COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

BY ORDER OF THE COMMANDER, 18TH WING (PACAF)
18TH WING INSTRUCTION 13-202
8 MARCH 2002
Space, Missile, Command and Control
FLIGHT LINE DRIVING
OPR: 18 OSS/OSAM (SMSgt Steven Hicks)
Certified by: 18 OSS/CC (Lt Col William Wignall)
Supersedes: 18 WGI 13-202, 30 September 1999
Pages: 54/Distribution: F; HQ PACAF/DOYA, 5 AF/DOO

This instruction implements Air Force Policy Directive 13-2, *Air Traffic Control, Airspace, Airfield, and Range Management*; AFI 13-213, *Airfield Management*; AFMAN 24-306, Chapter 25, *Manual for Wheeled Vehicle Driver*, and AFOSH Standard 91-100, *Aircraft Flight Line - Ground Operations and Activities*. It provides responsibilities, procedures, and flight line certification and training requirements for the safe control of vehicles and pedestrians on the airfield. This instruction applies to all wing, base, and tenant organizations authorized vehicle operation on the Kadena AB flight line to include contractor personnel and visitors. It applies to 18th Wing and associate units at Kadena AB. This publication applies to the Air National Guard or US Air Force Reserve.

SUMMARY OF REVISIONS

Added the Table of Contents, Chapter 2, Paragraph 2.3.4 changed, Chapter 3, Paragraph 3.8 changed to reflect light gun test only if getting Radio Controlled Area (RCA) certified, Chapter 4, Paragraph 4.1.18 substantially revised to better explain the RCA's of the airfield, Paragraph 4.9.5 added allowing Airfield Management to exceed the normal speed limits in performance of official duties, Paragraph 4.12.5 changed to reflect the correct operating procedures on the runways. Chapter 4, Paragraph 4.15.3 was added to give a better warning of helicopters operating on the north-side of the airfield. Chapter 5, Paragraph 5.1.8 added stating the Instrument Hold Line is the primary hold line that will not be crossed without permission from the control tower. The Instrument Hold Line is located on taxiway alpha, bravo, north-side of taxiway echo and on taxiway foxtrot. Chapter 7 substantially revised to reflect new guidance from HQ/PACAF. Attachment 1 revised to better reflect inspection criteria. Attachment 2 updated to reflect current training criteria, Attachment 5 added showing airfield markings, Attachment 6 added showing the Kadena AB Flight Line, taxiway designations, and runway designations, Attachment 7, figures 7.1 and 7.2 added showing flight line entry control points. New or revised material is indicated by an asterisk (*).

Chapter 1 – Reference **Page**

Chapter 2 - Flight Line Driving Training Program Concept and Responsibilities

Chapter 3 - Flight Line Drivers Training and Certification Procedures

Chapter 4 - Vehicle Operations on the Flight Line

Chapter 1

REFERENCE

1.1. AFI 13-213, *Airfield Management*, AFMAN 24-306, *Manual for the Wheeled Vehicle Driver*, AFOSH Standard 91-100, *Aircraft Flight Line - Ground Operations and Activities,* 18 WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification.**

Chapter 2

FLIGHT LINE DRIVING TRAINING PROGRAM CONCEPT AND RESPONSIBILITIES

2.1. Concept.

2.1.1. The 18 OSS/OSAM is the Office of Primary Responsibility for the Kadena AB Flight Line Driving Program. Airfield Management trains and certifies the unit Vehicle Control Officer (VCO) and the unit Vehicle Noncommissioned Officer (VCNCO). VCO/VCNCOs manage the unit program, train and certify additional flight line trainers if required. These trainers then train and certify unit personnel who have a requirement to drive on the flight line.

2.1.2. The goal of the flight line driving program is to create a safe driving environment. Safe operation of motor vehicles on the flight line is absolutely essential to normal aircraft and maintenance operations. Motor vehicles present a clear and definite danger, both to aircraft and ground personnel. Carelessness, haste, and disregard for established safety standards are the primary sources of aircraft-vehicle collisions and/or incidents and personnel injury with motor vehicles on the flight line.

2.1.3. The standards set in this instruction are to control all motor vehicles on the flight line. Only properly trained and certified personnel will drive on the Kadena AB flight line and will be knowledgeable of and comply with this instruction. All personnel operating a vehicle must be trained on local driving procedures and possess a valid AF Form 483, **Certificate of Competency**, endorsed for flight line driving before operating any vehicle on the airfield. This requirement applies to both military and civilian employees who are either assigned to, visiting, or on temporary duty to this base, and applies to drivers of military, commercial, and private motor vehicles.

2.1.4. Personnel acting as an escort must be authorized and certified to drive on the flight line and be fully aware of associated responsibilities.

2.2. Unit Commanders.

2.2.1. Through the VCO/VCNCO, ensure a flight line driving program is established with this and other referenced directives to meet the needs of the organization.

2.2.2. Screen and carefully select VCO/VCNCO to administer the unit flight line driving program. Ensure the VCO/VCNCO complies with all training requirements of this instruction. Provide a copy of the appointment letter to 18 OSS/OSAM. Update letter when VCO/VCNCO changes.

2.2.3. Ensure newly appointed VCO/VCNCOs contact 18 OSS/OSAM for training at least 30 days prior to assuming the duties of unit VCO/VCNCO.

2.2.4. Determine if an individual has a valid need to drive on the flight line and is emotionally, mentally, and physically able to perform these duties.

2.2.5. After the appropriate flight line driver's training has been administered, certify the individual to drive on

the Kadena AB flight line by signing Section VII, Flight Line Driving Authorization on 18 WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification** Form.

*2.2.6. Upon suspension or revocation of a unit member's USFJ 4EJ and/or AF Form 2293, **US Air Force Motor Vehicle Operator Identification Card**, suspends or revokes the member's flight line driving authorization and notifies the unit VCO/VCNCO and 18 OSS/OSAM. Upon suspension or revocation of base driving privileges, the Operations Group commander may authorize reinstatement of flight line driving privileges to perform critical mission-essential duties. Forward reinstatement requests to the Operations Group commander via memorandum in-turn to 18 OSS/OSAM.

2.3. Unit VCO/VCNCO.

2.3.1. Must be appointed in writing by the unit commander and be certified to operate a vehicle on the flight line.

2.3.2. Notify the unit commander when violations occur. Notify the unit commander and Airfield Management after revoking an individual's flight line driving privileges.

2.3.3. Develop and administer the unit's flight line driving program in accordance with this instruction.

*2.3.4. Ensure the trainee possess a valid USFJ Form 4EJ, **Operator's Permit for Civilian Vehicles** and AF Form 2293, **US Air Force Motor Vehicle Operator Identification Card**.

2.3.5. Ensure the trainee is qualified to drive the type of vehicle tasked to operate.

2.3.6. Maintain the following documentation and ensure each is current and readily available:

2.3.6.1. VCO/VCNCO appointment letter.

2.3.6.2. All training and certification documentation for all unit personnel issued an AF Form 483.

2.3.6.3. List of unit personnel with a valid flight line driver's license. The list should include name, grade, AF Form 483 certificate number, and date of issue and DEROS.

*2.3.6.4. Maintain a current listing of all unit flight line trainers.

2.3.6.5. Unit Self-Inspection Checklist (Attachment 1) and last inspection results.

2.3.7. Ensures replacement VCO/VCNCO, at no later than 30 days prior to assuming VCO/VCNCO duties, is certified to drive and manage their unit flight line driving program by 18 OSS/OSAM.

2.3.8. Conduct and document a self-assessment of the unit's flight line driving program using attachment one of this instruction at least semi-annually or when a change of VCO/VCNCO occurs.

2.4. 18 OSS/OSAM (Airfield Management).

2.4.1. Provide quality assurance over the flight line driving program and assist the unit VCO/VCNCO with their unit flight line driving program.

2.4.2. Inspect each unit's flight line driving program annually or as requested by unit commanders. Inspection will focus on program integrity, compliance, and support. Results will be briefed at the Airfield Operations Board (AOB).

2.4.3. Enforce provisions outlined in applicable instructions, manuals, and policy letters regarding vehicle operations on the flight line and suspend or revoke flight line driving privileges as required. Notify the unit commander and VCO/VCNCO when revoking an individual's flight line driving privileges. Maintain records of all flight line driving violations.

2.4.4. Attend base and unit VCO/VCNCO meetings as required. Provide guidance on incidents that occurred on the flight line to include runway intrusions, safety violations, any changes to driving procedures, and reports of vehicle FOD. Brief unit VCO/VCNCOs on current and/or pending construction projects that will impact normal driving operations and inspection results.

2.4.5. Brief AFI 13-213 agenda items at the AOB.

2.4.6. Brief the 18th Operations Group Commander (18 OG/CC) on all runway intrusions.

2.4.7. Train newly assigned VCO/VCNCOs.

2.4.8. Write and maintain currency of the flight line driver's test. Provide copy to unit VCO/VCNCOs.

2.4.9. Provide flight line driving training information and material to unit VCO/VCNCOs as required.

2.4.10. Train, certify, and issue temporary flight line authorization to non-unit assigned individuals such as contractors working on the airfield when not directly supporting a unit with a VCO/VCNCO.

2.4.11. Establish contractor routes to and from work areas on the airfield.

2.4.12. Process requests for flight line PMV passes. Maintain records of annual and temporary flight line driving permits issued annually.

2.4.13. Periodically stop vehicles on the flight line and verify members are flight line qualified.

2.4.14. Periodically check all PMVs to ensure a valid vehicle pass is visible while on the airfield.

2.4.15. In conjunction with 18th Wing Safety (18 WG/SE), investigate and document serious flight line violations (runway intrusions).

2.4.16. Coordinate waiver requests on individuals that fail color vision requirements.

2.5. Medical Group.

2.5.1. Verify an individual's color vision by reviewing medical records or conducting a color vision screening to ensure the individual can distinguished between red, green, white, yellow, and, blue.

2.5.2. Annotate status of color vision in section II on 18 WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification.**

2.6. Contracting.

2.6.1. Inform Airfield Management on all contracts that will involve the airfield environment. Ensure routes to and from the airfield construction sites are approved by Airfield Management and published in the contract.

2.6.2. Inform Airfield Management of all pre-construction meetings involving contracts that will require driving within the airfield environment.

2.6.3. Ensure all contracts requiring access to the airfield state that contractors must contact Airfield Management for training on flight line driving procedures, and that compliance with this instruction is mandatory.

2.7. Public Affairs.

2.7.1. Inform Airfield Management of all tours that will require driving on the flight line.

2.7.2. Ensure drivers contact Airfield Management for training on proper flight line driving procedures.

2.8. Safety.

2.8.1. Coordinate with Airfield Management and unit VCO/VCNCOs to ensure a proper flight line driving program is being conducted. Conduct and document an annual review of the base flight line driving program.

2.8.2. Conduct periodic spot inspections of flight line driving violations. Provide Airfield Management a copy of any documented results.

2.9. Security Forces.

2.9.1. Inspect, as required, PMVs to ensure they have a valid flight line PMV pass. Secure any flight line PMV pass that has expired or is being used for an unauthorized purpose and escort the vehicle off the flight line. Forward the pass to Airfield Management with information pertaining to the incident.

2.9.2. Direct all civilian personnel requiring access to the airfield to Airfield Management for processing. Ensure a representative escorts delivery personnel making deliveries to airfield construction sites.

2.10. Control Tower.

2.10.1. Control vehicles operating on the airfield in accordance with FAAH 7110.65, *Air Traffic Control*, 18 WGI 13-201, *Air Traffic Control/Airfield Management*, and this instruction.

2.10.2. Immediately report violations of this instruction to Base Operations. File an AF Form 457, **USAF**

Hazard Report, or AF Form 651, **Hazardous Air Traffic Report**, as required and provide a copy to Airfield Management.

2.10.3. When unable to establish communications with personnel in the Radio Controlled Area (RCA):

2.10.3.1. Immediately notify Base Operations of the situation.

2.10.3.2. Attempt to contact the vehicle by using light gun signals.

2.10.3.3. If on the runway, raise or lower the intensity of the runway edge lights. This signal directs personnel to immediately exit the runway and establish communication with tower.

Chapter 3

FLIGHT LINE DRIVERS TRAINING AND CERTIFICATION PROCEDURES

3.1. General.

3.1.1. The unit commander through the unit VCO/VCNCO is responsible for the unit's overall training program.

3.1.2. All personnel having a requirement to drive on the Kadena AB flight line must be trained and certified in accordance with this instruction.

3.1.3. Unit VCO/VCNCOs are responsible for training personnel within their respective organizations, to include TDY personnel. Unit VCO/VCNCOs not flight line certified may contact 18 OSS/OSAM for guidance and assistance.

3.2. VCO/VCNCO Responsibilities.

3.2.1. Accomplish an initial review of each individual's driving record. The initial review will ensure the individual possesses a valid state, government, and USFJ 4EJ driver's license, the individual is qualified to operate all vehicles listed on the government driver's license, and the individual's driving privileges have not been revoked.

3.2.2. Confirm training and certification documentation on all required tasks in Section VI, Certification of Trainee on 18 WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification**.

*3.2.3. Ensure all personnel receiving an AF Form 483, Certificate of Competency, provide the Flight Line Driving Program Manager a copy of the following: 18 WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification**, Attachment 2, **Kadena AB Unit Flight Line Driving Program and Training Guide**, Attachment 4, **Documentation of Radio Controlled Area Training and Certification**, and the test score sheet from the **Flight Line Driving CBT Module**.

3.2.4. Ensure additional training is conducted and documented on personnel who fail a test or commit a violation.

3.3. Unit Flight Line Driving Trainers.

3.3.1. Unit trainers will be assigned and trained by their unit VCO/VCNCO. It is recommended that units have one trainer per every 20 flight line drivers.

3.3.2. Minimum requirements for all unit flight line driving trainers include:

3.3.2.1. Designated by their unit commander.

3.3.2.2. Have a current AF Form 483, stamped "AUTHORIZED KADENA AIR BASE FLIGHT LINE."

3.3.2.3. Are assigned duties involving driving on the flight line.

3.3.2.4. Be highly qualified and knowledgeable in all aspects involving unit operations and airfield procedures.

3.3.2.5. Remain qualified on tasks for which they train or certify others.

3.3.2.6. Conduct training in accordance with the unit's training program and this instruction.

*3.3.2.6.1. Annotate all training on the 18WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification**. Also, annotate training using Attachment 2, Kadena AB Unit Flight Line Driving Program Training Guide. Both Attachment 2 and the 18 WG Form 63 will be brought to Airfield Management for approval.

3.4. Trainees.

3.4.1. Provide feedback to trainer and VCO/VCNCO on training received.

3.4.2. Comply with requirements in this instruction.

3.4.3. Complete the Flight Line Driving CBT.

3.5. Unit Flight Line Driving Program.

3.5.1. The Unit Flight Line Driving Training Program Guide (Attachment 2) outlines the minimum training requirements for a unit flight line training program. Units may add additional training material applicable to their unit.

3.6. Prerequisites for Flight Line Drivers Training.

3.6.1. Before training an individual on flight line driving, the unit VCO/VCNCO will initiate an 18 WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification**.

3.6.2. The Unit VCO/VCNCO shall ensure the individual possesses a valid USFJ Form 4EJ, **Operator's Permits for Civilian Vehicles** and AF Form 2293, **US Air Force Motor Vehicle Operator Identification Card**. An AF Form 2293 is not required if the individual has their USFJ 4EJ stamped with GMV Authorization.

3.7. Color Vision Screening.

3.7.1. Personnel must have the color vision ability to distinguish between red, green, white, yellow, and blue.

3.7.2. The 18th Medical Group will review an individual's medical records or conduct color vision screening to ensure the individual is not color blind. Annotate color vision status in Section II on 18 WG Form 63.

3.7.3. If an individual's AFSC requires the individual not to be color blind for award of AFSC, individual's supervisor may sign off Section II.

3.7.4. Individuals who fail color vision requirements must obtain wavier approval from the Chief, Airfield Management. Per AFI 13-213, waivers to color vision requirements can only be approved for non-radio controlled areas.

3.7.4.1. Unit commanders may request a waiver, by letter, to Airfield Management. Airfield Management will coordinate requests with the unit's VCO/VCNCO, 18th Medical Group, and 18th Wing Safety. A practical driving evaluation will be conducted. Results will be annotated on the waiver request letter. If an AFSC specifies the individual can not be color blind, a waiver will be disapproved.

3.7.4.2. If approved by the Chief, Airfield Management, the individual's AF Form 483 will be stamped "AUTHORIZED KADENA AB FLIGHT LINE LIMITED ACCESS."

3.7.4.3. The approved waiver documentation must be maintained with the 18 WG Form 63.

3.8. Qualification Training.

3.8.1. As a minimum, flight line drivers training will consist of:

3.8.1.1. Reading of this instruction, 18 WGI 13-202, and AFMAN 24-306 Chapter 25, and any additional material particular to the assigned unit. Unit VCO/VCNCOs are responsible for issuing this material.

3.8.1.2. Academic Classroom Training.

*3.8.1.3. Light Gun Signal Recognition Test, if radio controlled area (RCA) access is required.

3.8.1.4. One daytime orientation tour (practical) on training items in the unit's flight line driving training program guide.

3.8.1.5. One night time orientation tour (practical) on training items in the unit's flight line driving training program guide. Night time orientation is required only for personnel who drive on the flight line during the hours of darkness. Individuals who have not received a night orientation ride will not be able to operate the vehicle at night. VCO/VCNCO will annotate "Not authorized to drive at night" on the reverse side of the AF Form 483.

3.8.1.6. Day and night check rides.

3.8.1.7. Accomplish as a minimum one practical driving evaluation to certify items in the unit flight line driving training program guide.

3.8.2. Document completed training on 18 WG Form 63. The trainee and the trainer will sign off all of the required training blocks and the date training was completed. Trainee will report to the unit VCO/VCNCO for the written flight line driving examination. Only those personnel completing all training requirements will be scheduled for testing.

3.9. Written Flight Line Driving Examination.

3.9.1. The trainee must complete all of the units flight line driving training program guide and 18 WG Form 63,

section III parts 1 thru 8 before being administered a flight line driver closed book 25 multiple question test developed by 18 OSS/OSAM.

3.9.2. VCO/VCNCOs have the option to add any questions to the test applicable to the unit.

3.9.3. When reporting to the VCO/VCNCO for testing, the trainee will hand carry the 18 WG Form 63 and the unit flight line driving training program guide. The VCO/VCNCO will ensure all training requirements are complete prior to administering the test.

3.9.4. Minimum passing score is 90% with an on the spot correction to 100%. Annotate score on 18 WG Form 63.

3.9.4.1. Pass/Fail Procedures.

3.9.4.2. Trainees who fail the examination must:

3.9.4.3. First time failures: Receive additional training by the unit VCO/VCNCO. This training will be documented on a memorandum for record and attached to the Training and Certification letter. Drivers can be rescheduled for testing upon completion of additional training but no earlier than 7 days from the failure.

3.9.4.4. Second time failures: Receive additional training by the unit VCO/VCNCO. This training will be documented on a letter from the unit commander with a justification stating the trainee is safe to conduct flight line operations. Drivers can be rescheduled for testing upon completion of additional training and the commander's endorsement letter but no earlier than 14 days from the failure.

3.9.4.5. Third time failures: Will not be granted driving privileges.

3.9.5. The written flight line test is a controlled document. VCO/VCNCOs are responsible for protecting the integrity of the test and safeguarding it against compromise.

3.10. Trainer, Trainee, and VCO/VCNCO Certification.

3.10.1. After completion of all flight line driving qualification training and written flight line driving examination, the trainer will sign section IV certifying the trainee has been fully trained on flight line driving IAW this instruction.

3.10.2. The trainee will sign section V certifying they have received training as required and are considered qualified to drive on the Kadena AB flight line.

3.10.3. The VCO/VCNCO certifies in section VI that a qualified trainer for flight line driving has trained the trainee.

***3.11. Squadron Commander or Designated Representative Authorization.** The trainee's squadron commander or designated representative certifies in section VII, Flight Line Driving Authorization, the individual has successfully completed flight line driver's training and approves flight line driving authorization.

3.12. AF Form 483, Certificate of Competency.

3.12.1. VCO/VCNCOs will complete an AF Form 483, **Certificate of Competency**. See attachment 3 on the procedures to properly fill out an AF Form 483.

3.12.2. AF Form 483 may be either typed or hand-written.

3.13. Airfield Management Approval.

*3.13.1. The 18 OSS/OSAM approves and validates Flight Line Driving Authorization in Section VIII, Airfield Management. Report to Airfield Management in the AMC Terminal, Bldg 3409, Room 109, with a completed 18 WG Form 63 and AF Form 483 (paragraph 3.12.1).

3.13.2. The 18 OSS/OSAM will verify training, testing documentation, endorse and stamp the AF Form 483 with "AUTHORIZED KADENA AIR BASE FLIGHT LINE." The overstamped AF Form 483 indicates the bearer has completed all required flight line drivers training and is authorized to drive on the Kadena AB flight line.

3.13.3. Approximately 10% or more of the applicants will be administered a random written flight line driving examination.

3.13.4. All personnel must have a valid AF Form 483 in their possession at all times while driving on the flight line.

3.13.5. Return 18 WG Form 63 to unit VCO/VCNCO for filing.

3.14. Annual Refresher Training.

3.14.1. The unit VCO/VCNCO will conduct refresher training once a year as a minimum. Annual training will include a review of this instruction, any special interest items provided by Airfield Management, and a written test.

3.14.2. Annotate refresher training on the rear of the AF Form 483 with the date and name of the individual conducting the refresher training. Unit VCO/VCNCO's will document refresher training in unit tracking logs.

3.15. Disposition of Documentation.

3.15.1. The 18 WG Form 63 is the only source document to be used for annotating flight line driver's training and certification. Units retain this document until the individual PCSs or is no longer authorized to drive on the flight line.

3.15.2. All personnel must have a valid AF Form 483 in their possession at all times while driving on the flight line.

3.15.3. Members who PCS or separate must turn their AF Form 483 into their unit VCO/VCNCO. This is to ensure the unit listing is updated. Training and Certification documentation may be given to the individual.

3.15.4. Members who lose their AF Form 483 will:

3.15.4.1. Complete a new card with their former squadron number on it. The VCO/VCNCO will complete a new AF Form 483, with a new sequence number, when an individual loses his/her AF Form 483 and the existence of a former number can not be verified.

3.15.4.2. Hand carry the new AF From 483 and original training and certification letter to 18 OSS/OSAM.

3.15.4.3. The 18 OSS/OSAM will verify training and testing documentation and endorse the new AF Form 483.

3.15.5. Members who PCA will:

3.15.5.1. Turn in their AF Form 483 to the losing unit's VCO/VCNCO.

3.15.5.2. The losing unit VCO/VCNCO will give the driver all training and certification documentation, e.g., 18 WG Form 63, color vision waivers, etc., and update their unit's list.

3.15.5.3. The driver will then turn in the training and certification documentation to the gaining VCO/VCNCO.

3.15.5.4. Gaining VCO/VCNCO will verify training and certification information, complete a new AF Form 483 with next squadron number, and update their unit's list.

3.15.5.5. The driver will report to 18 OSS/OSAM with the new AF Form 483 and the former training and certification letter. 18 OSS/OSAM will verify training and testing documentation and endorse the AF Form 483.

Chapter 4

VEHICLE OPERATIONS ON THE FLIGHT LINE

4.1. Definitions.

4.1.1. Airfield/Flight Line: The area bound by perimeter road or the perimeter fence which includes the runways, taxiways, infield, flight line, buildings, hangars, facilities, parking aprons, hardstands, and flight line ECPs.

4.1.2. Airfield Interior/Access Roads: All roads within the airfield environment not designated as a runway, taxiway, or apron.

4.1.3. Aircraft Movement Area: Runways, overruns, helipads, vertical take-off and landing (VTOL) pads, taxiways, service aprons and hardstands.

4.1.4. Aircraft Taxi Area: The portions of the airfield used by aircraft moving from the aircraft parking area to the aircraft movement area.

*4.1.5. Aircraft Landing Area: Runway 05R/23L, 05L/23R, Charlie Helipad between runway 05R/23L and taxiway Kilo on taxiway Charlie, VTOL Pad on taxiway Charlie between the runways, Echo Helipad on taxiway Echo between runway 05L/23R and taxiway Lima, and the Rescue helipad on Taxiway Charlie between runway 05L/23R.

4.1.6. Aprons: Paved areas provided for aircraft parking, servicing, unloading, and loading. Aprons for Kadena AB includes Service Aprons 1-5, *Operational Spots and Transient Ramps*.

*4.1.7. Centerline Road: Access road located in between the runways. Centerline Road is limited to those agencies requiring access to the immediate area in the performance of their official duties (e.g. Airfield Management, Airfield Lighting, Barrier Maintenance, Metnav Maintenance, Mowers, etc.).

4.1.8. Chief Servicing Supervisor (CSS): Individual responsible for controlling and monitoring all concurrent servicing operations to include cargo/baggage loading/unloading, maintenance, fuel, oxygen, and fleet servicing. Supervises the movement of equipment into and out of concurrent servicing area.

4.1.9. Circle of Safety: Within 25 feet of an aircraft.

4.1.10. Entry Control Point (ECP): Locations designated for authorized entry/egress for the flight line and restricted areas.

4.1.11. Flight Line Authorized Drivers: Personnel who have undergone flight line drivers training, approved by Airfield Management, issued an AF Form 483 or a temporary flight line driving permit, and must have unit commander directed access to the flight line for mission-essential tasks.

4.1.12. Foreign Object Damage (FOD): Used to denote any foreign object, which could cause damage to aircraft.

4.1.13. Fuel Servicing Safety Zone (FSSZ): The safety zone is the area within 15 meters (50 feet) of a pressurized fuel carrying servicing component; e.g., servicing hose, fuel nozzle, single-point receptacle (SPR), hydrant hose cart, ramp hydrant connection point, and 7.6 meters (25 feet) around aircraft fuel vent outlets. During refueling, active ignition sources such as sparks from ground support equipment or jet engines (aircraft) are prohibited from a zone around the aircraft. For additional information, see Air Force T.O. 00-25-172, *Ground Servicing of Aircraft and Static grounding/Bonding*.

4.1.14. Movable Obstacles: Moving or parked vehicles, construction equipment, AGE, fire extinguishers, aircraft chalks, maintenance stands, etc., posing a hazard to aircraft.

4.1.15. Service Aprons/Hardstands: Used for servicing, loading, unloading, and parking aircraft.

*4.1.16. Helipads: Helipads allow for a helicopter hovering, landing, and take-off. Except at facilities where helicopter runways are provided, helipads are the landing and take-off locations for helicopters.

4.1.17. Overruns: Paved portions extending outwards 1,000 feet at both ends of runway 05R/23L and on the west end of runway 05L/23R.

*4.1.18. Radio Controlled Area: Airfield areas that require two-way radio contact with the Control Tower. The area to include and between the two parallel runways (05R/23L, 05L/23R), overruns, Centerline Road, Charlie Helipad located on taxiway Charlie between taxiway Kilo and Runway 05R/23L), VTOL Pad located on taxiway Charlie in between the runways, Rescue Helipad located on taxiway Charlie between 05L/23R and taxiway Lima, Echo Helipad located at taxiway Echo between 05L/23R and taxiway Lima, and any area within 100 feet of these areas (see attachment 7).

4.1.19. Restricted Area: A legally established military zone under Air Force jurisdiction into which persons may not enter without specific authorization. Vehicles requiring access to or from restricted areas will do so only at designated entry/exit control points.

4.1.20. Runway 05R/23L: 12,100 x 200 feet.

4.1.21. Runway 05L/23R: 12,100 x 300 feet.

4.1.22. Taxiways: Pavement provided for the ground movement of aircraft. Taxiways connect the parking and maintenance areas of the airfield with the runways and provides access to hangers, docks, various parking aprons, hardstands, and pads. Taxiways for Kadena AB include: Running north-south intersecting the runways are Alpha, Bravo, Charlie, Delta, Echo, and Foxtrot. Taxiway Hotel runs North to South between Taxiway Golf and Kilo. Running west-east are Gulf, Juliet, Kilo, Lima, Mike, November, and Papa.

4.1.23. Upper Fighter Ramp (UFR): F-15 parking area.

4.1.24. Vehicles: Any mechanical device moving on the ground, including bicycles, golf carts, excluding aircraft.

4.1.24.1. General Purpose Vehicles: Vehicles 1.5 tons and less required for airfield mission support.

4.1.24.2. Government Motor Vehicle: All motorized vehicles owned by the US Government.

4.1.24.3. Parked Vehicles: Vehicles, which are unattended, where no one is sitting in the driver's seat.

4.1.24.4. Priority Vehicles: Crash or fire vehicles, ambulances, Safety, Airfield Management, and Security Forces vehicles responding to an emergency or immediate response situations which have operational priority over other vehicles.

4.1.24.5. Private Motor Vehicles (PMV): All motorized vehicles not owned by the US Government.

4.1.24.6. Special Purpose Vehicles: Vehicles designed for special requirement, such as tugs, forklifts, K-loaders, fuel trucks, and heavy equipment.

4.1.24.7. Stopped Vehicle: Not moving, with the operator in full control of the vehicle.

***4.2. Airfield Markings.**

4.2.1. Edge of stressed pavement marking: A double yellow line used to mark the edge of the pavement stressed to support aircraft. See Attachment 5.

4.2.2. Hold line: A solid yellow line adjacent to a dashed yellow line, located 100 feet from the edge of the runways, helipads, and the VTOL pad. Vehicles and aircraft must contact the control tower and obtain permission prior to proceeding beyond the hold line. See Attachment 5.

4.2.3. Instrument Landing System Hold line: These lines consist of two parallel solid yellow lines with vertical stripes and the letters "INST" stenciled on the movement surface facing the driver. Instrument hold lines are located on taxiways Alpha, Bravo, Echo, and Foxtrot. You must have permission from the tower to proceed past this line. See Attachment 5.

4.2.4. Restricted Area Boundary Markings: A solid red line used to designate restricted areas. Vehicles requiring access to or from restricted areas will do so in designated entry/exit control points (ECP). All personnel entering restricted areas must have a valid restricted area badge authorizing access to the area in question or an escort who has proper access. See Attachment 5.

4.2.5. Taxiway Centerline Marking: Solid yellow line used to designate the center of the taxiway. See Attachment 5.

4.2.6. Wingtip Clearance Line: A solid yellow line parallel to the taxiway centerline crossing hardstands and service aprons marking the minimum distance vehicles and ground equipment must be maintained from the taxiway centerline to ensure wingtip clearance for the largest aircraft allowed to taxi on the associated taxiway. In the upper fighter ramp parking area and taxiway Gulf from taxiway Echo to the northeast connector, a dashed line verses a solid yellow line is used to represent the wingtip clearance line to eliminate confusion with the taxiway centerline. See Attachment 5.

4.2.7. Taxi Lane Edge Stripes: Two broken stripes separated by a six inch wide gap. The stripes are 15 feet long with 25 foot gaps between them. This marking is used to define the limits of a designated taxi route where

the surrounding pavement is for use by aircraft.

4.2.8. Stop Bars: Single white stripe located on all vehicle access roads leading to runways and taxiways. Vehicles must stop and obtain permission from the tower before proceeding into any radio controlled area via an access road. Stop Bars are used to ensure vehicles stop and look before proceeding. See Attachment 5.

***4.3. Airfield Signs.**

4.3.1. Caution Entering Active Taxiway: White signs with black letters warning personnel they are entering an active taxiway.

4.3.2. Contact Tower: White signs with black letters and a "Do Not Enter" symbol, located adjacent to the runway hold lines, indicate the RCA boundary. See Attachment 5.

4.3.3. Controlled Area Signs: White signs with red and black letter. Used by Security Forces to designate the airfield perimeter. See Attachment 5.

4.3.4. No Unauthorized Drivers or Vehicle Signs: Brown signs with white letters located at various flight line entry access points. See Attachment 5.

***4.4. Airfield Lighting.**

4.4.1. Runway Lights: White lights located on the runway edges. These high-intensity lights run the length of the runway and identify the runway edge.

4.4.2. Taxiway Lights: Blue lights used to outline taxiways. Obtain permission from the tower before proceeding beyond the Instrument Hold Line when the blue taxiway lights are illuminated.

4.4.3. Taxiway Entrance/Exit Lights: Double blue lights used to identify entrances and exits.

4.4.4. Airfield Rotating Beacon: Green and split (double peaked) white light, located on top of the Kadena Control Tower. Beacon is on during the hours of darkness or inclement weather. This beacon can periodically be out of service.

4.4.5. Light Gun Signals: Various light signals used to control aircraft and vehicles on the airfield when communications can not be established. See Chapter 5 and Attachment 5.

4.4.5.1. Extreme caution should be used not to confuse the rotating beacon with the tower light gun signal. Tower light gun signals can be observed through the large glass windows of the tower cab.

4.5. Obstacle Criteria.

4.5.1. An obstacle is anything posing a threat to aircraft movements, e.g.; fire bottles, maintenance stands, vehicles, AGE, etc.

4.5.2. Obstacles must remain at least 1,000 feet from runway centerlines, 200 feet from taxiway centerlines,

and at least 125 feet from the edge of aprons when not directly supporting aircraft.

4.5.3. Equipment and vehicles not directly supporting aircraft must be parked or placed at the nose of the aircraft with the driver's side closest to the aircraft.

4.5.4. Equipment may be pre-staged on parking aprons or hardstands no earlier than 3 hours prior to the arrival of the aircraft it will support and removed no later than 1 hour after aircraft departure.

4.6. Authorized Vehicles.

4.6.1. Government motor vehicles in the performance of official duties.

4.6.2. Privately owned vehicles possessing a flight line PMV pass in the performance of official duties.

4.6.3. Rental vehicles utilized by deployed personnel possessing a flight line PMV pass in the performance of official duties.

4.6.4. Contractor vehicles possessing a flight line PMV pass in the performance of contracted duties.

4.6.5. Unit owned bicycles can be used on the parking aprons in the performance of assigned duties provided the operator has an AF Form 483. Tricycles will have a suitable braking device engaged when parked on the flight line. Night operation requires an operational headlamp and reflectors or reflectorized tape.

4.6.6. Golf-type carts or similar utility vehicles will follow all rules established for general and special purpose vehicles and will be equipped with forward and rear lamps if operated at night. The operator will have an AF Form 483.

4.7. Unauthorized Vehicles. Motorcycles, mopeds, and two-wheeled scooters are not authorized on the Kadena AB flight line.

4.8. Speed Limits.

4.8.1. No vehicle will be operated at a speed in excess of that deemed reasonable and prudent for existing traffic, road, and weather conditions.

4.8.2. The speed limit in the general flight line area is 24 KPH (15 MPH) for general purpose vehicles and 16 KPH (10 MPH) for special purpose vehicles.

4.8.3. The speed limit on the runway is 50 KPH (30 MPH).

4.8.4. The speed limit for all vehicles is 8 KPH (5 MPH) when:

4.8.4.1. Within 25 feet of an aircraft.

4.8.4.2. Within 50 feet of an airfield facility.

4.8.5. Aircraft, equipment, and trailer towing:

4.8.5.1. Towing speed is 8 KPH (5 MPH) for all aircraft and two or more maintenance stands.

4.8.5.2. Towing speed for one maintenance stand is 16 KPH (10 MPH).

4.8.5.3. The maximum towing speed for AGE is 24 KPH (15 MPH).

4.9. Speed Limit Exceptions.

4.9.1. Emergency response vehicles responding to an emergency may operate at any prudent speed commensurate with safety.

4.9.2. Transient alert when positioning for a "Follow Me" operation. When necessary to accommodate the optimum safe taxiing speed of aircraft, Follow Me vehicles will be permitted to exceed the normal 24 KPH/15 MPH speed limit.

4.9.3. Any time the control tower advises to "expedite" or uses the term "immediately".

4.10. FOD Control and Prevention.

4.10.1. Drivers shall not operate a vehicle on the flight line without first stopping and thoroughly checking tires for stones and other foreign objects unless the vehicle is driven over a FOD shaker.

4.10.2. General and special purpose government motor vehicles which routinely require access to the flight line will carry containers clearly marked for deposit of FOD. These containers will be securely fastened to the vehicle and will be emptied frequently.

4.10.3. Vehicle operators will make sure all the equipment carried on their vehicle is properly stored and secured before operating their vehicle on the airfield. Operators will ensure the cargo bed and the passenger compartment floor are clean to prevent debris from falling onto the airfield. Vehicles utilizing the flight line at night will carry a flashlight to accomplish the FOD check.

4.10.4. Anytime a vehicle is driven off a paved surface, the driver will remove any rocks, mud, or other foreign objects from the tires before proceeding onto the paved surface again. Immediately after returning to the paved surface from an unpaved surface, another tire check must be accomplished to ensure no FOD is left in the tires or on the paved surface.

4.10.5. Vehicle operators shall be constantly alert for and will pick up any foreign object. If the debris is too small or to abundant to be thoroughly picked up by hand, the individual will notify Base Operations (18 OSS/OSAM), Control Tower (18 OSS/OSAT), or any Aircraft Maintenance Operation Control Center. Provide location of debris so an airfield sweeper can be dispatched.

4.11. Passengers in Vehicles.

4.11.1. Vehicle drivers will ensure all passengers are seated with seat belts fastened while the vehicle is in

motion.

4.11.2. IAW AFJMAN 24-306, Manual for the Wheeled Vehicle Driver, Air Force personnel may transport personnel in the bed of 1/4- or 3/4-ton general-purpose pickup trucks if you follow these safety procedures:

4.11.2.1. Be sure vehicle is equipped with a working tailgate.

4.11.2.2. Be sure passengers are seated on the cargo deck with no portion of their bodies overhanging the vehicle sides or rear.

4.11.2.3. Do not operate the vehicle off base.

4.11.2.4. Be cautious when entering and exiting pickup trucks. Tailgates do not have to be lowered for personnel to enter and exit the cargo deck of the vehicle.

4.11.3. Passengers will remain seated while the vehicle is in motion.

4.11.4. Passengers will not ride on any part of the vehicle not intended for carrying passengers nor will they ride on any part of moving equipment not designed to carry passengers.

4.11.5. Passengers will not ride in the doorways or sit on the engine cover of metro/step vans. Rear door nets will be in place while passengers are transported with the doors open.

4.11.6. Side doors on passenger vans will be closed when the vehicle is in motion.

4.12. Vehicle Traffic.

4.12.1. When operating on the airfield, operators will follow the basic "rules of the road". Vehicles will not be driven diagonally across the parking apron or ramp but, at a 90-degree angle to the driving lanes.

4.12.2. All vehicles will stop prior to entering the flight line.

4.12.3. All vehicles will be driven in a single file left of the taxiway centerline and to the right side of stressed pavement edge markings. Vehicles will not be driven on the shoulder.

*4.12.4. All drivers will contact tower and receive permission before entering centerline road. Before entering the taxiway the driver will stop and visually check area to ensure the taxiway is clear before proceeding.

*4.12.5. When driving on the runways drive to the left of the runway centerline and to the right side of stressed pavement edge markings. When crossing the runway, proceed directly across using the most direct route possible. Airfield Management vehicles are exempt from this requirement when performing airfield inspections and checks.

4.12.6. All vehicles must approach parked aircraft with the driver's side of the vehicle toward the aircraft.

4.12.7. Do not drive between parked aircraft, unless there is a vacant aircraft parking space between them.

4.12.8. Emergency response vehicles (e.g., Airfield Management, Civil Engineering, Supervisor of Flying, Flight Safety, etc.) are exempt from normal traffic flow patterns while in the performance of official duties.

4.12.9. Before attempting a U-turn, the operator will slow the vehicle and ensure it is clear to the front, side, and rear.

4.12.10. Passing explosive-laden vehicles is prohibited.

4.13. Jet Blast Safety Requirements.

4.13.1. An aircraft with landing and/or taxi lights operating or beacon rotating indicates it is about to start engines or has engines running or is about to taxi:

4.13.1.1. Vehicles will not be operated within 25 feet to the front or 200 feet to the rear except as prescribed in the applicable aircraft instructions.

4.13.1.2. Vehicles will not be operated within 300 feet to the rear of MD-11, B-747, E-4B, C-5, C-17, KC-10, or KC-135 type aircraft when engines are running at low power settings and within 800 feet to the rear when the engines are running at high power settings.

4.13.2. Vehicles will not be operated within 100 feet of a helicopter with rotors turning.

4.14. Right of Way Priorities.

*4.14.1. Emergency response vehicles responding to an emergency. No vehicle will be driven in front of an emergency response vehicle responding to an emergency.

*4.14.2. Aircraft.

4.14.3. All other authorized vehicles.

4.14.4. Vehicles traveling north or south have the right of way over vehicles traveling east or west.

4.15. Taxiing Aircraft.

4.15.1. Except for "Follow Me" vehicles, vehicles will not be parked in front of or driven into the path of taxiing aircraft. No vehicles will be driven between a taxiing aircraft and its Follow Me guide.

4.15.2. All vehicles, except those responding to an emergency, must yield to taxiing aircraft. Vehicles will be driven on a paved surface by the shortest route. Only as a last resort will the vehicle be driven off the paved surface to ensure adequate clearances for aircraft. Minimum wing tip clearance is 25 feet.

*4.15.3. When approaching an aircraft at night, headlights will be immediately turned off so the pilot's night vision is not affected. The vehicle parking lights or emergency flashers will be turned on so its position will be known. The headlights on the vehicle will remain off until the aircraft is out of range. Headlights will be turned ON prior to putting the vehicle in motion. **NOTE:** Vehicles equipped with daytime running lights will park in a

safe location with ignition off, parking brake set, and emergency flashers on.

WARNING: Helicopters may not be readily visible to vehicle drivers. Numerous near-miss incidents have occurred between vehicles and HH-60 helicopters that routinely operate on C Taxiway between building 3534 and runway 5L/23R. When crossing C Taxiway, extra care must be taken to scan for taxiing helicopters. They are relatively smaller and less noisy than other aircraft operating on Kadena AB. At night, the only conspicuous feature of the helicopter is its white landing light as it approaches. Helicopters can taxi either on the ground or while hovering at 10 feet. Because of the large number of near-misses between helicopters and flight line vehicles, Stop Bars have been painted where M, N and P Taxiways intersect C Taxiway. When stopping at these intersections, ensure you carefully scan for taxiing helicopters.

4.16. Vehicle Parking Procedures.

4.16.1. Vehicles will not be left unattended on runways, helipads, or taxiways.

4.16.2. Vehicles may be left unattended on service aprons, ramps, and hardstands under the following conditions:

4.16.2.1. Vehicle is located beyond the wing tip clearance line toward the service apron, hardstand or ramp.

4.16.2.2. Ignition is turned off and keys left in the ignition.

4.16.2.3. The transmission is placed in park (automatic transmission) or the lowest gear (manual transmission).

4.16.2.4. Parking brake set. Vehicles not equipped with an internal braking system will have chocks placed both in front and behind one of the rear wheels. One chock will be placed between the tandem wheels of dual (tandem) axle vehicles.

4.16.2.5. The doors remain unlocked.

4.16.2.6. At night, when parked unattended, the parking lights and/or emergency flashers shall be turned on.

4.16.3. Only aircraft servicing support vehicles, which require the vehicle engine to operate as a power source for auxiliary components may be left unattended while the engine is running. The parking brake will be set, transmission placed in neutral (manual transmission) or park (automatic transmission) and the wheels chocked.

4.16.4. AGE towing vehicles may be placed in neutral and left running while the driver completes hookup operations.

4.16.5. Drivers must shut off the vehicle, set the parking brake, and place the vehicle in park or reverse if they do not drive off with the AGE equipment immediately following hookup.

4.16.6. With the exception of emergency response vehicles that must remain in operation at the scene of the emergency, no other vehicles will be left with the engine running and unattended while on the flight line. Emergency response vehicles will have the parking brake set, have the transmission in neutral or park, and the rear wheels chocked when the driver's seat is not occupied.

4.16.7. Vehicles will not be parked within 25 feet of any aircraft, except as authorized, for operations such as unloading, loading, servicing, or towing.

4.16.8. A spotter will be posted when a vehicle is backed towards an aircraft and propositioned wheel chocks will be used to prevent vehicles from striking the aircraft. The spotter will pre-brief the operator on the standard signals used.

4.16.9. Park vehicles with the driver's side toward the aircraft. Never park a vehicle toward an aircraft.

4.16.10. Vehicles parked at the side of an aircraft will be located clear of the wing tips and clearly visible to personnel in the aircraft cockpit.

4.16.11. Vehicles will not be parked/stopped directly in front of or behind an aircraft loaded with forward firing ordnance.

4.16.12. Park bicycles near the nose of parked aircraft and in plain view of personnel inside the aircraft. Position bicycles upright, using a kickstand, and parked in a position not interfering with aircraft maintenance or servicing.

4.17. Nighttime and Inclement Weather (2 mile visibility and 800 foot ceiling) Driving Conditions.

4.17.1. Headlights will be used during hours of darkness and restricted visibility (example: haze, fog, rain, etc.). Headlights will not be pointed towards a moving aircraft. Parking lights will be left on so the vehicle position will be known. This is done to preserve the aircrew's night vision while allowing them to observe your position. Headlights will be turned on prior to putting the vehicle in motion.

4.18. Circle of Safety.

4.18.1. A circular area extending 25 feet beyond the wing tips, nose, and tail of an aircraft.

4.18.2. Vehicles are prohibited within this area except when the vehicle is used to service an aircraft.

4.18.3. Never drive a vehicle under any part of an aircraft, except as authorized for operations such as loading, unloading, servicing, or towing.

4.18.4. When operating within the circle of safety, use spotters to guide the vehicle's approach to the aircraft. Place pre-positioned wheel chocks between the aircraft and approaching vehicle to keep from striking the aircraft.

4.19. Convoy and Escort Responsibilities.

4.19.1. Personnel acting as escorts must be authorized and certified to drive on the Kadena AB flight line and fully aware of associated responsibilities.

4.19.2. Brief drivers on route, speed, procedures, etc.

4.19.3. Convoys or escorts will not exceed five vehicles at one time. Fire Department and munitions convoys are exempt.

4.20. Accident/Vehicle Breakdowns.

4.20.1. In the event of an accident or vehicle breakdown on the airfield, the 18 OSS/OSAT (Control Tower), 18 SFS/SFOS (Security Forces Security Control), and 18 OSS/OSAM (Base Operations) must be notified by the fastest means possible.

4.20.2. A vehicle malfunction, preventing operations under its own power, must make every attempt not to block a taxiway. Try to move the vehicle beyond the wing tip clearance line.

4.20.3. Leave the vehicle parking lights or emergency flashers ON, if the malfunction occurs during the hours of darkness.

4.20.4. If the vehicle has two-way radio capability, make the following transmission: "All agencies BREAK, BREAK - This is (call sign) with an emergency for Base Operations, Tower, and Maintenance Operations Center." State the nature of your problem and your position on the airfield.

4.20.5. Operators of other radio-equipped vehicles (Security Forces, Civil Engineers, etc.) will contact their control center and have the information relayed to Base Operations for relay to the control tower.

4.20.6. If a vehicle is not equipped with a radio, stay with the vehicle and continue attempts to get the attention of the taxiing aircraft or other vehicle operators.

4.20.7. Emergency flashers should be on, and hood open as appropriate. Drivers will stay with the vehicle until the situation is resolved.

4.20.8. Vehicles involved in accidents shall not be moved until released by 18 WG/SE (Wing Safety), 18 OSS/OSAM (Airfield Management), and 18 SFS/SFOS (Security Forces).

4.21. Restricted Area Access.

4.21.1. Vehicle operators must have a Kadena AB issued AF Form 1199C, **USAF Restricted Area Badge** with the proper area designated to enter a restricted area. An AF Form 483 alone does not grant access into a restricted area.

4.21.2. When approaching an entry control point of a restricted area, it is the responsibility of the operator to inspect and ensure the vehicle is not transporting personnel or materials which constitute a threat to the security of the resources.

***4.22. Jogging on the Airfield**. Jogging on the airfield is prohibited.

Chapter 5

RADIO CONTROLLED AREA COMMUNICATION PROCEDURES

5.1. General.

5.1.1. Only operators certified in accordance with Chapter 6 may cross runways. Crossing the runways shall be kept to an absolute minimum. Do not cross runways for convenience. Perimeter Road shall be used to travel to the opposite side of the airfield, and Centerline Road for travel in between the runways. Crossings are limited to vehicles transporting hazardous materials, vehicles engaged in continuous operation on the airfield (Airfield Management, Transient Alert, Civil Engineers, etc.), K-loaders, tugs, responding emergency vehicles, and those vehicles designated as too large to transit perimeter road.

5.1.2. Taxiway Delta is the primary airfield crossing point. When control tower personnel are operating from their alternate location (building 3300, Fire Station 2), Taxiway Echo will be the primary crossing route.

5.1.3. The control tower is responsible for the control of vehicles crossing or operating on the runways.

5.1.4. Vehicles entering the radio controlled area must have two-way radio contact with the tower or be escorted by a vehicle, meeting this requirement. Vehicle operators shall remain in radio contact with the tower while in a radio controlled area. A vehicle with direct two-way radio contact with the control tower may escort a maximum of five non-radio equipped vehicles requiring runway crossings. Vehicle operators escorted in radio controlled areas shall remain in visual and voice contact with the escort vehicle operator and shall adhere to any escort instructions. After obtaining control tower approval for crossing, the escort vehicle will ensure all vehicles cross the runway. The escort vehicle will notify the control tower when all vehicles are beyond the established hold lines.

5.1.5. Vehicle approaching a radio controlled area will stop at the hold/instrument lines and obtain clearance prior to crossing. (see attachment 5).

5.1.6. Vehicles operating in any radio controlled area shall use all installed vehicle lighting (headlights, emergency flashers, and emergency rotating beacons) to maximize their contrast to the landing environment. Special care must be taken during periods of restricted visibility when control tower visual surveillance of the landing area is degraded.

5.1.7. Vehicles requesting to cross the runway at a specific location shall do so expeditiously after receiving the control tower's approval. Vehicles requesting access onto the runway to a specific location shall remain in the immediate vicinity of that location unless later requested and authorized by the control tower to move. Vehicles anticipating travel along the length of the runway shall advise tower upon initial request.

5.1.8. On taxiways Alpha, Bravo, the north-side of taxiway Echo, and taxiway Foxtrot, this Instrument Hold Line is the primary hold line. **You must stop at this line and request permission from the Control Tower before proceeding.** Never cross the Instrument Hold Line with out permission from the Tower.

5.2. Vehicle Communications Procedures.

5.2.1. Strict radio discipline is mandatory. No Citizen Band (CB), sarcastic, superfluous, obscene, or deceptive transmissions shall be made. Call signs shall be used at all times.

5.2.2. To eliminate miscommunications and possibly compromising safety, **it is imperative Air Traffic Control phraseology is adhered to.** Refer to Attachment 8 for authorized transmission phraseology. Under no circumstances shall the vehicle be driven onto the runway if there is any uncertainty concerning approval.

5.2.3. Vehicle operators shall look both ways for aircraft landing/departing/taxiing prior to calling the tower.

5.2.4. Normal communications to the tower will be initiated with call sign (who you are), present location (where you are), and request (what you want to do).

5.2.5. The **only** word authorizing a vehicle to operate near, enter, or cross any RCA is **"PROCEED".** The word **"PROCEED"** may be accompanied with other words or phrases.

5.2.6. **"HOLD"** will indicate disapproval of an operator's request. **"HOLD"** may be accompanied with other words or phrases; however, if this word is used, the vehicle operators will **NOT ENTER** the RCA.

5.2.7. All vehicle operators will ensure the tower uses their exact call sign. Hearing the correct location of your vehicle but the wrong call sign does not give approval for your request. For example, if your vehicle's call sign is Bearcat 10 and you are requesting access on taxiway Charlie and tower gives approval for Bearcat 01 to proceed on taxiway Charlie, you do not have approval to cross until the tower states the correct call sign, even if it appears obvious you are the only vehicle at that location.

5.2.8. Vehicle operators will repeat all instructions verbatim back to the tower prior to moving the vehicle. Due to the complexity of air traffic control, other instructions may be given. It is important vehicle operators listen carefully and repeat the instructions, as they understand them. When reporting off of a movement area, the vehicle operator will ensure a response indicating the tower understands the vehicles have exited the movement area. **NOTE:** The control tower is often busy on other frequencies and may take some time to respond. Vehicle operators should be patient and wait at least one full minute before calling again.

5.2.9. If other vehicles will accompany the vehicle requesting access to an area, the vehicle operator must say the word, "plus" and the number that will accompany, for example; "OPS 1 plus 2".

5.2.10. Never use the phrases **"CLEAR", "CLEARED", OR "CLEARANCE".** These words are used strictly by air traffic control in communication with an aircraft only.

5.3. Control Tower Light Gun Signals.

5.3.1. Light gun signals from the tower are used to control vehicle traffic on the flight line during communication outages.

5.3.2. All vehicles will have a light gun placard or decal displayed in plain view of the driver. Drivers will know and comply with the following signals:

5.3.2.1. Steady Green Light: "Proceed across"

5.3.2.2. Steady Red Light: "STOP! Vehicle will not be moved"

5.3.2.3. Flashing Red Light: "Immediately exit the runway"

5.3.2.4. Flashing White Light: "Return to starting point"

5.3.2.5. Red and Green Light: "General warning. Exercise extreme caution"

5.3.3. In the event vehicles on the runway do not respond to light gun signals, the tower will raise and lower the intensity of the runway lighting. This signal means to immediately exit the runway and establish communications with the tower.

5.3.4. Extreme caution should be used not to confuse the rotating beacon with the tower light guns signal. Tower light gun signals can be observed through the large glass windows of the tower cab.

Chapter 6

RADIO CONTROLLED AREA TRAINING AND CERTIFICATION PROCEDURES

6.1. General.

6.1.1. Unit VCO/VCNCOs are responsible for training their personnel on radio control area (RCA) crossing procedures.

6.1.2. The only individuals authorized to train personnel on RCA crossing procedures are those with "RADIO CONTROLLED AREA CERTIFIED, KADENA AIR BASE", stamped on the back of the AF Form 483. The unit commander must appoint individuals designated as flight line driving trainers in writing.

6.2. Training and Certification Procedures.

6.2.1. Prior to receiving RCA certification, operators must do the following:

6.2.1.1. Possess an AF Form 483 issued at Kadena AB.

6.2.1.2. Receive training from the unit VCO/VCNCO on RCA access and runway crossings. Training should include everything outlined in attachment 2. Training will be documented on the Documentation of Radio Controlled Area Training and Certification Form, attachment 4.

6.2.1.3. Personnel shall demonstrate proficiency to their unit trainer (Practical RCA Test).

6.2.1.4. Take a 20 question written test, administered by the unit VCO/VCNCO, developed by 18 OSS/OSAM. Test consists of nine multiple-choice questions and a blank airfield diagram that will require the location of the runways and taxiways to be marked. Passing is 90% corrected to 100%.

6.2.1.5. 18 OSS/OSAM approves and validates RCA certification. Bring an unlaminated AF Form 483 and Documentation of Radio Controlled Area Training and Certification paperwork to this office for validation and processing. The back of the AF Form 483 will be stamped "Radio Controlled Area Certified, Kadena Air Base" with a signature of an Airfield Management representative.

6.2.2. Return all certification paperwork to unit VCO/VCNCO for filing.

6.3. Disposition of Radio Controlled Area Certification.

6.3.1. Unit VCO/VCNCOs maintain the RCA and certification form until the member PCSs or is no longer authorized to drive on the flight line.

6.3.2. If member PCAs to another squadron where job duties still require access to the radio controlled area, forward document to the gaining VCO/VCNCO. The gaining VCO/VCNCO will complete a new AF Form 483 (Chapter 3.14.).

Chapter 7

FLIGHT LINE DRIVING VIOLATIONS

7.1. General.

7.1.1. All personnel qualified to drive on the flight line are responsible for identifying and reporting violations to Base Operations or Security Forces immediately.

7.1.2. Airfield Management, Safety, and Security Forces personnel (regardless of rank) have the authority to confiscate an individual's AF Form 483 pending an investigation of the violation.

7.1.3. Security Forces will issue a DD Form 1408, **Armed Forces Traffic Ticket** to any vehicle observed violating provisions of this instruction.

7.1.4. VCO/VCNCO should use violation trend data to validate the unit's training program.

7.1.5. Contractor vehicle operators violating the rules of this instruction can be banned from operating vehicles on the flight line. Replacement driver(s) will be the contractor's responsibility.

7.2. Unauthorized Runway Intrusions.

7.2.1. Definition of terms:

7.2.1.1. Controlled Movement Area (CMA) Violation: An airfield infraction caused by aircraft, vehicles or pedestrians entering the CMA without appropriate control tower approval. This definition includes runway intrusions and infractions caused by communications errors.

7.2.1.2. Runway Incursion: A CMA violation that is a result of an unauthorized entry or erroneous occupation of a runway or other surface used for takeoff and landing of aircraft, regardless of impact on aircraft safety. These incidents can be caused by aircraft, vehicles, pedestrians, or communications errors.

7.3. Incident Investigations.

7.3.1. Drivers committing a runway intrusion or a violation involving aircraft safety issues will automatically have their driving privileges suspended pending an investigation of the incident.

7.3.2. Drivers will immediately notify their supervisor and unit VCO/VCNCO.

7.3.3. Drivers are encouraged to submit a statement describing the incident to their VCO/VCNCO.

7.3.4. Airfield Management will notify applicable VCO/VCNCO, supervisor, and 18 WG/SE of the violation.

7.3.5. The Chief, Airfield Management and/or 18 WG/SE will conduct investigations by gathering data from involved agencies.

7.3.6. After the investigation, the Chief, Airfield Management will determine the corrective course of action and notify all appropriate agencies.

7.3.7. Any further action is at the discretion of the unit commander.

7.3.8. Airfield Management will maintain a record of violations for the last 12 months plus the previous calendar year.

7.3.9. Flight line violations are briefed to the 18 OG/CC at the quarterly Airfield Operations Board (AOB), and at the VCO/VCNCO meetings.

7.4. Enforcement.

7.4.1. For a runway intrusion that had an adverse affect on flight operations (arrivals, departures, etc.) units will submit an AF Form 651, **HATR**, to wing safety. Drivers committing a runway intrusion will lose their flight line driving privileges for a period of 90 days.

7.4.2. For runway intrusions and other CMA violations that did not impact aircraft operations units can submit an AF Form 457, **USAF Hazard Report**, to wing safety to document unsafe procedures, practices, or conditions. Drivers will lose their driving privileges for a period of 60 days.

7.4.3. For minor violations, such as speeding, drivers will lose their driving privileges for a minimum of 30 days.

7.4.4. Drivers who commit three violations within a 12 month period will lose their driving privileges for a minimum of 6 months.

7.5. Suspension of AF Form 483.

7.5.1. The Chief, Airfield Management will notify the individual's commander in writing of the action taken and the reason the license was revoked.

7.5.2. When an individual's AF Form 483 is revoked, turn in the AF Form 483 and 18 WG Form 63 to 18 OSS/OSAM.

7.5.3. Individuals losing their flight line driving privileges must be completely retrained and recertified in accordance with this instruction.

7.5.4. If a member's AF Form 2293 or USFJ 4EJ is suspended or revoked, the unit commander will suspend or revoke the individual's AF Form 483 notifying the unit VCO/VCNCO and Chief, Airfield Management in writing.

7.5.5. Personnel having their base driving privileges suspended should refer to 18 WGI 31-204 to have their driving privileges reinstated.

Chapter 8

TDY/TAD FLIGHT LINE CERTIFICATION

8.1. General.

8.1.1. All individuals on temporary duty at Kadena AB with a valid need to operate a vehicle on the flight line must:

8.1.1.1. Possess an AF Form 483 from their home station.

8.1.1.2. Conduct a local area briefing with items unique to Kadena AB. Examples are; driving to the left of the centerline, speed limit being in kilometers, locations of helicopter pads, ect.

8.1.1.3. Take the flight line driving written test and pass it with a score of 90% or better.

8.1.1.4. Take the PACAF Flight Line Driving Computer Based Training (CBT) Module and pass it with a score of 80% or better.

8.1.1.5. Submit a memorandum to 18 OSS/OSAM stating that all TDY personnel have been briefed on Kadena AB flight line driving procedures, have taken the Kadena AB flight line drivers test, and completed the PACAF CBT module. This memorandum shall include the following: name and rank, home unit, TDY unit, and duration of TDY/TAD, and home station AF Form 483 number. Attach a copy of the CBT score sheet and a copy of the flight line drivers written test to the memorandum for each person listed on the memorandum. Bring the memorandum, CBT test score sheet, flight line test score sheet, and the home station 483 to the flight line driving office for a Kadena AB over stamp.

8.1.1.6. The unit VCO/VCNO and the unit commander must sign the memorandum.

8.2. Non-Flight Line Qualified TDY/TAD Personnel.

8.2.1. Non-Flight Line Qualified personnel that are TDY/TAD to Kadena AB must complete the entire flight line drivers training course as outlined in Chapter 3, Flight Line Drivers Training and Certification Procedures.

Chapter 9

TEMPORARY FLIGHT LINE DRIVING PERMITS

9.1. Permits. Temporary flight line driving permits are issued to personnel requiring temporary access to the flight line such as contractors, DV tour buses, and to Air Force, Army, Navy, and Marine Corps personnel not stationed at Kadena Air Base.

9.2. Training and Certification Procedures.

9.2.1. Personnel required to operate a vehicle on the flight line will obtain a driving orientation briefing on this regulation, the airfield, and driving hazards prior to obtaining temporary flight line driving permits. The host unit VCO/VCNCO and/or 18 OSS/OSAM will conduct this briefing. Contact the respective unit VCO/VCNCO and/or 18 OSS/OSAM to schedule an appointment.

9.2.2. After personnel obtain the flight line driving orientation briefing, 18 OSS/OSAM will issue temporary flight line driving permits. Personnel shall only utilize routes to and from work areas that have been approved by 18 OSS/OSAM. Vehicles will be operated in approved areas only and in conjunction with official duties.

9.2.3. Contract administrators or project officers will notify 18 OSS/OSAM of any changes. Return temporary flight line driving permits to 18 OSS/OSAM when work is complete.

Chapter 10

PRIVATE MOTOR VEHICLE (PMV) FLIGHT LINE PASSES

10.1. General.

10.1.1. Annual flight line PMV passes are issued to drivers requiring access to specific areas of the flight line in a PMV.

10.1.2. Annual flight line PMV passes are limited to commanders, deputy commanders, operations officers, and chief of maintenance of units directly supporting the flight line. Any request for additional passes will be submitted through the Chief, Airfield Management to the 18th Operations Support Squadron Commander for approval or disapproval. IAW AFI 13-213, PMV passes must be restricted to an absolute minimum.

10.1.3. Airfield Management will maintain control of all PMV passes and will change the design of all PMV passes yearly to ensure integrity.

10.2. Requirements.

10.2.1. To obtain authorization to drive a PMV on the flight line the following is required:

10.2.1.1. Possess a valid AF Form 483 and current USFJ Form 4EJ; **Operators Permit for Civilian Vehicles.**

10.2.1.2. Submit a request to 18 OSS/OSAM through the unit VCO/VCNCO signed by the unit commander. Memorandum must contain drivers name, organization, office symbol, duty title, DEROS, AF Form 483 number, complete license plate number (XX Y XX-XX), vehicle description (make, model, color, and year), areas of operation, and justification. Also include in the letter a statement saying that the person requesting the PMV pass has received improvised explosive device identification and vehicle search training.

10.2.1.3. If approved by the 18 OSS/CC, 18 OSS/OSAM will issue the operator a PMV pass. Each pass will bear a signature of an Airfield Management representative. The Chief and Deputy Chief, Airfield Management, the Flight Line Driving Program Manager, or a designated Airfield Management representative are the only individuals authorized to sign the annual flight line PMV pass. The pass will be displayed on the driver's side of the windshield at all times while operating a PMV on the flight line. PMVs not displaying a placard will be ticketed and escorted or towed off the flight line by 18 OSS/OSAM, Security Forces, and/or Transportation. Passes will be returned to 18 OSS/OSAM when member is scheduled to PCS or PCA.

10.2.1.4. The annual flight line PMV pass expires at the end of the calendar year, upon the operators DEROS, or when the operator's duties no longer requires access, whichever comes first.

10.2.1.5. PMV operators are subject to all provisions outlined in this instruction.

10.2.1.6. The license plate number on the vehicle must correspond with the license plate number on the pass. It is non-transferable.

10.2.1.7. The vehicle is authorized only in the areas(s) designated on the pass.

10.2.1.8. The unit VCO/VCNCO will notify 18 OSS/OSAM in writing of any changes.

Chapter 11

TEMPORARY PMV FLIGHT LINE PASSES

11.1. General.

11.1.1. Temporary flight line PMV passes are issued for short-term use on the flight line, normally to contractors performing contract work on the airfield.

11.1.2. A temporary flight line PMV Pass is required regardless if a qualified escort is escorting the vehicle.

11.2. Requirements.

11.2.1. The following is required to obtain temporary authorization to drive a PMV on the flight line:

11.2.1.1. The operator must possess a valid AF Form 483, a current USFJ Form 4EJ, or a temporary Kadena AB flight line driving permit issued by 18 OSS/OSAM. Civilian contractors will need a valid driver's license.

11.2.1.2. The unit VCO/VCNCO, contractor**,** or sponsoring office will submit a request to 18 OSS/OSAM. Memorandum should include driver's name, unit/company, project and contract number, AF Form 483 or temporary Kadena AB flight line driving permit number, contract completion date, areas of operation, complete license plate number, and vehicle description (make, model, color, and year).

11.2.1.3. If approved, 18 OSS/OSAM will issue the operator a temporary PMV flight line pass. The Chief and Deputy Chief, Airfield Management, and the Flight Line Driving Program Manager are the only individuals authorized to sign the temporary PMV flight line pass. The pass will be displayed on the driver's side of the windshield at all times while operating the PMV on the flight line. PMVs not displaying a PMV placard will be ticketed and escorted off the flight line.

11.2.1.4. All PMV operators are subject to all provisions outlined in this instruction.

11.2.1.5. The license plate number on the vehicle must correspond with the license plate number on the pass. It is non-transferable.

11.2.1.6. The vehicle is authorized only in the areas(s) designated on the pass.

11.2.1.7. The contract administrator will ensure that all PMV passes are returned to 18 OSS/OSAM upon completion of the contract work on the airfield.

11.2.1.8. The contract administrator will notify 18 OSS/OSAM of any changes.

11.3. Form Prescribed. 18 WG Form 63, **Request for VCO/VCNCO and Flight Line Drivers Training and Certification.**

GARY L. NORTH, Brigadier General, USAF
Commander, 18th Wing

Attachments:
1. Kadena AB Flight Line Driving Program Unit Self Inspection Sample Checklist
2. Kadena AB Unit Flight Line Driving Program Training Guide
3. Sample AF Form 483
4. Sample Documentation of Radio Controlled Area Training and Certification
5. Airfield Markings
6. Kadena AB Airfield Diagram
7. Flight Line ECP Locations
8. Radio Controlled Area Phraseology

Attachment 1

KADENA AIR BASE FLIGHT LINE DRIVING PROGRAM
UNIT SELF-INSPECTION SAMPLE CHECKLIST

***A1.1. Instructions:** Use the following checklist as a management tool to determine the status of your unit's driving program. Your assessment should focus on program integrity, compliance, and support. As a minimum, this checklist must be completed annually or within 30 days of changing the primary VCO/VCNCO. The annual review should be completed when scheduled for the annual unit inspection conducted by Airfield Management. Units are encouraged to add any additional items particular to their unit.

*A1.1.1. Has the unit commander appointed a VCO/VCNCO?

*A1.1.2. Is a current copy of the VCO/VCNCO appointment letter on file with Airfield Management?

*A1.1.3. Is the VCO/VCNCO certified to drive on the flight line?

*A1.1.4. Is the unit commander notified when individuals commit a violation?

*A1.1.5. Does the VCO/VCNCO notify the unit commander and Airfield Management when revoking individuals driving privileges?

*A1.1.6. Does the VCO/VCNCO ensure drivers have a valid USFJ driver's license and are qualified to operate applicable vehicles?

*A1.1.7. Does the VCO/VCNCO ensure drivers have their color vision verified?

*A1.1.8. Are AF Form 483s completed correctly?

*A1.1.9. Is the VCO/VCNCO maintaining a list of all drivers issued an AF Form 483?

*A1.1.10. Does the VCO/VCNCO have training documentation on file for all drivers that have been issued an AF Form 483?

*A1.1.11. Are TDY personnel driving credentials verified?

*A1.1.12. Are TDY personnel trained on driving requirements for Kadena AB in accordance with the driving instruction?

*A1.1.13. Is TDY training documented in accordance with the driving instruction?

*A1.1.14. Has the VCO/VCNCO added unit requirements to the Flight Line Driving Program Training Guide?

*A1.1.15. Are trainees receiving academic training?

*A1.1.16. Are trainees receiving practical driving training?

*A1.1.17. Are trainees receiving at least one daytime and nighttime orientation drive?

*A1.1.18. Does the VCO/VCNCO provide unit personnel with references and materials necessary to complete training?

*A1.1.19. Are unit trainers carefully selected and appointed by letter, with a copy maintained at Airfield Management?

*A1.1.20. Are unit trainers currently assigned duties that involve flight line driving?

*A1.1.21. Are unit trainers conducting training in accordance with the units training plan?

*A1.1.22. Is training being documented on the individual Flight Line Driving Program Training Guide?

*A1.1.23. Is remedial training conducted and documented on personnel that fail a test or commit a violation?

*A1.1.24. Are trainee's providing feedback to the VCO/VCNCO on training received?

*A1.1.25. Are trainee's being scheduled for final examinations in accordance with driving instruction procedures?

*A1.1.26. Is pass and fail data used to validate the unit’s training program?

*A1.1.27. Are PMV pass requests kept to an absolute minimum necessary for mission accomplishment?

*A1.1.28. Is Airfield Management supporting requests from the unit in regards to flight line driving issues?

*A1.1.29. Do you have any suggestions for improving the Flight Line Driving Program?

Attachment 2

KADENA AB UNIT FLIGHT LINE DRIVING PROGRAM TRAINING GUIDE

Table 2.1. KADENA AB Unit Flight Line Driving Program Training Sample Guide.

Training Item	Start Date	Finish Date	Trainee Initial	Trainer Initial
Understand Trainee's Responsibilities				
Know Qualifications for Flight Line Driving				
Define Airfield/Flight Line				
Identify Runways O5R/23L & 05L/23R				
Identify/Locate Helipads				
Define Overruns				
Define Aircraft Movement Area				
Define Aircraft Taxi Area				
Define Aircraft Landing Area				
Identify Taxiways				
Identify Service Aprons & TA Ramp				
Identify Upper Fighter Ramp				
Identify Centerline and Perimeter Road				
Understand Flight Line Entry Control Points				
Understand Airfield Interior/Access Roads				
Know Restricted Area Boundaries & ECP's				
Define Radio Controlled Area				
Know direction (North, South, East, & West)				
Understand Edge of Stressed Pavement Marking				
Understand/Identify Runway Hold Line				
Understand Instrument Landing System Hold Line				
Understand/Identify Restricted Area Boundary Markings				
Identify Entering Active Taxiway Signs				
Identify Hold Position Sign Locations				
Identify Controlled Area Signs				
Identify No Unauthorized Drivers Signs				
Understand Runway Lighting				
Understand Taxiway Lights				
Understand Airfield Rotating Beacon				
Understand/Identify Tower Light Gun Signals				
Define a Movable Obstacle				
Understand Obstacle Requirements				
Define Authorized Vehicles Define Unauthorized Vehicles				
Define Speed Limits for General Flight Line Area				
Define Speed Limits Within 25 Feet of An Aircraft				
Define Speed Limits for Towing				
Understand Speed Limit Exceptions				
Understand FOD Control and Prevention				
Understand Passenger in Vehicles Rules				

Understand Vehicle Traffic Flow Rules				
Understand Jet Blast Safety Requirements				
Understand Areas of Maneuverability				
Training Item	**Start Date**	**Finish Date**	**Trainee Initial**	**Trainer Initial**
Define Right of Way Priorities				
Define an Emergency Vehicle				
Understand Yielding to Taxiing Aircraft Procedures				
Define Vehicle Parking and Chocking Requirements				
Define the Circle of Safety				
Understand Nighttime and Inclement Weather Driving Conditions (2 mile visibility and 800 foot ceiling)				
Understand Convoy and Escort Responsibilities				
Know Vehicle Breakdown and Accident Procedures				
Understand Restricted Area Access				
Understand Violation Consequences				
Understand Runway Intrusion Prevention				
*Complete the Flight Line Driving CBT Module				
RADIO CONTROLLED AREA CROSSING PROCEDURES (IF APPLICABLE)				
Know Vehicle Communications Procedures				
Understand Phraseology and Use				
Know and Locate Primary and Alternate Runway Crossing Points				
Understand Escort Procedures & Responsibilities Light Gun Recognition Test				

Attachment 3

SAMPLE AF FORM 483

CERTIFICATE OF COMPETENCY		CERTIFICATE NUMBER
NAME (LAST, FIRST, MIDDLE INITIAL)		DATE
COMMAND	INSTALLATION	
HAS SUCCESSFULLY COMPLETED THE PRESCRIBED COURSEOF INSTRUCTION AND/OR PRACTICAL TEST AS REQUIRED BY CURRENT DIRECTIVES AND IS DEEMED QUALIFIED TO PERFORM THE DUTIES OF **Leave this section blank**		
TYPED NAME, TITLE AND ORG **Leave this section**	SIGNATURE **Leave this section**	

COMPLETION INSTRUCTIONS

CERTIFICATE NUMBER: This number is issued by the unit VCO/VCNCO
NAME: Self-explanatory
DATE: Date all paperwork and testing is complete
COMMAND: Self-explanatory
INSTALLATION: Kadena AB, Okinawa Japan

Attachment 4

SAMPLE DOCUMENTATION OF RADIO CONTROLLED AREA TRAINING AND CERTIFICATION

MEMORANDUM FOR 18 OSS/OSAM

FROM: (*YOUR UNIT)*

SUBJECT: Documentation of Radio Controlled Area Training and Certification

1. Request radio controlled area certification for the following individual:

NAME/RANK:
UNIT/OFFICE SYMBOL:
DUTY PHONE:
483 #:
RADIO CONTROLLED AREA TEST SCORE:

2. Individual has received orientation on radio controlled area access procedures under supervision of a unit trainer IAW 18 WGI 13-202. Individual is not color blind and can distinguish between red/green/yellow/white/blue.

3. The above individual has been trained and certified on the following items:

Table 4.1. Documentation of Radio Controlled Area Training and Certification.

Training Item	**Date Completed**	**Trainee Signature**	**Trainer Signature**
Location of Radio Controlled Areas			
Runways, Helipads, VTOL Pad, TWYS A-F Speed Limits			
Minimum Distance to Aircraft Runway and Helipad hold lines			
Instrument Landing System hold lines Proper Use of Phraseology and Call Signs			
Improper Phraseology			
Vehicle Communications Procedures			
Primary Crossing Point			
Alternate Crossing Point			
Escort Procedures			
Runway Intrusions			
Use of Runway Lights During Radio Failure			
Complete Light Gun Recognition Test			
Brief Centerline Road			
*Light Gun Recognition Test			
Practical RCA Test			
Written RCA Test (Minimum 90% corrected 100%)			

4. Training Certification:
I certify the above trainee has been fully trained on radio controlled area access procedures.

Trainer Name and Rank _____

Signature_____ Date _____

5. Receipt of Training Statement:
I certify that I have received training on radio controlled area access procedures, and consider myself to be qualified to operate in the Kadena Air Base Radio Controlled Area.

Trainee Name and Rank _____

Signature_____ Date _____

6. Certification of Trainee:
I certify the above trainee has been trained by a qualified trainer for radio controlled area access.

VCO/VCNCO Name and Rank _____

Signature_____ Date _____

7. This memorandum will be retained on file by the unit VCO/VCNCO until the individual is reassigned.

UNIT CC Signature Block

2nd page Ind;

1st Ind, 18 OSS/OSAM, (Date), Documentation of Radio Controlled Area Training and Certificate

18 OSS/OSAM

MEMORANDUM FOR: (*YOUR UNIT)*

Approve/disapprove radio controlled area access

(Flight Line Driving Signs Here)

Attachment 5

AIRFIELD MARKINGS

Figure 5.1. Airfiled Markings.

Hold line: A solid yellow line adjacent to a dashed yellow line, located 100 feet from the edge of the runways, helipads, and the VTOL pad. Vehicles and aircraft must contact the control tower and obtain permission prior to proceeding beyond the hold line.

INSTRUMENT HOLD LINE: These lines consist of two parallel solid yellow lines with vertical stripes and the letters "INST" stenciled on the movement surface facing the driver. Instrument hold lines are located on taxiways Alpha, Bravo, Echo, and Foxtrot.

EDGE OF STRESSED PAVEMENT MARKING: A double yellow line used to mark the edge of the pavement stressed to support aircraft.

TAXIWAY CENTERLINE MARKING: Solid yellow line used to designate the center of the taxiway.

Wing Tip Clearance Line, Other Areas

A solid yellow line parallel to the taxiway centerline crossing hardstands and service aprons marking the minimum distance vehicles and ground equipment must be maintained from the taxiway centerline to ensure wingtip clearance for the largest aircraft allowed to taxi on the associated taxiway. In the upper fighter ramp parking area and taxiway Gulf from taxiway Echo to the northeast connector, a dashed line verses a solid yellow line is used to represent the wingtip clearance line to eliminate confusion with the taxiway centerline.

Wingtip Clearance Line, Upper Fighter Ramp

STOP BAR:

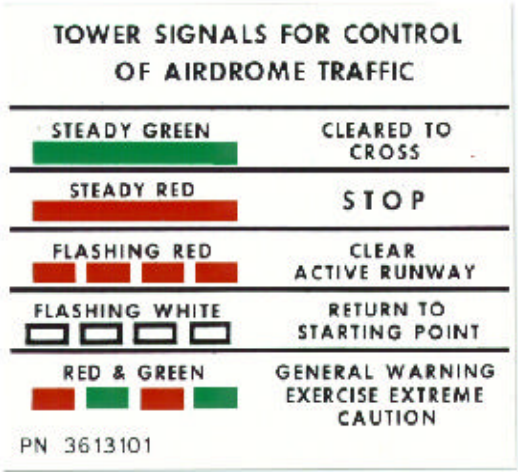
Single white stripe located on all vehicle access roads leading to runways and taxiways. Vehicles must stop and obtain permission from the tower before proceeding into any radio controlled area via an access road. Stop Bars are used to ensure vehicles stop and look before proceeding.

CONTACT TOWER: White signs with black letter. Located adjacent to the VFR hold line.

RESTRICTED AREA/ENTRY CONTROL POINT: A solid red line used to designate restricted areas. Vehicles requiring access to or from restricted areas will do so in designated entry/exit control points (ECP). All personnel entering restricted areas must have a valid restricted area badge authorizing access to the area in question or an escort who has proper access.

NO UNAUTHORIZED DRIVERS/RESTRICTED AREA SIGNS/ CONTROLLED AREA SIGNS:

Top: Denotes the Flight Line Entry Point
Middle: Denotes you are entering a controlled area.
Bottom: Denotes No Unauthorized Drivers

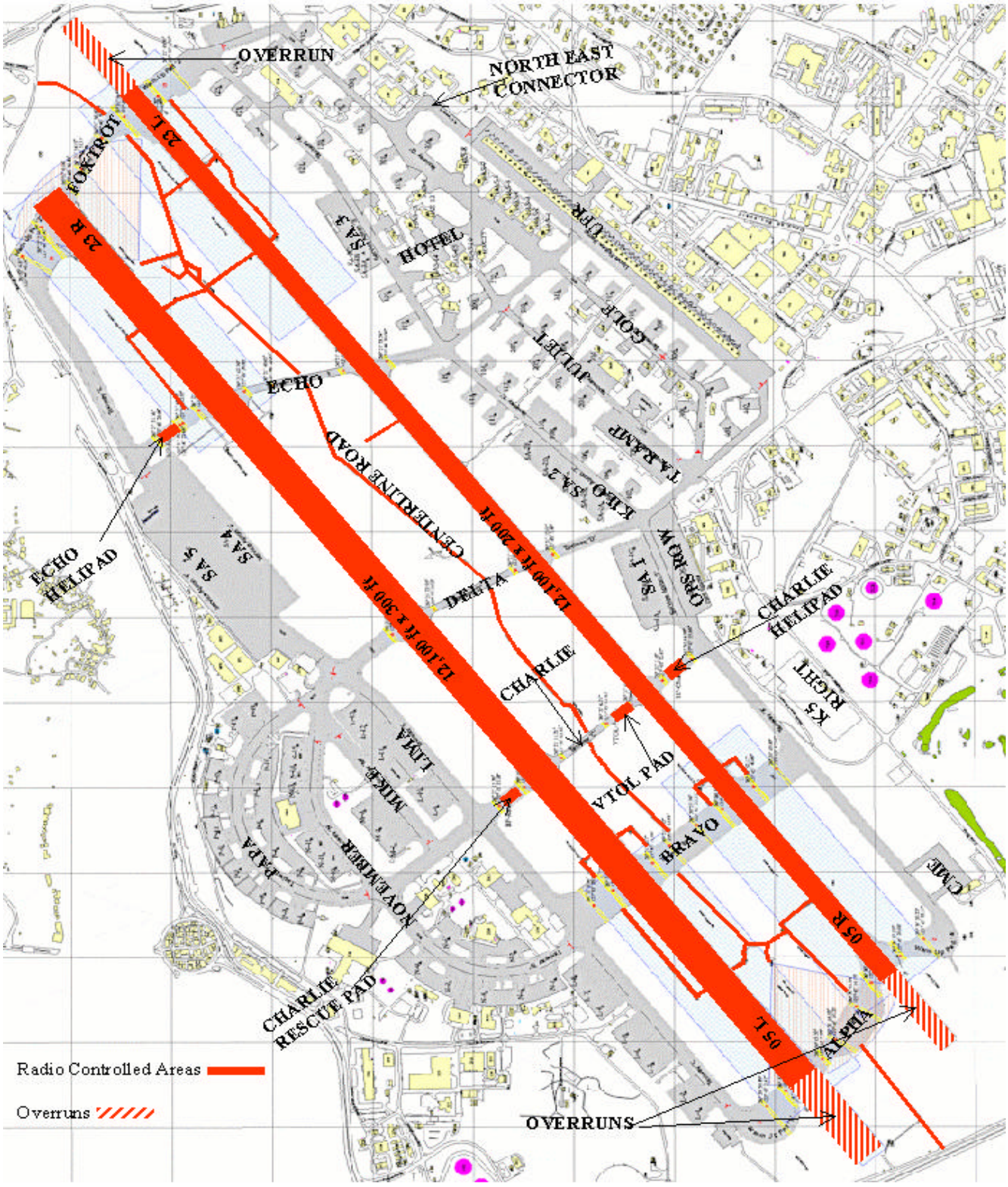


TOWER LIGHT GUN SIGNALS: Various light signals used to control aircraft and vehicles on the airfield when communications can not be established.

Attachment 6

KADENA AB AIRFIELD DIAGRAM

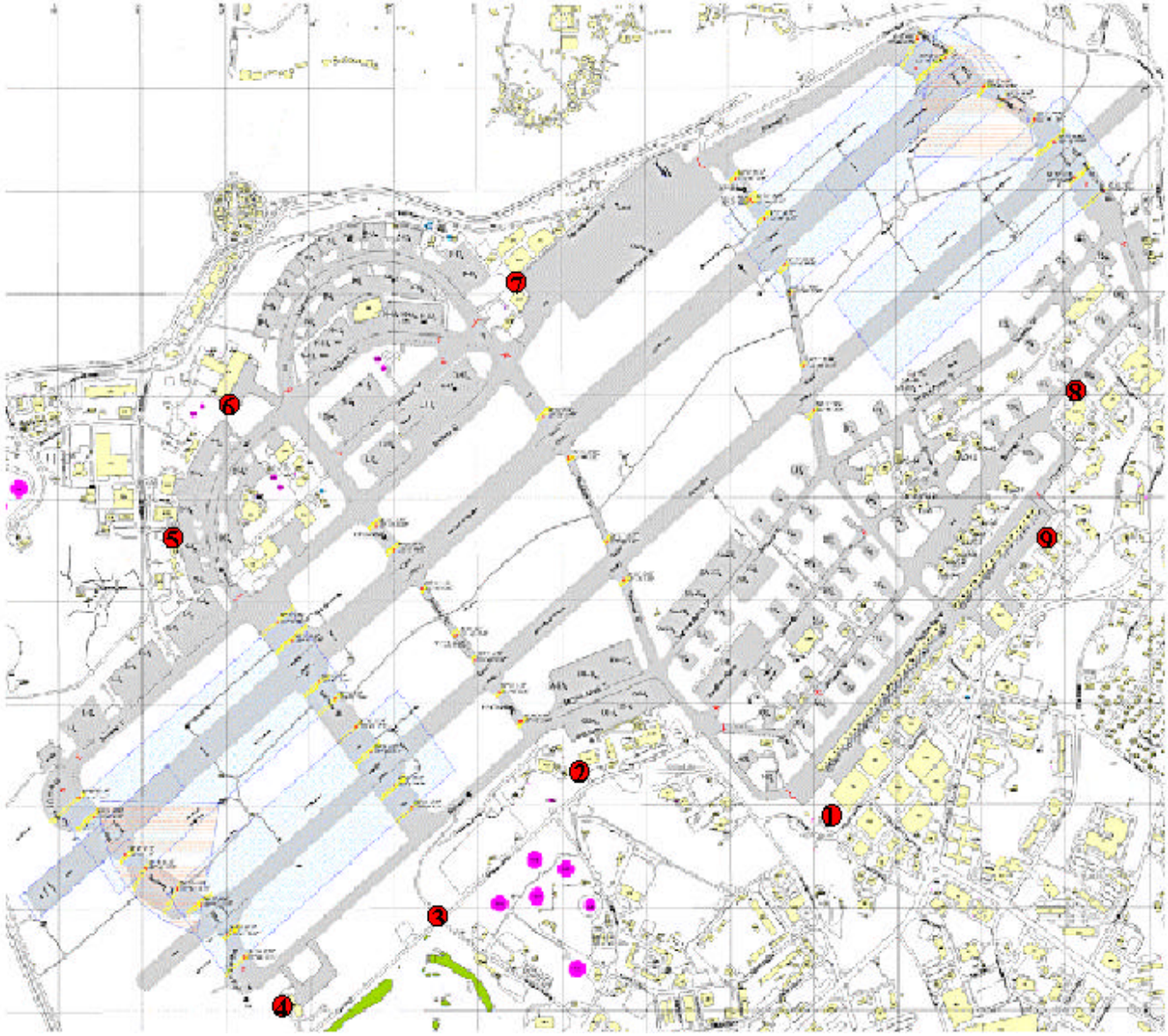
Figure 6.1. Kadena Air Base Airfield Diagram.



Attachment 7

FLIGHT LINE ECP LOCATIONS

Figure 7.1. Flight Line ECP Locations.



1. AGE Line Gate
2. AMC Cargo Yard
3. POL (Pease/McKennon Rd)
4. Bldg 3490
5. Bldg 3520
6. Bldg 3534
7. Bldg 3667
8. Bldg 3384
9. ECP 4

Attachment 8

RADIO CONTROLLED AREA (RCA) PHRASEOLOGY

A8.1. Techniques and Instructions Used on the Airfield:

A8.1.1. If you are requesting to cross the runway or access on the runway, you must state the runway crossing or access point.

A8.1.2. When requesting access on the runway, you must state the requested access point and should include destination and expected duration.

A8.1.3. Some runway crossing approvals may be issued as "without delay". This means the tower has approved your operation using minimal time on the runway. If you are crossing the runway DO NOT STOP. If you expect to use more than minimal time on the runway or you are unable to proceed "without delay", hold short and advise the controller. If the controller clears you to cross the runway before you have made your request and you need access on the runway instead of crossing, hold short and advise the controller.

A8.1.4. Any approval "up to, but not on runway" is an approval inside a 100' distance from the runway edge. This is not approval to go onto the runway or any hard surface of the runway e.g., the paved runway shoulders.

A8.1.5. The tower does not control "center-line road".

A8.1.6. During inclement weather conditions (blue taxiway lights will be on/2 mile visibility and 800 foot ceiling), do not go past the Instrument Hold Lines ("INST") or in the critical areas indicated on the airfield diagram without specific approval from the control tower. **NOTE:** This will encompass "center-line road" access points at taxiways Alpha, Bravo, and Foxtrot.

A8.1.7. If on a runway or taxiway and you observe the runway or taxiway lights flashing on and off, exit immediately and contact the tower. You may be experiencing radio difficulties and can not hear the instructions to exit the runway/taxiway.

A8.1.8. Under no circumstances shall a vehicle be driven onto the runway if there is any uncertainty concerning the approval of the request.

A8.2. Example of Initial Call to Tower:

Identify yourself and state your request or advisory.

"KADENA TOWER, BEAR-CAT EIGHT"

The Ground Controller will respond by:

"BEAR-CAT EIGHT, KADENA TOWER"

A8.3. Example of Runway or Helipad Crossing:

VEHICLE: "KADENA TOWER (STATE YOUR CALL SIGN)"

KADENA TOWER: "(CALL SIGN) KADENA TOWER"

VEHICLE: "KADENA TOWER (CALL SIGN) (TAXIWAY YOU ARE LOCATED ON OR AREA OF THE AIRFIELD YOU ARE LOCATED ON) REQUEST PERMISSION TO CROSS (LANDING SURFACES IN THE ORDER IN WHICH YOU WILL ENCOUNTER THEM)"

KADENA TOWER: WILL ADVISE THE VEHICLE TO "HOLD SHORT, LANDING OR DEPARTING TRAFFIC" OR WILL TRANSMIT CROSSING INSTRUCTIONS.

NOTE: If you are requesting to cross the runway or access on the runway, you must state the runway crossing or access point.

"BEAR-CAT EIGHT, AT BARRIER FIVE, REQUEST TO CROSS RUNWAY TWO THREE LEFT"

The controller will respond with hold, approval, or "stand by" instructions.

NOTE: If holding instructions are issued the controller may state the reason for the hold.

"BEAR-CAT EIGHT, HOLD SHORT, LANDING TRAFFIC"

or

"BEAR-CAT EIGHT, PROCEED ACROSS RUNWAY TWO THREE LEFT AT BARRIER FIVE"

or

"BEAR-CAT EIGHT, STAND BY"

A8.4. Example of Access on The Runway:

NOTE: You must state the requested access point and should include destination and expected duration on runway.

"SWEEPER SIX, REQUEST ON RUNWAY FIVE RIGHT AT ALPHA FOR APPROXIMATELY FIVE MINUTES"

or

"OPS FIVE, REQUEST ON RUNWAY TWO THREE RIGHT AT CHARLIE WITH RUNWAY TRAVEL TO TAXIWAY BRAVO"

The controller will issue an approval, hold instructions, or "stand by".

"SWEEPER SIX, PROCEED ON RUNWAY FIVE RIGHT AT ALPHA"
or

"OPS FIVE, PROCEED ONTO RUNWAY TWO THREE RIGHT AT CHARLIE TO BRAVO"

NOTE: Some approvals may be issued as "without delay". This means that you are approved for your operation using minimal time on the runway. If you are crossing the runway DO NOT STOP. If you expect to use more than minimal time on the runway or you are unable to proceed "without delay", hold short and advise the controller. If the controller clears you to cross the runway before you have made your request and you need access on the runway instead of crossing, hold short and advise the controller.

"TALON SIX ONE, PROCEED ACROSS RUNWAY FIVE RIGHT AT DELTA WITHOUT DELAY"

A8.5. Example of Access "Up To, But Not on The Runway":

NOTE: Any approval "up to, but not on runway" is an approval inside a 100' distance from the runway edge but do not go on the hard surface shoulder of the runway without specific approval from the controller.

"KILOWAT ONE NINE, PROCEED UP TO, BUT NOT ON RUNWAY FIVE LEFT AT DELTA"

A8.6. Example of Reporting Off The Runway:

"BEAR-CAT EIGHT IS OFF RUNWAY TWO THREE LEFT AT BARRIER FIVE"

"SWEEPER SIX IS OFF RUNWAY FIVE RIGHT AT ALPHA"

"OPS FIVE IS OFF RUNWAY TWO THREE RIGHT AT BRAVO"

A8.7. Example of Acknowledging Tower Instructions:

"KADENA TOWER, OPS 1 PROCEEDING ACROSS RUNWAY FIVE RIGHT AT DELTA AND WILL REPORT OFF"

NOTE: NEVER USE THE PHRASES "CLEAR", "CLEARED", OR "CLEARANCE". THESE WORDS ARE USED STRICTLY BY ATC IN COMMUNICATIONS WITH AIRCRAFT ONLY.

A8.8. Example of A Complete Request With Acknowledgement:

VEHICLE: "KADENA TOWER, OPS 5 AT TAXIWAY DELTA, REQUEST PERMISSION TO CROSS RUNWAY FIVE RIGHT"

TOWER: "OPS 5, KADENA TOWER, PROCEED CROSS RUNWAY FIVE RIGHT AT DELTA"

VEHICLE: "KADENA TOWER, OPS 5 PROCEEDING ACROSS RUNWAY FIVE RIGHT AT DELTA, WILL REPORT OFF"

VEHICLE: (WHEN OFF THE AREA) “KADENA TOWER, OPS 5 OFF RUNWAY FIVE RIGHT AT DELTA”

A8.9. Examples of Improper Phraseology:

Phrases such as; “cleared”, “clear”, “clearance”, “go-ahead”, “ok”, or “go on” should not be used by controllers and should be verified prior to proceeding with a request.

BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE OCCUPATIONAL SAFETY AND HEALTH STANDARD 91-100

1 MAY 1998

Safety

AIRCRAFT FLIGHT LINE - GROUND OPERATIONS AND ACTIVITIES

OPR: HQ AFSC/SEGS (Karen N. Kinkle)

Certified by: HQ AFSC/SEG (Colonel Robert W. Scott)

Supersedes AFOSH Standard 127-100, 30 November 1992

Pages: 83

Distribution: F

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This standard applies to all US Air Force organizations, including all US Air Force Reserve personnel and when Air National Guard personnel are on federal service. It includes general safety information applicable to aircraft ground handling, servicing, and inspections. The standard addresses safety, fire prevention, and health protection requirements associated with ground handling, servicing, inspection, and maintenance of aircraft, engine runup, and vehicle and support equipment (SE) operations on the flight line. Sources of additional or more specific guidance are shown in parenthesis throughout the standard. It does not apply to combat quick turns. Technical Order (TO) l-1-3, Inspection and Repair of Aircraft Integral Tanks and Fuel Cells, will be used for aircraft fuel cell tank repair system to include related areas and facilities. Not included are safety, fire prevention, and health requirements addressed in specific equipment TOs. This standard implements regulatory provisions of several Occupational Safety and Health Administration (OSHA) Standards and also Air Force criteria not addressed in the OSHA standards.

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Chapter 6

FLIGHT LINE VEHICLE OPERATIONS

6.1. Hazards and Human Factors. The safe operation of all government and civilian motor vehicles on the flight line is absolutely essential to normal aircraft operations and maintenance. Motor vehicles present a clear and definite danger to aircraft and ground personnel. Carelessness, haste, and disregard for established safety standards are the primary causes of high accident potential (HAP) incidents, aircraft-vehicle mishaps, and personnel injury on the flight line.

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6.3.2. Acquisition Management Division. The chief of acquisition management (contracting division) will:

6.3.2.1. Ensure contractors understand and comply with these regulations.

6.3.2.2. Inform security police and airfield management of contractors who need to operate vehicles on the flight line or may impact airfield operations.

6.3.3. Safety. The ground safety manager will:

6.3.3.1. In coordination with the airfield manager, administer briefings to temporary duty (TDY) groups (Red Flag, etc.) on base. The briefings will consist of items peculiar to the installation environment and vehicle operations. The airfield manager is responsible for briefing TDY personnel on local flight line procedures, if applicable.

6.3.3.2. Coordinate on lesson plans and tests for local flight line vehicle operations. Ensure vehicle operator briefings include all local flight line traffic rules and hazards.

6.3.3.3. Coordinate on local directives or operating instructions which establish flight line traffic flow patterns and parking plans.

6.3.4. Airfield Management. The chief of airfield management will:

6.3.4.1. Establish a program for issuing an AF Form 483, **Certificate of Competency**, endorsed for flight line driving.

6.3.4.2. Ensure appropriate training is provided to non-Air Force and contractor operators before they are allowed to drive day or night on the flight line.

6.3.4.3. Coordinate on lesson plans and tests for local flight line vehicle operations and train unit Vehicle Control Officers (VCO) and Vehicle Control Non-Commissioned Officers (VCNCO).

6.3.4.4. Develop a program to control and identify privately-owned vehicles authorized access to the flight line (AFI 13-213).

6.3.5. Squadrons and Support Organizations. Squadron and support organization commanders who have personnel authorized to operate motor vehicles on the flight line will, in compliance with local procedures:

6.3.5.1. Ensure immediate supervisors personally ascertain their vehicle operators are qualified for the type vehicle and task. Also consider physical and (or) mental problems or stress before the person is assigned the task.

6.3.5.2. Review individuals' AF Form 110, **Individual Incident Reference Record**, and AF Form 1313, **Driving Record**, (located at security police) to determine their qualifications, before permitting them to operate vehicles and (or) equipment on the flight line.

6.3.5.3. Ensure VCOs and designated flight line driving instructors give both a day and night check ride to all new operators before they are allowed to operate vehicles on the flight line. Include routes, limitations, runway and taxiway crossing, and any other local procedures for driving on the flight line in the orientation check ride.

6.3.5.4. Determine the number of squadron flight line driving instructors to be designated.

6.4. Operating Standards. The following standards will be observed at all times when vehicles are operated on the flight line. Care, attention, and strict adherence to these precautions will prevent accidental damage to aircraft and injury to personnel. Personnel who are authorized to operate motorcycles, mopeds, bicycles, or tricycles on the flight line will conform to flight line vehicle traffic standards.

6.4.1. Speed Limits. No vehicle will be operated at a speed in excess of that deemed reasonable and prudent for existing traffic, road, and weather conditions. Emergency vehicles will not automatically assume the right of way. The following speed limits are for general purpose vehicles: **NOTE:** Vehicles responding to Red Ball exercises and precautionary landings are not authorized to exceed these limits.

6.4.1.1. Vehicle Parking Areas — 5 miles per hour.

6.4.1.2. Aircraft Parking Ramp — 15 miles per hour maximum. **NOTE:** The speed limit is 5 miles per hour within 25 feet of an aircraft.

6.4.1.3. Flight Line Access or Bypass Road — 15 miles per hour as designated by installation commander.

6.4.1.4. Taxiways and Inactive Runway — as designated by installation commander based upon local conditions.

6.4.1.5. Designated Traffic Lanes on the Ramp or Taxiway in Congested Areas or Within 200 Feet of Aircraft Parking Areas — 15 miles per hour.

6.4.2. Aircraft, Equipment, and Trailer Towing:

6.4.2.1. Towing speed is 5 miles per hour for all aircraft and two or more maintenance stands. Towing speed for one maintenance stand is 10 miles per hour.

6.4.2.2. The maximum towing speed for AGE, such as compressors, ground power units, oxygen carts, and similar equipment, is 15 miles per hour. (See paragraph **8.3.4.** for additional information on AGE.)

6.4.2.3. No more than four type B1, B4, B5, and similar small stands may be towed as follows: two sets of two in tandem on a double hitch or two in tandem on a single hitch. Type B3, J7, and similar large stands will be towed singly on a center mounted hitch. Four-wheeled units will not be towed behind two-wheeled units. Large pieces of AGE, when towed in tandem, will not block the driver's vision of the last item being towed.

6.4.2.4. Safety or cotter pins will be used to secure pintle hooks and trailer hitches.

6.4.3. Flight Line Driving: (**NOTE:** Vehicle operators will not approach within 50 feet of an aircraft being towed.)

6.4.3.1. Private Motor Vehicles (PMV). The operator will possess a valid state driver's license and an AF Form 483 endorsed for flight line driving. The airfield manager will provide flight line training to contractor personnel (paragraph 6.3.4.).

6.4.3.2. Motorcycles. Motorcycles, mopeds, or scooters may be authorized to operate on the flight line. If authorized, the following provisions will apply:

6.4.3.2.1. Appropriate protective equipment as outlined in AFI 91-207 will be worn any time the motorcycle is in motion.

6.4.3.2.2. No passengers will be carried.

6.4.3.2.3. The operator will have successfully completed Course IVA or B outlined in AFI 91-207.

6.4.3.2.4. Motorcycles will be operated with headlights on at all times. If authorized to be operated on the flight line at night, mopeds and scooters will have a headlamp and reflectors front and rear.

6.4.3.3. Bicycles and Tricycles. A bicycle or tricycle operator will be knowledgeable of requirements in this chapter and local directives. The following provisions apply when bicycles or tricycles are authorized on the flight line.

6.4.3.3.1. Tricycles. When parked on the flight line, will have a suitable braking device engaged to prevent inadvertent movement.

6.4.3.3.2. Bicycles and Tricycles. For night operation, will be equipped with an operational headlamp (turned on) and reflectors or reflector tape.

6.4.3.3.3. Bicycles and Tricycles. When parked at night on the flight line, will be positioned so they will not impede the traffic flow of aircraft or motor vehicles.

6.4.3.4. Other Vehicles. If authorized to be operated on the flight line, electrical, gas, or gasoline-powered golf-type carts or similar utility vehicles will follow all rules established for all general and special purpose vehicles and will be equipped with forward and rear lamps if operated at night.

6.4.4. Entering or Leaving the Flight Line Driving Area:

6.4.4.1. All vehicles, except emergency and alert vehicles responding to an alert or emergency, will stop prior to entering the flight line regardless of where they enter.

6.4.4.2. Traffic lanes on the aircraft parking ramp are normally the areas to the right of the aircraft.

6.4.4.3. Unless prevented by local procedures, all traffic flow on the aircraft parking ramp shall be parallel to the noses of the parked aircraft with the driver's side toward the aircraft. Vehicles will not be driven diagonally across the parking ramp, but at 90-degree angles to the driving lanes.

6.4.5. Vehicle Parking:

6.4.5.1. Vehicles will not be backed or parked in the immediate vicinity (25 feet to front 200 feet to rear) of any aircraft, except as authorized for operations such as loading or unloading, servicing, or towing. A spotter will be posted when a vehicle is backed towards an aircraft. Pre-positioned wheel chocks will be used to prevent vehicles from being backed into aircraft.

6.4.5.2. The brakes on all parked vehicles will be set.

6.4.5.3. All unattended vehicles will be parked so they will not interfere with the aircraft being towed or taxied. Ignition will be turned off; keys will be left in the ignition; and the gear lever will be put in reverse gear for vehicles with manual transmissions and in the 'park' position for vehicles with automatic transmissions. All vehicles parked and left unattended will have brakes set or will have chocks placed both in front of and behind one of the rear wheels. One chock will be placed between the tandem wheels of dual (tandem) axle vehicles. The only vehicles exempt from these requirements are alert and emergency vehicles responding to an alert or emergency.

6.4.5.4. All wheeled AGE and maintenance equipment will be braked or, if not equipped with brakes, chocked.

6.4.5.5. When aircraft engines are operating or being started, no vehicle will be parked or driven closer than 25 feet in front of or 200 feet to the rear of any aircraft, except as prescribed in the applicable aircraft handbook. Vehicles parked at the side of the aircraft will be located clear of the wingtips, clearly visible to personnel in the aircraft cockpit.

6.4.6. Passengers in Vehicles:

6.4.6.1. Personnel will not ride on any part of a vehicle not intended for carrying passengers nor will they ride in or upon trailers.

6.4.6.2. Passengers will remain seated while the vehicle is in motion and will keep their arms and legs within the vehicle body.

6.4.6.3. Passengers will use available seat belts at all times while the vehicle is in motion.

6.4.6.4. Passengers will not ride in the doorways or sit on the engine cover of metro vans (also called step vans). Rear door nets will be in place while passengers are transported when the doors are open.

6.4.6.5. Side doors on passenger vans will be closed when the vehicle is in motion.

6.4.7. Restricted Visibility or Night Operations:

6.4.7.1. Flashing lights or parking lights will be used at night when vehicles are temporarily parked on any part of the aircraft parking ramp. This does not apply if vehicles are parked in a designated area.

6.4.7.2. When visibility is less than 300 feet, refueling and explosive loaded (laden) vehicles will not be operated unless directed by the wing or installation commander.

6.4.7.3. When visibility is less than 100 feet, PMVs and flight line vehicles (except emergency and alert vehicles) will not be operated on the flight line. Flashing lights will be used on all vehicles temporarily parked on the aircraft parking ramps during the periods of lowered visibility.

6.4.7.4. When visibility is less than 50 feet, it is recommended that a walking guide equipped with a flashing or luminescent wand be used during emergency movement of alert vehicles.

6.4.7.5. Vehicle operators will exercise caution to ensure headlights do not point toward taxiing aircraft or towing operations, so aircraft or tow vehicle operators are not blinded (paragraphs **6.4.9.2.**).

6.4.8. Control Tower Signs. All authorized PMV operators will have a tower signal decal (available at Base Operations) with them at all times while operating on the flight line. The tower signal decal will be displayed in plain view of the driver in all Air Force motor vehicles (AFMV). All vehicle operators will know and comply with the following signals:

6.4.8.1. Steady Green Light: “Clear to cross.”

6.4.8.2. Steady Red Light: “STOP! Vehicle will not be moved.”

6.4.8.3. Flashing Red Light: “Clear active runway.”

6.4.8.4. Flashing White Light: “Return to starting point.”

6.4.8.5. Red and Green Light: “General warning. Exercise extreme caution.” **NOTE:** During alerts and emergency conditions all non-essential personnel will withdraw to Base Operations or their Work Control Center until the emergency is terminated. The withdrawal of contractors will be at the discretion of airfield management.

6.4.9. Taxiing Aircraft:

6.4.9.1. Except for Follow Me vehicles, vehicles will not be parked in front of or driven into the path of taxiing aircraft. Vehicles will not be driven between a taxiing aircraft and its Follow Me guide.

6.4.9.2. Headlights of a stopped vehicle shining towards a moving aircraft at night will be turned off immediately so the pilot’s night vision will not be affected. The vehicle parking lights or emergency flashers will be turned on so its position will be known. The headlights of the vehicle will remain off until the aircraft is out of range. Headlights will be turned ON prior to putting the vehicle in motion. **NOTE:** Vehicles with daytime running lights will park in a safe location with ignition off, parking brake set, and emergency flashers on.

6.4.9.3. All vehicle drivers, who are operating vehicles on the taxiways and parking ramps, will give way to taxiing aircraft. Vehicles will exit the taxiways by the shortest route. Only as a last resort will the vehicle be driven off prepared surfaces to ensure adequate clearances for the aircraft.

6.4.9.4. When a vehicle has a malfunction which prevents operation under its own power, every means will be used to alert taxiing aircraft. As a minimum, the vehicle operator will:

6.4.9.4.1. Leave the vehicle parking lights or emergency flashers ON if the malfunction occurs during hours of darkness.

6.4.9.4.2. If the vehicle has two-way radio capability, make the following transmission: "All parties BREAK, BREAK- This is (call sign) with an emergency for Base Operations, Tower, and Maintenance Operations Center." State the nature of the problem and your position on the airfield.

6.4.9.4.3. Operators of other radio-equipped vehicles (security police, civil engineering, transportation, etc.) will contact their control center and have the information relayed to the Base Operations Dispatcher for relay to the tower.

6.4.9.4.4. If a vehicle is not equipped with a radio, stay with the vehicle and continue attempts to get the attention of the taxiing aircraft.

6.4.10. Follow Me Vehicles. Follow Me vehicles used for guiding aircraft will be equipped with signs, easily visible at night, reading, "Stop" and "Follow Me." They will be equipped with two-way radios for communication on control tower frequencies. When approaching the parking spot, the Follow Me vehicle operator should illuminate the "Stop" signal, move the vehicle from the intended path of aircraft travel, and position it laterally — clear of the aircraft wingtip. The marshaler, who may be the vehicle operator, will then guide the aircraft to the parking spot by use of approved marshaling signals. When necessary to accommodate the optimum safe taxiing speed of aircraft, Follow Me vehicles will be permitted to exceed the normal 15 miles per hour flight line speed limit. Tugs will not be used as Follow Me vehicles at any time. (AFJMAN 24-306)

6.4.11. FOD Prevention. When motor vehicles are operated on unpaved surfaces, rocks may become lodged between dual wheels and gravel may stick in the tire treads. When entering the ramp area or flight line, operators will stop and remove foreign materials from the tires (AFI 21-101, AFMAN 91-201, and AFJMAN 24-306).

6.4.12. Forklift Operator's Instructions Around Aircraft. The forklift is the basic piece of aircraft cargo handling equipment. It is used primarily for moving cargo to and from aircraft and for raising and lowering loads between the ground and the aircraft. Only licensed drivers will operate forklifts. Operators will never drive forklifts faster than 10 miles per hour on ramps or 5 miles per hour within 10 feet of any aircraft (AFOSH Standard 91-46, Department of Defense [DoD] 4145.19-R-1, *Storage and Materials Handling*, and AFMAN 91-201).

6.4.12.1. Maneuvering Forklifts. When maneuvering forklifts close to aircraft, a spotter will be used to assist the driver in determining safe clearances. Bumper blocks placed on ramps will be used to prevent unintentional backing into aircraft. Before lifting or lowering a load, the forklift will be brought to a complete stop. At no time will forklift drivers raise or lower a load while in motion. Forklifts will never be driven under any part of an aircraft except when the type of aircraft involved requires it. When long distances must be traveled and (or) when bulky loads are carried, the forklift will be driven in reverse to take advantage of the operator's less obstructed field of vision. The forks of parked forklifts will be lowered flat on the ground to prevent injury to personnel working or walking in the area. On parked and unattended forklifts, the operating levers will be in neutral, the ignition switched off, and the handbrake set.

6.4.12.2. Forklift Operating Procedures and Safety Practices. The checklist at **Attachment 2** will be used as a general guide for safe and efficient operation of forklifts in cargo handling.

6.4.12.3. Crating. Large unwieldy crates, which may be blown over when handled outside, will be equipped with rings for attaching tag lines. The use of tag lines makes handling safer and also provides a means of securing crates in open areas. Tag lines will be of sufficient length to permit the person holding the rope to be clear of the load (that is, to avoid standing under the load).

6.4.12.4. Stacking. Forklift drivers will not stack empty pallets higher than eye level. Pallets stacked on forklift tines higher than eye level can cause an unsteady load and become a potential source of injury or property damage. Forklift operators will have a spotter available when stacking cargo on trailers and 463L equipment if vision is obstructed.

6.4.12.5. Using Lift-Truck Forks. Forklifts will not be used to tow trailers or push other equipment unless designed by the manufacturer for that operation and tech data is followed. Forklifts shall be equipped with horns and lights, as required for safe operation, and all will be in operable condition.

6.4.12.6. Training and Licensing. Training will be according to AFI 24-301, *Vehicle Operations.*

6.4.13. Operation of Hi-Lift Trucks Around Aircraft. The operation of hi-lift trucks around aircraft differs little from forklift work in the same area. The same speed limits as prescribed in AFJMAN 24-306 will be used; 10 miles per hour on ramps and 5 miles per hour near aircraft. Like forklifts, hi-lift trucks will be operated only by licensed drivers. Hi-lift truck operators require special training, which is the responsibility of the using organization.

6.4.13.1. Areas of Maneuverability. Drivers will use extreme caution when they operate hi-lift trucks in the immediate vicinity of aircraft. As in many trucks, the driver's vision is restricted; therefore, guides will be used to assist the hi-lift operator when it is necessary to back the vehicle. The driver and guide will be able to communicate at all times. The guide will use luminous wands or flashlights to relay signals to the vehicle operator during the hours of darkness unless supplemental lighting is utilized. Signals will also be used any time the cargo bed is raised or lowered.

6.4.13.2. Cargo Bed Hydraulic System. Before the hydraulic system of the cargo bed is operated, the driver will bring the truck to a complete stop. To ensure adequate clearance, the truck will be moved at least 5 feet from the aircraft before the bed is raised or lowered.

6.4.13.3. Hi-lift Truck Operating Procedures and Safety Precautions. The checklist at **Attachment 3** will be used as a general guide for hi-lift truck operation in aircraft cargo handling.

6.4.14. Operating Hand Pallet Trucks Inside Aircraft:

6.4.14.1. These trucks are hydraulically-operated materials handling devices that can be used for moving heavy objects inside aircraft. Since the hand pallet truck does not have brakes, at least two persons will operate this piece of equipment.

6.4.14.2. When extremely heavy loads are moved inside aircraft, 1- by 12-inch shoring or equivalent protection will be used to prevent damage to floors. Care will also be taken to avoid damaging the sidewalls and ceiling of aircraft.

6.4.15. Cargo Stowing Techniques Aboard Aircraft. To avoid exceeding weight and balance limits, cargo will be loaded aboard aircraft according to pertinent aircraft loading TOs and handbooks.

6.4.16. Using Roller Pry Bars Inside Aircraft. Roller pry bars are particularly helpful in positioning heavy cargo inside aircraft. When using these bars under heavy objects, personnel will be especially careful not to exceed maximum allowable floor strengths. The checklist at **Attachment 4** will be used as a guide when using roller pry bars.

6.4.17. Floor Load. Aircraft TOs will be consulted to determine maximum allowable floor loads. When any load is expected to exceed the published limit, shoring will be used as a safety precaution.

6.4.18. Operation of K-loaders and Roller-Equipped Trailers Around the Aircraft. Operation of flatbed trailer loaders differs little from forklift work in the same area.

6.4.18.1. Areas of Maneuverability. Guides will be used to assist the operator at all times when the aircraft is approached in order to load or off-load cargo. Before operating the hydraulic system of the cargo deck, the operator will bring the loader to a complete stop, set the brakes, and place the cab transmission selector in neutral. To ensure adequate clearance, the loader will be stopped or moved to at least 5 feet from the aircraft for preliminary deck alignment by means of the hydraulic system. The operator will also maintain a 5- to 8-inch clearance between the rubber bumpers and the aircraft for further deck adjustments during on- or off-loading.

6.4.18.2. K-loader and Flatbed Trailer Operation Procedures and Safety Precautions. The checklist at **Attachment 5** will be used as a general guide for K-loader and trailer operation in aircraft cargo handling.

6.4.18.3. Storing and Warehousing of Air Cargo. The techniques of storage and warehousing of air cargo do not differ greatly from normal warehousing procedures. The same safety standards used in general warehousing also apply to air cargo (DoD 4145.19-R-1 and AFOSH Standard 91-46).

6.4.19. Tractor Operations. Tractors are used for a variety of materials handling operations, particularly where extremely heavy loads are to be moved considerable distances. Signs reading “Slow Moving Vehicle” will be displayed on these vehicles.

6.4.19.1. Passengers. Passengers will not be allowed to ride on tractors unless adequate seats are installed.

6.4.19.2. Trailers. No more than four trailers, loaded or empty, will be pulled by any tractor. To avoid jackknifing, trailer trains will be arranged with the most heavily loaded trailer next to the towing vehicle, the next heaviest second in line, and so on. **EXCEPTION:** Six trailers may be moved behind one prime mover if they are A/M-32h-6 palletized cargo trailers.

6.4.19.3. Couplings. Tractor operators will ensure couplings are secure before moving a trailer or train. Pintle assemblies and towing connections will be secured with a pintle hook safety or cotter pin that will positively lock towing connections.

6.4.19.4. Speed Limit. Small flatbed warehousing trailers and airlift palletized cargo will not be towed at speeds in excess of 5 miles per hour. Slow-moving tractor-trailer combinations, when traveling installation roads, will be kept to the extreme right. Lights will be provided on all tractor-trailer combinations when they are operated at night or during periods of low visibility.

BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE OCCUPATIONAL SAFETY AND HEALTH STANDARD 91-100

1 MAY 1998

Safety

AIRCRAFT FLIGHT LINE - GROUND OPERATIONS AND ACTIVITIES

OPR: HQ AFSC/SEGS (Karen N. Kinkle)

Certified by: HQ AFSC/SEG (Colonel Robert W. Scott)

Supersedes AFOSH Standard 127-100, 30 November 1992

Pages: 83

Distribution: F

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6.3.5.1. Ensure immediate supervisors personally ascertain their vehicle operators are qualified for the type vehicle and task. Also consider physical and (or) mental problems or stress before the person is assigned the task.

6.3.5.2. Review individuals' AF Form 110, **Individual Incident Reference Record**, and AF Form 1313, **Driving Record**, (located at security police) to determine their qualifications, before permitting them to operate vehicles and (or) equipment on the flight line.

6.3.5.3. Ensure VCOs and designated flight line driving instructors give both a day and night check ride to all new operators before they are allowed to operate vehicles on the flight line. Include routes, limitations, runway and taxiway crossing, and any other local procedures for driving on the flight line in the orientation check ride.

6.3.5.4. Determine the number of squadron flight line driving instructors to be designated.

6.4. Operating Standards. The following standards will be observed at all times when vehicles are operated on the flight line. Care, attention, and strict adherence to these precautions will prevent accidental damage to aircraft and injury to personnel. Personnel who are authorized to operate motorcycles, mopeds, bicycles, or tricycles on the flight line will conform to flight line vehicle traffic standards.

6.4.1. Speed Limits. No vehicle will be operated at a speed in excess of that deemed reasonable and prudent for existing traffic, road, and weather conditions. Emergency vehicles will not automatically assume the right of way. The following speed limits are for general purpose vehicles: **NOTE:** Vehicles responding to Red Ball exercises and precautionary landings are not authorized to exceed these limits.

6.4.1.1. Vehicle Parking Areas — 5 miles per hour.

6.4.1.2. Aircraft Parking Ramp — 15 miles per hour maximum. **NOTE:** The speed limit is 5 miles per hour within 25 feet of an aircraft.

6.4.1.3. Flight Line Access or Bypass Road — 15 miles per hour as designated by installation commander.

6.4.1.4. Taxiways and Inactive Runway — as designated by installation commander based upon local conditions.

6.4.1.5. Designated Traffic Lanes on the Ramp or Taxiway in Congested Areas or Within 200 Feet of Aircraft Parking Areas — 15 miles per hour.

6.4.2. Aircraft, Equipment, and Trailer Towing:

6.4.2.1. Towing speed is 5 miles per hour for all aircraft and two or more maintenance stands. Towing speed for one maintenance stand is 10 miles per hour.

6.4.2.2. The maximum towing speed for AGE, such as compressors, ground power units, oxygen carts, and similar equipment, is 15 miles per hour. (See paragraph **8.3.4.** for additional information on AGE.)

6.4.2.3. No more than four type B1, B4, B5, and similar small stands may be towed as follows: two sets of two in tandem on a double hitch or two in tandem on a single hitch. Type B3, J7, and similar large stands will be towed singly on a center mounted hitch. Four-wheeled units will not be towed behind two-wheeled units. Large pieces of AGE, when towed in tandem, will not block the driver's vision of the last item being towed.

6.4.2.4. Safety or cotter pins will be used to secure pintle hooks and trailer hitches.

6.4.3. Flight Line Driving: (**NOTE:** Vehicle operators will not approach within 50 feet of an aircraft being towed.)

6.4.3.1. Private Motor Vehicles (PMV). The operator will possess a valid state driver's license and an AF Form 483 endorsed for flight line driving. The airfield manager will provide flight line training to contractor personnel (paragraph 6.3.4.).

6.4.3.2. Motorcycles. Motorcycles, mopeds, or scooters may be authorized to operate on the flight line. If authorized, the following provisions will apply:

6.4.3.2.1. Appropriate protective equipment as outlined in AFI 91-207 will be worn any time the motorcycle is in motion.

6.4.3.2.2. No passengers will be carried.

6.4.3.2.3. The operator will have successfully completed Course IVA or B outlined in AFI 91-207.

6.4.3.2.4. Motorcycles will be operated with headlights on at all times. If authorized to be operated on the flight line at night, mopeds and scooters will have a headlamp and reflectors front and rear.

6.4.3.3. Bicycles and Tricycles. A bicycle or tricycle operator will be knowledgeable of requirements in this chapter and local directives. The following provisions apply when bicycles or tricycles are authorized on the flight line.

6.4.3.3.1. Tricycles. When parked on the flight line, will have a suitable braking device engaged to prevent inadvertent movement.

6.4.3.3.2. Bicycles and Tricycles. For night operation, will be equipped with an operational headlamp (turned on) and reflectors or reflector tape.

6.4.3.3.3. Bicycles and Tricycles. When parked at night on the flight line, will be positioned so they will not impede the traffic flow of aircraft or motor vehicles.

6.4.3.4. Other Vehicles. If authorized to be operated on the flight line, electrical, gas, or gasoline-powered golf-type carts or similar utility vehicles will follow all rules established for all general and special purpose vehicles and will be equipped with forward and rear lamps if operated at night.

6.4.4. Entering or Leaving the Flight Line Driving Area:

6.4.4.1. All vehicles, except emergency and alert vehicles responding to an alert or emergency, will stop prior to entering the flight line regardless of where they enter.

6.4.4.2. Traffic lanes on the aircraft parking ramp are normally the areas to the right of the aircraft.

6.4.4.3. Unless prevented by local procedures, all traffic flow on the aircraft parking ramp shall be parallel to the noses of the parked aircraft with the driver's side toward the aircraft. Vehicles will not be driven diagonally across the parking ramp, but at 90-degree angles to the driving lanes.

6.4.5. Vehicle Parking:

6.4.5.1. Vehicles will not be backed or parked in the immediate vicinity (25 feet to front 200 feet to rear) of any aircraft, except as authorized for operations such as loading or unloading, servicing, or towing. A spotter will be posted when a vehicle is backed towards an aircraft. Pre-positioned wheel chocks will be used to prevent vehicles from being backed into aircraft.

6.4.5.2. The brakes on all parked vehicles will be set.

6.4.5.3. All unattended vehicles will be parked so they will not interfere with the aircraft being towed or taxied. Ignition will be turned off; keys will be left in the ignition; and the gear lever will be put in reverse gear for vehicles with manual transmissions and in the 'park' position for vehicles with automatic transmissions. All vehicles parked and left unattended will have brakes set or will have chocks placed both in front of and behind one of the rear wheels. One chock will be placed between the tandem wheels of dual (tandem) axle vehicles. The only vehicles exempt from these requirements are alert and emergency vehicles responding to an alert or emergency.

6.4.5.4. All wheeled AGE and maintenance equipment will be braked or, if not equipped with brakes, chocked.

6.4.5.5. When aircraft engines are operating or being started, no vehicle will be parked or driven closer than 25 feet in front of or 200 feet to the rear of any aircraft, except as prescribed in the applicable aircraft handbook. Vehicles parked at the side of the aircraft will be located clear of the wingtips, clearly visible to personnel in the aircraft cockpit.

6.4.6. Passengers in Vehicles:

6.4.6.1. Personnel will not ride on any part of a vehicle not intended for carrying passengers nor will they ride in or upon trailers.

6.4.6.2. Passengers will remain seated while the vehicle is in motion and will keep their arms and legs within the vehicle body.

6.4.6.3. Passengers will use available seat belts at all times while the vehicle is in motion.

6.4.6.4. Passengers will not ride in the doorways or sit on the engine cover of metro vans (also called step vans). Rear door nets will be in place while passengers are transported when the doors are open.

6.4.6.5. Side doors on passenger vans will be closed when the vehicle is in motion.

6.4.7. Restricted Visibility or Night Operations:

6.4.7.1. Flashing lights or parking lights will be used at night when vehicles are temporarily parked on any part of the aircraft parking ramp. This does not apply if vehicles are parked in a designated area.

6.4.7.2. When visibility is less than 300 feet, refueling and explosive loaded (laden) vehicles will not be operated unless directed by the wing or installation commander.

6.4.7.3. When visibility is less than 100 feet, PMVs and flight line vehicles (except emergency and alert vehicles) will not be operated on the flight line. Flashing lights will be used on all vehicles temporarily parked on the aircraft parking ramps during the periods of lowered visibility.

6.4.7.4. When visibility is less than 50 feet, it is recommended that a walking guide equipped with a flashing or luminescent wand be used during emergency movement of alert vehicles.

6.4.7.5. Vehicle operators will exercise caution to ensure headlights do not point toward taxiing aircraft or towing operations, so aircraft or tow vehicle operators are not blinded (paragraphs **6.4.9.2.**).

6.4.8. Control Tower Signs. All authorized PMV operators will have a tower signal decal (available at Base Operations) with them at all times while operating on the flight line. The tower signal decal will be displayed in plain view of the driver in all Air Force motor vehicles (AFMV). All vehicle operators will know and comply with the following signals:

6.4.8.1. Steady Green Light: “Clear to cross.”

6.4.8.2. Steady Red Light: “STOP! Vehicle will not be moved.”

6.4.8.3. Flashing Red Light: “Clear active runway.”

6.4.8.4. Flashing White Light: “Return to starting point.”

6.4.8.5. Red and Green Light: “General warning. Exercise extreme caution.” **NOTE:** During alerts and emergency conditions all non-essential personnel will withdraw to Base Operations or their Work Control Center until the emergency is terminated. The withdrawal of contractors will be at the discretion of airfield management.

6.4.9. Taxiing Aircraft:

6.4.9.1. Except for Follow Me vehicles, vehicles will not be parked in front of or driven into the path of taxiing aircraft. Vehicles will not be driven between a taxiing aircraft and its Follow Me guide.

6.4.9.2. Headlights of a stopped vehicle shining towards a moving aircraft at night will be turned off immediately so the pilot’s night vision will not be affected. The vehicle parking lights or emergency flashers will be turned on so its position will be known. The headlights of the vehicle will remain off until the aircraft is out of range. Headlights will be turned ON prior to putting the vehicle in motion. **NOTE:** Vehicles with daytime running lights will park in a safe location with ignition off, parking brake set, and emergency flashers on.

6.4.9.3. All vehicle drivers, who are operating vehicles on the taxiways and parking ramps, will give way to taxiing aircraft. Vehicles will exit the taxiways by the shortest route. Only as a last resort will the vehicle be driven off prepared surfaces to ensure adequate clearances for the aircraft.

6.4.9.4. When a vehicle has a malfunction which prevents operation under its own power, every means will be used to alert taxiing aircraft. As a minimum, the vehicle operator will:

6.4.9.4.1. Leave the vehicle parking lights or emergency flashers ON if the malfunction occurs during hours of darkness.

6.4.9.4.2. If the vehicle has two-way radio capability, make the following transmission: "All parties BREAK, BREAK- This is (call sign) with an emergency for Base Operations, Tower, and Maintenance Operations Center." State the nature of the problem and your position on the airfield.

6.4.9.4.3. Operators of other radio-equipped vehicles (security police, civil engineering, transportation, etc.) will contact their control center and have the information relayed to the Base Operations Dispatcher for relay to the tower.

6.4.9.4.4. If a vehicle is not equipped with a radio, stay with the vehicle and continue attempts to get the attention of the taxiing aircraft.

6.4.10. Follow Me Vehicles. Follow Me vehicles used for guiding aircraft will be equipped with signs, easily visible at night, reading, "Stop" and "Follow Me." They will be equipped with two-way radios for communication on control tower frequencies. When approaching the parking spot, the Follow Me vehicle operator should illuminate the "Stop" signal, move the vehicle from the intended path of aircraft travel, and position it laterally — clear of the aircraft wingtip. The marshaler, who may be the vehicle operator, will then guide the aircraft to the parking spot by use of approved marshaling signals. When necessary to accommodate the optimum safe taxiing speed of aircraft, Follow Me vehicles will be permitted to exceed the normal 15 miles per hour flight line speed limit. Tugs will not be used as Follow Me vehicles at any time. (AFJMAN 24-306)

6.4.11. FOD Prevention. When motor vehicles are operated on unpaved surfaces, rocks may become lodged between dual wheels and gravel may stick in the tire treads. When entering the ramp area or flight line, operators will stop and remove foreign materials from the tires (AFI 21-101, AFMAN 91-201, and AFJMAN 24-306).

6.4.12. Forklift Operator's Instructions Around Aircraft. The forklift is the basic piece of aircraft cargo handling equipment. It is used primarily for moving cargo to and from aircraft and for raising and lowering loads between the ground and the aircraft. Only licensed drivers will operate forklifts. Operators will never drive forklifts faster than 10 miles per hour on ramps or 5 miles per hour within 10 feet of any aircraft (AFOSH Standard 91-46, Department of Defense [DoD] 4145.19-R-1, *Storage and Materials Handling*, and AFMAN 91-201).

6.4.12.1. Maneuvering Forklifts. When maneuvering forklifts close to aircraft, a spotter will be used to assist the driver in determining safe clearances. Bumper blocks placed on ramps will be used to prevent unintentional backing into aircraft. Before lifting or lowering a load, the forklift will be brought to a complete stop. At no time will forklift drivers raise or lower a load while in motion. Forklifts will never be driven under any part of an aircraft except when the type of aircraft involved requires it. When long distances must be traveled and (or) when bulky loads are carried, the forklift will be driven in reverse to take advantage of the operator's less obstructed field of vision. The forks of parked forklifts will be lowered flat on the ground to prevent injury to personnel working or walking in the area. On parked and unattended forklifts, the operating levers will be in neutral, the ignition switched off, and the handbrake set.

6.4.12.2. Forklift Operating Procedures and Safety Practices. The checklist at **Attachment 2** will be used as a general guide for safe and efficient operation of forklifts in cargo handling.

6.4.12.3. Crating. Large unwieldy crates, which may be blown over when handled outside, will be equipped with rings for attaching tag lines. The use of tag lines makes handling safer and also provides a means of securing crates in open areas. Tag lines will be of sufficient length to permit the person holding the rope to be clear of the load (that is, to avoid standing under the load).

6.4.12.4. Stacking. Forklift drivers will not stack empty pallets higher than eye level. Pallets stacked on forklift tines higher than eye level can cause an unsteady load and become a potential source of injury or property damage. Forklift operators will have a spotter available when stacking cargo on trailers and 463L equipment if vision is obstructed.

6.4.12.5. Using Lift-Truck Forks. Forklifts will not be used to tow trailers or push other equipment unless designed by the manufacturer for that operation and tech data is followed. Forklifts shall be equipped with horns and lights, as required for safe operation, and all will be in operable condition.

6.4.12.6. Training and Licensing. Training will be according to AFI 24-301, *Vehicle Operations.*

6.4.13. Operation of Hi-Lift Trucks Around Aircraft. The operation of hi-lift trucks around aircraft differs little from forklift work in the same area. The same speed limits as prescribed in AFJMAN 24-306 will be used; 10 miles per hour on ramps and 5 miles per hour near aircraft. Like forklifts, hi-lift trucks will be operated only by licensed drivers. Hi-lift truck operators require special training, which is the responsibility of the using organization.

6.4.13.1. Areas of Maneuverability. Drivers will use extreme caution when they operate hi-lift trucks in the immediate vicinity of aircraft. As in many trucks, the driver's vision is restricted; therefore, guides will be used to assist the hi-lift operator when it is necessary to back the vehicle. The driver and guide will be able to communicate at all times. The guide will use luminous wands or flashlights to relay signals to the vehicle operator during the hours of darkness unless supplemental lighting is utilized. Signals will also be used any time the cargo bed is raised or lowered.

6.4.13.2. Cargo Bed Hydraulic System. Before the hydraulic system of the cargo bed is operated, the driver will bring the truck to a complete stop. To ensure adequate clearance, the truck will be moved at least 5 feet from the aircraft before the bed is raised or lowered.

6.4.13.3. Hi-lift Truck Operating Procedures and Safety Precautions. The checklist at **Attachment 3** will be used as a general guide for hi-lift truck operation in aircraft cargo handling.

6.4.14. Operating Hand Pallet Trucks Inside Aircraft:

6.4.14.1. These trucks are hydraulically-operated materials handling devices that can be used for moving heavy objects inside aircraft. Since the hand pallet truck does not have brakes, at least two persons will operate this piece of equipment.

6.4.14.2. When extremely heavy loads are moved inside aircraft, 1- by 12-inch shoring or equivalent protection will be used to prevent damage to floors. Care will also be taken to avoid damaging the sidewalls and ceiling of aircraft.

6.4.15. Cargo Stowing Techniques Aboard Aircraft. To avoid exceeding weight and balance limits, cargo will be loaded aboard aircraft according to pertinent aircraft loading TOs and handbooks.

6.4.16. Using Roller Pry Bars Inside Aircraft. Roller pry bars are particularly helpful in positioning heavy cargo inside aircraft. When using these bars under heavy objects, personnel will be especially careful not to exceed maximum allowable floor strengths. The checklist at **Attachment 4** will be used as a guide when using roller pry bars.

6.4.17. Floor Load. Aircraft TOs will be consulted to determine maximum allowable floor loads. When any load is expected to exceed the published limit, shoring will be used as a safety precaution.

6.4.18. Operation of K-loaders and Roller-Equipped Trailers Around the Aircraft. Operation of flatbed trailer loaders differs little from forklift work in the same area.

6.4.18.1. Areas of Maneuverability. Guides will be used to assist the operator at all times when the aircraft is approached in order to load or off-load cargo. Before operating the hydraulic system of the cargo deck, the operator will bring the loader to a complete stop, set the brakes, and place the cab transmission selector in neutral. To ensure adequate clearance, the loader will be stopped or moved to at least 5 feet from the aircraft for preliminary deck alignment by means of the hydraulic system. The operator will also maintain a 5- to 8-inch clearance between the rubber bumpers and the aircraft for further deck adjustments during on- or off-loading.

6.4.18.2. K-loader and Flatbed Trailer Operation Procedures and Safety Precautions. The checklist at **Attachment 5** will be used as a general guide for K-loader and trailer operation in aircraft cargo handling.

6.4.18.3. Storing and Warehousing of Air Cargo. The techniques of storage and warehousing of air cargo do not differ greatly from normal warehousing procedures. The same safety standards used in general warehousing also apply to air cargo (DoD 4145.19-R-1 and AFOSH Standard 91-46).

6.4.19. Tractor Operations. Tractors are used for a variety of materials handling operations, particularly where extremely heavy loads are to be moved considerable distances. Signs reading “Slow Moving Vehicle” will be displayed on these vehicles.

6.4.19.1. Passengers. Passengers will not be allowed to ride on tractors unless adequate seats are installed.

6.4.19.2. Trailers. No more than four trailers, loaded or empty, will be pulled by any tractor. To avoid jackknifing, trailer trains will be arranged with the most heavily loaded trailer next to the towing vehicle, the next heaviest second in line, and so on. **EXCEPTION:** Six trailers may be moved behind one prime mover if they are A/M-32h-6 palletized cargo trailers.

6.4.19.3. Couplings. Tractor operators will ensure couplings are secure before moving a trailer or train. Pintle assemblies and towing connections will be secured with a pintle hook safety or cotter pin that will positively lock towing connections.

6.4.19.4. Speed Limit. Small flatbed warehousing trailers and airlift palletized cargo will not be towed at speeds in excess of 5 miles per hour. Slow-moving tractor-trailer combinations, when traveling installation roads, will be kept to the extreme right. Lights will be provided on all tractor-trailer combinations when they are operated at night or during periods of low visibility.