

# ORDER

8240.36L

## FLIGHT INSPECTION REPORT PROCESSING SYSTEM (FIRPS)



**October 1, 2006**

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

## RECORD OF CHANGES

DIRECTIVE NO.

8240.36L

[illegible]



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

**ORDER  
8240.36L**

Effective Date:  
10/01/06

**SUBJ:** Flight Inspection Report Processing System (FIRPS)

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This order provides policy, guidance, and distribution requirements for flight inspection reports and records when using the electronic Flight Inspection Report Processing System (FIRPS).

Flight inspection files (e.g., flight inspection reports, data sheets, oscillographic recordings, electronic media, photographs, correspondence) are federal records. Unless classified by specific authority, they are available, on request, to the public by the authority of the Freedom of Information Act, Title 5, United States Code, Section 552. The policy and legal requirements for records management are contained in other Federal Aviation Administration (FAA) orders.

Guidelines for record disposition are contained in FAA Order 1350.15, Records Organization, Transfer, and Destruction Standards.

/s/

Thomas C. Accardi  
Director of Aviation System Standards

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<b>Distribution:</b>	<b>Initiated By:</b> Air Traffic Technical Operations (ATO-W)
ATO-W Service Areas; NAS Implementation Centers;	Aviation System Standards
Flight Inspection Operations Offices & Crewmembers;	Flight Inspection Operations Group
Special Military Addressees	Flight Inspection Policy Team (AJW-3310)

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## CHAPTER 1. INTRODUCTION

1. **PURPOSE.** This order provides policy, guidance, and distribution requirements for flight inspection reports and records when using the electronic Flight Inspection Report Processing System (FIRPS).
2. **DISTRIBUTION.** This order is distributed to the Air Traffic Technical Operations Eastern, Central, and Western Service Areas; to the NAS Implementation Centers; to Flight Inspection Operations Offices and crewmembers in Aviation System Standards; and to special military addressees.
3. **EFFECTIVE DATE.** This order is effective October 1, 2006.
4. **CANCELLATIONS:**
  - a. **FAA Order 8240.36K**, Instructions for Flight Inspection Reporting, dated October 1, 2005.
  - b. **FIRPS Test and Implementation Guidance with Changes 1 – 4.**
  - c. **Notice N VN200 8200.19**, Flight Inspection Report Processing (FIRPS) Test and Implementation Guidance and Changes to FAA Order 8240.36, Instructions for Flight Inspection Reporting, dated July 18, 2005.
5. **EXPLANATION OF CHANGES:**
  - a. **Chapter 1, Paragraph 6a.** Clarified implementation paragraph.
  - b. **Chapter 1, Paragraph 8.** Clarified information currency instructions.
  - c. **Chapter 2:**
    - (1) **Paragraph 11j.** Added option to use “S” or “U” for report entry in addition to “SAT” and “UNSAT”.
    - (2) **Paragraph 11k.** Added guidance for AVNIS Data Change Submission.
    - (3) **Paragraph 11l.** Added guidance for PRM reporting requirements
    - (4) **Paragraph 11m.** Added guidance for procedure inspections.
    - (5) **Paragraph 12i.** Clarified “Inspection Type” requirements.
    - (6) **Paragraph 12j(2).** Clarified requirements.
    - (7) **Paragraph 13.** Updated organizational names.
    - (8) **Paragraph 14d.** Updated organizational names.
    - (9) **Paragraph 15a(1).** Changed requirement from “Name of crewmembers” to “Crew number”.
    - (10) **Paragraph 15a(4).** Changed specific mailing requirements to generic mailing instructions.

- (11) **Paragraph 15a(5).** Changed shipping notification email address.
  - (12) **Paragraph 15a(6).** Added shipping address for Federal express.
  - (13) **Paragraph 15b.** Clarified after accident distribution procedures.
  - (14) **Paragraph 15c.** Clarified requirements and updated organizational names.
  - (15) **Paragraph 15d.** Clarified requirements and updated organizational names.
  - (16) **Paragraph 15e.** Updated organizational names.
  - (17) **Paragraph 15f.** Clarified reporting requirements for radio frequency interference.
  - (18) **Paragraph 15h(2).** Guidance added due to elimination of Appendix 23.
- d. **Chapter 3:**
- (1) **Paragraph 21a(1).** Clarified “Out of Tolerance Condition” requirements.
  - (2) **Paragraph 21b.** Clarified narrative requirements.
  - (3) **Paragraph 21c.** Clarified requirements.
  - (4) **Paragraph 21d.** Updated organizational name for reporting NOTAM(s).
  - (5) **Paragraph 21g.** Clarified reporting requirements for SIAP(s).
  - (6) **Paragraph 21j.** Added examples for reporting ESV(s) and clarified instructions.
  - (7) **Paragraph 21r.** Updated organizational names.
  - (8) **Paragraph 21u.** Added 1800 RVR reporting requirements.
- e. **Appendix 1.** Updated FAA Form 8240-6, Precision Approach Radar and deleted FAA Forms 8240-20 and FAA 8240-22, which have been moved to the Aeronautical Data Management order.
- f. **Appendix 2:**
- (1) **Paragraph a. Field 1. Flight Inspection Report Header.** Condensed reporting instructions.
  - (2) **Paragraph c.** Clarified VOR/ PIR reporting instructions.
  - (3) **Paragraph d.** Corrected chapter and paragraph reference.
  - (4) **Paragraph e. Field 5. Remarks.** Added VOT description.
  - (5) **Paragraph e(4).** Corrected reference.
  - (6) **Paragraph e(5).** Made recording the model, serial number, and calibration date of the PIR a requirement (no longer optional).
  - (7) **Paragraph f(2).** Added clarification about when to enter ARR data.



- (8) **Paragraph g(2).** Added “radial use selection” of “COV” (Coverage radial).
- (9) **Paragraph g(6).** Clarified reporting guidance.
- g. **Appendix 5:**
  - (1) **Paragraph a. Field 1. Flight Inspection Report Header.** Condensed reporting instructions.
  - (2) **Paragraph 3f. Facility Status.** Clarified completion requirement when checking communication.
  - (3) **Paragraph 6b(8).** Clarified bearing error reporting requirement.
- h. **Appendix 6. FAA Form 8240-6, Pages 1, 2 and 3.** The forms and the guidance have been rearranged and expanded to provide a user friendly, functional format.
- i. **Appendix 7.** Added this appendix and guidance.
- j. **Appendix 8:**
  - (1) **Paragraph a. Field 1. Flight Inspection Report Header.** Condensed reporting instructions.
  - (2) **Paragraph 3r.** Updated organizational names.
  - (3) **Paragraph 3r(2).** Added note.
  - (4) **Paragraph 5c.** Deleted term LCA and replaced it with “an altitude”.
  - (5) **Paragraph 6i.** Corrected reference subparagraph from “8j” to “6h”.
  - (6) **Paragraph 6k.** Added guidance for clarification.
  - (7) **Paragraph 9f, 9g, 9i, and 9j.** Corrected reference subparagraphs from “8j” to “6h”.
  - (8) **Paragraph 10a., Field A.** Changed field name to “Antenna Dephase”.
  - (9) **Paragraph 10p(1).** Added requirement to enter ARDH value in hundredths of feet.
  - (10) **Paragraph 10p(3).** Added requirement to enter RDH value in hundredths of feet.
  - (11) **Paragraph 10r(3).** Clarified guidance.
- k. **Appendix 12:**
  - (1) **Paragraph a. Field 1. Flight Inspection Report Header.** Condensed reporting instructions.
  - (2) **Paragraph 6d(1).** Changed method to identify the airport where the surveillance approach terminates.

- l. Appendix 13:**
    - (1) **Introduction Paragraph.** Clarified when to use this form.
    - (2) **Paragraph 1. Flight Inspection Report Header.** Condensed reporting instructions.
    - (3) **Paragraph 3.** Clarified reporting requirements.
  - m. Appendix 14, Paragraph 3.** Updated organizational names and special reports review guidance.
  - n. Appendix 16:**
    - (1) **Paragraph 1. Field 1. Flight Inspection Report Header.** Condensed reporting instructions.
    - (2) **Paragraph 5a, 6b(1), and 6b(12).** Added definition of acronyms.
  - o. Appendix 17:**
    - (1) **Paragraph a. Field 1. Flight Inspection Report Header.** Condensed reporting instructions.
    - (2) **Paragraph 3(d).** Changed field name from “RAIM” to “Sensor Status”.
    - (3) **Paragraph 5.** Added definition of acroyms.
  - p. Appendix 20.** This appendix is removed from FAA Order 8240.36 and will be located in the Aeronautical Data Management order.
  - q. Appendix 22.** This appendix is removed from FAA Order 8240.36 and will be located in the Aeronautical Data Management order.
  - r. Appendix 23.** Deleted. This appendix is not needed since the source for mailing flight inspection reports is the database within the TSS Flight Inspection Records Team, AJW-335A.
- 6. COMPUTER GENERATED FORMS.** This paragraph provides information on the automation of the flight inspection forms.
  - a. Implementation.** This automated system will expedite filling out flight inspection forms and reduce the number of errors due to manual entries. This system also allows information to be extracted from sources such as text files and other databases.
  - b. Use of Automated Forms.** The software package will provide an automated method for completing flight inspection forms. This automated process allows each user to fill in forms completely, accurately, and to print the forms.

- c. **Equipment Requirements.** Each user office must have access to the appropriate hardware/ software package. The required software, as well as a user's guide for the current form software package, may be obtained from the Information Technology Staff.
  - d. **System Description.** This electronic form processor has a visual interface and allows each user to work with forms using windows, pictures, and menus on a screen. The completed screen data and form may be printed on bond paper.
  - e. **Some Features of the System.** This program allows the user to:
    - (1) Bring a copy of the form into the work area on a screen.
    - (2) Tab or select particular fields on the forms with a mouse and type in required data.
    - (3) Automatically fill in areas on the form by the computer using many designated fields that contain relatively constant facility data.
    - (4) Fill in forms completely and accurately with many automatic checks and entries.
    - (5) Fill forms with information from central databases.
    - (6) Print forms efficiently.
  - f. **Appendix 1, Flight Inspection Forms**, contains a listing of forms used in reporting various facilities and types of inspections.
- 7. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS.** (Refer to Order 8200.1, United States Standard Flight Inspection Manual, for definitions, acronyms, and abbreviations.) This order contains instructions and guidance material. Directive verbs are used. In this order, the words:

- a. **Must** in the second or third person means that an action is mandatory. "**Must not**" means that an action is prohibited.
- b. **Will** indicates it is understood that an action is to be taken. Do not use "will" when you mean "must."
- c. **Should** means that an action is desirable but not mandatory or, "We would like you to do it, but you don't have to."
- d. **May** means an action is permissive - or "If you want to, go ahead."

**8. INFORMATION CURRENCY.** Comments regarding corrections, clarification, or suggested improvements regarding the content of this order should be forwarded to the Flight Inspection Policy Team, AJW-3310, for consideration. Your assistance is welcome. If an interpretation is urgently needed, you may call the Flight Inspection Policy Team, FTS 405 954-3766, for guidance, but you should also use FAA Form 1320-19, Directive Feedback Information, as a follow-up to verbal conversation.

**9 - 10. RESERVED.**

## CHAPTER 2. GENERAL INFORMATION

### 11. GENERAL FORMS COMPLETION

- a. **Reports.** The flight inspector is responsible for initiating reports for all flight inspections.
- b. **Reporting Numeric Data.** Unless otherwise stated, report numerical data to the following accuracy:
  - (1) **Microamperes** - To the nearest whole microampere.
  - (2) **Altitude** - To the nearest foot, mean sea level (MSL).
  - (3) **Azimuth** - To the nearest tenth of a degree.
  - (4) **Percent** - To the nearest tenth of a percent.
  - (5) **Mileage** - To the nearest tenth of a nautical mile.
  - (6) **Angles** - To the nearest hundredth of a degree.
  - (7) **Widths** - To the nearest hundredth of a degree.
  - (8) **Latitude** – Degrees, minutes, seconds, and hundredths of a second (north/south).
  - (9) **Longitude** – Degrees, minutes, seconds, and hundredths of a second (east/west).

**NOTE:** In accordance with FAA Order 8200.1, Formulas, the following guidelines must be used in rounding off computations. Measurements and calculations should be carried to one decimal place more than that required for tolerance application. Then apply the following criteria to round off a measurement.

Numerals 1 to 5, round off to zero.

Numerals 6 to 9, round off to the next higher value.

Example: Glidepath Course Width:  $0.755^{\circ} = 0.75^{\circ}$

$0.756^{\circ} = 0.76^{\circ}$

Exception: If a measurement exceeds a tolerance, it must not be rounded off to an in tolerance condition.

Example: Glidepath Course Width -  $0.903^{\circ}$  is out of tolerance.

- c. **Primary and Supplementary Report Forms.** The current software for automated form completion must be used. The forms may be filled out by hand only when an interim report is required. Use black ink for data entry.
- d. **Non-Applicable Portions of Report Forms.** If any part of a report form does not apply to the facility inspected or the type inspection conducted, leave it blank.
- e. **Type Inspection.** Except for the special checks which meet periodic requirements, IAW Chapter 3, Paragraph 21o, report only one type of inspection per report form (i.e., if a periodic inspection is conducted on one component of a facility concurrently with a commissioning check of another component of the same facility, submit a separate report on each).
- f. **Facilities Supporting Other NAVAID(s).** When a facility's primary purpose is to support a procedure on another NAVAID (e.g., 75 MHz marker beacon, DME, etc.), the supporting facility must be reported on the "NAVAID(s)" report form, unless otherwise directed in the appropriate appendix. If the facility component is a compass locator and supports a separate NDB approach procedure, refer to Appendix 5.
- g. **Surveillance Inspection Discrepancies.** Report discrepancies of services and airport conditions on FAA Form 8240-13, Flight Inspection Report--General Characteristics. Report facility discrepancies found during a surveillance inspection on the appropriate facility report form (e.g., ILS, VOR, etc.).
- h. **Facility Performance.** The report must reflect the facility "as left," unless specified otherwise by reporting instructions for a given facility type.
- i. **Satisfactory/ Unsatisfactory Report Entries.** Unless otherwise stated in this order, enter "SAT" or "S" if satisfactory; enter "UNSAT" or "U" if unsatisfactory and refer to Chapter 3, Paragraph 21a.
- j. **AVNIS Data Change Submission.** FAA Form 8240-20, AVNIS Data Change Submission, is provided within FIRPS. The completion requirements are identified in the Aeronautical Data Management order.
- k. **Precision Runway Monitor (PRM)/ Final Monitor Aid (FMA) Inspections.** FAA Form 8240-5-4 is provided within FIRPS. The completion requirements are identified in FAA Order 8200.39.
- l. **Procedure Inspections.** Report SID(s), STAR(s), and SIAP(s) on the form designated for the primary NAVAID of the procedure (e.g., an ASR approach is reported on FAA Form 8240-12, Surveillance Radar; a departure requiring interception of a radial is reported on FAA Form 8240-2, VOR, VOR/ DME, VORTAC, TACAN, VOT). Textual departure procedures not requiring the use of any NAVAID are reported on FAA Form 8240-13, General Characteristics. If procedural changes do not require recorded data, (e.g., MDA raised, controlling obstacle changed with no change in minima, or fixes within the FISSV) include the statement, "No electronic data required."

**12. COMMON REPORT DATA.** Any additional information or exceptions to the following instructions are specified in the reporting instructions for each type facility. Instructions for reporting common information are as follow:

- a. Common Data on Each Report Page.** Page Number, Location, Ident, and Date must be included on all pages of a flight inspection report. This data may be auto-filled.
- b. State.** Enter the state code for facilities located in the United States. Click on the drop-down box and select the appropriate entry.
- c. Country.** Enter the country code for facilities located outside the United States. Enter “US” for facilities located in the United States. Click on the drop-down box and select the appropriate entry.
- d. Identifier (Ident) Field.** Enter the facility IDENT listed on the Aviation System Standards Integrated Services (AVNIS) Facility Data Sheet, except:
  - (1) If the procedure is to a point in space, not a designated airport, enter the airport identifier assigned by the National Flight Data Center (NFDC). If no ident is assigned, leave blank.
  - (2) For a stand-alone point-in-space fix, enter the ARTCC identifier without a “K” prefix (e.g., ZSE).
  - (3) For routes, enter route name, i.e., Q501, etc.
  - (4) For a DP or STAR, enter the computer code listed on the PC form, i.e., computer code IDALE2.IDALE, enter “IDALE2”.
  - (5) If the facility identifier is changed, refer to Chapter 3, Paragraph 21.
  - (6) If mobile/ tactical facilities are installed for extended periods of time and utilized for instrument flight rules (IFR), the identification (ID) will be assigned the same as a permanent facility. If the facility is installed in support of a specific temporary (normally not to exceed 90 days) requirement, enter the four-letter ID as indicated in Chapter 3, Paragraph 21m.

- e. **Owner Field.** Enter the owner code listed in AVNIS. Acceptable codes are:

OWNER CODE	DESCRIPTION
A	Air Force
B	Public
C	Coast Guard
E	FAA F&E Projects
F	FAA (Other than F&E)
H	International Public
I	International (Generic)
J	International Private
K	International Air Force
L	International Army
M	International Navy
N	Navy
O	Other (Specify in Remarks)
P	Private
R	Army
S	State
X	Public Special

**NOTE:** If ownership should change, refer to Chapter 3, Paragraph 21.

- (1) **International:** Facilities/ approaches/ procedures owned by the foreign government shown in the location field.
  - (2) **Private:** Facilities/ approaches/ procedures owned by non-governmental interests. This owner is not always indicated in the location field. For commissioning reports only, identify the specific owner (actual corporation or organization) in the “Remarks” section.
  - (3) **State, County, or Municipality:** Facilities/ approaches/ procedures owned by a domestic governmental interest other than the Federal Government. For commissioning report only, identify the specific owner in the “Remarks” section.
  - (4) **Other:** Facilities owned by the Federal Government other than FAA, such as U. S. Trust Territory, NASA, U. S. State Department. Indicate in the “Remarks” section the actual owning interest.
- f. **Region Field. The region designator** must be the authorized 3-letter code for the FAA region in which the reported facility/ approach/ procedure is located. For military-owned facilities and foreign governments, leave blank.



- g. Date(s) of Inspection Field.** Record the UTC date(s) of flight inspection as follows:
- (1) Inspection started and completed in one day: 2/1/88
  - (2) Inspection conducted over consecutive days: 1/12-15/89
  - (3) Inspection conducted over several nonconsecutive days: 8/6, 8, 10/89
  - (4) Combined inspections: 10/16, 19-21/89.
- h. Location Field.** Facility location information will be obtained from the AVNIS Facility Data Sheet (do not enter airport name). For shipboard tactical air navigation (TACAN), enter the name of the ship and the hull number (e.g., USS Nimitz - CVN68). For point in space procedures, enter the airport name (if specified), city, and state as identified on the PC form. For a stand-alone point in space fix, enter the waypoint name and state as identified on FAA Form 8260-2 (e.g., ZELAK, WA). For routes, leave blank. For a departure procedure (DP) or standard terminal arrival route (STAR), enter the primary airport name.
- i. Inspection Type.** Click on the drop-down box and select the appropriate entry. An "I" prior to the code indicates an incomplete inspection.

TYPE INSPECTION	CODE
Periodic	P
Commissioning	C
Site Evaluation	E
Special	S (3)

- (1) **Identify incomplete or partial inspections** by clicking on the drop-down box and selecting the appropriate entry. Shipboard TACAN will always be a complete "Special" inspection. Select "S/ SBT".
- (2) **All surveillance (SURV) inspections** must be considered complete.

- (3) **For special inspections**, click on the drop-down box and select the appropriate entry. An “I” prior to the letter “S” indicates an incomplete inspection. The appropriate code that describes the type of special must follow the “S”. Available codes are as follows:

After Accident	AA (see note below)
Air Traffic Control and Landing Systems (ATCALS) Evaluation	TE
Antenna Change	AC
Discrepancy Found (During Surveillance Check)	DF
Frequency Change	FX
Memorandum of Agreement	MA
Maintenance Request	MR
Mobile/ Tactical Flight Inspection	MT
On Site Request	OSR
Procedures Check	PROC
Reconfiguration	RF
Shipboard TACAN	SBT
User Complaint	UC
Remove and Replace Like Equipment	RR
Radio Frequency Interference	RFI
Other (Explain in Remarks)	OTHER

**NOTE:** Includes RADAR inspection involving a "near mid-air collision." See Order 8200.1, Chapter 14.

- j. **Crew Information.** These fields must contain the crew number (e.g., VN####) of the pilot-in-command of the mission, the second-in-command, the mission specialist, and any additional mission specialist. Reports containing multiple pages of the same form (i.e., VOR report containing multiple copies of FAA Form 8240-2) require crew number and date on the first page only.
- (1) **Pilot-in-Command Crew Number Field.** This field must contain the crew number of the pilot-in-command of the mission. When a flight inspection is accomplished over multiple dates, with different flight inspectors in charge, and the data obtained is combined on one report, this field must contain the crew number of the pilot-in-command during the final date of the check.
- This crew number certifies the operational status of the facility and the degree to which the facility supports the approved instrument flight procedure(s) inspected. If only one crew number appears on the report, it certifies the completeness and accuracy of all reported data.
- When a VOT is inspected using a portable ILS/ VOR receiver, the PIC crew number is required if there is a NOTAM issued as a result of the inspection. If a NOTAM is not issued, the PIC crew number is not required. In this instance, leave the PIC field blank.
- (2) **Second-in-Command Crew Number Field.** This field must contain the crew number of the second-in-command. When a flight inspection is accomplished over multiple dates and the data obtained is combined on one report, this field must contain the crew number of the second-in-command during the final date of the check.
- When a VOT is inspected using a portable ILS/ VOR receiver, the SIC crew number is not required. In this instance, leave the SIC field blank.
- (3) **Mission Specialist Crew Number Field.** This field must contain the crew number of the mission specialist and certifies the reported technical data is complete, accurate, and conforms to national standards and specifications. The crew number of the mission specialist must be on all flight inspection reports unless his/ her participation is not required for the facility certification. In this case, enter "NA" in place of the crew number.
- (4) **Additional Mission Specialist Crew Number Field.** This field must contain the crew number of any additional mission specialist.
- k. **Aircraft Number.** Enter the aircraft registration number (e.g., N99).
- l. **Flight Inspection Field Office (FIFO) Field.** In the FIFO field, enter the assigned 3-letter code of the location of the Pilot-in-Command (PIC) conducting the inspection. If the Army accomplished the inspection, enter "Army" in the field. For other non-FAA inspections, enter "Other" and explain in Remarks.

- m. **Facility/ Approach/ Procedure Status Field.** The appropriate facility status must be entered in accordance with Order 8200.1, Facility Status and Classification.
- n. **Remarks Field.** See Chapter 3.

**13. CORRECTED COPIES OF REPORTS.** If a report must be changed, the originator must complete an amended version of the report. Each amended report must include the number of the amendment (e.g., Report Amended #1: or Report Amended #2) to identify reports that are amended more than once. If the report has been previously distributed, the annotation " Report Amended #2: " must be entered in the top margin of page 1 and the amended report forwarded to the Flight Inspection Central Operations (FICO) Technical Services Sub-Team (TSS) Flight Inspection Records Team, for redistribution. After accident (AA) reports, if amended, must have the annotation "Report Amended" (this date must be the date the report was amended) entered in the top margin of page 1 and the amended report forwarded to the TSS Flight Inspection Records Team for redistribution. The "AA" report with the latest amendment date is the final report. The TSS Flight Inspection Records Team must retain all after accident reports, including amendments. Any reports that cannot be interpreted by FICO TSS will be returned to the originating organization for clarification.

#### **14. SECURITY CLASSIFICATION OF FLIGHT INSPECTION REPORTS**

- a. **Guidance.** The military organization requiring classification of flight inspection reports must provide classification guidance. The military organization will be requested to provide this guidance in writing, either by letter or message, and the guidance must be maintained on file so it can be traced to a classification authority who can justify the initial classification determination (DOD 5200.1-R, Department of Defense Information Security Program Regulation).
- b. **Classification Markings.** Flight inspection reports containing classified information must be marked in accordance with FAA Order 1600.2, National Security Information, to show: degree of classification; name and routing symbol of the FAA employee applying the classification; authority for classification (reference to the military element's letter or message); safeguarding instructions and/or exemption category; and, if an exemption category is provided, date the report can be declassified (if it can be determined). Specific marking instructions can be obtained from the servicing FAA security office.
- c. **Control of Reports.** Control, handling, storage, and transmission of classified flight inspection reports must be accomplished in accordance with FAA Order 1600.2.
- d. **Files.** FIFO(s) must not maintain classified flight inspection facility report files. The TSS Flight Inspection Records Team, must contact the Civil Aviation Security Division, AMC-700, and obtain a security control number for all classified reports.

## 15. DISTRIBUTION OF REPORTS AND RECORDINGS.

**a. General.** The Technical Services Sub-Team (TSS) Flight Inspection Records Team must make the required distribution of all flight inspection reports (except those reports discussed in subparagraph 15c). Flight inspection units must forward all flight inspection reports within 60 days after finishing the flight inspection or portions of inspection (progressive periodics, incomplete inspections, etc.). All recordings will be forwarded within 15 days following notification of completion of processing and distribution from the TSS Flight Inspection Records Team.

(1) The cover page of each recording should be annotated with the following information:

- Facility Identification and Type of Facility
- Special Remarks, as appropriate (P, PM, PO, etc.)
- Date(s) of Inspection
- Type of Inspection, e.g., Periodic, Special, etc.
- Aircraft Tail Number
- Crew Member Numbers

This requirement may be satisfied by securely taping a copy of the first page of the flight inspection report to the top of the recordings.

(2) Securely tape the recordings (all 4 sides), or for a large stack of recordings, an envelope may be used.

(3) **A copy of the data sheet applicable to the inspection**, all paperwork, and worksheets should be placed inside the folds of the recordings.

(4) All packages must be shipped using boxes or fabric mailers. Padded envelopes must not be used. Shipping of recordings must be accomplished with a carrier allowing tracking of shipment.

(5) All packages must include a list of contents. As a minimum, include a list of facility IDs, facility type, and the date of the inspection. The Flight Inspection Field Office will retain a copy of the shipment list for their records and send a copy to the TSS Flight Inspection Records Team via E-mail. This notification will be kept in suspense until the package arrives. The shipment notification message should be sent to the TSS Flight Inspection Records Team at the following address: 9-AMC-AVN-Flight Inspection Reports/AMC/FAA.

Distribution should be made at least bi-weekly by the U.S. Postal Service or Federal Express. Ship the package to:

U.S. Postal Service

FAA/ MMAC/ AJW-335A  
ARB, Room 117  
P.O. Box 25082  
Oklahoma City OK 73125

Federal Express

FAA/ MMAC/ AJW-335A  
ARB, Room 117  
6500 S. MacArthur  
Oklahoma City OK 73169

- b. **After Accident (AA) Reports.** After-accident reports, including FAA Form 8240-14, Flight Inspection Report – After-Accident Continuation Sheet, must be forwarded to the TSS Flight Inspection Records Team within 3 days of completion of the inspection. Normal report completion procedures and local QC must be accomplished. The TSS Flight Inspection Records Team must forward the pending report to the FICO Technical Services Sub-Team where it will be reviewed and changes may be recommended. If satisfactory, it will be returned to the TSS Flight Inspection Records Team for archiving and distribution. If unsatisfactory, it will be returned to the originator for changes. The final report must be forwarded to the TSS Flight Inspection Records Team within 7 days of completion of the inspection. The TSS Flight Inspection Records Team must send the entire final AA Report, including FAA Form 8240-14 and the complete preceding periodic flight inspection reports, to the Technical Operations Service Area Flight Standards Accident Coordinator/ Investigation within 14 days of completion of the inspection. See Appendix 14 for review and completion requirements prior to the above distribution.
- c. **ILS/ MLS Maintenance Alert.** Flight Inspection Central Operations must send an electronic copy of the report to the Technical Operations Service Area engineer or military command. Enter in Remarks who was notified. Send a copy to the TSS Flight Inspection Records Team, to be retained with the recordings. No further distribution is required.
- d. **RNAV Report Distribution.** The TSS Flight Inspection Records Team will send a copy of all private special use reports to the proponent specified in the memorandum of agreement.
- e. **Obstacle Evaluation Form.** The TSS Flight Inspection Records Team will send a copy to the National Flight Procedures Office.
- f. **Radio Frequency Interference Report.** Results of Radio Frequency Interference (RFI) investigations will be included with the form designated for the type facility (i.e., RFI found on the ILS facility will be reported on FAA Form 8240-8, Flight Inspection Report-Instrument Landing System).

**g. Standard Distribution****(1) FAA****(a) Within the contiguous United States:**

- 1** Service Area Office having jurisdiction over the facility inspected - one electronic copy.
- 2** Technical Operations having jurisdiction over the facilities inspected - one electronic copy.

**(2) Military reports distribution** for all Department of Defense (DoD) facilities will be emailed to the locations on file with the TSS Flight Inspection Records Team (AJW-335A). The TSS Flight Inspection Records Team will work with DoD locations for changes, corrections, and deletions of account information.**(3) International.** Distribute reports to address provided by customer.**(4) General Characteristics Reports.**

- (a)** Send an electronic copy to the TSS Flight Inspection Records Team.
- (b)** The TSS Flight Inspection Records Team must send an electronic copy to the appropriate military command for local distribution, an electronic copy to the Airport Authority responsible for the service, or any other entity as deemed appropriate.

**(5) Radio Frequency Interference Reports.** Send an electronic copy to Spectrum Engineering Services Office.**16 - 20. RESERVED**

## CHAPTER 3. REQUIRED REPORT REMARKS

**21. REMARKS FIELD.** Briefly note any additional information required to indicate ground-based facility performance or space-based procedural inadequacies.

For ground-based facilities, do not go into detail about the adjustments made to obtain final results unless the inspection was made especially to ascertain the effect of the adjustments or facility configurations (e.g., engineering projects).

**a. Out-of-Tolerance Conditions.**

- (1) **Identify and, if necessary, describe each out-of-tolerance or unsatisfactory condition found.** This is not applicable for ILS parameters reported in Fields 6, 7, and 9 of FAA Form 8240-8, Flight Inspection Report--Instrument Landing System or Fields 6, 7, and 8 of FAA Form 8240-16, Flight Inspection Report--Microwave Landing System. Where there are no provisions to identify out-of-tolerance facility/ approach/ procedure performance (e.g., FAA Form 8240-2, Field 7), place an asterisk next to the "as left" data and a corresponding asterisk in the remarks with the initial out-of-tolerance value, or if necessary, describe the condition and/ or status (corrected/ uncorrected) of the condition.
- (2) **Indicate whether or not the condition was corrected.**
- (3) **For military facilities, approaches, or procedures,** include a statement that military personnel or units were briefed or advised and the date (e.g., tower/ maintenance briefed 4/26/89).

**b. Facility, Approach, or Procedure Narrative.** When narrative references are necessary to describe the facility/ approach/ procedure, factual statements of existing conditions must be used; do not attempt to determine causal relationships based on observations. For example:

- (1) **Observation (Permissible).**  
"The facility structure has deteriorated at 210°. Work was noted on a highway near the facility/ approach/ procedure in that sector."
- (2) **Unsubstantiated reference (Prohibited).**  
"The highway construction southwest of the facility/ approach/ procedure is causing deterioration of the course structure."



- c. **Site Evaluation, Commissioning, and Special Flight Inspection Reports.** Remarks for these types of inspections must contain the special control number and/ or procedure number assigned by the FICO and sufficient detail to explain the extent of changes, modifications, and final results so they can be clearly understood by recipients of such reports. Additionally, for a maintenance request or on site request, include the reason for the inspection. Contents of this paragraph do not apply to shipboard TACAN inspections.
- d. **Notice to Airmen (NOTAM(s))/ Restrictions.** Record NOTAM(s)/ Restrictions issued, revised, or cancelled as a result of the inspection. Reconfiguration flight inspections require revalidation of previous restriction(s) and, if necessary, issuance of new NOTAM(s)/ Restrictions as appropriate.

**NOTE:** During a reconfiguration flight inspection, cancel all existing restrictions and re-issue as necessary using the "Reconfiguration Date".

Enter the NOTAM/ restriction as published (or as recommended for military facilities) and the date the NOTAM/ restriction information was forwarded to the FICO or appropriate organization. If the previous flight inspector issued the NOTAM or the facility, approach, or procedure restriction remains in effect and is not changed by the present inspection, enter, "NOTAM(s) (restriction) dated \_\_\_\_\_ remain in effect," in the Remarks section of NOTAM block. The Facility Status does not determine the requirement for this remark. However, once the NOTAM(s)/ restriction(s) information is included in the DOD Flight Information Publication, United States Government Flight Information Publication, or other appropriate publication, this remark is not required. The current NOTAM information as issued will be maintained in the AVNIS facility data.

- e. **Facility Status.** If a facility/approach/procedure classification status is changed as a result of the flight inspection, enter appropriate remarks to identify the reason for the change along with a verbatim copy of the published NOTAM (see Paragraph 21d). Include who was notified and when.
- f. **Approach Lighting System.** When commissioning an approach lighting system, either in conjunction with a NAVAID approach or as a separate system, enter the type of lighting system inspected and its status (e.g., ALSF-1, touchdown zone, and centerline lighting checked "satisfactory" or "unsatisfactory") (see Appendix 5, Paragraph j).

- g. Standard Instrument Approach Procedures (SIAP(s)).** A periodic SIAP inspection includes all the standard requirements as listed in Chapter 6 of FAA Order 8200.1, except for the obstacle verification. If procedural changes do not require recorded data, (e.g., MDA raised, controlling obstacle changed with no change in minima, or fixes within the FISSV) include the statement, "No electronic data required."

**NOTE:** If required, report the SIAP information in the following order: Airport name, city, state, SIAP(s), and amendment number (e.g., Tulsa Int'l, Tulsa OK, VOR Rwy 23, Amdt 1).

If one of the following circumstance(s) is applicable to the inspection of a SIAP(s), report the results of the inspection appropriately:

- (1) **Periodic Evaluation.** Enter the following remark: "SIAP/ SIAP(s) verified IAW Order 8200.1, Chapter 6" or enter "SAT " or "UNSAT\*" in dedicated SIAP block(s) when provided.

**NOTE:** SIAP(s) at U.S. airports do not require an obstacle evaluation to complete a **periodic** inspection; the runway "ROC Check" program fulfills this requirement.

- (2) **New or amended SIAP(s).** Report the SIAP information with the statement "SIAP verified IAW Order 8200.1, Chapter 6."
- (3) **SIAP(s) not checked.** If during a scheduled SIAP evaluation not all the SIAP(s) are checked, click on the drop-down box and select "SAT/ Incomplete\*". Record the SIAP information with the statement "SIAP not inspected." Additionally, if one or more of the SIAP(s) were found "UNSAT" click on the drop-down box and select SAT/ UNSAT\*/ Incomplete\*. Record the SIAP information for the SIAP(s) found unsatisfactory and describe the unsatisfactory condition in detail.
- (4) **SIAP found unsatisfactory.** If during a scheduled SIAP evaluation a SIAP(s) is found unsatisfactory and one or more SIAP(s) are found satisfactory click on the drop-down box and select "SAT/ UNSAT\*". Record the SIAP information for the SIAP(s) found unsatisfactory and describe the unsatisfactory condition in detail.
- (5) **More than one SIAP is identified on a single page of the DOD Flight Information Publication or United States Government Flight Information Publication.** The SIAP verification, when accomplished, must be entered on the appropriate form (i.e., If the SIAP is a compound type, such as an ILS/ TACAN RWY 17, report the ILS part on an ILS form and the TACAN part on a TACAN form).
- (6) **After Accident Reports.** If the information is contained on the after accident continuation sheet, an entry in this field is not required.

- h. AVNIS Facility Data.** If the Location, Identifier, Owner, and/or Equipment are changed, show the revised data on the first facility inspection report following the change and remark, e.g., the former identifier was (indicate the identifier formerly shown). Flight inspection-initiated changes must be explained in the Remarks section, if appropriate.
- i. Expanded Service Volume (ESV).** Whenever the ESV is established or revalidated, define the lower limits of the ESV by facility component, azimuth/bearing (From) or beginning and ending azimuth/bearing if an arc is flown, distance and minimum reception altitude (MRA) (azimuth not required on ILS). (For example: VOR/ DME/ R-090/ 45 nm/ 16,000' Revalidation, SAT or ILS/ L/ 6,000'-2,000'/ 28 nm ORIG. SAT). There is no requirement to report the upper limit of the ESV, unless interference is reported or suspected, or if requested specifically in FAA Form 6050-4, Expanded Service Volume Request. If requested in FAA Form 6050-4, both upper and lower limits are required for localizers and TLS azimuths. Include appropriate remarks regarding the status of the ESV check (i.e., if unsatisfactory, explain why). When establishing a fix, state whether the fix displacement area is SAT/ UNSAT. Indicate if the ESV check is an original request or a revalidation.
- j. 75 MHz Marker Beacons that Support an Instrument Approach Procedure.** The operation of 75 MHz markers must be documented on the report that certifies the primary NAVAID, (e.g., VOR, ILS, NDB).

  - (1) For commissioning checks of 75 MHz markers,** changes of equipment or antennas, enter all checklist items checked and their status (e.g., "satisfactory" or "unsatisfactory"). If dual equipment is installed, document the minor axis width for both transmitters.
  - (2) For periodic type inspections,** enter a statement to indicate the marker was checked satisfactorily (e.g., 75 MHz marker system(s) checked "satisfactory" or "unsatisfactory"). This statement is not required on reports that have 75 MHz fields (e.g., ILS reports).
  - (3) If any part of the 75 MHz marker system is unsatisfactory,** annotate in this field.
- k. Weather Broadcast Information.** On commissioning reports only, list all weather broadcast capabilities for each facility inspected.

- l. Mobile/tactical facilities installed in support of a specific temporary (normally not to exceed 90 days) requirement** will use a four-letter ID for reporting. Enter the four-letter ID in the ident field. Enter the transmitted ident, if different, in the Remarks section. The assignment of the four-letter ID(s) is as follows:

The first letter will always be an X

The second and third letters will indicate the region where the temporary facility is located:

AL = Alaskan  
 CE = Central  
 CN = Canada  
 EA = Eastern  
 EU = Europe  
 GL = Great Lakes  
 IN = International (not otherwise coded)  
 LC = Latin American/Caribbean  
 NE = New England  
 NM = Northwest Mountain  
 PC = Asia/Pacific  
 SO = Southern  
 SW = Southwest  
 WP = Western Pacific

The fourth letter will indicate the owner

A = Air Force  
 R = Army  
 N = Navy/Marines  
 C = Coast Guard

EXAMPLE: XSWA = Mobile deployment of an Air Force asset located in the Southwest Region.

- m. Other.** Enter all other remarks required by the appendixes in this order.
- n. Special Checks Which Meet Periodic Requirements.** When a special check meets periodic requirements, enter the remark, "Periodic requirements met." (Updating the periodic inspection following an after-accident inspection has to meet specific conditions—see Appendix 14, Paragraph 2c). If necessary, identify which transmitter was completed (e.g., xmtr #1—periodic requirements met; xmtr #2—out of service).
- o. Critical Area Interference Checks.** When a Critical Area Interference Check is accomplished, enter the following, "The FAA does not consider this flight inspection as a valid check of interference caused by aircraft/vehicles in the ILS critical zone."
- p. Structure Tolerance (95% Rule).** Notify the FICO when structure tolerance (95% rule) is applied to a Category II/III facility. The FICO must notify the applicable region or military command engineering staff upon initial application of this criteria. Enter in Remarks the FICO was notified. (Ref Order 8200.1, Paragraph 15.51a.)

- q. **RHO-THETA Magnetic Variation Change Inspection.** Include remarks detailing the published facility restriction, receiver checkpoint, and ESV radial changes based on the MAGVAR change. For example, a published coverage restriction of 210 - 250° would be changed to 214 - 254° after a MAGVAR change from 2° West to 6° West. Submit the appropriate changes to the FICO Technical Services Sub-Team Aeronautical Information Specialist on FAA Form 8240-20.
- r. **Completion of an Inspection Previously Reported as Incomplete.** Enter a statement indicating the check completes the inspection requirements of the report dated mm/dd/yy (e.g., This completes the requirements for the inspection dated 02/11/02).
- s. **RFI Checks.** Enter a narrative description of checks performed and results obtained. Provide physical description and latitude/ longitude of suspected interference source. For incomplete or unsuccessful checks, report bearings obtained, and aircraft location, provide any information that may aid another crew in locating the source.
- t. **1800 RVR.** If the data sheet contains an 1800 RVR authorization statement in the remarks and the system fails to meet the necessary criteria, add the following remark: "System does not meet the 1800 RVR requirements. FICO notified this date".

**22 - 25. RESERVED.**

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**APPENDIX 1. FLIGHT INSPECTION FORMS**

The FAA flight inspection report forms contained in this order are intended to be computer generated. If this process is not available, local reproduction of the forms included in each appendix is authorized.

<b><u>FAA FORM</u></b>	<b><u>DATE</u></b>	<b><u>FORMERLY FAA FORM</u></b>	<b><u>TITLE</u></b>
8240-1	7/2005	8240-1	Flight Inspection Report – Continuation Sheet
NOTE: Use this continuation sheet when additional space is required to document facility performance. Use the same heading information as in the primary report.			
8240-2	10/2005	8240-2	Flight Inspection Report – VOR, VOR/DME, VORTAC, TACAN, VOT
8240-2	10/2005	New Form	Flight Inspection Report – VOR, VOR/DME, VORTAC, TACAN, VOT – Radial Data
8240-4	7/2005	8240-4	Flight Inspection Report - VOR, VOR/DME, VORTAC, TACAN ORBITAL Data
8240-5	7/2005	8240-19	Flight Inspection Report – Non-Directional Beacon, Direction Finding, Visual Aids, Communications
8240-6	7/2005	8240-6	Flight Inspection Report – Precision Approach Radar
8240-6	7/2005	8240-6-1	Flight Inspection Report – Precision Approach Radar GPN-22 / TPN-25 Continuation Sheet
8240-6	7/2005	8240-6-2	Flight Inspection Report – Precision Approach Radar TPN-22 Continuation Sheet
8240-7	7/2005	8240-7	Flight Inspection Report - ILS Worksheet
8240-7-1	7/2005	8240-7-1	Flight Inspection Report - ILS Continuation Worksheet
8240-8	7/2005	8240-8	Flight Inspection Report – Instrument Landing System
8240-8	7/2005	New Form	Flight Inspection Report – Instrument Landing System Azimuth Part I
8240-8	7/2005	New Form	Flight Inspection Report – Instrument Landing System Azimuth Part II
8240-8	7/2005	8240-19	Flight Inspection Report - Endfire Glide Slope Transverse Structure Plot

<b><u>FAA FORM</u></b>	<b><u>DATE</u></b>	<b><u>FORMERLY FAA FORM</u></b>	<b><u>TITLE</u></b>
8240-11	7/2005	8240-11	Flight Inspection Report – ILS/ MLS Maintenance Alert
8240-12	12/2005	8240-12	Flight Inspection Report – Surveillance Radar
8240-13	10/2005	8240-13	Flight Inspection Report – General Characteristics
8240-14	7/2005	8240-14	Flight Inspection Report – After-Accident Continuation Sheet
8240-16	7/2005	8240-16	Flight Inspection Report – Microwave Landing System
8240-16	7/2005		Flight Inspection Report – MLS Commissioning Data Words
8240-17	12/2005	8240-5-1	Flight Inspection Report - RNAV
8240-21	10/2005	New Form	Flight Inspection Report – Controlling Obstacle Evaluation



**FLIGHT INSPECTION REPORT  
FAA FORM 8240-1  
CONTINUATION SHEET**

**FLIGHT INSPECTION REPORT  
CONTINUATION SHEET**

5. REMARKS (cont'd)

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**APPENDIX 2. FLIGHT INSPECTION REPORT  
VOR, VOR/ DME, VORTAC, TACAN, VOT,  
FAA FORM 8240-2**

Record the following:

- a. **Field 1 - Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12.
- b. **Field 2 - Aircrew Information.** Complete as shown in Chapter 2, Paragraph 12.
- c. **Field 3 - Facility Information.**
  - (1) **VOR, TACAN, DME Coverage, DME Accuracy, and VOT Fields.** Click the appropriate drop-down box to signify all components of the facility being reported. When a VOT is inspected using a PIR, choose “Inspected/ PIR” from the drop-down box. For DME, also indicate the status of the inspection (i.e.”SAT” or “UNSAT”).
  - (2) **Voice, Standby Power, and Ident.** If any of these items are inspected, click on the drop-down box and select the appropriate entry.
  - (3) **Type Facility.** Click on the drop-down box and select the appropriate entry to indicated the type facility.
  - (4) **Facility Status.** Click on the drop-down box and select the appropriate entry.
  - (5) **SIAP(s) Verified. Complete as shown in Chapter 3, Paragraph 21.** Click on the drop-down box and select the appropriate entry.
- d. **Field 4 - NOTAM(s).** Complete as shown in Chapter 3, Paragraph 21d.
- e. **Field 5 - Remarks.** Complete as shown in Chapter 3. Additionally, after commissioning or reestablishing a receiver checkpoint, describe it in this field. Include the airport name and state (if on an airport), altitude at which check is made (airborne checkpoints), azimuth in degrees magnetic, the distance in miles and the checkpoint description (e.g., Ground Checkpoint: University of IL-Willard, IL, 332°, 0.9nm, on runup pad Rwy 14: Airborne checkpoint: 2000’, 175°, 8.0nm, over grain elevator at Pesotum; VOT reference point: Approach end of Runway 35R). Notify the FICO Aeronautical Information Specialist, via FAA Form 8240-20 (fill out form IAW the Aeronautical Data Management Order) of the establishment or cancellation of receiver checkpoints.
  - (1) **Radial Alignment.** Report when radial alignment is authorized by Flight Inspection Policy in lieu of an alignment orbit.
  - (2) **VOT.** When commissioning a VOT, indicate the identification feature (dots or steady tone).

- (3) **USAF VOR(s).** For USAF VOR(s), enter the modulation values found on at least one radial or arc segment flown during the inspection. These values must be reported in the following format: modulations/ radial flown or arc/ start - stop radials/ distance(s) to the nearest mile/ MSL altitude divided by 100. Radial example: AM=30.8, FM=16.4, 9960=29.5/312/16-12/37. Orbital example: AM=30.9, FM=15.8, 9960=32.1/312 cw 349/40/25.
  - (4) **Reference Alignment.** Indicate the date Maintenance was notified of ARR/ orbit reference alignment establishment/ re-establishment, IAW Order 8200.1, Chapter 11.
  - (5) **VOT Inspected Using a Portable ILS/ VOR Receiver.**
    - (a) Record the PIR detected course deviation, modulation levels, and signal strength.
    - (b) Record the model, serial number, and calibration date of the PIR.
    - (c) Add the following statement, "Aviation System Standards Flight Inspection Technical Services Sub-Team authorized VOT flight inspection via PIR."
    - (d) Do not add any data in Field 7C (Radial Data) of FAA Form 8240-2-2.
    - (e) Place an asterisk in the "Aircraft Number" field.
- f. Field 6 - Flight Inspection Data.** Complete Fields 6A and 6B when the reference radial and mean orbital alignment is established/ re-established. Do not report the reference radial data without the alignment orbit, or vice-versa. This field should also be completed when there is a need to permanently change flight profiles, e.g., direction, distance and /or altitude. Enter the azimuth monitor evaluation results when accomplished. The Flight Inspection Central Operations Team (FICO) Aeronautical Information Specialist will transfer data from the flight inspection report to the AVNIS data sheet whenever there is a date entered in the "Date Established" Field. For a periodic with orbit inspection, report the orbital data in 6A. Do not enter a date into the "Ref Date" field when reporting periodic data, unless it is also a reference orbit. When out of tolerance condition(s) are found during an orbit, Field 8, Orbital Data, must be reported.
- (1) **Orbital Data.** Enter the mean alignment (e.g., + 0.2). Enter the maximum negative and the maximum positive alignment error (include the sign). Following entry into the maximum negative and the maximum positive fields, FIRPS will automatically calculate and enter the "spread". Enter the orbit direction (CW or CCW) under the DIR field. If a

constant altitude is flown throughout the orbit, enter the altitude divided by 100 in this field. If altitude changes occurred during the orbit, enter a remark in Field 5 - Remarks indicating the different altitude(s) divided by 100 and the radial where the altitude change occurred (e.g., Altitude changed on alignment orbit 50/ 015-090, 60/ 091-135, etc.). Enter the distance the alignment orbit was flown to the nearest mile. If the distance changed during the alignment orbit, enter a remark in Field 5-Remarks indicating the distance changes and the radials where the distance change occurred (e.g. Distance changed on alignment orbit 9/ 015-090, 8/ 091-135, etc). Enter the date when a reference orbit is accomplished (month, day, and year; 01/04/05).

- (2) **Reference Radial/ Monitor.** Using the radio button, select "VOR" or "VOT". This field requires no ARR data unless a new reference is accomplished or a monitor check is conducted. The ARR data will normally be in the radial data field of the report.
- (a) **Reference Radial.** For AFIS, enter the azimuth, the segment distance (to the nearest mile), and the altitude flown divided by 100 (e.g., 270/ 20-15/ 45). When a checkpoint is used, enter the azimuth and distance of the reference checkpoint and the altitude flown divided by 100 (e.g., 265.5/ 18.3/ 45). For a VOT, enter the azimuth 360°/ from (e.g. 360/ from).
- (b) **Checkpoint.** Enter the location where the monitors were evaluated. If evaluated airborne, enter the location as done for the reference radial. If monitors are checked where the reference checkpoint/ radial was evaluated, enter "Same." If the monitors are established on the ground, enter the azimuth and distance of the airport location and the term "Gnd" (e.g., 041.1/6.7/Gnd). Describe the airport location in the Remarks field (carrying forward the airport location on subsequent reports is optional). For a VOT, enter "VRP" if VOT Reference Point is used for monitor evaluation. If not, enter an \* and describe, in Remarks, the checkpoint location where the monitor evaluation was accomplished.

- (c) **Tx, Alignment, Alarm +, Alarm -.** Use the appropriate blocks to report the results of the reference radial/ monitors.
- 1 Enter the transmitter evaluated under "TX." If a facility has two transmitters and both are checked, enter the transmitter number as in the example for Dual Transmitter.
  - 2 Enter the "normal condition" alignment error determined at the reference radial/ checkpoint, or ARR if AFIS is used, in the Reference Radial "Alignment Column".
  - 3 When monitors are checked, enter the amount of shift (+ is clockwise, AFIS code "R"; - is counterclockwise, AFIS code "L") in the Checkpoint "Alarm +" and "Alarm -" columns. The amount of shift must be referenced to the "normal condition" alignment error measured at the location the monitors are checked. The Checkpoint "Alignment" column will be left blank. See example.

#### SINGLE TRANSMITTER

	TX	ALIGNMENT	ALARM +	ALARM -
Reference Radial 265.5/ 18.3/ 45	1	-0.4		
Checkpoint Same	1		0.9	0.9

#### DUAL TRANSMITTER

	TX	ALIGNMENT	ALARM +	ALARM -
Reference Radial 270/ 20-15/ 45	1/ 2	-0.4/ -0.5		
Checkpoint 042.0/ 6.7 nm/ GND	1/ 2		0.9/ 0.8	0.8/ 0.7

- (d) **Date Established.** Enter the month, day, and year that the reference radial alignment was established/ re-established for each facility/ component checked. When an inspection is conducted over multiple dates, do not enter a date until the check is complete. The date entered will be the final date of the inspection. (Example: Dates entered in Field 1 are: 10/18, 11/12-14, 11/21/94; the date to be entered in " Date Established" is: 11/21/94). To maintain continuity of data, carry forward the information on each succeeding check until the flight check is complete, then include the final date of the inspection in the "Date Established" Field. Do not enter a date for monitor checks if it was not accomplished concurrently with the establishment of the reference radial/ alignment orbit.

**g. Field 7 - Radial Data**

- (1) **Service Designation.** Click on the drop-down box and select the appropriate entry.
- (2) **Radial Use.** Indicate radial use by an abbreviation (if no procedural use, leave the block blank). Do not use "ESV," as it does not describe procedural use. Other abbreviations may be used if explained in "Remarks" portion of report. When using the automated form, a drop-down box is available for radial use selection. Some standard examples are as follows:

ARR	Automated Flight Inspection System (AFIS) Reference Radial
Ref	Reference Radial
V16	Airway
GCP	Ground Receiver Checkpoint
ACP	Airborne Receiver Checkpoint
Apch	Approach
Iapch	Initial Approach
MApch	Missed Approach
Hold	Holding Pattern
J180	Jet Route
Dir	Direct Route
RNAV	Area Navigation (RNAV) Procedures
Null	Null Radial
5DEG	Offset (Special Check) of VOR APCH
FEDR	Feeder
INTX	Radial Used to Support a Fix or Intersection
STAR	Standard Terminal Arrival Route
SID	Standard Instrument Departure
COV	Coverage Radial
DP	Departure Procedure

- (3) **Azimuth.** Enter the magnetic azimuth from the facility (in whole degrees). For RNAV procedures, enter the procedure start/ stop azimuth in tenths of degrees (e.g., 120.6 - 060.5). For a VOT, designate azimuth as "360/from."
- (4) **Transmitter (s).** Identify the transmitter checked. If transmitters were alternated during one flight, enter the transmitter "1" or "2" first (whichever had the greatest alignment error, in the "transmitters" block (e.g., 2/1 for TX 2 having the greatest error).

- (5) **MSL Altitude.** Enter the altitude divided by 100 (e.g., "20" for 2,000 feet, "7.2" for 720 feet). If altitude changes occurred, enter the highest and lowest altitudes in the order checked (e.g., 25/20). Leave blank when reporting ground checkpoints.
- (6) **Distance From/ To.** Show the starting point (From) and the termination point (To) in nautical miles from the facility.
- (7) **Roughness and Scalloping, Bends, and Polarization.** If these parameters are in tolerance, enter the maximum amplitude to the nearest tenth of a degree and indicate the distance from the station (e.g., 2.2/ 16.0). If these parameters are out-of-tolerance, enter the out-of-tolerance (amplitude/distance) closest to the facility. When reporting radial roughness and/or scalloping that exceeds 3.0° but meets operational tolerances because of the distance and altitude criteria, report the worst case of actual roughness and scalloping, the mileage where it occurred, and place an asterisk in the reporting block, e.g., \*5.0°/25.5. In the Remarks section, place a corresponding asterisk and state "Order 8200.1, Paragraph 11.60a or 11.60b applied." If multiple distance segments require separate entries, enter in the remarks section. The reported scalloping and roughness is combined. For RNAV procedures, report the azimuth of the maximum roughness and scalloping (e.g., 1.5/ 010).
- (8) **Bends/ CMA and Bends.** Enter the maximum Bend and Bend/ CMA amplitude to nearest tenth of a degree. Indicate the direction of the bend as "+" or "-" value, and the distance from the facility at which it occurs (e.g. + 1.2/ 15.6). If these parameters are out-of-tolerance, enter the out-of-tolerance (amplitude/ distance) closest to the facility. If multiple segments require separate entries, enter in remarks section.
- (9) **Polarization.** Enter an "S" if Satisfactory or "U" if Unsatisfactory. Explain Unsatisfactory conditions in Remarks.
- (10) **Alignment Error.** Enter the alignment error, as a "+" or "-" value, and the distance from the facility at which it occurs. If automated flight inspection system (AFIS) average alignment is reported, indicate the alignment and distance, to the nearest mile, throughout the entire area that was sampled (e.g., + 0.5/10-65). Enter "SAT" for satisfactory or "UNSAT" for unsatisfactory when approach alignment evaluations are by visual references to runway thresholds or airport environments. When an RNAV procedure is evaluated using AFIS orbital techniques, enter the average orbit alignment error.
- (11) **Modulations.** Enter "SAT" for satisfactory or "UNSAT" for unsatisfactory. USAF VOR modulation values shall also be entered in Remarks.



- (12) **Transmitter Difference.** Enter the difference of course alignment between transmitters, to the nearest tenth of a degree.
- (13) **Signal Strength.** If satisfactory, enter the actual value of the lowest VOR signal strength in microvolts. Signal strength exceeding 300  $\mu$ V may be reported as 300+. Report TACAN signal strength as Satisfactory "SAT" or Unsatisfactory "UNSAT\*". If VOR or TACAN signal strength is unsatisfactory, enter "UNSAT\*" and the closest distance from the facility it occurred, e.g., UNSAT\*/ 25.
- (14) **Interference.** Enter "SAT" if no interference noted; enter "UNSAT\*" if interference is noted, and document the area of interference in remarks field.

**h. Field 8 - Orbital Data**

- (1) **Transmitter Number (No).** Click the appropriate transmitter radio button for VOR and the appropriate transponder radio button for TACAN.
- (2) **DME Distance Unlock.** Click inside the check box when there is an unlock(s) and list the azimuth(s) at which they occur (e.g., 012-023, 350-001) in the Field 8B block.
- (3) **TACAN Azimuth Unlocks.** Click inside the check box when there is an unlock(s) and list the azimuth(s) at which they occur (e.g. 012-023, 350-001) in the Field 8C block.
- (4) **Area of interference.** Click in the check box when there is an area of interference observed, if such interference is considered to have detrimental effect on the usability of the facility. List the azimuth(s) at which the interference was observed (e.g. 012-023, 350-001) in the Field 8D block.
- (5) **VOR Azimuth exceeds 2.5°.** Enter the maximum course displacement observed when the course displacement exceeds  $\pm 2.5^\circ$  and azimuth of occurrence under the appropriate field. Each field represents  $10^\circ$  (e.g., under "00" field, an entry of azimuth alignment from 000 - 009 is possible and under "10" field, an entry of 010-019° is possible, etc.). Example: VOR azimuth exceeded  $2.5^\circ$  at 006-009° with maximum course displacement occurring at 006°. Under the "00" field, enter azimuth = 2.6/ 006. VOR course displacement exceeds  $2.5^\circ$  at 013-039°. Under the "10" field, enter 2.6/ 013; under the "20" field, enter 2.7/ 023, and under the "30" field, enter 2.6/ 039.

- (6) **TACAN Azimuth exceeds 2.5°.** Enter the maximum course displacement observed when the course displacement exceeds  $\pm 2.5^\circ$  and azimuth of occurrence under the appropriate field. Each field represents  $10^\circ$  (e.g., under “00” field, an entry of azimuth alignment from 000 - 009 is possible and under “10” field, an entry of 010-019° is possible, etc.). Example: TACAN azimuth exceeded  $2.5^\circ$  at 006-009° with maximum course displacement occurring at 006°. Under the “00” field, enter azimuth = 2.6/ 006. TACAN course displacement exceeds  $2.5^\circ$  at 013-039°. Under the “10” field, enter 2.6/ 013; under the “20” field, enter 2.7/ 023, and under the “30” field, enter 2.6/ 039.
- (7) **VOR Coverage – Signal Strength (Document levels below -93 dbm).** If the VOR signal strength drops below -93 dbm or  $5\mu\text{V}$ , enter the lowest value that occurred under the appropriate field. Each field represents  $10^\circ$  (e.g. under “00” field an entry of the lowest signal strength below -93 dbm or  $5\mu\text{V}$  from 000 - 009 is possible and under “10” field an entry of the lowest signal strength below -93dbm or  $5\mu\text{V}$  from 010-019° is possible, etc). Example: A signal level of -110 dbm occurred at 015 - 019°. The appropriate entry is - 110 under the “10” field.
- (8) **TACAN Coverage-Signal Strength at which Azimuth or Distance Unlock Occurs.** For U.S. Navy shipboard TACAN(s) and other TACAN(s) or DME(s), enter the TACAN or DME signal strength when the signal strength drops to a level which causes a condition of azimuth or distance unlock under the appropriate field.

# **FLIGHT INSPECTION REPORT--VOR, VOR/DME, VORTAC, TACAN, VOT** **FAA FORM 8240-2**

## **FLIGHT INSPECTION REPORT** **VOR, VOR/DME, VORTAC, TACAN, VOT**

1. FLIGHT INSPECTION REPORT HEADER						2. CREW INFORMATION			
IDENT	OWNER	STATE	CTRY	REGION	INSPECTION DATE(S)	PIC	SIC	MS	A/C NO
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
LOCATION						ACM		FIFO	
<input style="width: 100%;" type="text"/>						<input style="width: 100%;" type="text"/>		<input style="width: 100%;" type="text"/>	
INSP TYPE									
<input style="width: 100%;" type="text"/>									

3. FACILITY INFORMATION			
VOR	<input style="width: 100%;" type="text"/>	VOICE	<input style="width: 100%;" type="text"/>
TACAN	<input style="width: 100%;" type="text"/>	STANDBY POWER	<input style="width: 100%;" type="text"/>
VOT	<input style="width: 100%;" type="text"/>	IDENT	<input style="width: 100%;" type="text"/>
DME COV.	<input style="width: 100%;" type="text"/>	FACILITY TYPE	<input style="width: 100%;" type="text"/>
DME ACC.	<input style="width: 100%;" type="text"/>		
FACILITY STATUS		<input style="width: 100%;" type="text"/>	
SIAP(s) VERIFIED		<input style="width: 100%;" type="text"/>	

4. NOTAMS
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>

5. REMARKS
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>

6. FLIGHT INSPECTION DATA								
<b>A. ORBITAL DATA</b>								
	MEAN	MAX +	MAX -	SPREAD	DIR	ALT	DIST	REF DATE
TX 1	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
TX 2	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
TP 1	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
TP 2	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
<b>B. REFERENCE RADIAL/MONITORS</b>								
O VOR	O VOT	TX	ALIGN	ALARM +	ALARM -	DATE ESTABLISHED		
REFERENCE RADIAL	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		
CHECK POINT	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>			
TAC		TP	ALIGN	ALARM +	ALARM -	DATE ESTABLISHED		
REFERENCE RADIAL	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		
CHECK POINT	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>			

*\* Remarks are required for fields marked with an asterisk*

7. VOR, VOR/DME, VORTAC, TACAN, VOT - RADIAL DATA					
Service Designation					
Radial Use					
Azimuth					
Transmitter(s)					
MSL Altitude					
Distance From					
Distance To					
Roughness/Scalloping					
Bend/CMA					
Bends					
Polarization					
Alignment Error					
Modulations					
Transmitter Diff.					
Signal Strength					
Interference					
Service Designation					
Radial Use					
Azimuth					
Transmitter(s)					
MSL Altitude					
Distance From					
Distance To					
Roughness/Scalloping					
Bend/CMA					
Bends					
Polarization					
Alignment Error					
Modulations					
Transmitter Diff.					
Signal Strength					
Interference					
Service Designation					
Radial Use					
Azimuth					
Transmitter(s)					
MSL Altitude					
Distance From					
Distance To					
Roughness/Scalloping					
Bend/CMA					
Bends					
Polarization					
Alignment Error					
Modulations					
Transmitter Diff.					
Signal Strength					
Interference					

\* Remarks are required for fields marked with an asterisk

## 8. VOR, VOR/DME, VORTAC, TACAN, VOT - ORBITAL DATA

## A. TRANSMITTER NO

☒ TRANSMITTER 1☐ TRANSPONDER 1☐ TRANSMITTER 2☐ TRANSPONDER 2

## B. DME DISTANCE UNLOCK

☐

## C. TACAN AZIMUTH UNLOCK

☐

## D. AREA OF INTERFERENCE

☐

## E. VOR AZIMUTH EXCEEDS 2.5 DEGREES

00	10	20	30	40	50	60	70	80	90	100	110
120	130	140	150	160	170	180	190	200	210	220	230
240	250	260	270	280	290	300	310	320	330	340	350

## F. TAC AZIMUTH EXCEEDS 2.5 DEGREES

00	10	20	30	40	50	60	70	80	90	100	110
120	130	140	150	160	170	180	190	200	210	220	230
240	250	260	270	280	290	300	310	320	330	340	350

## G. VOR COVERAGE SIGNAL STRENGTH (DOCUMENT LEVELS BELOW -93dbm OR 5 uV)

00	10	20	30	40	50	60	70	80	90	100	110
120	130	140	150	160	170	180	190	200	210	220	230
240	250	260	270	280	290	300	310	320	330	340	350

## H. TACAN COVERAGE - SIGNAL STRENGTH (AT WHICH AZIMUTH OR DISTANCE UNLOCK OCCURS)

00	10	20	30	40	50	60	70	80	90	100	110
120	130	140	150	160	170	180	190	200	210	220	230
240	250	260	270	280	290	300	310	320	330	340	350

\* Remarks are required for fields marked with an asterisk

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**Appendices 3 – 4**

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**APPENDIX 5. FLIGHT INSPECTION REPORT—  
NONDIRECTIONAL BEACON,  
DIRECTION FINDING, VISUAL AIDS, COMMUNICATIONS,  
FAA FORM 8240-5**

This report will be used to report the results of all commissioning, periodic, special inspections, and after accidents of the aids listed above. Changes to facility status or restrictions for NDB(s) used only as Compass Locators will be reported on both an FAA Form 8240-5 and an FAA Form 8240-8. The periodic and special inspections of visual aids or NDB(s) that support an ILS system will be reported on FAA Form 8240-8, except when the inspection of the visual aid or NDB is independent of the ILS. In this instance, use FAA Form 8240-5 for the report. If the NDB is used as a compass locator for an ILS, and the NDB also supports an NDB approach, two reports are required when the periodic is also conducted on the NDB approach. If the inspection only encompasses the NDB stand-alone approach, only the NDB report is required. All bearings will be reported as “FROM” the facility, unless there is a specific need to report them as “TO” the facility. Any bearings reported as “TO” the facility will be clearly indicated.

**NOTE:** Lights which do not support lower minima (e.g., LIRL, MIRL, PAPI, VASI, REIL) are not associated with the SIAP. Lights required for lower than one (1) mile visibility (nonprecision approach) or  $\frac{3}{4}$  mile visibility (precision approach) or supporting lower than Category I (approach lights, TDZ, RCL, HIRL when runway visual range (RVR) required) are associated with the SIAP and should be reported on the associated facility form.

**1. Field 1 – Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12, except for the following:

**a. Identifier (Ident)**

- (1) For NDB and DF,** enter the facility identifier listed on the AVNIS Facility Data Sheet.
- (2) For Instrument Flight Rules (IFR),** airport night evaluations, and general airport lighting (i.e., taxiway lighting), use the International Civil Aviation Organization (ICAO) airport identifier.
- (3) For CONUS visual aids,** enter the AVNIS runway identifier. Runway lighting systems (High Intensity Runway Lights (HIRL(s)), Medium Intensity Runway Lights (MIRL(s)), centerline lights, etc.) may require two reports, one report for each end of the same runway (e.g., KSNA 19R and KSNA 01L).
- (4) For international visual aids,** including runway lighting systems, enter the AVNIS runway identifier.
- (5) For Charted Visual Flight Procedures (CVFP(s)),** enter the ICAO airport identifier. Multiple procedures to the same airport may be reported on one report form.
- (6) For communications,** enter the AVNIS identifier for the facility being checked (e.g., KSLC, ZLA)."

- b. **Location.** Complete as shown in Chapter 2, Paragraph 12, and include the NDB name, in parenthesis, if different than the NDB location name. For charted visual flight procedures (CVFP(s)), enter the location listed in the SIAP information.
2. **Field 2 - Crew Information** – Complete as shown in Chapter 2, Paragraph 12.
3. **Field 3 - Facility Information.** Indicate facility/ component inspected, status or as left condition as appropriate.
  - a. **Direction Finding.** Click on the drop-down box and select the appropriate entry.
  - b. **Communications.** Click on the drop-down box and select the appropriate entry.
  - c. **Visual aids.** Click on the drop-down box and select the appropriate entry. For CVFP(s), select an entry in this field.
  - d. **NDB.** Click on the drop-down box and select the appropriate entry.
  - e. **NDB/ DME.** Click on the drop-down box and select the appropriate entry.
  - f. **Facility Status.** Complete as shown in Chapter 2, Paragraph 12. Click on the drop-down box and select the appropriate entry. For Communications inspections, leave blank.
  - g. **SIAP(s) Verified.** Click on the drop-down box and select the appropriate entry.
4. **Field 4 - NOTAM(s).** Complete as shown in Chapter 3, Paragraph 21d. If the NDB is associated with an ILS, the restrictions shall be added to the ILS AVNIS data sheet.
5. **Field 5 - Remarks.** Complete as defined in Chapter 3.
  - a. **Nondirectional Beacons.** When routes are flown, enter the bearing, altitude, and distance flown (e.g., 030/ 2800/ 45.0). When the NDB is also used as a compass locator associated with an ILS system, enter the ILS identification on commissioning reports only (e.g., compass locator/ LOM/ LMM associated with RGR ILS).
  - b. **Visual Aids.** Indicate if the inspection was conducted at night (e.g., "runway end identifier lights (REIL) evaluated at night). Omission of this remark will indicate the check was conducted during the daytime. If the visual aid supports an ILS procedure, enter the ILS identification on commissioning reports only (e.g., approach lighting system (ALS) supports RGR ILS).

**6. Field 6 - Flight Inspection Data****a. Nondirectional Beacon**

- (1) **Radio Class Code.** Enter the applicable code as it appears in the FAA AVNIS data unless information is changed by the report. Identify UHF facilities by adding "UHF." If inspecting the DME only of an NDB/ DME, leave blank.
- (2) **Frequency.** Enter the published frequency of the NDB.
- (3) **DME Channel.** If an NDB/ DME is inspected, enter the published DME channel.
- (4) **Identification.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (5) **Coverage.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (6) **Station Passage.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (7) **Interference.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (8) **Oscillations.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (9) **Standby Equipment.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (10) **Voice.** If voice is inspected on a periodic inspection, indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriated entry. A (SAT) entry indicates all available voice capabilities for the facility (ATIS, AWOS/ASOS, etc.) are satisfactory. If (UNSAT) for one or more voice capabilities, explain in Remarks.
- (11) **Bearing Accuracy.** The bearing accuracy block may be left blank, except for UHF homing beacons. Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriated entry.
- (12) **Standby Power.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriated entry.

**b. Direction Finding**

- (1) **Station Passage.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriated entry. If not required, leave blank.
- (2) **Standby Power.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriated entry. If not checked, leave blank.
- (3) **Checkpoint.** For AFIS, leave blank. For manual, describe checkpoints in Remarks.
- (4) **Aircraft Altitude.** Enter the aircraft's altitude over the checkpoint, divided by 100 (e.g., "50" for 5,000 ft).
- (5) **Aircraft Distance.** Enter the distance of the aircraft from the antenna to the nearest mile.
- (6) **Bearing/Aircraft.** Enter the aircraft's magnetic azimuth, to the nearest degree from the direction finding (DF) antenna, when the DF bearing is given.
- (7) **Bearing/DF.** Enter the bearing, to the nearest degree, issued by the controller.
- (8) **Bearing/Error.** Enter the difference between the aircraft azimuth and the bearing issued by the controller to the nearest whole degree (e.g., aircraft azimuth 331°, issued bearing 333°, the error is -2°).
- (9) **Frequency Used.** Enter the frequency used to obtain the DF bearing.

**NOTE:** Whenever an alignment orbit is flown (e.g., commissioning check, maintenance request, and as determined by the flight inspector), it may require several pages of DF checkpoints to satisfy the requirements of a complete orbit.

**c. Visual Aids**

- (1) **Facility Inspected.** Click the appropriate check box to indicate the facility or facilities inspected. If the visual system inspected is not of the type covered by the four blocks, click the "Other\*" check box and describe in Remarks.

**NOTE:** More than one type of visual system may be indicated in this field, provided the flight inspector shows clearly which facility each entry refers to and the entries in paragraph 1a, 1g, 1f and 1h are common to each facility. If these provisions cannot be met, complete separate forms.

- (2) **Runway(s) Served.** Enter the numerical (and alphabetical when appropriate) designators which have been published to identify the runways served by the system(s) being reported.
- (3) **Glide Slope Angle**
  - (a) When an angle is determined by flight inspection, enter the commissioned angle and the angle determined during the inspection into the "glide slope angle" block (e.g., 3.00°/ 2.95°), or
  - (b) When the commissioned angle is unknown and/or the angle is not determined during the inspection, enter an asterisk into the "glide slope angle" block (e.g., \*/ \*) and explain in the "Remarks" field.
  - (c) Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriated entry.
  - (d) For PAPI(s) systems, report individual box angles in Remarks field. Example: For 2-box system, enter: Box 1 = 3.25°, Box 2 = 2.75°. For 4-box system, enter only the angles of Box 2 and Box 3 (i.e., Box 2 = 3.17°, Box 3 = 2.83°).
- (4) **Intensity.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (5) **Angular Coverage.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (6) **Sequence Flashers.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (7) **Obstacle Clearance (VGSI).** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (8) **Focus and Adjustment.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (9) **Coincidence (PAR/ILS/MLS).** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (10) **Runway Lights.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.
- (11) **Radio Control System.** Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriate entry.

- d. **Communications.** Click the appropriate check box to indicate the facility inspected. In cases where Pilot-to-Forecaster or Combined Station Tower was checked, click the P/ F or CS/ T check box and click the check box in the "other" block. Several frequencies may be listed on one line when the results placed in the blocks on that line are common to all frequencies listed. Indicate whether satisfactory (SAT) or unsatisfactory (UNSAT\*) by clicking the drop-down box and selecting the appropriated entry.

# **FLIGHT INSPECTION REPORT** **NDB, DF, VISUAL AIDS, COMMUNICATIONS** **FAA FORM 8240-5**

<b>FLIGHT INSPECTION REPORT</b> NONDIRECTIONAL BEACON, DIRECTION FINDING, VISUAL AIDS, COMMUNICATIONS										
1. FLIGHT INSPECTION REPORT HEADER						2. CREW INFORMATION				
IDENT	OWNER	STATE	CTRY	REGION	INSPECTION DATE(S)	PIC	SIC	MS	A/C NO	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
LOCATION					INSP TYPE	ACM		FIFO		
<input type="text"/>					<input type="text"/>	<input type="text"/>		<input type="text"/>		
3. FACILITY INFORMATION										
DIRECTION FINDING			<input type="text"/>		NDB	<input type="text"/>		FACILITY STATUS		
COMMUNICATIONS			<input type="text"/>		NDB/DME	<input type="text"/>		SIAP(s) VERIFIED		
VISUAL AIDS			<input type="text"/>							
4. NOTAMs										
5. REMARKS										
6. FLIGHT INSPECTION DATA										
<b>A. NONDIRECTIONAL BEACON</b>										
RADIO CLASS CODE		<input type="text"/>		IDENTIFICATION		<input type="text"/>		INTERFERENCE		
FREQUENCY		<input type="text"/>		COVERAGE		<input type="text"/>		OSCILLATIONS		
DME CHANNEL		<input type="text"/>		STA PASSAGE		<input type="text"/>		STANDBY EQUIP.		
								VOICE		
								BRG ACCURACY		
								STANDBY POWER		
<b>B. DIRECTION FINDING</b>										
			STATION PASSAGE			STANDBY POWER				
CHECKPOINT	AIRCRAFT ALTITUDE	AIRCRAFT DISTANCE	BEARING			FREQUENCY USED				
			AIRCRAFT	DF	ERROR					
<b>C. VISUAL AIDS</b>										
FACILITY INSPECTED <input type="checkbox"/>			ALS <input type="checkbox"/>		REIL <input type="checkbox"/>		VASI <input type="checkbox"/>		PAPI <input type="checkbox"/> OTHER* <input type="checkbox"/>	
RUNWAY(S) SERVED		<input type="text"/>		INTENSITY		<input type="text"/>		SEQUENCE FLASHERS		
G.S. ANGLE		<input type="text"/>		ANGULAR COVERAGE		<input type="text"/>		OBST. CLEAR. (VGSI)		
								FOCUS AND ADJUST.		
								COINC. (PAR/ILS/MLS)		
								RUNWAY LIGHTS		
								RADIO CTRL SYST.		
<b>D. COMMUNICATIONS</b>										
APPROACH CONTROL <input type="checkbox"/>		FSS <input type="checkbox"/>		TOWER <input type="checkbox"/>		CENTER <input type="checkbox"/>		OTHER* <input type="checkbox"/>		
								P/F <input type="checkbox"/> CS/T <input type="checkbox"/>		
FREQUENCY USED			PRIMARY		SECONDARY		VOICE QUALITY		COVERAGE	
									STANDBY POWER	

\* Remarks are required for fields marked with an asterisk

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**APPENDIX 6. FLIGHT INSPECTION REPORT  
PRECISION APPROACH RADAR,  
GPN-22 /TPN-25 CONTINUATION SHEET,  
TPN-22 CONTINUATION SHEET,  
FAA FORM 8240-6,**

Complete one FAA Form 8240-6, Precision Approach Radar, per runway identifier. Always complete the primary Form 8240-6, and when necessary, complete the appropriate PAR Continuation Sheet, depending on PAR equipment type.

1. **Field 1. Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12, except for the following:
  - a. **Identifier (Ident).** Enter the ident listed in AVNIS for the specific runway. Report only one runway identifier per report.
  - b. **Runway.** Enter the applicable runway designator
2. **Field 2. Crew Information** – Complete as shown in Chapter 2, Paragraph 12.
3. **Field 3. Facility Information**
  - a. **Controller Performance.** Click on the drop-down box and select the appropriate entry to show that the item was inspected and that it did or did not meet operational tolerance.
  - b. **ILS/ MLS/ VGSI Coincidence.** Click on the drop-down box and select the appropriate entry to show that the item was inspected and that it did or did not meet operational tolerance.
  - c. **Standby Equipment.** Click on the drop-down box and select the appropriate entry to show that the item was inspected and that it did or did not meet operational tolerance.
  - d. **Standby Power.** Click on the drop-down box and select the appropriate entry to show that the item was inspected and that it did or did not meet operational tolerance.
  - e. **Lighting System(s).** Click on the drop-down box and select the appropriate entry to show that the item was inspected and that it did or did not meet operational tolerance.
  - f. **Frequencies Used.** List the frequencies inspected in the appropriate block (i.e., Found Sat or Found Unsat). If additional space is needed, enter in Remarks.
  - g. **Facility Status.** Complete as shown in Chapter 2, Paragraph 12. Click on the drop-down box and select the appropriate entry.

- h. Published Angle.** In the "Published Angle" block, enter the commissioned angle.
- i. Published Alternate Angle.** Enter the published alternate angle if one is approved.
- j. Equipment Type.** Enter the type of equipment inspected (e.g., MPN-14K, GPN-22, or TPN-19).

**4. Field 4. Generic PAR Approach Run Configurations.** Do not enter data in this field when using a PAR Continuation Sheet for other than generic PAR(s).

**a. Approaches**

- (1) Moving Target Indicator (MTI).** Click the check box to indicate if MTI feature was used during the approach.
- (2) Polarization.** Click the check box to indicate the type of polarization used during the approach (e.g., for circular polarization (CP)/ Rain or linear polarization (LP)/ Clear). For computer-generated radars, enter circular polarization (CP).
- (3) Transmitter Used.** Click the drop-down box and select the appropriate entry.
- (4) Angle (Actual Angle).** In the "Angle" block, enter the measured PAR angle for each transmitter that was checked. If the "Actual Angle" was not inspected, leave blank.
- (5) SAT/ UNSAT.** Click on the drop-down box and select the appropriate entry to show if the approach was satisfactory or unsatisfactory.
- (6)** The "Checks " columns shows which runs are necessary to satisfy commissioning and periodic requirements.

**5. Field 5. NOTAM(s).** Complete as shown in Chapter 3, Paragraph 21d.

**6. Field 6. Remarks.** Complete as defined in Chapter 3. Enter additional remarks, such as:

- When PAR equipment has been replaced or when a major modification has been performed.
- When MTI is required on the final approach. (This requirement does not constitute a facility restriction.)

**7. Field 7. Flight Inspection Data:**

- a. **Azimuth Radar.** Click on each designated transmitter drop-down box and select the appropriate entry to indicate that an item was inspected and that it did or did not meet operational tolerance.
- b. **Elevation Radar. Glide Slope Alignment, Range Accuracy and Coverage.** Click on each designated transmitter drop-down box and select the appropriate entry to indicate that an item was inspected and that it did or did not meet operational tolerance.

**8. Flight Inspection Report--Precision Approach Radar Continuation Sheets. When required, complete a separate form for each runway inspected.**

**NOTE:** Form abbreviations used in FAA Forms 8240-6 continuation sheets are as follow:

FTC	- Fast Time Constant
ACQ	- Acquisition
MTI	- Moving Target Indicator
RWY	- Runway
CK'S	- Checks Required
NOR	- Normal
BK UP	- Back Up
AUTO	- Automatic
COH	- Coherent
NON-COH	- Noncoherent
CFAR	- Constant False Alarm Rate
ALS	- Automatic Landing Subsystem
S/N	- Serial Number
C	- Commissioning
P	- Periodic
RCVR CHAN, RC	- Receiver Channel

**8. Flight Inspection Report—Precision Approach Radar GPN-22/ TPN-25 Continuation Sheet**

- a. **Field 1 General. Runway.** Enter the applicable runway designator.
- b. **Field 2. Computer Generated Precision Approach Radar Run Configurations**
  - (1) “R”s indicate the required configuration for each run.
  - (2) Click the appropriate blocks to show which configuration was actually checked.
  - (3) **Transmitter Used.** Click the drop-down box and select the appropriate entry.
  - (4) **Angle (Actual Angle).** In the "Angle" block, enter the measured PAR angle for each transmitter that was checked. If the “Actual Angle” was not inspected, leave blank.
  - (5) **RUN “SAT” or “UNSAT”.** Click on the drop-down box and select the appropriate entry to show if the approach was satisfactory or unsatisfactory.
  - (6) The "Checks " columns shows which runs are necessary to satisfy commissioning and periodic requirements.
- c. **Field 3. Other Information.** Enter receiver sensitivity, clutter (rain) reject, etc., in the blocks provided, as required in Order 8200.1, Paragraph 14.23b.

**9. Flight Inspection Report--Precision Approach Radar TPN-22 Continuation Sheet**

- a. **Field 1 – General**
  - (1) **Runway.** Enter the applicable runway designator.
  - (2) **System Serial #.** Enter the serial number provided by Maintenance.
- b. **Field 2 - Computer Generated Precision Approach Radar Run Configurations.**
  - (1) “R”s indicate the required configuration for each run.
  - (2) Click the appropriate blocks to show which configuration was actually checked.
  - (3) The “Checks ” columns show which runs are necessary to satisfy commissioning and periodic requirements.
- c. **Field 3 - Enter program data** as required in Order 8200.1, Paragraph 14.23c. Enter transmitter output power and receiver sensitivity values provided by Maintenance.

# **FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR** **FAA FORM 8240-6**

## **FLIGHT INSPECTION REPORT** **PRECISION APPROACH RADAR**



1. FLIGHT INSPECTION REPORT HEADER							2. CREW INFORMATION				
IDENT <input style="width:100%;" type="text"/>	OWNER <input style="width:100%;" type="text"/>	STATE <input style="width:100%;" type="text"/>	COUNTRY <input style="width:100%;" type="text"/>	REGION <input style="width:100%;" type="text"/>	INSPECTION DATE(S) <input style="width:100%;" type="text"/>		PIC <input style="width:100%;" type="text"/>	SIC <input style="width:100%;" type="text"/>	MS <input style="width:100%;" type="text"/>	A/C NO <input style="width:100%;" type="text"/>	
LOCATION <input style="width:100%;" type="text"/>				RUNWAY <input style="width:100%;" type="text"/>	INSP TYPE <input style="width:100%;" type="text"/>		ACM <input style="width:100%;" type="text"/>		FIFO <input style="width:100%;" type="text"/>		
3. FACILITY INFORMATION											
CONTROLLER PERF <input style="width:100%;" type="text"/>		ILS/MLS/VGSI COINC. <input style="width:100%;" type="text"/>		STANDBY EQUIPMENT <input style="width:100%;" type="text"/>		STANDBY POWER <input style="width:100%;" type="text"/>		LIGHTING SYSTEMS <input style="width:100%;" type="text"/>		FREQUENCIES USED FOUND SAT <input style="width:100%;" type="text"/> FOUND UNSAT <input style="width:100%;" type="text"/>	
										FACILITY STATUS <input style="width:100%;" type="text"/> PUBLISHED ANGLE <input style="width:100%;" type="text"/> PUB ALTERNATE ANGLE <input style="width:100%;" type="text"/> EQUIPMENT TYPE <input style="width:100%;" type="text"/>	
4. GENERIC PAR APPROACH RUN CONFIGURATIONS											
RUN	MTI		POLARIZATION		DESIRED TX CONFIGURATION		TX USED	ANGLE	RUN SAT OR UNSAT	CHECKS	
	ON	OFF	CP	LP	PRIM	STBY				C	P
"A" Cursor Prim	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X					X	X
"B" Cursor Prim	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X					X	X
"A" Cursor Stby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X				X	X
"B" Cursor Stby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X				X	X
AZ Only Apch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						X	
Alternate Angle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						X	
5. NOTAMS											
6. REMARKS											
7. FLIGHT INSPECTION DATA											
<b>A. AZIMUTH RADAR</b>		PRIMARY TX		STBY TX		<b>B. ELEVATION RADAR</b>		PRIMARY TX		STBY TX	
COURSE ALIGNMENT		<input style="width:100%;" type="text"/>		<input style="width:100%;" type="text"/>		GLIDE SCOPE ALIGNMENT		<input style="width:100%;" type="text"/>		<input style="width:100%;" type="text"/>	
DEVIATION ACCURACY		<input style="width:100%;" type="text"/>		<input style="width:100%;" type="text"/>		RANGE ACCURACY		<input style="width:100%;" type="text"/>		<input style="width:100%;" type="text"/>	
RANGE ACCURACY		<input style="width:100%;" type="text"/>		<input style="width:100%;" type="text"/>		COVERAGE		<input style="width:100%;" type="text"/>		<input style="width:100%;" type="text"/>	
COVERAGE/USABLE DIST		<input style="width:100%;" type="text"/>		<input style="width:100%;" type="text"/>							

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# **FLIGHT INSPECTION REPORT--PRECISION APPROACH RADAR GPN-22 / TPN-25 CONTINUATION SHEET**

## **FLIGHT INSPECTION REPORT -- PAR GPN-22/TPN-25 CONTINUATION SHEET**

### **1. GENERAL**

Runway

### **2. COMPUTER GENERATED PRECISION APPROACH RADAR RUN CONFIGURATIONS**

Run	TRACK MODE		FTC		MTI		RCVR CHAN	TX USED	ANGLE	RUN "SAT" OR "UNSAT"	CHECKS	
	NOR	BK UP	ON	OFF	COH	NON-COH					C	P
"A" CURSOR PRIMARY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	X
"A" CURSOR PRIMARY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	
"A" CURSOR BK UP RC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B				X	X
"B" CURSOR BK UP RC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B				X	X
"B" CURSOR PRIMARY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	
STANDBY TX CHECK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	
BK UP DATABASE "A" CSR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	
BK UP DATABASE "A" CSR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	
BK UP DATABASE "B" CSR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	
AZ ONLY APCH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	
ALTERNATE ANGLE "A" CSR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A				X	

R Denotes required configuration

### **3. OTHER INFORMATION**

#### A. Receiver Sensitivity

NOR

Non-COH

COH

#### B. Clutter (Rain) Reject

Yes

No

N/A

#### C Transmitter Power (db)

#### D. Usable Range on Radar

#### E. Firmware

Part#

Version #

#### F. Digital MTI Baseline

Limiting Settings

# **FLIGHT INSPECTION REPORT—PRECISION APPROACH RADAR TPN-22 CONTINUATION SHEET**

**FLIGHT INSPECTION REPORT -- PAR  
TPN-22 CONTINUATION SHEET**

## **1. GENERAL**

Runway

System Serial #

## **2. COMPUTER GENERATED PRECISION APPROACH RADAR RUN CONFIGURATIONS**

RUN	MTI		CFAR		ALS PAR MODE		AZIMUTH 46-DEG SECTOR	USABLE DISTANCE	ANGLE	CHECKS	
	ON	OFF	ON	OFF	AUTO	MANUAL	ON			"C"	"P"
A. "A" CURSOR AUTO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	X
B. "B" CURSOR AUTO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	X
C. "A" CURSOR AUTO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	X
D. "B" CURSOR AUTO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	X
E. "A" CURSOR MANUAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	
F. "A" CURSOR MANUAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	
<b>ALTERNATE TOUCHDOWN POINTS ON SAME RUNWAY HEADING</b>											
G. "A" CURSOR AUTO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	X
H. "A" CURSOR MANUAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	X
I. "B" CURSOR MANUAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	X
<b>AZIMUTH ONLY PROCEDURE</b>											
J. AZ ONLY APPROACH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			X	

R Denotes required configuration

## **3. PROGRAM DATA**

A. Name

B. Part Number

C. Version

D. Build Date

E. Transmitter Output Power

F. Receiver Sensitivity

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**APPENDIX 7. FLIGHT INSPECTION REPORT  
ILS WORKSHEET, FAA FORM 8240-7  
AND ILS CONTINUATION WORKSHEET, FAA FORM 8240-7-1**

This form must be used on all ILS flight inspection evaluations and may be handwritten. It must be retained with the corresponding recordings. The quantity of information entered on this form is not mandatory but should contain sufficient detail to explain the checks completed and the results found.

**1. FAA Form 8240-7, ILS Worksheet**

- a. **Field 1 - Location.** Complete as shown in Chapter 2, Paragraph 12.
- b. **Field 2 - Identification (Ident).** Enter the 3-letter identifier of the ILS facility being inspected.
- c. **Field 3 - Runway No.** Enter the runway designator served by the ILS.
- d. **Field 4 - Date.** Enter the date(s) of the checks.
- e. **Field 5 - Owner.** Complete as shown in Chapter 2, Paragraph 12.
- f. **Field 6 - Type Check.** Complete as shown in Chapter 2, Paragraph 12.
- g. **Field 7 - Facility Inspected.** Place an "X" in the appropriate block(s) to signify components have been inspected.
- h. **Field 8 - Facility Status.** Enter an "X" in the appropriate block for the localizer front course (F/C), glide slope (GS), and localizer back course (B/C) if inspected.
- i. **Field 9 - Localizer Data**
  - (1) **Width:** Enter commissioned course width
  - (2) **CAT:** Enter Category
  - (3) **B:** Enter Cat I or Cat II commissioned course width + 17% or CAT III commissioned course width + 10%
  - (4) **S:** Enter Cat I or Cat II commissioned course width - 17% or CAT III - 10%
  - (5) **Dual Freq:** Enter Yes or No
  - (6) **Dual Tx:** Enter Yes or No
  - (7) **Voice:** Enter Yes or No
  - (8) **ESV:** Enter Yes or No
  - (9) **Back Course:** Circle Y or N.

j. **Field 10 - Glide Slope Data**

- (1) **Angle:** Enter commissioned angle
- (2) **CAT:** Enter category of facility
- (3) **H:** Enter high angle limit (+ 10% for CAT I and II, + 4% for CAT III)
- (4) **L:** Enter low angle limit (- 7.5% for CAT I and CAT II, - 4% for CAT III)
- (5) **GS Type:** Enter glide slope equipment type (null reference, capture effect, etc.)
- (6) **Dual Tx:** Enter Yes or No
- (7) **ESV:** Enter Yes or No
- (8) **GRD Temp:** Enter temperature used when conducting ILS-2 runs
- (9) **OAT:** Enter temperature used when conducting ILS-2 runs
- (10) **Baro:** Enter barometric pressure used when conducting ILS-2 runs
- (11) **Alt:** Enter MSL altitude ILS-2 runs were flown.

k. **Field 11 - Notes:** Enter any additional information that may be useful in interpreting the results of the flight inspection (e.g., the calibration values, distances, altimeter setting, etc.)

l. **Field 12 -** Enter in chronological order the checks conducted and the results. Use enough detail that a qualified person can interpret the information and correlate the data to the flight inspection recordings.

- (1) **Run Number (#).** Enter the numerical sequence of each check or test.
- (2) **Facility Configuration (CFG).** Enter the number of the transmitter being inspected and the transmitter configuration code as listed below:

<u>Localizer Transmitter Configuration</u>	<u>Code</u>
Normal	N
Special Requirements	Z
Alignment Alarm Left	L
Alignment Alarm Right	R
Course Width Wide	W
Course Width Narrow	S
RF Power Alarm	P
Localizer, CRS Wide, CLR Wide	B
Localizer, CRS NAR, CLR Wide	C

<u>Glide Slope Transmitter Configuration</u>	<u>Code</u>
Normal	N
Wide	W
Wide and CLR Demodulation	B
Narrow	S
Dephase Advance	A
Dephase Retard	R
Attenuate Middle Antenna	M
Attenuate Upper Antenna	U
Low Angle Alarm	L
High Angle Alarm	H
RF Power Alarm	P
Special Requirements	Z
Transverse Structure (FAF ALT)	T
Phase Verification Main Sideband Advance Phase	PSA
Phase Verification Main Sideband Retard Phase	PSR
Phase Verification Middle Antenna Advance Phase	PMA
Phase Verification Middle Antenna Retard Phase	PM

<u>Waveguide Glide Slope Configuration</u>	<u>Code</u>
Main Sideband Advance	MA
Main Sideband Retard	MR
Upper Auxiliary Attenuate	UZ
Upper Auxiliary Advance	UA
Upper Auxiliary Retard	UR
Lower Auxiliary Attenuate	LZ
Upper and Lower Waveguide Advance	ULA
Upper and Lower Waveguide Retard	ULR
Main Waveguide Feed Advance	FA
Main Waveguide Feed Retard	FR
Lower Main Feed Attenuate	LMZ
Upper Main Feed Attenuate	UMZ

- (3) **The remaining columns** are intended for use as designated. They may be altered if necessary.
- (4) **Remarks/ Other Data.** When manual mode is used to perform an inspection, enter the word "Non-AFIS" on the line preceding manual inspection entries.
- (5) **Best Fit Straight Line.** Clearly state in Block 11 notes the runs used for BFSL reporting.

Suggested abbreviations to be used when completing this form:

RWY	- Runway
FREQ	- Frequency
CW	- Commissioned or measured Course Width
CAT	- Category of ILS
CE	- Capture Effect
NR	- Null Reference
SBR	- Sideband Reference
EH	- Endfire Short
ED	- Endfire Standard
EU	- Endfire, Upslope Version
WG	- Waveguide
ANGLE	- Commissioned Glidepath
GND TEMP	- Ground Temperature
OAT	- Outside Air Temperature
BARO	- Barometric Altimeter Setting
ALTITUDE	- Altitude to Fly on ILS-2
PW	- Path Width
PA	- Path Angle
ALN	- Alignment
190 $\mu$ A	- 190 Microamp Angle
Mod	- Modulation
90 Hz Sym	- Symmetry of 90 Hertz side of width
SBP	- Structure Below Path
Z1	- Localizer & Glide Slope Structure in Zone 1
Z2	- Localizer & Glide Slope Structure in Zone 2
Z3	- Localizer & Glide Slope Structure in Zone 3
Z4	- Localizer Structure in Zone 4
Z5	- Localizer Structure in Zone 5
POL	- Polarization
150 CLR	- Minimum localizer clearance on 150 Hz side of localizer
90 CLR	- Minimum localizer clearance on 90 Hz side of localizer

**2. FAA Form 8240-7-1, ILS Continuation Worksheet**

- a. Field 1 - Notes.** Enter any additional information that may be useful in interpreting the results of the flight inspection.
- b. Field 2.** Complete as shown in FAA Form 8240-7, Paragraph 11.

**FLIGHT INSPECTION REPORT—ILS WORKSHEET**  
**FAA FORM 8240-7**

PAGE of PAGES

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**FLIGHT INSPECTION REPORT—ILS CONTINUATION WORKSHEET**  
**FAA FORM 8240-7-1**

**IDENT:**

PAGE \_\_\_\_ of \_\_\_\_ PAGES

[illegible]

**APPENDIX 8. FLIGHT INSPECTION REPORT  
INSTRUMENT LANDING SYSTEM  
FAA FORM 8240-8**

FAA Form 8240-8, Instrument Landing System, is designed to be used to report all the components or conditions of an instrument landing system (when necessary). This appendix provides guidelines for completing FAA Form 8240-8. For Transponder Landing Systems (TLS(s)), separate forms are required for each runway or separate approach procedure.

**NOTE:** Commissionings of visual aids, NDB(s), and after accident reports on NDB(s) must be reported on FAA Form 8240-5.

1. **Field 1 - Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12, except for the following:
  - a. **Runway.** Enter the applicable runway designator
  - b. **Category.** Enter the lowest minima performance category of the facility (I, II, III).
2. **Field 2 - Crew Information** – Complete as shown in Chapter 2, Paragraph 12.
3. **Field 3 – Facility Information.** Click on the drop-down box and select the appropriate option.
  - a. **Localizer.** Click on the drop-down box and select “Inspected,” “Required/ Not Inspected,” or if not required and not inspected, leave blank.
  - b. **Offset.** The Offset block refers to an offset localizer. Click on the drop-down box and select the appropriate entry in the localizer and in the offset block to indicate the item inspected was an offset localizer.
  - c. **Glideslope.** Click on the drop-down box and select “Inspected,” “Required/ Not Inspected,” or if not required and not inspected, leave blank.
  - d. **LDA.** Click on the drop-down box and select “Inspected,” “Required/ Not Inspected,” or if not required and not inspected, leave blank.
  - e. **SDF.** Click on the drop-down box and select “Inspected,” “Required/ Not Inspected,” or if not required and not inspected, leave blank.
  - f. **TLS.** For TLS facilities, if only part of the system is checked, Click on the drop-down box and select the appropriate entry in the TLS block and in the component checked (e.g., if only the glide slope was checked, select the appropriated entry in the TLS and glide slope blocks. If the whole system is checked, select an entry in the TLS block only).
  - g. **Other\*.** Explain in Remarks.

- h. DME.** DME refers to any source of DME that may be required for the ILS approach. When the DME for an ILS approach is provided by a VOR/ DME, VORTAC, or TACAN, enter the identifier following the word "DME", and select the type facility providing the DME (e.g., BLV TAC). Click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e., "SAT" or "UNSAT\*").
- i. Compass Locator.** The "compass locators" block is used to report the condition of nondirectional beacons (NDBs) used as a part of an ILS system. If the identifier of the NDB is different from the ILS (compare the broadcast idents, not the AVNIS idents), enter the identifier after the words "compass locators". If more than one NDB is a component of the ILS system, report the additional NDB(s) in the Remarks block. Click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e. "SAT" or "UNSAT\*").
- j. Lighting System.** . If all lighting features required to support the lowest authorized visibility are Satisfactory, mark accordingly. Click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e. "SAT" or "UNSAT\*").
- k. 75 MHz Markers.** See Chapter 3, Paragraph 21.
- l. SIAP(s).** Complete as directed in Chapter 3, Paragraph 21. Click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e. "SAT" or "UNSAT\*").
- m. Publications.** For publications checked IAW Order 8200.1, Paragraph 4.34f, click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e. "SAT" or "UNSAT\*").
- n. Commissioned (Com'd) Width.** Enter the tailored or standard course sector width.
- o. Commissioned (Com'd) Angle.** Enter the commissioned angle.
- p. Glide Slope Type.** Enter the type of glide slope being reported. Use the suggested abbreviations shown in Appendix 7, Paragraph 11(4).
- q. Facility Status (F/C, G/S, B/C).** If inspected, click on the drop-down box and select the appropriate entry to indicate whether inspected and condition for the localizer front course (F/C), glide slope (G/S), and localizer back course (B/C).



- r. **ILS Classification System.** The classification system is intended to provide a more comprehensive method of describing ILS performance than the currently used Facility Performance Category alone. A facility's "Class" of performance is defined by using three characters. Flight inspection will report two of the three characters IAW Order 6750.24, Appendix 2. An excerpt from Order 6750.24 is provided as guidance for determining the appropriate character to enter in the ILS Classification System block.
- (1) **I, II, or III:** As an example, an ILS that conforms to the ICAO Annex 10 Facility Performance CAT III standards, meets the CAT III localizer course structure criteria to ILS Point "D", and conforms to the integrity and continuity of service objectives of Level 3, would be described as "Class IIID3". An ILS, which conforms to ICAO Annex 10 Facility Performance CAT I standards, has a localizer CAT III course structure to Point "E", and conforms to the integrity and continuity of service objectives of Level 2, would be described as "Class IE2". However, when a CAT I facility performance is monitored to CAT II standards, this same facility having a localizer CAT III course structure to Point "E" and conforming to the integrity and continuity of service objectives to Level 2 would be described as "Class IIE2". Conversion of a Facility's Performance Class from CAT I to CAT II is dependent upon the facility performance being monitored to CAT II standards. When requested, IAW FAA Order 8400.13, Appendix 2, we are responsible for completing a flight check IAW the Flight Inspection Operations checklist contained therein. For our purposes, satisfactory results of all checklist items does not in and of itself constitute a reason to change the Facility's Performance Class from a CAT I to a CAT II within the ILS Classification System block. A change of the Facility's Performance Class will be dependent upon successful completion of all checklists contained in FAA Order 8400.13, Appendix 2, and publication of a "Special Authorization CAT II Operations to RVR 1600 or 1200" SIAP.
- For tracking purposes, when the results of all Flight Inspection Operations checklist items are satisfactory, enter in Remarks, "This facility supports Facility Performance Class II". Upon publication of the "Special Authorization CAT II Operations to RVR 1600 or 1200" SIAP, the Facility's Performance Class within the "Performance Class" field on the AVNIS Facility Data Sheet will be changed by the FICO Aeronautical Information Specialist from CAT I to CAT II. On future reports, when the facility supports CAT II requirements, enter CAT II into the ILS Classification System block.

- (2) **A, B, C, T (Threshold), D, or E:** This character defines the ILS point to which the localizer conforms to the Facility Performance CAT III course structure tolerances.

Enter the appropriate ILS Classification System characters in the block. Enter the Facility Performance Class (described in Paragraph 11a above) first, and the point to which the localizer conforms to the Facility Performance CAT III course structure tolerance (described in Paragraph 11b above) second. The 2<sup>nd</sup> character performance classification of “D” and “E” must be determined solely by rollout procedures. The low approach (50 ft) method may be used for subsequent classification if a comparability check was accomplished, found Satisfactory, and is documented on the AVNIS.

**NOTE:** If the rollout check has been accomplished and documented on the datasheet as “U4/ 5” or “Q4/ 5”, do not report a code inside Point T.

- (a) **Inspection Criteria.** When the inspection is performed to a higher standard than the official category because it has been authorized IAW FAA Order 8400.13, Procedures for the Approval of Special Authorization Category II and Lowest Standard Category I Operations, and has a published “Special Authorization CAT II Operations to RVR 1600 or 1200” SIAP, enter the higher standard category. If the facility is not inspected to a higher standard, leave blank.
- (b) **Rollout.** When rollout procedures are established IAW Order 8200.1 for any localizer, document the roll-out code. Click on the drop-down box and select the appropriate code. The available codes include:
- 1      **S** = Rollout accomplished; results of both the Rollout and the 50 ft run are within Category III tolerance and compare within 3  $\mu$ A.
  - 2      **U4** = Rollout accomplished; Zone 4 results do not meet Category II/ III tolerances.
  - 3      **U5** = Rollout accomplished; Zone 5 results do not meet Category III tolerances.
  - 4      **R4** = Rollout required for evaluation of Zone 4 and Zone 5. Rollout was accomplished; ground results meet Category II/ III requirements but do not compare with results of the 50 ft run in Zone 4.
  - 5      **R5** = Rollout required only for evaluation of Zone 5. Rollout was accomplished; ground results meet Category III requirements; comparison with the 50 ft run was Satisfactory in Zone 4 but Unsatisfactory in Zone 5.

**4. Field 4. - NOTAM(s).** Complete NOTAM(s) block as directed in Chapter 3, Paragraph 21d. Restriction information on NDB(s) used only as Compass Locators must be reported. This restriction status must be entered in the Remarks section of the ILS AVNIS Facility Data Sheet.

5. **Field 5. - Remarks.** Complete as shown in Chapter 3. Additionally, when reporting localizer phasing (e.g. enter the start/ stop distance from the localizer antenna, the course sector side (90 Hz or 150 Hz), the offset from centerline (in degrees), and the MSL altitude flown).

- a. **75 MHz Marker Beacon(s).** See Chapter 3, Paragraph 21.
- b. **Clearance Below Path.** When checking clearances to runway threshold on CAT I glide slopes with runway centerline localizers, explain in Field 13 (e.g., Clearance below path checked to Category II standards; results between Point C and Threshold are Satisfactory/ Unsatisfactory).
- c. **Localizer Course Width/Clearance Comparability (Procedure 1 or Procedure 2).** When accomplished, document comparability check results on the AVNIS data sheet and the report (e.g. course width and clearance comparability verified from an altitude of 1,200 ft MSL up to 4,555 ft MSL, using procedure 1, IAW FAA Order 8200.1A, Paragraph 15.20k; or course width and clearance checks must be conducted at an altitude of 1,200 ft MSL).

6. **Field 6 – Instrument Landing System Data- Azimuth (Part I).** This field will be left blank when that component of the ILS is not inspected or reported on the same flight inspection form (i.e., do not enter "COM'D WIDTH" for the azimuth if the reported information is glide slope only, or vice versa). Enter the data for both the front and back courses in the appropriate transmitter (TX) column. If the localizer transmitter cannot be determined, indicate in Remarks.

- a. **ILS-1 Altitude.** Enter the MSL altitude in feet at which the ILS-1 maneuvers were flown.
- b. **TX1/ TX2 CD (Code) Column.** Under the appropriate transmitter number, click the drop-down box and enter the appropriate code. Enter an "X" for any out-of-tolerance condition found and not corrected during the inspection; enter a "C" for any out-of-tolerance condition found and corrected during the inspection. Enter "SS" when structure is "SAT" per Order 8200.1, Paragraph 15.51a. Enter "CS" when clearance is "SAT" per Order 8200.1, Paragraph 15.51c. Do not enter an "X" or "C" for any out-of-tolerance found in Zone 4 and 5 on a CAT I localizer (Zone 5 for Category II localizer) when the structure is analyzed for the purpose of defining a facility's "Class" of performance.
- c. **TX1/ TX2 Initial Column.** Under the appropriate transmitter number, enter the "as found" operating condition in this column, if this condition was changed or altered during the inspection.
- d. **TX1/ TX2 Final Column.** Under the appropriate transmitter number, enter the operating condition at the completion of the inspection. Use this column to report the results of after accident checks.
- e. **Course Width.** Enter the measured, normal course sector width for each transmitter checked.

- f. **Symmetry.** Enter the percent of symmetry of the 90 Hz side.
- g. **Modulation.** Enter the "on course" modulation level in percent for each transmitter checked.
- h. **Clearance 150.** Enter the minimum value in microamperes and the degrees from the course on the 150 Hz side (front or back) for each transmitter checked. An entry of 180/ 20.0 means the minimum clearance was 180  $\mu$ A at 20° from the course. When a facility is restricted, enter the minimum clearance value found in the unrestricted area in Field 6. Also report the minimum clearance found within the restricted area in Field 5, except when restriction is based on terrain.

**NOTE:** Do not report the algebraic sign from the AFIS clearance readout.

For a TLS, indicate "S" for Satisfactory or "U" for Unsatisfactory. Explain Unsatisfactory conditions in Remarks. Clearance plots are not required.

- i. **Clearance 90.** Enter the results found on the 90 Hz side as shown in Subparagraph 6h.
- j. **Course Structure - General Information.** When a facility is restricted from a point in a zone, enter the maximum course displacement in the unrestricted portion of the zone in Field 9. Also report the maximum structure found within the restricted area in Remarks.
- k. **Course Structure - Z1, Z2, Z3, Z4, Z5.** Report the maximum course displacement in microamperes due to roughness, scalloping, or bends for each transmitter checked. Report the course displacement for each zone and the distance from the threshold, antenna (back course), or missed approach point (e.g., 5/ 0.7 indicates the displacement was 5  $\mu$ A at 0.7 nm). If distances are referenced to the MAP or antenna (back course), note in Remarks. When necessary to more accurately locate a structure value in a particular zone, report mileage to the nearest hundredth.

Zone 4 and 5 structure, which is analyzed for the purpose of defining a facility's "Class" of performance must be reported unless restricted or the data sheet indicates a rollout code of "U4/ 5" or Q4/ 5". Only the zones used to identify the normal "Category" of the system must be used to assign facility status. For inspections where Zone 4 and Zone 5 structure are evaluated both through roll-out and airborne (50 ft), report the roll-out results in this field and the airborne results in Remarks.

- (1) When zones have tolerances which have linear rates of change, report the structure closest to the tolerance limit.
- (2) Report the out of tolerance furthest from the threshold, antenna (back course), or missed approach point. Report additional out-of-tolerance structure closer to the threshold, antenna (back course), or missed approach in Remarks, if appropriate.

- l. Vertical Polarization** - Enter “S” if Satisfactory or “U” if Unsatisfactory. Explain Unsatisfactory conditions in Remarks.
- m. Alignment.** Enter the course displacement in microamperes, left or right of the designed course (e.g., 3R is 3  $\mu$ A right of the course, “CL”, for no alignment error). LDA(s) oriented to a non-descript point-in-space, where adequate visual checkpoints are not available and AFIS runway updates are impractical, must be reported either Satisfactory (S) or Unsatisfactory (U).
- n. Identification.** Enter "S" if Satisfactory or "U" if Unsatisfactory.
- o. Power Ratio.** Enter the power ratio value in dB.
- p. Localizer Only Structure.** Report localizer only approach final segment maximum structure. Report the structure closest to the tolerance limit (e.g., localizer only structure 14/ 0.4 miles).

**7. Field 7 - Instrument Landing System Data – Glide Slope (Part I).** Columns are provided for each transmitter and are labeled similar to the localizer entries. This field must be left blank when that component of the ILS is not inspected or reported on the same flight inspection form (i.e., do not enter “COMD ANGLE” for the glideslope if the reported information is localizer only, or vice versa). Enter the data in the appropriate (TX) column. If the glideslope transmitter cannot be determined, indicate in Remarks.

- a. ILS-2 Altitude.** Enter the altitude in feet MSL at which the ILS-2 maneuvers were flown.
- b. TX1/ TX2 CD Column.** Under the appropriate transmitter number, enter an “X” for any out-of-tolerance condition found and not corrected during the inspection; enter a “C” for any out-of-tolerance condition found and corrected during the inspection. Enter “SS” when structure is “SAT” per Order 8200.1, Paragraph 15.51a.
- c. TX1/ TX2 Initial Column.** Under the appropriate transmitter number, enter the “as found” operating condition in this column, if this condition was changed or altered during the inspection.
- d. TX1/ TX2 Final Column.** Under the appropriate transmitter number, enter the operating condition at the completion of the inspection. Use this column to report the results of after accident checks.
- e. Angle.** Enter the measured, actual glidepath angle. If the reported angle is not the actual angle, explain in Remarks.
- f. Modulation.** Enter the modulation level in percent.
- g. Width.** Enter the width of the normal glidepath envelope, as measured on a level run.
- h. Structure Below Path.** Enter the normal level run angle where 190  $\mu$ A of fly-up signal occurs.

- i. **Symmetry.** Enter the percent of symmetry of the 90 Hz side.
- j. **Path Structure - General Information.** If a facility is restricted from a point in a zone, enter the maximum on-path displacement in the unrestricted portion of the zone in this field.
- k. **Path Structure Z1, Z2, Z3.** Report the maximum on-path displacement in microamperes due to roughness, scalloping, or bends for each transmitter checked. Report the path displacement for each zone and the distance from the threshold (e.g., 5/ 0.7 indicates the displacement was 5  $\mu$ A at 0.7 nm). If it is necessary to more accurately identify structure in a particular zone, report mileage to the nearest hundredth. Due to flight inspection limitations of the Sierra AFIS system, manual analysis of Z3 glide slope structure is required.
  - (1) When zones have tolerances that have linear rates of change, report the structure closest to the tolerance limit.
  - (2) Report the out of tolerance furthest from the threshold. Report additional out-of-tolerance structure closer to the threshold in Remarks, if appropriate.
- l. **Angle Alignment “B – C”.** This value represents the worst (with respect to tolerances) average deviation of Zone 3 best fit straight line angle from commissioned glide slope angle, as measured from Point B to Point C. Enter first value in  $\mu$ A and second value in nm.

“Due to flight inspection limitations of the Sierra AFIS system, manual analysis of the first corrected error trace is required. When using the Sierra AFIS system, this value represents the worst (with respect to tolerances) deviation of the mean angle from commissioned glide slope angle, as measured from Point B to Point C. Enter the first value in  $\mu$ A and the second value in nm.”
- m. **Angle Alignment “C – T”.** This value represents the worst (with respect to tolerances) average deviation of Zone 3 best fit straight line angle from commissioned glide slope angle, as measured from Point C to Threshold. Enter first value in  $\mu$ A and second value in nm.

“Due to flight inspection limitations of the Sierra AFIS system, manual analysis of the first corrected error trace is required. When using the Sierra AFIS system, this value represents the worst (with respect to tolerances) average deviation of the mean angle from commissioned glide slope angle, as measured from Point C to Threshold. Enter the first value in  $\mu$ A and the second value in nm.”
- n. **Angle Alignment “T”.** This value represents the Zone 3  $\mu$ A value at Point T and the Zone 3 BFSL deviation from the commissioned glide slope angle at Point T in feet. Enter first value in  $\mu$ A and second value in feet. Due to flight inspection limitations of the Sierra AFIS system, there is no capability to determine this value. When using the Sierra AFIS system, leave blank.”

**8. Field 8 - Instrument Landing System Data – Marker Width(s) -- Outer Marker, Middle Marker, or Inner Marker.** For commissioning flight inspections, enter the minor axis width in feet.

**9. Field 9 - Instrument Landing System Data – Azimuth (Part II).** This field is used to report the monitor results of the front and back course azimuth.

- a. TX1/ TX2 CD (Code) Column.** Under the appropriate transmitter number, click the drop-down box and enter the appropriate code. Enter an "X" for any out-of-tolerance condition found and not corrected during the inspection; enter a "C" for any out-of-tolerance condition found and corrected during the inspection. Enter "CS" when clearance is "SAT" per Order 8200.1, Paragraph 15.51c.
- b. TX1/ TX2 Initial Column.** Under the appropriate transmitter number, enter the "as found" operating condition in this column, if this condition was changed or altered during the inspection.
- c. TX1/ TX2 Final Column.** Under the appropriate transmitter number, enter the operating condition at the completion of the inspection. Use this column to report the results of after accident checks.
- d. Usable Distance/ PWR Setting.** If an RF power monitor check is conducted to check the service volume, enter the maximum distance in nautical miles from the antenna where the check was Satisfactory and the power setting in watts. For dual frequency equipment, document the distance in nautical miles first, followed by the power setting of the course transmitter, then the power setting of the clearance transmitter i.e., 18.0/ 12.0/ 2.0.
- e. Course Width (Wide).** Enter the course sector width when increased to the monitor reference setting. For dual frequency localizers, report the course wide/ clearance wide results.
- f. Clearance 150.** Enter as shown in Subparagraph 6h, the minimum clearance measured on the 150 Hz side, when the facility is in wide monitor reference setting. For dual frequency localizers, enter the minimum clearance measured on the 150 Hz side when the facility is in course wide/ clearance wide monitor reference setting.
- g. Clearance 90.** Enter as shown in Subparagraph 6h, the minimum clearance measured on the 90 Hz side, when the facility is in wide monitor reference setting. For dual frequency localizers, enter the minimum clearance measured on the 90 Hz side when the facility is in course wide/ clearance wide monitor reference setting.
- h. Course Width (Narrow).** Enter the course sector width when narrowed to the monitor reference setting. For dual frequency localizers, enter the course narrow/ clearance wide results when checked.

- i. **Clearance 150.** Enter as shown in Subparagraph 6h, the minimum clearance measured on the 150 Hz side, when the facility is in the narrow monitor reference setting. For dual frequency localizers, enter the minimum clearance measured on the 150 Hz side when the facility is in the course narrow/ clearance wide monitor reference setting.
- j. **Clearance 90.** Enter as shown in Subparagraph 6h, the minimum clearance measured on the 90 Hz side, when the facility is in the narrow monitor reference setting. For dual frequency localizers, enter the minimum clearance measured on the 90 Hz side when the facility is in the course narrow/ clearance wide monitor reference setting.
- k. **Alignment R.** Enter the course displacement in microamperes, with the course alignment shifted to the right (150 Hz side) monitor reference setting. Reference the displacement to the designed azimuth alignment or modulation balance reference.
- l. **Alignment L.** Enter the course displacement in microamperes, with the course alignment shifted to the left (90 Hz side) monitor reference setting. Reference the displacement to the designed azimuth alignment or modulation balance reference.

**10. Field 10 – Instrument Landing System Data – Glide Slope(Part II).** This field is used to report the monitor results of the glide slope. Enter the applicable path angle, path width, and structure below path for each condition outlined below.

**NOTE:** If the actual path angle was determined during the inspection, apply the correction factor (per Order 8200.1, Chapter 15) to all reported on-path, level run angles.

**a. Field A – Antenna Dephase**

- (1) **Advance TX1/ TX2.** Enter the measured values for each listed parameter and transmitter.
- (2) **Retard TX1/ TX2.** Enter the measured values for each listed parameter and transmitter.

**b. Field B – Main Sideband Dephase**

- (1) **Advance TX1/ TX2.** Enter the measured values for each listed parameter and transmitter.
- (2) **Retard TX1/ TX2.** Enter the measured values for each listed parameter and transmitter.

**c. Field C - Path Angle Lowered to Limit.** Enter the measured values for each listed parameter and transmitter when the path angle has been lowered to the monitor reference setting.



- d. **Field D - Path Angle Raised to Limit.** Enter the measured values for each listed parameter and transmitter when the path angle has been raised to the monitor reference setting.
- e. **Field E - Path Width Narrowed to Limit.** Enter the measured values for each listed parameter and transmitter when the path width has been narrowed to the monitor reference setting.
- f. **Field F - Path Width Widened to Limit.** Enter the measured values for each listed parameter and transmitter when the path width has been widened to the monitor reference setting; for capture effect facilities, enter the measured values for each listed parameter and transmitter when the clearance TX modulation level has been decreased to the monitor reference setting while the path width of the primary TX is in the monitor wide limit setting.
- g. **Field G - Attenuate Middle Antenna to Limit TX1/ TX2.** Enter the measured values for each listed parameter and transmitter when the middle antenna signal is attenuated to the monitor reference setting.
- h. **Field H - Attenuate Upper Antenna to the Limit TX1/ TX2.** Enter the measured values for each listed parameter and transmitter when the upper antenna signal is attenuated to the monitor reference setting.
- i. **Field I. Usable Distance/ Power Settings.** (Standard or expanded service volumes). If a RF power monitor check is conducted to check service volume, enter the maximum distance in miles from the antenna where the check was Satisfactory. Request the RF level from the ground technician and enter the RF level in watts. For dual frequency equipment, enter the primary transmitter power setting first, followed by the clearance transmitter power setting. Place a slash between the reported distance and the power settings (i.e., 10 nm/ 3.0/ 0.350).
- j. **Field J. Clearance Below Path TX1/ TX2.** Enter "S" if all clearances below path runs are Satisfactory. If any checks are Unsatisfactory, place an asterisk in this field and explain in Remarks.
- k. **Field K. Modulation Equality TX1/ TX2.** Enter the crosspointer deflection in microamps and the predominate 90 Hz or 150 Hz modulation for each transmitter. Enter zero if obtained.
- l. **Field L - Phasing TX1/ TX2.** Enter the crosspointer deflection in microamps and the predominate 90 Hz or 150 Hz modulation for each transmitter. Enter zero if obtained.
- m. **Field M - Front Course Area Where Phasing Was Conducted.** In the "NM" block, enter the segment distance in nautical miles from the glide slope antenna where phasing repeatability existed (e.g., 4.0 – 1.0). In the "MSL" block, enter the altitude flown above mean sea level.
- n. **Field N – Mean Width/ Symmetry.** Enter the transmitter checked, angle found above, angle found below, the mean width, and the mean symmetry of the 90 Hz side.

- o. Field O – Tilt.** Enter the transmitter checked, angle found on the 150 Hz side, and angle found on the 90 Hz side.
- p. Field P – Best Fit Straight Line**

  - (1) **Achieved Reference Datum Height (ARDH).** Enter the ARDH in whole feet, followed by feet and hundredths of feet in parentheses (i.e., 54 (53.99)).
  - (2) **Achieved GPI to Threshold Distance.** Enter the GPI to threshold distance in feet.
  - (3) **RDH.** Enter the RDH in whole feet, followed by feet and hundredths of feet in parentheses (i.e., 54 (53.99)).
  - (4) **Aiming Point elevation.** Enter the final aiming point elevation in feet.
  - (5) **Offset.** Enter into OFFSET Field “CL” for centerline abeam or feet offset (i.e. 450L). Include this information in the Remarks Field of AVNIS.
- q. Field Q – Glide Slope Aiming Point.** (Glide Slope Coordinate Standardization (AFIS/ AVNIS)). Document the glide slope aiming point coordinates (i.e., centerline abeam or offset) used when applying FAA Order 8240.47, or anytime the glide slope aiming point coordinates are changed thereafter. Include this information in the Remarks Field of AVNIS.
- r. Field R. Transverse Structure.** Complete when endfire glide slope transverse structure is checked but FAA Form 8240-8, Field 11, Transverse Structure Plot completion is not required (FAA Form 8240-8, Field 11, Transverse Structure Plot is required on commissioning or other checks that are used as baseline data for later checks).

  - (1) Enter the glide slope crosspointer deflection (microamps/ 90Hz or 150 Hz) at the localizer 150  $\mu$ A points left and right of localizer centerline, as referenced to the glide slope crosspointer found at localizer centerline. For example, at localizer centerline, the received signal is 10  $\mu$ A of 90 Hz, and at the right side localizer 150  $\mu$ A point, the received value is 15  $\mu$ A of 150 Hz. The reported value in the "Right of CL" section of the Transverse Structure block must be 25  $\mu$ A/ 150Hz.
  - (2) Reference the localizer crosspointer transition for right/ left determination (150 Hz = Right).
  - (3) In the "RADIUS" block, enter the distance in nautical miles from abeam the glide slope on the localizer centerline.
  - (4) In the "ALTITUDE" block, enter the altitude flown, divided by 100.
- s. Field S. Radio Altimeter.** On commissioning, report the radio altimeter indication at the published CAT II Decision Height.

**11. Field 11 - Instrument Landing System Data – Transverse Structure Plot**

- a. **Field A. - Antenna Type.** Refer to Appendix 22, Remarks section. Current applicable codes are ED, EH, and EU.
- b. **Field B - SITE ELEV.** Enter the site elevation in feet above Mean Sea Level (MSL).
- c. **Field C - TX.** Identify the transmitter number for each plot (e.g., 1 or 2).
- d. **Field D - CFG.** Enter the configuration of both the course and clearance transmitters, using the codes in Appendix 7, Paragraph 11(2) (e.g., Course Normal and Clearance Power Reduced would be entered as N/P). Use "OFF" as an additional code. Do not use Code "T" on this form.
- e. **Field E - ALT.** Enter the altitude used, divided by 100, during each evaluation that is plotted (e.g., 2,500' MSL would be 25).
- f. **Field F - RADIUS.** Enter the radius in nautical miles. The distance must be referenced to localizer centerline abeam the glide slope.
- g. **Field G - FLT DIRECTION.** Enter the flight direction (CW or CCW) of the run.
- h. **Field H - GS WIDTH.** Enter the normal width of the glide slope as measured on a level run.
- i. **Field I - GLIDE SLOPE ANGLE.** Enter the actual angle measured on an ILS-3.
- j. **Field J. - Degrees from LOC-CL Abeam GOP (Degrees).** Enter the glide slope deflection to 12° each side of localizer centerline in half-degree increments. Average through any short-term (less than one second) variations in the signal. Enter the glide slope deflection as a positive or negative number using the value found on the localizer centerline as the Zero Reference Baseline (Zero Ref Baseline). For example, at localizer centerline the received glide slope value is 10  $\mu$ A/ 90 Hz, and at 3.5° left of course, the received value is 15  $\mu$ A/ 150 Hz. The entry at 3.5°/ Localizer 90 Hz would be “-25”.
- k. **Field K. -** Upon completion of data entry into required blocks of Field J, the data will eventually be auto-plotted on the graph. Until the automation process is developed, this field will not be plotted.

**FLIGHT INSPECTION REPORT  
INSTRUMENT LANDING SYSTEM  
FAA FORM 8240-8**

<b>FLIGHT INSPECTION REPORT INSTRUMENT LANDING SYSTEM</b>					
1. FLIGHT INSPECTION REPORT HEADER					
IDENT	OWNER	STATE	CTRY	REGION	INSPECTION DATE(S)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
LOCATION		RUNWAY		CATEGORY	INSP TYPE
<input type="text"/>		<input type="text"/>		<input type="text"/>	<input type="text"/>
2. CREW INFORMATION					
PIC	SIC	MS	A/C NO		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
ACM		FIFO			
<input type="text"/>		<input type="text"/>			
3. FACILITY INFORMATION					
LOCALIZER	<input type="text"/>	DME	<input type="text"/>		FACILITY STATUS
OFFSET	<input type="text"/>	COMPASS LOCATOR	<input type="text"/>		F/C
GLIDE SLOPE	<input type="text"/>	LIGHTING SYSTEM	<input type="text"/>		G/S
LDA	<input type="text"/>	75 mHz MARKERS	<input type="text"/>		B/C
SDF	<input type="text"/>	SIAP	<input type="text"/>		ILS CLASS. SYS.
TLS	<input type="text"/>	PUBLICATIONS	<input type="text"/>		INSP. CRITERIA
OTHER*	<input type="text"/>	COMD WIDTH	<input type="text"/>		ROLLOUT
		COMD ANGLE	<input type="text"/>		
		GLIDE SLOPE TYPE	<input type="text"/>		
4. NOTAMs					
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>					
5. REMARKS					
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>					
* Remarks are required for fields marked with an asterisk					

FAA Form 8240-8 (v1.0 7-2005) Supersedes previous edition

## 6. INSTRUMENT LANDING SYSTEM DATA - AZIMUTH (PART I)

## A. FRONT COURSE

ILS-1 ALTITUDE 

	TX 1			TX 2		
	CD	INITIAL	FINAL	CD	INITIAL	FINAL
Course Width						
Symmetry						
Modulation						
Clearance 150						
Clearance 90						
Structure-Z 1						
Structure-Z 2						
Structure-Z 3						
Structure-Z 4						
Structure-Z 5						
Vert. Polar.						
Alignment						
Identification						
Power Ratio						
Loc Only Structure						

## B. BACK COURSE

ILS-1 ALTITUDE 

	TX 1			TX 2		
	CD	INITIAL	FINAL	CD	INITIAL	FINAL
Course Width						
Symmetry						
Modulation						
Clearance 150						
Clearance 90						
Structure-Z 1						
Structure-Z 2						
Structure-Z 3						
Structure-Z 4						
Structure-Z 5						
Vert. Polar.						
Alignment						
Identification						
Power Ratio						
Loc Only Structure						

## 7. INSTRUMENT LANDING SYSTEM DATA - GLIDE SLOPE (PART I)

ILS-2 ALTITUDE 

	TX 1			TX 2		
	CD	INITIAL	FINAL	CD	INITIAL	FINAL
Angle						
Modulation						
Width						
Structure Below Path						
Symmetry						
Structure-Z 1						
Structure-Z 2						
Structure-Z 3						
Angle Alignment "B-C"						
Angle Alignment "C-T"						
Angle Alignment "T"						

## 8. INSTRUMENT LANDING SYSTEM DATA - MARKER WIDTH(s)

A. OM

B. MM

C. IM

\* Remarks are required for fields marked with an asterisk

9. INSTRUMENT LANDING SYSTEM DATA - AZIMUTH (PART II)															
A. FRONT COURSE MONITOR		TX1 CD	TX 1 INITIAL	TX 1 FINAL	TX 2 CD	TX 2 INITIAL	TX 2 FINAL	B. BACK COURSE MONITOR		TX1 CD	TX 1 INITIAL	TX 1 FINAL	TX 2 CD	TX 2 INITIAL	TX 2 FINAL
Usable Dis./Pwr Setting								Usable Dis./Pwr Setting							
Course Width (Wide)								Course Width (Wide)							
Clearance 150								Clearance 150							
Clearance 90								Clearance 90							
Course Width (Narrow)								Course Width (Narrow)							
Clearance 150								Clearance 150							
Clearance 90								Clearance 90							
Alignment R															
Alignment L															

10. INSTRUMENT LANDING SYSTEM DATA - GLIDE SLOPE (PART II)																			
		TX 1	TX 2	PATH ANGLE				PATH WIDTH				STRUCTURE BELOW PATH							
				TX 1 INITIAL	TX 1 FINAL	TX 2 INITIAL	TX 2 FINAL	TX1 INITIAL	TX1 FINAL	TX2 INITIAL	TX2 FINAL	TX1 INITIAL	TX1 FINAL	TX2 INITIAL	TX2 FINAL				
A. ANTENNA DEPHASE	ADVANCE																		
	RETARD																		
B. MAIN SIDEBAND DEPHASE	ADVANCE																		
	RETARD																		
C. PATH ANGLE LOWERED TO LIMIT																			
D. PATH ANGLE RAISED TO LIMIT																			
E. PATH WIDTH NARROWED TO LIMIT																			
F. PATH WIDTH WIDENED TO LIMIT																			
G. ATTN. MIDDLE ANT TO LIMIT																			
H. ATTN. UPPER ANT TO LIMIT																			
		TX 1		TX 2		N. MEAN WIDTH/SYMMETRY													
I. USABLE DISTANCE / PWR SET.								TX		ANGLE ABOVE									
J. CLEARANCE BELOW PATH										ANGLE BELOW									
K. MODULATION EQUALITY										WIDTH									
L. PHASING										SYMMETRY									
M. Front Course Area Where Phasing Was Conducted										O. TILT									
NM				MSL				TX		150 Hz		90 Hz							
P. BEST FIT STRAIGHT LINE										R. TRANSVERSE STRUCTURE		TX1 uA		TX1 Hz		TX2 uA		TX2 Hz	
ARDH	GPI/TH DIS.	RDH	AIM PT ELEV	OFFSET		RADIUS		ALT		LEFT OF CL									
										RIGHT OF CL									
Q. GLIDE SLOPE AIMING POINT										S. RADIO ALTIMETER									
LATITUDE				LONGITUDE															

\* Remarks are required for fields marked with an asterisk

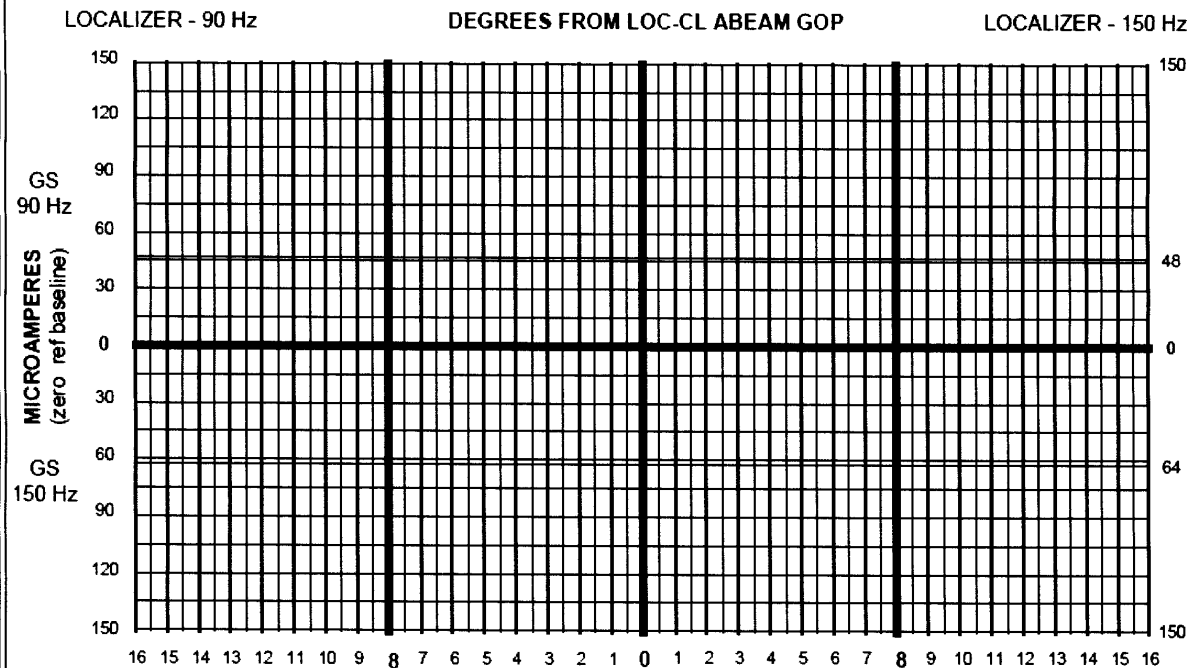
## 11. INSTRUMENT LANDING SYSTEM DATA - TRANSVERSE STRUCTURE PLOT

A. ANT TYPE		D. CFG		G. FLT DIRECT.	
B. SITE ELEV.		E. ALT		H. GS WIDTH	
C. TX		F. RADIUS		I. GS ANGLE	

## J. DEGREES FROM LOC-CL ABEAM GOP (DEGREES)

LOCALIZER - 90 Hz		LOCALIZER - 90 Hz		LOCALIZER - 150 Hz		LOCALIZER - 150 Hz	
12.0		5.5		0.0		6.5	
11.5		5.0		0.5		7.0	
11.0		4.5		1.0		7.5	
10.5		4.0		1.5		8.0	
10.0		3.5		2.0		8.5	
9.5		3.0		2.5		9.0	
9.0		2.5		3.0		9.5	
8.5		2.0		3.5		10.0	
8.0		1.5		4.0		10.5	
7.5		1.0		4.5		11.0	
7.0		0.5		5.0		11.5	
6.5		0.0		5.5		12.0	
6.0				6.0			

## K.



\* Remarks are required for fields marked with an asterisk

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**Appendices 9 – 10**

**RESERVED**

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**APPENDIX 11. FLIGHT INSPECTION REPORT**  
**ILS/ MLS MAINTENANCE ALERT**  
**FAA FORM 8240-11**

This form is intended to be used:

- To report ILS/ MLS maintenance alert results following a normal periodic check without monitors when a measured flight inspection parameter is equal to or exceeds 60 percent of the flight inspection tolerance
- When a CAT III ILS facility is found operating beyond the “adjust and maintain” limits specified in Order 8200.1, Paragraph 15.51g.

A Flight Inspection Central Operations (FICO) person will normally complete this form, based on flight crew input and forward to the Flight Inspection Records Team, AVN 210A, for distribution.

1. **Field 1 - Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12.
2. **Field 2 - Crew Information.** Complete as shown in Chapter 2, Paragraph 12.
3. **Field 3 - Remarks.** Use the Remarks field to clarify any reported conditions in other fields. When the FICO forwards the ILS/ MLS maintenance alert results to the Air Traffic Technical Operations Service Area engineer by telephone, enter the name of the person contacted and date, if different from date of inspection.
4. **Field 4 - Flight Inspection Data**
  - a. **Parameter.** Enter a description of the parameter under evaluation, which was found to be equal to or exceeding the defined tolerance criteria. Enter number of transmitter radiating, if known. Example: Glide Slope Path Width, TX 1. For value equal to or exceeding 60 percent of Flight Inspection (FI) tolerance, enter the measured value of the parameter, which is equal to or exceeds 60 percent of FI tolerances. (Example: Glide slope optimum path width =  $.70^\circ$ . Maximum path width =  $.90^\circ$ . so:  $.90^\circ - .70 = .20^\circ$ , which equals the allowable deviation from optimum. Multiply  $.60$  times  $.20$  and add resultant to  $.70$  for the value (i.e.,  $.60 \times .20 = .12 + .70 = .82$ ). Any value equal to or exceeding  $.82^\circ$  would require an ILS maintenance alert be issued.
  - b. **Alert Received by:** Enter the name of the person at the FICO who received alert results from the flight crew.

# FLIGHT INSPECTION REPORT

## ILS/MLS MAINTENANCE ALERT

FAA Form 8240-11 (v1.0 7-2005) Supersedes previous edition

**APPENDIX 12. FLIGHT INSPECTION REPORT  
SURVEILLANCE RADAR,  
FAA FORM 8240-12**

**FAA Form 8240-12, Flight Inspection Report--Surveillance Radar**, is designed as a one-page report for surveillance radar inspections.

**1. Field 1 - Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12, except for the following:

- a. Identifier (IDENT).** Enter the location identifier published in Order 7350.5 for the location shown in Field 1, except for ARSR facilities. An ARSR facility will use the identifier of the controlling ARTCC, with an alpha subcode, of the radar location in Field 1 (e.g., the Fort Worth, Texas, ARTCC location identifier is ZFW and the alpha subcode is "A", therefore use ZFWA).

**NOTE 1:** Where more than one ASR is installed at the same location, each will be identified by the facility identifier plus an alpha subcode (e.g., TIK A, TIK B).

**NOTE 2:** Where more than one ARSR serves one ARTCC, each will be identified by the ARTCC identifier plus an alpha subcode (e.g., ZFWA, ZFWB).

- b. Location.** Enter the city or military installation, state or country, where the radar antenna is located, (e.g. Tinker AFB ARPT, Oklahoma City, OK). If there are multiple radar antenna inputs and more space is required, place an asterisk in this block and explain in Remarks.

**2. Field 2 - Crew Information** – Complete as shown in Chapter 2, Paragraph 12d.

**3. Field 3 - Facility Information.**

- a. ASR, ARSR, SECRA, MSAW.** Click on the drop-down box and select the appropriate entry to indicate type(s) of facilities “Inspected “ or “Required/Not Inspected”. **(If MSAW is the only check accomplished, select the appropriate entry in the MSAW block only).**
- b. Ground Equipment Type.** Insert the designation of the ground equipment type (e.g., FPN-47 for primary and ATCBI-3 for secondary radar will be entered as FPN-47/ ATCBI-3). ASR/ 9 or ASR/ 8 radar facilities installed with Mode S capability will be designated as equipment type ASR/9/Mode S or ASR/ 8/ Mode S. If the radar facility is Mode S capable but operating in Interim Beacon Interrogator (IBI) Mode, report as follows: ASR/ 9 or ASR/ 8/ Mode S (IBI).

- c. **Scope Location.** Enter the location of the controller scope (e.g., Washington, D.C. ARTCC; Scott AFB, IL. RAPCON).
  - d. **Standby Power.** Click on the drop-down box and select the appropriate entry. If not checked, leave blank."
  - e. **Facility Status.** Click on the drop-down box and select the appropriate entry.
  - f. **SIAP(s) Verified.** For SIAP(s) check IAW Order 8200.1, Chapter 6. Click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e. "SAT", "UNSAT\*", etc.).
  - g. **Antenna Tilt: PRI (primary ASR antenna)/ SEC (SECRA antenna).** Click on the drop-down box and select the appropriate entry. Variable (VAR) tilt antenna means the antenna tilt can be controlled from a remote position.
  - h. **Field 6 - Optimum Angle.** Show the mechanical antenna tilt angle which has been selected as the optimum for the installation being inspected.
4. **Field 4 – NOTAM(s).** Complete NOTAM(s) block as directed in Chapter 3, Paragraph 21.
5. **Field 5 - Remarks.** Complete as shown in Chapter 3. When appropriate, list:
- a. When a major modification has been performed.
  - b. When MTI is required for the ASR approach. (This requirement does not constitute a facility restriction.)
  - c. When an air traffic control radar beacon system (ATCRBS) power optimization check is performed, report the interrogator power values. If dual equipment is installed, report the value for each transponder.
  - d. When equipment changes/modifications are made and the inspection is used to reestablish the coverage, for example, "This inspection reestablishes the coverage and performance of the (ASR/ ARSR/ ACTRBS). The results found on this inspection will be the basis for subsequent performance." The remark may be expanded to be more specific.
6. **Field 6 - Flight Inspection Data**
- a. **Field 6A - Fix Coverage**
    - (1) **Fix Name.** Identify the radar fix inspected.
    - (2) **Airway.** Identify the airway associated with the fix. (e.g., V47, J123W).
    - (3) **Altitude.** Enter the lowest altitude checked at which coverage is satisfactory. Enter the altitude divided by 100 (e.g., 2,500 ft would be 25).

- (4) **Channel.** Enter the radar channel evaluated (e.g., A or B).
- (5) **Satisfactory/ Unsatisfactory (SAT/ UNSAT).** Click on the drop-down box and select the appropriate entry to indicate the status of the fix.

**b. Field 6B - Fixed (Fix) Target Identification (Ident)/Orientation Checkpoint.**

- (1) **Check Point.** A numerical listing is assigned to each checkpoint (e.g. #1, #2, #3, etc.)
- (2) **Channel.** Enter the radar channel used during the checks (e.g., A or B).
- (3) **Azimuth (Radar/Chart).** Enter the azimuth bearing from the radar antenna, as determined at the radarscope, and the actual azimuth bearing determined from a chart or AFIS.
- (4) **Distance (Radar/Chart).** Enter the distance from the radar antenna as determined at the radarscope and the actual distance, determined from a chart or AFIS.

**c. Field 6C - Route Coverage**

- (1) **Route.** Show the designation of the route checked (e.g., J123W, V12).
- (2) **From/To.** Indicate the segment, in nautical miles, of the route checked or the name of the fix being checked.
- (3) **Channel (CHAN).** Enter the radar channel evaluated (e.g., A or B).
- (4) **Altitude (ALT).** Enter the lowest satisfactory coverage altitude checked. Enter the altitude divided by 100 (e.g. 2,500 ft would be 25).
- (5) **Polarization (POLAR).** Enter the type of polarization used during the check. For MPN-25, indicate rain mode or clear mode, as appropriate.
- (6) **Moving Target Indicator (MTI).** Enter "Yes" or "No" to indicate if the MTI feature was in use.
- (7) **Secondary Radar (SECRA).** Enter "Yes" or "No" to show if the SECRA was operating satisfactorily during the inspection of the route.
- (8) **Satisfactory (SAT)/ Unsatisfactory (UNSAT).** Click on the drop-down box and select the appropriate entry to indicate the status of the route.

**d. Field 6D - Surveillance Approaches**

- (1) **Airport.** Enter the ICAO identifier of the airport where each approach terminates.
- (2) **Runway (Rwy).** Indicate the runway numbers where the approaches terminate.

- (3) **Approach Condition.** List any conditions that affected the approaches or radar operation (e.g., adverse weather).
- (4) **Position (POS) - Map.** Indicate the position of the aircraft (in feet) relative to the runway edge extended, at the procedural missed-approach point. An aircraft 300 feet left of the runway edge, at a missed approach point that is 0.5 nm from the runway threshold, would be reported as: 300 L/ 0.5 nm.
- (5) **Polarization (POLAR).** Indicate the type of polarization used during the approach. For MPN-25, indicate rain mode or clear mode, as appropriate.
- (6) **Moving Target Indicator (MTI).** Enter "Yes" or "No") to indicate if the MTI feature was used.
- (7) **Channel (CHAN).** Enter the radar channel evaluated (e.g., A or B).
- (8) **Satisfactory (SAT)/ Unsatisfactory (UNSAT).** Click on the drop-down box and select the appropriate entry to indicate the status of each approach.



# **FLIGHT INSPECTION REPORT SURVEILLANCE RADAR FAA FORM 8240-12**

FLIGHT INSPECTION REPORT SURVEILLANCE RADAR									
<b>1. FLIGHT INSPECTION REPORT HEADER</b>						<b>2. CREW INFORMATION</b>			
IDENT	OWNER	STATE	CTRY	REGION	INSPECTION DATE(S)	PIC	SIC	MS	A/C NO
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	N/A	<input type="text"/>
LOCATION					INSP TYPE	ACM		FIFO	
<input type="text"/>					<input type="text"/>	<input type="text"/>		<input type="text"/>	
<b>3. FACILITY INFORMATION</b>									
ASR	<input type="text"/>		GROUND EQUIPMENT TYPE	<input type="text"/>		FACILITY STATUS		<input type="text"/>	
ARSR	<input type="text"/>		<input type="text"/>		SIAP(s) VERIFIED		<input type="text"/>		
SECRA	<input type="text"/>		SCOPE LOCATION	<input type="text"/>		ANTENNA TILT	PRI	SEC	<input type="text"/>
MSAW	<input type="text"/>		STANDBY POWER	<input type="text"/>		OPTIMUM ANGLE		<input type="text"/>	
<b>4. NOTAMs</b>									
<input type="text"/>									
<b>5. REMARKS</b>									
<input type="text"/>									
<b>6. FLIGHT INSPECTION DATA</b>									
<b>A. FIX COVERAGE</b>									
FIX NAME	AIRWAY	ALTITUDE	CHANNEL	SAT/UNSAT	FIX NAME	AIRWAY	ALTITUDE	CHANNEL	SAT/UNSAT
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**APPENDIX 13. FLIGHT INSPECTION REPORT  
GENERAL CHARACTERISTICS  
FAA FORM 8240-13**

This form is used to report conditions which cannot be reported on the other forms or to report facilities which are not routinely inspected (e.g., markings, general airport characteristics, airport services, publication errors, etc.). This form is not a substitute for the data reporting requirements directed in the Aeronautical Data Management order.

- 1. Field 1 - Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12, except for **Location**. Facility location information will be obtained from the AVNIS Facility Data Sheet. If the airport name is the same as the location, enter only once.
- 2. Field 2 - Crew Information.** Complete as shown in Chapter 2, Paragraph 12.
- 3. Field 3 - Facility Information**
  - a. Airports.** This block is no longer used and will be removed at a future date.
  - b. Lighting Systems.** Use this form when light discrepancies cannot be reported using FAA Form 8240-5. Click on the drop-down box and select "Inspected". Leave blank if inspection is not related to lights.
  - c. Other (Explain)\*.** If the facility inspected is other than lights, click on the drop-down box and select "Inspected". Otherwise, leave blank.
  - d. Facility Type and Class, SID, or Unnamed Departure Procedure.** Enter the facility type and class if appropriate. Enter the name of the SID or the words "Departure Procedure" for unnamed instrument departure procedures.
  - e. Facility Status.** This block is no longer used and will be removed at a future date.
  - f. SIAP(s) Verified.** For SIAP(s) check IAW Order 8200.1, Chapter 6, click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e. "SAT" or "UNSAT\*").
- 4. Field 4 – NOTAM(s).** Complete NOTAM(s) block as directed in Chapter 3, Paragraph 21d.
- 5. Field 5 - Remarks.** Complete as shown in Chapter 3.

**6. Field 6 - Flight Inspection Data**

**A - Out-of-Tolerance Conditions Initially Found.** List all discrepancies not covered by a current, published NOTAM. Click on the drop-down box and select the appropriate entry to show if the discrepancies were corrected or not.

**B - Was a NOTAM Issued Based on the Results of This Inspection?** Click on the drop-down box and select the appropriate entry. Also list the NOTAM in the NOTAM block.

**C - Is There a Previous NOTAM in Effect?** Click on the drop-down box and select the appropriate entry.

# **FLIGHT INSPECTION REPORT GENERAL CHARACTERISTICS FAA FORM 8240-13**

## **FLIGHT INSPECTION REPORT GENERAL CHARACTERISTICS**

1. FLIGHT INSPECTION REPORT HEADER						2. CREW INFORMATION			
IDENT	OWNER	STATE	CTRY	REGION	INSPECTION DATE(S)	PIC	SIC	MS	A/C NO
<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>	<input style="width:90%;" type="text"/>
LOCATION						INSP TYPE			
<input style="width:90%;" type="text"/>						<input style="width:90%;" type="text"/>			
3. FACILITY INFORMATION									
AIRPORTS		<input style="width:90%;" type="text"/>		FACILITY TYPE AND CLASS, SID, OR UNNAMED DEPARTURE PROCEDURE		<input style="width:90%;" type="text"/>		FACILITY STATUS	
LIGHTING SYSTEMS		<input style="width:90%;" type="text"/>		<input style="width:90%;" type="text"/>		<input style="width:90%;" type="text"/>		<input style="width:90%;" type="text"/>	
OTHER (EXPLAIN)*		<input style="width:90%;" type="text"/>		<input style="width:90%;" type="text"/>		<input style="width:90%;" type="text"/>		<input style="width:90%;" type="text"/>	
4. NOTAMs									
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>									
5. REMARKS									
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>									
6. FLIGHT INSPECTION DATA									
<b>A. OUT OF TOLERANCE CONDITIONS FOUND (Except those covered by previous NOTAM)</b>									
								CORRECTED	
<input style="width:95%;" type="text"/>								<input style="width:95%;" type="text"/>	
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<p>B. Was a NOTAM issued based on the results of this inspection? <input style="width:80px;" type="text"/></p> <p>C. Is there a previous NOTAM in effect? <input style="width:80px;" type="text"/></p> <p align="center">* Remarks are required for fields marked with an asterisk</p>									

FAA Form 8240-13 (v1.0 10-2005) Supersedes previous edition

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**APPENDIX 14. FLIGHT INSPECTION REPORT  
AFTER ACCIDENT CONTINUATION SHEET  
FAA FORM 8240-14**

**1. Purpose.** The flight inspection after accident report (AA) must contain facility performance information and other conditions related to an accident or near mid-air collision or incident. The reported information must be obtained during a special AA inspection.

**2. Reporting.** Complete a flight inspection facility performance report (see Paragraph 4 of this appendix) and FAA Form 8240-14, Flight Inspection Report--After Accident Continuation Sheet, (see Paragraph 5 of this appendix) for each facility involved in the accident or incident. The objective of the AA reporting procedure is to ensure that each report is complete, accurate, and reflects only the facility performance and status, as measured during the AA inspection. Therefore, report only "as found" conditions. The AA report commands the highest priority for a pre-distribution review and final approval. Special distribution requirements for this type of report are described in Chapter 2, Paragraph 15b; and special review procedures are described in Paragraph 3 of this appendix.

- a. Incomplete Inspections.** If all the requirements of the AA inspection cannot be completed in one inspection (i.e., a visual check of the site area is required but cannot be made due to weather or other factors), the final report must contain the dates and information from all previous inspections.
- b. Reporting Corrected Out-of-Tolerance Conditions.** Out-of-tolerance conditions found during an AA inspection must not be corrected until after the AA inspection is completed. Report the out-of-tolerance condition, the corrected condition, and the results of any additional checks on a separate "special" maintenance request (MR) report. Explain the reason for this check in the remarks field (e.g., special inspection to correct out-of-tolerance conditions found during the AA inspection of (date)).
- c. Periodic Update.** An after-accident inspection may be used to update the periodic interval if two conditions are met.
  - No out-of-tolerance conditions are found.
  - All periodic requirements were completed.

In this case, state in the remarks field of the facility performance report that periodic requirements were met.

**3. Special Report Review.** The Flight Inspector must expeditiously complete and forward the AA report, plus supporting worksheets, to the TSS Flight Inspection Records Team within 3 days of completion of the inspection. Normal report completion procedures and local QC must be accomplished. The TSS Flight Inspection Records Team must forward the pending report to the FICO TSS, where it will be reviewed and changes may be recommended. If the report is satisfactory, it will be returned to the TSS Flight Inspection Records Team for archiving and distribution. If unsatisfactory, it will be returned to the originator for changes. The TSS Flight Inspection Records Team will notify the flight inspector and the office manager of the results of the review. The final report, along with the worksheets and recordings, must be sent to the TSS Flight Inspection Records Team within 7 days of completion of the inspection.

**4. Facility Performance Report Completion.** To complete the facility performance portion of the AA report, use the guidelines as described in Chapters 2 and 3 and the appropriate appendixes of this order (e.g., ILS AA report must be reported on FAA Form 8240-8, using Appendix 8; VORTAC AA report must be reported on FAA Form 8240-2, using Appendix 2). Assign a facility classification (status) based on the results of the AA inspection.

**5. FAA Form 8240-14, Flight Inspection Report--After Accident Continuation Sheet, Completion.**

**a. Field 1 - General**

- (1) **Location.** Information in this field will be the same as the corresponding field on the facility performance report.
- (2) **Identification (Ident).** Enter the facility identifier.
- (3) **Facility Type.** Enter the facility type.
- (4) **Date(s) of Inspection.** Complete as shown in Chapter 2, Paragraph 12.
- (5) **Date & Time of Accident.** Enter the month, day, year, and universal coordinated time (UTC) of the accident (e.g., 1/12/89, 1400Z). If the date and time are unknown, enter "UNKNOWN."
- (6) **Aircraft Type & Number.** Enter the aircraft manufacturer, model number, and number of the aircraft involved in the accident.

**b. Field 2 - Other Information**

- (1) **Procedures in Use at Time of Accident.** Enter the procedure being used by the aircraft at the time of the accident (e.g., Nashville Metropolitan Airport, Nashville, TN, ILS Rwy 02L, Amdt. 1.). If this information is not available, enter "UNKNOWN." A "SAT" or "UNSAT" entry is not required.
- (2) **Equipment in Use at Time of Accident.** Enter the facility transmitter, receiver, or channel number that was in use at the time of accident. If the facility has a single transmitter, so state. For coordinate-based RNAV procedures, leave blank.



- (3) **Date and Time of After Accident Inspection.** Enter the date and UTC the AA flight inspection was started (e.g., 11/17/89, 1626Z).
  - (4) **Weather Conditions at Time of Inspection.** Enter the weather conditions prevailing at the start of the inspection. Use plain English; do not use symbols.
  - (5) **Procedures Inspected and Extent of Inspection.** Enter the procedure(s) inspected. If the entry is the same as in Field A, enter the note, "Same as Field A" and describe the extent of the SIAP inspected (e.g., "evaluated the final approach segment). A "SAT" or "UNSAT" is not required.
  - (6) **SIAP Obstacle Clearance Checked.** Check the SIAP for compliance with FAA Order 8200.1, United States Flight Inspection Manual, Chapter 6. Click on the drop-down box and select the appropriate entry.
  - (7) **Name and Routing Symbol of Accident Coordinator/Investigator.** Enter the name and routing symbol of the person acting in the capacity of the accident coordinator/ investigator for the accident being reported. If this person is not an FAA employee, enter the name and business or military address.
- c. **Field 3 - Remarks.** Enter any information required to clarify data in Fields 1--14. When all facility parameters are found within tolerance and no performance discrepancies are discovered, enter the following statement: "Facility operation found satisfactory." For coordinate-based RNAV procedures, enter "RNAV performance found satisfactory". When there is a request to check the MSAW (Minimum Safe Altitude Warning) system as part of the AA inspection, enter a remark indicating the results.

**FLIGHT INSPECTION REPORT  
AFTER ACCIDENT CONTINUATION SHEET  
FAA FORM 8240-14**

<b>FLIGHT INSPECTION REPORT AFTER ACCIDENT CONTINUATION SHEET</b>	
<b>1. GENERAL</b>	
A. Location	
B. Ident	
C. Facility Type	
D. Date(s) of Inspection	
E. Date & Time of Accident	
F. Aircraft Type & Number	
<b>2. OTHER INFORMATION</b>	
A. Procedures In Use at Time of Accident	
B. Equipment In Use at Time of Accident	
C. Date & Time of After Accident Inspection	
D. Weather Conditions at Time of Accident	
E. Procedures Inspected and Extent of Inspection	
F. SIAP	
G. Name & Routing Symbol of Accident Coordinator/Investigator	
<b>3. REMARKS</b>	

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**Appendix 15**

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**APPENDIX 16. FLIGHT INSPECTION REPORTS  
MICROWAVE LANDING SYSTEM  
FAA FORM 8240-16**

FAA Form 8240-16 will be used for all MLS inspections. For commissioning inspections of all MLS equipment, Field 9 of FAA Form 8240-16, MLS Commissioning Data Words, is required.

**1. Field 1 - Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12, except for the following:

- a. Runway.** Enter the applicable runway designator
- b. Category.** Enter the lowest minima performance category of the facility (I, II, III).

**2. Field 2 - Crew Information.** Complete as shown in Chapter 2, Paragraph 12.

**3. Field 3 - Facility Information:**

- a. Front Azimuth.** Click on the drop-down box and select the appropriate entry to signify component has or has not been inspected.
- b. Back Azimuth.** Click on the drop-down box and select the appropriate entry to signify component has or has not been inspected.
- c. Elevation.** Click on the drop-down box and select the appropriate entry to signify component has or has not been inspected.
- d. DME.** DME refers to DME or DME/P installed with the MLS. If an offset azimuth is inspected, enter a statement in Remarks. Click on the drop-down box and select the appropriate entry to indicate whether DME was inspected and condition (i.e., “SAT” or “UNSAT\*, etc”).
- e. Lighting System.** Satisfactory means that all lighting features required to support the MLS are operational. If an out-of-tolerance condition is found and not corrected, indicate the lights are unsatisfactory and explain in Remarks.
- f. Azimuth (AZ) Course (CRS) Bearing (BRG).** Enter the designed front azimuth course bearing(s) that support the procedure(s).
- g. Back Azimuth (BAZ) Course (CRS) Bearing (BRG).** Enter the designed back azimuth course bearing(s) that support the procedure(s).
- h. Minimum Glidepath (MGP).** Enter the commissioned minimum glidepath angle in degrees.

- i. **Facility Status (AZ, ELEV, BAZ).** Click on the drop-down box and select the appropriate entry to indicate the status of each MLS component.
  - j. **SIAP(s) Verified.** For SIAP(s), IAW Order 8200.1, Chapter 6, click on the drop-down box and select the appropriate entry to indicate whether inspected and condition (i.e. "SAT", "UNSAT\* etc.").
4. **Field 4 - NOTAM(s).** Complete NOTAM(s) block as directed in Chapter 3, Paragraph 21d.
5. **Field 5 – Remarks:**
  - a. **Exempted Structure.** When out-of-tolerance Path Following Error (PFE), Path Following Noise (PFN), or Control Motion Noise (CMN) is exempted by the provisions of Order 8200.1, Paragraph 16.21, place an asterisk in the "OT" column next to the particular structure to be exempted and explain in Remarks (e.g., PFE SAT per Order 8200.1, Paragraph 16.21).
  - b. **Standby Control Electronic Unit (CEU):** Enter the serial numbers of the primary and standby CEU when commissioned.
  - c. **Collocated MMLS.** Report coordinates of pseudo runway threshold. Report a description of markers used for NCU updating and suitability determination of those markers for use without the Television Positioning System."
6. **Field 6. Microwave Landing System Data – Azimuth:**
  - a. **Field A - Front Azimuth.** Use this field to report the operational characteristics of the azimuth portion of the MLS.
  - b. **Front Azimuth/ Back Azimuth (TX1/TX2).** Use these columns to report specific operational parameters for each transmitter. Use the "OT," "INITIAL," and "FINAL" columns as directed in Appendix 8, Paragraphs 6b, c, and d.
    - (1) **Alignment.** Enter the azimuth Mean Course Error (MCE) of the approach course azimuth in hundredths of a degree, left or right of the designed azimuth course when the alignment is determined by manual methods (e.g., 0.04L indicates the course is 0.04° left of the designated approach azimuth). Enter the alignment error of the approach course azimuth as presented by the AFIS when using automated methods (e.g., - 0.04 indicates the course is 0.04° right of the designated approach azimuth). For mobile MLS facilities, under the "Initial" column, enter the alignment as found at the beginning of the flight check.
    - (2) **Path Following Error (PFE).** Enter the most significant error in hundredths of a degree and tenths of a mile. (e.g., 0.04/ 0.8 indicates a 0.04° error at 0.8 nm from threshold).

- (3) **Path Following Noise (PFN).** Enter the most significant error in hundredths of a degree and tenths of a mile. (e.g., 0.04/ 0.8 indicates a 0.04° error at 0.8 nm from threshold)
- (4) **Control Motion Noise (CMN).** Enter the most significant error in hundredths of a degree and tenths of a mile. (e.g., 0.04/ 0.8 indicates a 0.04° error at 0.8 nm from threshold).
- (5) **Out-of-Coverage Indications (OCI).** Enter "SAT" or "UNSAT", as appropriate, to indicate the results of the OCI check (whether or not OCI equipment installed). If OCI check is not performed, leave blank.
- (6) **Clearance.** Click on the drop-down box and select the appropriate entry to indicate "SAT" or "UNSAT", as appropriate, if clearances are installed. If clearances are not installed, leave blank. Leave blank for mobile MLS facilities.
- (7) **Basic Data Words.** Enter "SAT" to signify all basic words transmitted by the facility are within specified limits of the facility data. If words are missing, incorrect, incomplete, or cannot be verified by other means, enter a "UNSAT." When commissioning mobile MLS facilities, under the "Initial" column, enter the status of the Data Words as found at the beginning of the flight check.
- (8) **Auxiliary Data Words.** Enter "SAT" to signify all auxiliary words transmitted by the facility are within specified limits of the facility data. If words are missing, incorrect, incomplete, or cannot be verified by other means, enter a "UNSAT." When commissioning mobile MLS facilities, under the "Initial" column, enter the status of the Data Words as found at the beginning of the flight check.
- (9) **Proportional (Prop) Guidance - Left.** Enter the commissioned maximum proportional guidance angle left of the procedural azimuth.
- (10) **Proportional (Prop) Guidance - Right.** Enter the commissioned maximum proportional guidance angle right of the procedural azimuth.
- (11) **Identification.** Enter "SAT" if the coded identification is satisfactory. Enter "UNSAT" if unsatisfactory.
- (12) **Usable Distance.** If a minimum power check is conducted to check the service volume, enter the maximum distance in miles from the Achieved Reference Datum (ARD) where the check was satisfactory.

(13) **Monitor**

- (a) **MCE - Left (L) Reference.** Enter the course displacement from the as found normal MCE.
- (b) **PFE - Left (L) Reference.** Enter the maximum PFE throughout the approach, as indicated in Paragraph 6d(2), with the course shifted left.
- (c) **MCE - Right (R) Reference.** Enter the course displacement from the as found normal MCE.
- (d) **PFE - Right (R) Reference.** Enter the maximum PFE throughout the approach, as indicated in Paragraph 6a(2), with the course shifted right.

**7. Field 7 - Microwave Landing System Data - Runway Azimuth.** Use this field to report the operational characteristics of the azimuth portion of the MLS in the runway environment. Use the transmitter numbers as shown in field 6, "Azimuth," of this report form.

- a. **Zone-4/ Zone-5.** Complete each column using the same guidelines as directed for the " OT," "INITIAL," and "FINAL" columns in Appendix 8, Paragraphs 6b, c, and d.
- b. **PFE, PFN, CMN.** Enter the most significant error in tenths of a foot and hundredths of a mile to runway threshold, for each zone (e.g., 4.0/0.80 indicates a 4.0 error at 0.80 nm from threshold).

**8. Field 8 - Microwave Landing System - Elevation.** Use this field to report the operational characteristics of the elevation portion of the MLS.

- a. **Elevation Angle.** Enter the measured, actual elevation angle in hundredths of a degree. If the reported angle is not the actual angle, explain in Field 15. For mobile MLS facilities, under the "Initial" column, enter the angle as found at the beginning of the flight check.
- b. **PFE.** Enter the most significant error in hundredths of a degree and tenths of a mile. (e.g., 0.04/0.8 indicates a 0.04° error at 0.8 nm from threshold).
- c. **PFN.** Enter the most significant error in hundredths of a degree and tenths of a mile. (e.g., 0.04/0.8 indicates a 0.04° error at 0.8 nm from threshold).
- d. **CMN.** Enter the most significant error in hundredths of a degree and tenths of a mile. (e.g., 0.04/0.8 indicates a 0.04° error at 0.8 nm from threshold).
- e. **OCI.** Enter "SAT" or "UNSAT", as appropriate, to indicate the results of the OCI check (whether or not OCI equipment installed). If OCI check is not performed, leave blank.



- f. Below MGP Clearance.** Enter "SAT" if clearance below the minimum glidepath is satisfactory. Enter "UNSAT" if unsatisfactory.
- g. Usable Distance.** If a minimum power check is conducted to check the service volume, enter the maximum distance in miles from the ARD where the check was satisfactory.
- h. Monitor**
  - (1) PFE-Angle High.** Enter the maximum PFE throughout the approach, as indicated in Paragraph 6a(2), with the angle shifted high.
  - (2) Elevation (EL) Angle High - Monitor Reference.** Enter the elevation angle, in hundredths of a degree, with the elevation angle shifted high.
  - (3) Elevation Angle Low - Monitor Reference.** Enter the elevation angle, in hundredths of a degree, with the elevation angle shifted low.
  - (4) PFE-Angle Low.** Enter the maximum PFE throughout the approach, as indicated in Paragraph 6a(2), with the angle shifted low.

# **FLIGHT INSPECTION REPORT MICROWAVE LANDING SYSTEM FAA FORM 8240-16**

<b>FLIGHT INSPECTION REPORT MICROWAVE LANDING SYSTEM</b>					
1. FLIGHT INSPECTION REPORT HEADER					
IDENT	OWNER	STATE	CTRY	REGION	INSPECTION DATE(S)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
LOCATION			RUNWAY		INSPECTION TYPE
<input type="text"/>			<input type="text"/>		<input type="text"/>
2. CREW INFORMATION					
PIC		SIC		MS	A/C NO
<input type="text"/>		<input type="text"/>		<input type="text"/>	<input type="text"/>
ACM				FIFO	
<input type="text"/>				<input type="text"/>	
3. FACILITY INFORMATION					
FRONT AZIMUTH		DME		FACILITY STATUS	
<input type="text"/>		<input type="text"/>		<input type="text"/>	
BACK AZIMUTH		LIGHTING SYSTEM		AZ	
<input type="text"/>		<input type="text"/>		<input type="text"/>	
ELEVATION		AZ CRS. BRG.		ELEV	
<input type="text"/>		<input type="text"/>		<input type="text"/>	
		BAZ CRS. BRG.		BAZ	
		<input type="text"/>		<input type="text"/>	
		MGP		SIAP(s) VERIFIED	
		<input type="text"/>		<input type="text"/>	
4. NOTAMS					
5. REMARKS					
* Remarks are required for fields marked with an asterisk					

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## 6. MICROWAVE LANDING SYSTEM DATA - AZIMUTH

A. FRONT AZIMUTH		TX 1			TX 2			B. BACK AZIMUTH		TX 1			TX 2		
		OT	INITIAL	FINAL	OT	INITIAL	FINAL			OT	INITIAL	FINAL	OT	INITIAL	FINAL
MCE															
PFE															
PFN															
CMN															
OCI															
Clearance															
Basic Data Words															
Aux Data Words															
Prop Guid-L.															
Prop Guid-R.															
Identification															
Usable Distance															
MONITOR															
MCE-L. Ref.															
PFE L. Align.															
MCE-R. Ref.															
PFE R. Align.															

## 7. MICROWAVE LANDING SYSTEM DATA - RUNWAY AZIMUTH

A. ZONE 4		TX 1			TX 2			B. ZONE 5		TX 1			TX 2		
		OT	INITIAL	FINAL	OT	INITIAL	FINAL			OT	INITIAL	FINAL	OT	INITIAL	FINAL
PFE															
PFN															
CMN															

## 8. MICROWAVE LANDING SYSTEM DATA - ELEVATION

		TX 1			TX 2			MONITOR		TX 1			TX 2		
		OT	INITIAL	FINAL	OT	INITIAL	FINAL			OT	INITIAL	FINAL	OT	INITIAL	FINAL
Elevation Angle															
PFE															
PFN															
CMN															
OCI															
Below MGP Guidance															
Usable Distance															
* Remarks are required for fields marked with an asterisk															

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9. MICROWAVE LANDING SYSTEM - COMMISSIONING DATA WORDS		
<b>A. FACILITY TYPE</b> <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span>		
<b>B. MLS BASIC WORD 1</b>		
F DIS	EXAMPLE 200 MTR	
AZ PROP COV	-40 TO +40 DEG	
CLEARANCE SIGNAL TYPE	SB	
<b>C. MLS BASIC WORD 2</b>		
EXAMPLE		
MIN GLIDE PATH	3.0 DEG	
STATUS: AZ	NORMAL	
EL	NORMAL	
BZ	OFF/TEST	
DME	FA, STD 1 AVAIL	
<b>D. MLS BASIC WORD 3, 4, &amp; 6</b>		
EXAMPLE		
AZ BEAMWIDTH	3.0 DEG	
EL BEAMWIDTH	2.0 DEG	
DME DISTANCE	0.0 MTR	
AZ ZERO-DEG PLANE	173 DEG	
BZ ZERO-DEG PLANE	353 DEG	
GND EQUIP IDENT		
<b>E. MLS AUXA WORD 1</b>		
EXAMPLE		
AZ ANTENNA OFFSET	-89 MTR	
AZ TO DATUM PT DIST	6210 MTR	
AZ TO DATUM HEIGHT	0 MTR	
AZ ANT/RUNWAY ALIGN	0.00 DEG	
AZ ANT COORDINATE	CONICAL/PLANAR	
AZ ANT HEIGHT	4 MTR	
<b>F. MLS AUXA WORD 2</b>		
EXAMPLE		
EL ANTENNA OFFSET	-91 MTR	
THRESHOLD TO DATUM POINT	233 MTR	
EL ANTENNA HEIGHT	5.5 MTR	
DATUM POINT ELEVATION	387 MTR	
THRESHOLD HEIGHT	0.7 MTR	
<b>G. MLS AUXA WORD 3</b>		
EXAMPLE		
DME OFFSET	-89 MTR	
DME TO DATUM POINT	0 MTR	
DME ANTENNA HEIGHT	5 MTR	
RUNWAY STOP END DIST	673 MTR	
<b>H. MLS MISC</b>		
CHANNEL/FREQ		
DESIGNED PROCEDURAL AZIMUTH		
DME CHANNEL		
<i>* Remarks are required for fields marked with an asterisk</i>		

FAA Form 8240-16 (v1.0 7-2005) Formerly 8240-16-1

**APPENDIX 17. FLIGHT INSPECTION REPORT - RNAV  
FAA FORM 8240-17**

This report must be used for reporting all site, commissioning, periodic, special, and other inspections. Periodic inspections do not require a report unless an unsatisfactory condition is found. Record the following information:

**1. Field 1 - Flight Inspection Report Header.** Complete as shown in Chapter 2, Paragraph 12, except for the following:

- a. Identification (Ident).** For an approach, enter the airport identifier. If the procedure is to a point in space, not to a designated airport, enter the airport identifier assigned to the procedure by the National Flight Data Center (NFDC). If no ident is assigned, leave blank. For a stand-alone point in space fix, enter the ARTCC identifier without a “K” prefix (i.e., ZSE). For routes, enter route name, i.e., Q501, etc. For a DP or STAR, enter the computer code listed on the PC form, i.e., computer code IDALE2.IDALE, enter “IDALE2”.
- b. Location.** Complete as shown in Chapter 2, Paragraph 12. For point in space procedures, enter the airport name (if specified), city, and state as identified on the PC form. For routes, leave blank. For a DP or STAR, enter the primary airport name.
- c. Runway.** If applicable, enter the runway(s) served by the procedure. If the procedure serves more than one airport, enter the runway(s) of the primary airport. Enter additional airport names and runways in Field 3, “Add. Runways”. If the approach is not to a specific runway, leave blank.
- d. Ctrl Number.** Enter the GPS number listed on the PC form of the procedure package. Leave blank if a GPS number is not listed on the PC form of the procedure package.
- e. Inspection Type.** Complete as shown in Chapter 2, Paragraph 12, except for GPS overlay procedures when the primary facility (e.g., VOR, NDB) is out of service or decommissioned. For the GPS overlay, list the type of inspection as a “Special/Proc”. Click on the drop-down box and select the appropriate entry.

**2. Field 2 - Crew Information** – Complete as shown in Chapter 2, Paragraph 12.

**3. Field 3 - Facility Information:**

- a. **Procedure Type.** Indicate the type of RNAV inspected by using one of the following abbreviations:

DP RNAV Departure Procedure  
GPS PS GPS Point in Space  
LPV Wide Area Augmentation System  
LNAV Lateral Navigation  
LNAV/ VNAV Lateral Navigation/ Vertical Navigation  
RNP Required Navigation Performance  
Route Airway or Off-Airway En Route Procedure  
SID Standard Instrument Departure  
STAR Standard Terminal Arrival Route  
Other

If “Other” is entered, indicate component inspected in Remarks. Enter “Other” for GPS overlay procedures as described in Field 1, Paragraph j.

- b. **Procedure Name.** Enter procedure name (i.e., RNAV (GPS) Rwy 19R, AACES RNAV TWO, Q505, Bismarck 1, etc.)
- c. **Procedure Modified.** Enter a “Yes” in this field when changes to a SIAP have been made during the inspection. Include a comment in Remarks to indicate the specific change. Enter a “No” in this field if no changes have been made to a SIAP during the inspection.
- d. **Sensor Status.** RAIM availability, or sensor status appropriate to the type system (i.e., WAAS, LAAS) click on the drop-down box and select appropriate entry to indicate “SAT” or “UNSAT”.
- e. **ARINC 424 Coding.** ARINC 424 coding reflected on the appropriate procedure paperwork produces the ground track evaluated by the flight procedure specialist and is accurately reflected in the procedure text (i.e., missed approach, departure route description). Click on the drop-down box and select appropriate entry to indicate “SAT” or “UNSAT”.
- f. **Additional (Add.) Runways.** Enter additional airport names and runways when there is insufficient space in Runway block in Field 1.
- g. **RNP.** Enter the most critical RNP value for the procedure. When not specified, leave blank.
- h. **WAAS HPL (For RNAV WAAS LPV).** Enter the largest received value (in meters) in the Final Approach Segment (FAS).
- i. **WAAS VPL (For RNAV WAAS LPV).** Enter the largest received value (in meters) in the FAS.

- j. **GEO SNR (For RNAV WAAS LPV).** Enter the lowest value received in db(s)) in the FAS.
  - k. **FAS Vertical PA (Comm)** – Enter the commissioned vertical path angle for the FAS. For LNAV only approaches, leave blank. For GPS overlay procedures as described in Field 1, Paragraph j, leave blank.
  - l. **FAS Vertical PA (Actual)** - Enter the actual vertical path angle for the FAS. For LNAV only approaches, leave blank. For GPS overlay procedures as described in Field 1, Paragraph j, leave blank.
  - m. **Procedure Evaluation:**
    - (1) **Human Factors Cockpit Workload.** Complete using Order 8200.1, Paragraph 6.15c as a guideline. Click on the drop-down box and select appropriate entry to indicate “SAT” or “UNSAT\*.”
    - (2) **Obstacle Verification.** Click on the drop-down box and select appropriate entry to indicate “SAT” or “UNSAT\*.”
    - (3) **Communications.** Click on the drop-down box and select appropriate entry to indicate “SAT” or “UNSAT\*.”
    - (4) **Lighting Systems.** Click on the drop-down box and select appropriate entry to indicate “SAT” or “UNSAT\*.” Leave blank if there is no lighting system associated with the procedure.
    - (5) **Procedure Flyability** Click on the drop-down box and select appropriate entry to indicate “SAT” or “UNSAT\*.”
4. **Field 4 - NOTAM(s).** Complete as shown in Chapter 3, Paragraph 21d.
5. **Field 5 - Remarks.** Complete as shown in Chapter 3, Paragraph 21. If applicable, enter the reimbursable agreement number and owner name. When a flight check is accomplished for DME facilities supporting a procedure, enter the following remark: “Facilities identified by RNAV-PRO were evaluated for signal strength and accuracy. This does not constitute approval for use of DME/DME”. For GPS overlay procedures as described in Field 1, Paragraph j, report the SIAP information and add “Overlay” after the amendment number (e.g., Tulsa, OK, VOR OR GPS RWY 23, Amdt 1, Overlay. TUL VOR OTS). If flight inspection is Satisfactory, enter remark, “GPS periodic requirements met.” For an RNAV SIAP with LPV minima, include course alignment error (CS ER), , threshold crossing height (TCH), and cyclic redundancy check (CRC) remainder code.

**6. Field 6 - Flight Inspection Data:**

- a. Field A. Route, SID, STAR, DP, or SIAP.** Click on the appropriate radio button to select type inspection.
- (1) **SIAP.** Initial Approach Waypoint (IAWP), Intermediate Waypoint (IWP), Final Approach Waypoint (FAWP), Missed Approach Waypoint (MAWP), Missed Approach Turning Waypoint (MATWP), and Missed Approach Holding Waypoint (MAHWP). Each waypoint shall be reported when inspected.
- (a) **Waypoint Name** – Enter waypoint name. When a waypoint is identified by the latitude/ longitude of a facility (i.e., XYZ VDME), enter the ident of the facility as the waypoint name.
- (b) **SAT/ UNSAT** – Click on the drop-down box and select the appropriate entry to indicate data accuracy.
- (2) **Route, SID, STAR, and DP**
- (a) **Waypoint Name** – Enter waypoint name. When a waypoint is identified by the latitude/ longitude of a facility (i.e., XYZ VDME), enter the ident of the facility as the waypoint name.
- (b) **SAT/ UNSAT** – Click on the drop-down box and select to appropriate entry to indicate data accuracy.
- b. Field B – DME Facilities Supporting Procedure.** Enter the ident of each DME recorded. Enter additional facilities in Remarks.



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**Appendices 18 – 20**

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**APPENDIX 21. FLIGHT INSPECTION REPORT  
CONTROLLING OBSTACLE EVALUATION  
FAA FORM 8240-21**

This form is to be completed whenever a new or different potentially controlling obstacle is identified or discovered during a periodic or special inspection.

1. **Field 1 – Airport.** Enter the airport identifier as specified on the AVNIS Data Sheet.
2. **Field 2 – Runway.** Enter the runway number or “Circling” for a circling approach.
3. **Field 3 – State.** Enter the state code.
4. **Field 4 – Date(s) of Inspection.** Complete as shown in Chapter 2, Paragraph 12.
5. **Field 5 – Type of Inspection.** Complete as shown in Chapter 2, Paragraph 12.
6. **Field 6 – Procedure(s).** When new potentially controlling obstructions not identified in the procedure package are discovered, enter the following information.
  - a. **Procedure Name.** Enter the procedure name (e.g., RNAV (GPS) Rwy 12R, ILS Rwy 30)
  - b. **Description.** Enter a brief description of the identified obstacle.
  - c. **Location.** Enter the latitude/ longitude or radial/ bearing and distance from a known facility. If the obstacle location cannot be described using latitude/ longitude, or radial/ bearing and distance to a known facility, an accurate description on a map may be used.
  - d. **Estimate of Height.** If evaluated, enter the in-flight height in feet MSL and enter in Remarks the method of height determination. Where possible, note the AGL elevation for the procedure developer.
7. **Field 7 – Remarks.** Enter any information needed to clarify entries in any field and to describe any other discrepancies found during the evaluation.

# **FLIGHT INSPECTION REPORT – CONTROLLING OBSTACLE EVALUATION** **FAA FORM 8240-21**

FLIGHT INSPECTION REPORT-CONTROLLING OBSTACLE EVALUATIONS				REVIEW INITIALS	
1. AIRPORT:		2. RUNWAY:		3. STATE	
4. DATE(S) OF INSPECTION:					
5. TYPE OF INSPECTION			PERIODIC		
			SPECIAL		
6. PROCEDURE(S)					
IDENTIFICATION OF NEW CONTROLLING OBSTACLE					
PROCEDURE NAME	DESCRIPTION	LOCATION	ESTIMATE OF HEIGHT		
		LAT/LON or RADIAL/BEARING & DISTANCE	MSL	AGL	
7. REMARKS:					
REGION:		FLIGHT INSPECTOR'S SIGNATURE:		MISSION SPECIALIST'S SIGNATURE:	
FIFO:				AIRCRAFT NO:	

FAA FORM 8240 - 21 (10/2005) (FORMFLOW)

Date Completed: