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

The following instructions are provided as an aid to accurately complete the Service Difficulty Report (SDRX), 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 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 the initial report, a supplemental report is not required.

- ***Operator Control Number***
- ***Difficulty Date***
- ***Operator Designator***
- ***Submitter Designator***
- ***Submitter Type Code***
- ***SDR Type***
- ***JASC Code*** *(ATA Code)*
- ***Nature Of Condition***
- ***Precautionary Procedure***
- ***Stage Of Operation Code***
- ***How Discovered Code***
- ***Aircraft Make***
- ***Major Equipment Identity:***

Choose the manufacturer and model (and serial number if available) for the following equipment to best describe the failure, malfunction, or defect: Aircraft, Engine, Propeller, Part, or Component. (The Aircraft Make will be required on all SDR's.)

- ***Problem Description*:**

  Include a clear and concise description of the problem. Be as descriptive as needed to accurately describe the failure, malfunction, or defect. If possible, please limit the description to 1500 characters.

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

1. Submitter Information

a. ***Operator Control Number (Unique Control #)**:***

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 database; 2) recall SDR's from the database to update or add supplemental information; and 3) allow the submitter and the FAA to reference a particular SDR.

The operator control number should be composed of a total of seventeen (17) alphanumeric characters. The operator control number will always begin with the first four alphanumeric characters of the submitter's certificate number. The next eight numbers represent the date when the SDR is submitted, in the format of "YYYYMMDD". The remaining numbers represent a submitter-designed numbering system; any submitter-designed numbering system is acceptable.

For example, given operator control number "ABCD2008013100455":

- "ABCD" denotes the first four alphanumeric characters of the submitter's certificate number
- "20080131" indicates that the SDR was submitted on January 31, 2008
- "00455" indicates that this was the 455th SDR submitted by ABCD

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.

** This field is disabled on the Malfunction or Defect Submission Form.*

b. ***Difficulty Date*:**

Enter the date the service difficulty was discovered. Submitters should use the following format: "MM/DD/YYYY". They year must contain four digits.

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 is also 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; 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.

e. *Submitter Designator*:*

If the report is submitted by a certificate holder, this field will be auto-filled with the designator entered by the user when they requested a user account for the application.

** This does not apply to the Malfunction or Defect Submission Form.*

2. Codes

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. The Operator Designator is required unless the Submitter Type = ‘Z’ or the SDR Type = ‘G’.

** This field is disabled on the Malfunction or Defect Submission Form.*

b. *Operator Type (SDR Type):*

The Operator Type indicates whether the operator is General Aviation (‘G’) or an Air Carrier (‘A’). No values besides ‘G’ or ‘A’ are allowed.

c. *JASC/ATA Code:*

Enter the appropriate code selected from the Joint Aircraft System/Component (JASC) Code table or enter the code in the field.

A drop-down table has been provided to aid in selecting a JASC Code. A selection from the drop-down table can be made either by scrolling through the codes or by typing part of the name or code number in the 'Search' field to help select the correct code. The JASC Code must contain four digits.

d. ***Stage of Operation:***

Select the two-letter code that best describes the stage of operation when the service difficulty was discovered. The Stage of Operation codes are for flight and ground operations. A drop-down table is provided to aid in selection.

e. ***How Discovered:***

Select the appropriate code to indicate how the service difficulty was discovered. A drop down table is provided to aid in selection.

f. ***Nature of Condition:***

Select 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.

g. ***Precautionary Procedures:***

Select one to four codes that best describe any precautionary procedures taken by the flight crew in response to the reported service difficulty. For example, selecting 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.

h. ***FAA Region:***

This field will be auto-filled by the system but can be edited if needed.

i. ***FAA District Office:***

This field will be auto-filled by the system but can be edited if needed.

3. Major Equipment Identity

a. ***Aircraft/ Engine/ 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. Engine 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.

b. ***Total Time:***

If applicable, enter the aircraft, engine, or propeller total time in whole hours.

c. ***Total Cycles:***

If applicable, enter the aircraft, engine, 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 any corrective action taken if available at the time of the report. For supplemental SDR's, prefix the new or modified information with "SUP".

5. Specific Part Causing Difficulty

a. ***Part Name:***

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

On the SDR Submission Form, if the Part Number is provided and the Manufacturer's Name is not provided, you will be required to enter the Part Name.

b. ***Manufacturer's Name (Part Make):***

Enter the name of the manufacturer of the part. Submitters should use industry-accepted abbreviations.

On the SDR Submission Form, if the Part Number is provided and the Part Name is not provided, you will be required to enter the Manufacturer's Name.

c. ***Part Number:***

Enter the applicable manufacturer's part number, not an airline/internally generated number.

On the SDR Submission Form, if the Part Number is provided, you will be required to provide either the Part Name or the Manufacturer's Name.

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, engine, or propeller as applicable. For example, the location of an engine part on an engine is more significant than the engine position on a multiengine aircraft. If a generator has failed and the teardown reveals a bearing failure, it would be 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:***

If applicable, enter the time in whole hours that the part 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 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 the component/assembly total time is unknown, use the 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 (for SDR Submission Form and Batch Upload)

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 nut plate", 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***

b. ***Waterline***

c. ***Crack Length***

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

d. ***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 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. Level 2 corrosion is also corrosion occurring between successive inspections that is widespread and requires blend-out approaching the allowable rework limits.

- Level 3 Corrosion:

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

7. Submitted By (for Malfunction or Defect Submission Form only)

For SDR's submitted through the Malfunction or Defect Submission Form, users can enter the following contact information:

a. Name

b. Telephone

c. Email Address