

## Introduction to the New DER Authorization Charts

**Purpose.** The purpose of this document is to provide an introduction to the new DER authorization charts (DER Charts) that will be part of the Designee Management System (DMS) IT tool.

**Background.** The effort to update the DER charts has taken well over a decade. An FAA team was tasked in FY 2006 to revise and update the existing DER charts and make them clear with respect to what authority had been delegated. The plan was for delegation to be by rule (DBR). DBR was intended to be in place prior to the implementation of DMS for DERs but several years of development effort failed to produce a tool that could be implemented. The idea of DBR was too complex to implement. As a result, the DER team recommended that DBR be abandoned and replaced with updated charts that more accurately define a DER's knowledge and skills. A team of senior engineers was assigned to review these updated charts and provide recommendations. The results of that effort are the new DER charts that are part of the DMS IT tool.

**General Delegation Philosophy --** The philosophy for engineering delegation is that it is contextual. While engineering designees find compliance to regulations, their ability to do so varies depending upon the application of those regulations. For instance, an engineering designee who is completely qualified to make a finding to §25.301 when it is applied to an interior structural item such as an avionics rack, may not have the necessary knowledge and skills to make a finding to §25.301 when the application is to a wing spar. Because of this, the FAA documents an engineering designee's delegation using a knowledge based system of charts that identify the designee's authority in a very broad manner. These charts attempt to document an engineering designees' knowledge and skills, which a FAA project engineer (project team member, PTM, in DMS) can then use in conjunction with their knowledge about the application of the regulations on a particular project to properly determine whether a particular designee should be delegated those findings. The new charts do not specify "Recommend Approval" or "Approve" for each Area of Expertise/Authorized Delegation combination. A DER is presumed to have approval authority unless a specific limitation is noted in their chart

### General comments:

- 1) The DER disciplines (structural, powerplant, electrical systems, etc.) are derived from §183.29 and are unchanged.
- 2) While a radio engineering discipline is established in the rule, the chart was not updated since it will no longer be used and no additional radio DERs will be appointed. Radio related approvals will use the Electrical Systems Engineering chart, "Communication Systems" area of expertise.
- 3) The discipline of Management DER has been removed. Those DERs who have demonstrated knowledge and skills of project management etc. may now be recognized with a delegation of "Project Management" in the Special Delegation



|                                  | Areas Of Expertise        |                          |                                |                     |                    |                        |                       |                    |
|----------------------------------|---------------------------|--------------------------|--------------------------------|---------------------|--------------------|------------------------|-----------------------|--------------------|
|                                  | Electrical Wiring Systems | Electrical Power Systems | Electrical Utilization Systems | Auto Flight Systems | Navigation Systems | Indicating & Recording | Communication Systems | Electrical Systems |
| <b>Authorized Delegations</b>    |                           |                          |                                |                     |                    |                        |                       |                    |
| Detail Design and Installation   |                           |                          |                                |                     |                    |                        |                       |                    |
| Equipment Qualification Test     |                           |                          |                                |                     |                    |                        |                       |                    |
| Airborne Electronic Hardware     |                           |                          |                                |                     |                    |                        |                       |                    |
| Software                         |                           |                          |                                |                     |                    |                        |                       |                    |
| HIRF/Lightning/EMC               |                           |                          |                                |                     |                    |                        |                       |                    |
| Electrical Loads Analysis        |                           |                          |                                |                     |                    |                        |                       |                    |
| <b>LIMITATIONS</b>               |                           |                          |                                |                     |                    |                        |                       |                    |
| <b>Special Limitations/Notes</b> |                           |                          |                                |                     |                    |                        |                       |                    |

The special delegations section lists the available special delegations.

|  |  |
|--|--|
| <b>SPECIAL DELEGATIONS</b>                       |  |
| Service Documents                                |  |
| Project Management                               |  |
| Safety Analysis                                  |  |
| Major Repairs                                    |  |
| Major Alterations                                |  |
| Repair Specification                             |  |
| FCAA Compliance Findings                         |  |
| PMA Identity §21.303 (c) (4)                     |  |
| Electrical Wiring Interconnection Systems (EWIS) |  |
| Other  |  |
| <b>LIMITATIONS</b>                               |  |
| <b>Special Limitations/Notes</b>                 |  |

This will replace the Management DER delegation

## **Updated Charts Comparison – Structural**

Major Changes: Standard Limitations were added to more accurately identify the type of structure (e.g. composite, metal) to reflect the designee's experience.

Cabin Safety and Aircraft Level Loads were added to the Authorized Delegations column. This delegation is meant to represent crashworthiness and cabin safety related items. This is also the same cabin safety delegation noted on Mechanical Systems. This appointment may be managed by either discipline as dictated by the individual ACOBs.

The reason for adding the Aircraft Level Loads is to standardize authorization for those individuals who can approve external, or aircraft level, loads. The intent of this appointment is not to approve internal loads, or stress levels, however it is meant to differentiate those who can approve aircraft level loads, based on aerodynamic and operational conditions listed mostly in Subpart B. It is not meant to eliminate the ability of a stress DER to approve internal loads from force vectors or moments.

Minor Changes: Process specifications are now listed as an Area of Expertise, metallic and nonmetallic differentiation is now handled by the standard limitation.

## **Updated Charts Comparison – Powerplant**

Major Changes: Added Airborne Electronic Hardware as an Authorized Delegation

Minor Changes: Moved Service Document Delegation and Safety Analysis Delegation to Special delegations.

## **Updated Charts Comparison – Mechanical Systems**

Major Changes: Added Pitot Static, Door Mechanism, Flight Controls and Landing Gear to Areas of Expertise to more accurately identify DERs with knowledge in those areas. Added Airborne Electronic Hardware as an Authorized Delegation.

Minor Changes: Moved Service Document Delegation and Safety Analysis Delegation to Special delegations

## **Updated Charts Comparison – Electrical Systems**

Major Changes: Added Airborne Electronic Hardware as an Authorized Delegation

Minor Changes: Moved Service Document Delegation and Safety Analysis Delegation to Special delegations. Moved Lightning/HIRF to Area of Expertise. Renamed the Areas of Expertise to a more logical nomenclature. All of the previous Authorized Areas are accounted for using the new nomenclature.

## **Updated Charts Comparison – Engine**

Major Changes: Added Airborne Electronic Hardware as an Authorized Delegation

Minor Changes: Moved Service Document Delegation and Safety Analysis Delegation to Special delegations. Combined operation manuals and overhaul manuals into one Authorized Delegation of Manuals.

## **Updated Charts Comparison – Propellers**

Major Changes: Added Airborne Electronic Hardware as an Authorized Delegation. Moved the limitation for controllable or fixed pitch to standard limitations. Added the distinction between material types.

Minor Changes: Moved Service Document Delegation and Safety Analysis Delegation to Special delegations. Combined operation manuals and overhaul manuals into one Authorized Delegation of Manuals. Moved Lightning HIRF Protection to an Area of Expertise.

## **Updated Charts Comparison – Flight Analyst**

Major Changes: Added the Area of Expertise “Human Factors/Flight Deck Evaluation”. Removed the limitation of “Recommend” for flight manual approval. This removes the necessity of Note (2), which allowed for full delegation of these functions. This limitation can always be added, but does not need to be blanket.

Minor Changes: Removed the words “review”, “flight”, “complete”, and “compile” from the Authorized Delegations. These words were confusing and were sometimes taken to mean there were additional limitations on those areas. Refined the Area of Expertise titles to make them more accurate and also consistent with the Areas on the Flight Test Pilot chart.

## **Updated Charts Comparison – Flight Test Pilot**

Major Changes: Renamed some of the Area of Expertise to break out certain areas that were previously combined. Combined “ground” and “flight” tests and evaluations into a single delegated function. Removed the limitation of “Recommend” for flight test plan and flight manual approval. This removes the necessity of Notes (1) and (2), which allowed for full delegation of these functions. This limitation can always be added, but does not need to be blanket.

Minor Changes: Refined the Area of Expertise titles to make them more accurate and also consistent with the Areas on the Flight Test Analyst chart. Removed the words “complete” and “compile” from the Authorized Delegations. These words were

confusing and were sometimes taken to mean there were additional limitations on those areas.

### **Updated Charts Comparison – Systems and Equipment – Acoustical**

Major Changes: The Areas of Expertise define the type of aircraft. Added Noise limits to Authorized Delegations

Minor Changes: Removed the limitation of Recommend for Test Plans and Final Noise Certification Compliance Reports. This limitation can always be added but does not need to be blanket.

## Appendix A

Authorization charts depicted here are intended to provide a general awareness and may not reflect the most current version in DMS. These charts are for reference only and will not be maintained.

### Updated DER Charts Structural

| Areas Of Expertise   | Structural |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
|--|------------|----------|-----------|--------------|-----------------|-------|-------|------------------------|-----------------------------------|----------------------|-----------------|--------------------|--------------------|
|  | Wing       | Fuselage | Empennage | Landing Gear | Flight Controls | Rotor | Doors | Process Specifications | Material Allowable/ Specification | Interior Arrangement | Fire Protection | Interior Materials | Evacuation Systems |
| <b>Authorized Delegations</b>  |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Design and Construction  |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Static Analysis  |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Dynamic Analysis   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Fatigue Analysis   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Damage Tolerance   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Flutter/Ground Vibration   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Flotation and Ditching Analysis  |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Structural Loading Limitations   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Aircraft Level Loads   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Cabin Safety   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Flammability   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| <b>LIMITATIONS</b>   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Material Properties are Independent Final Processing (e.g. classic metallic structure)       |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| Material Properties Dependent Upon Final Processing (e.g. composite, additive manufacturing) |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |
| <b>Special Limitations/Notes</b>   |            |          |           |              |                 |       |       |                        |                                   |                      |                 |                    |                    |

| <b>SPECIAL DELEGATIONS</b>            |  |
|---------------------------------------|--|
| <b>Service Documents</b>              |  |
| <b>Project Management</b>             |  |
| <b>Safety Analysis</b>                |  |
| <b>Major Repairs</b>                  |  |
| <b>Major Alterations</b>              |  |
| <b>Repair Specification</b>           |  |
| <b>FCAA Compliance Findings</b>       |  |
| <b>CFR Part 26 Compliance Finding</b> |  |
| <b>PMA Identity §21.303 (c) (4)</b>   |  |
| <b>AMOC</b>                           |  |
| <b>Other</b>                          |  |
| <b>LIMITATIONS</b>                    |  |
| <b>Special Limitations/Notes</b>      |  |

## Appendix A Updated DER Charts Mechanical Systems

| Areas Of Expertise             | Mechanical Systems |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
|--------------------------------|--------------------|-------------|------------|------------------------|-----------------|--------|------------|------------------------|-----------------------|--------------------|----------------|-----------------------------------|--------------------|--------------|----------------|-----------------|--------------|-----------------|--|
|                                | Air Conditioning   | Ventilation | Hydraulics | Ice Protection Systems | Rain Protection | Oxygen | Pneumatics | Wheels, Tires & Brakes | Interior Arrangements | Interior materials | Pressurization | Water Systems (Potable and Waste) | Evacuation Systems | Pilot Static | Door Mechanism | Flight Controls | Landing Gear | Fire Protection |  |
| <b>Authorized Delegations</b>  |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Detail Design and Installation |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Equipment Qualification        |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Airborne Electronic Hardware   |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Software                       |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Lightning Protection           |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Cabin Safety                   |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Flammability                   |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| <b>LIMITATIONS</b>             |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |
| Special Limitations/Notes      |                    |             |            |                        |                 |        |            |                        |                       |                    |                |                                   |                    |              |                |                 |              |                 |  |

| SPECIAL DELEGATIONS |                              |  |
|---------------------|------------------------------|--|
|                     | Service Documents            |  |
|                     | Project Management           |  |
|                     | Safety Analysis              |  |
|                     | Major Repairs                |  |
|                     | Major Alterations            |  |
|                     | Repair Specification         |  |
|                     | FCAA Compliance Findings     |  |
|                     | PMA Identity §21.303 (c) (4) |  |
|                     | Other                        |  |
| <b>LIMITATIONS</b>  |                              |  |
|                     | Special Limitations/Notes    |  |



Appendix A  
Updated DER Charts  
Electrical Systems

| Electrical Systems             |                           |                          |                                |                     |                    |                        |                       |
|--------------------------------|---------------------------|--------------------------|--------------------------------|---------------------|--------------------|------------------------|-----------------------|
| Areas Of Expertise             | Electrical Wiring Systems | Electrical Power Systems | Electrical Utilization Systems | Auto Flight Systems | Navigation Systems | Indicating & Recording | Communication Systems |
| <b>Authorized Delegations</b>  |                           |                          |                                |                     |                    |                        |                       |
| Detail Design and Installation |                           |                          |                                |                     |                    |                        |                       |
| Equipment Qualification Test   |                           |                          |                                |                     |                    |                        |                       |
| Airborne Electronic Hardware   |                           |                          |                                |                     |                    |                        |                       |
| Software                       |                           |                          |                                |                     |                    |                        |                       |
| HIRF/Lightning/EMC             |                           |                          |                                |                     |                    |                        |                       |
| Electrical Loads Analysis      |                           |                          |                                |                     |                    |                        |                       |
| <b>LIMITATIONS</b>             |                           |                          |                                |                     |                    |                        |                       |
| Special Limitations/Notes      |                           |                          |                                |                     |                    |                        |                       |

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|--|--|
| <b>SPECIAL DELEGATIONS</b>                       |  |
| Service Documents                                |  |
| Project Management                               |  |
| Safety Analysis                                  |  |
| Major Repairs                                    |  |
| Major Alterations                                |  |
| Repair Specification                             |  |
| FCAA Compliance Findings                         |  |
| PMA Identity §21.303 (c) (4)                     |  |
| Electrical Wiring Interconnection Systems (EWIS) |  |
| Other  |  |
| <b>LIMITATIONS</b>                               |  |
| Special Limitations/Notes                        |  |

Appendix A  
Updated DER Charts  
Powerplant Installation

| Areas Of Expertise                             | Powerplant              |                        |                           |                          |                            |
|--|-------------------------|------------------------|---------------------------|--------------------------|----------------------------|
|  | Airplane Turbine Engine | Airplane Piston Engine | Rotorcraft Turbine Engine | Rotorcraft Piston Engine | Auxiliary Power Unit (APU) |
| <b>Authorized Delegations</b>                  |                         |                        |                           |                          |                            |
| Engine Installation                            |                         |                        |                           |                          |                            |
| Fuel & Oil                                     |                         |                        |                           |                          |                            |
| Induction/Exhaust Systems                      |                         |                        |                           |                          |                            |
| Thrust Reversers                               |                         |                        |                           |                          |                            |
| Fire Protection                                |                         |                        |                           |                          |                            |
| Ice Protection                                 |                         |                        |                           |                          |                            |
| Cooling  |                         |                        |                           |                          |                            |
| Indicating Systems                             |                         |                        |                           |                          |                            |
| Lightnign/HIRF Protection                      |                         |                        |                           |                          |                            |
| Engine Performance                             |                         |                        |                           |                          |                            |
| Engine Operability                             |                         |                        |                           |                          |                            |
| Control System-Elec                            |                         |                        |                           |                          |                            |
| Control System-Mech                            |                         |                        |                           |                          |                            |
| Propeller Installation                         |                         |                        |                           |                          |                            |
| Drive System                                   |                         |                        |                           |                          |                            |
| Emissions                                      |                         |                        |                           |                          |                            |
| Vibrations - Engine Propeller, or Drive System |                         |                        |                           |                          |                            |
| Transmissions                                  |                         |                        |                           |                          |                            |
| Airborne Electronic Hardware                   |                         |                        |                           |                          |                            |
| Software                                       |                         |                        |                           |                          |                            |
| <b>LIMITATIONS</b>                             |                         |                        |                           |                          |                            |
| Special Limitations/Notes                      |                         |                        |                           |                          |                            |

|                              |  |
|------------------------------|--|
| <b>SPECIAL DELEGATIONS</b>   |  |
| Service Documents            |  |
| Project Management           |  |
| Safety Analysis              |  |
| Major Repairs                |  |
| Major Alterations            |  |
| Repair Specification         |  |
| FCAA Compliance Findings     |  |
| PMA Identity §21.303 (c) (4) |  |
| Other                        |  |
| <b>LIMITATIONS</b>           |  |
| Special Limitations/Notes    |  |

Appendix A  
Updated DER Charts  
Engines

| Areas Of Expertise            | Engine  |        |     |
|-------------------------------|---------|--------|-----|
|                               | Turbine | Piston | APU |
| <b>Authorized Delegations</b> |         |        |     |
| Design & Construction         |         |        |     |
| Block Tests                   |         |        |     |
| Performance                   |         |        |     |
| Vibration Analysis            |         |        |     |
| Manuals                       |         |        |     |
| Airborne Electronic Hardware  |         |        |     |
| Software                      |         |        |     |
| Emissions                     |         |        |     |
| Lightning/HIRF Protection     |         |        |     |
| <b>LIMITATIONS</b>            |         |        |     |
| Special Limitations/Notes     |         |        |     |

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|------------------------------|--|
| <b>SPECIAL DELEGATIONS</b>   |  |
| Service Documents            |  |
| Project Management           |  |
| Safety Analysis              |  |
| Major Repairs                |  |
| Major Alterations            |  |
| Repair Specification         |  |
| FCAA Compliance Findings     |  |
| PMA Identity §21.303 (c) (4) |  |
| Other                        |  |
| <b>LIMITATIONS</b>           |  |
| Special Limitations/Notes    |  |

Appendix A  
Updated DER Charts  
Propellers

| Areas Of Expertise            | Propeller Material |           |      |
|-------------------------------|--------------------|-----------|------|
|                               | Metal              | Composite | Wood |
| <b>Authorized Delegations</b> |                    |           |      |
| Design & Construction         |                    |           |      |
| Block Tests                   |                    |           |      |
| Performance                   |                    |           |      |
| Vibration Analysis            |                    |           |      |
| Manuals                       |                    |           |      |
| Lightning/HIRF Protection     |                    |           |      |
| Airborne Electronic Hardware  |                    |           |      |
| Software                      |                    |           |      |
| <b>LIMITATIONS</b>            |                    |           |      |
| Controllable Pitch            |                    |           |      |
| Fixed Pitch                   |                    |           |      |
| Special Limitations/Notes     |                    |           |      |

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|----------------------------|--|
| <b>SPECIAL DELEGATIONS</b> |  |
| Service Documents          |  |
| Project Management         |  |
| Safety Analysis            |  |
| Major Repairs              |  |
| Major Alterations          |  |
| Repair Specification       |  |
| FCAA Compliance Findings   |  |
| Other                      |  |
| <b>LIMITATIONS</b>         |  |
| Special Limitations/Notes  |  |

Appendix A  
Updated DER Charts  
Flight Analyst

| Flight Analyst                     |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
|------------------------------------|-------------------------------|--------------|------------------------|----------------------|---|--|---|-----------------------------|-----------------------------------|-----------------------------|------------------------|------------------------------|
| Areas Of Expertise                 | Performance                   | Aerodynamics | Flight Characteristics | Air Data Calibration | Propulsion Systems & Related Components | Electrical/Electronic Systems & Related Components | Mechanical/Hydraulic Systems & Related Components | Human Factors/Flt Deck Eval | Pneumatic, Pressure & A/C Systems | Auto Flight Control Systems | Ice Protection Systems | Part 36 Reference Conditions |
|                                    | <b>Authorized Delegations</b> |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Test Plans                         |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Test Instrumentation               |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Weight and Balance                 |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Test Data Recording                |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Test Data Reduction/Analysis       |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Test Data Expansion                |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Test Reports                       |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Performance Substantiation Reports |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Type Inspection Reports            |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Flight Manuals & Supplements       |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Part 36 Reference Profiles         |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| <b>LIMITATIONS</b>                 |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |
| Special Limitations/Notes          |                               |              |                        |                      |   |  |   |                             |                                   |                             |                        |                              |

|                              |  |
|------------------------------|--|
| <b>SPECIAL DELEGATIONS</b>   |  |
| Project Management           |  |
| Major Repairs                |  |
| Major Alterations            |  |
| Repair Specification         |  |
| FCAA Compliance Findings     |  |
| PMA Identity §21.303 (c) (4) |  |
| Other                        |  |
| <b>LIMITATIONS</b>           |  |
| Special Limitations/Notes    |  |

Appendix A  
Updated DER Charts  
Flight Test Pilot

| Flight Test Pilot                               |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
|---|-------------|------------------------|---|----------------------|--|---|-----------------------------------|---------------------------|---------------------------|-----------------------------|----------------|------------------------|----------------------------------|
| Areas Of Expertise                              | Performance | Flight Characteristics | Propulsion Systems & Related Components | Air Data Calibration | Electrical/Electronic Systems & Related Components | Mechanical/Hydraulic Systems & Related Components | Pneumatic, Pressure & A/C Systems | Flight Navigation Systems | Flight Instrument Systems | Auto Flight Control Systems | H/V Rotorcraft | Ice Protection Systems | Operating Limitations/Procedures |
| Authorized Delegations                          |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
| Test Plans                                      |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
| Conduct Flight and/or Ground Test & Evaluations |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
| Test Report                                     |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
| Type Inspection Reports                         |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
| Flight Manuals & Supplements                    |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
| LIMITATIONS                                     |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |
| Special Limitations/Notes                       |             |                        |   |                      |  |   |                                   |                           |                           |                             |                |                        |                                  |

| SPECIAL DELEGATIONS          |  |
|------------------------------|--|
| Project Management           |  |
| Major Repairs                |  |
| Major Alterations            |  |
| Repair Specification         |  |
| FCAA Compliance Findings     |  |
| PMA Identity §21.303 (c) (4) |  |
| Other                        |  |
| LIMITATIONS                  |  |
| Special Limitations/Notes    |  |

Appendix A  
Updated DER Charts  
Acoustical

| Areas Of Expertise            | Acoustical              |                            |            |            |
|-------------------------------|-------------------------|----------------------------|------------|------------|
|                               | Large and Jet Airplanes | Propeller-driven Airplanes | Rotorcraft | Tiltrotors |
| <b>Authorized Delegations</b> |                         |                            |            |            |
| Measuring Location            |                         |                            |            |            |
| Recording Equipment           |                         |                            |            |            |
| Analysis Equipment            |                         |                            |            |            |
| Environmental Conditions      |                         |                            |            |            |
| Calculate Procedure           |                         |                            |            |            |
| Noise Limits                  |                         |                            |            |            |
| <b>LIMITATIONS</b>            |                         |                            |            |            |
| Special Limitations/Notes     |                         |                            |            |            |

|                            |  |
|----------------------------|--|
| <b>SPECIAL DELEGATIONS</b> |  |
| Project Management         |  |
| <b>LIMITATIONS</b>         |  |
| Special Limitations/Notes  |  |