

# Destroyed Aircraft

Order 8100.19

Destroyed and Scrapped Aircraft

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Federal Aviation  
Administration



# Purpose

## This order:

- **Provides guidance to FAA personnel, responsible for evaluating aircraft wreckage and classifying an aircraft as destroyed or scrapped, including:**
  - FAA aircraft accident investigation and prevention investigators (AVP)
  - FAA Aviation Safety Inspector (ASI) in AIR and AFS
  - FAA employees in Aviation Registration Branch (AFB-710, Registry)
  - FAA Aviation Safety Engineers (ASE) at ACO and Headquarters.
- **Establishes FAA policy on what constitutes a destroyed or scrapped aircraft**
- **Provides a process for disputing a determination that an aircraft is destroyed or scrapped**
- **Provides information related to the disposition of aircraft identification plate (ID plate) of destroyed and scrapped aircraft**
- **Provides guidance for ASE to evaluate and approve repair scheme of previously declared destroyed or scrapped**

# Background

- **A few aircraft owners, aircraft registration certificate holders and repairers have been building aircraft from spare parts and attached an ID plate from a different aircraft on them**
- **The spare parts used in building these aircraft could come from military surplus or salvaged from other destroyed aircraft**
- **Rebuilding of destroyed aircraft poses two issues that concern the FAA**
  - Violation of the regulations
  - Safety of the aircraft
- **The problem with “Destroyed/Scrapped Aircraft” and misused ID plate has been existed for many years**

# Safety concerns

- While manufacturing new aircraft, aircraft manufacturer (OEM) uses new parts produced under tight FAA controlled quality systems. The aircraft must conform to its Type Certificate (TC) to be eligible for an airworthiness certificate
- Some repairers utilize used or military surplus spare parts to rebuild aircraft. These spare parts subjected to wear, tear, fatigue and may be of unknown origin
- Most repairers do not have access to critical design data of the aircraft
- FAA cannot ensure the safety of the aircraft if we do not know the extent of the damage, how it was repaired and the condition of parts used in the repair



# Applicable regulations

- **14 CFR § 47.41 addresses the duration and return of certificates of registration. Except for cases where the effectivity of a Certificate of Aircraft Registration has ended by reason of having been revoked, canceled, or expired, or the ownership is transferred**
- **14 CFR § 47.41(a) prescribes that each Certificate of Aircraft Registration, AC Form 8050-3, issued by the FAA is effective until:**
  - (1) . . . . .
  - (2) The aircraft is totally destroyed or scrapped.
- **14 CFR § 45.13(e) prohibits any person from installing an ID plate on any aircraft, aircraft engine, propeller, propeller blade or propeller hub other than the one from which it was removed**

# Previous Solutions Attempted

Solution	Pitfalls
Remove serial number of destroyed aircraft from TCDS	<ol style="list-style-type: none"><li>1. ACO does not have resources to constantly revise the TCDS</li><li>2. ACO does not have information of all aircraft destroyed in accidents or incidents*</li></ol> <p><b>* Only about 20 percent of destroyed aircraft being reported to the FAA Registry</b></p>
FAA seizes the ID plate of destroyed aircraft	<ol style="list-style-type: none"><li>1. The ID plate of the aircraft is private property; FAA does not have legal authority to confiscate it</li><li>2. There is no definition of “Destroyed Aircraft” making it difficult to resolve disputed cases</li></ol>

# Current Solutions

- Use AFB-710 (Aircraft Registry) to control the serial number of aircraft that is declared destroyed
- The ID plate is not the means to determine an aircraft destroyed or not
- FAA would accept the determination of “destroyed aircraft” by the NTSB or the FAA accident investigator
- Owner or his/her agent may appeal the determination of “destroyed” in the accident report and would thereby be given due process
- To prove that an aircraft is not destroyed (i.e. is repairable), the owner or his/her agent can submit a repair scheme to Flight Standards District Office (FSDO) for approval. FSDO may request ACO or Designated Engineering Representative (DER) assistance as necessary



# Difficulties & Solutions

- **Difficulties - 14 CFR 47.41 does not:**
  - Provide a clear definition of what constitutes a destroyed or scrapped aircraft
  - Specify who is authorized to declare an aircraft destroyed

- **Solutions – a rebuttable presumption.**

This order:

- Provides a definition of a destroyed aircraft based on its actual condition:
  - An aircraft is destroyed when **all** of its primary structures are damaged beyond repairable
  - The FAA does not consider an aircraft to be repairable if all primary structures of the aircraft must be replaced
  - Replacement of some major components of an aircraft would be considered a repair, but replacement of all of the primary structures of the aircraft is not a repair but a replacement of an aircraft and 14 CFR 45.13(e) prohibits this action
- Any interested party (FAA accident investigator, NTSB accident investigator, owner, Insurance company, etc.) can declare an aircraft destroyed
- Provides a process to rebut the above-mentioned determination for any one who disagrees that the aircraft is destroyed
- The final determination of whether an aircraft is destroyed or repairable is the FAA approval of a repair scheme. When a damaged aircraft is repairable, then it is not destroyed

# Process Summary

- ASI Investigator - determines the aircraft is destroyed if all of its primary structures are damaged beyond repairable (based on his or her expertise, experience and guidance in order 8100.19)
- ASI Investigator - Notify AFB-710 of the destroyed Aircraft
- Aircraft owner – (if agree with the determination) returns the certificate of registration to AFB-710
- AFB-710 – upon receiving the notification, notes in the aircraft file that the aircraft is not to be registered unless applicant provides an FAA approved repair scheme
- Aircraft owner – (if not agree with the determination) submits a repair scheme to local Flight Standards Office
- Flight Standards Office – evaluates the repair (coordinate with ACO as necessary). Rejects the repair if disagrees with applicant



# Process Summary (Cont.)

- Flight Standards Office – approves the repair if agrees with the applicant. Provides a letter of approval to applicant
- Applicant - submits application for aircraft registration with the letter of approval to AFB-710 to register the aircraft
- Applicant – repairs the aircraft in according to the (FAA) approved repair scheme
- Flight Standards Office – Inspects the repaired aircraft to ensure the repair was executed in according to the approved repair scheme
- Applicant – submits to AFS application for Airworthiness Certificate

# Process Flow Chart



**Aircraft Accident**  
NTSB/ASI/Credible source  
Determine aircraft destroyed

**Registry (AFB-710)**

- Flag AC serial number as destroyed
- Not eligible for registration
- Inform Owner

**Applicant**  
Agree with above determination?

**Registry (AFB-710)**

- Flag AC serial number as destroyed
- Not eligible for registration
- Deregister after 3 years
- Inform Owner

Yes  
Return  
Registration  
AW Cert

No

**Applicant (or his agent)**  
Develop a repair scheme

**Registry (AFB-700)**  
Allow the Aircraft to be registered

Issue  
Registration  
Cert



**Local FSDO**  
Evaluate the repair  
scheme

**Local FSDO**  
Approve  
the repair?

Yes

No

**Local FSDO**  
Approval letter

**Local FSDO**

- Conformity inspection
- Issue AW Cert

Issue Airworthiness Certificate

**Applicant**

- Inform Registry
- Execute the repair
- Request for inspection
- Apply for AW cert.

Produce  
Airworthy  
product

**Local ACO**  
Evaluate the repair  
scheme



# Conclusion

- The most difficult issues in complying with Part 47.41(a) are the definition of the term “Destroyed aircraft” and the legal authority to declare an aircraft destroyed
- The lack of this definition would continue to create disagreement between the aircraft owner and the FAA
- This order considers the initial determination of destroyed aircraft a disputable presumption and allows interested parties a viable process for overturning that initial determination

# How this process helps FAA and public

- Provides the ASI and the public an FAA definition of what constitutes a destroyed aircraft
- Allows ASI making the determination based on the FAA guidance along with his/her own expertise, experience and knowledge
- Provides ASE a guide line to help ASI determining if an aircraft “destroyed” or “repairable”
- ASE provides an FAA approved data for ASI to follow in performing the conformity inspection of a particular aircraft previously declared destroyed
- Provides the public a due process to disagree with the FAA determination without direct confrontation with ASI
- Resolves the long standing problem of mis-use ID plate. Affirming that the ID plate is to identify the only aircraft that it initially attached to

# Questions ?

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