Information note regarding the certification of a voluntary reduction of the Maximum Take-Off Weight (MTOW)

1. General
The present note describes in general terms the procedure and applicable requirements for the certification of a Maximum Take-Off Weight (MTOW) reduction to an aircraft. Emphasis has been given on the general issues and it may well be that further substantiation or actions could be added depending on the particular case involved.

Please note that a new noise certification (new certificate) is necessary for this change. This issue is not treated here in detail.

Furthermore only the case of the Part 23 (FAR, JAR or CS) is treated here since for the other classes of aircraft, the type certificate holder will have to be involved (capability issue).

2. Procedure
The MTOW is an operational limitation and must be defined in the approved chapter “Limitations” of the Flight Manual. Any change to this value must therefore be certified by the Authority approval (the applicable regulations related to changes remains fully the same).

Two main options for the certification of the change can be identified:

1. The Type Certificate holder or a Supplemental Type Certificate holder can provide with an approved data package defining the change (that is probably only a new Flight Manual Supplement). This could be done in the form of a Service Bulletin for example and may therefore not require further FOCA approval (usual rules remain valid).

2. An application for a change is submitted for approval to the Authority. In that case the necessary compliance data must be submitted. After proper compliance finding, the change will be approved. Finally the aircraft file and documents must be updated to reflect the change (processing at the aircraft Registry and at our environment certification section). Charges will be defined according to the usual applicable rules.

3. Applicable requirements
As announced we restrict the present document to the case of normal, utility, acrobatic and commuter airplane (FAR/JAR/CS 23). As usual the original aircraft certification basis defines the basis for the change certification (amendment).

We furthermore only consider the option 2 (see chapter 2), since the option 1 can be seen as an approved data package.

Compliance to the following paragraphs must be shown:

- 23.25 (a) (2) (i) and (ii) (minimum allowable value of the MTOW)
- 23.1583 (c).

A typical format for the AFM supplement is here presented. It is however important to note that it is meant as a generic example. It may well have to be adapted depending on the actual certification basis or on any particular issues.

- Any influence on the placards (see for example 23.1557) must be taken into account.
The change can be classified as minor according to PART 21 (requested if EASA approval is sought) and as major according our Swiss national only procedures (VLL, 748.215.1, see also the last pages of the NOM on our internet site for further info). For further information about EASA approval, please consult the FOCA Notice Of Modification (NOM) last page (available on FOCA web site).

4. Approval
The application for the change approval can be done in the usual form.
The Flight Manual Supplement must in any case be approved by the Authority.
The change can be approved either by an appropriately approved design organisation (Part 21 Subpart J) or by the Authority.
Based on the approved change, the FOCA Type Certification will inform the Aircraft Register and the aircraft administrative documents will be updated (aircraft registry new noise certificate).
FLIGHT MANUAL SUPPLEMENT

FOR VOLUNTARY REDUCTION OF THE MAXIMUM TAKE-OFF WEIGHT (MTOW)

Aircraft Make : ____________________________
Aircraft Model : ____________________________
Serial Number : ____________________________
Registration : ____________________________

This Document must be carried in the aircraft at all times. It describes the operating limitations, which have been applied to this aircraft.

Approval basis:
FOCA approved as “Part 21 Minor Change”, on: ___________

The information contained herein complements or supersedes the Basic Airplane Flight Manual only in those areas listed. For limitations, procedures and performance information not contained in this document, consult the Basic Airplane Flight Manual.

Prepared by: 
Authority approval

Signature:

Date:

Original Issue
Authority approved

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Section 1. General
The Maximum Take-Off Weight (MTOW) is voluntary reduced to _____ Kg.

Section 2. Limitations
Limitation for Maximum Take-Off Weight MTOW = _____ kg
Placard with reduced MTOW in the cockpit as applicable.

Section 3. Emergency Procedures
No change to basic Flight Manual.

Section 4. Normal Procedures
No change to basic Flight Manual.

Section 5. Performance
No change to basic Flight Manual.

Section 6. Weight and Balance
Requested text, if any, depends mostly on the basic AFM chapter 6.

Section 7. System Description
No change to basic Flight Manual.

Section 8. Handling and Servicing
No change to basic Flight Manual.