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Maintenance

WEIGHT AND BALANCE PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 21-1, *Managing Aerospace Equipment Maintenance*. It establishes local procedures for control of weight and balance for flight and ground maintenance operations. It applies to 18th Wing and associate units at Kadena AB. This publication does not apply to the Air National Guard or US Air Force Reserve.

1. References: TOs 1-1B-50, *Weight and Balance*, and 00-20-5, *Aircraft, Drone, Aircrew Training Devices, Engines, and Air Launched Missile Instructions, Flight Reports, and Supply Maintenance Documents*, PACAFI 21-101, *Objective Wing Aircraft Maintenance* and the applicable aircraft -5 TO.

2. Responsibilities:

- 2.1. The 33d Rescue Squadron will be solely responsible for maintaining the HH-60 weight and balance program.
- 2.2. The 18 OG Quality Assurance (QA) Weight and Balance Manager will:
 - 2.2.1. Ensure all weight and balance computations and entries in the aircraft weight and balance handbooks are current and correct.
 - 2.2.2. When notified by Maintenance Operations Center (MOC) or the owning unit of change(s) in the status of "Chart A" equipment (items that have been removed or installed), will determine if the change(s) will affect the center of gravity and stability of the aircraft prior to flight.
- 2.3. F-15 Sortie Generation Flight (SGF) will:
 - 2.3.1. Prepare the aircraft for weight and balance inspections and inventories.
 - 2.3.2. Ensure aircraft scheduled for weighing are equipped with all "Chart A" listed components. All alternate equipment not listed in the "Chart A" will be removed in accordance with (IAW) TO 1-1B-50.

- 2.3.3. Notify the 18 OG QA Weight and Balance Manager the day prior to weighing the aircraft when the aircraft is prepared for the “Chart A” inventory.
 - 2.3.4. Schedule all weighs 48 hours in advance. Weighs will be scheduled for 0800 unless, previously agreed upon by the weight and balance program manager. Any weigh not started within two hours of scheduled time, due to the aircraft not being ready or non-availability of personnel, will be rescheduled for the next day.
 - 2.3.5. Provide all required personnel for the weighing process including jacking and down jacking the aircraft for the duration of the weigh.
 - 2.3.6. Ensure the “Chart A” listed equipment or components being removed or installed (i.e. ICMS boxes, Gun Drum, or JTIDS) other than normal aircraft configurations are documented on the AFTO Form 781A, **Maintenance Discrepancy and Work Document**. Notify 18 OG/QA for weight and balance computation update prior to next flight if the equipment remains removed or installed.
- 2.4. Each fighter squadron plans and scheduling (P&S) will:
- 2.4.1. Schedule all assigned aircraft weight and balance inspections through the 18 OG/QA Weight and Balance Manager. All aircraft will be weighed IAW TO 1-1B-50 and 1F-15C-5 (**Attachment 1**).
 - 2.4.2. Notify 18 OG/QA Weight and Balance Manager immediately upon completion of time compliance technical orders (TCTO) and local modifications affecting weight and balance.
- 2.5. KC-135 SGF will:
- 2.5.1. Prepare the aircraft for weight and balance inspections and inventories.
 - 2.5.2. Configure all newly assigned aircraft to meet local floor configuration.
 - 2.5.3. Schedule all weighs 48 hours in advance. Weighs will be scheduled for 0800 unless, previously agreed upon by the weight and balance program manager. Any weigh not started within two hours of scheduled time, due to the aircraft not being ready or non-availability of personnel, will be rescheduled for the next day.
 - 2.5.4. Document discrepancies found in the aircraft on AFTO Form 781As. Notify the 18 OG/QA Weight and Balance Manager to perform a complete aircraft inventory prior to next flight IAW TO 1-1B-50.
 - 2.5.5. Notify MOC when inventories are completed.
 - 2.5.6. Notify the 18 OG/QA of any configuration changes that will effect the weight and balance. 18 OG/QA will ensure the primary and the supplemental weight and balance handbook records are updated to reflect the current configuration change(s) IAW TO 1-1B-50.
 - 2.5.7. Ensure “Chart A” listed equipment being removed or installed is documented on the AFTO Form 781A. Notify the 18 OG/QA if equipment remains removed or installed to ensure the weight and balance records are updated prior to the next flight.
 - 2.5.8. Configure all outbound aircraft as required. Notify the 18 OG/QA Weight and Balance Manager to perform a complete “Chart A” inventory prior to aircraft departure IAW TO 1-1B-50.
- 2.6. The 909th Air Refueling Squadron P&S will:

- 2.6.1. Notify 18 OG/QA and appropriate flying squadron maintenance supervision of proposed aircraft assignment/reassignment by tail number and estimated time of arrival/departure.
- 2.6.2. Notify 18 OG/QA immediately upon completion of TCTOs and local modifications affecting the weight and balance.
- 2.7. E-3 SGF will:
 - 2.7.1. Prepare the aircraft for weight and balance inspections and inventories.
 - 2.7.2. Configure all newly assigned aircraft as required.
 - 2.7.3. Schedule all weighs 48 hours in advance. Weighs will be scheduled for 0800 unless, previously agreed upon by the weight and balance program manager. Any weigh not started within two hours of scheduled time, due to the aircraft not being ready or non-availability of personnel, will be rescheduled for the next day.
 - 2.7.4. Document discrepancies found on the aircraft in the AFTO Form 781As. Notify the 18 OG/QA Weight and Balance Manager to perform a complete aircraft inventory prior to next flight IAW TO 1-1B-50.
 - 2.7.5. Notify MOC when inventories are completed.
 - 2.7.6. Ensure the "Chart A" equipment being removed or installed is documented on the AFTO Form 781As. Notify the 18 OG/QA Weight and Balance Manager if the equipment remains removed or installed to update records prior to the next flight.
- 2.8. The 961st Airborne Air Control Squadron P&S will:
 - 2.8.1. Notify the 18 OG/QA and appropriate flying squadron(s) maintenance supervision of proposed aircraft assignment/reassignment by tail number and estimated time of arrival/departure.
 - 2.8.2. Notify the 18 OG/QA immediately upon completion of any TCTOs and local modifications affecting weight and balance.

JAMES B. SMITH, Brigadier General, USAF
Commander, 18th Wing

Attachment 1

F-15C/D WEIGHT AND BALANCE SAMPLE CHECKLIST

ALL PURPOSE CHECKLIST		PAGE 1 OF 1 PAGES		
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE	
F-15C/D WEIGHT AND BALANCE SAMPLE CHECKLIST FOR WEIGHING OF A/C		18 OG/ CMAQ	20000503	
NO.	ITEM	YES	NO	N/A
	(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)			
1.	Wash aircraft.			
2.	Tow aircraft to harden shelter. (Must have Operational Shelter Doors and External Electrical Source).			
3.	Remove all external tanks and pylons.			
4.	Remove all ammo and spent cases.			
5.	Remove LOX converter.			
6.	Open radome for ballast verification.			
7.	Open panels: Upper JCS Antenna or cover panel located fwd of panel 2, Panel 2, Panel 15, 95L/R, 116R, 117L/R, 197, 139. Do not open: 116R on F-15D aircraft.			
8.	Notify QA for a Chart A inventory of aircraft. (weight and balance office 632-8547)			
9.	Defuel and depuddle aircraft, to include wing vent box drains. (Surge boxes). Note: It's best to depuddle the aircraft at least twice because of fuel settling through the foam.			
10.	Drain both ETAMS			
11.	Ensure struts are properly serviced.			
12.	Service all oil and hydraulic reservoirs to proper levels.			
13.	Assist QA with weighing of aircraft.			