



HOW TO ELECTRONICALLY SIGN DESKTOP EFORMS WITH ENTRUST

Whenever there is a forms or email software upgrade your preferences may need to be reset. Please take a few minutes to do so.

Forms can currently be signed using Entrust. To obtain your PKI Entrust Certificate, go to the following URL: <https://www.odin.lmit.com/grc/PKI/pki.html> or contact ODIN at 3-4848 for further assistance.

WINDOWS Users - How to setup your form e-sign preferences for Entrust:

1. Open the forms program FileNet Desktop eForms by clicking the Start button in the lower left corner of your desktop screen 'All Programs 'FileNet 'Forms Manager 'Desktop eForms
2. If a small window titled "New Data Document" is on the screen, click Cancel
3. Click the forms menu items Edit ' Preferences
4. Scroll down and click the Security icon
5. Select "Entrust" from drop-down list.
6. Click OK.

WINDOWS Users - How to setup your form e-send preferences for Outlook:

1. Open the forms program FileNet Desktop eForms by clicking the Start button in the lower left corner of your desktop screen 'All Programs 'FileNet 'Forms Manager 'Desktop eForms
2. If a small window titled "New Data Document" is on the screen, click Cancel
3. Click the forms menu items Edit ' Preferences
4. Scroll down and click the Mail icon
5. Select "Microsoft Outlook (MAPI)" from drop-down list
6. Click OK.

MAC Users - How to setup your e-sign and e-send preferences:

1. Open the forms program FileNet Desktop eForms.
2. If a small window titled "New Data Document" is on the screen, click Cancel
3. Click menu items Desktop eForms ' Preferences
4. Scroll down and click the Mail icon
5. Select Internet Mail (SMTP) from the Mail Services drop-down list
6. Click the Settings button
7. SMTP Server is mail.grc.nasa.gov
8. Enter your GRC email address in the Return Email Address box
9. Click OK
10. Use the scroll bar and select the Security icon
11. Select Entrust from the Signature Service drop-down list
12. Click OK

NOTE: forms emailed from within FileNet will NOT show up in your Entourage "Sent Items" box.

ALL users - How to e-sign forms with Entrust:

1. Double click e-signature field. Note: Not all forms can be e-signed.
2. If you are already signed in to Entrust, it will automatically sign the form for you.
3. If not, the Entrust Login box will appear. Type in your Entrust password and click OK. If you need further assistance with Entrust, please call ODIN at 3-4848.

To change a signed cell after you have signed the form:

1. Place your cursor within the signature cell to get the blinking black box.
2. Click Edit - > Clear, or hit the Delete key. You may now make your change and re-sign the form.

To see what form cells you are signing:

1. Click the signature cell
2. Click Edit->Signatures->Show Signed Cells
3. Red outlines will appear around the cells you are signing.

How to print this page:

1. Click File -> Print. The Print Window will open.
2. Look in the bottom, left "Print Options" Section.
3. Click the black triangle and choose "Work Page."

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**FLIGHT WORK ORDER
Glenn Research Center**

F.W.O.# _____

AIRCRAFT TAIL NO. _____

PROGRAM _____

SAFETY PERMIT NO. _____ NONE

J.O. _____

DATE REQUIRED _____

REQ. FOR NEXT FLIGHT

REQ. FOR NEXT RES. FLIGHT

REQUESTER LAST NAME _____ FIRST NAME _____ MI _____

REQUESTER SIGNATURE & DATE _____

AEM 2
BENCH FABRICATION ONLY
PRE-APPROVED AIRCRAFT FAB.

Signature *Date*

WORK DESCRIPTION

Requester, to make a change to the work description, delete your electronic signature, make change, re-sign the form, then e-mail to AEM.

ACCM 3

Signature *Date*

ASO 4
SAFETY REVIEW REQUIRED
SAFETY REVIEW NOT REQUIRED

Safety Approval *Date*

QA 5

Signature *Date*

MAINTENANCE CHIEF 6

Signature *Date*

TECHNICIANS 7

Signature *Date*

Signature *Date*

Signature *Date*

CREW CHIEF 8

Signature *Date*

RESEARCH EQUIP. OPS. 9
CHECK REQUIRED
 Ground *Initial* _____
 Flight *Initial* _____
Ground Complete _____
Signature *Date*
Flight Complete _____
Signature *Date*

DOCUMENTATION ATTACHED NO List: ▶ _____
 YES

WEIGHT AND BALANCE - ADDITIONAL LINES ON PAGE 2

	WT	STA	NOUN
<input type="checkbox"/>			

QA 10

Signature *Date*

Flight Work Order Process

General: The Flight Work Order Process (FWO) is used for approving, implementing and tracking work on a GRC aircraft. This system may be used for hardware build up prior to installation and aircraft modification and repair. Once work has been initiated on an aircraft using this system the aircraft is grounded until the QA representative signs Block 10. The Flight Work Order form, (GRC 9976) has a series of blocks that are filled out and signed by the responsible parties in the numbered order. The following is an explanation of each block and the action required by the responsible party.

Safety Permits: All Glenn controlled aircraft/flight programs are released for flight when all open FWOs, **where work has commenced**, are completed and a valid Safety Permit is issued. All Glenn aircraft are operated under a Basic Safety Permit that is applied for and issued annually. The Basic Safety Permit specifies the basic aircraft configuration. Furthermore, flight programs that change this Basic configuration require a separate Safety Permit prior to flight. For Safety Permit process details refer to the Glenn Safety Manual.

1. The Requester, Block #1 (FWO status: Pending)

The Requester is responsible for filling out this block and the "Work Description" block with all the necessary information. The Requester must provide all documentation necessary to complete the requested work to the Aircraft Experiments Manager (AEM). Also, It is the responsibility of the requester to provide the Airworthiness Configuration and Control Manager (ACCM) with all the documents needed to obtain a safety permit should one be required to encompass the proposed work. The requester is responsible for contacting the AEM or ACCM with any questions concerning the FWO process. If the FWO is disapproved anywhere along the process, it will be routed back to the requester who can change or modify the FWO only once and all changes will require the FWO to start again at the first block. If it is disapproved again, a new FWO must be initiated and the original is automatically closed. All personnel in the FWO process must approve/disapprove a FWO.

2. The Aircraft Experiments Manager (AEM) Block #2 (FWO status: Pending)

The AEM ensures all necessary documentation to complete the FWO has been provided by the Requester. In addition, the AEM will resolve any conflicts concerning changes to a FWO. Once the AEM is satisfied that the documentation is complete, he signs the FWO and forwards it, with other documentation, to the Airworthiness Configuration and Control Manager (ACCM). The "Bench Fab" block is used to fabricate an item that will **NOT** be initially installed on an aircraft. However, before a "Bench Fab" item can be installed in an aircraft, a new FWO directing installation, will be filled out and will go through the complete FWO process, thus ensuring the appropriate level of safety oversight. The Chief of Aircraft Operations may sign for the AEM in his absence.

3. The Airworthiness Configuration and Control Manager (ACCM) Block #3 (FWO status: Pending)

The ACCM reviews the FWO and documentation to determine if a Safety Permit is required. Furthermore, it is the responsibility of the ACCM to ensure that the appropriate parties, if required, complete all documentation necessary to obtain a safety permit. Another responsibility of the ACCM is to ensure that equipment reinstalled under an existing Safety Permit have not been modified beyond the scope of the permit. The ACCM will be the knowledgeable source for completing all required safety documentation.

3.1 Safety Permit Not Required: "Bench Fab" FWOs are the only FWOs that do not require a Safety Permit. The ACCM will look at the "Bench Fab" documentation to ensure that the work described will not be electrically connected or installed in the aircraft until a subsequent safety permit is issued. Upon completion of this review, the ACCM will sign the FWO and forward it to the Quality Assurance (QA) representative.

3.2 Safety Permit Required: The ACCM will review the FWO to verify that the Safety Permit number entered by the Requester does in fact cover the specified work. If the Permit line is blank, the ACCM will review existing permits to determine if an existing Safety Permit applies to the requested work. If a valid Safety Permit exists, the ACCM signs his block and forwards the FWO to the QA Representative. If no Safety Permit covers the work, then the ACCM confers with the AEM and ensures the Safety Permit process has been initiated. The ACCM will then sign his block and forward the FWO to the Aviation Safety Officer (ASO). The Chief of Aircraft Operations may sign for the ACCM in his absence.

4. The Aviation Safety Officer (ASO) Block #4 (FWO status: Pending)

This position in the process, is used to evaluate the FWO documentation and confer with the ACCM to determine if a Safety review is required or not. The ASO will normally make the determination if a Safety Review is required and my leave notes explaining the decision in the "Note Block" of the FWO. However, the Chief of Aircraft Operations may sign for the ASO, providing the Chief has not signed for the AEM or the ACCM. In addition, the Chairman of the Aviation Safety Committee may also sign this block in the absence of the ASO.

4.1 Safety Review Required: If upon review the ASO determines that a Safety Review is required, the ASO will confer with the ACCM to ensure the Safety Permit process has been initiated, sign the FWO and forward to the QA representative. Work may be started on the aircraft prior to the issuance of a Safety Permit with the understanding that the aircraft will be in a "downed" status until the Safety Permit is issued. If the outcome results in a permit not being issued, the ASO and the ACCM will confer with the Aviation Safety Committee (ASC) to resolve the accomplished work. If required, the Chairman of the ASC will issue a directive in writing to reverse completed work in order to return the aircraft to an airworthy condition.

4.2 Safety Review Not Required: The ASO will check this block if the requested work is a minor modification that fits the scope of an existing Safety Permit. Once signed, the ASO forwards the FWO to the QA representative.

5. Quality Assurance (QA) Block #5 (FWO status: Pending)

The QA representative reviews the document to verify the required blocks are completed and supporting documentation is attached. It is also the responsibility of the QA to review the document for completeness and to ensure the safety permit number entered encompasses the proposed work. If there is any doubt, the QA representative should notify the ACCM/ASO for resolution. Upon satisfactory completion of the review and printing the document, the QA representative will approve/disapprove the FWO and the process moves to the Maintenance Chief.

6. Maintenance Chief Block #6 (FWO status: Pending to Open, Aircraft down)

The Maintenance Chief reviews approves/disapproves the FWO, assigns a Crew Chief and technician(s) is required to complete the task. Once the Maintenance Chief assigns a Crew Chief and Technician(s), the FWO status will change from "Pending" to "Open" and the aircraft is now "down" and cannot be flown until the FWO is completed. It is also the responsibility of the Maintenance Chief, during his absence, that shall "claim" and complete all FWO for this position. Process moves to the Technician block.

7. Technician(s) Block #7 (Electronic FWO status: Open)

Completes task, approves/disapproves FWO. Process moves to Crew Chief block.

8. Crew Chief Block #8 (FWO status: Open)

Reviews work, approves/disapproves FWO. Also, if the "Flight Block" portion of the "Research Equipment Operational Check" is checked, the Crew Chief shall create a discrepancy in the aircraft maintenance forms requiring a flight check. The discrepancy will state "Qualification flight must be accomplished prior to conducting research flights. See ASO or ACCM for flight test cards." The Crew Chief will then sign the "Flight" portion of the block, indicating that an aircraft discrepancy was opened, to ensure completion of the flight check and to allow closure of the FWO. The following section provides details about the operational check, but it should be noted that the system actually moves to the QA Block #10.

9. Research Equipment Operational Check Block #9 ("Ground" and or "Flight") (FWO status: Open)

Ground: Anyone along the FWO process can check this block. This block, if checked, requires a ground operational check of the installed research equipment utilizing the "Research Equipment Operational Check" form (form GRC 5), to ensure its operational integrity and subsequent operation does not interfere with any aircraft system. The person requiring the ground check shall attach the GRC 5 form to the FWO and complete the "Note" section should any additional checks not covered by the form be needed. Also, the requester shall use the "Note" sections of the FWO and the GRC 5 to document if his presence is required during the ground operational check. Otherwise, any qualified operator of the installed equipment shall work with a qualified engine run maintenance technician/pilot to complete the GRC 5 form.

Flight: If the "Flight" portion of this block is checked, the Crew Chief will open a discrepancy in the aircraft's maintenance forms, using a "Dash" maintenance symbol. The discrepancy will state "Qualification flight must be accomplished prior to conducting research flights. See ASO or ACCM for flight test card." The "flight" portion of research OPS check will follow guidelines created by the ASO and/or ACCM and may have approval or input from the Aviation Safety Committee. The Crew Chief will then sign the "Flight" portion of the block indicating that an aircraft discrepancy was opened to ensure completion of the flight check and to allow closure of the FWO. All personnel in the FWO signature chain are authorized to check this block.

10. Quality Assurance (QA) Representative Block #10 (FWO status: Open to Close)

The QA representative has a crucial role in the FWO process. This signature represents completion of the FWO and signifies return of the aircraft to an airworthy condition, assuming no other open FWO exists. QA Office is also responsible for the following concerning the FWO process:

- 1) Ensures to the best of his ability, the safety permit encompasses the work requested or completed.
- 2) Inspecting work to ensure it is installed safely.
- 3) Weight and Balance changes, if applicable.
- 4) Ensures that a safety permit number is assigned to the work order.
- 5) Ensuring completion of Research Equipment Ground Operational Check by appropriate parties, if required. QA will notify the Maintenance Chief for Resolution, if required.
- 6) Flight Check Block, if applicable. QA will ensure that the Crew Chief has created a discrepancy in the aircraft maintenance forms.
- 7) Coordinating the use of the Deployed Process.
- 8) Ensures no aircraft is released for flight with an "open" FWO.
- 9) The Quality Assurance Office, with authority granted by the Chief of Aircraft Operations, will determine aircraft status, should there be a conflict within the FWO process (aircraft status meaning an up aircraft or a down aircraft).