



United States Department of the Interior
National Business Center
Aviation Management
300 E. Mallard Dr., Ste 200
Boise, Idaho 83706-3991



DOI AM OPERATIONAL PROCEDURES MEMORANDUM NO. 04-50

Subject: Special MTGW Authority for Certain DMBM Cessna 206 Amphibious Aircraft

Effective Date: June 9, 2004

Supersedes: March 4, 2004

Distribution: A, B, & C

Expiration Date: December 31, 2004

.1 Purpose. This OPM outlines special conditions and authority for the operation of certain U.S. Fish and Wildlife Service (FWS) Cessna 206 amphibious aircraft assigned to Region 9 Division of Migratory Bird Management (DMBM) and Region 7.

.2 Authority. This policy is established by the Associate Director, Aviation Management (DOI AM), National Business Center under authority of 112 DM 12, 350 DM 1 and Secretarial Order 3250 dated September 30, 2003.

.3 Background. The FWS needs to occasionally operate DMBM-assigned aircraft at Maximum Takeoff Gross Weight (MTGW) in excess of that recommended by the manufacturer and certificated by the Federal Aviation Administration (FAA). Additional fuel is required to conduct waterfowl surveys in remote areas due to the lack of available refueling facilities. Failure to conduct these waterfowl surveys would adversely impact critical elements of the FWS mission.

.4 Management. The following actions have been taken to mitigate risks associated with exceeding FAA certificated MTGW:

A. Aircraft inspections - Non-Destructive Inspection (NDI) testing was completed in 2003 on each aircraft listed in Appendix 1, in accordance with the recommendations outlined in the Cessna Continued Airworthiness Program. No indication of excess wear was found.

B. Installation of data-collecting instruments – Continuous electronic accelerometer measuring equipment has been installed in several aircraft to monitor airframe stress in survey flight profiles.

C. Aircraft teardown – A complete disassembly of one airframe has been completed that included non-destructive inspection (NDI) and other specialized testing of critical airframe parts for determination of aircraft structural and operational condition. No indication of excess wear was found.

D. Wing reconfiguration – The Flint wing-tip extension fuel tanks have been removed and replaced with internal Sierra wing tanks on all aircraft listed in Appendix 1. This eliminates concern as identified by an independent engineering firm, for wing spar fatigue resulting from extended wing lengths resulting from the installation of Flint wing-tip fuel tank installation.

E. Installation of lighter floats – Wipline 3450 floats have been installed on all aircraft listed in Appendix 1 in an effort to reduce aircraft weight.

F. Removal of unnecessary aircraft equipment – Unnecessary aircraft equipment has been removed from all aircraft listed in Appendix 1 in an effort to further reduce aircraft weight.

G. Maximum Take-Off Gross Weight (MTGW) – The DOI-approved MTGW for each aircraft has been computed based on the weight reductions above and shown in Appendix 1.

H. Funding - Aircraft changes/modifications and inspections listed above have been funded by the FWS through a reimbursable agreement with the DOI AM.

.5 Policy. DOI authority is granted to operate Cessna amphibious aircraft listed in Appendix 1 at DOI-approved MTGW when the following conditions are met:

A. Operations shall be limited to specific aircraft and DOI-approved MTGW as identified in Attachment 1.

B. This authorization pertains only to actual DMBM mission (“Public Use Operations”) flights and does not include aircraft repositioning flights. Operations above the FAA certificated MTGW may be conducted in, Alaska and CONUS, at the discretion of the pilot-in-command, when appropriate aviation fuel is not reasonably available.

C. Law does not permit “Public Use Operations” outside the territory or possession of the United States. Therefore, if the use of this MGTW authority is anticipated outside the United States, the appropriate foreign government (e.g., Canada, Mexico and/or Central America) shall be notified prior to conducting operations.

D. A recording accelerometer (G-meter) must be installed and operational in each aircraft operating under this OPM. This panel-mounted gmeter is in addition to any continuous recording equipment installed for data accumulation purposes.

E. A record of all operations at or above the FAA certificated MGTW will be forwarded to the DOI AM Fleet Maintenance Specialist (Headquarters or Alaska Region as appropriate) with (or recorded on) the OAS-2, *Aircraft Flight Use Report*. This record shall contain the takeoff and landing weight, the duration of the flight, and the maximum positive and negative loads recorded on the G-meter.

F. The pilot shall become familiar with the intricacies of the particular aircraft. An external detailed visual inspection of the landing gear, fuselage, empennage and wings will be performed by the pilot after any landing above the FAA certificated MGTW; any over weight operation on rough water or land areas; or any time the recording G-meter records a reading greater than +2.5 or -.5 G. Any abnormal indications observed shall be further inspected and the aircrafts airworthiness determined by a certified mechanic prior to further flight.

G. A thorough visual inspection of the wing spars and strut attachment, stabilator spars, float strut attach structure and landing gear will be emphasized at each 100-hour inspection.

H. Operational procedures for pilots using this overweight authorization must include the following items, and must be made part of the *Pilot Operating Handbook (POH)*: A review of the engineering report from Turbo Air Inc. shall be made by FWS and DOI AM in order to revise the below listed manuals to reflect operating restrictions, training requirements, and maintenance pre- and post-flight guidelines. This review should consider an acceptable level of risk management for survey operations.

(1) U.S. Fish and Wildlife Service *Cessna 206 Amphibian Increased Weight Operating Manual* dated April 27, 2004. This manual may not be modified without DOI AM approval.

(2) Survey Flight Manual, *POH Supplement, Fish and Wildlife Service (FWS) Survey Operations* dated April 23, 2004.

I. A complete copy of this authorization must be given to each pilot operating under the overweight authorization, and must be carried aboard each aircraft listed in Attachment 1.

J. DOI AM and FWS officials will continue to monitor engineering evaluations and ongoing field season operations for developments that may require modification of this OPM.

K. Continued overgross weight operations will be contingent upon satisfactory written analysis and recommendation from an aeronautical engineer.

FWS and DOI AM have agreed that the long-term goal is to obtain aircraft capable of performing the mission without the need to exceed FAA certificated MTGW.

/s/ Michael A. Martin
Associate Director

May 18, 2004

MTGW by Individual Aircraft

<u>Aircraft Tail Number</u>	<u>FAA Certificated MTGW</u>	<u>DOI-Approved MTGW</u>
N758	3800 Pounds*	4060 Pounds**
N723	3792 Pounds*	4049 Pounds**
N729	3792 Pounds*	4085 Pounds**
N783	3792 Pounds*	4066 Pounds**
N61599	3800 Pounds*	4021 Pounds**
N9798Z	3792 Pounds*	4077 Pounds**
N234JB	3800 Pounds*	4056 Pounds**

*Aircraft standard gross weight is 3600 pounds. The installation of the Wipaire model 3450 amphibian floats in conjunction with other pertinent STC's increases the certificated weight to 3800 pound on aircraft serial numbers U20601701 through U20604649 and to 3792 pounds for aircraft serial numbers U20604650 and above.

**The above weights are the result of the weight reduction efforts completed on the respective aircraft as indicated.