

**Instructions For Completing
Internet Service Difficulty Report (ISDR) Form 8070-1
(For Air Carrier And General Aviation)**

The following instructions are provided as an aid to accurately complete the Internet Service Difficulty Report (iSDR), FAA Form 8070-1. The numbers/letters on this instruction sheet correspond with numbers/letters on the SDR form. Please provide as much information as possible in addition to the required reporting items .

In accordance with SDR regulations, certificated SDR submitters have a time frame (currently 96 hours) in which to submit an SDR. The following (*italics & bold*) items are required on an initial report, if the remainder of information to complete the report is not known. The remainder of the report can be submitted, as a supplemental report, when the information is obtained. If all the information required to comply with the applicable regulations is on this initial report, a supplemental report is not required.

- ***Operator Control Number***
- ***Difficulty Date***
- ***Registration Number*** (*if known*)
- ***Operator Designator***
- ***JASC Code*** (*ATA Code*)
- ***When Discovered Code***
- ***How Discovered Code*** (if structural SDR)
- ***Nature of Condition Code***
- ***Action Taken Code***
- ***Major Equipment Identity:*** Choose manufacturer and model (and serial number if available,) for either aircraft, engine, propeller, or more than one to best describe the failure, malfunction or defect.
- ***Problem Description:*** Include a clear and concise description of the problem. Be as descriptive as needed to accurately describe the failure, malfunction or defect.

For SDR's submitted in this electronic format, information needed to complete various parts of the report are provided in the form of drop down tables. Further information can be obtained in the soon-to-be-released Advisory Circular 20.109B, Service Difficulty Program.

1. Submitter Information

- a. **Operator Control Number**. Only those certificate holders required by regulation to submit service difficulty reports should include an operator control number on the SDR. The operator control number provides a means to (1) track SDR's in the data base, (2) recall SDR's from the data base to update or add supplemental information, and (3) allow the submitter and the FAA to reference a particular SDR.

The operator control number will always begin with the first four alphanumeric characters of the submitter's certificate number. The next four numbers represent the calendar year in which the SDR is submitted. The remaining five numbers represent a submitter-designed numbering system; any submitter-designed numbering system is acceptable.

For example, given the operator control number "ABCD199900455," "ABCD" denotes the first four alphanumeric characters of the submitter's certificate number, "1999" indicates that the SDR was submitted in the year 1999, and "00455" indicates that this was the 455th SDR submitted by ABCD in 1999. The operator control number should be composed of a total of 13 alphanumeric characters.

When a supplemental SDR is submitted, the certificate holder will use the operator control number from the original SDR, add the new or modified information to the original SDR, and resubmit it as a supplemental report. Prefix the new or modified information with "SUP".

- b. **Difficulty Date**. Enter the date the service difficulty was discovered. Submitters should use the following format: "MM/DD/YYYY".
- c. **Registration Number**. Enter the aircraft registration number, excluding the "N" for US registered aircraft. Include the country code and as much of the registration number as possible for foreign-registered aircraft. Because this field also is used to record foreign-registered aircraft, the first characters entered here must be the letter(s) or number(s) that denote the country of registry. For example, the registration number "455RC" would denote an aircraft registered in the United States, and the registration number "C-GPRV" would denote an aircraft registered in Canada. Enter any special

characters such as the “-“ (dash) in the Canadian-aircraft example. For military aircraft, enter as much of the tail number as possible.

- d. **Submitter Type.** Enter the code that best identifies the person/organization initiating the report. As an example, a part 121 air carrier would select ‘a’, a repair station would select ‘b’. Codes to aid selection are located in a drop down table.

2. **CODES**

- a. **JASC Code.** Enter the appropriate code selected from the Joint Aircraft System/Component (JASC) Code table. To aid in selection a drop down table has been provided. Selection can be made by either scrolling through the codes or typing a part name or code number to help select the correct code.
- b. **When Discovered.** Enter the two-letter code that best describes the stage of operation when the service difficulty was discovered. When discovered codes are for flight and ground operations. A drop down table is provided to aid in selection.
- c. **How Discovered.** Select the appropriate code to indicate how the service difficulty was discovered. A drop down table is provided to aid in selection.
- d. **Nature of Condition.** Enter one to three codes that best describe the nature of the condition associated with the service difficulty. These codes may be entered in an order that best describes the observed conditions. A drop down table is provided to aid in selection.
- e. **Action Taken.** Enter one to four codes that best describe any precautionary action taken by the flightcrew in response to the reported service difficulty. For example, codes "E," "J," and "A" signify that an engine was shut down, fuel was dumped, and an unscheduled landing was made. A drop down table is provided to aid in selection.
- f. **FAA Region.** This block will be completed by FAA personnel.
- g. **FAA District Office.** If known, enter the assigned Flight Standards District Office (FSDO) number.

3. **Major Equipment Identity**

- a. **Operator Designator.** Enter the operator designator, which is the first four alphanumeric characters of the operator's certificate number. This designator will always be the operator designator assigned to the operator of the aircraft. Therefore, an SDR submitted by a repair station on behalf of an operator should have the designator of the aircraft operator in this block.
- b. **Aircraft** c. **Powerplant** d. **Propeller**

Enter the manufacturer, model, and serial number of the aeronautical product to which the service difficulty relates. The primary source for this information is the product's type certificate data sheet. Model and serial numbers should include prefix letters, if appropriate, but should not incorporate dashes, slashes, or blank spaces. If the product is amateur built, use the kit name. Avoid colloquial names and marketing titles. Powerplant and propeller data are not required unless related to the service difficulty. However, if the service difficulty concerns an engine or propeller, it is important to include engine or propeller information and aircraft make and model information. This information is needed because of the interchangeability of engine and propeller models on various aircraft. Submitters must use industry-accepted abbreviations. For example, GE is the acceptable abbreviation for a General Electric engine and DOUG is the acceptable abbreviation for an aircraft manufactured by the Douglas Aircraft Company. Drop-down lists are provided for choices.

Total Time. If applicable, enter aircraft, powerplant, or propeller total time in whole hours.

Total Cycles. If applicable, enter aircraft, powerplant, or propeller total cycles.

4. **PROBLEM DESCRIPTION**

Clearly identify and describe the details of the failure, malfunction, or defect. Include descriptive details of the conditions concerning the part/assembly that caused the reported service difficulty. Provide any significant facts that may help reduce the recurrence of the problem and assist in the investigation. Enter the corrective action if available at the time of the report.

5. **SPECIFIC PART CAUSING DIFFICULTY**

- a. **Part Name.** Enter the applicable manufacturer's part name. A drop down table provides a non-inclusive list to aid in part name selection. If your part name is not found on the chart, simply enter the part name. The list will be continually updated.

- b. Manufacturer's Name. Enter the name of the manufacturer of the part. Submitters should use industry-accepted abbreviations.
- c. Part Number. Enter the applicable manufacturer's part number, not an airline/internally generated number.
- d. Serial Number. Enter the manufacturer's serial number, if applicable.
- e. Part Condition. Enter the single term that best describes the part condition. Avoid the use of such terms as "unserviceable" or "repairable." If multiple terms are needed, enter the most significant term in the "part condition" field and reference the other(s) in the Problem Description field. A drop down table is provided with a non-inclusive list to aid in part condition selection. If the condition you desire is not on the list, simply enter the condition on the form. The list will be updated continually.
- f. Part/Defect Location. Enter the location of the defect on the part or enter the part location on the aircraft, powerplant, or propeller, as applicable. The location of an engine part on an engine, for example, is more significant than the engine position on a multiengine aircraft. For example, a generator has failed and the teardown reveals a bearing failure; it is important to identify in this block which bearing in the generator has failed. In this example, the SDR (block 5f) would identify the engine on which the generator is located. (Please report the location of structural defects in the Structure area).
- g. Total Time. Enter the part total time in whole hours, if applicable.
- h. Total Cycles. Enter the part total cycles, if applicable.
- i. Time Since. Enter the time in whole hours that the part has been in service since its most recent overhaul, repair, or inspection, if applicable. Mark the appropriate box to indicate whether the time indicated is since its most recent overhaul, repair, or inspection. If the part has not been overhauled, repaired, or inspected since it was new, no information would be entered in this field.

6. COMPONENT/ASSEMBLY THAT INCLUDES DEFECTIVE PART

When completing this section of Form 8070-1, provide information for the component/assembly that contains the defective part reported in item No. 5 of the SDR. The FAA requests that all references to components, assemblies, and parts (e.g., names and numbers) be those assigned by the manufacturer of those parts. It is difficult to perform meaningful trend analysis if submitters report problems using internally assigned names and numbers.

- a. Component Name. Enter the name of the malfunctioning or defective component/assembly containing the part that resulted in the generation of the SDR. The component/assembly is the unit that includes the defective part. For example, when the defective part is a bearing, the assembly will be the unit that contains the bearing, such as a starter or alternator. This name is important for output data sorting, interrogation, and trend analysis.

An initial SDR might only contain information on the component until teardown reveals the specific part that was defective. For example, an aircraft experiences an engine-driven generator malfunction. The generator is replaced after landing and an SDR is created and submitted. At that time, all that is known is that the generator has failed. During teardown of the generator, it is discovered that the shaft has broken. A supplemental SDR would be created with this new information. This would be a supplemental closed report, and the operator control number from the original report would again be used in this report.

- b. Manufacturer's Name. Enter the manufacturer of the component/assembly being reported. Submitters should use industry-accepted abbreviations such as PWA for Pratt & Whitney.
- c. Part Number. Enter the applicable manufacturer's part number for the component/assembly.
- d. Serial Number. Enter the applicable manufacturer's serial number of the component/assembly.
- e. Model Number. Enter the applicable manufacturer's model number of the component/assembly.
- f. Location. Indicate the location of the component/assembly. For example, if reporting a generator failure and the generator is on the No. 2 engine, report the location as engine No. 2. (Do not enter the geographical location where the service difficulty was discovered).
- g. Total Time. Enter the total time in whole hours of the component/assembly. If component/assembly total time is unknown, use aircraft, engine, or propeller total time, as applicable.
- h. Total Cycles. If applicable, enter the component/assembly total cycles.
- i. Time Since. Enter the time in whole hours that the component/assembly has been in service since its most recent overhaul, repair, or inspection. Mark the appropriate box to indicate whether the time indicated is since its most recent overhaul, repair, or

inspection. If the component/assembly has not been overhauled, repaired, or inspected since it was new, no information would be entered in this field.

7. **STRUCTURE CAUSING DIFFICULTY**

Structural Defect Location. If the service difficulty is structural in nature, use the appropriate blocks to identify the location of the defect. Use the manufacturer's standard location terminology as provided in the appropriate maintenance manual. The blocks provided identify some of the critical body and wing station locations. It is important to identify the location of the structural defect as specifically as possible because this information is used in trend analysis. Provide any additional location information in item No. 4, Problem Description. The following are some examples of additional location information: "top of horizontal flange," "forward edge of attaching member," "forward surface of bulkhead," "inboard flange at nutplate," and "upper flange of stringer and skin surface."

If the SDR is related to aircraft structure, fill in the applicable blocks.

a. Body or Fuselage Station.

Waterline.

b. Crack Length. If a crack is being reported, indicate crack length in inches.

c. Number of Cracks. Normally one crack = one SDR. Use this block for multi-site cracking.

e. Stringer.

f. Buttline.

g. Wing Station.

h. Structural, Other.

i. Corrosion Level. If corrosion is being reported, indicate corrosion level 2 or level 3 by marking the appropriate block. Only those certificate holders with a required corrosion prevention and control program (CPCP) are required to report corrosion classification information in an SDR. For corrosion reporting, corrosion levels are defined as follows:

Level 2 Corrosion. Level 2 corrosion is that corrosion occurring between successive inspections that requires rework/blend-out that

exceeds allowable limits, requiring a repair or complete or partial replacement of a principal structural element, as defined by the original equipment manufacturer's structural repair manual; or corrosion occurring between successive inspections that is widespread and requires blend-out approaching the allowable rework limits.

Level 3 Corrosion. Level 3 corrosion is that corrosion found during first or subsequent inspection(s) that is determined (normally by the operator) to be an urgent airworthiness concern requiring expeditious action.

- c. Submitter's Designator. If the report is submitted by a certificate holder, that certificate holder should enter the first four alphanumeric characters of the its certificate number. For example, if a repair station were submitting the SDR on behalf of a part 121, 125, or 135 operator, this field would contain the first four alphanumeric characters of the repair station's certificate number.