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Maintenance

**AIRCRAFT TOWING, PARKING, HANGARING,
AND EMERGENCY REMOVAL**

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 aircraft towing, parking, hangaring, and emergency removal. 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: AFI 11-218, *Aircraft Operation and Movement on the Ground*, AFMAN 91-201, *Explosives Safety Standards*, AFOSH Standards, 91-66, *General Industrial Operations*, and 91-100, *Aircraft Flight Line, Ground Operations, and Activities*, and PACAFI 21-101, *Objective Wing Aircraft Maintenance*.

2. Towing:

2.1. Whistles will be the primary means of communication used by all tow members and will be the primary means of communication for an emergency stop.

2.2. Aircraft will be towed only when authorized or directed by the Maintenance Operations Center (MOC). Tow clearance will be obtained prior to the start of the actual towing operation. MOC will notify Central Security Control (CSC) when priority aircraft are towed to locations outside of the established restricted areas.

2.3. The MOC will obtain clearance from the control tower prior to authorizing aircraft to be towed onto or across taxiways and runways. MOC will request transient alert to escort any aircraft requiring runway crossing with a "Follow-Me" vehicle.

2.4. When towing of transient aircraft is beyond the personnel or equipment capability of transient alert, MOC will request assistance from other units on base. If transient alert personnel are not certified in towing a particular type of aircraft, they will request a briefing from an aircrew of the aircraft in question. The aircrew member who in turn will be the tow team supervisor.

2.5. Upon initial parking of transient B-52 and KC-10 aircraft, the crew chief will deplane and be the tow team supervisor. Applicable technical data from the aircraft "G" file will be used during ground operations.

3. Special Instructions:

3.1. The 909th Air Refueling Squadron (ARS).

3.1.1. The towing supervisor will be a 5-skill level senior airman or higher who is qualified and thoroughly familiar with the requirements and applicable guidance for the weapon system being towed. However, for towing operations in and out of aircraft hangars, the tow supervisor will be a 5-skill level staff sergeant. The towing supervisor will be in total charge and will comply with applicable checklists and job guides while directing the towing operation.

3.1.2. Upon completion of the towing operation, the tow supervisor will ensure all towing equipment is accounted for and returned to the proper location (e.g., whistles, nose door strap, checklist, etc.).

3.1.3. The tow team supervisor will obtain tow clearance from MOC prior to moving the aircraft. The flight line supervisor will assign parking locations based on landing times and ensure aircraft landing at night are parked on lighted spots as soon as possible.

3.1.4. For aircraft that are to be stopped on the taxiway and backed into the spot after flight, the tow supervisor will brief the pilot on specific brake rider duties prior to the towing operation.

3.1.5. The tow team supervisor will ensure sufficient portable lighting is available at night when revetment or parking spot lighting is not adequate to assure safety and security.

3.1.6. Towing an aircraft that does not have an operational brake system requires the approval of the squadron maintenance officer (SMO) and a 7-skill level supervisor to monitor the towing operation. The tow team must be specifically briefed on their duties and be totally familiar with towing procedures (e.g., aircraft will be towed as slow as possible, chock walkers will be used in addition to the tow team and will not perform wing or tail walker responsibilities, etc.).

3.1.7. The SMO or designated representative will personally approve towing under any adverse conditions.

3.1.8. After towing an aircraft onto an inclined spot, the tow team supervisor will ensure chocks are firmly in place before releasing aircraft parking brakes.

3.1.9. The tow supervisor will ensure hush house checklist (maintained in the old hush house office) is complete prior to entry.

3.1.10. As an annual time requirement, all tow team supervisors will complete the 2A5X0 specialty training standard program 5303, "Towing the EC/RC/KC-135 Aircraft Safely" and pass the local test on towing procedures.

3.1.11. All tow team members are responsible for stopping a towing operation in an emergency, regardless of assigned team position. If you see a problem, stop the tow and advise the tow team supervisor.

3.1.12. Aircraft being towed onto the two parking spots for the aircraft wash rack will be nosed into the spot; one aircraft from taxiway-Lima and one from taxiway-Mike.

3.2. The 961st Airborne Air Control Squadron (AACS).

- 3.2.1. For all towing activities, a towing supervisor will be a qualified 5-level or above or an individual authorized by the SMO.
- 3.2.2. The tow team supervisor will obtain tow clearance from MOC prior to moving the aircraft.
- 3.2.3. Only the SMO or designated representative may approve tows during high wind conditions, (35 knots and above), icy conditions (deployed), or when aircraft brakes are inoperative.
- 3.2.4. When hangaring an aircraft, the tow supervisor will ensure the aircraft is stopped 50 feet short of the hangar, and ensure all doors are in the full open position and the area is clear.
- 3.2.5. Hangar doors will be opened to the maximum width and height. Towing supervisor will check the doors prior to moving aircraft in or out of the hangar. Extreme caution must be exercised because of the close wing tip clearance. Aircraft movement must be slow and deliberate with alert observers in full view of the towing supervisor.
- 3.2.6. The tow supervisor will ensure there is a minimum of two feet clearance between the top of rotodome and entrance. The main landing gear struts must align with the yellow tow guidelines painted on the hangar floor. Nighttime hangaring or removal of aircraft will not occur unless a master sergeant or above is present (Hangar 3660 is exempt).
- 3.2.7. The tow supervisor will ensure all drip pans are in place when the towing operations have been completed.
- 3.2.8. Aircraft in hangars will not be required to have tow vehicle connected. However, the tow vehicle and tow bar will remain in the immediate area in case of an emergency. The sortie generation flight (SGF) production superintendent will ensure no blockage of hangar and taxiway exists in case an emergency removal is required.
- 3.2.9. Aircraft tow tractor and driver will be facing the direction of the tow at all times when hangaring or dehangaring an aircraft. The tow tractor driver and tow supervisor will be in visual and verbal contact at all times while the aircraft is being towed in or out of the hangar.

3.3. The 44th and 67th Fighter Squadrons.

3.4. Maintenance and towing supervisors will be a minimum of a 5-skill level and ensure that:

- 3.4.1. The hangaring checklist (**Attachment 1**) will be used and posted on the left side of all tactical aircraft positioned in hangars. When hardened aircraft shelters are used for typhoon preparation, normal parking, and launch and recovery situations, the use of the hangaring checklist is not required. Aircraft undergoing major maintenance repairs will require hanger checklists in hardened shelters (e.g. CANN and fuel cell maintenance, etc.). When in nose docks, use the permanent checklists mounted on walls.
- 3.4.2. When the external emergency canopy jettison pin is installed, ensure that a red "X" entry is made in the 781A indicating that the pin is installed to avoid a ground mishap.
- 3.4.3. All live munitions will be removed prior to hangaring aircraft under normal conditions.
- 3.4.4. When hangaring aircraft under other conditions (i.e., typhoons, sheltering aircraft, etc.), the following will be observed.
 - 3.4.4.1. The chaff/flare will be removed.

- 3.4.4.2. The centerline and wing impulse carts will be removed.
- 3.4.4.3. All external munitions will be secured for maintenance (i.e., cap nine).
- 3.5. The 33d Rescue Squadron (RQS). The towing supervisor will be a minimum of a 5-skill level.
 - 3.5.1. Towing authorization from MOC will not be required for helicopter tows within the throat and parking apron area adjacent to Building 3534. MOC will be notified of new aircraft location.
 - 3.5.2. When towing aircraft into hangars, the checklist in **Attachment 2** will be followed and posted on the aircraft windshield upon tow completion. Explosive cartridges will be removed prior to hangaring aircraft, if required for maintenance on particular system. **NOTE: Follow applicable HH-60 technical orders to indicate when appropriate circuit breakers should be pulled and clipped.**
 - 3.5.3. All explosives will be downloaded except for fire extinguisher cartridges and hoist cartridges in preparation for aircraft fuel cell maintenance.
 - 3.5.4. Alert aircraft at 33 RQS, Det 1 will be hangared with chaff installed.

4. Emergency Actions:

- 4.1. In the event of emergencies (such as a fire, explosion, etc.) involving or affecting aircraft, the senior maintenance person will ensure the following actions are taken:
 - 4.1.1. Activate the fire alarm system, if available, and call the fire department (Ext. 911).
 - 4.1.2. Notify MOC, MOC will initiate the emergency action check sheet and alert radio-equipped vehicles.
 - 4.1.3. Alert personnel in the affected area to the situation and initiate evacuations as necessary.
 - 4.1.4. If it becomes necessary to remove aircraft from hangars, ensure the hangar doors are opened to the maximum extent to clear wings.
 - 4.1.5. Available personnel will push smaller aircraft out of danger pending arrival of tow teams. Use chocks and/or manpower to stop aircraft if no one is in the cockpit or brakes are inoperative. Every effort should be made to have a brake rider.
 - 4.1.6. For large aircraft, a tow team will be assembled and assist as necessary.
 - 4.1.7. Traffic monitors will be posted to direct unnecessary traffic away from the immediate area, and will establish fire lanes for all emergency vehicles.
 - 4.1.8. As dictated by the situation, personnel will fight the fire until the fire department arrives. Do not jeopardize personnel safety.
- 4.2. Moving aircraft during an emergency situation is a challenging task requiring close coordination and prompt action of everyone concerned. Saving aircraft is paramount. However, personnel safety must not be compromised under any circumstances.

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

Attachment 1

SAMPLE F-15 HANGARING CHECK SHEET

ALL PURPOSE CHECKLIST		PAGE 1 OF 1 PAGES		
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE	
F-15 HANGARING CHECKSHEET FOR WASH RACK, FUEL BARN, HANGAR, NOSE DOCK, HUSH HOUSE, AND TRIM PAD		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.	All towing checklist items C/W.			
2.	Munitions downloaded as required (trainers and all explosive cartridges).			
3.	Chaff and flare downloaded. NOTE: mold line closures (MLC) required for wash rack			
4.	Gun safed (ammo downloaded for fuel cell maintenance).			
5.	Pylons and MAU-12 racks dearmed.			
6.	Cockpit safety pins installed. <ul style="list-style-type: none"> a. Emergency canopy jettison pin (D-Model 2 each). b. Canopy actuated initiator pin. c. External emergency canopy jettison handle pin required. d. Fuel dump switch guard safety cover, engine master switch, and all cockpit switches safe or as required. e. Streamers on trailing edge of both stabilators. f. Install arresting hook safety pin. g. LOX bottle removed for fuel barn. 			
7.	Landing gear door pins installed (if required).			
8.	All protective covers installed.			
9.	Chocks positioned and pinned prior to entering (nose dock).			
10.	Drip pans positioned under aircraft to catch all fluids.			
11.	Remove all items from Comm door bay.			
12.	Serviceable fire bottle(s) in place.			
13.	All variable ramp covers installed.			
14.	Aircraft grounded and chocks laced together. NOTE: *Items 2, 3, 4, 5, 6 and 13 must be completed prior to towing aircraft.			
15.	Aircraft Serial Number: _____			
16.	Towing Supervisor and Employee Number: _____			
17.	Input Time and Date: _____			

Attachment 2

SAMPLE 33 RQS HANGARING CHECK SHEET

ALL PURPOSE CHECKLIST		PAGE 1 OF 1 PAGES		
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE	
33 RQS HANGARING CHECK SHEET		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.)				
PRIOR TO TOWING AIRCRAFT TO HANGAR				
1. Check the aircraft forms for hazardous conditions.				
2. Remove pyrotechnics and ammunition from aircraft (not required for alert aircraft).				
3. Confirm tow clearance from MOC (if required).				
4. Ensure tail wheel lock pin is disengaged.				
CAUTION:				
BLADE OVERLAP MAY OCCUR WHEN TWO OR MORE HELICOPTERS ARE PARKED IN THE HANGAR. SUPERVISOR SHOULD ENSURE MAXIMUM BLADE CLEARANCE POSSIBLE.				
AFTER TOWING AIRCRAFT TO HANGAR				
1. Aircraft will be chocked and grounded.				
2. Engage tail wheel lock.				
3. Drip pans in place.				
4. Attach handling bar or leave tow bar attached.				
5. Install engine intake plugs (not required for alert aircraft).				
6. Install stabilator corner protector covers.				
7. Position fire bottle and put checklist on aircraft windshield.				
8. Aircraft Serial Number: _____				
9. Signature and Employee Number: _____				