

**Docket No. SA-540**

**Exhibit No. 2 R**

**NATIONAL TRANSPORTATION SAFETY BOARD**

**Washington, D.C.**

Medallion Foundation Operational Control Star Program Design and  
Process Measurement Audit Points

(20 Pages)

# Attachment 17

To Operational Factors Specialist Factual Report

ANC17MA001

Medallion Foundation

Operational Control Star

Program Design and Process Measurement

Audit Points



# **OPERATIONAL CONTROL STAR**

PROGRAM DESIGN AND PROCESS MEASUREMENT AUDIT POINTS





The Medallion Foundation, Inc.  
**OPERATIONAL CONTROL PROGRAM**

---

**OPERATOR:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**PURPOSE:**

The purpose of these Operational Control Star audit points is to determine if the company has established documentation and an effective flight operations management system that identifies and considers all hazards and associated risks, and requires shared decisions for dispatching all flights with appropriate management involvement as risk levels increase.

**APPLICABILITY:**

All single and/or multi-engine airplane or helicopter operators participating in the Medallion Foundation Five Star / Shield program who operate within Alaska are subject to these audit points.

Companies that operate exclusively under 14 CFR part 121 are exempt from audits on this program. Operators wishing to receive the Operational Control Star and take advantage of the 121 exemption must submit a letter of request to the Medallion Foundation Executive Director.

**TRAINING REQUIREMENTS:**

The person who manages the star and is responsible for the implementation of the program must have attended the Medallion Foundation courses (or equivalent\*) in Safety Management Systems and Flight Risk Management. There must be two company employees (Star Managers) trained in Taproot®.

It is highly recommended that Senior Management attend the training courses.

**NOTES:**

1. Whenever "Policy or Procedure" is required, it is expected that they are documented and available to all applicable employees.
2. "Senior Management" is defined as a position of Chief Pilot, or higher.
3. \*Equivalent training – proof of attendance, such as a certificate, and an example of courseware will be submitted to the Medallion Program manager for approval of equivalent training.



**The Medallion Foundation, Inc.**  
**OPERATIONAL CONTROL PROGRAM**  
Section 1 - Initial Star Evaluation

---

<b>REFERENCE</b>
------------------

**General**

1. There is a written program that describes what operational control measures the company has established, including policies, procedures, risk assessment, coordination, weight and balance, de-icing, and training.
  
2. There is a written policy statement from the highest level of management that describes the goals and objectives of the program.


**Program Management**

3. A current and accurate organization chart is published, which depicts the structure of management for this program.
  
4. The person who has the Responsibility for the program is clearly defined.
  
5. The person who has the Authority for the Operational Control program is clearly identified. This person manages the star and is accountable for the implementation of the program. They demonstrate an understanding of the policies, procedures, interfaces, and process measurement associated with this program.
  
6. The person responsible for the content, maintenance, scheduling, recording and currency of the Operational Control training program is clearly documented.
  
7. The person with responsibility for the program has attended a System Safety or a similar class that includes system safety in the curriculum, Flight Risk Management and TapRoot®




**The Medallion Foundation, Inc.**  
**OPERATIONAL CONTROL PROGRAM**  
Section 1 – Initial Star Evaluation

---

<b>REFERENCE</b>
------------------

**Operational Control**

- 8. There is a documented process for considering pilot qualification certification, and experience when assigning crews for unique operations or locations (e.g., off airport operations for fixed wing, specialized operations for rotary-wing)
- 9. There is a process which ensures that safety of flight information (e.g. NOTAMS, weather, obstruction data, and airplane performance data) and management directives are up-to-date and communicated timely and effectively to all appropriate individuals.
- 10. There is a procedure for pilots to annotate/update data on conditions encountered at landing area(s) to ensure information on file is current and relevant for future flights.
- 11. For rotary-wing operators there is, prior to all departures (or series of departures), a procedure for determining predicted aircraft performance parameters for intended operations.
- 12. For rotary-wing operations there is a process for recording predicted aircraft performance information at least once daily.


**Unfamiliar Airports, Landing Areas and Routes**

- 13. A policy exists that clearly defines requirements for planned flights into unfamiliar airports, landing areas and along unfamiliar routes.
- 14. The company has a policy for identifying and designating Special Airports.
- 15. The company has defined Day and Night VFR routes, and designated minimum ceiling and visibility requirements that meet or exceed applicable regulatory requirements.
- 16. The company has a policy for identifying and designating Special Routes.




**The Medallion Foundation, Inc.**  
**OPERATIONAL CONTROL PROGRAM**  
Section 1 – Initial Star Evaluation

---

- 17. The company has a policy for Special VFR operations, including limiting departure minimums to 600' and 2 miles.
- 18. A procedure exists for briefings or some other form of familiarization when pilots are dispatched to airports, landing areas and along routes that are unfamiliar to them.
- 19. A procedure exists for diverting from Special or designated routes, and for returning to company designated routes.
- 20. Company VFR Day and Night Routes are assessable to all end users (pilots, dispatchers, flight followers).
- 21. A procedure exists for operating in Special VFR. This includes limiting SVFR departure minimums to 600' and 2 miles.


**Flight Coordination**

- 22. There is a policy requiring that a flight coordinator or certificated dispatcher be utilized in the conduct of all flight operations.
- 23. The duties of the flight coordinator are clearly defined.
- 24. There is a policy clearly establishing shared flight planning and decision-making responsibilities.
- 25. The pilot-in-command and flight coordinator share equal responsibility in determining whether or not the flight will be dispatched.
- 26. The company has established minimum standards for qualification as a flight coordinator. These standards may be met through experience or initial training to ensure proficiency.
- 27. All individuals acting as a flight coordinator or certificated dispatcher meet the written qualifications.




The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 1 – Initial Star Evaluation

28. There is a procedure stating what items will be included in the information provided to the pilot-in-command by the flight coordinator/dispatcher.

--

**Flight Risk Assessment**

29. There is a flight risk assessment procedure that combines a:  
a. Pre-determined landing area risk assessment and  
b. A risk assessment for each flight

--

30. A landing area risk assessment for all intended landing areas is on record and readily available to flight crew members and flight coordinators.

--

31. A route risk assessment for all intended Day and Night VFR routes, to include risk assessment of potential deviation scenarios within 10 nm either side of centerline of route.

--

32. Risk assessment procedures for each proposed flight include consideration of the risk associated including:  
c. The intended landing area,  
d. Pilot qualification  
e. Pilot's physical and emotional state,  
f. A weather assessment, including SVFR minimum values of 600/2.  
g. Suitability of the aircraft and equipment (including the MEL) for the flight  
h. Time of day (twilight/night/day)  
i. VFR routes assessed for ceiling and visibility minimums

--

33. The risk assessment process recognizes and addresses the cumulative effects of multiple hazards.

--

34. The flight risk assessment process requires increasing levels of management involvement as risk levels increase, including a level at which the flight will be postponed or cancelled because of a high risk assessment.

--

35. Management approval required for SVFR departures.

--



**The Medallion Foundation, Inc.**

**OPERATIONAL CONTROL PROGRAM**

Section 1 – Initial Star Evaluation

36. For charter or non-routine operations there are specific procedures for evaluating risks associated with unfamiliar landing areas, including off-airport operations.

37. Flight risk assessment are accomplished for every flight or, as an option:

There is a policy and associated procedures for conducting a consolidated risk assessment covering multiple flights to the same destination(s). Consolidated risk assessments must be predicated on the concept that operational conditions will not exceed pre-defined limits for man, machine, environment, and time. If any actual or forecast conditions exceed the established limits, a normal risk assessment must be completed for subsequent flights.

During the time consolidated risk assessments are in use, a designated individual must regularly check that the limits are not being exceeded and document that check.

If the flight is airborne and the defined limits are exceeded, the pilot and/or flight coordinator will take pre-defined action and alert the other party.

Consolidated risk assessments can only be utilized if senior management has approved the limiting conditions.

38. There are checklist(s), form(s), or other tools used to determine, evaluate and document potential risks associated with every flight.

39. Specific duties of the pilot-in-command and flight coordinators concerning flight risk assessment are clearly described.

40. There is a procedure requiring that both the pilot-in-command and the flight coordinator acknowledge agreement with the risk assessment by their signatures on the risk assessment form.

41. Flight risk assessment forms are completed and retained whether or not the flight operates.

*Note: Flight risk assessment forms must be retained for review by Medallion auditors during the next Medallion audit cycle.*




**The Medallion Foundation, Inc.**  
**OPERATIONAL CONTROL PROGRAM**  
Section 1 – Initial Star Evaluation

---

42. Flight risk assessment forms are retained for a specified period of time or until the review process is complete.

--

**Weight and Balance**

43. Procedures include a method for determining the weight of passengers, baggage and freight.

--

44. For each flight the pilot either (1) ensures that the aircraft is loaded in accordance with a defined loading plan/schedule that ensures the CG is within limits, or (2) calculates the weight and CG of the aircraft using an approved method.

--

45. The weight and CG of the aircraft is recorded for every flight operated in a single engine aircraft.

--

**Ground Operations**

46. There are policies and procedures to identify hazards and ensure passengers and ground personnel are briefed regarding safe ground operations, including safe aircraft entry/exit paths

--

47. If operating non-standard or specialty operations (such as float, ski, high volume tour operations, engine running on-load/off-load, heli-skiing, etc.) special briefings for passengers are conducted

--

**Icing / Deicing**

48. There is a policy and procedures that require the pilot to conduct a visual or physical examination of critical surfaces before take-off in accordance with the POH/AFM.

--

49. There is an icing/de-icing awareness program that includes any special requirements associated with the type of aircraft operated.

--

50. There is a policy and/or procedures for operations during unexpected en-route icing conditions.

--



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 1 – Initial Star Evaluation

51. There is policy and/or procedures for operations at airports that do not have de-icing capability available during ground icing conditions (including frost, snow, freezing rain, sleet or fog, and other forms of precipitation that may stick to the aircraft).

--

**Training**

52. Flight coordinators receive either

- (1) appropriate training concurrent with flight crews, or
- (2) training as part of a comprehensive, stand-alone program, including initial and recurrent training.

--

53. Training is structured to ensure that flight coordinators are conversant with the fundamentals of flight dispatching including meteorology, aircraft loading and performance

--

54. Training includes a standardized evaluation (written or oral examination) to ensure understanding and competency.

*Note: Training and testing must be documented and retained for review by Medallion auditors.*

--

55. There is initial and recurrent training for pilots and flight coordinators for Special Airports, Special Routes, Day and Night VFR routes. Training includes risk management of deviations.

--

56. There is initial and recurrent icing and de-icing training for pilots, flight coordinators, and ground personnel responsible for de-icing procedures.

--

57. The training program specifically addresses operational procedures for ground icing, de-icing, anti-icing and en-route icing.

--

58. The training program addresses procedures for cold weather operations including removal of frost, snow and/or ice before departure and, if applicable, specific aircraft de-icing requirements, cautions, warnings and/or limitations imposed by the POH/AFM and other associated regulatory documents.

--



**The Medallion Foundation, Inc.**  
**OPERATIONAL CONTROL PROGRAM**  
Section 1 – Initial Star Evaluation

---

59. The cold weather training program addresses “Clean Aircraft Concept,” as discussed in FAA AC 20-117.

--

**ATD / Simulator Instruction**

60. An ATD/Simulator training session which includes a scenario for deviation from established VFR routes.

--

**Program Audits**

61. There is a documented schedule to audit the training, records, forms, etc. of the program.

--

62. There is a written description of what will be audited, and who will be auditing the program.

--

63. Audits are documented and retained; at least until the annual Medallion Foundation audit is complete.

--

**Program Reviews**

64. There is an established process for the person responsible for the program to periodically review all program elements and documents.

--

65. There is a schedule to review the overall Operational Control program.

--

66. Senior management is included in the program review process.

--

67. Reviews are documented and retained for a minimum of one year.

--

**Records**

68. Records of all information, including appropriate forms/flight releases and weight and balance figures associated with a flight, are retained for a specified period of time.

--

69. A training record is maintained for all those associated with operations, including flight coordinators, aircraft loaders, and those with responsibility for deicing aircraft.

--



**The Medallion Foundation, Inc.**

**OPERATIONAL CONTROL PROGRAM**

Section 1 – Initial Star Evaluation

---

70. Training records include as a minimum; the date, location, subject, instructor and student signature, duration, and evaluation results.

**Continuous Improvement**

71. Information from the reporting system (if one exists), feedback, audits and reviews are continuously evaluated and used to improve the Operational Control Program.

72. There is a process to determine if improvements have had the desired effect on the Operational Control Program.

**Feedback**

73. There is a feedback mechanism between the individuals with authority and/or responsibility for the program, those conducting and/or receiving training and those implementing the program.



**The Medallion Foundation, Inc.**

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

The Recurrent Star Evaluation section is intended to assess the effective implementation of your program. The evaluation and subsequent audit will look at your processes and determine whether or not they have been implemented as intended. Implementation verification may be in the form of documents, training records, or other hard evidence that in fact the process has occurred as intended. If there is a discrepancy or deficiency identified, it is expected that a corrective action will be developed and implemented. This form can be used for identifying whether or not the processes have been implemented, document corrective actions for those that have not, and setting target dates for correcting the issue.

<u>PROCESS MEASUREMENT QUESTIONS</u>	<u>FINDINGS</u>	<u>CORRECTIVE ACTIONS</u>	<u>TARGET DATE</u>
	<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	<i>Document corrective action and person responsible for implementing if other than the program manager</i>	

**GENERAL / PROGRAM MANAGEMENT**

1.	There is a method to ensure the most current Medallion audit points are used.			
2.	If the Medallion audit points were revised after the last successful evaluation, has the program been revised to include any new or changed requirements?			
3.	The Operational Control program manager has ensured all contact information on the Medallion website is up to date.			
4.	Has the person responsible for the program attended System Safety or equivalent, Flight Risk Management and TapRoot® training?			



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

<u>PROCESS MEASUREMENT QUESTIONS</u>	<u>FINDINGS</u>	<u>CORRECTIVE ACTIONS</u>	<u>TARGET DATE</u>
	<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	<i>Document corrective action and person responsible for implementing if other than the program manager</i>	

**OPERATIONAL CONTROL / FLIGHT COORDINATION**

5.	Safety of flight information and management directives are up-to-date.			
6.	Safety of flight information and management directives are communicated timely and effectively to all appropriate personnel.			
7.	Pilots update data on conditions encountered at landing areas.			
8.	The company policy on shared decisions for operational control of company flights being followed.			
9.	Pilots and flight coordinators are following established procedures concerning shared decision-making.			

**FLIGHT RISK ASSESSMENT**

10.	Risk assessments of all flights are completed and retained in accordance with Company documented procedures.			
-----	--	--	--	--



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

<u>PROCESS MEASUREMENT QUESTIONS</u>	<u>FINDINGS</u>	<u>CORRECTIVE ACTIONS</u>	<u>TARGET DATE</u>
	<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	<i>Document corrective action and person responsible for implementing if other than the program manager</i>	
11. If applicable, consolidated risk assessment procedures being complied with in accordance with Company documented procedures.			
12. Explain how the concept of “increased in risk requires an increase in management involvement” is incorporated into the program.			

**WEIGHT & BALANCE / GROUND OPERATIONS / ICING-DEICING**

13. The procedures for determining the weight of passengers, baggage and freight is used for every flight.			
14. Icing awareness requirements in these audit points are complied with.			

**TRAINING**

15. All flight coordinators have completed training in Flight Risk Management.			
--	--	--	--



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

<u>PROCESS MEASUREMENT QUESTIONS</u>	<u>FINDINGS</u>	<u>CORRECTIVE ACTIONS</u>	<u>TARGET DATE</u>
	<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	<i>Document corrective action and person responsible for implementing if other than the program manager</i>	
16. All flight coordinators have completed Company icing and de-icing training.			
17. All ground personnel responsible for de-icing procedures have completed company de-icing training.			
18. Classroom and simulator/ATD training in diverting from a VFR route.			

**PROGRAM AUDITS**

19. Audits required by the program are completed as scheduled.			
20. Individual training documents are included in the program audit.			
21. Pilot and flight coordinator training records are audited for currency.			
22. Flight risk assessment forms are audited to ensure compliance with written requirements.			



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

<b><u>PROCESS MEASUREMENT QUESTIONS</u></b>	<b><u>FINDINGS</u></b>	<b><u>CORRECTIVE ACTIONS</u></b>	<b><u>TARGET DATE</u></b>
	<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	<i>Document corrective action and person responsible for implementing if other than the program manager</i>	
23. The audit is used to identify deficiencies within the Operational Control program.			
24. Audit deficiencies result in corrective actions within the Operational Control program.			
25. Who within the company participates in the Operational Control program audits?			
26. Audits are documented and retained for review for the time specified by the program.			
27. What changes have been made to the program as a result of the audit process?			

**PROGRAM REVIEWS**

28. Were there any accidents related to the functioning of the Operational Control Program in the past 12 months?			
---	--	--	--



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

<u>PROCESS MEASUREMENT QUESTIONS</u>	<u>FINDINGS</u>	<u>CORRECTIVE ACTIONS</u>	<u>TARGET DATE</u>
	<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	<i>Document corrective action and person responsible for implementing if other than the program manager</i>	
29. Was a TapRoot® investigation completed? What corrective measures were implemented?			
30. The Operational Control program is reviewed in accordance with the review schedule by the individual responsible for the program.			
31. Operational Control policies and procedures are included in the review.			
32. Operational Control audits results are included in the review.			
33. Other associated Operational Control program records are included in the review, such as feedback forms, flight risk assessment forms, hazard or safety reports.			
34. A schedule for periodic reviews by senior management is implemented.			



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

<u>PROCESS MEASUREMENT QUESTIONS</u>	<u>FINDINGS</u>	<u>CORRECTIVE ACTIONS</u>	<u>TARGET DATE</u>
	<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	<i>Document corrective action and person responsible for implementing if other than the program manager</i>	
35. There is a record showing that senior management reviewed the program.			
36. What feedback has senior management provided during their review?			
37. All program reviews are documented and retained for the amount of time specified by the program.			
38. What changes have been made to the program as a result of the review process?			

**CONTINUOUS IMPROVEMENTS**

39. Changes made to the program since the last evaluation is effectively communicated.			
40. Has program management changed in the past 12 months? (NOTE: Assess the effective transfer of responsibilities and the methods used for that transfer.)			



The Medallion Foundation, Inc.

**OPERATIONAL CONTROL PROGRAM**

Section 2 – Recurrent Star Evaluation

<u>PROCESS MEASUREMENT QUESTIONS</u>	<u>FINDINGS</u>	<u>CORRECTIVE ACTIONS</u>	<u>TARGET DATE</u>
		<i>Verify implementation. Record discrepancies &amp; deficiencies</i>	

**FEEDBACK**

41.	What feedback has been received from the pilots and flight coordinators concerning the application of the shared decision making requirements?			
42.	There is feedback from individuals conducting Flight Risk Management training to the individual responsible for the program.			
43.	There is feedback from the individuals receiving Flight Risk Management training to the individual responsible for the program.			