BY ORDER OF THE COMMANDER
51ST FIGHTER WING

51ST FIGHTER WING INSTRUCTION13-204

9 SEPTEMBER 2016

Nuclear, Space, Missile, Command and Control

AIRFIELD OPERATIONS AND LOCAL FLYING PROCEDURES

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This instruction implements Air Force Policy Directive (AFPD) 13-2, *Air Traffic, Airfield, Airspace and Range Management.* It directs procedures to be used for airfield operations activities at Osan Air Base (AB) and defines requirements and responsibilities of support agencies for services required and provided. This instruction combines various directives, which affect the entire Air Traffic Control (ATC) system at Osan AB, into one document common to all users and service agencies. The procedures and instructions are directive for all assigned base and partner units and aircrews, but are not intended to supplant good judgment in the interest of flight safety. Deviations are authorized only when directed by ATC, Airfield Management Operations (AMOPS), or in emergency situations where adherence would jeopardize safe aircraft operations. It applies to all personnel assigned to the 51st Fighter Wing (51 FW), at Osan AB. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Major changes include the addition of information and procedures for dual/simultaneous runway operations, re-

designation of barriers, and changes to Visual Flight Rules (VFR) weather minimums. Administrative changes are made throughout the document.

Chapter 1

GENERAL INFORMATION

1.1. Scope. The procedures and situations in this instruction are designed to promote safe and efficient airfield operations and flying activities within Osan's delegated airspace. Commanders of assigned, tenant, and deployed units under the operational control of the 51 FW will ensure that their personnel comply with this publication.

1.2. Administration. The 51 FW/CC is responsible for this instruction. The 51 FW/CC may issue waivers or immediate action changes to this regulation when necessary for accomplishment of normal or special mission requirements. All procedural changes affecting ATC must be forwarded to HQ PACAF/A3/6TO for review and approval before implementation IAW AFI 13-204V3, *Airfield Operations Procedures and Programs*. Send suggested changes to the Airfield Operations Flight (51 OSS/OSA), Unit 2163, APO AP 96278-2163.

1.3. Temporary Quiet Hour Procedures. Requestors shall submit quiet hour requirements for change of commands and other events/ceremonies to 51 FW/CP for coordination at least 14 days prior to requested quiet hours. 51 FW/CP will determine the level of quiet hours required (1-3; dependent upon the event/ceremony) and coordinate with wing agencies on requested quiet hour restrictions. Once the request has been approved by 51 OG/CC, restrictions will then be faxed (or emailed) to AMOPS to issue appropriate Notices to Airman (NOTAMs).

1.4. Airfield Coordination Requirements. Airfield activities (i.e., air shows, aerial demonstrations, exercises, deployments, crane operations, construction projects, etc.) must be coordinated through 51 OSS/OSA in advance to ensure proper notification and coordination with flying units and other organizations on the airfield. In accordance with AFI 13-204V3, the Airfield Operations Flight Commander (AOF/CC) must be briefed at least 48 hours in advance of any exercise or inspection that involves Airfield Operations (AO) personnel and/or facilities. The AOF/CC must approve, in advance, exercises that include removing AO personnel to alternate facilities or to shelter areas.

1.4.1. Crane Operations. AMOPS must be notified at least 5 work days in advance of any crane operation to ensure flying operations are not impacted. Sponsoring organizations, construction program managers and/or contractors must provide the crane location in latitude/longitude using the World Geodetic System 1984 (WGS84) format, elevation of the ground at the crane location in Mean Sea Level (MSL), maximum height capability of the crane, date and time the crane will be operating. All cranes must be obstruction marked/flagged for daytime operations and obstruction lighted for nighttime operations. Failure to coordinate may result in suspension of operations until approved for flying safety.

1.4.2. Airfield Construction. Base civil engineers shall coordinate the location, date, and time of airfield construction, and any restrictions to aircraft operations with AMOPS. A minimum of two English-speaking radio-equipped escorts must be provided by the sponsoring organization for all work within the Controlled Movement Area (CMA). Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*, Attachment B14 compliance is required.

1.4.2.1. Temporary Airfield Construction Waivers. UFC 3-260-01 and PACAFI 32-1056, *Airfield Planning and Design*, is the governing document for all temporary airfield construction waivers. They are required to be signed/approved by 51 FW/CC 45 days prior to any construction on the airfield. No construction activity will be permitted without the appropriate waiver.

1.4.2.2. Construction Meetings. The Airfield Manager (AFM) and 51 FW/SE will be invited to all airfield design, pre-construction, job progress, pre-beneficial occupancy date (BOD), BOD, project acceptance, and final walkthrough meeting.

1.4.2.3. Airfield construction within restricted areas requires the initiating agency to provide an escort for contracted personnel. Designated escorts must contact 51 SFS/S5S for requirements to escort contracted personnel in restricted areas.

1.4.2.4. The Wing Airfield Driving Program Manager (WADPM) will ensure all airfield construction contractors with need to drive on the aerodrome are briefed and trained on safe airfield driving procedures IAW 51 FWI 13-213, *Osan Air Base Airfield Driving*.

Chapter 2

AIRFIELD FACILITIES INFORMATION

2.1. Airfield Information. Osan AB's center of the airfield is located at coordinates N37°05.44', E127° 01.78'. Field elevation is 39 ft above MSL. An airfield diagram is depicted at Attachment 2.

2.2. Runways and Taxiways. Runway (RWY) 09R/27L and RWY 09L/27R are 9004 ft by 150 ft (concrete). Paved overruns at each end of RWY 9R/27L are 1000 ft long and 150 ft wide (first 150 ft concrete, last 850 ft asphalt), and paved overruns at each end of RWY 9L/27R are 1000 ft long and 150 ft wide (asphalt). The runways are separated by 700 ft, centerline to centerline. The Table below provides additional information.

Table 2.1. Airfield Data Table.

<table>
<tr><td colspan="2">RWY 09R/27L LENGTH AND WIDTH</td><td colspan="2">RWY 09L/27R LENGTH AND WIDTH</td></tr>
<tr><td colspan="2">9004 ft x 150 ft</td><td colspan="2">9004 ft x 150 ft</td></tr>
<tr><td colspan="2">OVERRUNS</td><td colspan="2">OVERRUNS</td></tr>
<tr><td colspan="2">1000 ft x 150 ft</td><td colspan="2">1000 ft x 150 ft</td></tr>
<tr><td colspan="2">TAXIWAY (TWY) WIDTHS</td><td colspan="2">INTERSECTION DEPARTURES</td></tr>
<tr><td>A</td><td>ALPHA N 150 ft / INSIDE DIAMOND 36 ft</td><td colspan="2">RWY 27L FEET AVAILABLE</td></tr>
<tr><td>B</td><td>75 ft</td><td>D</td><td>6750 ft</td></tr>
<tr><td>B1</td><td>75 ft</td><td>C</td><td>4500 ft</td></tr>
<tr><td>C</td><td>75 ft</td><td>B AND B1</td><td>NOT AUTHORIZED</td></tr>
<tr><td>D</td><td>75 ft</td><td colspan="2">RWY 09R FT AVAILABLE</td></tr>
<tr><td>E</td><td>150 ft</td><td>B AND B1</td><td>6750 ft</td></tr>
<tr><td>F</td><td>75 ft</td><td>C</td><td>4500 ft</td></tr>
<tr><td colspan="2" rowspan="3">[redacted]</td><td>D</td><td>NOT AUTHORIZED</td></tr>
<tr><td colspan="2">RWY 09L/27R FT AVAILABLE</td></tr>
<tr><td>C</td><td>4500 ft</td></tr>
</table>

2.3. Controlled Movement Area (CMA). The CMA includes both runways, the overruns, and all paved and unpaved areas within 125 ft of the edges of either runway. The VFR or Instrument Flight Rules (IFR) hold short lines (whichever is further from the RWY) depict the visual boundaries of the CMA on pavement (See Attachment 2).

2.3.1. During contingency operations, the CMA may be expanded to include TWY F IAW paragraph 2.29, ALS Operations, of this instruction.

2.3.2. Procedures for operating in the CMA shall be IAW 51 FWI 13-213.

2.4. Taxiway Pavement Classification and Restrictions.

2.4.1. The following table depicts TWY pavement classification data and restrictions.

Table 2.2. TWY Pavement Classification.

TWY	PLANNING CHANGE NOTICE
A (South of RWY 9R/27L)	81 R/B/W/T
A (TWY F to Draggins Lair)	38 R/B/W/T
A (North of RWY 9R/27L)	Data not available at time of publication
B	41 R/B/W/T
B1	37 R/C/W/T
C(South of RWY 9R/27L)	29 R/C/W/T
C (North of RWY 9R/27L)	Data not available at time of publication
D	Data not available at time of publication
E (South of RWY 9R/27L)	72 R/B/W/T
E (North of RWY 9R/27)	Data not available at time of publication
F	66 R/B/W/T
NOTE: OG/CC is approval authority for all weight bearing waivers. The listed pavement classifications are for non-frost periods. Contact Airfield Management for frost period pavement classifications.	

2.4.2. TWY A south of TWY F is restricted to fighters only. TWY A is nonstandard 36 ft wide. Sufficient room does not exist for aircraft to taxi by vehicles or Aerospace Ground Equipment (AGE) with the required 25 ft wingtip clearance.

2.4.2.1. TWYs B, C, and D are standard 75 ft wide.

2.4.2.2. A Diamond, B Diamond, and NW, SE and SW legs of C Diamond taxilanes are nonstandard 50 ft wide. All of these taxilanes (except NE leg of C Diamond) are restricted to fighters only.

2.4.2.3. Draggins Lair is restricted to fighters only.

2.4.2.4. Airfield Management will issue a NOTAM when aircraft or equipment is parked north of the wingtip clearance line on Cargo aprons A, B or C.

2.4.2.5. 51 MXS/MXMTT Transient Alert (TA) Crash Recovery will provide appropriate assistance to transient aircraft in and out of assigned parking areas.

2.4.2.6. If TWY A is not available, 51 FW fighter aircraft may use alternate taxi procedures through B Diamond during exercises, taxiway construction, and contingency operations upon request to the Tower. Due to the lack of wing tip clearance requirements, wing walkers are required for A-10s taxing through the B Diamond.

2.4.2.7. Airfield Markings.

2.4.2.7.1. White continuous 6 inch safety lines are painted on the airfield to provide a visual cue for aircrews and aircraft maintainers to ensure adequate wingtip clearance exists by keeping obstructions, such as servicing equipment, tools, fire bottles, and vehicles contained within the boundaries of the markings and outside of aircraft movement areas.

2.4.2.7.2. In accordance with PACAF/A3 approved waiver, at no time will any aircraft be operated less than 10 ft from a permanent obstruction while in a marked

taxi lane. The following table depicts location and distance from aircraft wingtip to white lines.

Table 2.3. Safety Line Distance.

Location	Distance from Taxi Line to White Safety Line	Wingtip Clearance
A Diamond	32 ft	A-10: 3 ft F-18 C/D: 12 ft F-16: 16 ft F-18 E/F: 10 ft F-15: 11 ft
B Diamond	32 ft	A-10: 3 ft F-18 C/D: 12 ft F-16: 16 ft F-18 E/F: 10 ft F-15: 11 ft
Eastern Throat into Draggins Lair; north/south sides	39 ft	A-10: 10 ft F-16: N/A
TWY A end of inside runway (EOR); west shoulder	39 ft	A-10: 10 ft F-16: 23 ft
TWY E EOR; north shoulder	39 ft	A-10: 10 ft F-16: 23 ft
TWY A Trim Pad; adjacent to bldg. 1768	49 ft	A-10: 20 ft F-16: 33 ft

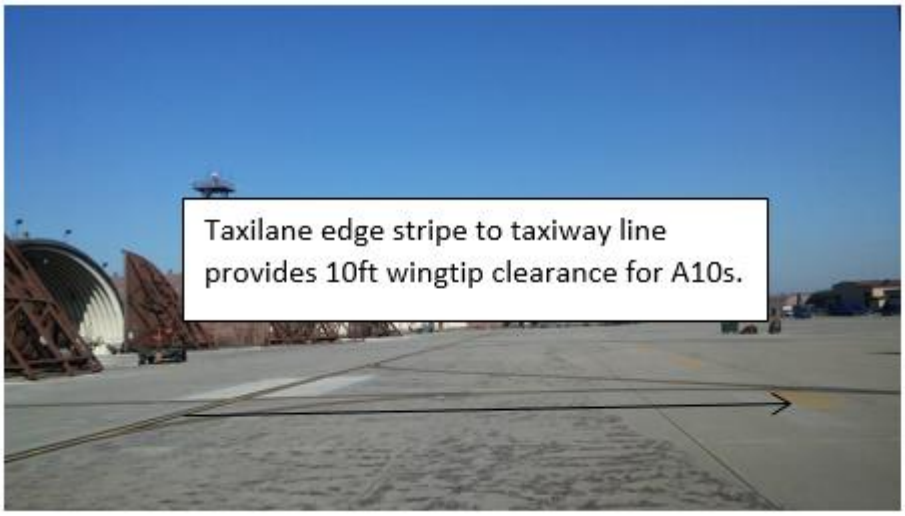
Figure 2.1. Safety Line Distance Example – Bravo Diamond.

2.4.2.7.3. Taxiway/Apron Edge Markings. Continuous double yellow lines painted on the TWYs and aprons signify the end of load bearing pavement for aircraft movement. They do not signify sufficient wingtip clearance.

Table 2.4. Taxilane Edge Stripe Distance.

Location	Distance from Aircraft Taxi Line to Yellow Taxilane Edge Stripe	Wingtip Clearance
Draggins Lair Parking Apron (north, center, south taxilanes)	39 ft	A-10: 10 ft F-16: N/A

Figure 2.2. Taxilane Edge Stripe Example – Draggins Lair.



2.4.2.7.4. Taxilane edge stripes are double 6 inch wide broken yellow stripes painted on the airfield to define the limits of a designated taxi route where the surrounding pavement is intended for use by aircraft. Aircraft movement across the designated boundary is permitted. The following table depicts location and distance from aircraft wingtip to taxilane edge stripes.

2.5. RWY Selection Procedures.

2.5.1. Designation of Runway in Use. Tower designates runway in use. RWY 27L/R are designated as the calm wind and primary instrument runways.

2.5.2. The calm wind runway is defined as RWY 27L/R when the wind is less than 5 knots. Runway changes requested by the Supervisor of Flying (SOF) must be coordinated and approved by the Tower Watch Supervisor.

2.5.3. During simultaneous departures and arrivals, RWY 9R/27L will normally be considered the primary departure runway and RWY 9L/27R will normally be considered the primary arrival runway.

2.5.4. Notification of RWY Change.

2.5.4.1. Tower shall notify Radar Approach Control (RAPCON), AMOPS, Weather (WX), SOF, and 51 CES Barrier Maintenance (BM).

2.5.4.2. AMOPS will notify TA, Command Post (CP), Fire Department, and Maintenance Operations Control Center (MOCC).

2.5.4.3. RAPCON will notify Incheon Center, Suwon Tower, and Suwon Ground Controlled Approach (GCA).

2.6. Airfield Lighting Systems.

2.6.1. Airfield Lighting Configuration.

2.6.1.1. Approach Lighting. RWY 09R/27L has Approach Lighting Systems that include Sequence Flashing Lights, Category 1 (ALSF-1). RWY 09L/27R has a shortened ALSF-1, with RWY 27R at 1181 ft long and RWY 09L at 1292 ft long.

2.6.1.2. Runway Lighting. RWY 09R/27L has High Intensity RWY Lights (HIRLs), RWY End Identifier Lights (REILs), threshold lights, and Precision Approach Path Indicator (PAPI) lights. RWY 09L/27R have identical lighting systems as RWY 09R/27L but the threshold lights are gated IAW UFC 3-535-01, *Visual Air Navigation Facilities*, to reduce the risk of tail hook bounce.

2.6.1.3. TWY Lighting. All TWYs are lighted except A Diamond taxilane, B Diamond taxilane, C Diamond (except northeast leg) taxilane, and the Draggins Lair.

2.6.2. Airfield Lighting Operations. Airfield lighting will be operated IAW Federal Aviation Administration Order (FAAO) JO 7110.65W, *Air Traffic Control*, except as noted below.

2.6.2.1. During hours of darkness, airfield lighting will not be turned on unless:

2.6.2.1.1. Aircraft are arriving or departing (15 minutes prior to Estimated Time of Arrival (ETA) or Estimated Time of Departure (ETD).

2.6.2.1.2. Local aircraft are airborne on local sorties.

2.6.2.1.3. Snowfall or freezing precipitation conditions exist.

2.6.2.2. The RAPCON will notify Tower of pilot requests for changes to lighting.

2.6.3. Minimums for Inoperative RWY Approach Lighting. Lighting outages will be managed IAW standards of tolerance in AFI 13-204V3. Outages of any airfield lighting system, or a portion of any system, must be promptly reported to AMOPS for a determination of system degradation.

2.6.3.1. Tower will record appropriate statement on the Automatic Terminal Information System (ATIS) when airfield lighting systems are inoperative.

2.6.4. Roles and Responsibilities.

2.6.4.1. 51 CES Airfield Lighting (51 CES/CEOFE) will:

2.6.4.1.1. Inspect the airfield lighting system daily to include the full length of the Approach Lighting System with Sequenced Flashers (ALSF) 1 which is partially sited outside the base boundary. Report any problems to AMOPS immediately.

2.6.4.1.2. Contact AMOPS daily prior to inspecting the airfield lighting system to check reported airfield lighting outages and review/sign the previous night's airfield lighting check sheet.

2.6.4.1.3. Provide estimated time of completion for each outage to AMOPS.

2.6.4.1.4. Notify AMOPS when the light(s)/system has returned to service.

2.6.4.1.5. During Tower evacuations, Airfield Lighting will monitor the Ramp Net and be responsible for airfield lighting changes as requested from Ground Control. Airfield lighting personnel shall maintain a continuous presence at the lighting vault, unless the Tower Watch Supervisor releases personnel, subject to a 15-minute recall.

2.6.4.2. AMOPS will:

2.6.4.2.1. Inspect the airfield lighting system each night for serviceability to include the full length of the ALSF-1 which is partially sited outside the base boundary.

2.6.4.2.2. Inform 51 CES/CEOFE of any outages immediately after the inspection if it impacts the flying mission. Otherwise, the completed airfield lighting outage sheet will be available at AMOPS counter the following day for pick up.

2.6.4.2.3. Manage lighting outages IAW lighting standards of tolerance in AFI 13-204V3.

2.6.4.2.4. Notify 51 CES/CEOFE of Tower evacuations.

2.6.4.2.5. AMOPS will initiate a NOTAM and notify the Fire Department to ready equipment for possible use as RWY markers for emergency landing. AMOPS will also notify CP.

2.6.4.3. If an aircraft needs to make an emergency landing, crash and fire vehicles will be positioned on the required ladder TWY.

2.6.4.4. Vehicles will face the RWY with their front wheels behind the yellow hold lines, their headlights on bright, and their rotating beacons operating.

2.6.4.5. Vehicles will maintain these positions until the aircraft lands and is ready to taxi clear of the RWY.

2.7. Permanently Closed/Unusable Portions of Airfield.

2.7.1. The concrete pad north of TWY F and west of TWY A is closed to aircraft operations (see Attachment 2).

2.7.2. Due to deteriorating pavement, Tow way G is closed to all taxing/towing operations except PRIORITY towing operations (see Attachment 2).

2.8. Aircraft Arresting Systems (AAS).

2.8.1. Type/location. RWY 09R/27L is equipped with two unidirectional E-5 cables located on each overrun and two bidirectional Barrier Arresting Kit (BAK)-12 arresting cables. RWY 09L/27R is equipped with two unidirectional textile cables (MB-100) located in each overrun and two bidirectional BAK-12 arresting cables located on the runway. In accordance with Facilities Criteria (FC) 3-260-18F, *Air Force Aircraft Arresting Systems (AAS), Installation, Operation, and Maintenance (IO&M),* when communicating the location of an AAS on the active runway, use the active runway designation and refer to the system in question by approach or departure end (see table 2.5 for locations).

Table 2.5. AAS Distances from RWY Threshold.

ARRESTING CABLES 09R/27L			
RWY 27L Departure end E-5	66 ft West of 09R	RWY 27L approach end or 09R departure end BAK-12	1,352 ft West of 27L
RWY 09R approach or 27L departure BAK-12	1,355 ft East of 09R	RWY 09R departure end E-5	80 ft East of 27L
ARRESTING CABLES 09L/27R			
RWY 27R departure end MB-60	36 ft West of 09R	RWY 27 R approach end or 09L departure end BAK-12	1500 ft West of 27R
RWY 09L approach or 27R departure end BAK-12	1500 ft East of 09R	09L departure end MB-60	36 ft East of 27L

2.8.1.1. The minimum time to configure the barriers for an approach-end engagement is 10 minutes.

2.8.1.2. When practical, pilots must advise ATC of all intended barrier engagements to include the specific barrier desired.

2.8.2. Normal AAS Configuration for RWY in Use:

2.8.2.1. RWY 09L – Departure end BAK-12 and MB-60 in the raised position.

2.8.2.2. RWY 09R – Departure end BAK-12 and E-5 in the raised position.

2.8.2.3. RWY 27L – Departure end BAK-12 and E-5 in the raised position.

2.8.2.4. RWY 27R – Departure end BAK-12 and MB-60 in the raised position.

2.8.3. At a minimum, a departure end BAK-12 cable must be raised prior to resuming aircraft operations with AAS requirements. 51 OG/CC approval is required prior to operations without the departure end BAK-12.

2.8.4. The SOF may direct a temporary change in barrier configuration when required for safety of flight or operational contingency.

2.8.5. PRIORITY Operations Configuration. Departure End Cables will be removed prior to PRIORITY departures. Departure end cables may remain raised during PRIORITY arrivals.

2.8.6. When AAS configuration is other than described in para 2.8.2, Tower will advise all landing aircraft and AMOPS. This requirement is met for landing aircraft when this information is included in the ATIS broadcast, and the pilot states the current ATIS code.

2.8.7. Mobile Aircraft Arresting System (MAAS). Osan has MAAS capabilities available for installation on TWY F during alternate landing surface (ALS) operations. Concrete cruciform foundations are installed at the 6000 ft marker located at the TWY F/B intersection and at the 4000 ft marker located in between TWY C/D.

2.8.8. Coordination Procedures.

2.8.8.1. 51 CES BM will perform preventative maintenance inspections (PMIs) outside wing flying hours, after coordinating with AMOPS.

2.8.8.2. During AAS maintenance/configuration changes, AMOPS or Tower will suspend RWY operations and notify the opposite facility.

2.8.8.3. AMOPS will complete an airfield check, report the airfield status/RWY condition and notify Tower when RWY operations are resumed.

2.8.8.4. BM maintains the AAS from 0400-1630L, Monday thru Friday. The Fire Department assumes responsibility for configuring the barriers after normal duty hours, on weekends, and on holidays. The SOF/Tower WS will ensure BM is contacted to re-certify AAS after the RWY reconfiguration changes. Note: BM is the only agency authorized to certify an AAS is in service.

2.8.8.5. The AAS will be checked by BM under the following conditions:

2.8.8.5.1. At least once daily prior to Wing Flying and periodically during periods of heavy traffic.

2.8.8.5.2. After impacting a raised cable upon touchdown by C-130 or heavier aircraft.

2.8.8.6. BM will use the following phraseology when reporting the barrier status: "OPERATIONAL" or NOT OPERATIONAL; "CONFIGURED" or "NOT CONFIGURED" and "IN-SERVICE" and "NOT-IN-SERVICE".

2.8.8.7. BM will notify AMOPS whenever a maintenance condition exists that could render an AAS unusable and when any of the following conditions exist:

2.8.8.8. No spare tapes or cables are on hand for the BAK-12 or E-5 systems.

2.8.8.9. Four or fewer engagements remain prior to tape and/or cable replacement for the BAK-12 or E-5 systems.

2.8.8.10. When an AAS is determined to be unusable, AMOPS will NOTAM the system out of service and notify all appropriate agencies (i.e., Tower, SOF, flying units, etc.).

2.8.9. Annual Certification Engagement Coordination.

2.8.9.1. BM shall notify AMOPS 30 days prior to anniversary date of the certification engagement in order to coordinate with the appropriate agencies.

2.8.9.2. The Airfield Manager will coordinate with the 36 FS directly for aircraft & pilot availability to perform the engagement. Certification engagements will be made toward the center of the runway at a minimum of 75 knots.

2.9. Parking Plan/Restrictions.

2.9.1. Restrictions. See paragraph 2.4 for taxi restrictions that restrict respective parking areas.

2.9.1.1. The Doorstop and AMOPS ramp are controlled by TA and AMOPS.

2.9.1.2. The Air Mobility Command (AMC) ramp is controlled by 731 AMS.

2.9.1.3. The Alpha and Bravo Diamonds are controlled by 36 AMU.

2.9.1.4. The Charlie Diamond is controlled by AMOPS.

2.9.1.5. The Draggins Lair is controlled by 25 AMU.

2.10. ATC Facilities. ATC consists of a Tower and RAPCON facility and operate 24/7. See Attachment 4 for airspace delegation.

2.11. Local Frequencies. See Attachment 3 for local frequencies/channels.

2.12. Navigational Aids (NAVAIDs), Preventative Maintenance Inspection (PMI), and Generator Power.

2.12.1. NAVAIDs. RAPCON is designated as the NAVAID/NOTAM monitoring facility. All equipment or monitor malfunctions, including alarms, shall be promptly reported to maintenance personnel. RAPCON shall promptly inform AMOPS and Tower when a NAVAID is removed from service due to a maintenance malfunction or scheduled/non-scheduled maintenance period. AMOPS will send the appropriate NOTAM.

2.12.1.1. When the wind velocity reaches or is forecasted to reach 70 knots, the Weather Flight (51 OSS/OSW) will notify the RAPCON. The AOF/CC or RAPCON Chief Controller (CCTLR) will direct radar maintenance personnel to place the Digital Airport Surveillance Radar (DASR) antenna into freewheel mode.

2.12.2. See Flight Information Publications (FLIPs) for NAVAIDs and instrument approaches provided at Osan.

2.12.3. NAVAID Ground Checkpoints. Very High Frequency Omni-directional Range/Tactical Air Navigation (VORTAC) checkpoints are located on TWYs A, D, and E. ***NOTE:*** *Host nation is responsible for VORTAC operations and maintenance.*

2.12.4. PMI Schedule. See the FLIP Enroute Supplement and Osan AB Operations Letter, Air Traffic Control and Landing Systems (ATCALS) Restoral Letter, maintained by 51 OSS/OSA, for the PMI schedule.

2.12.5. Auxiliary Power Generators for ATCALS. See ATCALS Restoral Letter.

2.13. Transient Alert. See IFR Supplement for transient services and available hours.

2.14. ATIS Procedures. Tower will operate the ATIS 1 hour prior to scheduled Wing Flying until last wing aircraft recovery. During non-wing flying, the ATIS will be operated as deemed necessary by the Tower Watch Supervisor. Information is updated hourly unless significant weather or airfield conditions dictate it be updated more frequently IAW FAAO JO 7110.65W.

2.15. Aircraft Special Operations Areas

2.15.1. Hazardous Cargo Pad (HCP). The designated parking spot for aircraft carrying hazardous cargo is the HCP located on the west end of TWY F. Airlift aircraft may be parked for loading or unloading on other parking ramps IAW Explosive Aircraft Parking Site Plans (See 51 FWI 91-201, *Weapons Safety Program Management).*

2.15.2. The HCP is available for airlift aircraft during Wing Flying. Coordination with AMOPS is mandatory for all airlift aircraft before utilization of the HCP can occur.

2.15.3. Hot Pit Refueling Areas. Hot pit refueling is conducted in the Flows and is sited for aircraft with wing spans up to 57.5 ft.

2.15.4. Engine Run Areas. See Table 2.6. for authorized locations of engine runs pertaining to specific types of aircraft and applicable power settings.

2.15.4.1. Aircraft tie-down is required for all engine runs above 88%.

2.15.4.2. Aero Club and other light aircraft may use any TWY between the RWY and TWY F for engine runs.

2.16. Aircraft Tow Procedures

2.16.1. Maintenance organizations will coordinate all aircraft tows for base assigned and transient/deployed aircraft through the MOCC. MOCC will ensure coordination with, Tower and Security Forces is accomplished prior to towing. Only aircraft tows that require access to TWY F are required to call Tower prior to towing.

2.16.2. Transients. TA Maintenance Section is responsible for recovering and launching transient aircraft.

2.17. Arm/De-arm Areas. The primary arm/de-arm areas are EOR and Echo EOR.

2.17.1. During arm/de-arm operations all F-16 aircraft will pull forward such that the intake is in line with the engine arc. All A-10 aircraft will pull forward such that the nose-gear tire is on the engine arc. This will ensure sufficient wingtip clearance for all aircraft, with a wingspan of 58 feet or less to taxi behind F-16s or A-10s parked in the arm/de-arm spots.

2.18. Aircraft Taxiing Requirements/Routes

2.18.1. Taxiway/taxilane restrictions.

2.18.1.1. C-5 and B-747 aircraft require wing walkers if like aircraft are parked on the Air Mobility Command (AMC) ramp.

2.18.1.2. TWY A is restricted to aircraft with wingspans less than 160 feet when fighters are operating in the Alpha EOR.

2.18.1.3. TWY E and the eastern portion of TWY F are restricted to A-10 and smaller when fighter type aircraft are in the TWY E arm/de-arm area.

2.18.1.4. A Diamond, B Diamond, the Draggins' Lair and the north eastern part of C Diamond do not have TWY lights.

2.18.1.5. During all night operations, aircraft will always place position lights on "flash bright" and turn taxi lights on when moving.

2.18.1.6. Aircraft will enter Flows 21-24 from the west and 15-20 from the east. Prior to leaving the flows, aircraft will check current ATIS information and are required to request taxi instructions from Ground Control.

2.18.2. Departures.

2.18.2.1. During Wing Flying, 51 FW aircraft are not permitted to takeoff until a SOF is on duty IAW 51 OGI 11-418, *Flying Operations Supervision* available on the 51 OGV SharePoint site.

2.18.2.2. Aircraft shall inform Ground Control when ready to taxi, providing call sign, number of aircraft, appropriate ATIS code, specific departure procedures required, and

specify formation or nonstandard (nonstandard spacing for A-10s and F-16s is normally 20 seconds). Aircraft will advise if different spacing is required.

2.18.2.3. Prior to entering TWY A from the Draggins Lair or the Alpha Diamond, aircraft shall broadcast on Ground Control frequency, *"(call sign), ALPHA NORTH".*

2.18.2.4. Prior to entering Bravo Diamond, aircraft shall broadcast on Ground Control frequency, *"(call sign), BRAVO NORTH"*.

2.18.2.5. Prior to entering TWY B1 to transit north between the flows, aircraft shall broadcast on Ground Control frequency, *"(call sign), FLOWS NORTH".*

2.18.3. Arrivals.

2.18.3.1. After exiting the RWY and de-arming (if required), aircraft shall request taxi clearance to parking.

2.18.3.2. When returning to parking in the Draggins Lair or A Diamond, aircraft shall broadcast on Ground Control frequency, *"(call sign), ALPHA SOUTH".*

2.18.3.3. When returning to parking in the Bravo Diamond, aircraft shall broadcast on Ground Control frequency, *"(call sign), BRAVO SOUTH".*

2.18.3.4. When returning to parking via TWY B1, aircraft shall broadcast on Ground Control frequency *"(call sign), FLOWS SOUTH".*

2.18.4. Alternate Taxi Procedures. If TWY A is not available, 51 FW fighter aircraft may use alternate taxi procedures through B Diamond (and A Diamond depending on the reason TWY A is unavailable) during exercises and contingency operations. Pilots will state call sign, entry point, direction of taxi, and exit point. Alternate taxi procedures are depicted in the SECRET Korean Theater of Operations (KTO) Smartpack.

2.18.5. Heavy Aircraft Jet Thrust Avoidance Procedures.

2.18.5.1. All four engine aircraft shall shutdown outboard engine after clearing the RWY.

2.19. Airfield Maintenance.

2.19.1. Sweeper Operations. Daily airfield sweeper operations will be accomplished IAW the following procedures. See Attachment 13 for daily sweeper routes.

2.19.1.1. AMOPS will:

2.19.1.1.1. Advise airfield sweeper of areas on the airfield requiring sweeping and review heavy aircraft departure schedule with on-duty sweeper.

2.19.1.1.2. Contact airfield sweeper via Ramp Net radios as required during Wing Flying. If unable to reach operator by radio, cell phone contact will be attempted.

2.19.1.1.3. Contact standby sweeper through the Fire Department or standby cell phone, when sweeper support is needed outside of Wing Flying.

2.19.1.1.4. Provide updates or any changes to the sweeping schedules, priorities, and heavy aircraft departures times via Ramp Net, the Horizontal shop at 784-5305 or one of the ways mentioned above.

2.19.1.1.5. Coordinate and verify legitimacy of third party airfield sweeper requests.

2.19.1.2. 51 CES/CEO will:

2.19.1.2.1. Provide a dedicated Airfield Sweeper one-hour before and during Wing Flying. Sweep according to the Daily Airfield Sweeping Route (see Attachment 13) unless otherwise directed by AM.

2.19.1.2.2. On-duty and standby sweeper operator will physically check-in daily with AMOPS at Bldg. 870 at the beginning of each shift. Verify accuracy of sweeper operator's cell phone number for contact in case of radio failure and sweeping route will be verified.

2.19.1.2.3. On-duty and standby sweeper operator will check heavy aircraft departure schedule daily.

2.19.1.2.4. Sweep all Foreign Object Damage (FOD) check points, driving lanes and Alpha and Bravo Diamonds service roads daily, in addition to daily sweeping route.

2.19.1.2.5. Keep a handheld radio turned on and tuned to the Ramp net during Wing Flying and regular on-duty periods.

2.19.1.2.6. Advise AM when departing the airfield, when returning and give reason. After hours and weekend standby sweeper will safely respond within 30 minutes of request.

2.19.1.2.7. Notify AM when all sweeping operations are completed.

2.19.2. Mowing Operations. The normal mowing season is between March and October. Mowing operations are conducted by 51 CES/CEO. Airfield grass height will be maintained between 7 and 14 inches. Mower operators must check in with AMOPS prior to starting airfield mowing operations each day. AMOPS will notify the appropriate agencies where mowing operations will be accomplished. All mower operators will then call Tower prior to mowing within the CMA.

2.20. Runway Surface Condition (RSC) and Runway Condition Reading (RCR) Values.

2.20.1. AMOPS is responsible for determining and reporting RSC/RCR as required IAW AFI 13-204V3, and T.O. 33-1-23, *Equipment and Procedures for Obtaining Runway Condition Readings.*

2.20.2. The RSC is reported as wet, dry, slush, ice, or snow on the runway. The RCR is reported when snow or ice conditions are present on the paved surfaces of the airfield. Results of these checks will be reported to appropriate wing agencies, IAW OSAM OI 13-204, *Airfield Management Operations*, and Osan Snow and Ice Control Plan 32-1002B for dissemination to aircrews.

2.21. Runway Inspection/Check Procedures and Requirements.

2.21.1. AMOPS will accomplish an airfield inspection daily prior to the start of flying activities.

2.21.2. Additional airfield inspections will be accomplished as needed IAW AFI 13-204V3 and OSAM OI 13-204, or as requested.

2.22. Engine Test/Run-Up Procedures. Maintenance personnel requesting engine starts shall contact Ground Control and monitor frequency until engine run is complete (see Table 2.6 for engine run areas). MOCC will notify Tower and security forces prior to engine run operations.

Table 2.6. Engine Run Areas.

TYPE AIRCRAFT	POWER SETTINGS	
	≤85%	> 85%
A/OA-10	3d Generation HASs, Flows and Hardstands; Bldg. 1731 & 1732 Hardstands (idle runs only).	North Trim Pad, South Trim Pad and the Hush House.
F-16	Alpha/Bravo Diamond HASs; Flows and Revetments.	North Trim Pad, South Trim Pad and Hush House
U-2	(≤88%) 5 RS Ramp	(> 88%) U-2 Trim Pad
Helicopters	Hot Spot Parking in front of Bldg. 1187 and Revetment C-19 (includes rotor engagements).	
C-130s and Heavies	HCP, TWY E and the RWY (RWY may be used when local flying permits and tower approves)	
Non-Wing Assigned Aircraft	Coordinate with the Transient Alert and AFM for approval to perform engine runs in areas not included above.	

2.22.1. Engine runs are prohibited on the Door Stop and Base Ops ramps.

2.22.2. TA will brief transient aircrews, flight engineers, and/or maintenance crews on local run requirements and assist in coordinating run spot clearances.

2.22.3. Aircraft aircrews, flight engineers, and/or maintenance teams will post safety observers to prevent ground vehicles from entering the engine blast area.

2.22.4. On-speed engine runs (no higher than idle power) may be accomplished on AMC parking spots after coordination between Tower, TA, and Air Mobility Control Center (AMCC).

2.23. Noise Abatement Procedures. Base quiet hours are 1300-2100Z (2200-0600L) daily.

2.23.1. During quiet hours, unsuppressed engine runs are prohibited.

2.23.2. All wing assigned aircraft landing after 1300Z (2200L), are authorized ILS straight in to a full stop and taxi to parking until 1400Z (2300L).

2.23.3. All aircraft engine starts and taxi are authorized after 2030Z (0530L) to allow for a 2100Z (0600L) departure.

2.23.4. Requests to operate during base quiet hours require a 51 OG/CC approved quiet hours waiver. This waiver can be obtained by contacting the 51 FW/CP.

2.23.5. In an effort to reduce noise pollution, avoid unnecessary overflight of the city of Songtan when in the local traffic pattern. Overflight of Songtan commonly occurs during re-entry patterns on RWY 09R, High Tactical Departures (HTD) and Simulated Flameout (SFO).

2.23.6. A-10 engine runs greater than 85% within the 3d generation hardened aircraft shelters (HASs,), FLOW revetments, or Trim Pad require 51 OG/CC approval. Engine runs within the Hush House do not require 51 OG/CC approval.

2.23.7. F-16 engine runs greater than idle power within the HAS, FLOWs, revetments, or Trim Pad require 51 OG/CC approval. Engine runs within the Hush House do not require 51 OG/CC approval.

2.23.8. U-2 engine runs up to 87% can be conducted on the 5th Reconnaissance Squadron (5 RS) ramp with thrust deflectors and do not require 51 OG/CC approval. Engine runs above 87% will be conducted on the trim pad and require 51 OG/CC approval.

2.24. Protecting Precision Approach Critical Areas. The Precision Approach Critical Areas shall be protected IAW AFI 13-204V3 and FAAO JO 7110.65W (see Attachment 2). Tower will broadcast on the ATIS when approach critical area (localizer and/or glide slope) procedures are in effect.

2.24.1. Localizer Critical Area Protection.

2.24.1.1. When the reported ceiling is less than 800 ft and/or visibility is less than 2 miles, all aircraft will remain behind the VFR hold line until directed by ATC. Vehicle Traffic will remain behind the VFR hold line at all times unless otherwise directed by ATC.

2.24.1.2. Vehicles or aircraft will not be permitted to transit the localizer critical area when an aircraft on the Instrument Landing System (ILS) approach is inside the final approach fix (FAF).

2.24.1.3. Exception: A preceding aircraft, approaching the same RWY or another RWY, may pass through the area while landing, departing, or exiting the RWY; do not allow aircraft to stop within the critical area.

2.24.2. Glideslope Critical Area Protection.

2.24.2.1. Glideslope Critical Areas encompass the majority of TWY A and E in between the runways. When the reported ceiling is less than 800 ft and/or visibility less than 2 miles, but at or above 200 ft and/or visibility at or above 1/2 mile (RVR 2,400), all aircraft requesting RWY 09L/27R for departure will remain South of RWY 09R/27L until directed by ATC. Vehicle Traffic will remain South of RWY 09R/27L at all times unless otherwise directed by ATC. ATC will, to the maximum extent possible, ensure the area remains clear prior to and during the execution of opposite direction operations utilizing the ILS to RWY 09R/27L.

2.24.2.2. Vehicles will not be permitted to proceed beyond the VFR hold line when an aircraft executing an ILS approach is inside the FAF, unless the arriving aircraft has reported the runway in sight or is circling to land on another runway.

2.24.2.3. When the reported ceiling is less than 200 ft and/or visibility less than 1/2 mile (RVR 2,400), vehicles or aircraft will not be permitted to transit the localizer critical area when an aircraft on an ILS approach is inside the FAF.

2.24.3. Precision Obstruction Free Zone (POFZ) Protection. The POFZ shall be protected when the reported ceiling is below 300 ft or visibility is less than 3/4 statute miles (or RVR

less than 4,000 ft/1219 meters). Aircraft must hold behind the POFZ line. Vehicle Traffic will remain behind the POFZ line unless otherwise directed by ATC. *PHRASEOLOGY: HOLD SHORT OF THE POFZ.*

Figure 2.3. POFZ Marking example.

2.25. Restricted Areas on the Airfield. 5 RS, A and B Diamonds to include Draggins Lair, the Flows, the Service Apron between A and B Diamonds, and AMC Ramp. 51 SFS will determine the security requirements for aircraft parked in other locations.

2.26. Runway Suspension Procedures. Tower or AMOPS will temporarily suspend RWY operations anytime an unsafe condition affects the airfield.

2.26.1. AMOPS will send the appropriate NOTAM, as required.

2.26.2. AMOPS will complete a runway check and report status of the suspended RWY to Tower prior to resuming operations.

2.27. Airfield/Runway Opening and Closure Procedures.

2.27.1. Airfield closures less than 96 hours are at the discretion of the 51 FW/CC. Closures exceeding 96 hours require Major Command **(**MAJCOM)/A3 approval IAW AFI 13-204V3.

2.27.2. During approved airfield closure periods, ATC and AMOPS will remain staffed and responsible for their respective obligations (unless otherwise approved by 51 OG/CC). Additionally, the following procedures will occur:

2.27.2.1. AMOPS will notify Tower that the airfield/ runways are closed.

2.27.2.2. AMOPS will notify CP of airfield/ runway closures and other base organizations as required.

2.27.3. Opening Procedures.

2.27.3.1. Prior to re-opening the airfield/runway(s), AMOPS will conduct an airfield check and inform Tower that the airfield/runway(s) is open and safe for aircraft operations.

2.27.3.2. Tower will announce over all frequencies that the airfield is open.

2.28. Aerospace Ground Equipment (AGE) Parking Plan.

2.28.1. IAW UFC 3-260-01, when AGE equipment is not in use, it must be removed from the aircraft parking area and stored in areas that do not violate aircraft clearance requirements or other imaginary surfaces.

2.28.2. AGE can be pre-positioned 3 hours prior and left 3 hours after use, but then must be relocated to appropriate storage locations as determined by the AFM. This criterion applies to parking aprons only. AGE cannot be left or stored on TWY edges. NOTE: The AFM can file a USAF Hazard Report and notify the 51 FW/SE office for each occurrence of unauthorized AGE and fire bottles.

2.29. Alternate Landing Site (ALS) Operations.

2.29.1. If RWY 09R/27L and RWY 09L/27R are rendered unusable, the 51 FW/CC, or a designated representative may authorize TWY F as an ALS to recover and launch Osan AB assigned fighter aircraft only. This option is to be used only during exercises, contingencies and emergency situations and should be maintained in a manner similar to an Alternate Contingency Runway (ACR). The ACR requirements contained in AFMAN 32-1084, *Facility Requirements*, are not levied upon the ALS.

2.29.2. Securing the ALS should take approximately 30 minutes without installing the Emergency Airfield Lighting System (EALS) or MAAS or Minimum Aircraft Operating Strip Marking System (MAOSMS). Installation of this equipment takes 4 hours, and full activation takes an additional 2 hours (total of 6 hours).

2.29.3. ALS Setup Procedures.

2.29.3.1. The 51 FW/CC, designated representative, or higher will direct the set-up of Taxiway Foxtrot as an ALS.

2.29.3.2. Security Forces (SFS) will block all intersections to TWY F.

2.29.3.3. SFS will stop all traffic from entering the ALS unless they are part of the ALS set-up process (i.e. AMOPS and CES).

2.29.3.4. 51 OG/CC or higher authority may authorize CES to install the MAAS and/or the EALS. During exercises, these actions may be simulated and CES will notify the Air Traffic Control Tower (ATCT) when install is complete. Taxiway lighting is the only permanent lighting available for TWY Foxtrot unless an EALS is installed.

2.29.3.5. AMOPS will inspect TWY Foxtrot for debris, security emplacement, and aircraft arresting system configuration for aircraft operations. They will coordinate for the Airfield Sweeper to standby or direct sweeping operations as necessary.

2.29.3.6. AMOPS personnel are the final authority for determining if the ALS is FOD free, that all access points are blocked, that the BAK-12/MAAS/EALS/MAOSMS are properly configured. Once complete, AMOPS will notify the ATCT that the ALS is "secured" and ready to conduct aircraft takeoffs and landing.

2.29.3.7. Upon notification from AMOPS that the ALS is "secured", the ATCT will notify the 51 OG/CC or designated representative.

2.29.3.8. Once the ALS is deemed "secured", it is now a CMA and all vehicles/aircraft shall contact tower prior to entering TWY Foxtrot.

2.29.4. ALS Operations Procedures.

2.29.4.1. The 51 FW/CC or designated representative will notify the Tower to activate the ALS.

2.29.4.2. Upon notification, the Tower will advise the SOF and activate the Primary Crash Alarm System (PCAS). AMOPS will then notify RAPCON, CP, CE UCC, MOCC and SFS to implement applicable ALS checklists via Secondary Crash Net (SCN). Tower will also notify 51 FW Emergency Operations Center (784-9770) and inform them of intent to utilize ALS operations.

2.29.4.2.1. 51 FW/CP will ensure appropriate ALS notification is placed on the Commander's Access Channel.

2.29.4.2.2. 51 FW/CP will announce activation of ALS via the Giant Voice system. The CP will announce: *"REAL WORLD, TWY FOXTROT IS NOW THE PRIMARY LANDING SURFACE, REAL WORLD".*

2.29.4.3. SOF will inform all fighter squadrons to brief ALS taxi/in-flight procedures in mass and at step briefs.

2.29.4.4. MOCC will inform all airfield supervisors of ALS activation.

2.29.4.5. TA will coordinate removal of all aircraft on Cargo Aprons A and B.

2.29.4.6. During ALS activation, 51 OSS/OSW will notify ATC and provide wind information as "wind data estimated" to the ATCT and other appropriate base agencies, as required.

2.29.5. Ground Movement Operations.

2.29.5.1. Entrance into the ALS will be authorized only by ATC. Access to the driving lane will be only in direct support of ALS ops. All other vehicle traffic will use access roads between the diamond areas. Aircraft towing on Foxtrot will only occur in direct support of current wing flying. ***NOTE:*** *Due to manpower limitations AMOPS cannot support blocking entrances to TWY F. Security Forces must secure the positions during the entire ALS operation.*

2.29.5.2. Emergency Response Vehicles. Fire Trucks, Ambulance, Security Forces, AMOPS, and Explosive Ordnance Disposal (AFI 11-418, *Operations Supervision*) will follow normal active runway access procedures when responding to an actual emergency, and may access the ALS at any point with prior approval from the ATCT.

2.29.6. Air Traffic Control Procedures.

2.29.6.1. VFR approaches utilize normal VFR entry procedures (pattern altitude is 1,700 ft MSL).

2.29.6.2. Pilots will fly to initial to the runway in use, then break in the appropriate direction and report right/left base to the ALS.

2.29.6.3. Aircraft conducting a low approach or landing on ALS will not receive a clearance. Wind information will be estimated from current reading or observation. ATCT will use the following phraseology: *"(aircraft call sign), WIND ESTIMATED (wind direction and speed) LOW APPROACH/LANDING WILL BE AT YOUR OWN RISK"*.

2.29.6.4. TWY F is only 75 ft wide. Landing area is east of the intersection of TWY A west of TWY E. There are no landing thresholds.

2.29.6.5. After aircraft rollout and depending on landing direction, aircraft can expect to exit towards the flows or Alpha diamond (back taxiing if necessary).

Chapter 3

LOCAL FLYING AREAS

3.1. Local Flying Area. Airspace within the Korea Air Defense Identification Zone (KADIZ) is designated as the local flying area.

3.1.1. Special Use Airspace RAPCON shall coordinate with the Battle Watch Duty Officer (BWDO) and Cobra/Republic of Korea Air Force (ROKAF) Master Control and Reporting Center (MCRC) (Acacia/Watchman) on an as needed basis IAW ACCR 55-9, *Procedures for Use of Training Areas*, paragraph 1.8.

3.2. VFR Local Training Areas. Osan Aero Club's VFR Local Training Area shall consist of the northwest and southern quadrants limited to a 50 NM radius (25 NM for student pilots) (Attachment 12).

3.3. Designation of Airspace.

3.3.1. Osan Approach Control airspace is delegated by Incheon Air Traffic Control Center (ACC) and is depicted in Attachment 4.

3.3.2. Osan Tower is designated Class D airspace from the surface to 2200 ft MSL within a 5 NM radius of the airport, excluding that portion overlapped by Suwon Air Base Class D airspace (see Attachment 5).

3.4. Areas of Potential Conflict. Airspace surrounding Osan is very congested with the following areas noted specifically (see Attachment 13):

3.4.1. Suwon Air Base. The base conducts high-density fighter aircraft operations.

3.4.1.1. IFR arrivals to Suwon Air Base cross the RWY 27L final approach course 5 NM east of Osan.

3.4.1.2. 51 FW VFR aircraft shall avoid Suwon (SWN) Air Base Class D airspace, which is a 5 NM radius of the SWN TACAN, surface up to and including 4000 ft AGL (4,100 ft MSL).

3.4.2. Desiderio Army Airfield (AAF)/A511 (Camp Humphreys). Aircraft recovering to or departing from Osan VFR shall avoid the Desiderio Class D, GCA, and Maintenance Test Flight Valley (MTFV) airspaces (see Attachment 14).

3.4.2.1. Desiderio AAF/A511 Class D airspace is approximately 5 NM south/southwest of Osan, surface to 3000 ft AGL (3100 ft MSL).

3.4.2.2. When Desiderio GCA airspace is active, avoid the left rectangular pattern southwest of the field from surface to 3000 ft AGL (3,100 ft MSL).

3.4.2.3. When the Camp Humphreys (Desiderio) MTFV is active, avoid the MTFV and the Elbow HLZ by 3000 ft AGL (3,100 ft MSL). The MTFV extends into Low Level Zone 1 by several miles. Attempt to avoid this airspace, when active, as it is very congested with Camp Humphreys training, FCF flights, balloon activity, and civilian flight training.

3.4.3. Gimpo/Incheon International Airports. Class B airspace surrounds Gimpo/Incheon Airports. Aircraft recovering to Osan VFR, will use extreme caution for numerous civilian air carrier aircraft being sequenced into Gimpo/Incheon Airports. These aircraft will be located in the vicinity of G585, altitudes ranging from 3400 ft MSL to Flight Level (FL) 240.

3.4.4. Airway Traffic. Aircraft operating south of the Osan extended RWY centerline above 4,500 ft MSL will use extreme caution for civilian air carrier aircraft departing from or arriving into Gimpo/Incheon Airports. Airways south of the Osan extended RWY centerline include B576 and A582 with Minimum Enroute Altitudes (MEA) as low as 7000 ft MSL.

3.4.5. Helicopters. The Seoul-Busan Expressway (Highway 1) is used by VFR helicopters typically operating between 500-1000 ft AGL. They pass 5 NM east of Osan and may conflict with aircraft on final approach to RWY 27L.

3.4.6. Area Lights. There is a lit bridge 3/4 NM final and lit road 1.5 NM east and 1/4 NM south of the approach end of RWY 27L. These lights may be mistaken at night and during conditions of inclement weather for RWY approach lights.

3.4.7. Seosan Air Base (Haemi Approach). Haemi Approach controls altitudes from 700 ft AGL to FL 140, 35 NM southwest of Osan. Haemi Approach controls high-density military and civilian aircraft operations. Aircraft departing or recovering from the south through southwest should use caution for numerous aircraft recovering to Seosan.

3.4.8. I-Chon (I-Chon GCA/Solar Tower). I-Chon GCA controls altitudes up to 3500 ft MSL, 15 NM east, northeast of Osan. Aircraft recovering at low altitudes from the east, northeast should use caution for numerous helicopter operations in the VFR/IFR GCA pattern.

3.4.9. Northwest Practice Area. Use caution for multiple VFR C172 pilot school aircraft operating from 1500 ft MSL to 4000 ft MSL on the western side of Osan Approach Airspace beginning 10 miles off departure end of RWY 27L/R.

3.4.10. Paragliding Activity (see Attachment 14). Use caution for multiple paragliding launch zones and operating areas near Osan and within the low level zone structure. Pilots will annotate and avoid the points designated in Attachment 14 by 2000 ft AGL or 2 NM while in the low level zone structure. The most up to date Paraglider locations may be found at **http://www.paraglidingearth.com**.

3.5. Host Nation Air Advisories (AIRADs). Current AIRADs are available on the 7 AF Airspace SharePoint site at **https://osan.eis.pacaf.af.mil/607%20AOC/607COD/airspace**. AMOPS will review the website daily, issue NOTAMs as appropriate and will notify designated base organizations.

Chapter 4

VISUAL FLIGHT RULES (VFR) PROCEDURES

4.1. VFR Weather Minimums. Procedures in this chapter must be performed in visual meteorological conditions as defined in AFI 11-202V3, *General Flight Rules*. The following weather minimums for each aircraft type and traffic pattern are listed in Table 4.1.

Table 4.1. VFR Weather Minimums.

Procedure	F-16 Aircraft (AGL)	A-10 Aircraft (AGL)	Altitudes (MSL)
High Tactical Recovery Procedure (TRP)	Ceiling +500 ft/3 SM visibility	Ceiling +500 ft/3 SM visibility	At or below 9500 ft MSL
Low TRP Procedure	3000 ft ceiling/5 SM visibility	1500 ft ceiling/3 SM visibility	At or below 2,500 ft MSL (see procedure below)
Simulated Flame-out (SFO)	1000 ft ceiling above High Key/5 SM visibility	N/A	At or below 9,500 ft MSL
Overhead Traffic Pattern	3000 ft ceiling/3 SM visibility	3000 ft ceiling/3 SM visibility	1700 ft MSL Fighter 1200 ft MSL Non-Fighter
Restricted Overhead	2200 ft ceiling/3 SM visibility	2200 ft ceiling/3 SM visibility	1700 ft MSL (limited to 4 aircraft)
Mustang Straight-In	1700 ft ceiling/3 SM visibility	1700 ft ceiling/3 SM visibility	1200 ft MSL
Rectangular Pattern	1700 ft ceiling/3 SM visibility for conventional fixed wing aircraft		1200 ft MSL
Split-to-Land	1700 ft ceiling/3 SM visibility for conventional fixed wing aircraft		1200 ft MSL

4.1.1. The Tower Watch Supervisor shall be responsible for establishing a pattern status during wing flying and ensuring it is broadcast on the ATIS. Effective coordination between the Tower Watch Supervisor, and SOF, are essential to establishing effective pattern statuses. Authorized statuses are depicted in Table 4.2, below.

4.2. VFR Arrivals and Traffic Patterns (see Attachments 5-7).

4.2.1. General Procedures.

4.2.1.1. Initial Contact Information. Aircraft will contact Osan Approach, with the following information: call sign, type and number of aircraft, position, altitude, ATIS code, and intentions (i.e., *MUSTANG 1, FLIGHT OF 4 F-16s, 20 MILES EAST, INFORMATION ALPHA, VIPER FOR INITIAL*).

4.2.1.2. Dual/Simultaneous VFR Runway Operations. Dual/simultaneous VFR runway operations are authorized for RWY 09L/27R and RWY 09R/27L, per FAA JO 7110.65W

paragraph 3-8-3c. Excluding SFO patterns, VFR operations will normally be flown to Runway 09L/27R and IFR operations will normally be flown to Runway 09R/27L. VFR operations will normally be flown as described in table 4.3 below. During single runway operations, adhere to the direction of turns described, regardless of the landing runway.

Table 4.2. VFR Traffic Patterns

Traffic Pattern Type	Runway	Direction of Turns	Altitudes (MSL)
High Tactical Recovery Procedure (TRP)	RWY 09L/27R	North	Max Altitude 9500 ft MSL (6500 ft MSL if restricted by RAPCON)
Low TRP Procedure	RWY 09R/27L;	N/A. Aircraft will be at 500 ft AGL and 6 DME lined up on the runway centerline.	At or below 2500 ft MSL (see procedure below)
Simulated Flame-out (SFO)	RWY 09R/27L	South	At or below 9500 ft MSL
Straight-In SFO	RWY 09R/27L	N/A. Aircraft will remain on or South of RWY 09R/27L Centerline	Max Altitude: RWY 27L, 7000Ft MSL; RWY 09R, 6000 ft MSL
Random Entry SFO	RWY 09R/27L	N/A. Aircraft will remain on or South of RWY 09R/27L Centerline	Max Altitude: 9500 ft MSL
Overhead SFO	RWY 09R/27L	South	Max Altitude 9500 ft MSL
Overhead Traffic Pattern	RWY 09L/27R (RWY 09R/27L on request)	North	1700 ft MSL Fighter 1200 ft MSL Non-Fighter
Restricted Overhead	RWY 09L/27R (RWY 09R/27L on request)	North	1700 ft MSL (limited to 4 aircraft)
Mustang Straight-In	RWY 09R/27L (RWY 09L/27R on request)	N/A. Aircraft will be at 1200 ft at 6 DME lined up on the runway Centerline	1200 ft MSL
Rectangular Pattern	RWY 09L/27R or RWY 09R/27L	North for RWY 09L/27R; South for RWY 09R/27L	Fighter Type: 1700 ft MSL All others: 1200 ft MSL
Split-to-Land	RWY 09L/27R and RWY 09R/27L	N/A. Aircraft will be at 1200 ft at 6 DME lined up on the	1200 ft MSL

		runway Centerline. Place request on initial contact with ATC. NOTE: This is a VFR Only Procedure	

4.2.1.3. Sequencing. 51 FW aircraft shall establish communications with Osan Approach not later than 20 NM from Osan AB and can expect flight following, traffic information, and (if required) vectors for sequencing in order to establish an efficient flow into the airfield. Aircrews can expect a frequency change to Tower after calling traffic to follow in sight, or when traffic to follow is no factor.

4.2.1.4. Airspeeds. VFR aircraft inbound to Osan should not exceed 300 knots within 20 NM of the airfield. EXCEPTION: Aircraft executing a TRP adhere to airspeeds as defined in 4.2.7 of this instruction.

4.2.2. VFR Reporting Points (see Attachment 7).

4.2.2.1. VFR Entry Points/Radar termination fixes. The VFR entry points at Osan are considered Radar Termination Fixes. Aircraft will report the entry points prior to or upon arriving over the point. PHRASEOLOGY: PILOT*: "OSAN APPROACH, MUSTANG1, VIPER."* ATC: *"MUSTANG1, ROGER."*

4.2.2.1.1. RWY 27L/R: HAWG (SOT R-069/12.54) and VIPER (SOT R-121/11.94)

4.2.2.1.2. RWY 09R/R: BRIDGE (SOT R-235/12.58) and RACETRACK (SOT R-297/10.73).

4.2.2.1.3. Aircraft will arrive over the VFR entry point at 2500 ft MSL, unless assigned a different altitude by ATC, and auto-push to Channel 3 and contact Tower. Upon initial contact with Tower, state call sign, type and number of aircraft, position and intentions. PHRASEOLOGY: *"OSAN TOWER, MUSTANG 1, 2 F-16s, HAWG, INITIAL, FULL STOP"*.

4.2.2.2. Re-Entry Points.

4.2.2.2.1. RWY 27L/R: ROAD (SOT R-132/6.23) and RWY 09L/R: WAREHOUSE (SOT R- 232/6.06) shall be used as the primary re-entry points for the Tower patterns.

4.2.2.2.2. Aircraft that are instructed/requesting to re-enter from an option approach will maintain at or below 1200 ft MSL until the departure end of the inside runway, then execute a south turn to the re-entry ground track via POWER PLANT to ROAD/WAREHOUSE, climbing to 1700 ft MSL. Within 1 NM of reaching ROAD/WAREHOUSE, aircraft will notify Tower of their location, state type approach and landing requested.

4.2.2.2.3. During RWY 09L/R re-entry, extend 1NM past departure end before beginning the turn south to avoid overflight of the main concentration of residential areas in Songtan.

4.2.3. VFR Holding Procedures. Aircraft shall hold at the VFR holding points when instructed by Tower/Approach or when requested by pilot and approved by Tower/Approach.

4.2.3.1. Holding Procedures. Hold north of HAWG and RACETRACK, and south of BRIDGE and VIPER, right turns, 5-mile legs.

4.2.3.2. Maintain altitude as assigned by Tower/Approach.

4.2.3.3. Aircraft entering via HAWG, VIPER, BRIDGE or RACETRACK will maintain 2500 ft MSL until 6 DME, then descend to 1700 ft MSL.

4.2.3.4. Re-entering via ROAD/WAREHOUSE.

4.2.3.4.1. Aircraft will report 1 NM prior to ROAD/WAREHOUSE at 1700 ft MSL with intentions, then execute a 90 degree turn to initial. After clearing final, aircraft will then execute a 45 degree turn and proceed to a 3 NM initial.

4.2.3.4.2. Tower will not allow an aircraft to depart the re-entry point once an SFO aircraft has called high key and approved for the procedure. Tower may ask the re-entry aircraft to extend downwind and report 6 NM initial (traffic permitting) or hand the aircraft off to RAPCON for sequencing through the VFR entry point.

4.2.3.5. Restricted Overhead. Aircraft may recover to the pattern via a VFR straight-in from the VFR entry points or an instrument approach. Aircraft may request the closed or re-entry pattern; straight-in approaches from re-entry pattern will not be approved. A maximum of four aircraft are allowed in the restricted overhead pattern. If the pattern becomes saturated, Tower will ask the aircraft to land or coordinate for local climb out back to radar.

4.2.4. Rectangular Patterns.

4.2.4.1. Non-fighter type aircraft may be directed to a left or right closed traffic pattern for either RWY, maintaining a pattern altitude of 1200 ft MSL.

4.2.4.2. Closed Traffic Pattern. Tower approval is required before initiating a closed traffic pattern. Closed traffic pattern for non-fighter type fixed wing aircraft is 1200 ft MSL and 1700 ft MSL for fighter type aircraft.

4.2.4.2.1. Aircraft will maintain at or below 1200 ft MSL until crossing the departure end of the RWY to protect the overhead pattern.

4.2.4.2.2. Tower may initiate or aircraft may request present-position closed traffic. The 1,200 ft MSL altitude restriction is removed.

4.2.4.2.3. Fighter aircraft will begin descent on base turn and intercept final at or below 1200 ft MSL to ensure separation from aircraft enroute to initial.

4.2.4.2.4. When on the go, aircraft shall request closed traffic with the Tower and state the type landing Tower will either approve or disapprove the request based on traffic. If disapproved, aircraft can either expect to re-enter or be handed off to Osan Arrival for re-sequencing.

4.2.5. Mustang Straight-In.

4.2.5.1. Aircraft entering via HAWG, VIPER, BRIDGE or RACETRACK will cross the VFR entry point at 2500 ft MSL (lower allowed to meet VFR cloud clearance) and fly a descending, dead reckoning course to 1200 ft MSL (lower allowed to meet VFR cloud clearance) at 6 NM straight-in final. Aircraft will configure and report "Gear Down" on final.

4.2.5.2. Re-entering from ROAD/WAREHOUSE. Aircraft will report 1 NM prior to ROAD/WAREHOUSE at 1700ft MSL with intentions, then execute a descending turn to arrive at 6 NM final at 1200 ft MSL. Aircraft will configure and report "gear down" on final.

4.2.6. Tactical Recovery Procedure (TRP).

4.2.6.1. Low TRP. Once approved for the Low TRP, proceed to the VFR entry point at 2500 ft MSL (lower allowed to meet VFR cloud clearance). Depart the VFR entry point flying a dead-reckoning heading to 6NM straight-in final, descending to 500 ft AGL.

4.2.6.1.1. A-10s may accelerate to 350 knots and F-16s to 400 knots after departing the VFR entry point. Aircraft will report "GEAR DOWN" and intentions to Tower NLT 3 DME.

4.2.6.2. High TRP. Weather Minimums: A-10, +500 ft ceiling and 3 SM visibility. F-16, +500 ft ceiling and 3 SM visibility. Request "HIGH TRP" on initial contact with RAPCON and specify entry altitude (at or below 8000 ft MSL). Once approved, proceed direct to the field. Call tower 30 seconds out and expect approval or instructions to hold at assigned altitude with tower.

4.2.6.2.1. Report over the field and, upon direction to descend, begin a max of one 360 degree turn to arrive at 1700 ft MSL base north of the field and roll out on final at or below 1200 ft MSL to ensure separation from the Overhead Pattern. ***NOTE:*** *If no instructions are received upon reaching overhead, aircraft will hold south of Osan at the RAPCON assigned altitude.*

4.2.6.2.2. Patterns may be flown south of the field with tower approval. Flight members maintain normal pattern spacing and remain within 3 NM of the airfield. At the perch, report base, gear down and intentions.

4.2.6.3. Simultaneous TRP Pattern Operations. The High TRP, SFO and/or High Tactical Departures Procedures (TDP) are authorized below SFO and High TRP aircraft who are instructed to hold at High Key and traffic information is exchanged and acknowledged.

4.2.7. SFO Procedures (see Attachment 9). F-16 SFO overhead pattern will be limited to four aircraft at a time. SFOs are only authorized for 51 FW base assigned aircraft unless a letter of agreement is established IAW AFI 13-204V3.

4.3. Reduced Same Runway Separation (RSRS) Procedures. RSRS shall be applied IAW AFI 13-204V3_PACAFSUP, *Airfield Operations Procedures and Programs*. See tables 4.4 and 4.5 below for applicable separation standards.

Table 4.3. Daytime RSRS Standards.

Pairings	FS Behind TG	FS Behind LA	LA Behind LA	FS Behind FS	LA Behind FS	TG Behind TG	TG Behind LA
Same Fighter-Type	3000 ft	3000 ft	3000 ft	3000 ft	6000 ft	3000 ft	3000 ft
Dissimilar Fighter-Type	+	+	+	6000 ft	6000 ft	+	+
Same Non-Heavy, Non-Fighter-Type	+	+	+	6000 ft	+	+	+
Same Type Aircraft Formations	+	+	+	6000 ft	+	+	+
Fighter-Type Behind Non-Heavy Non-Fighter-Type	+	+	+	+	+	+	+
Non-Heavy Non-Fighter-Type Behind Fighter-Type	+	+	+	+	+	+	+
+: Procedure not allowed							

Table 4.4. Nighttime RSRS Standards.

Pairings	FS Behind TG	FS Behind LA	LA Behind LA	FS Behind FS	LA Behind FS	TG Behind TG	TG Behind LA
Same Fighter-Type	+	+	+	6000 ft	+	+	+
Same Non-Heavy, Non-Fighter-Type	+	+	+	6000 ft	+	+	+
Same Type Aircraft Formations	+	+	+	6000 ft	+	+	+
Fighter-Type Behind Non-Heavy Non-Fighter-Type	+	+	+	+	+	+	+
Non-Heavy Non-Fighter-Type Behind Fighter-Type	+	+	+	+	+	+	+
+: Procedure not allowed							

4.4. VFR Go-Around/Carry Through/Break-out Procedures.

4.4.1. Go-Arounds. When instructed to "GO AROUND", aircraft will climb straight ahead or as directed by the Tower. Aircraft will maintain at/below 1200 ft MSL until the departure end of the RWY and follow Tower instructions to execute closed traffic, execute re-entry pattern, or depart Class D airspace.

4.4.2. Carry Through. When instructed to "CARRY THROUGH" aircraft enroute to initial for the overhead shall maintain 1700 ft MSL, unless otherwise directed. Fly directly over the inside runway without breaking to departure end and execute the re-entry pattern.

4.4.3. Breakout (standard overhead). If a breakout from the perch is initiated, pilot will turn to the North, climb to 2500 ft MSL.

4.4.3.1. Aircraft will remain within 3 NM of the airfield, proceed to the departure end of the inside runway and follow the re-entry pattern ground track at 2500 ft MSL.

4.4.3.2. At the re-entry point, aircraft will turn after clearance from Tower, descend to 1700 ft MSL and maneuver to arrive at a 3-5 NM initial.

4.4.4. Breakout (restricted overhead). If a breakout from the perch is initiated, pilot will maintain 1700 ft MSL, deconfigure the aircraft, and accelerate to pattern speed. Pilot will either be instructed to report 3 NM initial or be handed off to RAPCON for sequencing through HAWG or RACETRACK.

4.4.4.1. If directed to report 3 NM initial, aircraft will continue straight ahead, visually clear the initial ground track, and execute a 180 degree turn to the south in order to arrive at 3 NM initial.

4.4.4.2. If directed to report HAWG or RACETRACK, aircraft will maintain 1700ft MSL, proceed to the VFR entry point and contact Osan Arrival for sequencing into the pattern. Aircraft overflying RWY 09L/27R will fly runway heading for 1 NM before turning direct to HAWG or RACETRACK for deconfliction with traffic from RWY 09R/27L.

4.5. Restricted Low Approach. Tower may clear aircraft for an altitude-restricted low approach in lieu of the requested type of landing. Tower shall state the reason for the altitude-restricted low approach and instruct the aircraft to maintain at or above 550 ft MSL (or 1050 ft MSL for heavy type aircraft). Aircraft must maintain at or below 1200 ft MSL until crossing the departure end of the RWY for protection of the Overhead Pattern.

4.6. VFR Departures. Aircraft requesting a VFR departure will notify Ground Control when commencing taxi and provide the type service requested, direction of turnout, direction of flight, and type formation (standard or nonstandard). Aircraft requesting VFR services, will contact Osan RAPCON while flying within Osan's terminal control area.

4.6.1. Aircraft will maintain a safe airspeed and altitude (at or below 1200 ft MSL) and fly RWY heading until passing the departure end.

4.6.2. Traffic permitting, Tower will approve requests for turns prior to reaching the airfield boundary (i.e., tactical departure procedures). Aircraft will remain at or below 1200 ft MSL until crossing the departure end of the RWY and clearing the VFR downwind.

4.6.3. Low Tactical Departure. Request LOW TAC DEPARTURE (direction), (type of formation) on initial contact with Ground Control. At departure end, maintain 500 ft AGL and turn to the requested direction while clearing for threats and accelerating. Proceed to the nearest VFR entry point while staying low to deconflict from arriving traffic at 2500 ft MSL. Notify Tower when exiting the Class D airspace. Contact Osan Arrival or Cobra as required.

4.6.4. High Tactical Departure. Request HIGH TAC DEPARTURE (direction), (altitude), (type of formation) on initial contact with Ground Control. Expect to be switched to Departure Control prior to departure roll, for traffic advisories prior to being cleared for take-off, for traffic advisory service. At departure end , clear for threats and execute a spiraling climb remaining within 3 NM and south of the airfield until reaching the appropriate altitude at or below 6500 ft MSL or as directed by ATC. If the SFO pattern is active or High Tactical Recoveries are in progress, High Tactical Departures may be capped at an altitude below the lowest aircraft in the SFO or High TRP pattern.

4.6.5. VFR Departures. Request VFR DEPARTURE on initial contact with Ground Control and provide direction and intended altitude.

4.6.6. VFR Release of IFR Departure. Request VFR DEPARTURE (direction), (altitude), (type of formation) on initial contact with clearance and notify them of your IFR flight plan on file. Expect to be switched to Osan Departure Control prior to being cleared for take-off, for traffic advisory service. Expect IFR clearance with Osan Approach when clear of all conflicts and above the MVA. Use the following phraseology:

4.6.6.1. Aircraft: "*CLEARANCE, (aircraft ID), REQUEST VFR HIGH TAC DEPARTURE, 6,500' WITH M201 ON REQUEST*".

4.6.6.2. Osan Clearance Delivery: *"(aircraft ID), VFR DEPARTURE AUTHORIZED, CONTACT DEPARTURE ON LOCAL CHANNEL 4* (unless otherwise coordinated) *FOR CLEARANCE, SQUAWK ####*".

4.7. Intersection Departures. The tables below depict feet available for intersection departures performed by fixed wing aircraft and are permitted upon pilot request or may be suggested by the Tower.

Table 4.5. Departing RWY 09R.

FROM TWY	FEET AVAILABLE
B and B1	6750 ft
C	4500 ft
D	Not Authorized

Table 4.6. Departing RWY 27L.

FROM TWY	FEET AVAILABLE
D	6750 ft
C	4500 ft
B and B1	Not Authorized

Table 4.7. Departing RWY 09L/27R.

FROM TWY	FEET AVAILABLE
C	4500 ft

4.8. Special Procedures.

4.8.1. Helicopter Operations.

4.8.1.1. South Pattern. Helicopters approaching from the south will enter downwind 1 NM south of RWY 09R/27L. Pattern altitude is 700 ft MSL until turning onto final approach. During high-density traffic operations, helicopters may report HILL 180 (SOT R-164/2-3 Distance Measuring Equipment (DME), and with Tower approval, proceed direct to TWY F or the AMOPS ramp.

4.8.1.2. North Pattern. Helicopters approaching from the north will enter Osan's traffic pattern via a downwind pattern. Base legs should be flown within 1 NM of the RWY. Pattern altitude is 700 ft MSL until commencing turn to final approach. When instructed by Tower, helicopters shall report and/or hold over PADDY POINT (R009/1 DME).

4.8.1.3. Helicopter Auto-Rotation Patterns. Tower clearance is required before conducting auto-rotations. RWY 09R/27L will normally be used for auto-rotation landings. TWY F may be used when arriving or departing traffic dictates. Due to the nature of these patterns, Tower will not breakout a helicopter that was cleared to conduct the maneuver except to preclude an emergency situation. ATC approval for auto-rotations will be secondary to normal arrival/departure operations. Helicopter Sling

Operations are not authorized unless previously coordinated with Airfield Operations. Once approved, helicopters shall:

4.8.1.3.1. Notify AMOPS of sling operations at least 30 minutes prior to departure.

4.8.1.3.2. Not over-fly structures, aircraft, vehicles, or personnel to the maximum extent possible.

4.8.1.3.3. AMOPS will coordinate sling operations between Tower, CE (contractors or grass mowers), and Osan helicopters 30 minutes prior to takeoff and approve the operation based on Tower's recommendation.

4.8.1.3.4. Tower will give approved sling operations priority over other traffic in the North VFR helicopter pattern.

4.8.2. Hover Maneuvers. Helicopters shall contact Ground Control for hovers and taxi helicopters shall remain over hard-surfaced TWYs when they hover taxi to and from parking, landing, or takeoff areas.

4.8.2.1. Contact Tower for clearance prior to conducting hover maneuvers above 10 ft. High hover maneuvers will be conducted on the RWY, HCP, or along TWY F (when approved by Tower).

4.8.2.2. Tower may approve high hovering at TWYs A, B, C, or D if they do not conflict with arriving or departing aircraft using the RWY.

4.8.3. Helicopter Function Check Flight. Not authorized unless previously coordinated with airfield operations. Once approved, execute procedures.

4.8.4. Helicopters will taxi over paved surfaces only. Helicopters with steerable landing gear will not hover-taxi on TWY F in front of the Flows.

4.8.5. Helicopters will not overfly base housing areas.

4.9. Special Visual Flight Rules (SVFR) Operations. Tower is responsible for controlling SVFR operations within Class D airspace. SVFR is permitted for USAF, US Army, US Navy and ROK helicopters. Operations will be IAW AFI 11-202V3 and FAAO JO 7110.65W.

4.10. Para-drop Area and Procedures.

4.10.1. Authorized Aircrews. Transient aircrews are authorized to conduct para-drop operations on Osan's airfield with 51 OG/CC approval. Local procedures shall be followed verbatim. Transient aircrews require a local procedures briefing to include the procedures listed in this section and any other areas deemed necessary by AMOPS and ATC representatives.

4.10.2. Designated Area. The grassy area west of TWY B, East of TWY C, South of RWY 09R/27L, and North of TWY F is designated as the primary para-drop area. This area is known as the "Kong Drop Zone." The Golf Course Fairway 2 located 1/2 mile SW of RWY 09R/27L is designated as the secondary para-drop area on base. Tower and RAPCON shall ensure:

4.10.2.1. No engine runs/start-ups are approved until the para-drop operations are complete.

4.10.2.2. Aircraft do not enter the traffic pattern or takeoff after the drop aircraft has turned final approach.

4.10.2.3. All VFR traffic patterns are closed during para-drop activity.

4.10.2.4. When receiving the five-minute notice from the participating aircraft, direct all aircraft to remain clear of Osan Class D airspace.

4.10.2.5. All aircraft will be advised of para-drop operations, to include location and inclusive altitudes.

4.10.2.6. Para-drop activities are terminated in the case of interfering traffic conditions, emergencies, or contingencies.

4.10.3. Wing Scheduling shall advise all flying organizations, 51 FW/CP, Security Forces and AMOPS of scheduled para-drops.

4.10.4. AMOPS shall:

4.10.4.1. Disseminate para-drop information through safety NOTAM.

4.10.4.2. Notify Tower, RAPCON and the Airfield Operations Flight Commander of scheduled para-drops.

4.10.4.3. Perform a RWY and TWY check after para-drop operations to ensure streamers and other potential FOD sources are not left on the airfield.

4.11. Drag Chute Procedures. Drag chutes will be released into the grass areas adjacent to the exit TWY. Host unit or their representative will recover drag chutes. In the event host unit or representative is unable to recover drag chute, TA and AMOPS will recover the chute.

Chapter 5

INSTRUMENT FLIGHT RULES (IFR) PROCEDURES

5.1. Basic Radar Service. Basic radar service is available for aircraft arriving, departing, and transitioning the Osan Terminal Control Area. Departing and arriving VFR aircraft requesting basic radar service can expect flight following, traffic information, and vectors, as necessary, (ATC workload permitting).

5.2. Beacon Code Assignment.

5.2.1. Aircraft will squawk the code assigned by ATC (or IAW special instructions) on departure and prior to initial contact with RAPCON when Return To Base (RTB).

5.2.2. The last element of a nonstandard formation flight will squawk subset (6500).

5.3. Radar Traffic Patterns (see attachment 8). Upon reaching the Minimum Vectoring Altitude (MVA), aircraft can expect vectors to intercept an ILS, TACAN, VOR, or surveillance approach.

5.3.1. Dual/Simultaneous IFR Runway Operations. Dual/simultaneous IFR runway operations are not authorized for RWY 09L/27R and RWY 09R/27L.

5.3.2. IFR arrivals will normally expect to execute approaches to RWY 27L/09R, unless the pilot/aircrew requests, ATC instructs otherwise, or the runway is unavailable.

5.4. Surveillance Approaches Airport Surveillance Radar (ASR)/Monitoring and Availability.

5.4.1. ASR surveillance approaches and instrument approach flight following is available upon request.

5.4.2. Single piloted turbojet aircraft shall be flight followed when the ASR is operational and when the weather is less than 1500 ft ceiling or 5 SM visibility or when the TACAN is out of service. Additionally, all aircraft landing RWY 27L/R will be flight followed when simultaneous operations are in progress into Suwon.

5.5. Local Departure Procedures.

5.5.1. Stereo Flight Plans will be executed IAW the 51 OG/KMLTM LOA or 8 OG and 51 OG LOA. When Osan Clearance Delivery issues "*CLEARED MUSTANG/DRAGGIN ###"*, the aircrew is cleared as filed per Mustang/Draggin route listed in the LOA, and the departure frequency will be Channel 4. Altitude and squawk will be assigned by ATC based on route of flight.

5.5.2. Standard Climb-Out Instructions: When multiple approaches are desired and ATC instructs "*EXECUTE LOCAL CLIMBOUT*", Osan aircraft will execute the following:

5.5.2.1. RWY 09L/09R: "*After completing low approach, cross departure end at or below 1200 ft MSL. Climb on track of 091 degrees until 3 DME, then turn right heading 150, climb and maintain 4000 ft MSL. Climb gradient is 290 ft per nautical mile until leaving 2400 ft MSL."*

5.5.2.2. RWY 27L/27R: "*After completing low approach, cross departure end at or below 1200 ft MSL. Climb on track of 271 degrees until 3 DME, then turn left heading 220, climb and maintain 4,000 ft. Climb gradient is 210ft per nautical mile until leaving 700 ft."*

5.6. Radar Vector to Initial Procedures. Aircraft under radar control may request vectors to initial. Vectors will be provided to intercept initial at 3-5 NM from the inside runway end. IFR service is automatically cancelled once the aircraft reaches initial.

5.7. Breakout/Go-Around Procedures. Standard breakout procedures for aircraft outside 6 NM from the RWY are as follows:

5.7.1. RWY 27L/R: *"TOWER CLEARANCE CANCELLED/NOT RECEIVED, CLIMB AND MAINTAIN FOUR THOUSAND ONE-HUNDRED, UPON REACHING THREE THOUSAND ONE-HUNDRED, TURN LEFT HEADING 180".*

5.7.2. RWY 09L/R: *"TOWER CLEARANCE CANCELLED/NOT RECEIVED, CLIMB AND MAINTAIN FOUR THOUSAND ONE-HUNDRED, UPON REACHING THREE THOUSAND ONE-HUNDRED, TURN RIGHT HEADING 180"*.

5.7.3. Go-around procedures for aircraft at 6 NM or less from the RWY are as follows:

5.7.3.1. RWY 27L/R: *"TOWER CLEARANCE CANCELLED/NOT RECEIVED, EXECUTE LOCAL CLIMBOUT" or "TOWER CLEARANCE CANCELLED/NOT RECEIVED GO-AROUND NORTH/SOUTH SIDE* (if additional instructions are provided by Tower) EXECUTE *LOCAL CLIMBOUT* (or as directed by ATC)*"*.

5.7.3.2. RWY 09L/R: "*TOWER CLEARANCE CANCELLED/NOT RECEIVED, EXECUTE LOCAL CLIMBOUT"* or "*TOWER CLEARANCE CANCELLED/NOT RECEIVED GO-AROUND NORTH/SOUTH SIDE* (if additional instructions are provided by Tower) *EXECUTE LOCAL CLIMBOUT* (or as directed by ATC)*"*.

5.8. Radar/In-Trail Recoveries. Radar/In-Trail Recoveries are authorized at Osan and will be accomplished IAW procedures listed in 8 OG and 51 OG Radar In-Trail Recoveries Letter of Agreement (LOA).

Chapter 6

EMERGENCY PROCEDURES

6.1. Operation of Primary Crash Alarm System (PCAS) and Secondary Crash Network (SCN).

6.1.1. Tower will coordinate emergencies with base agencies via the PCAS. The PCAS will be activated for the following reasons:

6.1.1.1. Daily checks will be conducted between 0800 - 0830L (2300 - 2330Z).

6.1.1.2. Emergency is declared by the pilot, SOF, ATC, or maintenance.

6.1.1.3. Suspected or confirmed hot brakes.

6.1.1.4. Hung or unsecured live or heavyweight inert ordnance (except 2.75" TP/WP Rockets).

6.1.1.5. Barrier engagement is anticipated.

6.1.1.6. Unanticipated barrier engagement.

6.1.1.7. Confirmed or suspected aircraft crash.

6.1.1.8. Suspected or attempted aircraft theft or hijack.

6.1.1.9. Suspected lost aircraft.

6.1.1.10. No Radio (NORDO) aircraft (if unable to determine if other than radio difficulties exist).

6.1.1.11. Bomb threats received by ATC facilities or reported on the airfield.

6.1.1.12. Unsafe or hazardous condition during arm/de-arm.

6.1.1.13. To update vital information.

6.1.1.14. Tower or RAPCON evacuations.

6.1.1.15. Activation of ALS.

6.1.1.16. As deemed necessary by the Tower supervisor.

6.1.1.17. As required for exercises.

6.1.2. The following information, if known, is passed via PCAS:

6.1.2.1. Type emergency (in-flight, ground, or exercise, etc.).

6.1.2.2. Aircraft call sign.

6.1.2.3. Type aircraft.

6.1.2.4. Nature of emergency.

6.1.2.5. Number of personnel on board and their location.

6.1.2.6. Fuel remaining (in time) and if possible in pounds.

6.1.2.7. Ordnance on board.

6.1.2.8. Landing RWY, grid coordinates, or location; if Ground Emergency (GE) or off-base crash. Last known location, heading, and speed when airborne contact is lost.

6.1.2.9. Emergency Power Unit (EPU) activation.

6.1.2.10. ETA, wind, and cordon required by the Incident Commander (IC).

6.1.3. Secondary Crash Net (SCN). Upon receipt of emergency information, AMOPS will activate the SCN IAW AFI 13-204V3. Use of the SCN is limited to critical information concerning aircraft and airfield operations.

6.1.3.1. SCN will be checked daily after the PCAS check between 0800 - 0830L (2300 - 2330Z). The alternate SCN will be checked monthly. If Monday is a holiday or 51 FW down day, the PCAS and SCN will be checked the next duty day.

6.1.3.2. All agencies with access will train newly assigned personnel on proper use prior to allowing access.

6.1.3.3. All agencies on the SCN must use a noise reduction feature that filters out background noise.

6.1.3.4. Any change to the SCN system must be approved by 51 OSS/CC.

6.2. Emergency Response Procedures. See AFI 10-2501, *Air Force Emergency Management Program* Osan Installation Emergency Management Plan 10-2, and applicable 51 FW OPLANs which addresses both on and off base incident response procedures (maintained on the 51 FW/XP SharePoint site). The IC is the senior fire official during an emergency response. The IC may be relieved by the Emergency Operations Center (EOC) Director if the appointment of a recovery operations chief is required.

6.2.1. In-Flight Emergency Procedures (IFE).

6.2.1.1. Tower shall:

6.2.1.2. Activate PCAS.

6.2.1.3. Ensure all aircraft, vehicles, and personnel operating within the CMA are notified of all ground and airborne emergencies and evacuated to a safe distance as required.

6.2.2. All aircraft and vehicles shall give way to responding emergency vehicles regardless of position on the airfield and respond to Tower instructions. Aircraft movement within the vicinity of the emergency will be approved by the Fire Chief or Senior Fire Officer.

6.2.3. Aircraft Chase Response.

6.2.3.1. The SOF shall determine if such a response is required. The Fire Chief will coordinate with Tower to conduct a chase response. Once Tower approves, the Fire Chief and responding vehicles have approval for immediate entry onto the RWY once the emergency aircraft passes each vehicle's respective position on the TWY.

6.2.3.2. The Fire Chief or Senior Fire Officer shall position vehicles to respond to the emergency. Tower will advise the Fire Chief when the emergency aircraft is next to land.

6.2.3.3. The Fire Chief/Senior Fire Official vehicles will position on the west end of the AMOPS Ramp or Door Stop for most emergencies. Recovery vehicle (tow) shall be

positioned with the Fire Chief/Senior Fire Official, and the AMOPS vehicle shall be positioned either on TWY Alpha or Echo, depending on the RWY in use.

6.2.3.4. The Fire Chief or Senior Fire Official shall report to Ground Control when all Fire Department response vehicles are off the RWY.

6.2.3.5. The Fire Department will pass termination times for emergencies to Tower and AMOPS in a timely manner.

6.2.4. Chase Aircraft. Only designated chase aircraft may accompany the emergency aircraft on final approach. The chase aircraft should remain north of the emergency aircraft. Any aircraft desiring to chase to the south must advise Tower or RAPCON as appropriate.

6.2.5. RWY Checks After an Emergency.

6.2.5.1. RWY operations may be suspended after an IFE or GE. AMOPS will perform a RWY/taxi surface check, unless waived by the 51 FW SOF.

6.2.5.2. The SOF or Tower (when directed by the SOF) will then call AMOPS to advise that the RWY/taxi surface check has been waived.

6.2.5.3. AMOPS personnel will document the "NO RWY CHECK REQUIRED PER SOF" in the AF Form 3616, *Daily Record of Facility Operation*. Examples of IFEs or GEs when a RWY check may be required are gear problems, fuel or hydraulic problems, wildlife strikes, or other situations deemed necessary by the SOF, Tower, or AMOPS.

6.2.6. Emergency Recovery Frequency (ERF).

6.2.6.1. ATC will assign military single-piloted turbo-jet aircraft with the IFE emergency frequency 245.7 (Channel 11) for approach and landing. The Tower or SOF may assign the ERF after coordination with Osan Approach.

6.2.6.2. ATC will notify the SOF that an emergency aircraft is on the ERF. The SOF will monitor the ERF until the emergency is terminated.

6.2.6.3. When runway closure or barrier engagement is anticipated, the emergency aircraft reaches 10 flying miles from the RWY, Tower will make a UHF GUARD/243.0 transmission to inform 51 FW airborne aircraft.

6.3. Drop Tank/External Stores Jettison Area. The primary drop tank and external stores jettison area is on a scheduled range. The Instrument Meteorological Conditions (IMC) area is SOT R-275/18-20 DME. Radar vectors can be provided by Osan Approach. Osan Approach can advise the pilot when the aircraft is entering the area, however, ATC shall not tell the pilot when to jettison stores.

6.3.1. Inert, Live, or Training Ordnance Jettison Areas. Primary jettison locations should be on a scheduled range. If unable to jettison on a scheduled range, jettison Visual Meteorological Conditions (VMC) on any range or the Catfish Jettison Area.

6.3.1.1. The Catfish Jettison Area is the primary live ordnance jettison area in the ROK. The Catfish Jettison Area is located at SOT R-243/79 DME, within 4 NM radius.

6.3.1.2. Osan Jettison Area – SOT R-275/18-20 DME, heading 270-330 degrees. If IMC, Osan Approach will provide separation from known aircraft.

6.3.1.3. Kunsan Jettison Area – Kunsan R-270 to 290/3-15 DME.

6.3.2. Procedures.

6.3.2.1. The pilot will proceed to the selected area and make every attempt to ensure the area is clear, if time and conditions permit.

6.3.2.2. Jettison as far as possible out to sea.

6.3.2.3. Jettison over any clear area.

6.4. Fuel Dumping. Proceed to a minimum of 5 NM off shore at or above 5000 ft MSL.

6.5. Emergency Aircraft Arresting System Procedures.

6.5.1. Should a barrier engagement be made at any time during a landing when the pilot has not declared intention to do so, it will be treated as an emergency.

6.5.2. NORDO aircraft will engage the arresting system, as appropriate. Plan the approach as dictated by the emergency. Squawk code 7600. Plan a straight-in approach, flashing landing lights on final. Monitor Tower for light signals.

6.5.3. Practice Engagements. Barrier Maintenance will coordinate practice engagements in advance with AMOPS, Tower, MOCC and Fire Chief. Once approved by the 51 OG/CC via the SOF, pilots will annotate their flight plans accordingly in remarks. Rescue crew and appropriate crash equipment will standby at the scene. The rescue crew will marshal the engaged aircraft.

6.5.4. RWY Closure and Equipment Recovery Time. Recovery time for BAK-12 barrier system resets normally take at least 20 minutes.

6.6. Hot Brakes Procedures.

6.6.1. If able, aircrews will proceed to the primary hot brake area on either TWY A or TWY E. Alternate parking location is TWY B1 or directed by Fire Chief or Senior Fire Official.

6.6.2. Fire Department will be dispatched immediately via the PCAS.

6.6.3. If fire suppression is required, responsibility rests with the Senior Fire Official, including shutdown, isolation of aircraft, and standby equipment until wheel assembly is cooled.

6.7. Controlled Bailout Area.

6.7.1. The controlled bailout area is SOT R-275/10-12 DME, Heading 275, altitude should be no lower than 2000 ft AGL.

6.7.2. Aircrew safety permitting, plan bailout so the aircraft will impact in the water. Aircrew can request radar vectors from Osan Approach.

6.7.3. ATC will plot aircraft coordinates on the grid map and pass the information via the primary crash phone, if required.

6.8. Personnel/Crash Locator Beacon Signal/Emergency Locator Transmitter (ELT).

6.8.1. Upon receipt of a personnel/crash signal, RAPCON will notify Incheon Center and Osan Tower of the affected frequency. If Tower receives the ELT, they will notify RAPCON.

6.8.2. Tower is also responsible for notifying AMOPS. AMOPS will notify CP, MOCC, TA and AMC when transient aircraft are on the ground.

6.8.3. MOCC will initiate search upon receipt of initial signal.

6.8.4. The ELT will be rechecked every hour until located or terminated.

6.9. Live/Hung Ordnance Procedures.

6.9.1. To help minimize the risk associated with flying with Live/Hung Ordnance, minimum risk routes from Pilsung and Jik-do ranges have been established. Pilots will fly the depicted routing to the max extent possible, maneuvering as necessary to avoid populated areas (see Attachment 10 for routing).

6.9.2. Pilots will contact Osan Approach Control NLT 10NM prior to STNNN to coordinate Hung Ordnance procedures. In addition, coordination with the SOF should be accomplished as early as possible.

6.9.3. For RWY 09L/R after VISEN and RWY 27L/R after STNNN, fly direct to the runway either via radar vectors to ILS final or visual straight-in, weather permitting.

6.9.4. Unless unsecured, TP/WP 2.75" rockets, and inert bombs do not necessitate an IFE. The SOF will determine with the pilot if an IFE exists.

6.9.5. The primary hung ordnance location is the Hot Cargo Pad facing the gun berm. The alternate location is TWY Foxtrot, west of TWY Alpha facing west.

6.9.6. Aircraft experiencing an "unsafe gun" will park on the HCP (primary) with gun pointed to towards the gun berm or the northernmost de-arm spot on TWY A with gun pointed west and await de-arming. When landing on RWY 9L/R, perform a left 180-degree turn on the runway and back taxi to the unsafe gun area. Only Fire Department personnel, arm/de-arm crews, and Explosive Ordnance Disposal (EOD) may enter the parking area until the aircraft is declared safe.

6.10. Wind Limitations on the Control Tower. When the wind velocity reaches 60 knots sustained, gusts in excess of 65 knots, or at the discretion of the Watch Supervisor, Tower will implement the evacuation checklist and evacuate to the RAPCON. Prior to evacuation, Tower will activate the PCAS and broadcast on all tower frequencies, to include guard, that the Tower is evacuating and to contact Osan Approach.

6.11. Evacuation of ATC and AMOPS Facilities/Alternate Facilities Procedures.

6.11.1. Tower Evacuation/Alternate Facility.

6.11.1.1. The Tower Watch Supervisor (WS) determines when a facility evacuation is required. If the Tower WS directs a facility evacuation, alternate Tower operations will be conducted from the Highly Mobile Multi-purpose Wheeled Vehicle (HMMWV) IAW OSAT OI 13-204 *Air Traffic Control Tower Operations*.

6.11.1.2. Tower will suspend runway operations if there will be a lapse in Tower's control during the transition between the primary and alternate facilities.

6.11.1.3. Taxiing aircraft will be instructed to hold position until the alternate Tower is operational.

6.11.1.4. Airborne aircraft will be instructed to contact Osan Arrival on Channel 15 or 133.65 for information and instructions. Osan Approach/Arrival will hold airborne aircraft until the Alternate Tower is operational, unless emergency situation dictates.

6.11.1.5. Tower will instruct all vehicles to exit and remain clear of the CMA until radio contact with the Alternate Tower is established and normal procedures resume.

6.11.1.6. Limitations. All arrivals will make one approach to a full stop. To the maximum extent possible, RAPCON will provide 7-10 miles of separation between arrivals.

6.11.1.7. AMOPS shall:

6.11.1.7.1. Activate the Secondary Crash Net (SCN).

6.11.1.7.2. Suspend runway operations, if requested by Tower.

6.11.1.7.3. Conduct an airfield check to ensure all vehicles are out of the CMA until Tower personnel are relocated.

6.11.1.7.4. Resume runway operations when requested by Tower.

6.11.2. RAPCON Evacuation/Alternate Facility.

6.11.2.1. The RAPCON WS determines when a facility evacuation is required. If the RAPCON WS directs a facility evacuation to the alternate RAPCON, limited radar services will be provided utilizing the Tower Display Workstation (TDW) IAW OSAT OI 13-204 and Tower/RADAR/AMOPS Coordination Letter.

6.11.2.2. Limitations. If alternate RAPCON operations are established from the Tower, limited radar services will be provided. If RAPCON is unable to evacuate to the alternate facility, no approach control services will be available.

6.11.3. AMOPS Evacuation/Alternate Facility.

6.11.3.1. The AMOPS Supervisor (AMOS) determines when a facility evacuation is required and will evacuate to bldg 1185.

6.11.3.2. AMOPS shall activate the SCN when relocating to the alternate facility. Limited NOTAM and flight planning capabilities will be available.

6.12. LOST COMM/NORDO Procedures.

6.12.1. Facility LOST COMM procedures will be executed in IAW OSAR OI 13-204 *Radar Approach Control Operations.*

6.12.1.1. VFR Aircraft. Squawk 7600, proceed to initial via HAWG/VIPER for RWY 27L or via BRIDGE/RACE TRACK for RWY 09R and rock wings on initial, break at departure end and watch for light gun signals on final.

6.12.1.2. IFR Aircraft. If aircraft is NORDO upon departure, squawk 7600 and fly the assigned instrument departure procedure or last assigned instructions. Execute one turn in holding at the clearance limit fix at the last assigned altitude. Upon completion of the turn in holding, proceed to VISEN or STNNN (depending on the last runway in use), climb/descend to 5000 ft MSL and make one turn in holding, and then execute the approach.

6.12.1.3. NORDO aircraft returning to Osan will proceed to VISEN or STNNN, execute one turn in holding, and then execute the approach.

6.12.1.4. If able, aircraft will taxi to the de-arm area after landing.

6.12.2. Helicopter Hot Gun Procedures.

6.12.2.1. Helicopters experiencing a "hot gun" will declare an IFE and approach Osan from the west when able. In all cases, over-flight of people and buildings will be avoided to the maximum extent possible. At all times, the malfunctioning gun will be pointed away from all people and buildings.

6.12.2.2. Approach and landings will be made on the HCP on the southwest side of the airfield in such a way that the malfunctioning gun will be pointed towards the gun berm. The unit's weapons personnel will "safe" the malfunctioning gun and remove it from the aircraft.

6.13. Contaminated Aircraft Procedures.

6.13.1. See AFI 10-2501, Osan Installation Emergency Management Plan 10-2, and applicable 51 FW OPLANs.

6.13.2. Tower will direct contaminated aircraft off the active RWY onto the arm/de-arm pads located on TWYs A or E. The aircraft canopy, hatches, and doors will be kept closed.

6.13.3. Aircraft decontamination team initial response element personnel will initially verify aircraft tail number and monitor the aircraft. If not contaminated, the aircraft will be released. If contamination is present, the aircraft decontamination vehicle will escort the aircraft to the decontamination parking area.

6.13.4. The aircraft decontamination area is the U-2 Trim Pad; a taxi route to the area will be coordinated between the decontamination team, Tower, AMOPS, MOCC, and OG EOC (STALLION Ops).

6.13.5. Aircraft decontamination personnel will monitor the taxi route and parking area. AMOPS will close any contaminated area that is declared unsafe by decontamination personnel.

6.13.6. 5 RS decontamination procedures will be IAW 5 RS command directives.

6.13.7. AMC large-frame aircraft reporting contamination will be evaluated for contamination at TWY A or E before proceeding to the HCP or AMC apron, as applicable.

6.14. Handling of Aircraft Carrying Dangerous/Hazardous Cargo. These procedures are in addition to those contained in AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Material*. Notification of inbound aircraft carrying hazardous cargo may be received from air terminal operations center, the tower, pilot-to-dispatch message, flight service, etc. AFJI 11-204 requires aircraft carrying hazardous cargo or inert devices to indicate type cargo in the remarks section of the DD Form 1801, *International Flight Plan, DOD*. A base agency receiving information on an inbound aircraft carrying hazardous cargo will relay all available information to AMOPS. AMOPS will notify and keep the appropriate agencies updated.

6.14.1. When an inbound aircraft reports hazardous cargo aboard and previous notification was not received, the RAPCON will pass the load message verbatim to AMOPS.

6.14.1.1. AMOPS will:

6.14.1.2. Serve as primary communication network and relay all information concerning hazardous cargo aircraft to Tower, Fire Department, Munitions Control (as applicable), 731 AMS/ATOC, and TA.

6.14.1.3. Ensure aircraft is parked in designated hazardous cargo location (coordinate with 731 AMS/ATOC). The designated parking spot for aircraft carrying hazardous cargo is the HCP. Airlift aircraft may be parked for loading or unloading on other parking ramps IAW 51 FWI 91-201.

6.14.1.4. Notify the SOF if the HCP will be occupied during scheduled wing flying.

6.14.2. 51 FW/CP will:

6.14.2.1. Notify AMOPS when an inbound aircraft commander identifies hazardous cargo onboard.

6.14.2.2. Contact 51 FW/CC, 51 OG/CC, 51 MSG/CC, 7 AF/SODO, 51 FW/SE, and 731 AMS/ATOC when notified of an aircraft inbound with line numbers.

6.14.3. 731 AMS will:

6.14.3.1. Maintain necessary equipment for aircraft up/down load.

6.14.3.2. Verify coordination of explosive materials prior to Osan AB arrival/departure and Shipper Declaration of Hazardous Goods IAW AFMAN 24-204_IP, *Preparing Hazardous Materials for Military Air Shipments*.

6.14.3.3. Notify AMOPS when an inbound aircraft commander identifies hazardous cargo onboard.

6.14.3.4. Coordinate parking plan with TA for AMC missions and provide technical assistance to AMOPS for designated aircraft parking and loading locations.

6.14.3.5. Notify appropriate agencies in the event of an accident or incident.

6.14.3.6. Ensure net explosive weight limits are not exceeded at designated hazardous cargo locations.

6.14.3.7. Contact Tower Watch Supervisor when hot cargo pad usage exceeds planned timeline.

6.14.4. 51 FW/SE will:

6.14.4.1. Perform spot inspections IAW applicable regulations and Chief of Safety guidance to ensure all operations are conducted safely.

6.14.4.2. Advise the 51 FW/CC on facilities and personnel endangered by the use of an alternate location if the aircraft cannot be parked in the primary hazardous parking area.

6.14.4.3. Forward a temporary waiver to HQ PACAF/SE if the alternate location is approved by the 51 FW/CC.

6.15. EPU or Hydrazine Emergencies. F-16s with EPU or hydrazine emergencies will park in the approved hydrazine areas located on TWY Alpha and TWY Echo. Alternate parking locations are TWY B1 or as directed by Fire Chief or Senior Fire Official.

6.16. Explosive Detection K-9 Procedures. If an emergency aircraft requests the services of an explosive detection K-9 team, the request is relayed to AMOPS who will coordinate with the Security Forces Control Center to determine if they can provide assistance. AMOPS will notify OC of the situation, if not already relayed via crash net.

Chapter 7

FLIGHT PLANNING PROCEDURES

7.1. Flight Plans. All aircraft departing USAF installations must have a flight plan on file with AMOPS prior to takeoff IAW AFI 13-204V3, AFI 11-202V3, and General Planning instructions.

7.2. Scheduling and Flight Plan Procedures.

7.2.1. Each flying organization or unit will complete and maintain a separate PACAF approved log for each day's activities. At a minimum, these logs will include call sign, type/number of aircraft, Actual Time of Departure (ATD), Estimated Time Enroute (ETE), and Actual Time of Arrival (ATA).

7.2.2. Flying squadrons must file a DD Form 1801, with AMOPS for all cross-country flights and are responsible for ensuring AMOPS receives a legible copy to ensure there are no issues that would prevent an on-time departure.

7.2.2.1. Flight plans will be filed with AMOPS at least 1 hour prior to ETD.

7.2.2.1.1. Domestic Cross-Country Flights. The aircraft tail number will be recorded and retained at the squadron. The squadron will put note "S/N on file" to show the tail number will be recorded at the squadron. This allows the squadron the flexibility to make last minute aircraft assignments while keeping the tail number available for mishap identification purposes. It also allows AMOPS to file the flight plan in a timely manner. In the event of power or computer failure, the aircraft tail number will be required in order to verbally file the flight plan with Incheon Center.

7.2.2.1.2. International Cross-Country Flights. The aircraft tail number MUST be included on the flight plan before it can be filed with Incheon Center. If proposed tail numbers change, report the amended tail number to AMOPS as soon as possible.

7.2.3. User will maintain the original flight plan (or flight log) for 3 months, or 12 months for flight plans with an aircraft involved in an accident, incident of ATC deviation IAW Air Force RDS, Table 13-7, rules 3 and 4.

7.2.4. Flying units assigned to Osan will provide OC with a copy of the next day's flying schedule. The Patriot Excalibur (PEX) System shall be used to the maximum extent possible to plan and flight follow 51 FW aircraft. The schedule will contain the aircraft call sign, number of aircraft in the flight, scheduled takeoff and landing times, estimated time enroute, pilot weather categories, and crew names.

7.2.5. PEX will be the primary means of notifying the SOF and Tower of changes in the daily flying schedule or clearance requests to include delays, additions, and cancellations. The Tower will notify RAPCON of any schedule changes. 51 FW flying units will notify SOF of call-sign, pilot, and weather category changes made the day of flying.

7.2.6. If any element of a flight is canceled or delayed, the flight lead will inform Osan Ground Control when requesting clearance. Delayed elements that call for taxi after the rest of the flight has taken off will have the appropriate flying squadron scheduler call AMOPS to coordinate or fax a new flight plan and advise the SOF.

Chapter 8

MISCELLANEOUS PROCEDURES

8.1. Airfield Operations Board (AOB). This meeting shall be accomplished IAW AFI 13-204V3 and AFI13-204V3_PACAFSUP.

8.2. AOB Membership. The following individuals or their designated representative shall attend the AOB (see Table 8.1).

Table 8.1. AOB Membership.

51 OG/CC	51 MSG/CC
51 FW/SEF	51 MOS/CC
51 OG/OGV	51 SFS/CC
51 OSS/CC/DO/OSA/OSAM/OSAR/OSAT/OSW/OSAG/OSAX	51 FW/CP
51 FSS/FSCA (Aero Club)	5 RS/CC/DO
51 CES/CC	25 FS/CC
51 CS/CC	36 FS CC
Host Nation/Satellite Airport Rep (not mandatory)	731 AMS/CC

8.3. Annual Review Items. The following items shall be reviewed on an annual basis during their specified month.

8.3.1. Results of annual self-inspection - (March).

8.3.2. SII inspection results following HAF and/or MAJCOM release - (March).

8.3.3. Air Installation Compatible Use Zone (AICUZ) - (April).

8.3.4. Letter of Procedure (LOP) Review - (June).

8.3.5. Terminal Instrument Procedures (TERPS) - (September).

8.3.6. Aircraft parking plan - (September).

8.3.7. Airfield certification/safety inspection results - (December).

8.3.8. Status of Airfield Waivers - (December).

8.4. NOTAM Procedures.

8.4.1. The primary method for obtaining NOTAMs is the US NOTAM Office Web Site (**https://www.notams.jcs.mil**). Each flying organization is responsible for gathering NOTAMs through this method. The alternate method for AMOPS is to contact another military installation to receive and send NOTAMs. AMOPS is the NOTAM disseminating facility and the RAPCON is the NOTAM monitoring facility.

8.4.2. In the event the NOTAM web site is out of service, AMOPS will attempt to access NOTAMs through another web site (**https://www.notams.fa.gov**). If that is also unavailable, AMOPS will contact Kunsan for NOTAMs. In the event that the said sources are not available, flying units/transient aircraft personnel will have to contact each respective base for NOTAMs. AMOPS will provide NOTAMs for Korean and divert bases at the start of each day and will fax additional NOTAMs as appropriate throughout the day.

8.5. FLIP Accounts and Procedures for Requesting Changes.

8.5.1. 51 FW FLIP accounts are managed by AMOPS. Send suggested FLIP changes to 51 OSS/OSAM, Unit 2163, APO AP 96278-2163 (DSN 314-784-4222/1861). 51 FW flying units will update their FLIP requirements letter with 51 OSS/OSAM annually or as required due to changes in personnel.

8.5.2. TSP/TDY units will appoint a FLIP monitor and are responsible for submitting FLIP requirements to AMOPS.

8.6. Waivers to Airfield/Airspace Criteria. Airfield/Airspace waivers are reviewed IAW PACAFI 32-1056. The Airfield Waiver Working Group reviews at least 25% of airfield waivers each quarter and briefs the results at the AOB. 51 CES/CENPP is the OPR for the permanent Airfield Waiver Program, 51 CES/CEN is the OPR for the temporary Airfield Waiver Program, and 51 OSS/OSA, in coordination with 7 AF/A3A, is the OPR for airspace criteria. A copy of the annual waiver review package is located in the 51 CES/CEAO CENPP offices.

8.7. Prior Permission Required (PPR) Procedures. PPR procedures will be IAW NOTAM and IFR supplement guidance for Osan AB. Failure to coordinate with 51 OSS/OSAM may result in landing clearance denial due to lack of parking space. Project officers, points of contact, and temporary duty liaisons should make every attempt to coordinate with 51 OSS/OSAM to ensure necessary parking and support is available.

8.8. Aeromedical Evacuation (AIR/MED EVAC) Notification and Response Procedures.

8.8.1. Tower will contact AMOPS whenever an arriving AIR/MED EVAC aircraft is 15 miles from the airport or upon initial contact. AMOPS will initiate rescue protection notifications (i.e., notify TA, Fire Department, and Air Evac personnel).

8.8.2. The MDG will contact AMOPS when they request AIR/MED EVAC support.

8.8.3. DUST OFF (UH-60 EVAC) operations will be conducted on the AMOPS apron. The Door Stop Ramp will be the alternate location.

8.9. Unscheduled/Unauthorized Aircraft Arrivals. All aircraft inbound to Osan must be on a flight plan (or given prior notice) which contains Osan as a destination. In the event of a no-notice arrival, the following actions will occur:

8.9.1. AMOPS shall follow applicable quick reaction checklists and attempt to verify the inbound aircraft's flight plan. Tower shall only allow the aircraft to land if approved by AMOPS.

8.9.2. If AMOPS cannot verify the aircraft's flight plan, and the aircraft lands, the Tower will direct the aircraft to the HCP. Tower will direct the aircrew to contact AMOPS via pilot-to-dispatch radio.

8.9.3. 51 SFS will cordon off/secure the area and crew/passengers will not be allowed out of the area until released by the IC.

8.10. Distinguished Visitor (DV) Notification Procedures. Shall be accomplished IAW the 51 OSA and 7 AF Protocol Letter of Agreement.

8.11. Local Aircraft Priorities.

8.11.1. For peacetime operations (including exercises), ATC will use the following aircraft priorities when sequencing arrivals and departures:

8.11.1.1. Aircraft in distress/emergencies.

8.11.1.2. Active air defense scrambles.

8.11.1.3. Air evacuation aircraft when priority is requested by the pilot.

8.11.1.4. Search and rescue (SAR) missions.

8.11.1.5. Presidential/presidential support aircraft.

8.11.1.6. Minimum/divert fuel.

8.11.1.7. Special air missions.

8.11.1.8. Flight inspection aircraft.

8.11.1.9. Departure or recovery of 5 RS active/tactical mission aircraft (can be lowered based on mission requirements; 51 FW SOF and 5 RS SOF must coordinate and agree on priority).

8.11.1.10. DV aircraft.

8.11.1.11. Full stop arrivals.

8.11.1.12. 51 FW departures.

8.11.1.13. 51 FW practice approaches.

8.11.1.14. All other departures.

8.11.1.15. Special VFR aircraft.

8.12. Opposite Direction Take-offs and Landings.

8.12.1. Opposite Direction Traffic.

8.12.1.1. Opposite Direction Departure vs. Arrival. An opposite direction IFR or VFR departure must be airborne and clear of the final approach course before an arriving aircraft can proceed inbound past a point ten miles from the RWY threshold.

8.12.1.2. Opposite Direction Arrival vs. Departure. An opposite direction IFR or VFR arrival shall not proceed inbound closer than ten flying miles (11 DME) from the RWY threshold until the departing aircraft is airborne and clear of the final approach course.

8.12.1.3. Opposite Direction Arrival vs. Arrival. An opposite direction arrival will not proceed closer than 10 mile final before an opposing arrival has landed.

8.12.1.4. VFR Criteria. VFR aircraft in the tower pattern will not turn base until the opposite direction departure is airborne and clear of the final approach course or an opposite direction arrival has landed.

8.12.1.5. Opposite direction VFR helicopters may land or depart if cleared by Tower. When cleared, helicopters shall proceed no further north than TWY F unless otherwise instructed.

8.12.2. Bi-Directional RWY Operations.

8.12.2.1. The 51 OG/CC is the approval authority to initiate.

8.12.2.2. Concept of Operations. Normally implemented during readiness exercises, bi-directional operations are designed to minimize the amount of time aircraft will be exposed prior to departure and after landing. 51 FW aircraft will depart RWY 09R and land RWY 27R. For Single Runway Operations, aircraft will launch to the East and recover to the west (i.e. take off RWY 9R and land RWY 27R).

8.12.2.3. Barrier Configuration. The configuration for the barriers is departure end cables for RWY 27R and RWY 09Rin the raised position, unless otherwise directed by 51 OG/CC. For Single Runway Operations, the two western-most cables will be in the raised position, unless otherwise directed by 51 OG/CC.

8.12.2.4. Unidirectional cables located in the overruns cannot be in the raised position on the approach end of the either runway.

8.12.3. Arming. Aircraft will arm/de-arm in the EOR area. If directed by 51 OG/CC, 51 MXG/CC, or designated representative, aircraft will arm/de-arm in the HAS's or flows.

8.12.4. Weather Conditions. Daytime/VFR conditions and dry RWY only.

8.12.4.1. A-10 maximum tailwind will be 20 knots.

8.12.4.2. F-16 maximum tailwind will be 10 knots.

8.13. Civilian Aircraft Operations. Traffic permitting, civilian aircraft low approaches at Osan are authorized. In the event of an emergency, both domestic and foreign government (IAW AFI 10-1801, *Foreign Governmental Aircraft Landings at United States Air Force Installations*) civilian aircraft landings are authorized but could be assessed landing fees IAW AFI 10-1001, *Civil Aircraft Landing Permits*. Civilian aircraft requesting permission to land at Osan will be directed to call AMOPS over Pilot-To-Dispatch (PTD). Aircraft will be checked against the Civil Aircraft Landing Authorization Listing to verify permission to land at Osan. If aircraft does not have authorization to land and is not declaring an emergency, it will be processed as an unauthorized intentional landing and landing fees can be assessed by the 51 FW/CC.

8.14. Civil Use of Military ATCALS. Civilian aircraft may use Osan ATCALS facilities and equipment to receive vectors, NAVAID services, and low approaches at Osan (traffic permitting).

8.15. Aero Club Operations. Operation of the Osan Aero Club's aircraft will be IAW AFI 34-117, *Air Force Aero Club Program*. The Osan Aero Club is located in bldg 1187, east of the doorstop.

8.15.1. Flight Plans and Flight Authorization. FTC pilots will use the FTC flight plan for all local area flights (see para 3.2). FTC pilots will use DD Form 1801 and file at AMOPS when they conduct a flight outside the local area and to airfields in the local area where the aircraft will be shut down.

8.15.2. Recommend that the FTC does not fly during exercise/surge operations. Expect extended delays during these times.

8.16. Weather Dissemination and Coordination Procedures. Severe weather warnings will be disseminated to Tower, RAPCON, and AMOPS by 51 OSS/OSW. This information will be disseminated via ATIS and SCN. Hazardous/severe weather notifications and lighting response shall be executed IAW 51 FWI 15-101, *Weather Support for Osan Air Base*.

8.16.1. Lightning Watch. A term used to predict when lightning warning will be declared. It is advisory in nature and has no impact on local operations.

8.16.2. Lightning Warning. This condition will be declared when lightning is observed within 5 miles of the base. The following steps shall be taken:

8.16.2.1. All refueling, liquid oxygen (LOX), and munitions operations shall cease.

8.16.2.2. Aircrews will not step to the aircraft.

8.16.2.3. Aircraft in the midst of start or shutdown may continue. After startup or shut down, all maintainers shall take appropriate shelter and/or clear the airfield expeditiously.

8.16.2.4. Aircraft may taxi to/from the RWY.

8.16.2.5. Arm/de-arm procedures shall cease immediately. SOF will decide whether or not there is time to chock the aircraft. Ground crews will take shelter in the last chance shelter and will not leave the shelter to chock new arrivals unless approved by the 51 OG/CC and 51 MXG/CC.

8.16.2.6. SOF will determine whether or not locally assigned aircraft may takeoff or land.

8.16.2.7. All personnel outside must seek shelter (i.e., hangar, vehicle, etc.) as quickly as safety allows.

8.16.2.8. In the event of an emergency, supervisors shall use the minimum number of people required to safely terminate the emergency.

8.17. Airfield Snow Removal Procedures. Airfield snow removal operations will be conducted IAW Osan Snow and Ice Control Plan 32-1002B maintained by 51 CES.

8.18. Bird/Wildlife Control and Bird Watch Conditions (BWCs). Bird Watch Condition restrictions and procedures will be conducted IAW 51 FWI 91-212, *Bird Aircraft Strike Hazard Plan.*

8.19. SOF Duties and Responsibilities. Local SOF duties and responsibilities are outlined in the AFI 11-418_51OGSUP, *Operations Supervision*.

8.20. Airfield Photography or Videography. Requests to take photographs or videos on the airfield (inside and outside of restricted areas) must be coordinated with AMOPS, and approved by 51 SFS/S5SP. Once approved, photographs or video products shall only be taken in areas that individuals are authorized to enter and are for internal use only. All information intended for public release must be coordinated through 51 FW/PA (this includes posts to social media). ***NOTE:*** *AM personnel are exempt from this requirement when performing official airfield duties except for public release of information.*

8.21. Military Assumes Responsibility For Separation of Aircraft (MARSA) Operations. Aircraft requesting arrival or departure with other flights will request "*NON-STANDARD*" arrival/departure and indicate with what flight the operation will take place (e.g. "*MUSTANG 1, NON-STANDARD DEPARTURE WITH BRAG 1 FLIGHT*").

8.22. 51 FW Communications-Out Launch/Recovery Procedures (F-16s and A-10s). These procedures are designed for use by the 51 FW during exercises and daily training.

8.22.1. Responsibilities.

8.22.1.1. The mission commander will provide strike package information consisting of call signs, radio silence time, start taxi and takeoff windows/times, squawks, and direction of intended flight by secure phone or at the mass briefing.

8.22.1.2. 51 OSS/OSA will be notified and will send a representative to the mass briefing. The Tower is relieved of anti-hijack responsibilities for all F-16 and A-10 aircraft for the duration of the launch and will ensure the ATIS is up-to-date before and during the launch. If the ATIS is out of service, Tower will broadcast the active RWY, winds, and altimeter setting as each flight taxis onto TWY F.

8.22.2. Taxi Procedures.

8.22.2.1. All ground operations will be silent, except for an actual emergency. Taxiing aircraft will monitor the appropriate UHF/VHF frequency, as briefed for each phase of operations (i.e., Ground Control during taxi and Departure Control on takeoff).

8.22.2.2. Aircraft will taxi in sequence to the appropriate RWY. Pilots experiencing difficulty during taxi will pull into a flow (if available) or over to the side of the TWY, turn on the landing or taxi light, and await assistance. Late taxiing aircraft taking off after the launch window will use normal Comm-in procedures. If an aircraft is unable to launch, the pilot will use normal Comm-in procedures after the package is airborne to request taxi back to parking.

8.22.3. Takeoff Procedures.

8.22.3.1. Aircraft ready to takeoff will taxi up to and hold short of the active. The flight lead will then look at the Tower for takeoff clearance. The Tower will issue a green or red light as appropriate. Once a steady green light is received, the flight is cleared for takeoff and changes to departure frequency (CH 4). Each flight will receive a steady green light from tower, unless previously coordinated during the mass brief.

8.22.3.2. If safety or an emergency dictates, pilots and controllers will use normal communications.

8.22.3.3. After takeoff, if the field is VFR, aircraft will depart as briefed.

8.22.3.4. After takeoff, if the field is IFR, aircraft will fly the Mustang 401 Stereo Route until VFR-on-top, and then change to Cobra. If VFR-on-top cannot be reached by 9000ft MSL, aircraft will terminate Comm-out procedures and coordinate with Departure Control for a handoff to Kunsan.

8.22.4. Recovery Procedures. Recovery procedures will use normal communications procedures.

8.22.5. Abnormal Procedures.

8.22.5.1. Aborts or emergencies on takeoff are transmitted on departure frequency and the remaining aircraft will hold their position. Airborne emergencies immediately after takeoff are given traffic priority and land as the emergency dictates.

8.22.5.2. Termination of the Comm-out portion of the launch may be done at any level of command and control to ensure flight safety. If the reason for terminating the Comm-out launch was temporary, the flight lead may resume the Comm-out launch by stating, *"(call sign), RESUMING COMM-OUT*".

8.23. Anti-Hijack Procedures. Contact 51 SFS for guidance on local Anti-Hijacking procedures.

8.24. Exercises Involving ATC Facilities or the Airfield. Per AFI 13-204V3 wing officials must brief the Airfield Operations Flight Commander (51 OSS/OSA) at least 48 hours in advance of exercises that involve any ATC facility or the airfield.

8.25. FOD Checks Following Heavy Aircraft Departures.

8.25.1. Upon request to taxi to the runway by C-5, AN-125 and B-747 aircraft Tower will notify AMOPS to conduct a FOD check.

8.25.2. AMOPS will contact Airfield Sweeper to proceed to the appropriate EOR (TWY A EOR for RWY 09R operations and TWY E EOR for RWY 27L operations) and standby in the event that sweeping operations are required.

8.25.3. AMOPS will respond to the airfield to conduct a FOD sweep/check of the departure runway. When Airfield Sweeper is on weekend standby, they are required to respond to the airfield within 30 minutes of notification. Thus, coordination may need to take place prior to heavy aircraft taxiing.

8.26. Night Vision Device (NVD) Operations.

8.26.1. Night Vision Goggle (NVG) operations may be conducted between 30 minutes following official sunset to 30 minutes prior to official sunrise.

8.26.2. Fighter squadron scheduling shops will coordinate with AMOPS a minimum of 2 workdays prior to planned NVG operations in order to deconflict with transient and AMC schedules.

8.26.3. Scheduling shops will pass takeoff and landing times for NVG operations during pre-coordination via entering the times into PEX. Changes to PEX takeoff and land times must be relayed by squadron scheduling to AMOPS.

8.26.4. Local Restrictions.

8.26.4.1. Weather must be at least 3000 ft ceilings and 5 miles visibility for NVG upgrade training and at least 1500 ft ceilings and 3 miles visibility for continuation training IAW AFI 11-2A-10CV3, *A-10C – Operations Procedures*.

8.26.4.2. NVG operations will be suspended prior to a non-participating IFR arriving aircraft reaching a minimum of 20 flying miles from the airport, a VFR aircraft entering the terminal surface area (TSA) or prior to a departing aircraft taxiing. This allows the inside runway edge lights and taxiway lights to be turned on IAW FAAO JO 7110.65W.

8.26.4.3. 51 FW F-16 aircraft do not participate in NVG takeoff and landing operations. Due diligence must be maintained by participating aircraft, ATC agencies, and the SOF to ensure the safe recovery of both NVG and non-NVG participating aircraft.

8.26.4.4. During low illumination NVG approaches will be accomplished via radar patterns only.

8.26.5. NVG Traffic Pattern.

8.26.5.1. Night overhead patterns are not authorized at Osan AB.

8.26.5.2. Maximum number of participating aircraft is 4.

8.26.5.3. Aircraft will enter the NVG straight-in pattern via the most precise approach available and re-enter through Road/Warehouse for multiple NVG approaches during High illumination only. High illumination is defined in AFI 11-214, *Air Operations Rules and Procedures* as 2.2 millilux by natural or artificial sources.

8.26.5.4. When re-entering through Road/Warehouse, aircraft commanders will maintain 1700 ft MSL until established on 6 DME final for NVG straight in approaches.

8.26.6. Aircraft Commander Responsibilities.

8.26.6.1. Aircraft commanders will request "NVG Operations" with Ground Control upon first contact or with RAPCON upon RTB to Osan for approval. NVG operations will not be conducted unless approved by the appropriate controlling agency. (Tower or RAPCON).

8.26.6.2. Upon contacting ground for taxi, the aircraft commander will add to the end of their taxi request, *"(call sign) REQUESTS NVG DEPARTURE "*.

8.26.6.3. Upon contacting RAPCON for recovery the aircraft commander will add to the end of their recovery request, *"(call sign) REQUESTS NVG LANDINGS"*.

8.26.6.4. The pilot will state intentions to full stop or accomplish multiple approaches via the Mustang Straight-In or radar vectors for an ILS approach with Osan RAPCON on initial contact. Aircraft commanders conduct NVG operations at his/her own risk.

8.26.7. Aircraft Lighting Requirements.

8.26.7.1. All aircraft conducting NVG operations will use standard lighting configurations out of AFI 13-204V3 during ground operations to include an overt taxi light.

8.26.7.2. The aircraft commander may turn off anti-collision strobe lights as required for safety of flight. The aircraft commander will notify the appropriate ATC agency immediately.

8.26.8. Osan Tower Responsibilities.

8.26.8.1. Advise RAPCON of the aircraft call sign/type, and the duration of the NVG operation, i.e. one approach, 15 minutes, etc.

8.26.8.2. Set airfield lighting once NVG operations are approved to the following:

8.26.8.3. Turn down TWY A, B, C, D, E, and F lighting to minimum settings, as requested by the aircrew.

8.26.8.4. Turn runway lighting to minimum settings for RWY 09L/27R and RWY 09R/27L to include:

8.26.8.5. ALSF-1 CAT l sequence flashing light minimum setting.

8.26.8.6. HIRLs minimum setting.

8.26.8.7. REILs minimum setting.

8.26.8.8. Threshold lights minimum setting.

8.26.8.9. PAPI lights minimum setting.

8.26.8.10. Issue an ATIS advisory stating, "NIGHT VISION DEVICE TRAINING IS NOW IN EFFECT AT OSAN AIR BASE UNTIL FURTHER NOTICE".

8.26.8.11. Suspend NVG operations and regain control of the airport and TSA prior to a nonparticipating IFR arriving aircraft reaching a minimum of 20 flying miles for the airport, a VFR aircraft entering the TSA or non-participating aircraft call for taxi to or from the inside runway.

8.26.8.12. Suspend NVG operations at any time deemed necessary for safety reasons.

8.26.8.13. Advise all NVG participants prior to turning on or adjusting any airfield lighting. If able provide this advisory 10 minutes prior to suspension of NVG operations.

8.26.8.14. Takeoff and landing clearance will be issued when lighting in paragraph.6.3.2 is set to the prescribed levels.

8.26.9. RAPCON Responsibilities.

8.26.9.1. Advise Tower/AMOPS as soon as possible upon receipt of a request from an aircraft to conduct NVG operations.

8.26.9.2. Provide or relay to tower traffic advisories that will affect participating NVG aircraft outside the TSA.

8.27. Unmanned Aerial Systems (UAS). Osan AB does not have any base assigned UASs. If Osan AB is used as a divert location, UAS operations will be established in a separate LOP between 51 OG and requesting unit. If Osan’s future scope of operations includes supporting transient or base assigned UAS operations, the provisions of AFI 13-204V3 and other applicable regulations will be implemented.

Chapter 9

LAUNCH AND RECOVERY OF 5TH RECONNAISSANCE SQUADRON AIRCRAFT

9.1. Priority. 5 RS "PRIORITY" missions are Secretary of Defense directed missions that require priority handling. Due to the nature of the full pressure suit, aircraft handling characteristics, extended sortie durations, and physiological impacts on the pilot, "PRIORITY" recoveries shall be handled IAW local aircraft priorities established in paragraph 8.11 and will not be delayed without coordination with the 5 RS Supervisor of Flying ("TOPCAT"). ATC priority service will not be given for 5 RS proficiency flights ("OSCAR" missions). NOTE: Overheating of personnel and equipment is of major concern. A "PRIORITY" pilot's body core temperature increases one degree for every 10 minutes spent on the ground.

9.2. Communications.

9.2.1. 5 RS mission aircraft (with tactical callsign other than "OSCAR") are referred to herein as "PRIORITY" and will be referred to as such in all radio and landline communications. References to the aircraft will be kept to a minimum.

9.2.2. All 5 RS aircraft will use frequency 360.6 for ground and airborne operations. If 360.6 is unavailable, the alternate frequency will be 264.6. Use of alternate frequency or any other frequencies requires prior 5 RS coordination with the Tower. When notified of pending departures, Tower will monitor 360.6.

9.2.2.1. For "OSCAR" missions or proficiency flights, 360.6 is the primary frequency; however, aircrews should monitor UHF Tower frequency 308.8 for situational awareness.

9.2.3. During launch and recovery, 5 RS "MOBILE" or "TOPCAT" are authorized to transmit safety of flight messages to the "PRIORITY" aircraft on single frequency approach.

9.2.4. 5 RS vehicles are authorized runway use when "PRIORITY" aircraft are on the runway for departure and arrival. "MOBILE" is responsible for all vehicles on the runway and for informing the Tower when all 5 RS vehicles are off the runway.

9.2.4.1. "Two to Chase": "MOBILE" will advise tower when additional chase vehicles will accompany the Recovery Crew on the runway. Recovery Crew equals one "MOBILE" and one Pogo vehicle.

9.3. Procedures.

9.3.1. Uniform Departure "PRIORITY" launch and Uniform Arrival "PRIORITY" recovery procedures will be conducted as outlined in the Memorandum of Agreement between Incheon Area Control Center, Seoul Approach Control, 5 RS, and Osan Radar Approach Control.

9.3.2. 5 RS will coordinate with tower to input call sign and ETD every Monday for the following week. 5 RS will confirm Tower has this information 1 hour prior to estimated time of departure. If necessary, 5 RS will pass the information on a secure telephone.

9.3.3. 5 RS will advise Tower, on a secure line, if "PRIORITY" will not meet its ETD and provide a revised ETD as soon as possible. On-time departures or arrivals will be referred to "AS FRAGGED".

9.3.4. Tower will:

9.3.4.1. Relay departure/inbound information and revisions to RAPCON, and 51 FW SOF (MUSTANG 10) as soon as possible. All coordination concerning a "PRIORITY" departure time must be conducted on a secure line.

9.3.4.1.1. CAUTION: ONCE THE PRIORITY IS ROLLING, DO NOT CANCEL TAKE-OFF CLEARANCE AS SEVERE DAMAGE TO AIRCRAFT AND INJURY TO PILOT MAY OCCUR. PROVIDE SAFETY ADVISORIES AS NECESSARY.

9.3.4.2. Not simulcast on "PRIORITY" assigned frequencies.

9.3.4.3. Advise RAPCON when "PRIORITY" starts to taxi.

9.3.4.4. Deconflict use of the overhead and SFO traffic pattern before clearing "PRIORITY" aircraft for takeoff. The 1200 ft MSL departure end restriction does not apply to "PRIORITY" or "OSCAR" aircraft departing on initial takeoff (dropping pogos).

9.3.5. RAPCON will:

9.3.5.1. Begin monitoring assigned frequency when Tower advises "PRIORITY" starting to taxi and monitor continuously until "PRIORITY" missions are terminated.

9.3.5.2. Not simulcast on "PRIORITY" assigned frequencies.

9.3.5.3. Flight-follow all instrument approaches at night or when the ceiling is less than 1500 ft and/or 5 SM visibility.

9.3.6. "PRIORITY" will:

9.3.6.1. Comply with the launch and recovery procedures outlined in the Memorandum of Agreement between Incheon Area Control Center, Seoul Approach Control, 5th Reconnaissance Squadron, and Osan Radar Approach Control.

9.3.6.2. Contact RAPCON on assigned frequency when ready for landing; squawking Mode 3 Code 3075. If two "PRIORITY" aircraft are airborne, the second aircraft will squawk 3076.

9.3.7. 51 FW SOF, if on duty, shall assist in coordinating Wing Flying operations to facilitate "PRIORITY" operations.

9.4. Emergencies.

9.4.1. "PRIORITY" Hung Pogo Procedures.

9.4.1.1. Proceed via the Uniform Four Departure and level off between 4000 ft MSL to 6000 ft MSL. Remain with Osan Arrival; request radar vectors to the SOT 270R/20 DME. Hold east, left turns, 5 DME legs and perform the 1U-2S-1-CL-1 procedures.

9.4.1.2. RAPCON shall provide vectors and coordinate clearance for holding. If unable to dislodge the pogo, "PRIORITY" or "OSCAR" will return to Osan avoiding populated areas and make a straight-in approach for a full stop landing. Preferred approach and landing is to RWY 09R. U-2 will declare an emergency and will not terminate until landing or until pogo dislodges.

9.4.2. Controlled Bailout. Shall be executed IAW paragraph 6.7 of this instruction.

9.4.3. Lost communication procedures shall be executed IAW paragraph 6.12 of this instruction.

9.5. Miscellaneous.

9.5.1. Ground Operations. "5 RS MAINTENANCE" (UHF-equipped) will accompany the aircraft and coordinate with Tower for ground movements requiring use of TWY Foxtrot or to coordinate for engine runs. These operations do not require advance notification through AMOPS.

9.5.2. 5 RS SOF. "TOPCAT" (UHF-equipped vehicle) may be present on the airfield and will request Tower approval prior to entering the CMA if not shadowing the aircraft.

9.5.3. 5 RS SOF, "TOPCAT" or "MOBILE" will ensure BAK-12 cables are properly configured for the operation.

9.5.3.1. Standard barrier configuration for "PRIORITY" launches/recoveries is only the departure end overrun cables for RWY 09R/27L.

9.5.4. "MOBILE" operations in the CMA.

9.5.4.1. "MOBILE(s)" operating within the CMA will adhere to the following procedures, when not physically escorting the aircraft (i.e. during transition, pre-launch, or post launch).

9.5.4.1.1. During "OSCAR" flights, while the aircraft is under control of the Tower local controller, "MOBILE" is authorized to proceed onto the RWY as a chase vehicle once the OSCAR aircraft has passed his position. When able, "MOBILE" will exit the runway on the nearest taxiway and report off on 360.6. "MOBILE" may request a U-turn "180" on the runway to return to the run-in position. "MOBILE(s)" will give way to all aircraft unless specifically cleared otherwise by Tower.

9.6. Silent Launch Procedures.

9.6.1. Silent launch procedures may be terminated at any time in the interest of flying or ground safety. The pilot, Tower, "MOBILE", or the RAPCON departure controller may terminate silent launch by transmitting on the assigned frequency (360.6). Standard radio transmissions will then be used for departure.

9.6.1.1. The reported prevailing visibility must be 1 SM or more to conduct silent launch operations to ensure that Tower controllers have visual contact with all aircraft on the airfield.

9.6.2. "TOPCAT" will ensure aircraft call sign, ETD and departure option are known to tower personnel either via secure phone or in person. "TOPCAT" will be in the tower 30 minutes before launch. The "MOBILE" officer will call Tower on a secure line with mission delays or changes.

9.6.3. The "MOBILE" officer will not make communications checks with Tower. "MOBILE" is responsible for obtaining the current altimeter setting and runway in use. Both "MOBILE" and "PRIORITY" will monitor the assigned frequency.

9.6.4. Tower must maintain visual contact with "PRIORITY" from taxi to takeoff in order to continue silent launch procedures. If unable, silent launch procedures will be terminated and normal radio communication resumed.

9.6.5. "PRIORITY" will taxi for takeoff at approximately 12 minutes prior to ETD.

9.6.5.1. At 5 minutes prior to ETD, "MOBILE" will face the Tower and flash headlights. The Tower will respond with standard light signals to clear the aircraft for takeoff.

9.6.5.2. "MOBILE" will proceed on the runway with the aircraft and proceed to the departure end of the runway to visually check the barrier status and conduct a FOD check. If other than the active runway is requested for departure, "TOPCAT" shall coordinate with the Tower for opposite direction approval.

9.6.6. The Tower may direct "PRIORITY" to cancel takeoff and exit the runway by transmitting on 360.6 frequency. Aircraft cannot stop takeoff roll without risking severe damage and or loss of control. Coordinate with "TOPCAT" for recovery actions, if required.

9.6.7. After aircraft launch, "MOBILE" will notify Tower when all vehicles are off the runway.

9.7. Threat Avoidance Procedures. Priority aircraft are authorized to conduct the following procedures to improve their ability to operate into and out of high threat areas. ATC authorization is required and this operation may be disapproved by ATC due to traffic or weather.

9.7.1. VFR High TRP Profile. Request TAC ARRIVAL with Osan Approach on initial contact. Once approved, proceed directly overhead of Osan descending to 4000 ft MSL. Report "BREAK" and begin a spiral descent—attempt to remain within 3 NM. Configure for a north downwind at 1200 ft MSL, unless otherwise instructed. Report downwind and base. Weather Minimums: Ceiling 5000 ft and 5 SM visibility.

9.7.2. VFR Tactical Departure Procedure. Request TAC DEPARTURE with Ground Control on initial contact—include requested direction of turns. On departure, maintain VFR, climb to 10000 ft MSL, and spiral as instructed. Remain within 5 NM. Resume the normal departure routing upon reaching 10000 ft MSL.

9.7.2.1. Tower shall coordinate TAC DEPARTURE requests with RAPCON and notify pilot if approved/disapproved.

9.7.2.2. Weather Minimums: Ceiling 11000 ft MSL and 5 SM visibility.

ANDREW P. HANSEN, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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Abbreviations and Acronyms

51 FW—51st Fighter Wing

5 RS—5th Reconnaissance Squadron

AAF—Army Airfield

AAS—Aircraft Arresting Systems

AB—Air Base

ACC—Air Traffic Control Center

ACR—Alternate Contingency Runway

AFM—Airfield Manager

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRIMS—Air Force Records Information Management System

AGE—Aerospace Ground Equipment

AICUZ—Air Installation Compatible Use Zone

AIRAD—Host Nation Air Advisories

AIR/MED EVAC—Aeromedical Evacuation

ALS—Alternate Landing Site

ALSF—1— Approach Lighting Systems that include Sequence Flashing Lights, Category 1

AMC—Air Mobility Command

AMCC—Air Mobility Control Center

AMOPS—Airfield Management Operations

AMOS—AMOPS Supervisor

AMC—Air Mobility Command

AO—Airfield Operations

AOB—Airfield Operations Board

AOF—Airfield Operations Flight

ASR—Airport Surveillance Radar

ATA—Actual Time of Arrival

ATC—Air Traffic Control

ATCT—Air Traffic Control Tower

ATCALS—Air Traffic Control and Landing Systems

ATD—Actual Time of Departure

ATIS—Automatic Terminal Information System

BAK—Barrier Arresting Kit

BM—Barrier Maintenance

BOD—Beneficial Occupancy Date

BWC—Bird Watch Conditions

BWDO—Battle Watch Duty Officer

CCTLR—Chief Controller

CMA—Controlled Movement Area

CP—Command Post

DASR—Digital Airport Surveillance Radar

DME—Distance Measuring Equipment

DV—Distinguished Visitors

EALS—Emergency Airfield Lighting System

ELT—Emergency Locator Transmitter

EOC—Emergency Operations Center

EOD—Explosive Ordnance Disposal

EOR—End of Runway

EPU—Emergency Power Unit

ERF—Emergency Recovery Frequency

ETA—Estimated Time of Arrival

ETD—Estimated Time of Departure

ETE—Estimated Time Enroute

FAAO—Federal Aviation Administration Order

FAF—Final Approach Fix

FC—Facilities Criteria

FL—Flight Level

FLIP—Flight Information Publication

FOD—Foreign Object Damage

GCA—Ground Controlled Approach

GE—Ground Emergency

HAS—Hardened Aircraft Shelters

HCP—Hazardous Cargo Pad

HIRL—High Intensity Runway Lights

HMMWV—Highly Mobile Multi-purpose Wheeled Vehicle

HTD—High Tactical Departures

IAW—In Accordance With

IC—Incident Commander

IFE—In-Flight Emergency Procedures

IFR—Instrument Flight Rules

ILS—Instrument Landing System

IMC—Instrument Meteorological Conditions

KADIZ—Korea Air Defense Identification Zone

KTO—Korean Theater of Operations

LOA—Letter of Agreement

LOP—Letter of Procedures

LOX—Liquid Oxygen

MAAS—Mobile Aircraft Arresting System

MAJCOM—Major Command

MAOSMS—Minimum Aircraft Operating Strip Marking System

MARSA—Military Assumes Responsibility for Separation of Aircraft

MCRC—Master Control and Reporting Center

MEA—Minimum Enroute Altitudes

MOCC—Maintenance Operations Control Center

MSL—Mean Sea Level

MTFV—Maintenance Test Flight Valley

MVA—Minimum Vectoring Altitude

NAVAIDs——Navigation Aids

NORDO—No Radio

NOTAM—Notices to Airman

NVD—Night Vision Device

NVG—Night Vision Goggle

OPR—Office of Primary Responsibility

PAPI—Precision Approach Path Indicator

PCAS—Primary Crash Alarm System

PTD—Pilot-To-Dispatch

PEX—Patriot Excalibur

PMI—Preventative Maintenance Inspection

POFZ—Precision Obstruction Free Zone

PPR—Prior Permission Required

PTD—Pilot-To-Dispatch

RAPCON—Radar Approach Control

RCR—Runway Condition Reading

RDS—Records Disposition Schedule

REIL—Runway End Identifier Lights

ROKAF—Republic of Korea Air Force

RSC—Runway Surface Condition

RSRS—Reduced Same Runway Separation

RTB—Return To Base

RWY—Runway

SAR—Search and rescue

SCN—Secondary Crash Net

SFO—Simulated Flameout

SFS—Security Forces

SOF—Supervisor of Flying

SVFR—Special Visual Flight Rules

SWN—Suwon

TA—Transient Alert

TDP—Tactical Departures Procedures

TDW—Tower Display Workstation

TERPS—Terminal Instrument Procedures

TRP—Tactical Recovery Procedure

TSA—Terminal Surface Area

TWY—Taxiway

UAS—Unmanned Aerial System

UFC—Unified Facilities Criteria

VFR—Visual Flight Rules

VMC—Visual Meteorological Conditions

VORTAC—Very High Frequency Omni-directional Range/Tactical Air Navigation

WADPM—Wing Airfield Driving Program Manager

WGS84—World Geodetic System 1984

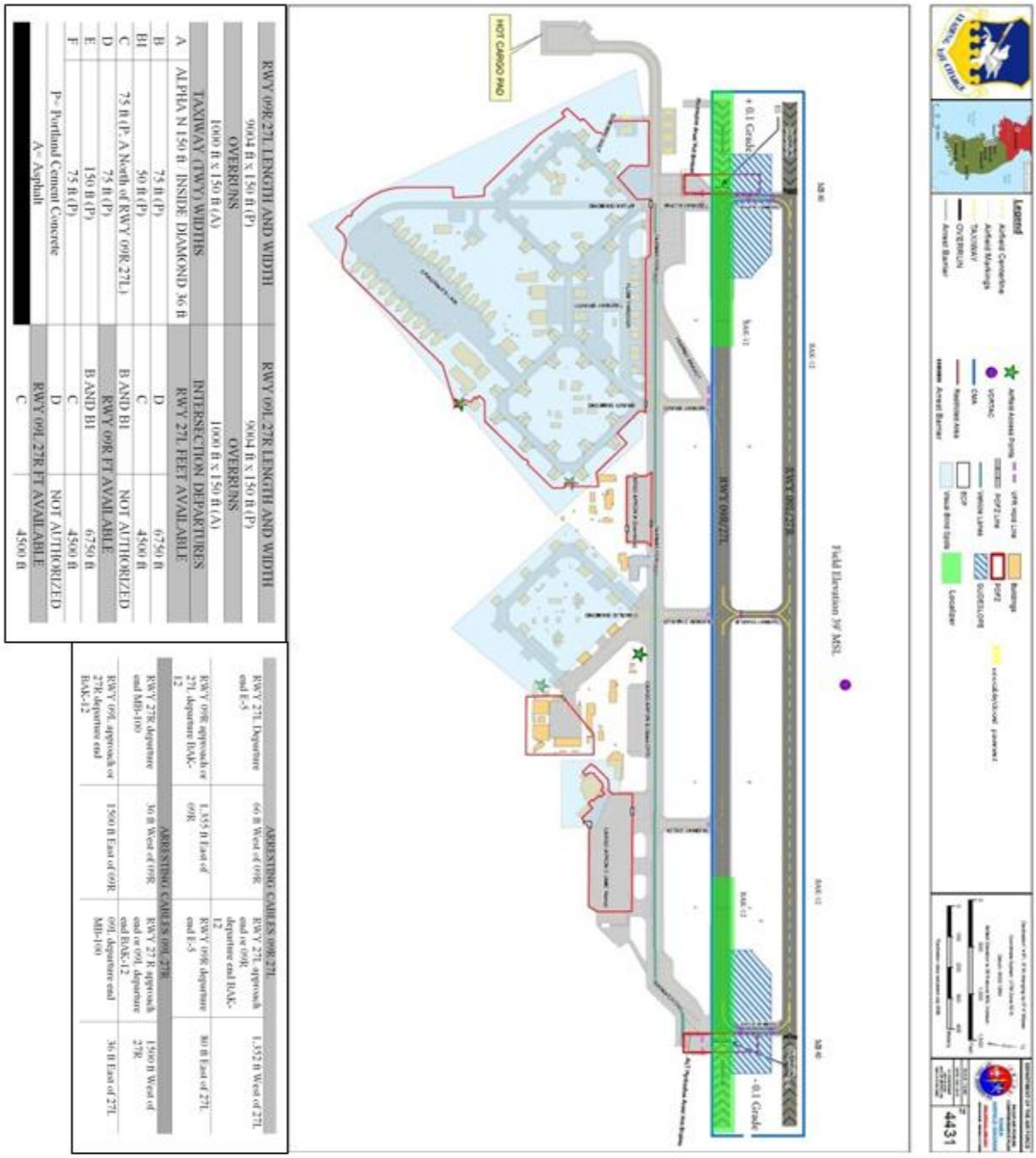
WS—Watch Supervisor

WX—Weather

Attachment 2

AIRFIELD DIAGRAM

Figure A2.1. Airfield Diagram.



RWY 09R/27L LENGTH AND WIDTH	RWY 09L/27R LENGTH AND WIDTH
9004 ft x 150 ft (P)	9004 ft x 150 ft (P)
OVERRUNS	OVERRUNS
1000 ft x 150 ft (A)	1000 ft x 150 ft (A)
TAXIWAY (TWY) WIDTHS	INTERSECTION DEPARTURES
A ALPHA N 150 ft INSIDE DIAMOND 36 ft	RWY 27L FEET AVAILABLE
B 75 ft (P)	D 6750 ft
B1 50 ft (P)	C 4500 ft
C 75 ft (P, A North of RWY 09R/27L)	B AND B1 NOT AUTHORIZED
D 75 ft (P)	RWY 09R FT AVAILABLE
E 150 ft (P)	B AND B1 6750 ft
F 75 ft (P)	C 4500 ft
P= Portland Cement Concrete	D NOT AUTHORIZED
A= Asphalt	RWY 09L/27R FT AVAILABLE
	C 4500 ft

		ARRESTING CABLES 09R/27L	
RWY 27L Departure end E-5	66 ft West of 09R	RWY 27L approach end or 09R departure end BAK-12	1,352 ft West of 27L
RWY 09R approach or 27L departure BAK-12	1,355 ft East of 09R	RWY 09R departure end E-5	303 ft East of 27L
		ARRESTING CABLES 09L/27R	
RWY 27R departure end MB-100	36 ft West of 09R	RWY 27 R approach end or 09L departure end BAK-12	1,560 ft West of 27R
RWY 09L approach or 27R departure end BAK-12	1560 ft East of 09R	09L departure end MB-100	36 ft East of 27L

Attachment 3

RADIO CHANNELS AND FREQUENCIES

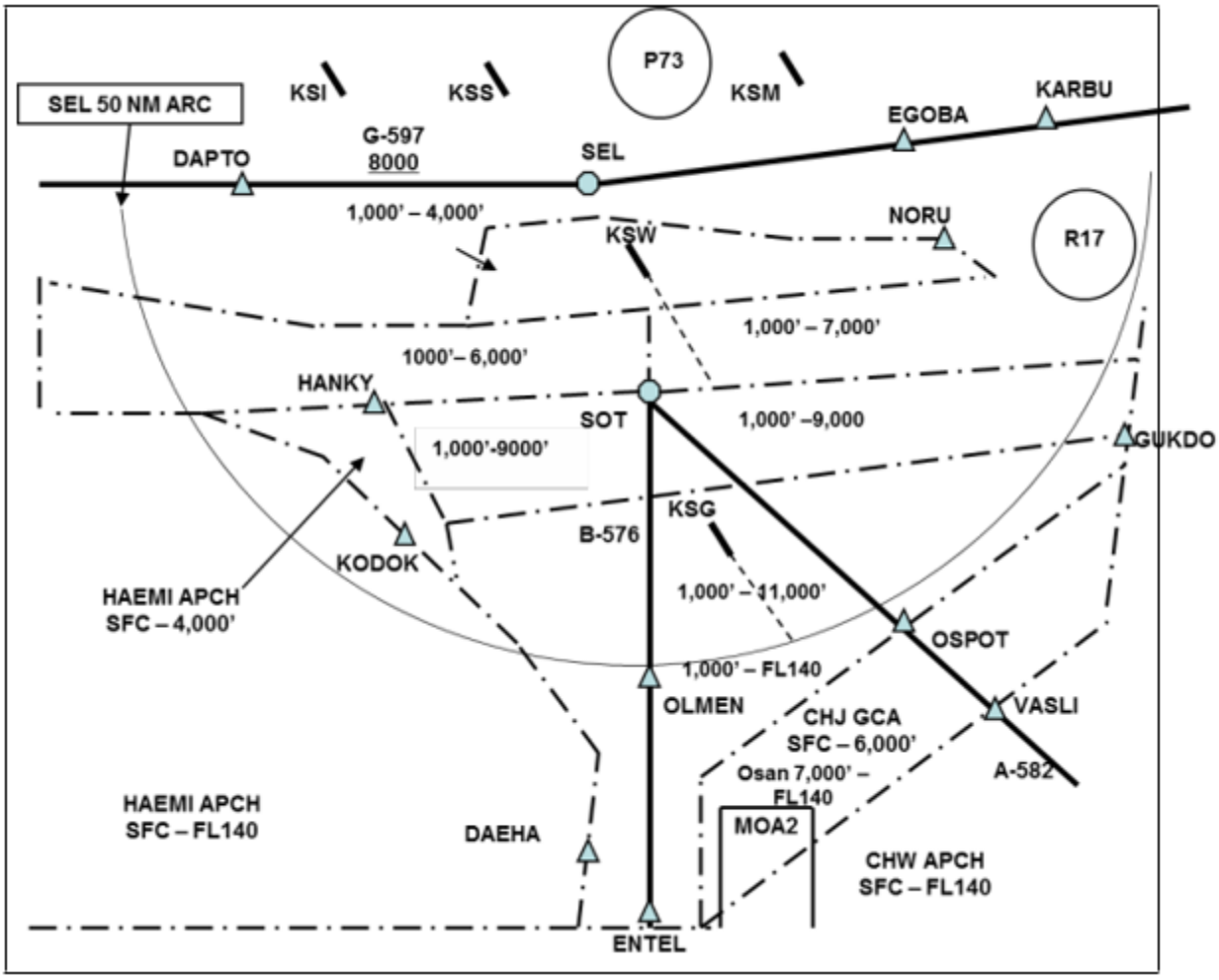
Table A3.1. Radio Channels and Frequencies.

CHANNEL	FREQUENCY (UHF)	AGENCY
1	229.0	25 FS (Draggin Ops)
1	371.3	36 FS (Fiend Ops)
2	253.7	Osan Ground
3	208.8	Osan Tower
4	234.3	Osan Departure/Approach
5	275.3	Cobra GCI
6	305.7	Seoul Approach
7	306.3	Discrete
8	276.2	Stallion Ops
9	272.7	ATIS
10	299.8	SOF
11	245.7	Emergency
12	306.9	Discrete
13	277.2	Stallion Ops Secure
14	254.2	Pilsung Range
15	287.0	Osan Arrival
16	261.4/285.1	Osan Final/Backup
17	227.525	HQ TOD
18	306.7	Jungwon Approach
19	292.65	Kunsan Approach
20	229.25	Haemi Approach
NON-CHANNELIZED FREQUENCIES		
FREQUENCY (UHF/VHF)		AGENCY
132.125		Osan ATIS
132.45		Osan Ground
122.1		Osan Tower
343.0/127.3		Clearance Delivery
127.9		Osan Departure/Approach
133.65		Osan Arrival
232.9/120.7		Osan AMOPS Dispatch
293.7		MOCC
124.1		Kunsan Approach
132.55		Jungwon Approach
6		Haemi Approach
241.8/126.17		Incheon West High
241.8/128.3		Incheon West Low

Attachment 4

OSAN RADAR APPROACH CONTROL AIRSPACE (NOT TO SCALE)

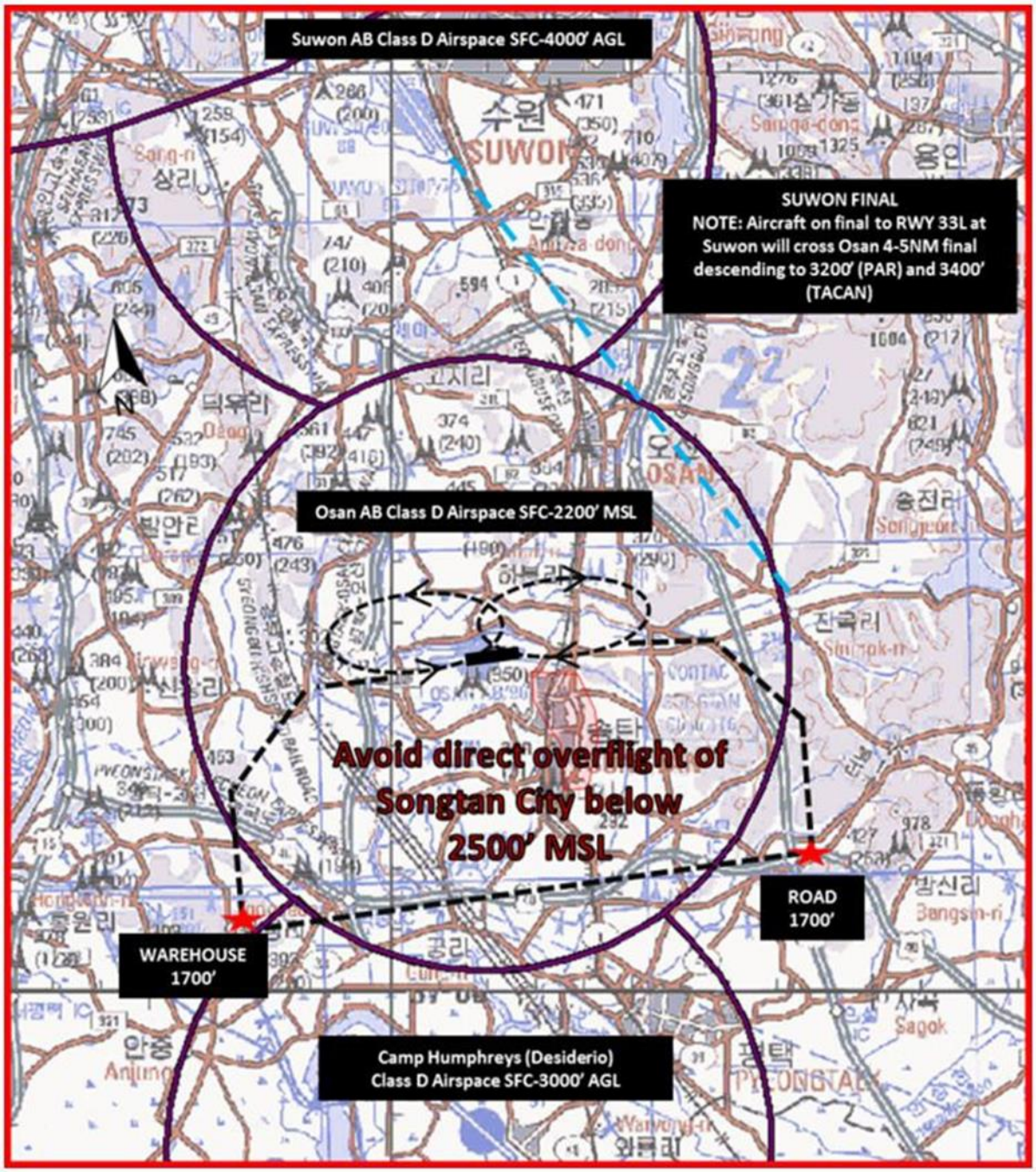
Figure A4.1. Osan Radar Approach Control Airspace Not To Scale.



Attachment 5

VFR OVERHEAD TRAFFIC PATTERNS

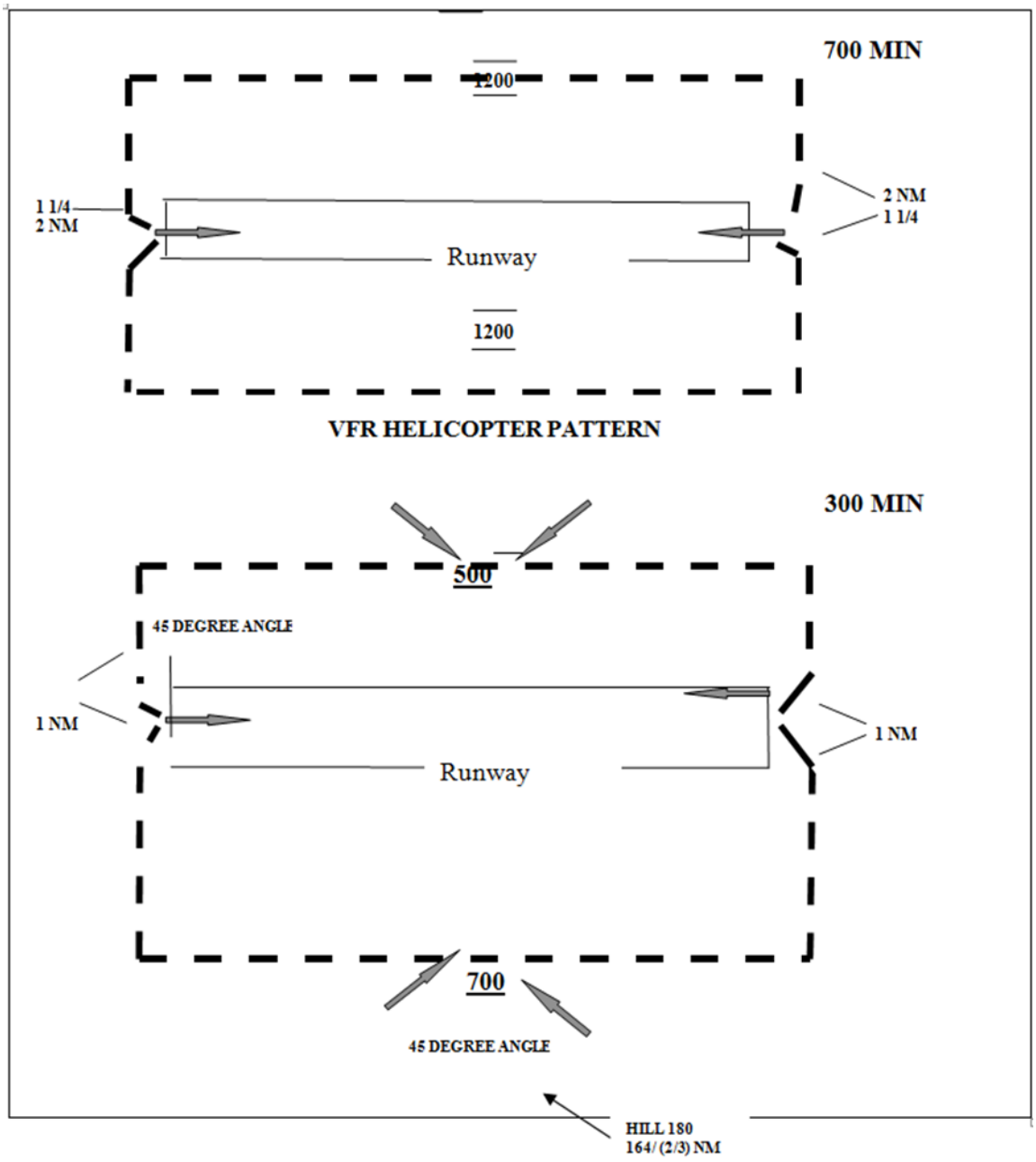
Figure A5.1. VFR Overhead Traffic Patterns



Attachment 6

VFR RECTANGULAR PATTERN (NOT TO SCALE)

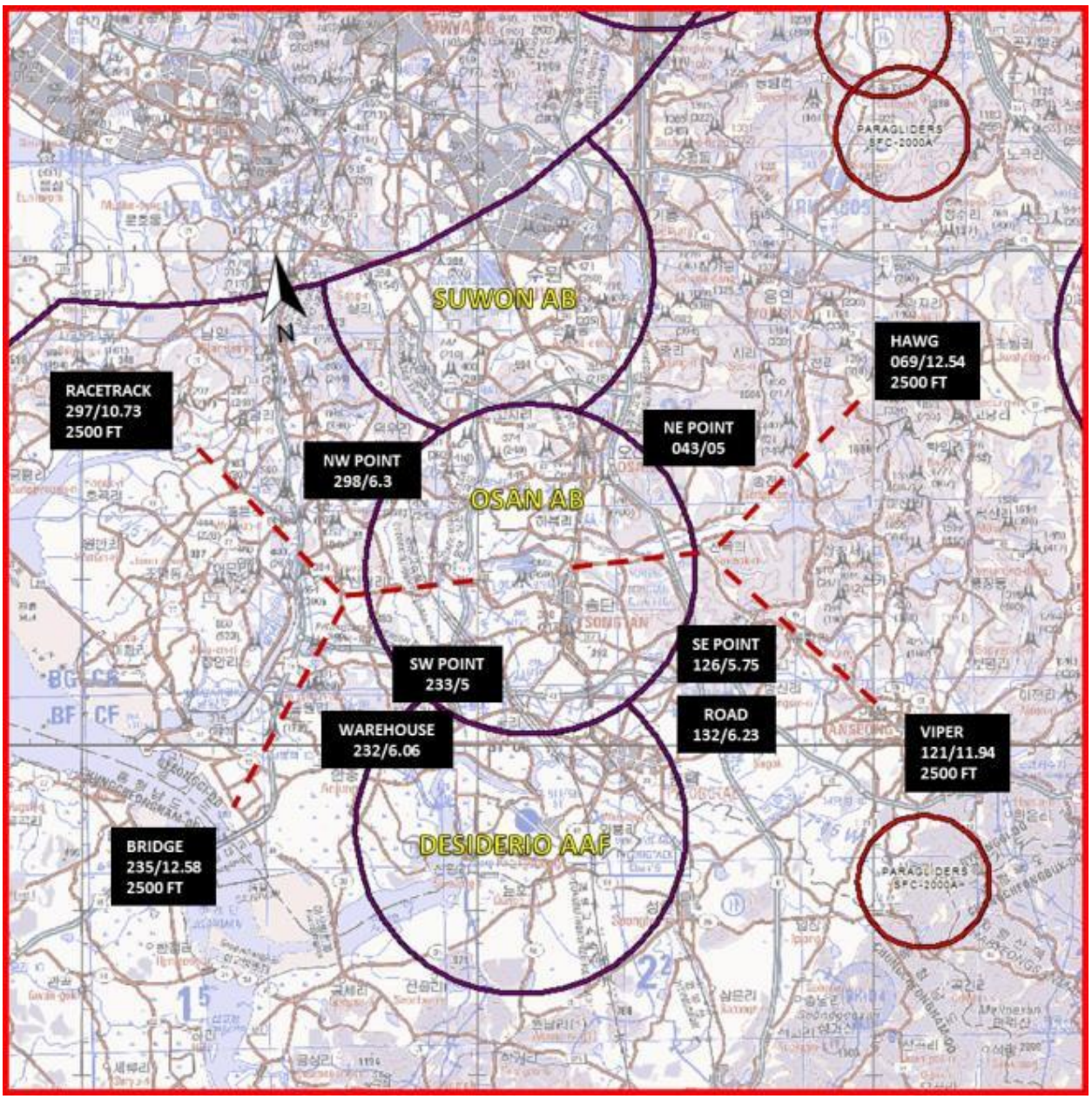
Figure A6.1. VFR Rectangular Pattern Not To Scale.



Attachment 7

VFR REPORTING/HOLDING POINTS (NOT TO SCALE)

Figure A7.1. VFR Reporting/Holding Points Not To Scale.



Attachment 8

RADAR TRAFFIC PATTERNS

Figure A8.1. Radar Traffic Patterns RWY 27L R.

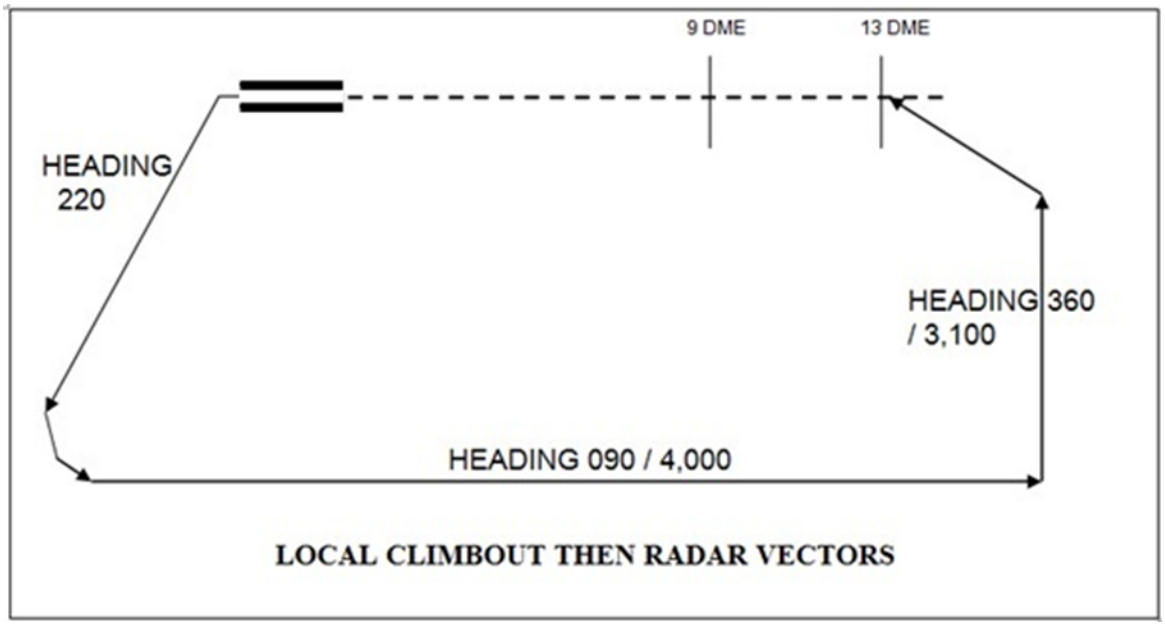
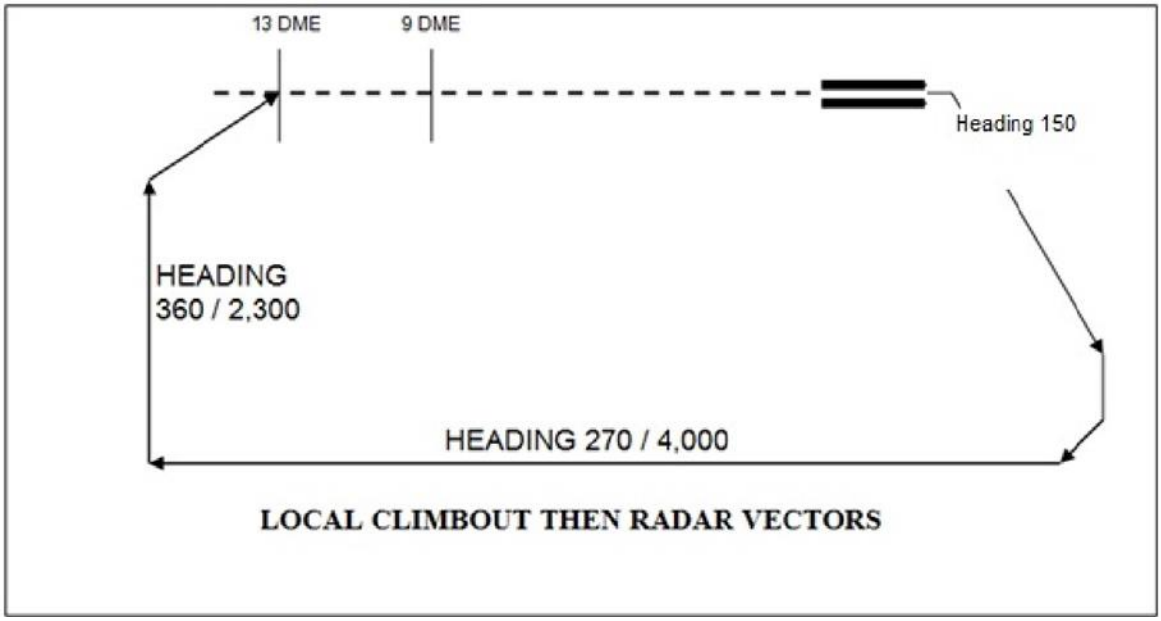


Figure A8.2. Radar Traffic Patterns RWY 09L R.



Attachment 9

SFO PATTERN

Figure A9.1. SFO Pattern RWY 09R.

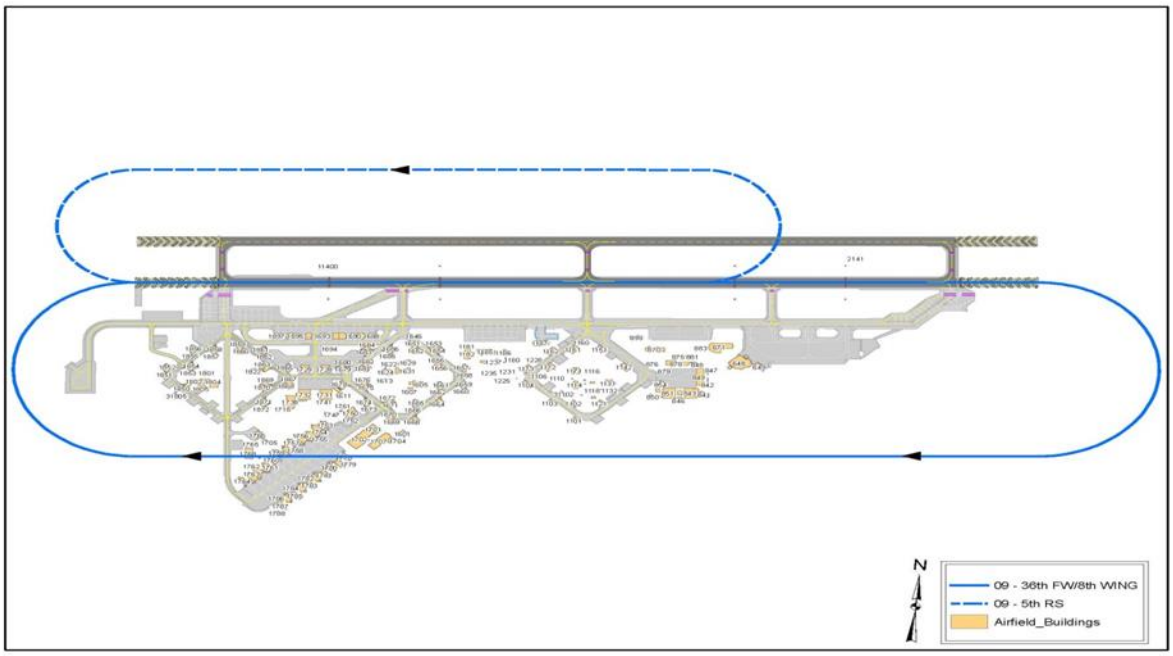
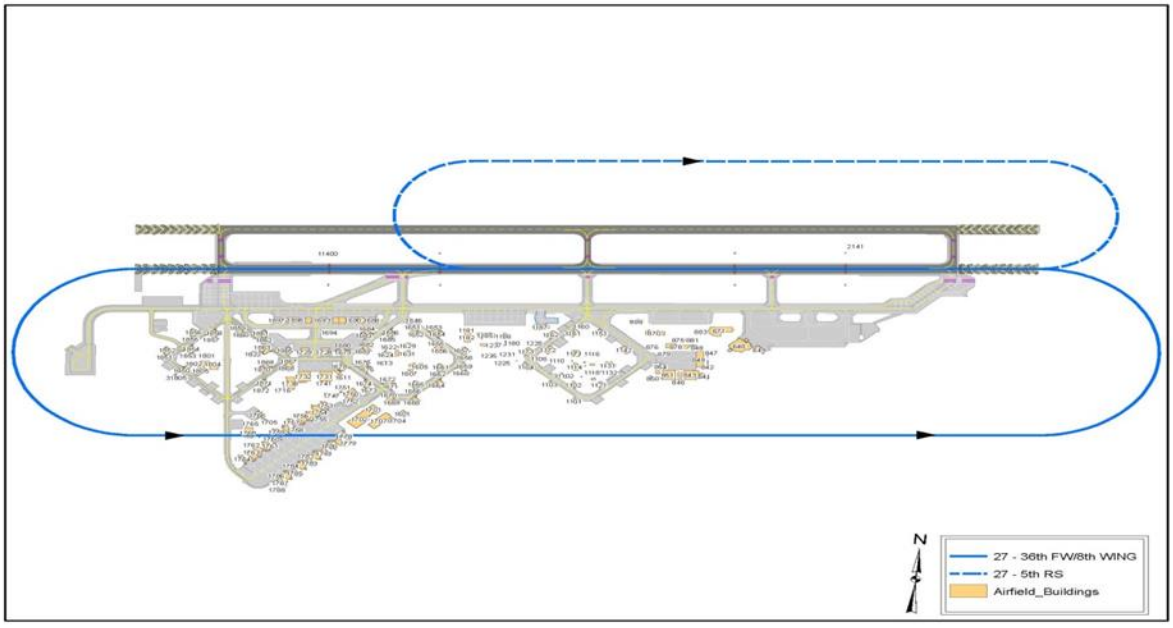


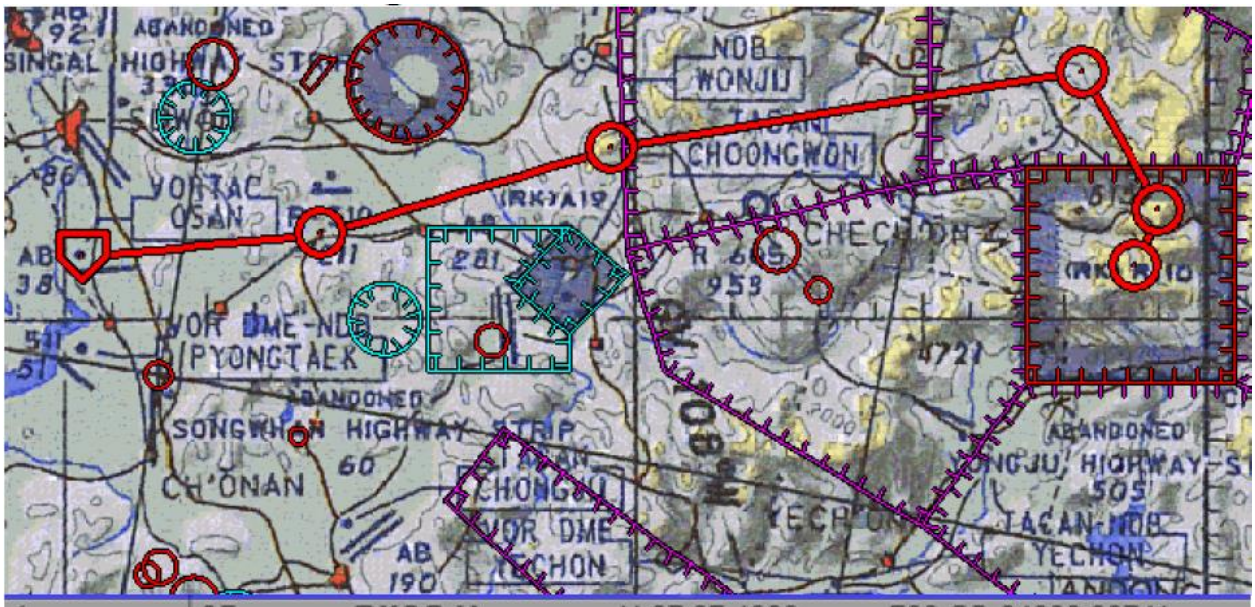
Figure A9.2. SFO Pattern RWY 27L.



Attachment 10

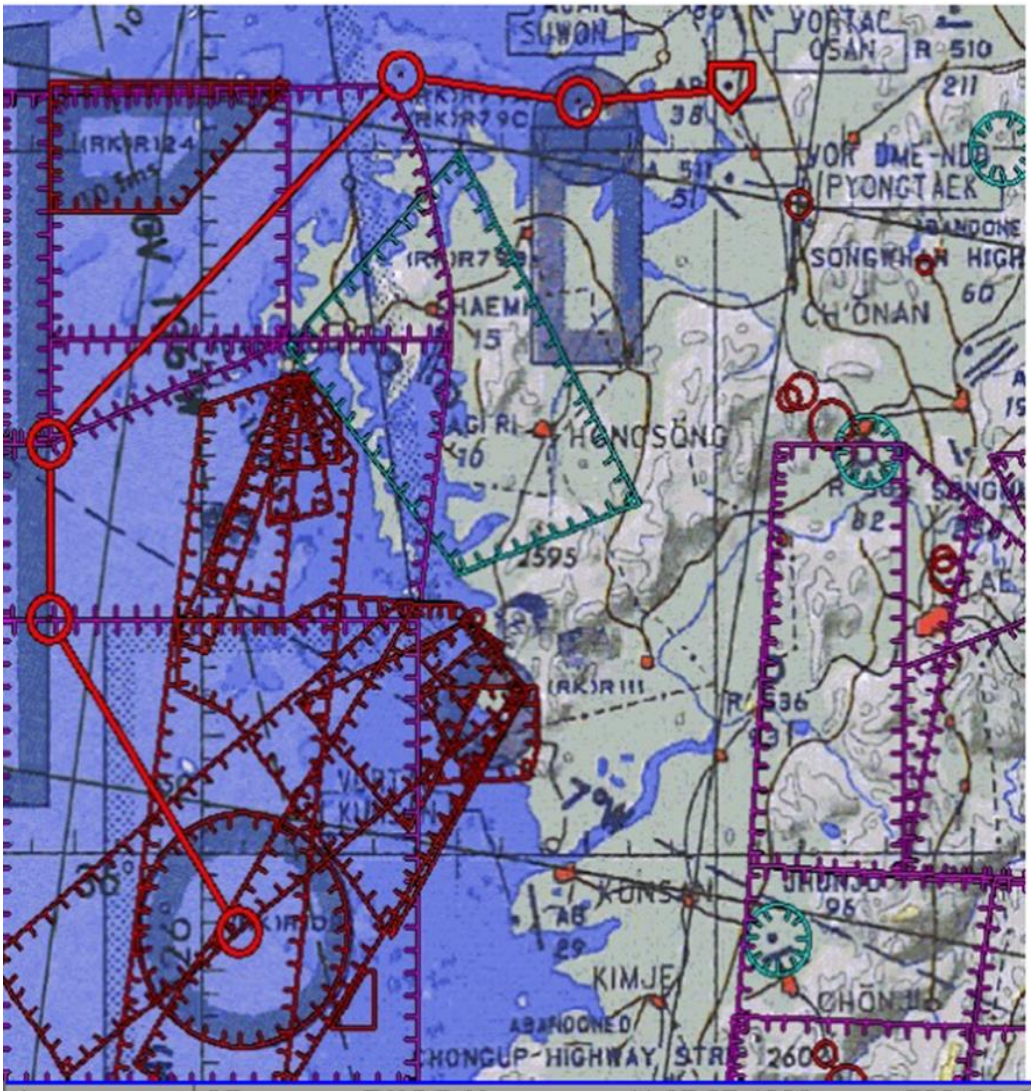
PILSUNG / JIK DO LIVE/HUNG ORDANCE ROUTE

Figure A10.1. Pil Sung Live Hung Ordnance Routing.



1	ST	**RKSO/A**	N 37 05.4368	52S CG 24880 06741
ST		OSAN AB	E 127 01.7758	39 FT
2		**STNNN/W**	N 37 07.3946	52S CG 62023 09673
		STNNN	E 127 26.8091	666 FT
3		.POINT 2	**N 37 14.5400**	**52S DG 07595 22264**
			E 127 57.4900	2438 FT
4		.D30	**N 37 21.0000**	**52S DG 80811 33722**
			E 128 47.0000	2116 FT
5		.POINT 4	**N 37 09.4000**	**52S DG 92675 12255**
			E 128 55.0500	4409 FT
6		.R110	**N 37 04.6623**	**52S DG 88800 03500**
			E 128 52.4399	2559 FT

Figure A10.2. Jik Do Live/Hung Ordnance Routing.



1 ST	ST	**RKSO/A** OSAN AB	N 37 05.4368 E 127 01.7758	52S CG 24880 06741 39 FT
2		.POINT 1	**N 37 04.2500** **E 126 44.0100**	**52S BG 98508 05133** 0 FT
3		.PUNG DO	**N 37 06.5400** **E 126 23.2300**	**52S BG 67831 10159** 466 FT
4		.A/M1 W1	**N 36 35.0000** **E 125 42.0000**	**51S YA 41566 52045** 0 FT
5		.M1/17W	**N 36 20.0000** **E 125 42.0000**	**51S YA 42343 24306** 0 FT
6		.JIK-DO	**N 35 53.2600** **E 126 04.3600**	**52S BE 35756 75448** 56 FT

Attachment 11

OSAN AB STANDARD TERMINOLOGY

Figure A11.1. Osan AB Standard Terminology.

Clearance Delivery:

Aircraft (IFR Clearance): "CLEARANCE DELIVERY, (Call sign), (number/type of aircraft), (type departure), (block altitude as required), STANDARD/NON-STANDARD"

Aircraft (VFR Clearance): N/A (No need to contact Clearance Delivery, contact ground

first) Note: Nonstandard spacing for A-10s and F-16s is 2 NM trail between individual

aircraft.
Aircraft will advise if different spacing is required.

Ground Control:

Aircraft (IFR Departure): "GROUND, (Call sign), TAXI (number/type of aircraft), INFORMATION (ATIS code)

Aircraft (VFR Departure): "GROUND, (Call sign), TAXI (number/type of aircraft), INFORMATION (ATIS code), VFR to the (cardinal direction), at (altitude requested), (type departure), STANDARD/NONSTANDARD"

Approaching Alpha TWY:

Aircraft: "(Call sign), ALPHA NORTH."

Prior to entering TWY B1 to transit north between the flows"

Aircraft: "(Call sign), FLOWS NORTH."

Ready for take-off:

Aircraft: "TOWER, (Call sign), READY FOR DEPARTURE (RWY)"

Departure:

Aircraft: "OSAN DEPARTURE, (Call sign), PASSING (altitude), FOR (altitude)"

Departure: "(Call sign), OSAN DEPARTURE, RADAR CONTACT, CLIMB AND MAINTAIN (altitude)."

RTB, VFR, Initial Contact with Osan ATC:

Aircraft: "OSAN APPROACH, (Call sign), (number/type of aircraft), xx MILES TO THE

(direction from OSAN), (current altitude), INFORMATION (ATIS code), REQUEST"

Approach: "(Call sign), OSAN APPROACH, RADAR CONTACT, SAY REQUEST"

Aircraft: "OSAN APPROACH, (Call sign), (type arrival requested)."

Approach: "(Call sign), OSAN APPROACH, (PROCEED DIRECT HAWG/BRIDGE/VIPER/RACETRACK FLY HEADING xxx FOR SEQUENCING), MAINTAIN (altitude)/VFR DESCENT APPROVED"

Note: Contact OSAN APPROACH no later than 20NM if above 6k' MSL. Contact OSAN ARRIVAL if below 5k' MSL. RAPCON will coordinate with Tower for the arrival sequence of all VFR/IFR traffic into the pattern.

RTB, IFR, after handoff from adjacent facility:

Aircraft: "OSAN APPROACH, (Call sign), (current altitude), INFORMATION (ATIS code), REQUEST"

Approach: "(Call sign), OSAN APPROACH, RADAR CONTACT, SAY REQUEST"

Aircraft: "OSAN APPROACH, (Call sign), (type arrival requested)."

Approach: "(Call sign), OSAN APPROACH, (FLY HEADING xxx, DECEND MAINTAIN (altitude)/ PROCEED DIRECT HAWG/BRIDGE/VIPER/RACETRACK)"

VFR entry point:

Aircraft: "OSAN TOWER, (Call sign) HAWG/BRIDGE/VIPER/RACETRACK FOR (approach request)."

Initial/Radar-to-Initial/5 miles:

Aircraft: "(Call sign), INITIAL/5 MILES GEAR, STOP/LOW APPROACH."

Break zone adjustment:

Aircraft: "(Call sign), BREAK MIDFIELD/DEPARTURE END/ONE MILE PAST DEPARTURE END."

Gear down (Perch)

Aircraft: "(Call sign), BASE, GEAR, LOW APPROACH/STOP LEFT/RIGHT."
Aircraft: "(Call sign), BASE, GEAR, STOP, LEFT/RIGHT."

Straight through initial:

Aircraft: "(Call sign), CARRY STRAIGHT THROUGH INITIAL, REPORT ROAD/WAREHOUSE."

Break out from the perch:

Tower: "(Call sign), BREAK OUT, TRAFFIC IS" (If tower initiated).

Aircraft: "(Call sign), BREAKING OUT."

Tower: "(Call sign), REPORT DIRECT INITIAL/ROAD/WAREHOUSE/FLY HEADING xxx

[*if staying in overhead pattern*] or PROCEED DIRECT HAWG/RACETRACK, MAINTAIN (assigned altitude), CONTACT ARRIVAL ON CHANNEL FIFTEEN FOR RESEQUENCING".

[*if being removed from pattern*] Aircraft: "(Call sign), WILCO".

VFR re-entry points:

Aircraft: "(Call sign), ON THE GO, RE-ENTER, INITIAL/STRAIGHT-IN".

Tower: "(Call sign), REPORT ROAD/WAREHOUSE".

Aircraft: "(Call sign), "WILCO".

High TRP:

Aircraft: "OSAN APPROACH, (Call sign), REQUEST HIGH TRP AT (altitude).

Approach: "(Call sign), HIGH TRP AT (altitude) APPROVED, CONTACT TOWER CHANNEL THREE."

Aircraft: "OSAN TOWER, (Call sign), xx DME TO THE (direction), AT (altitude), HIGH TRP."

Tower: "(Call sign), REPORT 30 SECONDS / OVERHEAD /"

Aircraft: "(Call sign), 30 SECONDS HIGH TRP AT (altitude) / OVERHEAD"

Tower: "(Call sign), REPORT BASE/ HOLD OVER THE FIELD AT (altitude)."

SFO:

Aircraft: "OSAN APPROACH, (Call sign), REQUEST SFO AT (altitude).

Approach: "(Call sign), SFO AT (altitude) APPROVED, CONTACT TOWER CHANNEL THREE."

Aircraft: "OSAN TOWER, (Call sign), SFO AT (altitude)."

Tower: "(Call sign), REPORT (10 SECONDS TO) HIGH KEY"

Aircraft: "(Call sign), (10 SECONDS TO) HIGH KEY"

Tower: "(Call sign), REPORT LOW KEY"

Aircraft: "(Call sign), LOW KEY, GEAR, LOW APPROACH" Tower: "(Call sign), CLEARED LOW APPROACH"

Taxiing to the flows

Aircraft: "OSAN GROUND, (Call sign), TAXI FROM DE-ARM TO THE FLOWS"

Taxiing from the flows to Door Stop/arming

Aircraft: "OSAN GROUND, (Call sign), TAXI FLOWS TO DOOR STOP/RWY XX, INFORMATION (ATIS code)"

Taxiing to parking: Approaching Alpha TWY:

Aircraft: "(Call sign), ALPHA SOUTH"

Prior to entering TWY B1 to transit south between the flows.

Aircraft: "(Call sign), FLOWS SOUTH".

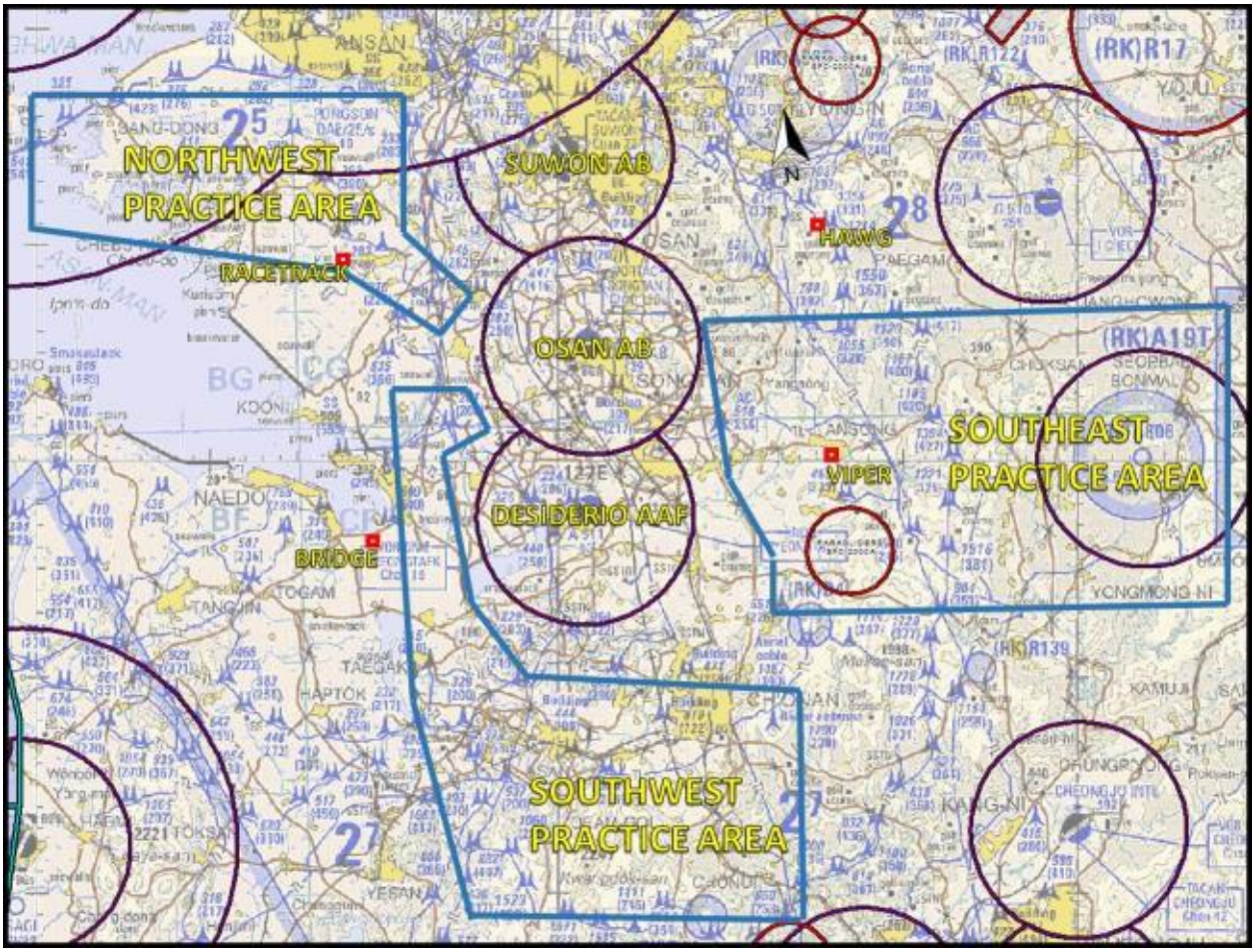
Alternate Taxi Procedures:

Aircraft: "(Call sign), TAXI VIA ALTERNATE TAXI ROUTE (xx)."

Attachment 12

VFR LOCAL TRAINING AREAS

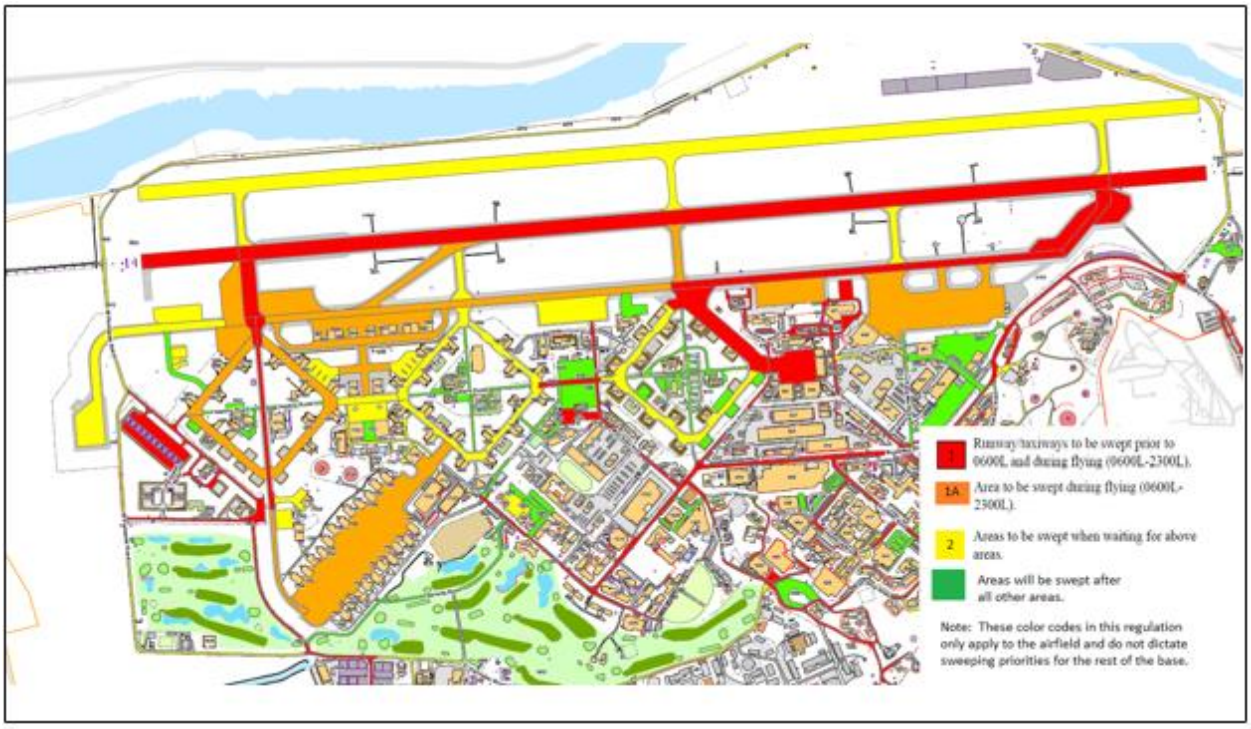
Figure A12.1. VFR Local Training Areas.



Attachment 13

DAILY SWEEPER PRIORITIES

Figure A13.1. Daily Sweeper Priorities.



Attachment 14

AREAS OF POTENTIAL CONFLICT

Figure A14.1. Camp Humphreys Desiderio Airspace Potential Conflicts.

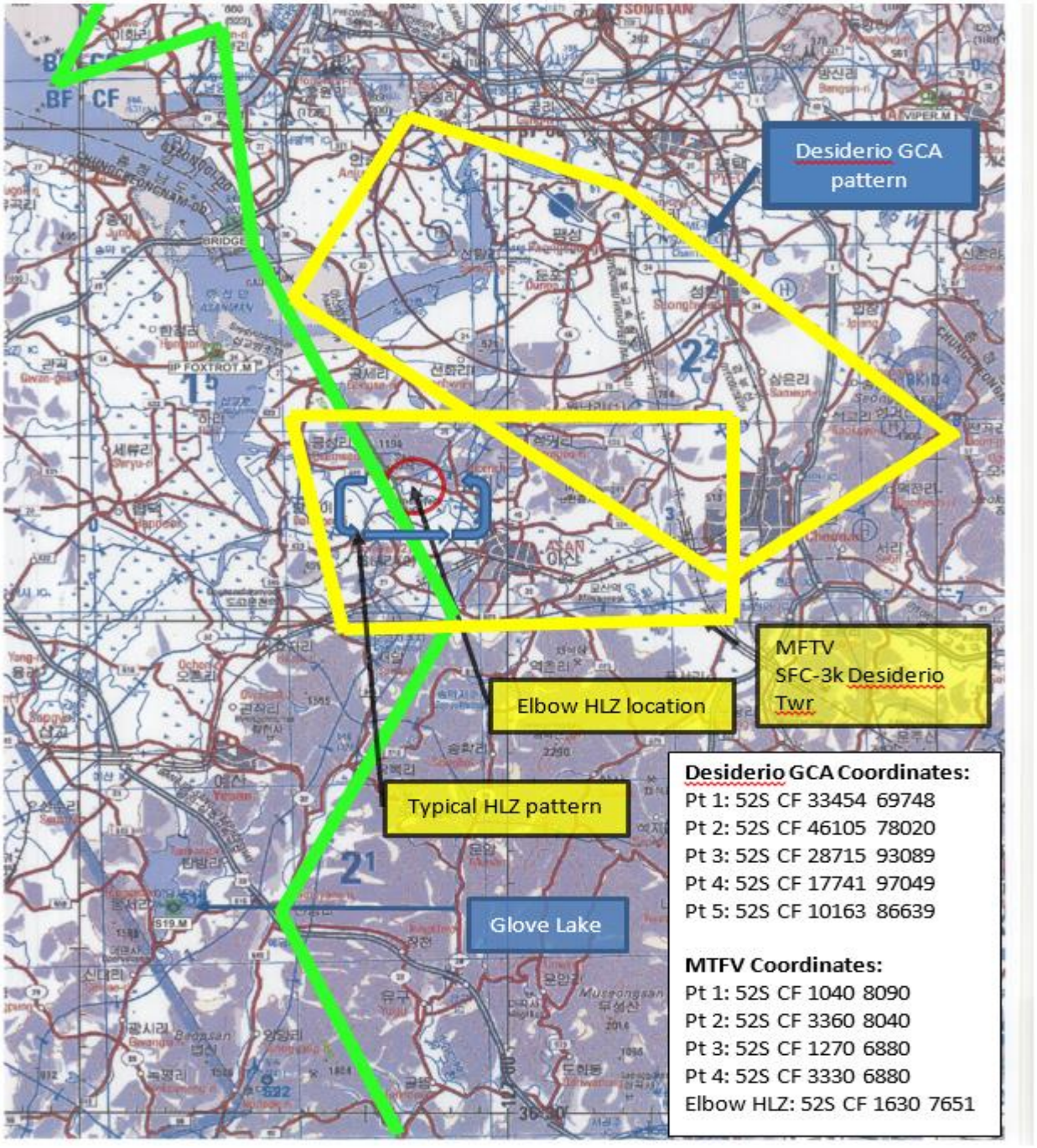
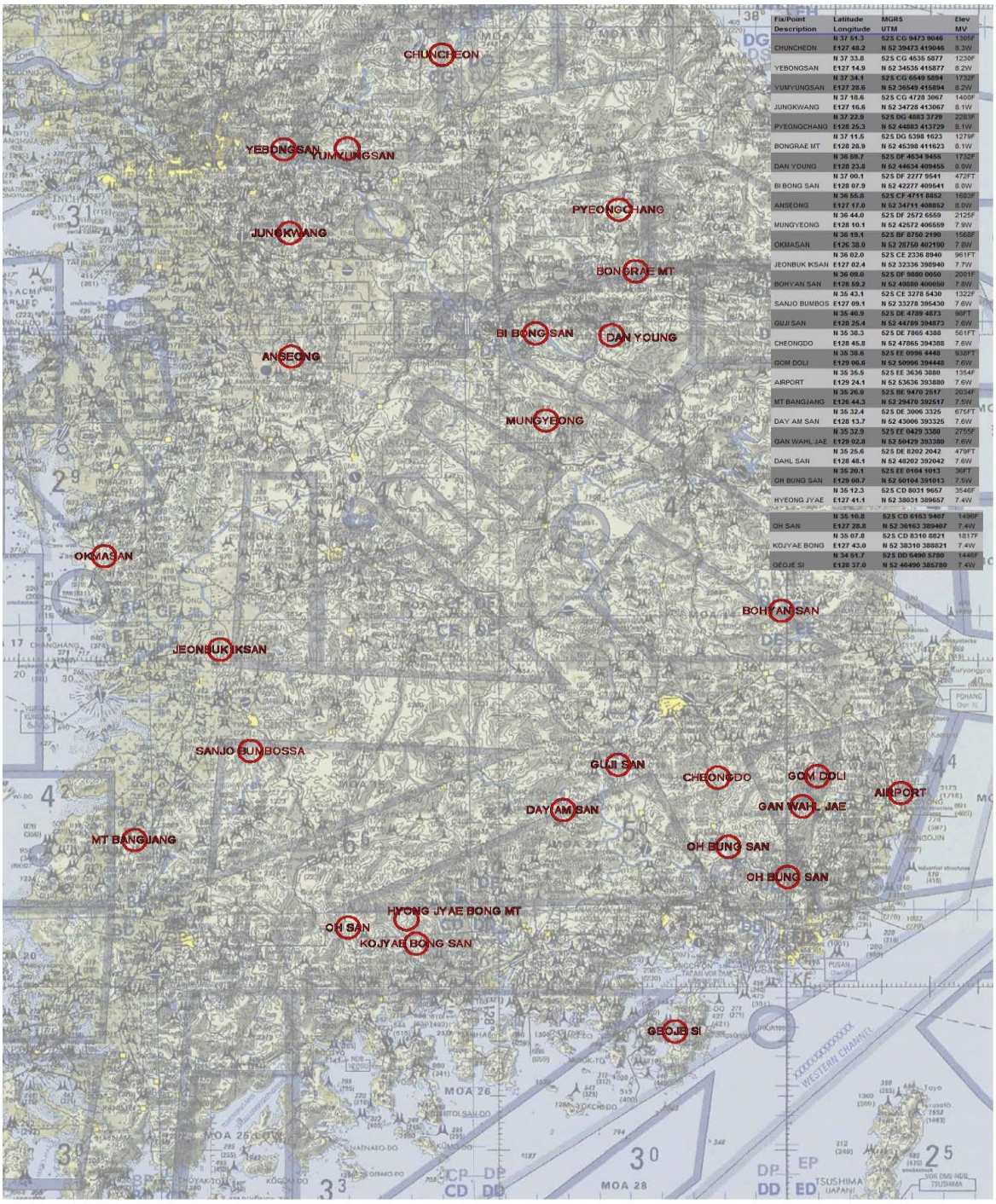


Figure A14.2. Paragliding Activity.



Fix/Point Description	Latitude Longitude	MGRS UTM	Elev MV
CHUNCHEON	N 37 51.3 E127 48.2	52S CG 9473 9046 N 52 39473 419046	1305F 8.3W
YEBONGSAN	N 37 33.8 E127 14.9	52S CG 4635 5877 N 52 34535 415877	1230F 8.2W
YUMYUNGSAN	N 37 34.1 E127 28.8	52S CG 6549 5894 N 52 36549 415894	1732F 8.2W
JUNGKWANG	N 37 18.6 E127 16.6	52S CG 4728 3067 N 52 34728 413067	1400F 8.1W
PYEONGCHANG	N 37 22.9 E128 25.3	52S DG 4683 3729 N 52 44683 413729	2283F 8.1W
BONGRAE MT	N 37 11.5 E128 28.9	52S DG 5398 1623 N 52 45398 411623	1279F 8.1W
DAN YOUNG	N 36 58.7 E128 23.8	52S DF 4634 9455 N 52 44634 409455	1732F 8.0W
BI BONG SAN	N 37 00.1 E128 07.9	52S DF 2277 9541 N 52 42277 409541	472FT 8.0W
ANSEONG	N 36 55.8 E127 17.0	52S CF 4711 8852 N 52 34711 408852	1583F 8.0W
MUNGYEONG	N 36 44.0 E128 10.1	52S DF 2572 6559 N 52 42572 406559	2125F 7.9W
OKMASAN	N 36 19.1 E126 38.0	52S BF 8750 2190 N 52 28750 402190	1568F 7.8W
JEONBUK KSAN	N 36 02.0 E127 02.4	52S CE 2336 9940 N 52 32336 398940	961FT 7.7W
BOHYAN SAN	N 36 09.0 E128 59.2	52S DF 9880 0050 N 52 49880 400050	2001F 7.8W
SANJO BUNBOS	N 35 43.1 E127 09.1	52S CE 3278 5430 N 52 33278 395430	1322F 7.6W
GUJI SAN	N 35 40.9 E128 25.4	52S DE 4789 4873 N 52 44789 394873	98FT 7.6W
CHEONGDO	N 35 38.3 E128 45.8	52S DE 7865 4388 N 52 47865 394388	561FT 7.6W
GOM DOLI	N 35 38.8 E129 06.6	52S EE 0996 4448 N 52 50996 394448	938FT 7.6W
AIRPORT	N 35 35.5 E129 24.1	52S EE 3636 3880 N 52 53636 393880	1354F 7.6W
MT BANGJANG	N 35 26.9 E126 44.3	52S BE 9470 2517 N 52 29470 392517	2034F 7.5W
DAY AM SAN	N 35 32.4 E128 13.7	52S DE 3006 3325 N 52 43006 393325	675FT 7.6W
GAN WAHL JAE	N 35 32.9 E129 02.8	52S EE 0429 3380 N 52 50429 393380	2755F 7.6W
DAHL SAN	N 35 25.6 E128 48.1	52S DE 8202 2042 N 52 48202 392042	479FT 7.6W
OH BUNG SAN	N 35 20.1 E129 00.7	52S EE 0104 1013 N 52 50104 391013	36FT 7.5W
HYEONG JYAE	N 35 12.3 E127 41.1	52S CD 8031 9657 N 52 38031 389657	3546F 7.4W
OH SAN	N 35 10.8 E127 28.8	52S CD 6163 9407 N 52 36163 389407	1496F 7.4W
KOJYAE BONG	N 35 07.8 E127 43.0	52S CD 8310 8821 N 52 38310 388821	1817F 7.4W
GEOJE SI	N 34 51.7 E128 37.0	52S DD 5490 5780 N 52 46490 385780	1446F 7.4W