1. PURPOSE. This advisory circular (AC) sets forth an acceptable means, but not the only means, for developing and evaluating a 14 Code of Federal Regulations (14 CFR) Special Federal Aviation Regulation (SFAR) 36 engineering procedures manual. As such, the terms "shall" and "must" used in this advisory circular pertain to an applicant who chooses to follow the method presented.

2. RELATED CODE OF FEDERAL REGULATIONS (14 CFR). 14 CFR parts 1, 21, 43,, 121, 125, 127, 135, 145, SFAR 36, and FAA Order 8000.42, Authorization To Develop & Use Major Repair Data Not Specifically Approved By The Administrator.

3. BACKGROUND. The development of an SFAR 36 engineering procedures manual that adequately covers all pertinent regulations and engineering procedures has proven to be a time-consuming task for the applicant and the Federal Aviation Administration.

4. DISCUSSION. This AC may be used as a guide for development and evaluation of an engineering procedures manual for major repairs required by SFAR 36, paragraph 4. A sample engineering manual in shown in appendix 1. These "Examples" are intended to illustrate the requirements specified by the SFAR. The SFAR 36 engineering procedures manual should be developed within the limitations of the certificate holder's rating(s) and engineering staff capabilities to develop the technical data for major repairs. The engineering procedures manual must accurately describe the engineering operations use to develop major repairs under SFAR 36. The sample manual includes additional information necessary to administer the regulation such as, the requirement for a list of effective pages, company SFAR 36 organizational chart, and recommending the frequency of reporting requirements.

John K. McGrath,
Manager, Aircraft Engineering Division,
Aircraft Certification Services

(COMPANY NAME)
(COMPANY ADDRESS)

CERTIFICATE NUMBER _____

ENGINEERING PROCEDURES MANUAL
FOR
MAJOR REPAIRS DEVELOPED
IN ACCORDANCE WITH
SPECIAL FEDERAL AVIATION REGULATION (SFAR) NO. 36

APPROVED BY:_____
(COMPANY'S) FAA-APPROVED SFAR 36 SIGNATURE AUTHORITY

DATE:_____

APPROVED BY:_____
MANAGER, (COGNIZANT) AIRCRAFT CERTIFICATION OFFICE
FEDERAL AVIATION ADMINISTRATION
(REGION)

DATE:_____

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COMPANY APPROVAL:_____

(COMPANY NAME, CERTIFICATE NUMBER)
SFAR 36 ENGINEERING PROCEDURES MANUAL

PAGE NUMBER _____
REV. NUMBER _____
DATE _____

LOG OF REVISIONS
[SFAR 36, paragraph 6.(b)(3)]

REVISION NUMBER	PAGE NUMBER	DESCRIPTION OF REVISION	FAA APPROVAL /DATE

COMPANY APPROVAL:_____

LIST OF EFFECTIVE PAGES

Please insert the revised pages into this manual and delete obsolete pages in accordance with the following list of effective pages. Revised pages are indicated by the letter "R," added pages by the letter "A," and deleted pages by the letter "D." Superseded and deleted pages shall be removed from the manual and retained separately.

The list of effective pages records not only each page of subject revision but also each previously issued page which is still current. Blank pages and pages which are no longer current do not appear on this list. If there is any question about the currency of the recipient's copy, it is recommended that each page in the manual be checked against this list of effective pages. Any page which does not appear on the list of effective pages should be removed.

Section	Page Number	Revision	Date

COMPANY APPROVAL:_____

MANUAL CONTROL

FAA CONTROL:

The latest revision(s) to a page will be indicated by a vertical bar along the right hand margin and the revision number and date in the upper right hand corner.

All revisions to this manual will be submitted by the company's FAA-approved signature authority and approved by the FAA Administrator (address below) prior to incorporation into the manual. [SFAR 36, paragraph 6.(c)]

(INSERT AIRCRAFT CERTIFICATION OFFICE ADDRESS)

(COMPANY NAME) CONTROL:

(INSERT THE NAME OF THE INDIVIDUAL) will be responsible for all manual updates and distribution.

(INSERT A LIST OF WHO IS TO RECEIVE THE MANUAL AND MANUAL UPDATES)

(INSERT COMPANY'S PROCEDURE FOR MANUAL CONTROL)

COMPANY APPROVAL:_____

1.0 INTRODUCTION.

(COMPANY NAME) may approve an [aircraft, airframe, aircraft engine, propeller or appliance (INSERT WHAT IS APPLICABLE)] for return to service after accomplishing a major repair if the data used for the repair was developed by (COMPANY NAME) in accordance with SFAR 36 authorization. (SFAR 36, paragraph 3.)

This manual sets forth the procedures used by (COMPANY NAME) to develop and use major repair data that are not specifically approved by the FAA Administrator. The FAA Administrator is defined as the cognizant aircraft certification office. (SFAR 36, paragraph 3. and FAA Order 8000.42A, paragraph 1.)

SFAR 36 is applicable to major repair **ONLY**.

The specific paragraph(s) of SFAR 36 and/or other regulatory material and/or FAA Order 8000.42A, being addressed is/are shown in brackets at the end of the explanatory statement(s). Those statements, including FAA Order 8000.42A, are for reference and guidance purposes for that particular topic.

All communications with the FAA will be conducted with (INSERT THE NAME AND TELEPHONE NUMBER OF THE INDIVIDUAL DESIGNATED AS POINT OF CONTACT BY THE COMPANY). (FAA Order 8000.42A, paragraph 11.b.(2)(h))

COMPANY APPROVAL:_____

2.0 PERSONNEL DUTIES & RESPONSIBILITIES.

The following personnel meet the requirements of SFAR 36, paragraph 5.(a)(3), 5.(b)(1,2,3,4) and FAA Order 8000.42A, paragraph 11.a. and are approved under this authority. Resumes for each individual below are located in Appendix E or on file at the **[Name of local ACO]**. For approval of compliance with Damage Tolerance Requirements or other special requirements imposed by the Administrator, individuals should contact their local FAA office before proceeding.

Name/Title	Signature	Field of Engineering	Scope of Authority

*Denotes alternate signature authority.

COMPANY APPROVAL:_____

3.0 DURATION OF AUTHORIZATION.

(COMPANY NAME) authorization issued under this Special Federal Aviation Regulation is effective until January 23, 1999, unless it is surrendered or the Administrator suspends, revokes, or otherwise terminates it at an earlier date. (SFAR 36, paragraph 7.)

4.0 MAINTENANCE OF ELIGIBILITY.

(COMPANY NAME) is required to continually meet the requirements of this authorization or to notify the FAA Administrator within 48 hours of any change (including changes in personnel) that could affect the company's ability to maintain eligibility under the requirements of SFAR 36. (SFAR 36, paragraph 5.(c)) **Note: No new major repair data in the area directly effected by a personnel change can be approved by the authorization holder during this period. Reauthorizations in this area will depend on a thorough review of the new individuals qualifications.**

(COMPANY NAME) must hold a current domestic repair station certificate under 14 CFR part 145, an air carrier certificate under 14 CFR part 121 or 127, or a commercial operator certificate under 14 CFR part 121, or be an air taxi operator subject to the requirements of 14 CFR part 135.2. (SFAR 36, paragraph 5.(a)(1))

5.0 TRANSFERABILITY.

This authorization issued under this Special Federal Aviation Regulation is not transferable. (SFAR 36, paragraph 8.)

6.0 INSPECTIONS.

Upon request, (COMPANY NAME) shall allow the FAA Administrator to inspect the facilities, products, and records related to the major repair programs performed under this authorization. (SFAR 36, paragraph 9. and FAA Order 8000.42A, paragraph 5.)

COMPANY APPROVAL:_____

7.0 LIMITATIONS.

7.1 Product Limitations. (INSERT A STATEMENT OF PRODUCT LIMITATIONS PLACED ON THE COMPANY). (SFAR 36, paragraphs 10. and 11., and FAA Order 8000.42A, paragraph 11.b.(1))

7.2 Repair Data Limitations. (INSERT A STATEMENT OF REPAIR DATA LIMITATIONS). (FAA Order 8000.42A, paragraph 11.b.(1))

FAA engineering approval is required:

a. before the use of all equivalent safety provisions are applied under 14 CFR part 21.21. (FAA Order 8000.42A, paragraph 11.b.(1)(a))

b. before the use of data procured from specialized services not part of (COMPANY NAME) facility. (FAA Order 8000.42A, paragraph 11.b.(1)(b))

c. before the use of data concerning a repair that may result in an acoustical change in the product. (FAA Order 42A, paragraph 11.b.(1)(c))

d. before accomplishing a repair that affects any Airworthiness Directive (AD) requirements. (14 CFR part 39)

e. before the use of data concerning repairs to life-limited items.

8.0 PROCEDURES.

(COMPANY NAME) is responsible for showing compliance with the applicable airworthiness requirements (14 CFR part 21.101). (FAA Order 8000.42A, paragraph 11.b.(3))

The data developed and used for each major repair shall show that the condition of the repaired product will be at least equal to its original structural integrity. This includes subsequent products using previously approved SFAR 36 major repair data as referenced in SFAR 36.3(b). In accomplishing this, the data shall show compliance with the applicable airworthiness standards. (FAA Order 8000.42A, paragraph 11.b.(3)(a))

COMPANY APPROVAL:_____

The data shall show how the product that has been repaired meets all the requirements of the applicable FAR's and, when operated within the approved flight envelope of the certificated aircraft and when maintained in accordance with FAA-approved manuals or an FAA-approved continuous airworthiness maintenance program, will function reliably throughout its established inspection interval. (FAA Order 8000.42A, paragraph 11.b.(3)(b))

8.1 Approving & Controlling Technical Data.
(FAA Order 8000.42A, paragraph 11.b.(2)(a))

(INSERT COMPANY PROCEDURE AND FLOW CHART) Sample forms being utilized for this procedure appear in Appendix D of an applicant's proposed engineering procedure's manual.

8.2 Traceability of Repairs. (i.e., identification and product repair records)

All repairs accomplished under SFAR 36 authority shall be identified by---
(SFAR 36, paragraph 13. and FAA Order 8000.42A, paragraph 11.b.(2)(f))

(INSERT COMPANY'S MEANS OF IDENTIFYING/TRACING SFAR 36 REPAIRS)

8.3 Differentiating between Major and Minor Repairs. (FAA Order 8000.42A, paragraph 11.b.(2)(c), 14 CFR part 1.1. and Part 43., Appendix A)

(DEFINE COMPANY PROCEDURE FOR DIFFERENTIATING BETWEEN MAJOR AND MINOR REPAIRS)

8.4 Differentiating between Major Repairs and Major Alterations. (FAA Order 8000.42A, paragraph 11.b.(2)(d), 14 CFR part 43, Appendix A, 14 CFR part 1.1.)

(DEFINE COMPANY PROCEDURE FOR DIFFERENTIATING BETWEEN MAJOR REPAIRS AND MAJOR ALTERATIONS) **Note: Major alterations are outside the scope of SFAR 36.**

COMPANY APPROVAL:_____

8.5 Determining Compatibility of Repair(s).

Determine methods to assure compatibility with other (prior) repairs made to a product and between products that have undergone major repairs, and other products of approved type design. (FAA Order 8000.42A, paragraph 11.b.(2)(e))

(DEFINE COMPANY PROCEDURE FOR DETERMINING AND ASSURING COMPATIBILITY WITH OTHER REPAIRS MADE TO THE PRODUCT)

8.6 Quarterly Report of Accomplished Repairs.

A list of all major repairs, accomplished in accordance with SFAR 36, will be submitted to the cognizant Flight Standards District Office (FSDO) quarterly. A report of zero activity is also required. The activity report must include type of repair with a brief description, model, part number, manufacturer's serial number. (FAA Order 8000.42A, paragraph 11.b.(2)(b))

(DEFINE COMPANY PROCEDURE FOR REPORTING ACCOMPLISHED REPAIRS)

8.7 Maintenance of Current Records. (COMPANY NAME), shall maintain, at its facility, current records containing: (SFAR 36.13)

For each product for which (COMPANY NAME) has developed and used major repair data, a technical data file that includes any data and amendments thereto (including drawings, photographs, specifications, instructions, and reports) necessary for the major repair will be maintained. (SFAR 36, paragraph 13.(a) and FAA Order 8000.42A, paragraph 11.b.(2)(g))

A list must be maintained of all repairs to products by make, model, manufacturer's serial number and, if applicable, any FAA identification, that have been repaired under this authorization. (SFAR 36, paragraph 13.(b))

A file of information from all available sources of difficulties on products repaired under SFAR 36 must be maintained. (SFAR 36, paragraph 13.(c))

COMPANY APPROVAL:_____

(DEFINE COMPANY PROCEDURE FOR MAINTAINING RECORDS)

8.8 Retention of Records.

All data files for repairs accomplished under SFAR 36 shall be retained indefinitely or shall be sent to the Administrator as soon as (COMPANY NAME) no longer utilizes them. (SFAR 36, paragraph 7.(a,b) and FAA Order 8000.42A, paragraph 11.b.(2)(h))

9.0 SERVICE DIFFICULTIES.

The reporting of failures, malfunctions, and defects will be consistent with 14 CFR part 21.3 and other applicable reporting requirements. (FAA Order 8000.42A, paragraph 11.b.(5))

(INSERT COMPANY'S TIME FRAME FOR AND DOCUMENTATION OF METHOD FOR RESOLVING SERVICE DIFFICULTY ISSUES)

If the FAA Administrator finds that a product for which repair data was developed under this SFAR does not meet the applicable airworthiness requirements, or that an unsafe feature or characteristic caused by a defective repair exists, (COMPANY NAME), upon notification by the FAA Administrator, shall investigate the matter and report to the FAA Administrator the results of the investigation and the action, if any, taken or proposed.

If corrective action by the user of the product is necessary for safety because of any noncompliance or defect specified in the paragraph above, (COMPANY NAME) shall investigate the matter; report to the Administrator the results and action proposed or taken; submit the information necessary for the issuance of an airworthiness directive under 14 CFR part 39 of the FAR's. (SFAR 36, paragraph 12.(a,b,c) and FAA Order 8000.42A, paragraph 11.b.(5), 14 CFR part 145.63)

COMPANY APPROVAL:_____

APPENDIX A - Letter of Authorization
(FAA Order 8000.42A, paragraph 12.)
Sample Letter of Authorization for Repair Station

US Department
of Transportation
Federal Aviation
Administration

Letter of Authorization

Under the authority of Special Federal Aviation Regulation (SFAR) No. 36, A. F. Jones d/b/a Bayview Aviation at Bayview Airport, Bayview, Ohio 11463, holding Air Agency Certificate Number 077-00, empowered to operate an approved repair station, is hereby authorized to develop and use major repair data which are not specifically approved by the Administrator, in accordance with SFAR No. 36 and its Federal Aviation Administration Approved Procedure Manual, as applicable to the ratings of the repair station and its Repair Station Operations Specifications, limited as follows:

AIRFRAME - CLASS 4	McDonnell Douglas Model DC-8 Series, Boeing Model 707, 727, and 747 Series airframe structures, flight controls, and landing gear systems.
POWERPLANT - CLASS 3	Pratt and Whitney Model JT3D Series, JT4A Series, JT8D Series, and JT9D Series bearing supports, rotors, turbines, compressors, gearboxes, turbine and compressor blades.

This authorization is effective until January 23, 1999, unless it is surrendered or the Administrator suspends, revokes, or terminates it at an earlier date.

Approved: January 1, 1980

John Dinkins_____
Manager, (COGNIZANT) Aircraft Certification Office

I.M. Spertor_____
Manager, (COGNIZANT) Flight Standards District Office

APPENDIX A - Letter of Authorization
(FAA Order 8000.42A, paragraph 12.)
Sample letter of authorization for Air Carrier

US Department
of Transportation
Federal Aviation
Administration

Letter of Authorization

Under the authority of Special Federal Aviation Regulation (SFAR) No. 36, Carryall Airlines, Inc., 123 Airport Drive, San Francisco, California 98345, holding Operating Certificate Number AWE-234, authorized to operate as an air carrier, is hereby authorized to develop and use major repair data which are not specifically approved by the Administrator, in accordance with SFAR No. 36 and its Federal Aviation Administration Approved Procedure Manual, as applicable to the ratings of the repair station and its Repair Station Operations Specifications, limited as follows:

AIRFRAME - CLASS 4	McDonnell Douglas Model DC-8 Series, Boeing Model 707, 727, and 747 Series airframe structures, flight controls, and landing gear systems.
POWERPLANT - CLASS 3	Pratt and Whitney Model JT3D Series, JT4A Series, JT8D Series, and JT9D Series bearing supports, rotors, turbines, compressors, gearboxes, turbine and compressor blades.

This authorization is effective until January 23, 1999, unless it is surrendered or the Administrator suspends, revokes, or terminates it at an earlier date.

Approved: January 1, 1980

John Dinkins
Manager, (COGNIZANT) Aircraft Certification Office

I.M. Spertor
Manager, (COGNIZANT) Flight Standards District Office

APPENDIX B - Repair Station Certificate and Operations Specifications or Commercial Operating Certificate or Air Carrier Certificate (FAA Order 8000.42A, paragraph 10. and SFAR 36 paragraph 2.(a))

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Air Agency Certificate

Number 007-00

This certificate is issued to
Bayview Aviation

whose business address is
3000 Bayview Airport Drive
Bayview Airport
Bayview, Ohio 11463

upon finding that its organization complies in all respect with the requirements of the Federal Aviation Regulations relating to the establishment of an Air Agency, and is empowered to operate an approved repair station.
with the following ratings:

Limited Airframe
Limited Powerplant

This certificate, unless canceled, suspended, or revoked, shall continue in effect Indefinitely.

By direction of the Administrator

Date issued :
January 20, 1972

I.M. Spertor
Manager, OAK-FSDO

This Certificate is not Transferable, AND ANY MAJOR CHANGE IN THE BASIC FACILITIES, OR IN THE LOCATION THEREOF, SHALL BE IMMEDIATELY REPORTED TO THE APPROPRIATE REGIONAL OFFICE OF THE FEDERAL AVIATION ADMINISTRATION

Any alteration to this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

FAA Form 8000-4 (1-67) SUPERSEDES FAA FORM 390.

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Repair Station Operations Specifications

(Continuation)

Limitations:

The rating(s) set forth on Air Agency Certificate Number 077-00 *is/are limited to the following:*

AIRFRAME - CLASS 4	McDonnell Douglas Model DC-8 Series, Boeing Model 707, 727, and 747 Series airframe structures, flight controls, and landing gear systems.
POWERPLANT - CLASS 3	Pratt and Whitney Model JT3D Series, JT4A Series, JT8D Series, and JT9D Series bearing supports, rotors, turbines, compressors, gearboxes, turbine and compressor blades.

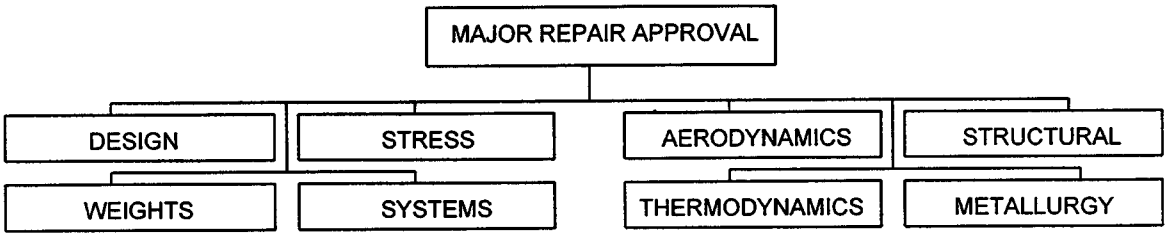
Dated Issued or revised: March 14, 1987

For the Administrator: I.M. Spertor

FAA Form 8000-4-1 (1-75) FORMERLY FAA FORM 390.1 PAGE 2

APPENDIX C - SFAR 36 Organization Chart

(COMPANY NAME)
SFAR 36 ORGANIZATION CHART
(Example)



The fields of engineering are examples only.

*[Name(s) of individual(s) designated for signature approval in this area.]

Any outside service used shall also be indicated with a dotted line box, i.e., outside laboratory.

COMPANY APPROVAL:_____

APPENDIX D - Sample Forms
(FAA Order 8000.42A, paragraph 11.b.(2)(a))

[In this section, provide sample forms used by the company to process SFAR 36 repairs, i.e., engineering authorization, technical analysis, service difficulty reporting form, quarterly report, etc.]

COMPANY APPROVAL:_____

APPENDIX E - Staff Qualifications
(SFAR 36, paragraph 4.(c))

[In this section provide qualification sheets, such as the following, for each individual on the SFAR 36 staff.]

QUALIFICATIONS

NAME: DATE:

CURRENT TITLE:

EDUCATION:

TECHNICAL COURSES:

SPECIAL LICENSE(S):

RELATED AWARDS (if applicable):

EXPERIENCE RECORD:

Note: Please include FAA repair project interface experience, providing type of repairs and FAA engineer's name.

OTHER RELATED INFORMATION (if applicable):

COMPANY APPROVAL:_____