

CHANGE

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

**ORDER
JO 6850.5C
CHG 9**

Air Traffic Organization Policy

Effective Date:
09/15/2008

SUBJ: Maintenance of Lighted Navigational Aids

1. Purpose. This change provides page changes to Order JO 6850.5c, Maintenance of Lighted Navigational Aids, Appendix 1, Certification Requirements. This change is intended to allow for event based certification. Configuration Control Decision (CCD) N31902, Implementing Policy for Event Based Certification of Navigation Systems and Sub Systems in paragraph 503 per updates to FAA Order 6000.15E, is required.

2. Who This Change Affects.

a. This document is made available to sites with this Facility, Service, and Equipment Profile (FSEP): ALS, ARBCN, ETB, GDL, LDIN, MAL, MALSR, ODALS, PAPI, REIL, SSALR, SSALS, VASI.

b. For electronic copies, use the Technical Library website at <http://nas.amc.faa.gov>.

c. For printed copies, national offices distribute to sites with an accurate inventory record in FSEP and a mailing address in the Logistics Inventory System (LIS).

d. For help in updating inaccurate FSEP and/or DDS records, visit our website at http://nas.amc.faa.gov/technical_library/template.jsp?bodyPage=help.html&title=Help.

e. FSEP distribution: 317, 351, 3291, 3150, 3140, 323, 324, 326, 3181, 319, 313A-H, 313J-K, 328, 327, 316, 31A.

3. Explanation of Changes. This handbook is being updated to provide equipment certification based on events. Events are defined in the latest version of Order 6000.15, General Maintenance Handbook for National Airspace System (NAS) Facilities.

4. Disposition of Transmittal. Keep this change.

PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
		<u>TOC</u>	
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		xii	3/27/95
		<u>Appendix 1</u>	
1 thru 8	3/27/95	1 thru 9	09/15/2008



for James N. Arrasmith
Acting Director, Safety and Operations Support

Distribution: See paragraph 2e

Initiated By: AJW-143

Paragraph

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Appendix 1. Certification Requirements

* System and Subsystem Certification.

System and subsystem certification is event based and relies on independent judgment about the quality and scope of specific advertised services being provided to a user. Event based certification ties the certification judgment to the decision to place a system or subsystem into service.

a. ATO personnel with certification authority must perform event based system and subsystem certification. The following events define when certification is required, regardless of whether it affects a certification parameter:

- (1) Prior to commissioning.
- (2) Upon request following aircraft accident/incidents.
- (3) Following adjustment to any certification parameter regardless of whether an interruption was required.
- (4) Prior to restoration following any flight inspection requiring on-site personnel.
- (5) Prior to restoration following any modification.
- (6) Prior to restoration following any maintenance task that required an interruption or would have required an interruption to a facility without redundancy.
- (7) Prior to restoration following any corrective maintenance activity required to restore a facility to operation.

b. System and subsystem certification is not required when a facility is restored to operation by restoration of power, initialization, or reset, and no other action was taken.

c. Some NAS systems contain user interface controls that can cause a certification parameter to be adjusted beyond its tolerance or limit. Such adjustments will not void the certification.

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Appendix 1. Certification Requirements (Continued)

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Table 1. ALSF-1 Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Light plane	Light bar lamps illuminated	71a(1)
2. Light intensity	Vertical angular alignment Horizontal angular alignment Regulator output currents	72, 78g 73 74
3. Brightness control capability	Brightness step changing time	76a
4. Identify threshold	Green threshold bar filters	71a(3), 77
5. Identify 100 feet from threshold	Red wing bar filters	71a(4), 77
6. Identify 200 feet from threshold	Red terminating bar filters	71a(5), 77
7. Identify 1000 feet from threshold	1000-foot bar	71a(6)
8. Identify approach path	Sequenced flashing lights operation Flashing rate	78a 78e
9. Visibility	Obstructions	80
10. Monitoring	Incandescent light operation Flasher operation	81a(1) 81a(2)

CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.

PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority

CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: ALSF-1 certified

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Appendix 1. Certification Requirements (Continued)

Table 2. ALSF-2 Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Light plane	Light bar lamps illuminated	71b(1), (2) (3), (4)
2. Light intensity	Vertical angular alignment Horizontal angular alignment Regulator output currents	72, 78g 73 74
3. Brightness control capability	Brightness step changing time	76a
4. Identify threshold	Green threshold bar filters	71b(5), 77
5. Identify 500 feet from threshold	500-foot bar	71b(6)
6. Identify area from threshold to 1000 foot bar	Red side-row bar filters	77
7. Identify 1000 feet from threshold	1000-foot bar	71b(7)
8. Identify approach path	Sequenced flashing lights operation Flashing rate	78b 78e
9. Visibility	Obstructions	80
10. Monitoring	Incandescent light operation Flasher operation	81b(1) 81b(2)

CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.

PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority

CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: ALSF-2 certified

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Appendix 1. Certification Requirements (Continued)

Table 3. ALSF-2/SSALR Dual Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Light plane	Light bar lamps illuminated	71b(1), (2), (3), (4), 71c
2. Light intensity	Vertical angular alignment Horizontal angular alignment Regulator output currents	72, 78g 73 74
3. Brightness control capability	Brightness step changing time	76a
4. Identify threshold	Green threshold bar filters	71b(5), 71c(3), 77
5. Identify 500 feet from threshold	500-foot bar	71b(6)
6. Identify area from threshold to 1000 foot bar	Red side-row bar filters	77
7. Identify 1000 feet from threshold	1000-foot bar	71b(7), 71c(4)
8. Identify approach path	Sequenced flashing lights operation Flashing rate	78c 78e
9. Visibility	Obstructions	80
10. Monitoring	Incandescent light operation Flasher operation	81c, and instruction book 81c, and instruction book

CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.

PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority

CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: ALSF-2/SSALR certified

CERTIFICATION ENTRY (WITH EXCEPTION) IN FACILITY MAINTENANCE LOG: ALSF-2/SSALR certified except:

1. ALSF-2 Out of Tolerance/Limit
2. Flasher Out of Tolerance/Limit
3. Monitor Out of Tolerance/Limit
4. Light Bar (Number) Out of Tolerance/Limit

Appendix 1. Certification Requirements (Continued)

Table 4. SSALS, SSALF, and SSALR Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Light plane	Light bar lamps illuminated	71c
2. Light intensity	Vertical angular alignment Horizontal angular alignment Regulator output currents	72, 78g 73 74
3. Brightness control capability	Brightness step changing time	76a
4. Identify threshold	Green threshold bar filters	71c(3), 77
5. Identify 1000 feet from threshold	1000-foot bar	71c(4)
6. Identify approach path	Sequenced flashing lights operation Flashing rate	78d 78e
7. Visibility	Obstructions	80

CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.

PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority

CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: SSALS, SSALF, SSALR certified

Appendix 1. Certification Requirements (Continued)

Table 5. MALS, MALSF, and MALSR Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Light plane	Light bar lamps illuminated	71c
2. Light intensity	Vertical angular alignment Horizontal angular alignment Light unit input voltage	72, 78g 73 75
3. Identify threshold	Green threshold bar filters where applicable	71c(3), 77
4. Identify 1000 feet from threshold	1000-foot bar	71c(4)
5. Identify approach path	Sequenced flashing lights operation Flashing rate	78d 78e
6. Visibility	Obstructions	80
7. Remote control capability	a. Ground-to-ground control functions b. Air-to-ground control functions c. Landline control functions	79 79 79
<p>CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.</p> <p>PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority</p> <p>CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: MALS, MALSF, or MALSR certified</p>		

Appendix 1. Certification Requirements (Continued)

Table 6. ODALS and LDIN Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Guidance to runway	Lamps operational	83a
2. Light intensity	Angular alignment (vertical and horizontal)	83b
3. Flashing light	Flashing rate	83c
4. Visibility	Obstructions	83e
5. Remote and capability	a. Ground-to-ground control functions	79
	b. Air-to-ground control functions	79
	c. Landline control functions	79
<p>CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.</p> <p>PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority</p> <p>CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: LDIN or ODALS certified</p>		

Appendix 1. Certification Requirements (Continued)

Table 7. VASI Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Visible glide slope	Vertical angular alignment Red filters	91, 92 103
2. Light intensity	Light box lamps illuminated Regulator output currents	90 100, 101
3. Visibility	Obstructions	104
4. Remote control capability	a. Ground-to-ground control functions b. Air-to-ground control functions c. Landline control functions	79 79 79

CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.

PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority

CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: VASI certified

Appendix 1. Certification Requirements (Continued)

Table 8. PAPI Systems

Advertised Service	Certification Parameters	Reference Paragraph
1. Visible glide slope	Vertical angular alignment Red filters	93 103
2. Light intensity	Light box lamps illuminated Regulator output currents	90 101
3. Visibility	Obstructions	104
4. Remote control capability	a. Ground-to-ground control functions b. Air-to-ground control functions c. Landline control functions	79 79 79

CERTIFICATION BASED ON EVENTS: Events are defined in Order 6000.15 and are provided only as reference data of appendix 1, paragraph 1 of this order.

PERSON RESPONSIBLE FOR CERTIFICATION: Airway transportation system specialist (ATSS) with certification authority

CERTIFICATION ENTRY IN FACILITY MAINTENANCE LOG: PAPI certified

