintenance was performed? [SRR 91.407]	Yes No (explain)
28. Does the air carrier have a documented method for assessing the impacts of procedural changes to the Operational Control process?	Yes No (explain)

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT**3.1.4 OPERATIONAL CONTROL****SECTION 4 – CONTROL ATTRIBUTE**

Objective: To determine if checks and restraints are designed into the Operational Control process to ensure a desired result is achieved.

To meet the objective, the auditor will accomplish the following task:

1. Review the documented instructions and information related to the Operational Control process.
2. Discuss the Operational Control process with appropriate personnel to gain an understanding of the controls.
3. Observe the Operational Control process to gain an understanding of the controls.

To meet the objective, the auditor will determine and record answers to the following questions:

1. Do the operational procedures create and maintain records of communications between operations and flight crews?	Yes No (explain)
2. Are Operational Process Measurements in place for Operational Control (supervisors) to assess whether crewmembers are fit for duty (physiological state, fatigue, and adverse mental state)?	Yes No (explain)
3. Are operational procedures defined to ensure only crewmembers that are properly trained and qualified are assigned to conduct a flight?	Yes No (explain)
4. Are operational procedures defined to ensure crewmembers are in compliance with flight and duty time requirements when departing on a flight?	Yes No (explain)
5. Are operational procedures defined in the manual that describes how supervisory personnel ensure compliance with Operational Control? (The carrier maintains control of the flight - not the customer)	Yes No (explain)
6. Are Operational procedures defined in maintaining mechanical irregularity reporting to maintain airworthiness status of their company aircraft?	Yes No (explain)
7. Does the company have a method of ensuring that safety of flight information is up-to-date and relayed to its flight crew in a timely and appropriate manner (e.g. NOTAMS, weather changes, etc.)?	Yes No (explain)
8. Are Operational procedures defined in a manual for how personnel are held accountable for unsafe acts?	Yes No (explain)
9. Are Operational procedures defined in the operations manual for compliance with flight manual checklist for each phase of flight?	Yes No (explain)

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT**3.1.4 OPERATIONAL CONTROL****SECTION 5 – PROCESS MEASUREMENT ATTRIBUTE**

Objective: To determine if operator measures and assesses the Operational Control process to identify and correct problems or potential problems.

To meet the objective, the auditor will accomplish the following task:

1. Review the documented instructions and information related to the Operational Control process.
2. Discuss the Operational Control process with appropriate personnel to gain an understanding of the controls.
3. Observe the Operational Control process to gain an understanding of the controls.

To meet the objective, the auditor will determine and record answers to the following questions:

1. Does the air carrier’s Operational Control processes include the following Process Measurements?

1.1. Does the air carrier document their Process Measurement methods and results?	Yes No (explain)
1.2. Does the air carrier audit process define the decision-making process for action plans to mitigate the identified Hazards and Risk?	Yes No (explain)
1.3. Does the air carrier take corrective actions to the Procedures or Control Attributes in response to identified Hazards/Risk discovered during the audits?	Yes No (explain)
1.4. Does the air carrier re-evaluate the corrective actions to determine the following; the original hazard, consequence, severity and likelihood have been mitigated effectively?	Yes No (explain)
1.5. Does the air carrier conduct an independent audit of the Operational Control program at least biannually to ensure that it meet its intended function (audits conducted by persons not associated with Operational Control)?	Yes No (explain)
1.6. Does the air carrier conduct at least 20% of its audits in a random, unannounced fashion?	Yes No (explain)
2. Does the air carrier conduct audits to assess compliance with aircraft weight and balance (load manifest) to assure quality?	Yes No (explain)
3. Does the air carrier conduct audits to detect violations of crewmember duty records for flight time and duty period limitations and rest requirements?	Yes No (explain)
4. Does the air carrier conduct audits to assess the required Operational Control procedures identified under Procedures Attributes?	Yes No (explain)
5. Does the company retain the records that reflect their Risk Analysis of Hazards and the how the risk was mitigated?	Yes No (explain)
6. Does the Process Measurement methods appear to be effective?	Yes No (explain)
7. Does the air carrier use their Process Measurement results to improve their programs?	Yes No (explain)
8. Are the Process Measurement results accessible to the FAA?	Yes No (explain)
9. Does the organization that conducts the process measurement have direct access to the person(s) with the responsibility and authority for the Operational Control processes?	Yes No (explain)
10. Does the air carrier have the resources to support the Process Measurement for the Operational Control process?	Yes No (explain)
11. Were all observations unrelated to the Process Measurement satisfactory?	Yes No (explain)

FAA/HSAC PART 135 SYSTEM SAFETY RISK MANAGEMENT
3.1.4 OPERATIONAL CONTROL
SECTION 6 – INTERFACES ATTRIBUTE

Objective: To determine if operator identifies and manages the interactions between the Operational Control process and the other element processes within the operators organization.

To meet the objective, the auditor will accomplish the following task:

1. Review the documented instructions and information related to the Operational Control process.
2. Discuss the Operational Control process with appropriate personnel to gain an understanding of the controls.
3. Observe the Operational Control process to gain an understanding of the controls.

To meet the objective, the auditor will determine and record answers to the following questions:

1. MEL/CDL/Deferred Maintenance (Element 1.3.5)	Yes No (explain)
2. Weight and Balance Program. (Element 1.3.17)	Yes No (explain)
3. Training Program (Element 3.1)	Yes No (explain)
4. Flight crewmember Flight/Duty/Rest Time (Element 6.1.2)	Yes No (explain)
5. Pilot Operating Limitations/Recent Experience (Element 4.3.1)	Yes No (explain)
6. Maintenance Control (Element 7.1)	Yes No (explain)
7. Training Program (Element 4.2)	Yes No (explain)
8. Training of Check Airmen and Instructors (Element 4.2.7)	Yes No (explain)
9. Simulators/Training Devices (Element 4.2.8)	Yes No (explain)
10. Outsource Crewmember Training (Element 4.2.9)	Yes No (explain)
12. Appropriate Airman/Crewmember checks and Qualification (Element 4.3.2)	Yes No (explain)
13. List any additional interfaces identified.	Yes No (explain)
14. Are there written procedures for the use of air carrier personnel in the application of these interfaces?	Yes No (explain)
15. Are there controls to ensure that interfaces occur?	Yes No (explain)
16. Are the interfaces between the Training of Flight Crewmembers process and other processes treated consistently in the Manual(s)?	Yes No (explain)