

**BY ORDER OF THE COMMANDER
22D AIR REFUELING WING (AMC)**

**MCCONNELL AIR FORCE BASE
INSTRUCTION**



21-110

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Maintenance

WEIGHT AND BALANCE PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This McConnell Air Force Base instruction prescribes Weight and Balance Program procedures. This instruction augments DAFI 21-101, *Aircraft and Equipment Maintenance Management*, AFMAN 11-2KC-135, Volume 3 Addenda A, *C/KC-135 Operations Procedures*; AFPD 21-1, *Maintenance of Military Material*; AFI 11-301V1, *Aircrew Life Support Program* and T.O. 1-1B-50, *Basic Technical Order for USAF Aircraft Weight and Balance*. This instruction is applicable to all 22d Maintenance Group (MXG), 22d Operations Group (OG), 931st Maintenance Group (MXG) and 931st Operations Group (OG) personnel. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW with the Air Force Records Information Management System (AFRIMS) located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

1. Responsibilities: Weight and balance procedures, if not followed correctly, may adversely affect aircraft performance. Procedures outlined in the references of this instruction must be strictly adhered to. Direct any questions to the Weight and Balance Program Managers (W&BPM), MXG Quality Assurance (QA).

1. 1. MXG QA Weight and Balance Program Manager will:

1.1.1. Maintain statement or letter designating personnel qualified for aircraft assigned. Primary W&BPM or authorized representative will ensure a current copy of the Automated Weight and Balance Scheduler (AWBS) will be sent out monthly to 22 Operations Group Standardization and Evaluation (OGV). Additionally, for KC-46 aircraft ensure that the current basic weight and basic moment are updated in the applicable automated weight and balance program.

1.1.2. Coordinate planning of equipment changes/updates with OG/OGV, AME -21, and AFE.

1.1.3. Ensure weight and balance supplemental handbooks are maintained on the aircraft. For KC-135 aircraft the handbooks will be placed on the technical order cabinet located on the aft wall of the latrine. For KC-46 aircraft the handbooks will be located in the upper left storage compartment of the galley.

1.1.4. Maintain the weight and balance primary handbook and historical records in the QA office.

1.2. 22/931 OG/OGV will:

1.2.1. **(KC-135)** Post and maintain copies of all locally developed standardized AF IMT 4100s on the 22 OGV website to ensure proper loading of aircraft. This information is available on the McConnell website https://usaf.dps.mil/sites/22OG/22og_ogv/Reference_Material/Forms/AllItems.aspx?viewpath=%2Fsites%2F22OG%2F22og%5Fogv%2FReference%5FMaterial%2FForms%2FAllItems%2Easpx

1.2.2. **(KC-135)** Provide Alternate Mission Equipment (AME) -21 and QA for any changes to the standardized local aircraft configuration (i.e. Aero Medical, roller missions, etc.) allowing sufficient time to load aircraft. Use locally developed AF IMT 4100s for changes affecting standard configuration.

1.2.3. **(KC-46)** Provide Alternate Mission Equipment to -21 for any changes to the standard local aircraft configuration IAW the Cargo Loading Manual and KC46 Aircraft Maintenance Manual (AMM) Chapter 25, allowing sufficient time to load aircraft. Additionally, use the notes section in Global Decision Support System (GDSS) for changes affecting standard configuration.

1.2.4. Make clear and concise entries in aircraft forms concerning Chart-C discrepancies to include the discrepancy, item and location. Aircrew will notify QA of discrepancies at debrief.

1.3. AMXS AME-21 Section will:

1.3.1. Ensure all AME-21 equipment weights are available for use in determining aircraft weight.

1.3.2. **(KC-135)** Forward all AME-21 equipment weights to the 22 OG Air Refueling Manager (22 OG/OGV) to aid the boom operators in mission planning and developing new AF IMT 4100 configurations as weights or new items are added to inventory.

1.3.3. **(KC-46)** Forward all AME-21 equipment weights to the 22 OG Air Refueling Manager (22 OG/OGV) and W&B program managers to aid aircrew in mission planning as weights or new items are added to inventory.

1.3.4. **(KC-135)** Ensure accurate legible copies of the AF IMT 4100 configuration are posted in the weight and balance book at the time of configuration.

1.3.5. **(KC-135)** Annotate and place the equipment listed on the AF IMT 4100 accurately on the aircraft. Remove the AF IMT 4100 when the aircraft is downloaded.

1.3.6. Notify the QA office of any aircraft configuration changes, weight changes (5 lbs or more), acceptance, depot input, PCS, depot return, or equipment modification.

1.3.6.1. Create a G081 AFTO Form 781A entry for any weight changes (5lbs or more), acceptance, depot input, PCS, depot return, or equipment modification.

1.4. Maintenance Operations (MXO) Plans, Scheduling, and Documentation (PS&D) Section will:

1.4.1. Notify W&BPM before starting and upon completion of any TCTOs affecting aircraft weight and balance.

1.4.2. Create a G081 AFTO Form 781A entry for any TCTO requiring a weight and balance update when issued to the primary agency for completion of TCTO. Entry in AFTO 781A will read "A/C requires weight and balance update due to TCTO XXXX accomplishment."

1.4.3. Notify W&BPM of pending aircraft PCS and depot arrivals or departures as soon as possible when departure or arrival when it deviates from weekly schedule.

1.5. 22/931 OG Life Support personnel will:

1.5.1. Ensure all life support equipment weights are available for use in determining aircraft weight.

1.5.2. **(KC-135)** Forward all life support equipment weights to the 22 OG Air Refueling Manager (22 OG/OGV) and QA W&BPM to aid the aircrew in mission planning and developing AF IMT 4100 as weights change or new items are added to or deleted from inventory.

1.5.3. **(KC-46)** Forward all life support equipment weights to the 22 OG Air Refueling Manager (22 OG/OGV) and QA W&BPM to aid aircrew in mission planning as weights or new items are added to or deleted from inventory.

1.5.4. **(KC-135)** Place all life support equipment in approved locations and secure on the aircraft according to day-to-day AF IMT 4100 configurations and IAW T.O. 1C-135-9.

1.5.5. **(KC-46)** Place all life support equipment in approved locations and secure on the aircraft IAW T.O. 1C-46(K)A-9.

1.5.6. Notify QA W&BPM of weight and balance as soon as changes are made.

1.6. QA Product Improvement Manager will work with Contract Field Team to provide W&BPM:

1.6.1. Aircraft weight and balance book should be received within 24 hours of receipt of the aircraft. If the aircraft is received on a federal holiday or weekend, the weight and balance book should be delivered on the next duty day.

1.6.2. A list of TCTOs in work that may affect weight and balance of aircraft.

2. 22/931/722 AMXS and Maintenance Squadron Production Supervision will:

2.1. Notify the QA office of any aircraft configuration changes, weight changes (5 lbs or more), acceptance, depot input, PCS, depot return or equipment modification.

2.2. Create a G081 AFTO Form 781A entry for any weight changes (5lbs or more), acceptance, depot input, PCS, depot return or equipment modification.

CORY M. DAMON, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 33-322, Records management and Information governance Program, 27 Jul 2021
DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 15 Jan 2020
AFMAN11-2KC-135V3, *C/KC-135 Operations Procedures*, 9 September 2019
AFMAN11-2KC-135V3, ADDENDA-A C/KC-135 Aircraft Configuration, 6 January 2020
AFPD 21-1, *Maintenance of Military Material*, 1 August 2018
AFI 11-301V1, *Aircrew Flight Equipment (AEF) Program*, 30 May 2023
T.O. 1-1B-50, *Basic Technical Order for USAF Aircraft Weight and Balance*
T.O. 1C-135-9
T.O. 1C-46(K)A-9

Adopted Form

AF Form 847, *Recommendation for Change of Publication*
AF Form 4100, *KC-135 Load Planning Worksheet*
AFTO Form 781A, *Maintenance Discrepancy and Work Document*

Abbreviations and Acronyms

AF— Air Force
AFB— Air Force Base
AFMAN—Air Force Manual
AFRIMS—Air Force Records Information Management System
AME—Alternate Mission Equipment
AWBS—Automated Weight and Balance Scheduler
IAW—In Accordance With
IMT— Information Management Tool
MXO—Maintenance Operations
MXG—Maintenance Group
OG—Operations Group
OGV—Operations Group Standardization and Evaluation
OPR—Office of Primary Responsibility
PCS—Permanent Change of Station

QA—Quality Assurance

TCTO—Time Compliance Technical Order

W&B—Weight and Balance

W&BPM—Weight and Balance Program Manager