

Participating in the Conformity Process

Using FAA Form 8100-1, “Conformity Inspection Record”

FAA Form 8100-1 is used to document conformity inspections during type, production, and airworthiness certification programs. The form provides historical evidence of the inspection; lists all discrepancies and non-conformities identified during a conformity inspection of a part, installation, test setup, test equipment calibration, etc.; and it records corrective actions taken to resolve discrepancies and non-conformities.

Items identified on the Conformity Inspection Record as unsatisfactory are referred to as UNSATs, and must be cleared before the part, installation, setup, etc. can be issued an approval or certificate, or used for testing.

The image shows a 3D perspective view of the FAA Form 8100-1, Conformity Inspection Record. The form is a grid with the following structure:

- Top right: (Add TIR attachment No. if applicable)
- Section 1: Conformity Inspection Record
- Section 2: SHEET of sheets
- Section 3: Project Number, To/Repair Date
- Section 4: Beginning Date
- Section 5: Ending Date
- Section 6: Item No.
- Section 7: Description of Item Inspected
- Section 8: Drawing Document Identification
- Section 9: Revision and Date
- Section 10: No. of Items Determined (SAT, UNSAT)
- Section 11: Comments

At the bottom left, it says "FAA Form 8100-1, Rev. Supersedes Previous Editions".

A DER may be authorized to participate in the conformity process when corrective action to resolve any UNSATs involves the engineering design. All inspections conducted by an ASI or designee to determine conformity to an approved type design before an airworthiness certificate is issued must be recorded on FAA Form 8100-1.

Conformity is a manufacturing inspection responsibility, even when required as part of a certification project. Inspections performed for prototype conformities are requested by the FAA engineering project office for new projects. DERs participate most often in prototype conformities since it is a first test of the engineering design.

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DER Role in Conformity Inspections

DERs authorized to disposition conformity UNSATs on a Form 8100-1 must be identified by the project office requesting the inspection. DERs are specified by name and DER identification number on the Request for Conformity, Form 8120-10.

An authorized DER can determine, from an engineering standpoint, if the part is acceptable and conformance can be satisfied with a drawing revision, if the part must be reworked, or if it cannot be used.

- If the discrepancy allows the part, installation, or product to comply with the airworthiness standard, the DER may approve a drawing revision to disposition the UNSAT.
- If a drawing revision is approved to disposition the UNSAT, the Form 8110-3 only approves the drawing revision, and does not reference Form 8100-1.
- The DER’s entry on Form 8100-1 to disposition the UNSAT should reference the new Form 8110-3.

DER Actions on FAA Form 8100-1

Conformity Inspection Record			1. Project Number, TIA/Request Date: TC01936SW-G/6-28-2015		2. SHEET 1 of 1 sheets	
3. Applicant/Manufacturer: SHOWUS Aircraft Company, 6500 S. MacArthur Blvd., OKC, OK			4. Beginning Date: 6-28-2015		5. Ending Date: 6-28-2015	
6. Model: SHOWUS640 Glider – Parts Only			7. Inspected By: Ian Spector, DARF 790999SW <i>Ian Spector</i>			
8. Item	9. Nomenclature of item inspected	10. Drawing, Document, Specification	11. Revision and	12. No. of Items Determined		13. Comments
				BAT	UNSAT.	
1	Activity requested to the local FAA MIDO	6-28-2015		1		The RFC was delegated. RFC Tracking #SW01936-1
2	Statement of Conformity	8130-9	6-27-2015	1		Signed by Mr. Hurriup N. Waite
3	Glider Parts Drawing	640250-501	Rev. A 5/26/2014	1		
4	<u>Wing</u>	640250-501, 640250-1	Rev. A 5/26/2014		1	1) Note requires horizontal grain direction, but the cert indicated the material was USUALLY Horizontal, Balsa Wood Company Material Certificate, dated 6/26/07. 2) The wing markings are opposite from drawing requirement. 8130-9 NOTED DEVIATION
Additional space to record corrective action						
5	<u>Vertical Fin</u>	640250-501, 640250-2	Rev. A 5/26/2014		1	There doesn't appear to be enough detail to determine conformity.
Additional space to record corrective action						
6	<u>Horizontal Stabilizer</u>	640250-501, 640250-3	Rev. A 5/26/2014		1	Couldn't check all dimensions.
Additional space to record corrective action						

Inspectors who identify UNSATs during the conformity inspection will leave space on the Form 8100-1 to record the corrective action effort.

DERs authorized to disposition unsatisfactory conditions/nonconformities will enter the nonconformity in block 9, and describe the corrective action taken in block 13.

FAA Form 8100-1 with DER Disposition

Conformity Inspection Record			1. Project Number, TIA/Request Date: TC01936SW-G/6-28-2015		2. SHEET 1 of 1 Sheets	
3. Applicant/Manufacturer: SHOWUS Aircraft Company, 6500 S. MacArthur Blvd., OKC, OK			4. Beginning Date: 6-28-2015		6. Ending Date: 6-28-2015	
8. Model: SHOWUS640 Glider – Parts Only			7. Inspected By: Ian Spector, DMIR 790999SW <i>Ian Spector</i>			
9. Item No	8. Nomenclature of Item Inspected	10. Drawing, Document, Specification, etc.	11. Revision and Date	12. No. of Items Determined		13. Comments
				SAT	UNSAT	
1	Activity requested to the local FAA MIDO	6-28-2015		1		The RFC was delegated. RFC Tracking #SW01936-1
2	Statement of Conformity	8130-9	6-27-2015	1		Signed by Mr. Hurriup N. Waite
3	Glider Parts Drawing	640250-501	Rev. A 5/26/2014	1		
4	<u>Wing</u>	640250-501, 640250-1	Rev. A 5/26/2014		<i>X</i> <i>JS</i>	1) Note requires horizontal grain direction, but the cert indicated the material was USUALLY Horizontal, Balsa Wood Company Material Certificate, dated 6/26/07. 2) The wing markings are opposite from drawing requirement. 8130-9 NOTED DEVIATION
	<u>Wing Corrections</u> Major Characteristics Wing Markings	640250-501	Rev. B 6/28/2015	1		Provided Form 8110-3 to correct future drawings. <i>Pencil J. Whip</i> DERY-023456-SW
5	<u>Vertical Fin</u>	640250-501, 640250-2	Rev. A 5/26/2014		<i>X</i> <i>JS</i>	There doesn't appear to be enough detail to determine conformity.
	<u>Vertical Fin Corrections</u> Adequacy of Drawings	640250-501	Rev. B 6/28/2015	1		Provided Form 8110-3 to correct future drawings. <i>Pencil J. Whip</i> DERY-023456-SW
6	<u>Horizontal Stabilizer</u>	640250-501, 640250-3	Rev. A 5/26/2014		<i>X</i> <i>JS</i>	Stabilizer markings are opposite from drawing requirement.
	<u>Horizontal Stabilizer Corrections</u> Stabilizer Markings	640250-501, 640250-3	Rev. A 5/26/2014	1		Received verbal disposition to use part as is from Pencil J. Whip, DERY-023456-SW, on 6/28/2015.

When corrective action is completed:

- The DER will sign the corrective action in block 13 with his/her DER identification number.
- The FAA Inspector or designee who generated the Form 8100-1 will line through and initial the entry in block 12 to clear the UNSAT.

Order 8110.4 allows the inspector to reference an email or verbal disposition from the DER, CAA, or project engineer.

With a verbal disposition, the inspector will enter the date of the notification in block 13 and reference the source of the disposition, i.e. DER's name, project engineer's name, or CAA.