

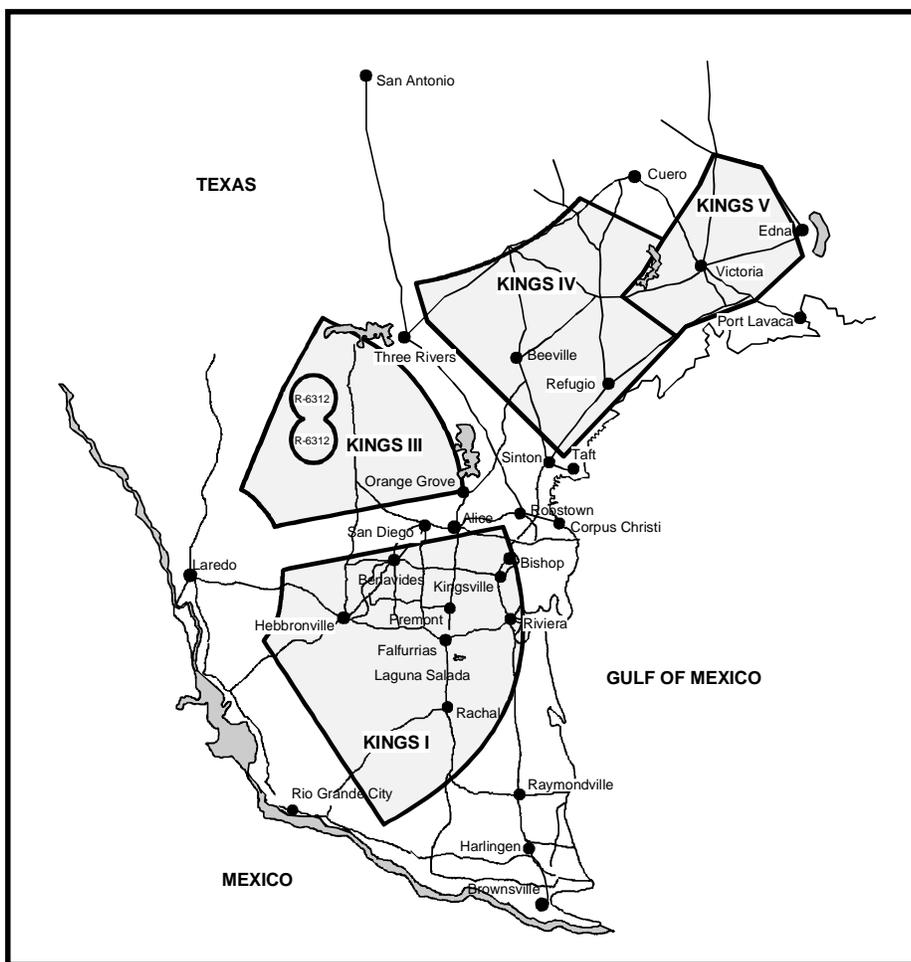
NAVAL AIR TRAINING COMMAND

NAS CORPUS CHRISTI, TEXAS

CNATRA P-1256 (REV. 3-03) PAT



NAS KINGSVILLE COURSE RULES



LECTURE GUIDE

2003

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**LECTURE GUIDE
LIST OF EFFECTIVE PAGES**

EFFECTIVE PAGES	PAGE NUMBERS	EFFECTIVE PAGES	PAGE NUMBERS
FRONT MATTER Original	i thru iv		
CR-01 Original Original	Title page(s) 1-1 thru 1-38		
UJPT, E2-C2, & ADV CR-02; IUT CR-01 Original Original	Title page(s) 2-1 thru 2-106		

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LECTURE GUIDE

COURSE/STAGE: Course Rules

LESSON TITLE: [BI/RI Course Rules](#)

LESSON IDENTIFIER: [CR-01](#)

LEARNING ENVIRONMENT: Classroom

ALLOTTED LESSON TIME: .5 hr

STUDY RESOURCES:

- * Air Operations Manual, Naval Air Station Kingsville, Texas
- * In-Flight Guide, TRAWING TWO
- * Standard Instrument Departures, High Altitude, Kingsville NAS
- * Appropriate Standard Operating Procedures: COMTRAWING TWO INSTRUCTION 3710.5A
- * DoD FLIP (Terminal) High Altitude United States Instrument Approach Procedures, Southwest
- * Brownsville Sectional Chart

LESSON PREPARATION:

Study:

- * In-Flight Guide, TRAWING TWO
- * DoD Standard Instrument Departures, High Altitude, Kingsville NAS
- * Arrivals for NAS Kingsville, DoD FLIP (Terminal) High Altitude United States Instrument Approach Procedures for Southwest

(3-03) ORIGINAL

- * DoD FLIP (Terminal) Low Altitude United States (Vol-6 - Texas)
 - * IFR Enroute Supplement
 - * Local Instrument Departures (LIDs)
 - * Flight Information Handbook
 - * IFR Enroute High/Low Altitude Charts H-5/6 (L15/16)
- NOTE: Check publications for currency.

REINFORCEMENT: N/A

LESSON OBJECTIVES**1.1.2.2**

Recall course rules

1.1.2.2.2

Recall local operating areas

1.1.2.2.3

Recall rules and regulations for ground operations

1.1.2.2.4

Recall departure procedures

1.4.20.1

Recall required communications between pilot and controlling agency

1.1.2.2.8.1

Recall general emergency/special procedures

1.1.2.2.5

Recall the procedures for field entry

1.1.2.2.4.1

Recall procedures for home field recovery

1.1.2.2.7

Recall course rules for outlying fields

MOTIVATION

In 1987, NAS Kingsville recorded more takeoffs and landings than Chicago's O'Hare International Airport. At such an exceptionally busy field, strict adherence to course rules by every pilot is critical to safe flight operations.

In your flying experience up to now, you have learned how important course rules are to safe flying. Every flyer knows stories about pilots who had close calls because they failed to adhere to published course rules.

OVERVIEW

Upon completion of this lesson, you will have learned the important features of the local operating area, the key procedures that are essential for the safe and orderly conduct of flight training, and an introduction as well as a general understanding of the procedures and information that is found within your TRAWING TWO In-Flight Guide.

This lesson will cover:

- * NAS Kingsville airfield characteristics and operating procedures
- * NAS Kingsville military operating areas (MOAs), alert areas, special operating areas (SOAs) within the MOAs, and 228D SOA
- * Ground operations, rules, and regulations
- * Departures to the MOAs and to the alert areas
- * Recoveries: VFR and IFR (coded and non-coded)
- * Field entry procedures (IFR)
- * General emergency/special procedures

- * Typical flight sequence from NAS Kingsville
 - Ground operations prior to takeoff
 - Takeoff and departure
 - Mission activities
 - Return to base
 - Ground operations after landing
- * Divert airfield information

REFRESHER

In your previous flight training, you flew in MOAs and were governed by specific course rules; use that experience here at NAS Kingsville to reinforce the similarities and adapt to the differences.

PRESENTATION

I. NAS Kingsville, NQI **1.1.2.2, 1.1.2.2.2**

NOTE: NAS Kingsville, Texas, is the primary airfield for jet pilot training activities for personnel assigned to TRAWING TWO.

A. Location

1. Latitude N27 degrees, 30 minutes 40 seconds
Longitude W97 degrees, 48 minutes 60 seconds
2. 30 nm southwest of Corpus Christi, Texas

B. Hours of operation: IAW FLIP Enroute Supplement UTC-6(-5DT)

1. 1300 - 0400Z++ Monday through Thursday
2. 1300 - 0200Z++ Friday

Sg 1, fr 1
Lesson Organization

Sg 1, fr 2
NAS Kingsville (NQI)
Airport Diagram

3. Closed Saturday, Sunday, and holidays

4. 1900 - 0200Z++Sunday for TW2 only

NOTE: Field hours of operation are often changed to meet short term operational requirements.

NOTE: ++ means that during periods of daylight savings time, effective hours of operations will be one hour earlier. UTC -6(-5DT) - For NAS Kingsville: daylight savings time is in effect from 0200 local time, the first Sunday in April, to 0200 local time, the last Sunday in October.

LESSON NOTES

As you discuss the diagram of NAS Kingsville, direct your students to follow along using their In-Flight Guides.

The In-Flight Guide does not show any details of the surrounding area, such as obstacles, etc. However, aerial photographs of NAS Kingsville do show details of the surrounding area. When discussing details that are not shown in the diagram, direct your students to note these items.

Sg 1, fr 3
*NAS Kingsville Areas
of Operation*

C. Elevation: 50 ft MSL

D. NAVAIDs:

1. TACAN—channel 125 (NQI); N27 degrees, 30 minutes, 0 seconds; W97 degrees, 48 minutes, 30 seconds

NOTE: Latitudes/longitudes are subject to change. Check current publications for exact coordinates.

2. ILS -- Runway 13 only (no outer/inner marker beacons)

E. Runways: two sets of dual runways

1. 13/31: 8,000 X 200 ft
2. 17/35: 8,000 X 200 ft

F. Arresting gear

NOTE: Anytime a pilot makes an arrested landing, the tower will request total weight and airspeed on engagement. To compute total weight, use NATOPS T-45A empty weight of 10,403 pounds (includes trapped fuel plus aircrew without pylons). Add indicated fuel quantity in pounds.

EXAMPLE: 10,403 (empty weight)
 +3,000 (full fuel)
 13,403 pounds (average takeoff weight)

1. E-28

- a. Bidirectional (B) rotary hydraulic system
- b. Arresting gear locations from approach end of runway
 - (1) Runway 13R, 1,550 ft
 - (2) Runway 13L, 1,050 ft
 - (3) Runway 31R, 1,500 ft
 - (4) Runway 31L, 1,503 ft
 - (5) Runway 17R, 1,250 ft
 - (6) Runway 17L, 1,575 ft
 - (7) Runway 35R, 1,515 ft
 - (8) Runway 35L, 1,600 ft

Sg 1, fr 4
Approach Lighting
System

Sg 1, fr 5
Taxiway Lighting

Sg 1, fr 6
Wind Indicators

Sg 1, fr 7
Optical Landing
System (OLS)

G. Field lighting facilities

1. Airport beacon: green and split-white rotating beacon located near control tower operates at night and during IMC (anytime the ceiling is below 1,000 ft and/or less than 3 nm visibility)
2. Approach lighting system: U.S. standard type $\overset{\bullet}{A}_1$ (ALSF-1) with sequenced flashing lights on runway 35R only (also commonly referred to as "rabbit lights"; can adjust from tower)

NOTE: A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system, e.g., $\overset{\bullet}{A}_1$. Negative symbology, e.g., $\overset{\ominus}{A}_1$, $\overset{\ominus}{V}$ indicates pilot-controlled lighting (PCL).

3. Taxiway lighting: standard blue taxi lights installed on all taxiways except Charlie/X-Ray; taxiway centerline lighting installed on parallel taxiways adjoining ramp area
4. One green-lighted wind tee (painted yellow): free-swinging lighted wind indicator located just east of control tower. It indicates direction only and has to be turned on for IMC and night conditions. Pilots occasionally request to turn it off because it is blinding. It has no intensity control
5. Wind sock: illuminated by white lights between all runways. Sock is aviation orange
6. Optical Landing System: all active runways equipped with portable OLS positioned on left side of runway, 750 ft from approach end
7. White adjustable carrier box lighting: on runway 13L/35L
8. Runway lighting

LESSON NOTES

All students need to have current Flight Information Handbook and DoD FLIP (TERMINAL) High Altitude United States Southwest approach plates on hand for use in this section.

- a. All runways are equipped with white high intensity runway lighting. This lighting defines the left/right edges of the entire length of the runway. The tower can adjust the level of intensity on request

- b. White runway centerline lighting on runway 35R/17L only

NOTE: This is represented by white dots on the airport sketch in the FLIP High Altitude United States, Instrument Approach Procedures for Southwest plates.

- c. Internally lit white distance-remaining markers located on both sides of all runways at 1,000 ft intervals
- d. Arresting gear locations marked with internally lit yellow signs with large black circles in the center (anywhere between 1,000-1,600 ft from approach/departure end of each runway)
- e. Green threshold lights at the approach end of all runways
- f. Wheels-up white flood lighting located 1,000 ft prior to each end of all runways. Lights face forward so they do not blind the pilot (illuminate aircraft from behind)

Sg 1, fr 8
High Intensity
Runway Lighting
(HIRL)

Overlay 1:
Centerline Lighting

Sg 1, fr 9
Runway Markers

Sg 1, fr 10
Waveoff Lights

- g. Red waveoff lights on Optical Landing System (OLS) next to duty runway activated by wheels watch, runway duty officer, landing signal officer, or tower

NOTE: Additional red waveoff lights are located along the left and right of each runway for 900-ft/800-ft/800-ft intervals.

9. Red light (obstruction) on top of TACAN, ILS, water tower, and various antennas and transmitter/receivers
10. Four to six white flood lights below the tower catwalk which are normally off, but light up the helo pad when on
11. Aldus lamp located in the tower

Sg 2, fr 1
Lesson Organization

II. Operating Areas

A. Military Operating Areas (MOAs) **1.1.2.2, 1.1.2.2.2**

Sg 2, fr 2
*FLIP IFR Enroute
Low Altitude-U.S. L-15
Navigational Chart*

NOTE: Refer to the panels in the FLIP IFR Enroute Low Altitude United States Charts for the following information: number, effective altitude, times used, UTC, controlling agency, and panel location.

Sg 2, fr 3
*NAS Kingsville Areas
of Operation*

NOTE: MOAs are defined by intersections of TACAN radials and DMEs. Each operating area has a specific working frequency assigned.

Sg 2, fr 4
Kings I MOA

1. Kings I MOA: used for general training activities, and includes areas: 237.85/BTN 5 (TAC A), 251.6/BTN 6 (TAC B), 313.0/BTN 7 (TAC C), 337.0/BTN 8 (TAC D)
- a. Boundaries: defined from Laredo TACAN (channel 121X)

***Overlay I: Kings I
MOA***

- (1) Northern boundary: line from 080R/20 to 072R/70

- (2) Southern boundary: line from 120R/20 to 126R/40 to 128R/70 to 130R/90
- (3) Western boundary: 20 DME arc from 080R to 120R
- (4) Eastern boundary: 90 DME arc from 086R to 130R
- (5) Northeastern boundary: 70 DME arc from 072R to the 086R and the 086R from 70 DME to 90 DME

NOTE: When SPIN-II (KINGS II) is inactive, the northeastern boundary of the KINGS I area is extended from 072/70 to 070/90; however, the bottom of the MOA remains 13,000 ft MSL in KINGS II airspace. The eastern boundary is the 90 DME arc from 070R to 130R; however, the bottom of the MOA is 13,000 ft MSL in KINGS II airspace.

b. Operating altitudes

- (1) Low: 8,000 ft-17,999 ft MSL
- (2) Mid: FL180-FL230
- (3) High: FL240-FL350

NOTE: When local barometric pressure is below 29.92, the top of the mid-MOA will be lowered to FL220. Confirm with departure.

c. Coded departure/special instructions - Premont Two (low and mid)

*Overlay 2: Kings I
MOA*

*Overlay 3: Kings I
MOA*

*Overlay 4: Kings I
MOA*

*Overlay 5: Kings I
MOA*

*Sg 2, fr 5
Premont Two
Departure*

Sg 2, fr 6
FLIP IFR Enroute Low
Altitude - U.S. L-15
Navigational Chart

Sg 2, fr 7
A-632A and A-632C
Alert Areas

2. Alert areas

NOTE: Refer to the panels in the FLIP IFR Enroute Low Altitude United States charts for the following information: number; effective altitude; times used, UTC; controlling agency; and panel location.

- a. A-632A and A-632C: used for formation flights and other flights not requiring MOA-related activity

- (1) Boundaries: area overlapping Kings III and Kings I MOAs
- (2) A-632A operating altitude: 6,000-17,999 ft MSL

NOTE: The local working area is defined as that airspace underlying the Kingsville MOAs and alert area boundaries, from 3,000-17,999 ft MSL.

- (3) A-632C operating altitude surface to 17,999 ft

NOTE: Alert area A-632C excludes airways and airspace surface to 4,000 ft AGL within the Alice Int. Class D airspace.

- b. A-632B: used for NAS Corpus Christi training aircraft operations

- (1) Boundary: area does not overlap any MOA
- (2) A-632B operating altitude surface to FL180

NOTE: Alert area A-632B excludes airspace surface to 4,000 ft AGL within the Class C airspace of NAS Corpus Christi and NALF Waldron when active.

c. Coded departure/special instructions

- (1) X-RAY Two - (low and mid)
- (2) Stage II below 10,000 ft MSL until established in the area
- (3) VFR (see para IV.D. "Departure to the Alert Areas")

NOTE: Navy Kingsville radar and TACAN must be functioning to perform X-Ray Two departures. An IFR squawk for transit to the Kings I cannot be utilized since this departure does not guarantee that the aircraft will remain within the confines of the Kings I MOA.

*Sg 2, fr 8
X-Ray Two Departure*

B. Special Operating Areas (SOA)

NOTE: Coded departures for each of the special operating areas including the ALGUNs are listed in the In-Flight Guide.

*Sg 2, fr 9
Kings I MOA Special
Operating Areas*

1. Kingsville One MOA - Special Operating Areas

- a. A - 5: defined from Laredo TACAN (channel 121X) - used for general training; area frequency 237.85/BTN 5 (TAC A)

*Overlay 1: Kings I
MOA Special
Operating Areas (A-5)*

- (1) Northern boundary: line from 076R/40 to 072R/70
- (2) Southern boundary: line from 105R/40 to 105R/90
- (3) Western boundary: 40 DME arc from 076R to 105R
- (4) Northeastern boundary: 70 DME arc from 072R to the 086R and the 086R from 70 DME to 90 DME

Overlay 2: Kings I
MOA Special
Operating Areas (B-6)

- b. B - 6: defined from Laredo TACAN (channel 121X) - primarily used for ACM and TacForm training; area frequency: 251.6/BTN 6 (TAC B)
- (1) Northern boundary: line from 080R/20 to 076R/40
 - (2) Southern boundary: line from 120R/20 to 126R/40
 - (3) Western boundary: 20 DME arc from 080R to 120R
 - (4) Eastern boundary: 40 DME arc from 076R to 126R

Overlay 3: Kings I
MOA Special
Operating Areas (C-7)

- c. C - 7: defined from Laredo TACAN (channel 121X) - primarily used for ACM and TacForm training; area frequency: 313.0/BTN 7 (TAC C)
- (1) Northern boundary: line from 105R/40 to 105R/70
 - (2) Southern boundary: line from 126R/40 to 128R/70
 - (3) Western boundary: 40 DME arc from 105R to 126R
 - (4) Eastern boundary: 70 DME arc from 105R to 128R

Overlay 4: Kings I
MOA Special
Operating Areas (D-8)

- d. D-8: defined from Laredo TACAN (channel 121X) - primarily used for ACM and TacForm training; area frequency: 337.0/BTN 8 (TAC D)
- (1) Northern boundary: line from 105R/70 to 105R/90
 - (2) Southern boundary: line from 128R/70 to 130R/90

- (3) Western boundary: 70 DME arc from 105R to 128R
 - (4) Eastern boundary: 90 DME arc from 105R to 130R
- e. Spin-I: defined from Kingsville TACAN (channel 125X)
- (1) Northern boundary: 25 DME arc from 185 to 200R
 - (2) Southern boundary: 35 DME arc from 185 to 200R
 - (3) Western boundary: line from 200R/25 to 200R/35
 - (4) Eastern boundary: line from 185R/25 to 185R/35

NOTE: Boundary alert calls are broadcast on area common frequency if an aircraft encroaches on the 5-mile buffer of an area boundary. This is not a call on guard. All aircrew will respond by ident and will take necessary corrective action.

III. Ground Operations, Rules, and Regulations 1.1.2.2, 1.1.2.2.3

A. Engine start

- 1. Anti-collision lights on prior to start
- 2. No refueling being conducted within 50 ft of aircraft preparing to start
- 3. No strobe lights used in line

B. Max power in the line (normally 70%, but in accordance with SOP)

C. Taxi speed

- 1. Line: No faster than a man can walk

*Overlay 5: Kings I
MOA Special
Operating Areas
(Spin-I)*

*Sg3, fr 1
Lesson Organization*

*Sg 3, fr 2
NAS Kingsville
(NQI) Airport
Diagram*

2. Taxiway: No faster than a man can trot

NOTE: Taxi light will be used as required for night taxi, exercising care not to blind other pilots.

- D. Takeoff - Night section takeoffs are not authorized
- E. Early turnoffs - All aircraft (in accordance with SOP)

LESSON NOTES

Direct your class to review closely their respective squadron standard operating procedures (SOPs) for specific instructions and regulations that will govern their day-to-day operational activities and specific aircraft restrictions.

*Sg 4, fr 1
Lesson Organization*

IV. Departures **1.1.2.2, 1.1.2.2.4, 1.4.20.1**

A. Departures for cross-country flight

1. All flights will depart in accordance with clearance. Published, standard instrument departures (SIDs) are normally assigned for aircraft departing the local area on cross-country flights
 - a. Palacios-Three departure
 - b. HOBOZ-One departure

NOTE: Local instrument departures (LIDs) are normally used to depart NAS Kingsville to the MOAs. LIDs are not used to intercept Victor and jet airways for navigation.

*Sg 4, fr 2
Palacios Three
Departure*

*Sg 4, fr 3
HOBOZ One
Departure*

B. Departures to the MOAs

NOTE: All aircraft leaving NAS Kingsville airspace or requiring MOA-related activities shall depart NAS Kingsville on an IFR flight plan using a local instrument departure (LID) or VFR on an IFR flight plan. Each coded departure (LID) has a specific use. The Premont Two, the most commonly used departure at NQI to the Kings I MOA, is described below. The Banks I to the Kings IV and V MOAs and the X-Ray Two departure to the local VFR area is also described in this section. Refer to your In-Flight Guide for descriptions and use of the other coded departures used to reach Kings III, spin areas, and ALGUNS.

1. Premont Two—used for reaching Kings I low and mid-MOA only
 - a. Will automatically activate Kingsville Two MOA when transiting to Kingsville One MOA
 - b. Normally clear underlying altitudes of both MOAs to allow for unrestricted climb to MOA altitudes unless advised otherwise
 - c. Once established in Kingsville One MOA, Kingsville Two MOA and underlying altitudes will return to their previous status
 - d. Aircraft shall not reenter these areas unless cleared to do so by Kingsville ATCF

NOTE: The area underlying the Kings II MOA is not part of the Kings I MOA.

NOTE: A pilot may request “Take off VFR” to the alert area (a 02XX series squawk) and still be on an IFR flight plan but not receive IFR handling. Field conditions must be VFR (normal operations at NAS Kingsville will not authorize a 1200 VFR squawk). This could expedite the launch of aircraft due to reduced separation criteria with approach IFR traffic. At any time during a VFR takeoff, the pilot may

Sg 4, fr 4
Premont Two
Departure

“Request IFR handling.” At that time, he reverts to IFR departure procedures and receives a 4XXX series squawk.

- e. Includes four options (Premont Two)
 - (1) VMC and want to proceed direct
 - (a) Report VMC
 - (b) Request direct or request radar vectors
 - (c) “Terminate,” when above 2,000 ft MSL or beyond 4 DME

NOTE: After radar service is no longer required from Kingsville Departure and clear of traffic area, the pilot may request “terminate” and continue VMC. (“**Terminate**” means: radar service terminated, maintain VMC, frequency change approved, contact Kingsville Approach for recovery. It **does not** mean that you have “**canceled**” your IFR clearance, i.e., you keep your assigned squawk.)

- (2) VMC want to fly LID
 - (a) Report VMC
 - (b) Terminate (+2,000 ft MSL 4 nm)
 - (c) Continue with LID flight procedure
- (3) IMC want to proceed direct to MOA
 - (a) Above 2,000 ft MSL or beyond 4 DME
 - (b) Request “direct” or request “radar vectors” to MOA
 - (c) Upon reaching VMC, report “VMC terminate”

NOTE: If not VFR-ON-TOP by assigned altitude, departure control will continue IFR handling up to FL230 within lateral limits of Kingsville MOAs or assigned airspace.

- (4) IMC and want to fly LID
 - (a) Fly LID procedure as published
 - (b) Do not report "VMC, terminate" until VFR on top
 - (c) Upon reaching VMC, report "VMC terminate"

NOTE: If not VFR-ON-TOP by assigned altitude, departure control will continue IFR handling up to FL230 within lateral limits of Kingsville MOAs or assigned airspace.

WARNING: Pilots may not "terminate" and then fly out of the lateral boundaries of the Kingsville One or Two MOA trying to avoid weather en route to Kingsville One MOA.

2. Aircraft entering and/or transiting the Kings I MOA Area A should maintain 9,500 ft MSL (weather permitting) prior to checking in on area common (Button 5). After check-in, the pilot may continue to climb to working altitude if he has determined his route of flight will not conflict with aircraft established in the area. Otherwise, he should transit to his area at 9,500 ft MSL
3. During daytime, aircraft working the Kings I MOA Area A with ground reference shall divide the area laterally according to KINGS I MOA AREA A DIVISIONS WITH GROUND REFERENCE depiction; when working day VMC above an overcast, divide the area according to KINGS I MOA AREA A DIVISIONS WITHOUT GROUND REFERENCE depiction. During nighttime, the Kings I MOA is not subdivided into A, B, C, D and all

*Sg 4, fr 5
Kings I MOA Area A
Divisions Without
Ground Reference*

aircraft shall check in on and monitor button 5; night flights should normally subdivide the Kings I vertically by altitude blocks versus laterally

C. Departure to Kings IV and V

NOTE: To reach the Kings IV or V MOAs, you must transit a civilian corridor that runs southwest from the Corpus Christi VORTAC.

1. VFR

- a. File an IFR flight plan (to activate the MOA)
- b. Request VFR to the MOA with flight following

NOTE: A VFR departure relieves the controller of providing IFR separation from other traffic. The pilot assumes responsibility for maintaining proper separation from all traffic (a.k.a. MARSAs) en route to the MOA. All aircraft monitor BTN 25, VFR common.

D. Departure to the Alert Areas

NOTE: Local VFR working area is defined as that airspace underlying the Kingsville MOAs and under or within the lateral confines of the alert areas. The altitude envelope when within the lateral confines of the Kingsville MOA is 3,000 ft to 17,999 ft MSL. The altitude envelope, when outside the lateral confines of the MOAs but within the lateral confines of the alert area, is from 3,000 ft to 11,000 ft MSL.

1. VFR (Local VFR area)

NOTE: VFR procedures are used for flights **not** requiring MOA-related activity, i.e., flights not requiring aerobatic maneuvers.

- a. Contact clearance delivery and request a VFR departure and VFR squawk

Sg 4, fr 6
Local Working Area
Restrictions

b. VFR Departure:

- (1) Notify Departure Control when leaving their frequency; monitor VFR common 308.2/BTN 25
- (2) Maintain runway heading until passing 2,000 ft MSL or 4 DME (noise abatement)
- (3) Request flight following

2. IFR

NOTE: IFR procedures are used when departing to the local VFR working area when field weather is less than VMC.

- a. Contact clearance delivery and request X-RAY TWO departure to the local VFR area
- b. Proceed IFR via the X-RAY Two LID to the local VFR area and "CANCEL" when VFR

Sg 4, fr 7
X-Ray Two Departure

V. Recovery **1.1.2.2, 1.1.2.2.4.1, 1.4.20.1**

NOTE: When contacting Kingsville Approach for recovery, aircrew should state, "Kingsville Approach, call sign, radial/ DME from NQI, coded recovery, and current ATIS."

NOTE: Kingsville Approach may request aircrew to "IDENT," to confirm aircraft position. After initial contact, aircrew should advise Approach if any deviation from normal coded recovery, such as low initial, straight-in, or 360-degree turns for altitude reduction, is desired.

Sg 5, fr 1
Lesson Organization

A. VFR

1. Attempt to contact Kingsville Approach Control at least 25 miles from the airfield for TOPS VFR radar service to the VFR traffic pattern

NOTE: VFR recoveries apply **only** to aircraft returning from the alert areas below the MOA or airspace within

the lateral confines of the alert areas and aircraft returning from Kings IV or Kings V MOAs when transiting within the altitude and lateral confine structure described for “local VFR areas.”

2. Restrictions

a. Remain clear

- (1) City of Kingsville
- (2) King Ranch Headquarters
- (3) Celanese plant
- (4) Built-up areas of the air station where racticable

b. Avoid overflying

- (1) Trailer parks
 - (a) 1 mile south of the airfield boundary and 1.5 miles northwest of the air station
 - (b) Turning left downwind off runway 31L (when directed by tower)
- (2) City of Bishop
- (3) Brickhouse 1.3 nm abeam runway 35L

c. Remain east of Hwy 77 bypass

3. TOPS VFR recovery (VFR recovery with radar advisories from the MOAs)

NOTE: TOPS VFR recovery from the MOAs can only be used when recovering VFR and transiting via the alert areas.

a. Cleared to NQI/NOG via direct

b. Maintain VFR

NOTE: When returning from the MOA on a VFR recovery, you are still on an IFR 4XXX squawk with monitors to the initial.

c. Proceed to VFR initial via direct or radar vectors for sequencing if directed by Kingsville approach

d. Report field in sight to Kingsville Approach for handoff to Kingsville tower

B. IFR coded recoveries

NOTE: Aircraft desiring an IFR arrival/approach at NAS Kingsville are handed off from an adjoining ATC facility or contact Kingsville Approach directly for clearance to conduct a coded recovery procedure listed below or published instrument/radar approach procedure from the operating areas. IFR instrument/radar approaches are covered in the "Field Entry" section of this document.

1. Waade recovery

a. Cleared to Waade (NQI 270R/026) via direct

b. Cross Waade at assigned altitude

c. Expect further clearance (time) as assigned

2. Riviera recovery

a. Cleared to Riviera (NQI 182R/031) via direct

b. Cross Riviera at assigned altitude

c. Expect further clearance (time) as assigned

3. TOPS IFR recovery (used when descending through IFR conditions to anticipated VFR conditions)

Sg 5, fr 2
Waade Recovery to
RWY 13R (Plan View)

Sg 5, fr 3
Waade Recovery to
RWY 13R (Approach
Profile)

Sg 5, fr 4
Riviera Recovery to
RWY 35L/R
(Approach Profile)

- a. Cleared to NQI or NOG via direct
 - b. Maintain VMC within the MOA until assigned radar vectors and/or altitude by NQI ATCF
 - c. With cloud ceiling at or above 2,600 ft MSL, report, "VMC cancel," when underneath

NOTE: If ceiling is below 2,600 ft MSL, pilot may cancel only if low initial is available. Otherwise, pilot shall proceed by instrument approach to ensure traffic separation.
4. TOPS GCA recovery (used when IFR conditions exist on deck and a precision radar approach is desired or when executing a penetration to a practice GCA)
 - a. Cleared to NQI/NOG via direct
 - b. Maintain VMC within the MOA until assigned radar vectors and/or altitude by NQI ATCF
 - c. Approach control will issue descent and radar vectors to GCA final
 5. TOPS ILS recovery - An IFR recovery procedure from the MOA in which the aircraft is cleared to NQI/NOG via direct, maintaining VMC within the MOA until assigned radar vectors and altitude by NQI ATCF. Approach control will issue descent and radar vectors to intercept the ILS final approach course

NOTE: Aircraft exiting the Kings III MOA on a TOPS GCA, TOPS ILS, or TOPS IFR recovery must be below 11,000 ft MSL prior to exiting.
 6. Returning from Kings IV or V

NOTE: Aircraft returning from Kings IV and V MOAs will contact Houston Center, on 350.3, before leaving those MOAs. Pilots will request the appropriate recovery (VFR, radar vectors, TACAN approach, etc.) from the center.

C. IFR, non-coded recoveries

NOTE: Normal IFR traffic will be expected to comply with IFR procedures as published in appropriate flight information publications. See the IFR (enroute) Supplement and SW High Altitude Terminal Information publication (approach plates) for procedures, field and approach information.

VI. General Emergency/Special Procedures **1.1.2.2, 1.1.2.2.8.1**

A. Emergency field entries (actual and practice)

1. GCA

- a. (TOPS GCA recovery—PAR; ASR on request): Normally, 2,000 ft MSL downwind, base, and dogleg to final approach course
- b. Perform landing checks per FTI, or when directed by approach control for sequencing

NOTE: GCA approaches are normally to the inboard runways.

- (1) Emergency fuel/low oil GCA: expect 30 second-to-glideslope gear warning
- (2) Minimum fuel GCA: (MAINTAIN VMC if simulated), expect descent to 1,200 ft MSL on downwind, 800 ft MSL on base leg 3-4 nm final, and a 30 second-to-glideslope gear warning

Sg 6, fr 1
Lesson Organization

2. Hung ordnance approach (request and advise: ACTUAL or Practice):
 - a. Enter 10 nm straight-in at 1,000 ft MSL or as directed
 - b. Lead requests "ACTUAL or PRACTICE" hung ordnance approach on initial contact with approach
 - c. Lead ensures flight breakup prior to reporting 3 nm from assigned runway

NOTE: The approach will normally be to the departure runway.

3. No-flap approaches

NOTE: To the maximum extent possible, conduct no-flap landings from a straight-in or instrument approach.

- a. In the VFR pattern, request a left downwind from runways 13/17 or a right downwind from runways 31/35 to remain east of field and preclude overflight of HWY 77 by-pass
- b. If flown to the west, keep no-flap patterns east of HWY 77 by-pass

4. Precautionary approaches

NOTE: Practice precautionary approaches (PPAs) will normally be conducted at NALF Orange Grove; however, traffic permitting, they may be conducted at NAS Kingsville. All PPA approaches shall be conducted in VFR conditions during daylight hours only. Additionally, all "practice" precautionary approaches will normally be made to the duty runways. Request the type of precautionary approach on initial contact with approach control. Fly the precautionary approach in accordance with NATOPS.

- a. Precautionary approach

- (1) Request type of PA from approach control on initial contact
 - (a) Straight-in
 - (b) Overhead
 - (c) Abeam
 - (2) Tower will assign runway no later than 3 nm straight-in
 - (3) Tower may direct normal pattern for practice approaches
 - (4) Fly precautionary approach requested in accordance with NATOPS
4. Emergency landing pattern
- a. Practice precautionary approach
 - (1) Request “high key” from tower

NOTE: The tower will assign traffic direction and runway.

 - (2) Report “low key” with the gear
 - (3) Fly procedure in accordance with NATOPS

NOTE: Altitudes may be varied to maintain VMC.
- B. NORDO (to/from/within MOAs, SOAs, alert areas, and at the field)
1. Lost communications procedure (FAA/ICAO)
 - a. Squawk 7600 (only)
 - b. Make all transmissions in “the blind”

- c. If experiencing difficulty other than radio failure, squawk 770“X,” indicating difficulty with last digit (use HEFOE code). Kingsville approach will anticipate an arrested landing for aircraft squawking 7700

2. VFR

- a. Pilots returning to Kingsville NORDO and VFR shall
 - (1) Perform lost communications procedure
 - (2) Make overhead pattern and approach to the inboard runway
 - (a) Day - rock aircraft wings
 - (b) Night - flash external lights bright
 - (3) Look for a green Aldus lamp signal from tower, for clearance to land

NOTE: Control tower will use appropriate Aldus lamp signal to indicate desired pilot action. Once cleared to land, the NORDO aircraft are expected to land on the inboard runway of the duals at NAS Kingsville.

3. IFR

- a. All ETAs are 45 minutes (0+45) after takeoff regardless of scheduled flight duration
- b. Flight en route to the MOAs will proceed via coded departure assigned

NOTE: If not within the assigned altitude block at completion of coded departure, climb until within the lateral confines of the MOA until established within that block.

- c. 5 minutes prior to NORDO ETA, commence:
 - (1) Squawk “lost communications”
 - (2) Climb or descend to FL190 within the MOA
 - (3) Proceed to the HI TACAN IAF in use
 - (4) Maintain FL190 until ETA, then commence approach
- d. If NORDO IFR is within Kings III, IV, or V MOA, proceed to IAF for the HI-TACAN in use and execute approach
- e. NORDO to, from, or within the alert areas
 - (1) Initiate lost communications procedure
 - (2) On X-RAY 2 departure prior to cancelling or VFR on top
 - (a) Proceed to arrive at Point X-Ray (NQI 220R/25) 0+45 after takeoff at 10,000 ft MSL
 - (b) Maintain VMC
 - (c) Monitor appropriate UHF/VHF frequencies
 - (d) Proceed to the field using a VFR for NORDO recovery
 - (3) IMC
 - (a) Depart Point X-Ray 0+45 after takeoff and proceed via the NQI 20 DME arc
 - (b) Arc north or south to intercept the appropriate HI-TACAN final approach course at 5,000 ft MSL

- (c) Execute the final portion of the HI-TACAN approach
- f. W-228D NORDO
 - (1) Initiate lost communications procedure
 - (2) VMC
 - (a) Maintain VMC
 - (b) Return to NQI VFR for NORDO recovery
 - (3) IMC
 - (a) Proceed to NQI 125R/44 DME fix at 13,000 ft MSL
 - (b) Proceed inbound on NQI 125R at 13,000 ft MSL until crossing the 13 DME fix
 - (c) Turn left/right and proceed direct to the NQI 182R/12 DME fix or to the NQI 310R/12 DME fix descending to 3,000 ft MSL
 - (d) Execute the final portion of the HI-TACAN 13R or 35R approach
 - (e) If required, circle to land on the duty runway
- g. GCA/ASR NORDO procedures--the definition of the lost communications procedures is: "If no transmissions are received for one minute in the pattern or five (PAR)/fifteen (ASR) seconds on final approach, attempt contact on 300.4 (13) and proceed VFR. If unable, proceed with the final portion of the high TACAN runway 13R/35R approach, maintain 3,000 ft until established on the 310/182 radial, ONE TWO (12) mile DME fix." "Circle to runway _____"

will be added to the end of the lost communications when the active runway is 13L, 17L/R, 31L/R, or 35L

4. NORDO in the pattern
 - a. Initiate lost communications procedure
 - b. Rock wings (in break or first downwind)
 - c. First pass, check for Aldus lamp
 - (1) Green light - land
 - (2) No green light
 - (a) Rock wings - and go around
 - (b) Maintain interval
 - d. Second pass
 - (1) Green light - land
 - (2) No "red" light - land on inboard runway, if clear

VII. Typical flight sequence from NAS Kingsville

NOTE: A typical flight sequence from NAS Kingsville to a MOA and return to Kingsville is described below.

- A. Ground operations prior to takeoff **1.1.2.2, 1.1.2.2.3**
 1. Place departure on request with dispatch via land line
 2. Preflight
 3. Start aircraft
 4. Monitor ATIS
 5. Contact clearance delivery, and copy clearance

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Lesson Organization

6. Check out with base, after final checker
 7. Contact ground control for taxi clearance with ATIS information
 8. Taxi to hold short for duty runway: taxi interval IAW SOP
- B. Takeoff and departure **1.1.2.2, 1.1.2.2.4**
1. Contact tower for runway access and takeoff clearance
 2. Perform normal takeoff
 3. Comply with departure procedure
 4. Contact departure when safely airborne or when directed
 5. When able, request “terminate” with departure control
- C. Mission activities: IAW brief
1. Check into the MOA on “common” freq
 2. Check out of the MOA on “common” freq
- D. Return to base **1.1.2.2, 1.1.2.2.5, 1.1.2.2.4.1**
1. Monitor ATIS
 2. Contact Kingsville Approach; request TOPS VFR recovery (maintain VFR)
 3. Proceed to initial IAW TOPS VFR recovery
 4. Prior to initial, report field in sight
 5. When directed by Kingsville Approach, squawk standby and switch to control tower
 6. Report initial to control tower with intentions

7. Enter overhead approach
8. Report the numbers
9. Within first two-thirds of runway or when directed by tower and with interval in sight, break to downwind
10. Report "abeam" with intentions

E. Ground operations after landing **1.1.2.2, 1.1.2.2.3**

1. Clear duty runway
2. Contact ground control and taxi to line
3. Contact base with aircraft status
4. Shut down

VIII. Divert airfields **1.1.2.2, 1.1.2.2.2, 1.1.2.2.7**

NOTE: Heading/distance figures for all divert airfields are from NAS Kingsville.

Sg 8, fr 1
Lesson Organization

Sg 8, fr 2
Divert Airfields

LESSON NOTES

It is not necessary to discuss each divert airfield in detail, but do discuss at least one airfield to identify the important points. The students may study the remaining airfields on their own. You may also want to make additional points gained from your experience with these airfields.

Emphasize that some divert fields may not have the proper facilities for a particular situation. For instance, Harlingen, Laredo, and Laughlin airports have no arresting gear. In the event of a total hydraulic failure, these fields would be inappropriate. NALF Orange Grove does not have ILS or approach lighting and, therefore, may not be appropriate under low visibility conditions.

***Overlay 1: Divert
Airfields NALF
Orange Grove***

- A. NALF Orange Grove, NOG
1. Heading/distance: 323 degrees/26 nm
 2. Longest runway: 8,000 ft/200 (all)
 3. NAVAIDs: TACAN, at field
 4. Approaches available:
 - a. TACAN
 - b. ILS/LOC
 5. Elevation: 257 ft MSL
 6. Arresting gear: E-28(B)

***Overlay 2: NAS
Corpus Christi***

- B. NAS Corpus Christi, NGP
1. Heading/distance: 059 degrees/30 nm
 2. Longest runway: 8,000 ft/200 ft (13R/31L)
 3. NAVAIDs: VORTAC, at field
 4. Approaches available
 - a. VOR/TACAN
 - b. ASR/PAR
 5. Elevation: 19 ft MSL
 6. Arresting gear: E-28(B) available on runways 13R/31L and 17/35

Overlay 3: Laredo

- C. Laredo International Airport, LRD
1. Heading/distance: 267 degrees/88 nm
 2. Longest runway: 8,000 ft/150 ft (17L/35R)

3. NAVAIDs: VORTAC 320 degrees, 4.6 nm to field
 4. Approaches available
 - a. VOR/TACAN
 - b. ILS/LOC
 5. Elevation: 508 ft MSL
 6. Arresting gear: none
- D. Harlingen/Valley INTL
1. Heading/distance: 167 degrees/77 nm
 2. Longest runway: 8,300 ft/150 ft (35L/17R)
 3. NAVAIDS
 - a. VORTAC: 107 degrees, 7.8 nm to field
 4. Approaches available
 - a. VOR/TACAN
 - b. ILS/LOC
 5. Elevation: 36 ft MSL
 6. Arresting gear: none
- E. Kelly AFB, SKF
1. Heading/distance: 332 degrees/120 nm
 2. Longest runway: 11,550 ft/300 ft (15/33)
 3. NAVAIDS
 - a. TACAN: at field

Overlay 4: Kelly AFB

Overlay 5: Kelly AFB

**Overlay 6: Randolph
AFB**

4. Approaches available
 - a. TACAN
 - b. ILS/LOC
 - c. ASR
5. Elevation: 690 ft MSL
6. Arresting gear
 - a. E-5
 - b. BAK-9 (E-27)
 - c. BAK-12

F. Randolph AFB, RND

1. Heading/distance: 342 degrees/126 nm
2. Longest runway: 8,353 ft/200 ft (14R/32L)
3. NAVAIDs
 - a. TACAN: at field
 - b. VOR: at field
4. Approaches available
 - a. VOR/LOC
 - b. ILS
 - c. ASR
5. Elevation: 762 ft MSL
6. Arresting gear: BAK-12, BAK-15

G. Laughlin AFB, DLF

1. Heading/distance: 296 degrees/193 nm
2. Longest runway: 8,858 ft/150 ft (13/31 center)
3. NAVAIDs: VORTAC, at field
4. Approaches available
 - a. TACAN
 - b. VOR/LOC
 - c. ILS/ASR
5. Elevation: 1,082 ft MSL
6. Arresting gear: No A gear

***Overlay 7: Laughlin
AFB***

H. Corpus Christi International Airport, CRP

1. Heading/distance: 037 degrees/23 nm
2. Longest runway: 7,508 ft/150 ft (13/31)
3. NAVAIDs: VORTAC; 192 degrees, 8.5 nm to field
4. Approaches available
 - a. VOR/TACAN
 - b. ILS/LOC
5. Elevation: 44 ft MSL
6. Arresting gear: none

***Overlay 8: Corpus
Christi***

I. McAllen/Miller INTL

1. Heading/distance: 191 degrees/84 nm
2. Longest runway: 7,100 ft/150 ft (13/31)

***Overlay 9: Mcallen
INTL***

3. NAVAIDs:
 - a. VORTAC: at field
4. Approaches available
 - a. VOR
 - b. ILS/LOC
5. Elevation: 107 ft MSL
6. Arresting gear: none

SUMMARY

During this lesson, we discussed BI/RI course rules for NAS Kingsville to include:

- * NAS Kingsville airfield characteristics and operating procedures
- * NAS Kingsville military operating areas (MOAs), alert areas, special operating areas (SOAs) within the MOAs, 228D SOA, and ALGUNs
- * Ground operations, rules, and regulations
- * Departure for cross-country flight, to the MOAs, to Kings IV and V, and to the alert areas
- * Recoveries: VFR and IFR (coded and non-coded)
- * General emergency/special procedures
- * Typical flight sequence from/to NAS Kingsville
 - Takeoff and departure
 - Return to base
 - Ground operations after landing
- * Divert airfield information

CONCLUSION

Safe operation of your aircraft from chock to chock in the heavy air traffic of the Kingsville training area requires strict adherence to course rules and constant vigilance.

Sg 9, fr 1
Review Menu

NOTES

LECTURE GUIDE

COURSE/STAGE: Course Rules

LESSON TITLE: Course Rules

LESSON IDENTIFIER: UJPT, E2-C2, & ADV CR-02; IUT CR-01

LEARNING ENVIRONMENT: Classroom

ALLOTTED LESSON TIME: 2.0 hr

TRAINING AIDS:

- * Course Rules CD-ROM
- * Figures
 - Fig 1: NAS Kingsville Areas of Operation
 - Fig 2: NAS Kingsville (NQI) Airport Diagram
 - Fig 3: NATOPS Pocket Checklist (PCL) E-28 Emergency Field Arrestment Data
 - Fig 4: Approach Lighting System
 - Fig 5: Taxiway Lighting
 - Fig 6: Wind Indicators
 - Fig 7: Optical Landing System (OLS)
 - Fig 8: Carrier Box Lighting
 - Fig 9: Runway Lighting
 - Fig 10: Runway Markers
 - Fig 11: Waveoff Lights
 - Fig 12: FLIP IFR Enroute Low Altitude - U.S., L-15 Navigational Chart
 - Fig 13: Kings I, II, & III Military Operating Areas
 - Fig 14: Premont Two Departure
 - Fig 15: Retch Four Departure
 - Fig 16: Cybil One Departure
 - Fig 17: Kings IV & V Military Operating Areas
 - Fig 18: Banks One Departure
 - Fig 19: FLIP IFR Enroute Low Altitude - U.S., L-15 Navigational Chart

(3-03) ORIGINAL

- Fig 20: A-632A and A-632C Alert Areas
- Fig 21: W-228D Gunnery Range and A-632B Alert Area
- Fig 22: X-Ray Two Departure
- Fig 23: Ralph One Departure
- Fig 24: FLIP IFR Enroute High Altitude - U.S., H-5 Navigational Chart
- Fig 25: Palacios Three Departure
- Fig 26: HOBOZ One Departure
- Fig 27: Kings I MOA Area A Divisions With/Without Ground Reference
- Fig 28: Local Working Area Restrictions
- Fig 29: Waade Recovery to Rwy 13R
- Fig 30: Riviera Recovery to Rwy 35L/R
- Fig 31: VFR Field Entry
- Fig 32: Overhead Approach (Rwy 13)
- Fig 33: Overhead Approach (Rwy 17)
- Fig 34: Overhead Approach (Rwy 35)
- Fig 35: Overhead Approach (Rwy 31)
- Fig 36: Standard Downwind Entry (Rwy 13)
- Fig 37: Standard Downwind Entry (Rwy 17)
- Fig 38: Standard Downwind Entry (Rwy 35)
- Fig 39: Standard Downwind Entry (Rwy 31)
- Fig 40: Standard No Wind VFR Landing Pattern
- Fig 41: Delta Clean Pattern
- Fig 42: NALF Orange Grove (NOG) Airport Diagram
- Fig 43: Communication Frequencies for NALF Orange Grove
- Fig 44: NALF Orange Grove TACAN-A Arrival
- Fig 45: NALF Orange Grove TACAN-RWY 13 Arrival
- Fig 46: NALF Orange Grove TACAN-RWY 31 Arrival
- Fig 47: NOG VFR Overhead Approach
- Fig 48: ILS/DME Rwy 13
- Fig 49: Wells Three Departure
- Fig 50: Divert Airfields

STUDY RESOURCES:

- * Air Operations Manual, Naval Air Station Kingsville, Texas
- * In-Flight Guide, TRAWING TWO
- * Standard Instrument Departures, High Altitude, Kingsville NAS
- * Appropriate Standard Operating Procedures: COMTRAWING TWO INSTRUCTION 3710.5A
- * DoD FLIP (Terminal) High Altitude United States Instrument Approach Procedures, Southwest
- * Brownsville Sectional Chart

LESSON PREPARATION:

Study:

- * In-Flight Guide, TRAWING TWO
- * DoD Standard Instrument Departures, High Altitude, Kingsville NAS
- * Arrivals for NAS Kingsville, DoD FLIP (Terminal) High Altitude United States Instrument Approach Procedures for Southwest
- * DoD FLIP (Terminal) Low Altitude United States (Vol-6 - Texas)
- * IFR Enroute Supplement
- * Local Instrument Departures (LIDs)
- * Flight Information Handbook
- * IFR Enroute High/Low Altitude Charts H-5/6 (L15/16)

NOTE: Check publications for currency.

REINFORCEMENT: N/A

EXAMINATION:

The objectives in this lesson will be tested in Course Rules 03X.

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LESSON OBJECTIVES**1.1.2.2**

Recall course rules

1.1.2.2.2

Recall local operating areas

1.4.20.1

Recall required communications between pilot and controlling agency

1.1.2.2.3

Recall rules and regulations for ground operations

1.1.2.2.4

Recall departure procedures

1.1.2.2.4.1

Recall procedures for home field recovery

1.1.2.2.5

Recall the procedures for field entry

1.1.2.2.6

Recall pattern procedures

1.1.2.2.8.1

Recall general emergency/special procedures

1.1.2.2.7

Recall course rules for outlying fields

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Recall general emergency/special procedures

1.1.2.2.7

Recall course rules for outlying fields

MOTIVATION

In 1987, NAS Kingsville recorded more takeoffs and landings than Chicago's O'Hare International Airport. At such an exceptionally busy field, strict adherence to course rules by every pilot is critical to safe flight operations.

In your flying experience up to now, you have learned how important course rules are to safe flying. Every flyer knows stories about pilots who had close calls because they failed to adhere to published course rules.

OVERVIEW

Upon completion of this lesson, you will have learned the important features of the local operating area, the key procedures that are essential for the safe and orderly conduct of flight training, and an introduction as well as a general understanding of the procedures and information that is found within your TRAWING TWO In-Flight Guide.

This lesson will cover:

- * NAS Kingsville airfield characteristics and operating procedures
- * NAS Kingsville military operating areas (MOAs), alert areas, special operating areas (SOAs) within the MOAs, 228D SOA, and ALGUNS
- * Ground operations, rules, and regulations
- * Departures for cross-country flight, to the MOAs, to Kings IV and V, and to the alert areas
- * Recoveries: VFR and IFR (coded and non-coded)
- * Field entry procedures (VFR, IFR)
- * Patterns
 - Standard VFR
 - Delta
- * General emergency/special procedures

- * Typical flight sequence from NAS Kingsville
 - Ground operations prior to takeoff
 - Takeoff and departure
 - Mission activities
 - Return to base
 - Ground operations after landing
- * NALF Orange Grove airfield characteristics and course rules
- * Divert airfield information

REFRESHER

In your previous flight training, you flew in MOAs and were governed by specific course rules; use that experience here at NAS Kingsville to reinforce the similarities and adapt to the differences.

PRESENTATION

I. NAS Kingsville, NQI **1.1.2.2, 1.1.2.2.2**

NOTE: NAS Kingsville, Texas, is the primary airfield for jet pilot training activities for personnel assigned to TRAWING TWO.

A. Location

1. Latitude N27 degrees, 30 minutes 40 seconds
Longitude W97 degrees, 48 minutes 60 seconds
2. 30 nm southwest of Corpus Christi, Texas

B. Hours of operation: IAW FLIP Enroute Supplement UTC-6(-5DT)

1. 1300 - 0400Z++ Monday through Thursday

Sg 1, fr 2
Lesson Organization

Sg 1, fr 3
Fig 1: NAS Kingsville
Areas of Operation

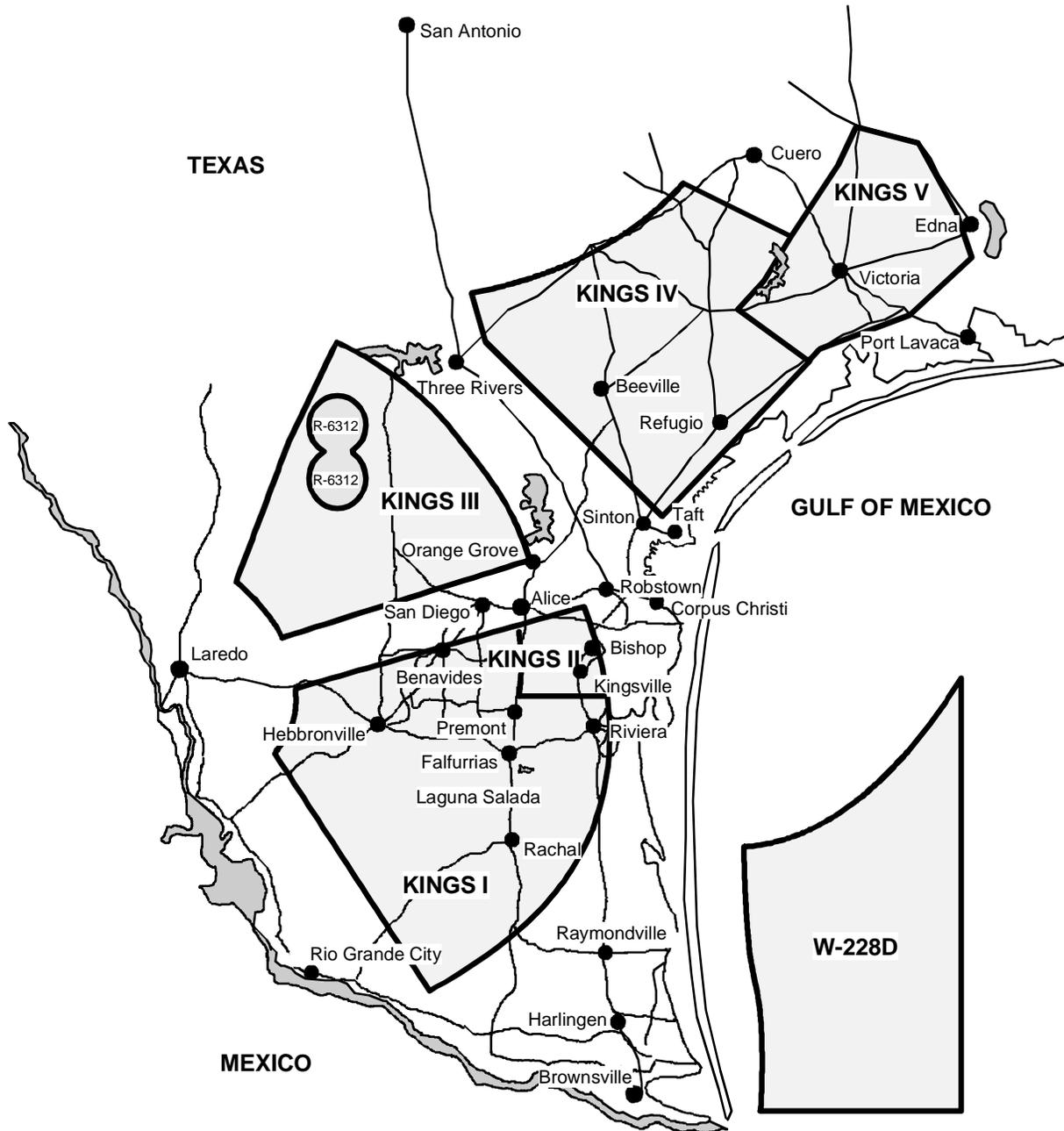


Figure 1: NAS KINGSVILLE AREAS OF OPERATION

2. 1300 - 0200Z++ Friday
3. Closed Saturday, Sunday, and holidays
4. 1900 - 0200Z++Sunday for TW2 only

NOTE: Field hours of operation are often changed to meet short term operational requirements.

NOTE: ++ means that during periods of daylight savings time, effective hours of operations will be one hour earlier. UTC -6(-5DT) - For NAS Kingsville: daylight savings time is in effect from 0200 local time, the first Sunday in April, to 0200 local time, the last Sunday in October.

LESSON NOTES

As you discuss the diagram of NAS Kingsville, direct your students to follow along using their In-Flight Guides.

The In-Flight Guide does not show any details of the surrounding area, such as obstacles, etc. However, aerial photographs of NAS Kingsville do show details of the surrounding area. When discussing details that are not shown in the diagram, direct your students to note these items.

C. Elevation: 50 ft MSL

D. NAVAIDs:

1. TACAN—channel 125 (NQI); N27 degrees, 30 minutes, 0 seconds; W97 degrees, 48 minutes, 30 seconds

NOTE: Latitudes/longitudes are subject to change. Check current publications for exact coordinates.

*Sg 1, fr 4
Fig 2: NAS Kingsville
(NQI) Airport Diagram*

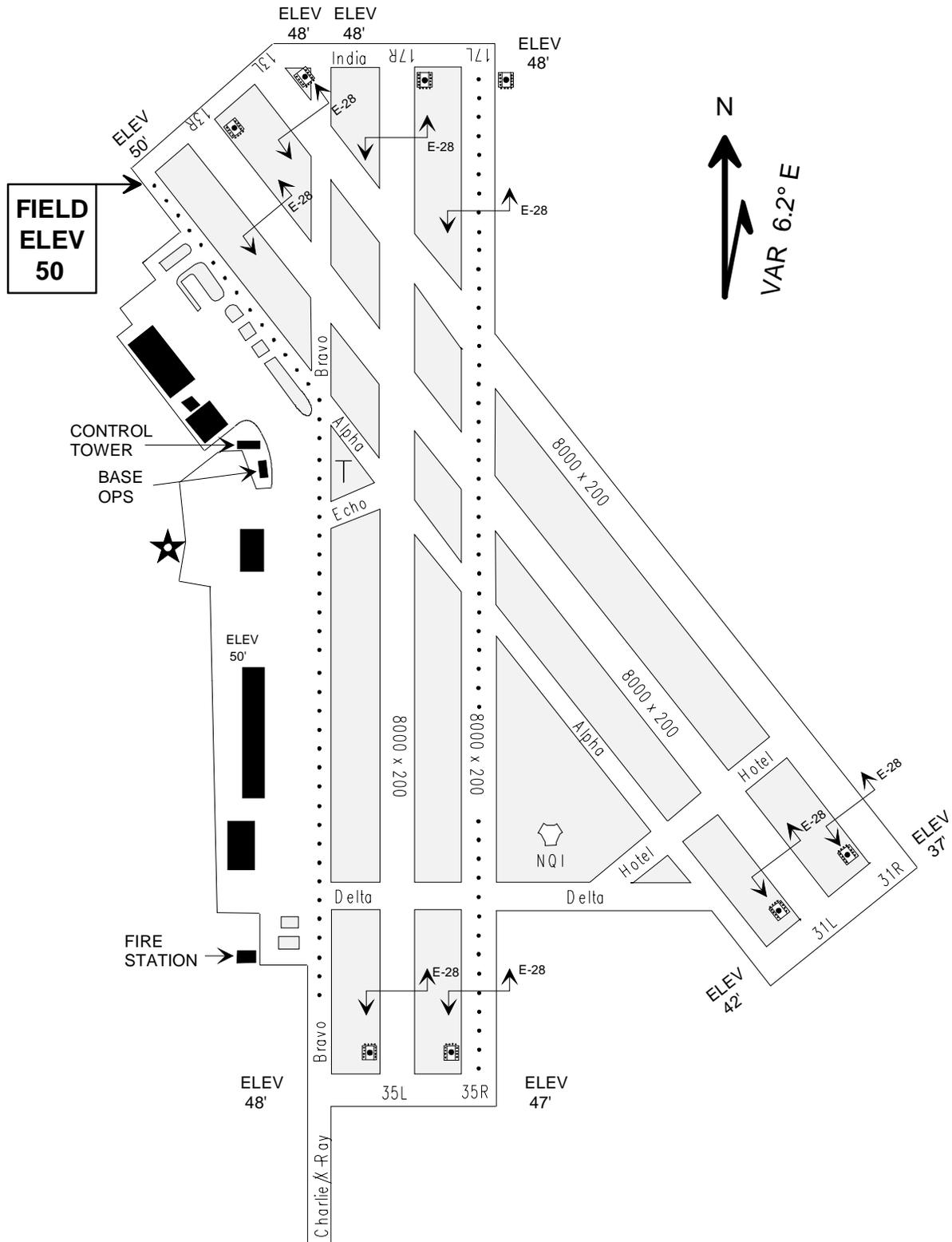


Figure 2: NAS KINGSVILLE (NQI) AIRPORT DIAGRAM

2. ILS -- Runway 13 only (no outer/inner marker beacons)
- E. Runways: two sets of dual runways
1. 13/31: 8,000 X 200 ft
 2. 17/35: 8,000 X 200 ft

F. Arresting gear

NOTE: Anytime a pilot makes an arrested landing, the tower will request total weight and airspeed on engagement. To compute total weight, use NATOPS T-45A empty weight of 10,403 pounds (includes trapped fuel plus aircrew without pylons). Add indicated fuel quantity in pounds.

EXAMPLE: 10,403 (empty weight)
 +3,000 (full fuel)
 13,403 pounds (average takeoff weight)

1. E-28
 - a. Bidirectional (B) rotary hydraulic system
 - b. Arresting gear locations from approach end of runway
 - (1) Runway 13R, 1,550 ft
 - (2) Runway 13L, 1,050 ft
 - (3) Runway 31R, 1,500 ft
 - (4) Runway 31L, 1,503 ft
 - (5) Runway 17R, 1,250 ft
 - (6) Runway 17L, 1,575 ft
 - (7) Runway 35R, 1,515 ft
 - (8) Runway 35L, 1,600 ft

Sg 1, fr 5
Fig. 3: NATOPS
Pocket Checklist
(PCL) E-28
Emergency Field
Arrestment Data
Overlay 1

c. Capabilities for T-45A

- (1) To find maximum engaging speed for E-28 arresting gear, refer to NATOPS Pocket Checklist, E-28 Emergency Field Arrestment Data

- (a) Find "Type of Arresting Gear"

EXAMPLE: E-28

NOTE: E-28 (8) only applies to Keflavik, Bermuda, and Wallops Flight Center with 920-ft tapes.

- (b) Depending on the type of engagement, select the appropriate column

EXAMPLE: Aborted Takeoff

- (c) Use speed corresponding to "Type of Arresting Gear"

EXAMPLE: 161

NOTE: Maximum engaging speed is limited by aircraft arresting hook strength.

NOTE: For formation flights--once the aborting aircraft is cleared by the trailing aircraft, the aborting aircraft needs to maneuver toward the centerline because maximum off-center engagement is 40 ft.

- (2) Gross weight up to 13,360 lb, 163 KIAS maximum short field arrestment (Notes 1 and 4 - NATOPS Pocket Checklist, Emergency Field Arrestment Data)



EMERGENCY FIELD ARRESTMENT DATA

Step a

Step b

Step c

(a) TYPE OF ARRESTING GEAR	MAXIMUM ENGAGING SPEED (KNOTS)			MAXIMUM OFF-CENTER ENGAGEMENT (FEET)
	SHORT-FIELD ARRESTMENT	LONG-FIELD ARRESTMENT	ABORTED TAKEOFF	
	GROSS WEIGHT UP TO 13,360 LB (4)	GROSS WEIGHT UP TO 13,360 LB (4)	GROSS WEIGHT UP TO 14,450 LB (5)	
E-28/BAK-13	163 (1)	163 (1)	161 (1)	40
E-28 (8)	158 (1)	158 (1)	158 (1)	40
M-21	150 (1)	150 (1)	149 (1)	10
BAK-9	160 (3)	160 (3)	160 (3)	30
BAK-12 (10)	160 (3)	160 (3)	160 (3)	50
DUAL BAK -12 (2)	124 (7)	124 (7)	132 (1)	30

Refer to page 60 for E-5 Arresting Gear Limits.



AFTER ARRESTING GEAR ENGAGEMENT, WHEN SPEED HAS BEEN REDUCED TO APPROXIMATELY 20 KNOTS, BRAKING SHOULD BE APPLIED TO PREVENT THE AIRCRAFT WITH IDLE POWER FROM PULLING THE GEAR THROUGH TO A TWO-BLOCK POSITION. IN THE EVENT OF BRAKE MALFUNCTION THE AIRCRAFT ENGINE SHOULD BE SHUT DOWN. THIS DOES NOT APPLY TO CHAIN TYPE ARREST GEAR.

NOTES

- (1) MAXIMUM ENGAGING SPEED LIMITED BY AIRCRAFT ARRESTING HOOK STRENGTH.
- (2) DUAL BAK-12 LIMITS ARE BASED ON 150 TO 300 FOOT SPAN, 1 1/4 INCH CROSS DECK PENDANT, 50,000 POUND WEIGHT SETTING, AND 1,200 FOOT RUNOUT. NO INFORMATION AVAILABLE REGARDING APPLICABILITY TO OTHER CONFIGURATIONS.
- (3) MAXIMUM ENGAGING SPEED LIMITED BY ARRESTING GEAR CAPACITY.
- (4) CONSULT APPROPRIATE SECTION FOR RECOMMENDED APPROACH SPEED.
- (5) DATA PROVIDED IN ABORTED TAKEOFF COLUMN MAY BE USED FOR EMERGENCY HIGH GROSS WEIGHT ARRESTMENT
- (6) OFF-CENTER ENGAGEMENT MAY NOT EXCEED 25 PERCENT OF THE RUNWAY SPAN.
- (7) MAXIMUM ENGAGING SPEED LIMITED BY AIRCRAFT LIMIT HORIZONTAL DRAG LOAD FACTOR (MASS ITEM LIMIT G).
- (8) ONLY FOR THE E-28 SYSTEMS AT KEFLAVIK, BERMUDA, AND WALLOPS FLIGHT CENTER WITH 920 FOOT TAPES.
- (9) BEFORE MAKING AN ARRESTMENT, THE PILOT MUST CHECK WITH THE AIR STATION TO CONFIRM HIS MAXIMUM ENGAGING SPEED BECAUSE OF A POSSIBLE INSTALLATION WITH LESS THAN MINIMUM REQUIRED RATED CHAIN LENGTH.
- (10) STANDARD BAK-12 LIMITS ARE BASED ON 150 FOOT SPAN, 1 INCH CROSS DECK PENDANT, 40,000 POUND WEIGHT SETTING, AND 850 FOOT RUNOUT. NO INFORMATION AVAILABLE REGARDING APPLICABILITY TO OTHER CONFIGURATIONS.

Figure 3: NATOPS POCKET CHECKLIST (PCL) E-28 EMERGENCY FIELD ARRESTMENT DATA

- (3) Gross weight up to 14,450 lb, 161 KIAS aborted takeoff (Notes 1 and 5 - NATOPS Pocket Checklist, Emergency Field Arrestment Data)
- (4) Gross weight up to 13,360 lb, 163 KIAS maximum long field arrestment (Note 1 - NATOPS Pocket Checklist, Emergency Field Arrestment Data)

Sg 1, fr 6
Aerial Photography Menu

Sg 1, fr 7
Base Aerial Photography Menu

Sg 1, fr 8
Fig. 4: *Approach Lighting System*

Sg 1, fr 9
Fig. 5: *Taxiway Lighting*

Sg 1, fr 10
Fig. 6: *Wind Indicators*

G. Field lighting facilities

1. Airport beacon: green and split-white rotating beacon located near control tower operates at night and during IMC (anytime the ceiling is below 1,000 ft and/or less than 3 nm visibility)

2. Approach lighting system: U.S. standard type $\overset{\bullet}{A}_1$ (ALSF-1) with sequenced flashing lights on runway 35R only (also commonly referred to as "rabbit lights"; can adjust from tower)

NOTE: A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system, e.g., $\overset{\bullet}{A}_1$. Negative symbology, e.g., $\overset{\ominus}{A}_1$, $\overset{\ominus}{V}$ indicates pilot-controlled lighting (PCL).

3. Taxiway lighting: standard blue taxi lights installed on all taxiways except Charlie/X-Ray; taxiway centerline lighting installed on parallel taxiways adjoining ramp area
4. One green-lighted wind tee (painted yellow): free-swinging lighted wind indicator located just east of control tower. It indicates direction only and has to be turned on for IMC and night conditions. Pilots occasionally request to turn it off because it is blinding. It has no intensity control
5. Wind sock: illuminated by white lights between all runways. Sock is aviation orange

B-18 NATL/INTL FLIGHT DATA/PROCEDURES

APPROACH LIGHTING SYSTEMS

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system, e.g., $\overset{A_1}{\bullet}$. Negative symbology, e.g., $\overset{A_1}{\ominus}$, $\overset{V}{\bullet}$ indicates Pilot Controlled Lighting (PCL).

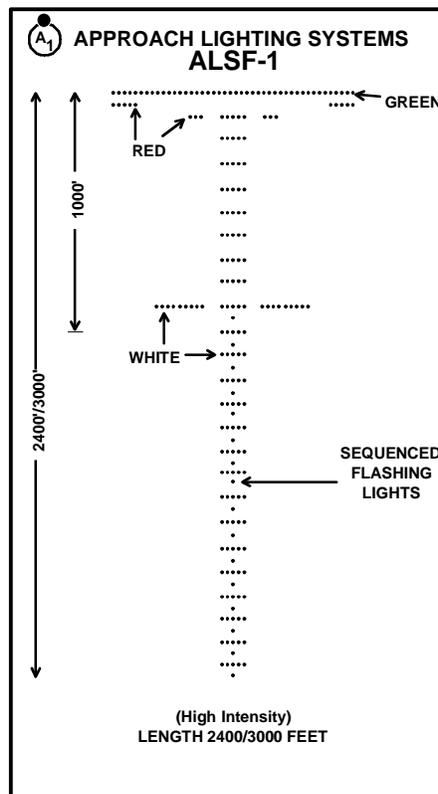


Figure 4: APPROACH LIGHTING SYSTEM

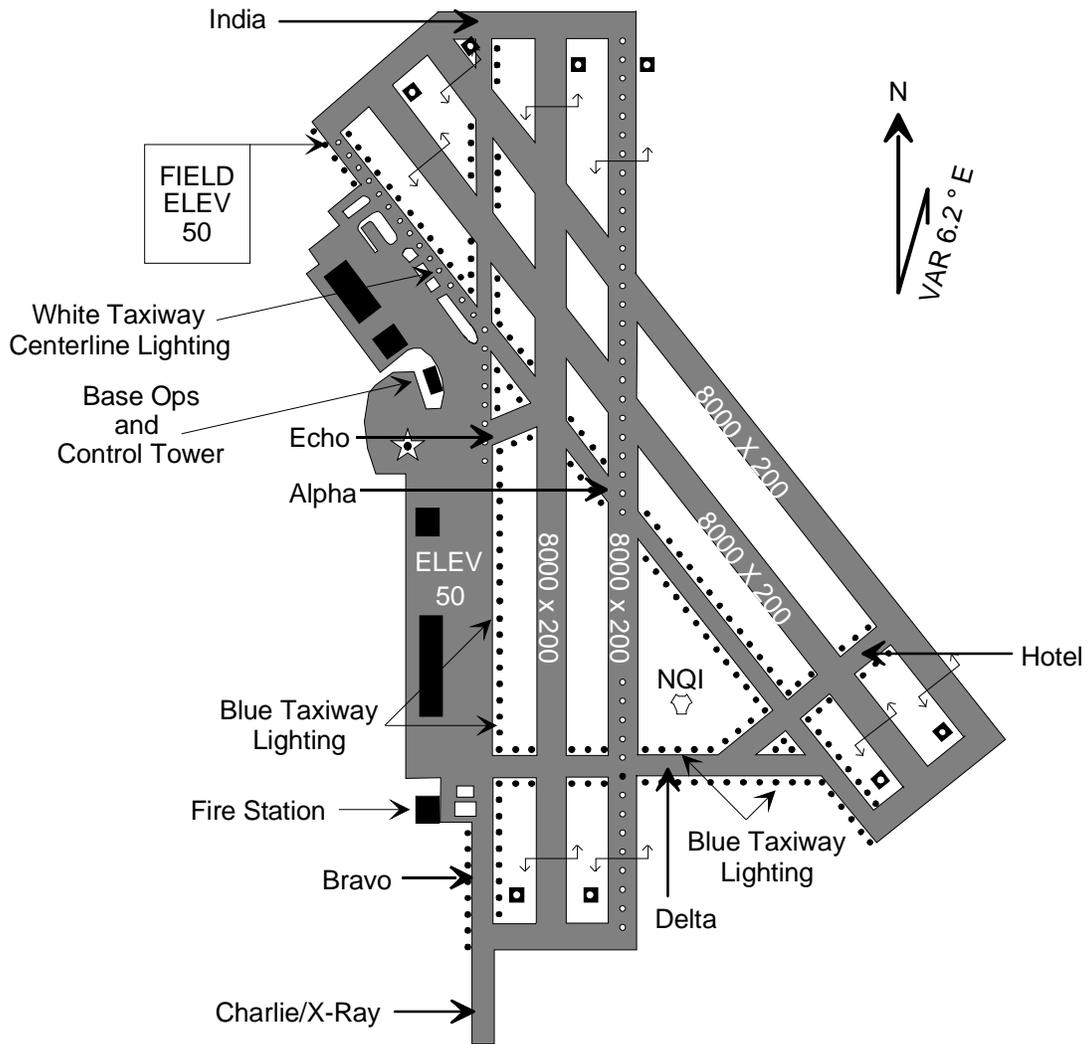
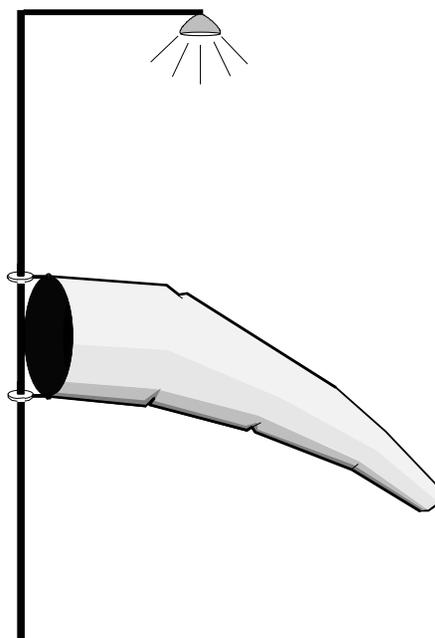
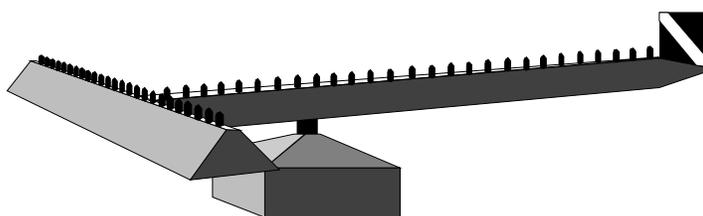


Figure 5: TAXIWAY LIGHTING



Wind Sock



Wind Tee

Figure 6: WIND INDICATORS

Sg 1, fr 11
Fig. 7: *Optical Landing System (OLS)*

Sg 1, fr 12
Fig. 8: *Carrier Box Lighting*

6. Optical Landing System: all active runways equipped with portable OLS positioned on left side of runway, 750 ft from approach end
7. White adjustable carrier box lighting: on runway 13L/35L
8. Runway lighting

LESSON NOTES

All students need to have current Flight Information Handbook and DoD FLIP (TERMINAL) High Altitude United States Southwest approach plates on hand for use in this section.

Sg 1, fr 13
High Intensity Runway Lighting (HIRL)
Fig. 9: *Runway Lighting*

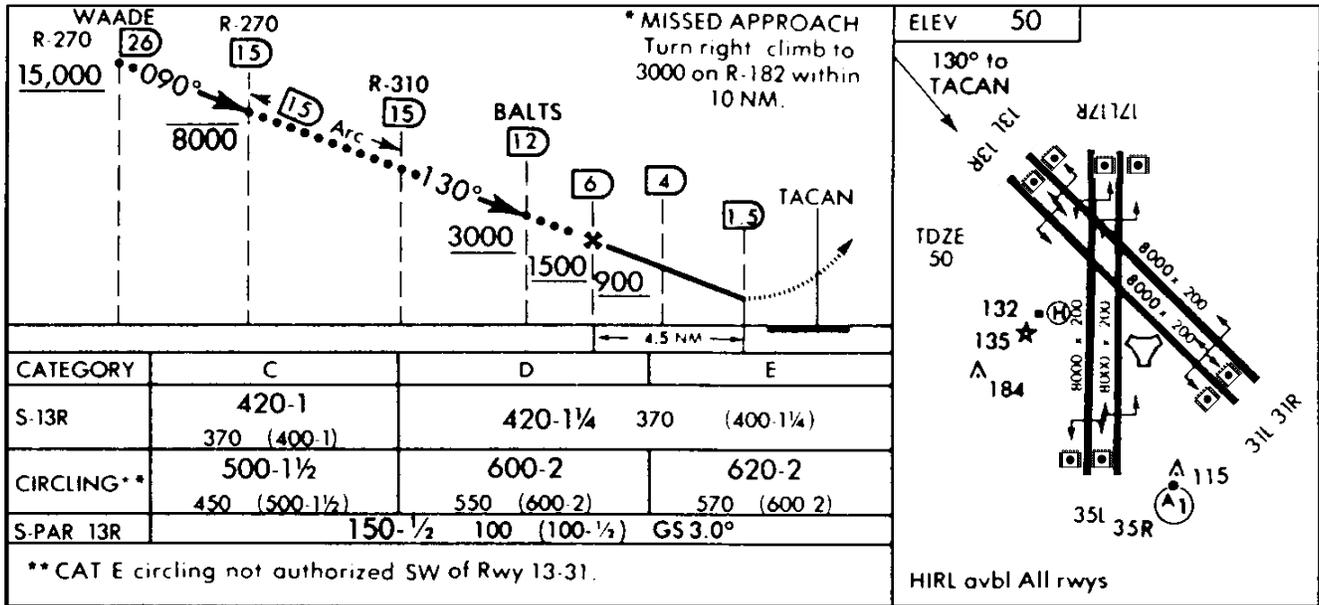
Overlay 1: *Centerline Lighting*

- a. All runways are equipped with white high intensity runway lighting. This lighting defines the left/right edges of the entire length of the runway. The tower can adjust the level of intensity on request
- b. White runway centerline lighting on runway 35R/17L only

NOTE: This is represented by white dots on the airport sketch in the FLIP High Altitude United States, Instrument Approach Procedures for Southwest plates.

- c. Internally lit white distance-remaining markers located on both sides of all runways at 1,000 ft intervals
- d. Arresting gear locations marked with internally lit yellow signs with large black circles in the center (anywhere between 1,000-1,600 ft from approach/departure end of each runway)

Sg 1, fr 14
Fig. 10: *Runway Markers*



HI-TACAN RWY 13R

27°30'N-97°49'W

KINGSVILLE, TEXAS
KINGSVILLE NAS (KNQI)



U.S. Navy Optical Landing System (OLS).
"OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Figure 7: OPTICAL LANDING SYSTEM (OLS)

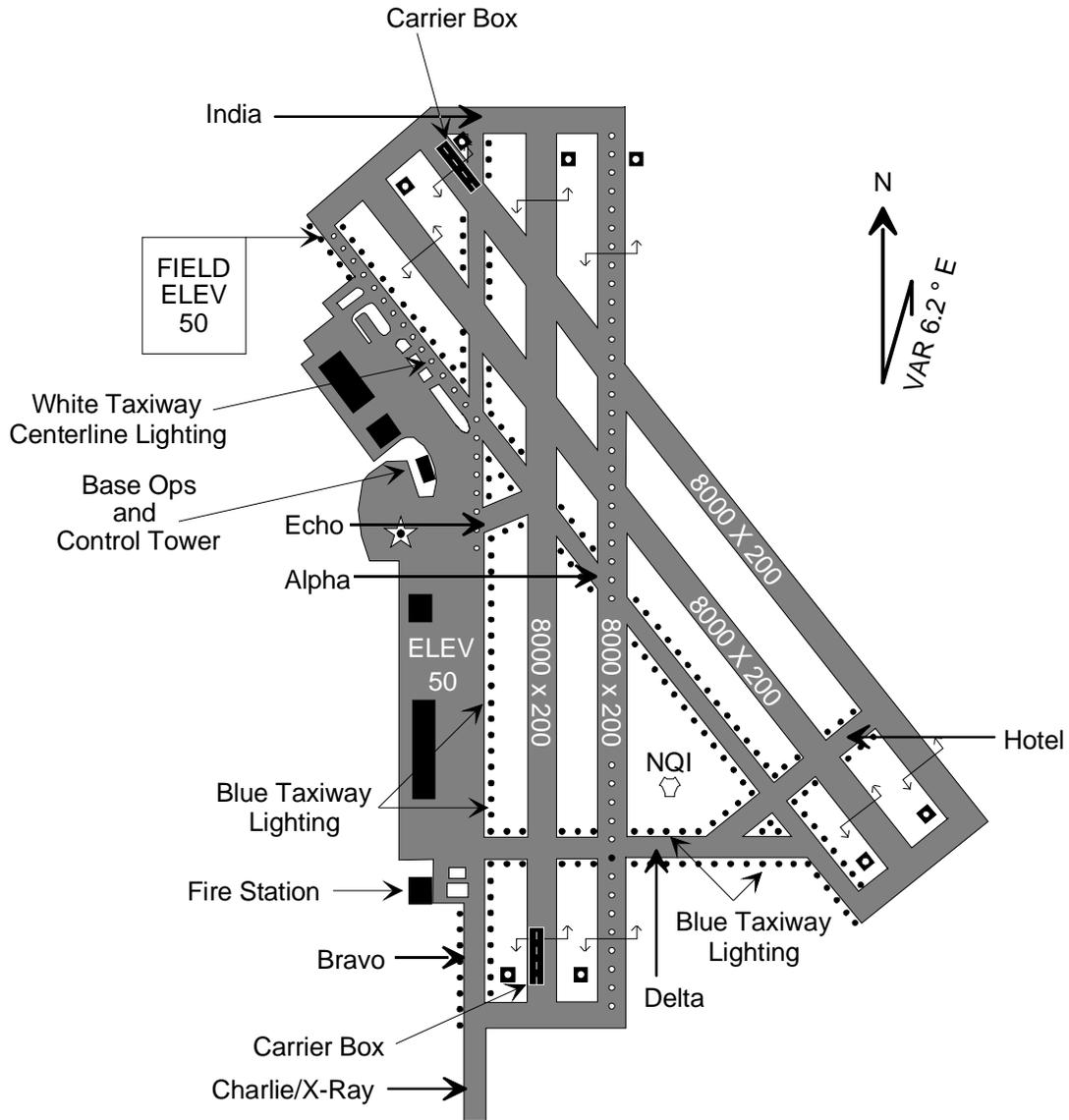
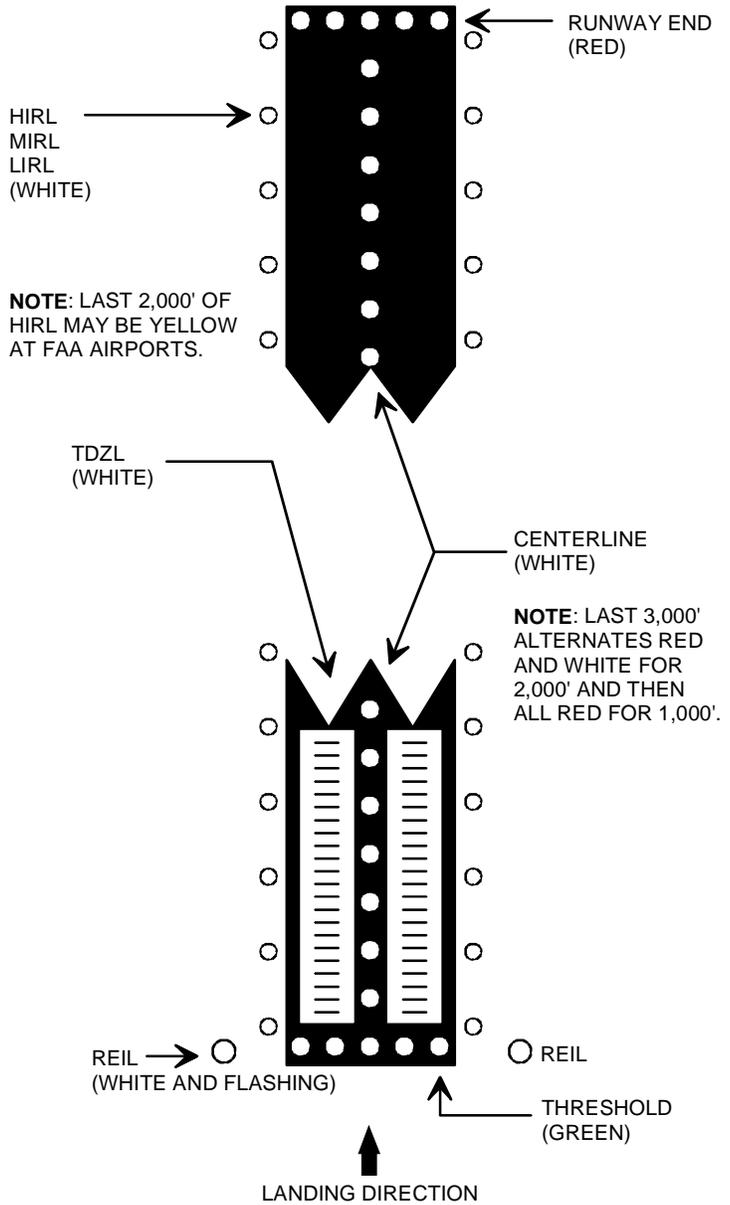
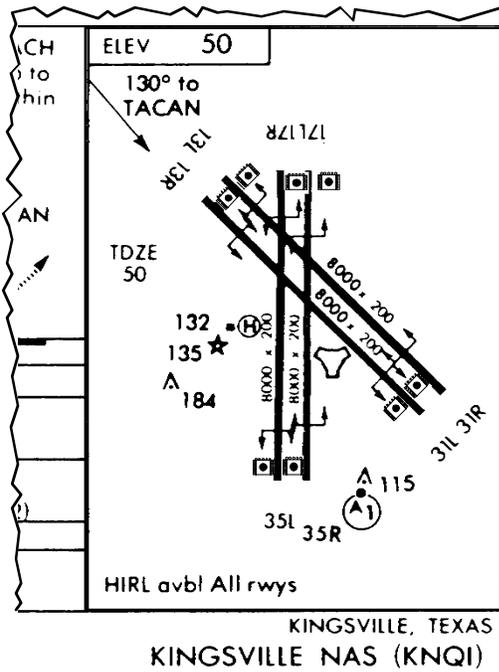


Figure 8: CARRIER BOX LIGHTING



AIRPORT DIAGRAM/AIRPORT SKETCH

- Runway
- Centerline
- Lighting
- bi-directional
- uni-directional
- Helicopter Alighting Areas

REFERENCE FEATURES

- Buildings
 - Tanks
 - Obstruction
 - Airport Beacon*
 - Runway
 - Radar Reflectors
 - Control Tower*
- U.S. Navy Optical Landing System (OLS). "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Figure 9: RUNWAY LIGHTING

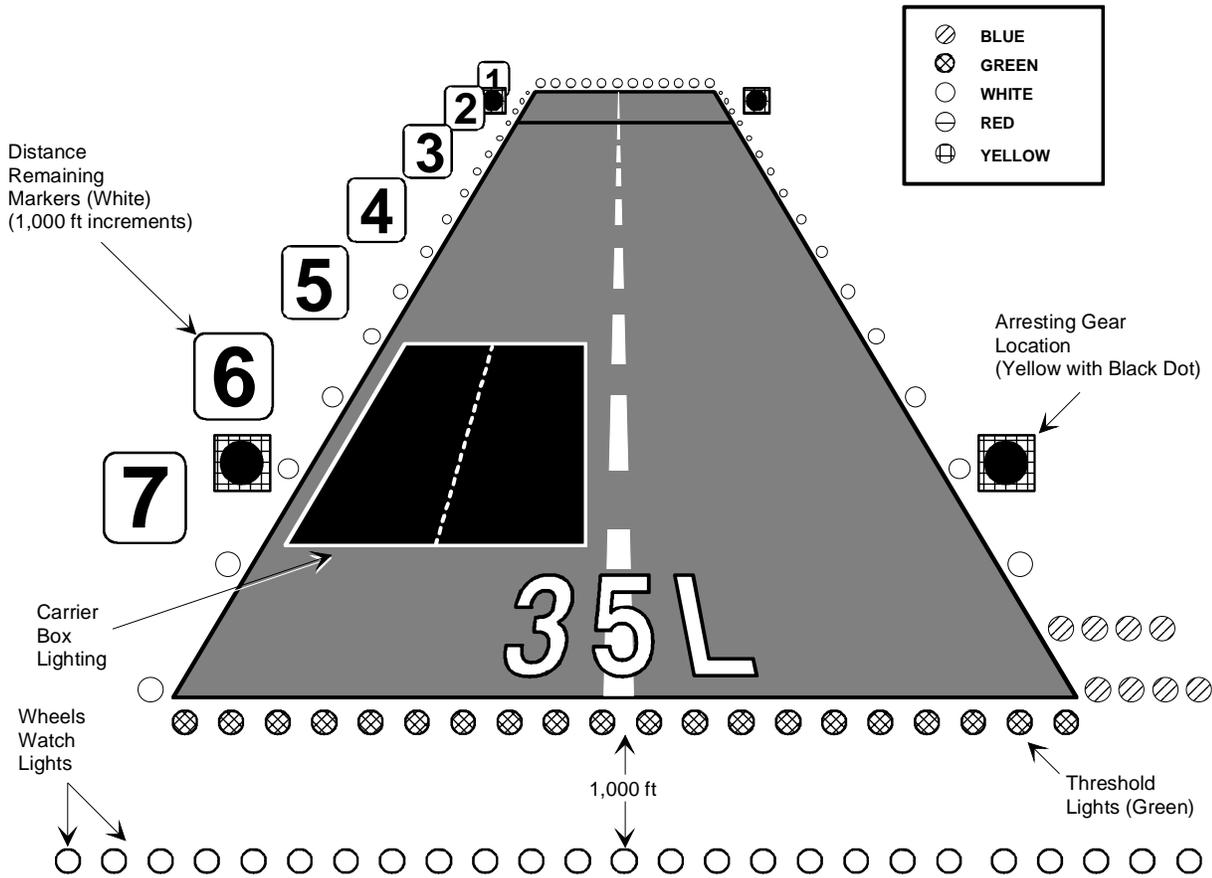


Figure 10: RUNWAY MARKERS

- e. Green threshold lights at the approach end of all runways
- f. Wheels-up white flood lighting located 1,000 ft prior to each end of all runways. Lights face forward so they do not blind the pilot (illuminate aircraft from behind)
- g. Red waveoff lights on Optical Landing System (OLS) next to duty runway activated by wheels watch, runway duty officer, landing signal officer, or tower

NOTE: Additional red waveoff lights are located along the left and right of each runway for 900-ft/800-ft/800-ft intervals.

- 9. Red light (obstruction) on top of TACAN, ILS, water tower, and various antennas and transmitter/receivers
- 10. Four to six white flood lights below the tower catwalk which are normally off, but light up the helo pad when on
- 11. Aldus lamp located in the tower

H. Communications **1.1.2.2, 1.4.20.1**

NOTE: The controlling/informational agencies for NAS Kingsville are listed on the frequency card for each aircraft in the order in which they are set up on your communication radio preset channels. There is a list of those frequencies, specific to each aircraft in your In-Flight Guide.

Your frequency cards will have frequencies with the designator SFA preceding them. Those frequencies are "Single Frequency Approach" frequencies. Single frequency approaches are designed to reduce the work load by removing the necessity of switching from one frequency to another during an approach for single-piloted or high-performance aircraft.

Sg 1, fr 15
Fig 11: Waveoff Lights

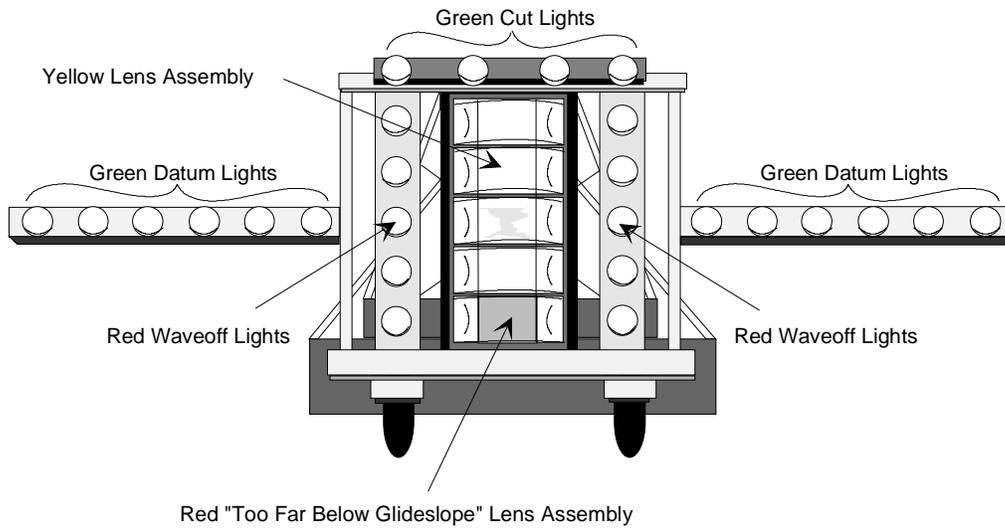
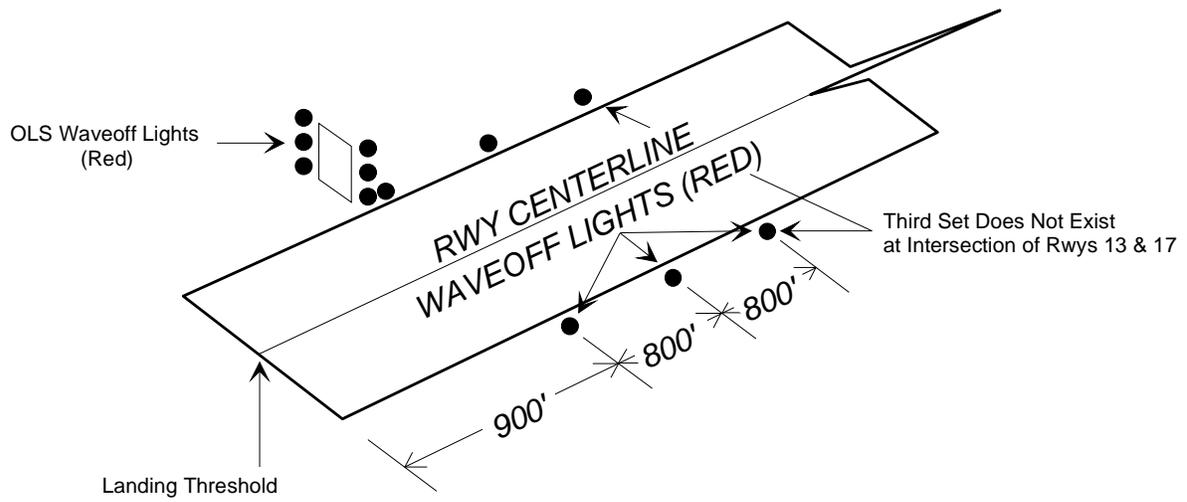


Figure 11: WAVEOFF LIGHTS

II. Operating Areas

A. Military Operating Areas (MOAs) 1.1.2.2, 1.1.2.2.2

NOTE: Refer to the panels in the FLIP IFR Enroute Low Altitude United States Charts for the following information: number, effective altitude, times used, UTC, controlling agency, and panel location.

NOTE: MOAs are defined by intersections of TACAN radials and DMEs. Each operating area has a specific working frequency assigned.

1. Kings I MOA: used for general training activities, and includes areas: 237.85/BTN 5 (TAC A), 251.6/BTN 6 (TAC B), 313.0/BTN 7 (TAC C), 337.0/BTN 8 (TAC D)
 - a. Boundaries: defined from Laredo TACAN (channel 121X)
 - (1) Northern boundary: line from 080R/20 to 072R/70
 - (2) Southern boundary: line from 120R/20 to 126R/40 to 128R/70 to 130R/90
 - (3) Western boundary: 20 DME arc from 080R to 120R
 - (4) Eastern boundary: 90 DME arc from 086R to 130R
 - (5) Northeastern boundary: 70 DME arc from 072R to the 086R and the 086R from 70 DME to 90 DME

NOTE: When SPIN-II (KINGS II) is inactive, the northeastern boundary of the KINGS I area is extended from 072/70 to 070/90; however, the bottom of the MOA remains 13,000 ft MSL in KINGS II airspace. The eastern boundary is the 90 DME arc from 070R to 130R; however, the bottom of the MOA is 13,000 ft MSL in KINGS II airspace.

Sg 2, fr 2
Lesson Organization

Sg 2, fr 3
Fig 12: FLIP IFR
Enroute Low Altitude
- U.S., L-15
Navigational Chart

Sg 2, fr 4
Fig 1: NAS
Kingsville Areas of
Operation

Sg 2, fr 5
Kings I MOA
Fig 13: Kings I, II &
III Military Operating
Areas

Overlay 1. Kings 1

Overlay 2. Kings 1

Overlay 3. Kings 1

Overlay 4. Kings 1

Overlay 5. Kings 1

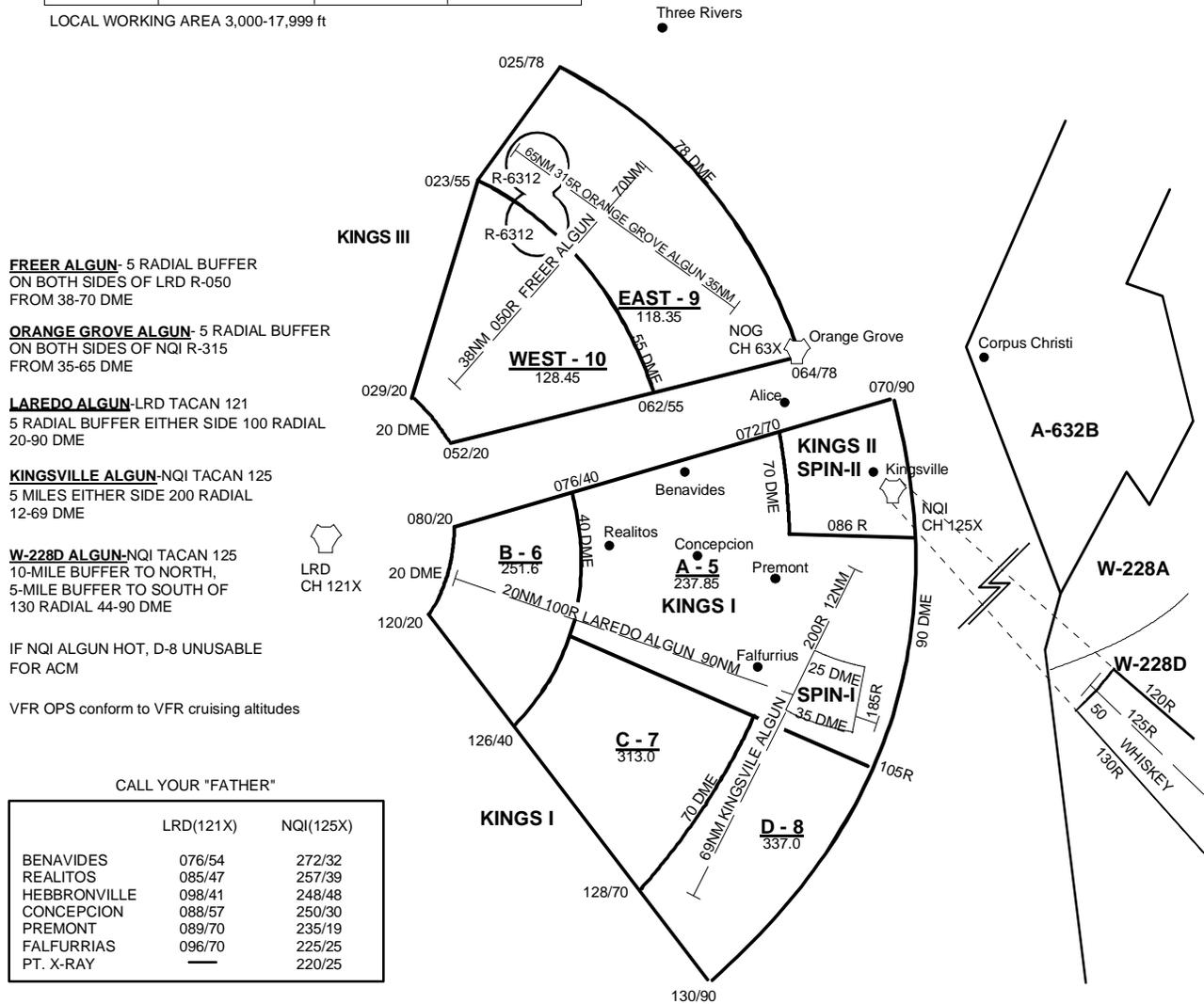
					ZHU CNTR/FSS (133.0)	
HOOD	2000 To 10000	Mon-Fri*1	1300-0100Z†	VFR	ZHU CNTR/FSS	D
KINGSVILLE 1	8000*2	Mon-Fri Sat Sun*1	Sunrise-0600Z† Days 1600-0600Z†	VFR-IFR	ZHU CNTR/FSS	E,F
KINGSVILLE 2	13000*2	Mon-Fri Sat Sun*1	Sunrise-0600Z† Days 1600-0600Z†	VFR-IFR	ZHU CNTR/FSS	F
KINGSVILLE 3	8000*2	Mon-Fri Sun*1	Sunrise-0600Z† 2000-0600Z†	VFR-IFR	ZHU CNTR/FSS	E,F
KINGSVILLE 4	11000*2	Mon-Fri Sun*1	Sunrise-0600Z† 2000-0600Z†	VFR-IFR	ZHU CNTR/FSS	D,F
KINGSVILLE 5	9000*2	Mon-Fri Sun*1	Sunrise-0600Z† 2000-0600Z†	VFR-IFR	ZHU CNTR/FSS	D,F
LAUGHLIN 1	9000*2	Mon-Fri*1	1200-0200Z†	VFR-IFR	ZHU CNTR/FSS	B,C
LAUGHLIN 2	9000*2	Mon-Fri*1	1200-0200Z†	VFR-IFR	ZHU CNTR/FSS	C,F

Figure 12: FLIP IFR ENROUTE LOW ALTITUDE - U.S., L-15 NAVIGATIONAL CHART

ALL ALTITUDES MSL

	KINGS I	KINGS II	KINGS III	R-6312
LOW	8,000-17,999	13,000-17,999	8,000-17,999	1,000 ft AGL to 12K
MID	FL180-FL230	FL180-FL230	FL180-FL230	
HI	FL240-FL350	FL240-FL350	N/A	

LOCAL WORKING AREA 3,000-17,999 ft



CAUTION: Pilots May Refer to Point Redhawk 221/21 or Point Eagle 222/22 as Position References; However, These Points Do Not Legally Exist in the Air Ops Manual. If it Does Not Appear in the Trawing Two In-Flight Guide, Do Not Use it as a Position Reporting Reference Over the Radio.

Figure 13: KINGS I, II, & III MILITARY OPERATING AREAS

Sg 2, fr 7
Fig 14: Premont Two
Departure

Sg 2, fr 8
Kings II/Spin-II MOA

Overlay 1

Overlay 2

Overlay 3

Overlay 4

Sg 2, fr 10
Fig 15: Retch Four
Departure

b. Operating altitudes

(1) Low: 8,000 ft-17,999 ft MSL

(2) Mid: FL180-FL230

(3) High: FL240-FL350

NOTE: When local barometric pressure is below 29.92, the top of the mid-MOA will be lowered to FL220. Confirm with departure.

c. Coded departure/special instructions - Premont Two (low and mid)

2. Kings II/Spin-II

a. Boundaries: defined from Laredo TACAN (channel 121X)

(1) Northern boundary: line from 072/70 to 070/90

(2) Southern boundary: 086R

(3) Western boundary: 70 DME arc

(4) Eastern boundary: 90 DME arc from 070R to 086R

b. Operating altitudes

(1) Low: 13,000 ft-17,999 ft MSL

(2) Mid: FL180-FL230

(3) High: FL240-FL350

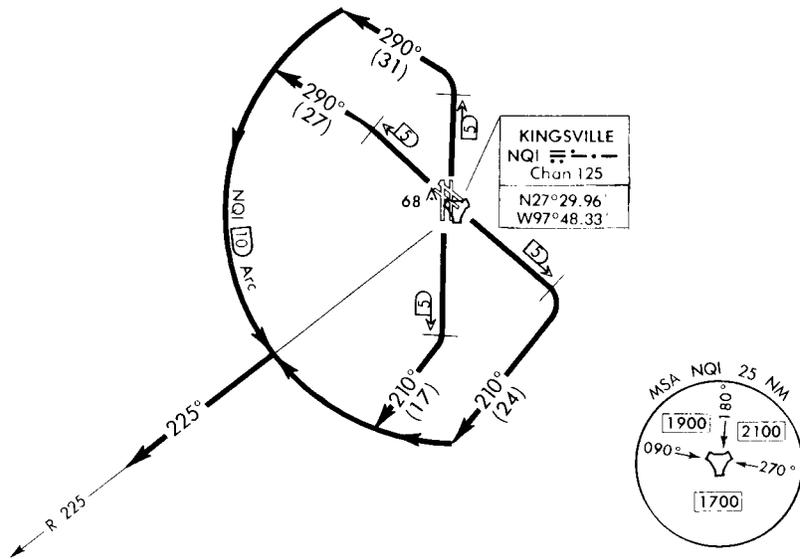
c. Coded departure/special instructions - Retch Four (low and mid)

NOTE: When the Kings II MOA is inactive, it becomes part of the Kings I MOA.

95235
PREMONT TWO DEPARTURE LUO 918.06 (USN) **KINGSVILLE NAS**
 KINGSVILLE, TEXAS

ATIS ★
 276.2
 CLNC DEL
 328.4
 GND CON
 352.4
 KINGSVILLE TOWER ★
 124.1 346.0
 KINGSVILLE DEP CON
 266.8

FOR LOCAL USE ONLY



EMERG SAFE ALT 100 NM 16,000

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWYS 13L/R and 17L/R: Fly runway heading to NQI 5 DME, turn right heading 210° to join and arc W on the 10 mile arc to join NQI R-225, then.

TAKE-OFF RWYS 31L/R and 35L/R: Fly runway heading to NQI 5 DME, turn left heading 290° to join and arc W on the 10 mile arc to join NQI R-225, then.

Fly NQI R-225. Upon reaching FL180, proceed direct to assigned MOA.

PREMONT TWO DEPARTURE

KINGSVILLE, TEXAS
 KINGSVILLE NAS

Figure 14: PREMONT TWO DEPARTURE

3. Kings III MOA: used for general training activities; area frequencies: East 118.35/BTN 9 (TAC E) and West 128.45/BTN 10 (TAC F)
 - a. Boundaries: defined from Laredo TACAN (channel 121X)
 - (1) Northern boundary: line from 029R/20 to 023R/55 to 025R/78
 - (2) Southern boundary: line from 052R/20 to 062R/55 to 064R/78
 - (3) Western boundary: 20 DME arc from 029R to 052R
 - (4) Eastern boundary: 78 DME arc from 025R to 064R
 - b. Operating altitudes
 - (1) Low: 8,000 ft-17,999 ft MSL
 - (2) Mid: FL180-FL230
 - (3) High: N/A
 - c. Coded departure/special instructions - Cybil One (low and mid)
4. Kings IV MOA - used for general training activities; area frequency: 262.8 or as assigned by Houston Center
 - a. Boundaries: defined from San Antonio VORTAC (TAC channel 115X - VOR 116.8)
 - (1) Northern boundary: line from 115/61 to 115/83
 - (2) Southern boundary: line from 154/61 to 154/69 to 143/112
 - (3) Western boundary: 61 DME arc from 154R to 115R

*Sg 2, fr 11, p1
Kings III MOA
Fig 13: Kings I, II, &
III Military Operating
Areas*

Overlay 1. Kings III

Overlay 2. Kings III

Overlay 3. Kings III

Overlay 4. Kings III

*Sg 2, fr 12
Fig 16: Cybil One
Departure*

*Sg 2, fr 13
Kings IV MOA
Fig 17: Kings IV & V
Military Operating
Areas*

Overlay 1. Kings IV

Overlay 2. Kings IV

Overlay 3. Kings IV

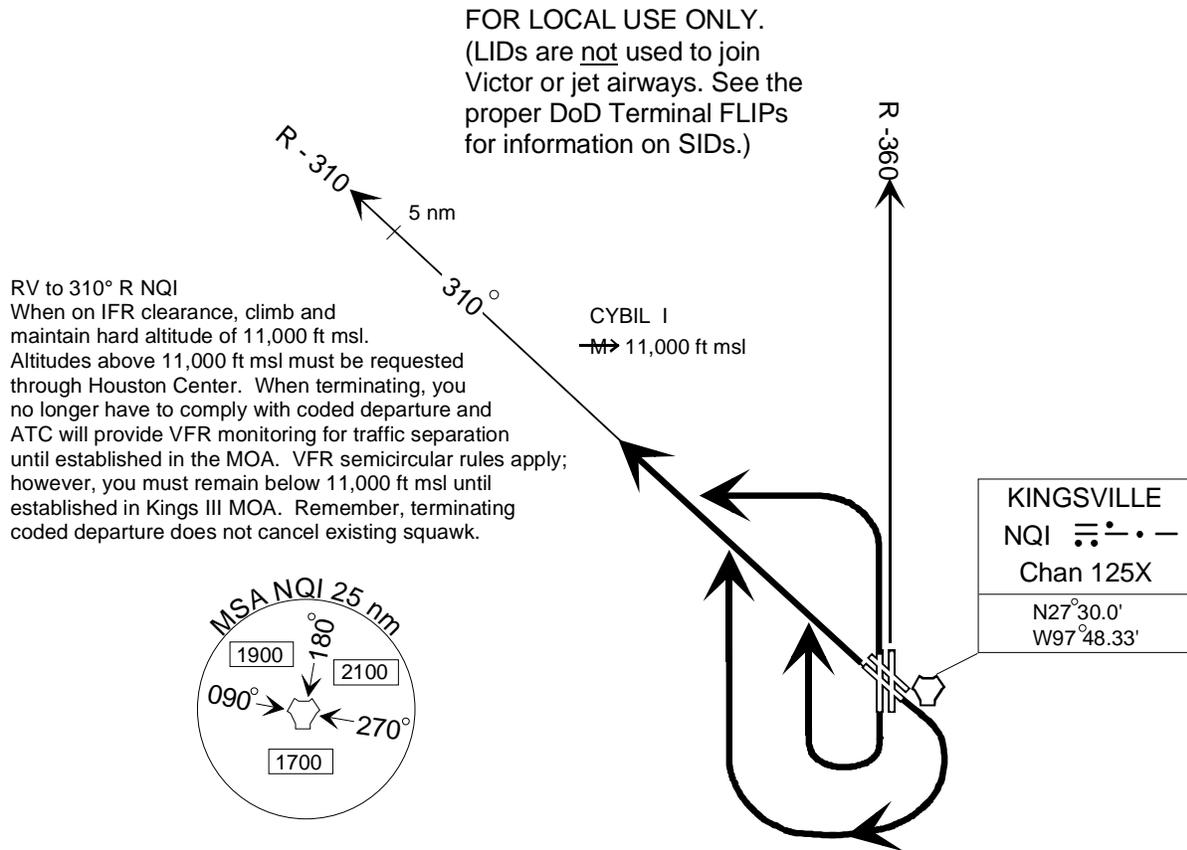


Figure 16: CYBIL ONE DEPARTURE

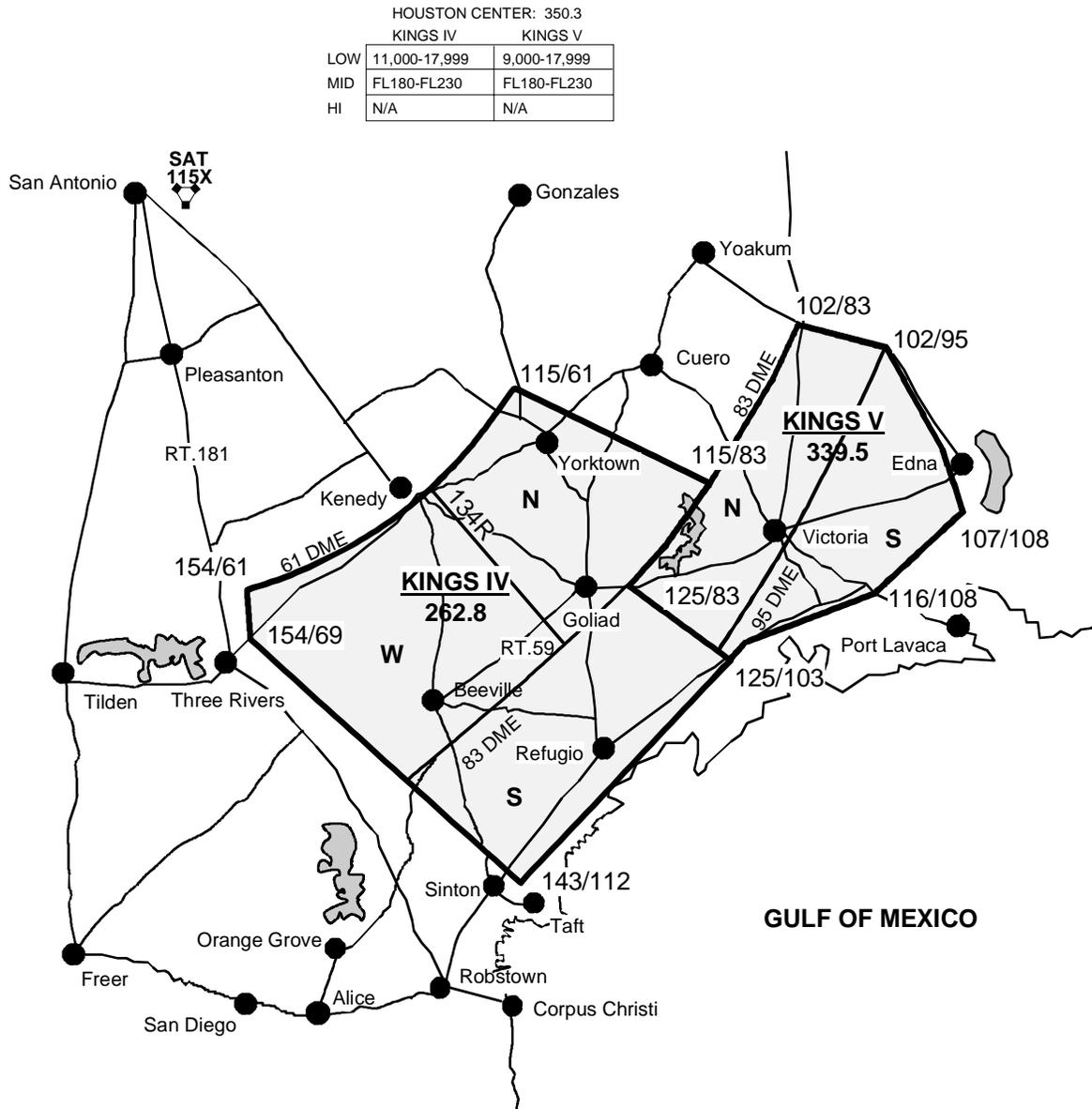


Figure 17: KINGS IV & V MILITARY OPERATING AREAS

Overlay 4. Kings IV

- (4) Eastern boundary: line from 143/112 North to 125/103

NOTE: The northeastern boundary of Kings IV defines the southern and western boundary of Kings V.

b. Operating altitudes

- (1) Low: 11,000 ft-17,999 ft MSL
 (2) Mid: FL180-FL230
 (3) High: N/A

c. Coded departure/special instructions

- (1) Banks One - (low and mid)

Sg 2, fr 15
Fig 18: Banks One
Departure

Sg 2, fr 16
Kings V MOA
Fig 17: Kings IV & V
Military Operating
Areas

Overlay 1. Kings V

5. Kings V MOA - area frequency: 339.5

a. Boundaries: defined from San Antonio VORTAC (TAC channel 115X - VOR 116.8)

- (1) Northern boundary: line from 102/83 to 102/95 to 107/108

- (2) Southern boundary: line from 125/83 to 125/103

- (3) Western boundary: 83 DME arc from 102R to 125R

- (4) Eastern boundary: line from 107/108 South to 116/108 to 125/103

b. Operating altitudes

- (1) Low: 9,000 ft-17,999 ft MSL
 (2) Mid: FL180-FL230
 (3) High: N/A

Overlay 2. Kings V**Overlay 3. Kings V****Overlay 4. Kings V**

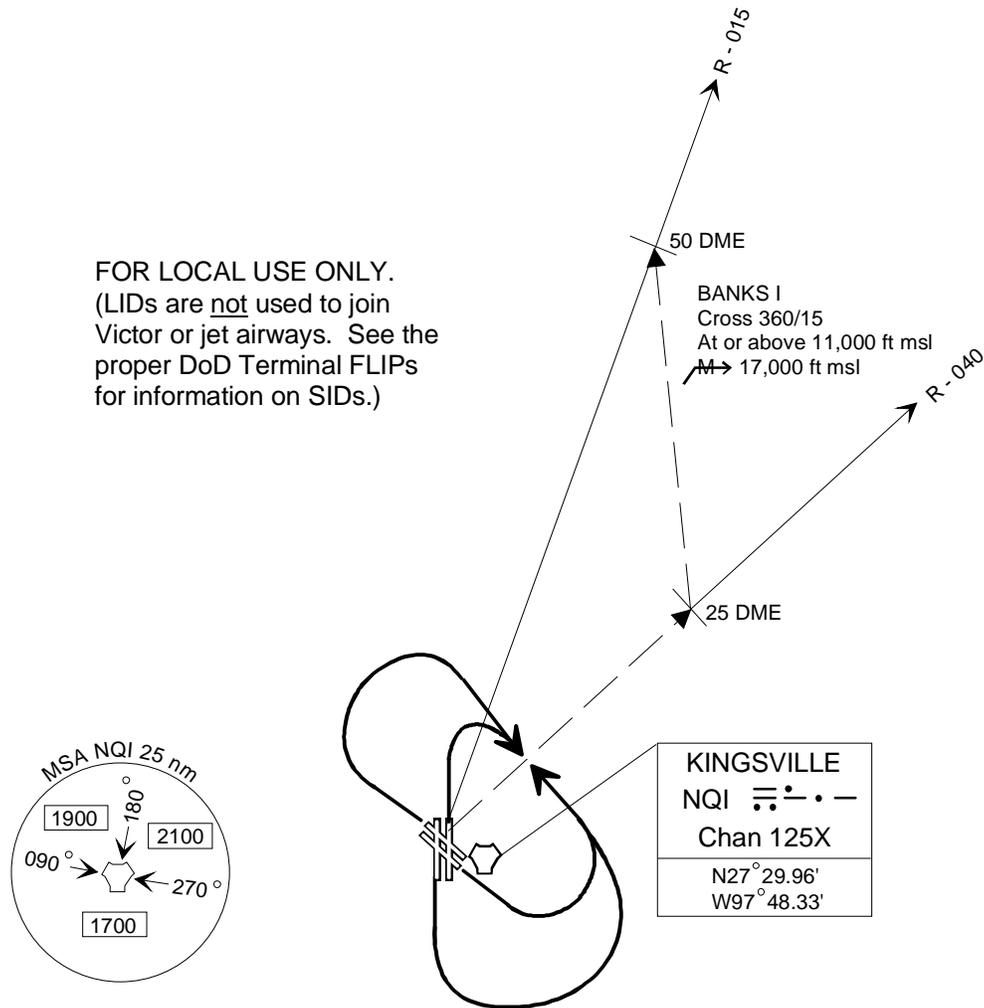


Figure 18: BANKS ONE DEPARTURE

Sg 2, fr 18
Fig 18: Banks One
 Departure

Sg 2, fr 19
Fig 19: FLIP IFR
 Enroute Low Altitude -
 U.S., L-15 Navigational
 Chart

Sg 2, fr 20
Fig 20: A-632A and
 A-632C Alert Areas

Sg 2, fr 21
Fig 21: W-228D
 Gunnery Range and
 A-632B Alert Area

- c. Coded departure/special instructions - Banks One until established in Kings IV then transit to Kings V (Low or Mid)

6. Alert areas

NOTE: Refer to the panels in the FLIP IFR Enroute Low Altitude United States charts for the following information: number; effective altitude; times used, UTC; controlling agency; and panel location.

- a. A-632A and A-632C: used for formation flights and other flights not requiring MOA-related activity
 - (1) Boundaries: area overlapping Kings III and Kings I MOAs

- (2) A-632A operating altitude: 6,000-17,999 ft MSL

NOTE: The local working area is defined as that airspace underlying the Kingsville MOAs and alert area boundaries, from 3,000-17,999 ft MSL.

- (3) A-632C operating altitude surface to 17,999 ft

NOTE: Alert area A-632C excludes airways and airspace surface to 4,000 ft AGL within the Alice Int. Class D airspace.

- b. A-632B: used for NAS Corpus Christi training aircraft operations
 - (1) Boundary: area does not overlap any MOA
 - (2) A-632B operating altitude surface to FL180

NOTE: Alert area A-632B excludes airspace surface to 4,000 ft AGL within the Class C airspace of NAS Corpus Christi and NALF Waldron when active.

R-6320	To 15000	Cont	Cont	VFR-IFR	ZHU CNTR/FSS	G
A-292	To 3000 Within Airways Otherwise To FL 175	Mon-Fri Sat	Sunrise-0700Z† Days	VFR-IFR	No A/G	H
A-381	To 2000	Cont	Days	VFR-IFR	No A/G	G,H
A-632A	6000 and Above	Mon-Fri Sat Sun	Sunrise-0500Z† Days 1800Z†-Sunset	VFR-IFR	No A/G	F
A-632B	*2	Mon-Fri	1300-0600Z†	VFR-IFR	No A/G	F
A-632C	*2	Mon-Fri	Sunrise-0600Z†	VFR-IFR	No A/G	F
A-632D	6000 To But Not Including 11000	Mon-Fri Sun*1	Sunrise-0600Z† 2000-0600Z†	VFR-IFR	No A/G	D,F
A-632E	6000 To But Not Including 9000	Mon-Fri Sun*1	Sunrise-0600Z† 2000-0600Z†	VFR-IFR	No A/G	D,F
A-632F	3000 AGL*2	Mon-Sat	1300-0600Z†	VFR-IFR	No A/G	F,G
A-633A	To 7000	Mon-Fri	Days	VFR-IFR	No A/G	C,E

Figure 19: FLIP IFR ENROUTE LOW ALTITUDE - U.S., L-15 NAVIGATIONAL CHART

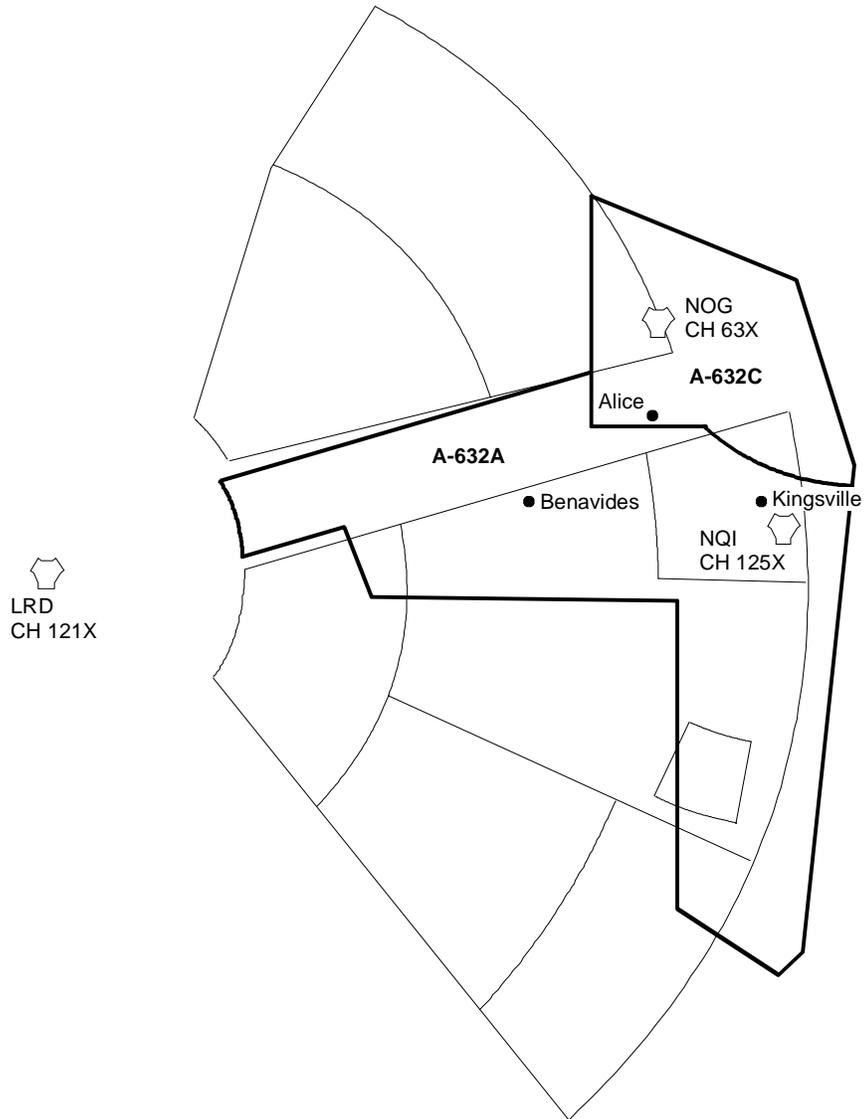


Figure 20: A-632A AND A-632C ALERT AREAS

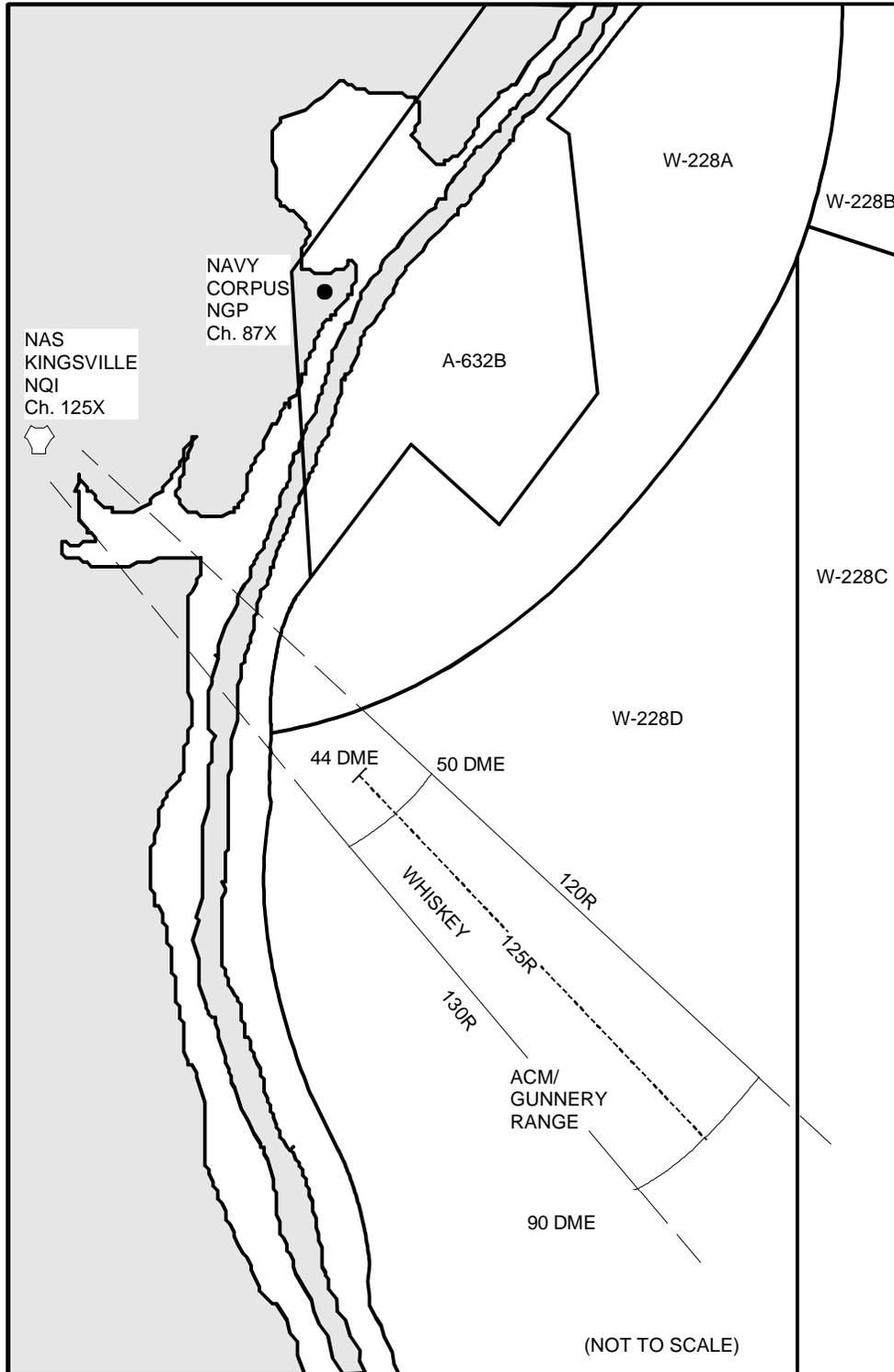


Figure 21: W-228D GUNNERY RANGE AND A-632B ALERT AREA

Sg 2, fr 22
Fig 22: X-Ray Two
Departure

c. Coded departure/special instructions

- (1) X-RAY Two - (low and mid)
- (2) Stage II below 10,000 ft MSL until established in the area
- (3) VFR (see para IV.D. "Departure to the Alert Areas")

NOTE: Navy Kingsville radar and TACAN must be functioning to perform X-Ray Two departures. An IFR squawk for transit to the Kings I cannot be utilized since this departure does not guarantee that the aircraft will remain within the confines of the Kings I MOA.

Sg 2, fr 23
Kings I MOA Special
Operating Areas
Fig 13: Kings I, II &
III Military Operating
Areas

B. Special Operating Areas (SOA)

NOTE: Coded departures for each of the special operating areas including the ALGUNS are listed in the In-Flight Guide.

1. Kingsville One MOA - Special Operating Areas

- a. A - 5: defined from Laredo TACAN (channel 121X) - used for general training; area frequency 237.85/BTN 5 (TAC A)
 - (1) Northern boundary: line from 076R/40 to 072R/70
 - (2) Southern boundary: line from 105R/40 to 105R/90
 - (3) Western boundary: 40 DME arc from 076R to 105R
 - (4) Northeastern boundary: 70 DME arc from 072R to the 086R and the 086R from 70 DME to 90 DME

Overlay 1: A - 5

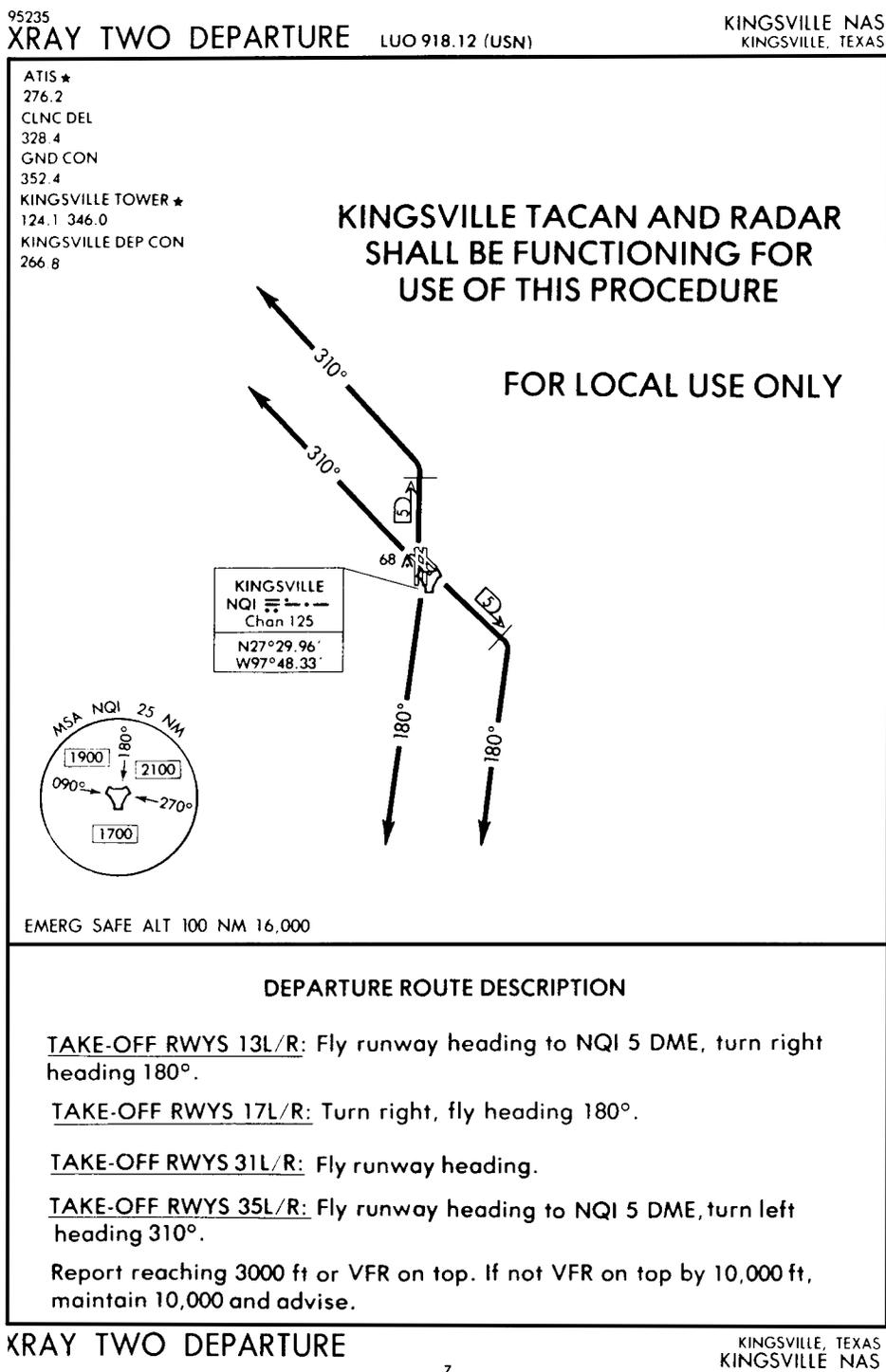


Figure 22: X-RAY TWO DEPARTURE

Overlay 2: B - 6

- b. B - 6: defined from Laredo TACAN (channel 121X) - primarily used for ACM and TacForm training; area frequency: 251.6/BTN 6 (TAC B)
- (1) Northern boundary: line from 080R/20 to 076R/40
 - (2) Southern boundary: line from 120R/20 to 126R/40
 - (3) Western boundary: 20 DME arc from 080R to 120R
 - (4) Eastern boundary: 40 DME arc from 076R to 126R

Overlay 3: C - 7

- c. C - 7: defined from Laredo TACAN (channel 121X) - primarily used for ACM and TacForm training; area frequency: 313.0/BTN 7 (TAC C)
- (1) Northern boundary: line from 105R/40 to 105R/70
 - (2) Southern boundary: line from 126R/40 to 128R/70
 - (3) Western boundary: 40 DME arc from 105R to 126R
 - (4) Eastern boundary: 70 DME arc from 105R to 128R

Overlay 4: D - 8

- d. D-8: defined from Laredo TACAN (channel 121X) - primarily used for ACM and TacForm training; area frequency: 337.0/BTN 8 (TAC D)
- (1) Northern boundary: line from 105R/70 to 105R/90
 - (2) Southern boundary: line from 128R/70 to 130R/90

(3) Western boundary: 70 DME arc from 105R to 128R

(4) Eastern boundary: 90 DME arc from 105R to 130R

e. Spin-I: defined from Kingsville TACAN (channel 125X)

(1) Northern boundary: 25 DME arc from 185 to 200R

(2) Southern boundary: 35 DME arc from 185 to 200R

(3) Western boundary: line from 200R/25 to 200R/35

(4) Eastern boundary: line from 185R/25 to 185R/35

(5) Coded departure/special instructions - Ralph One - (low and mid)

NOTE: Aircraft shall remain on Houston Center frequency until the spin hop is completed and aircraft is established in the Kings I MOA midblock.

2. Kings III MOA SOAs:

NOTE: All SOAs within the Kings III MOA are defined from Laredo TACAN (channel 121X)

a. WEST - 10: primarily used for ACM, Form, and TacForm training; area frequency: 128.45/BTN 10 (TAC F)

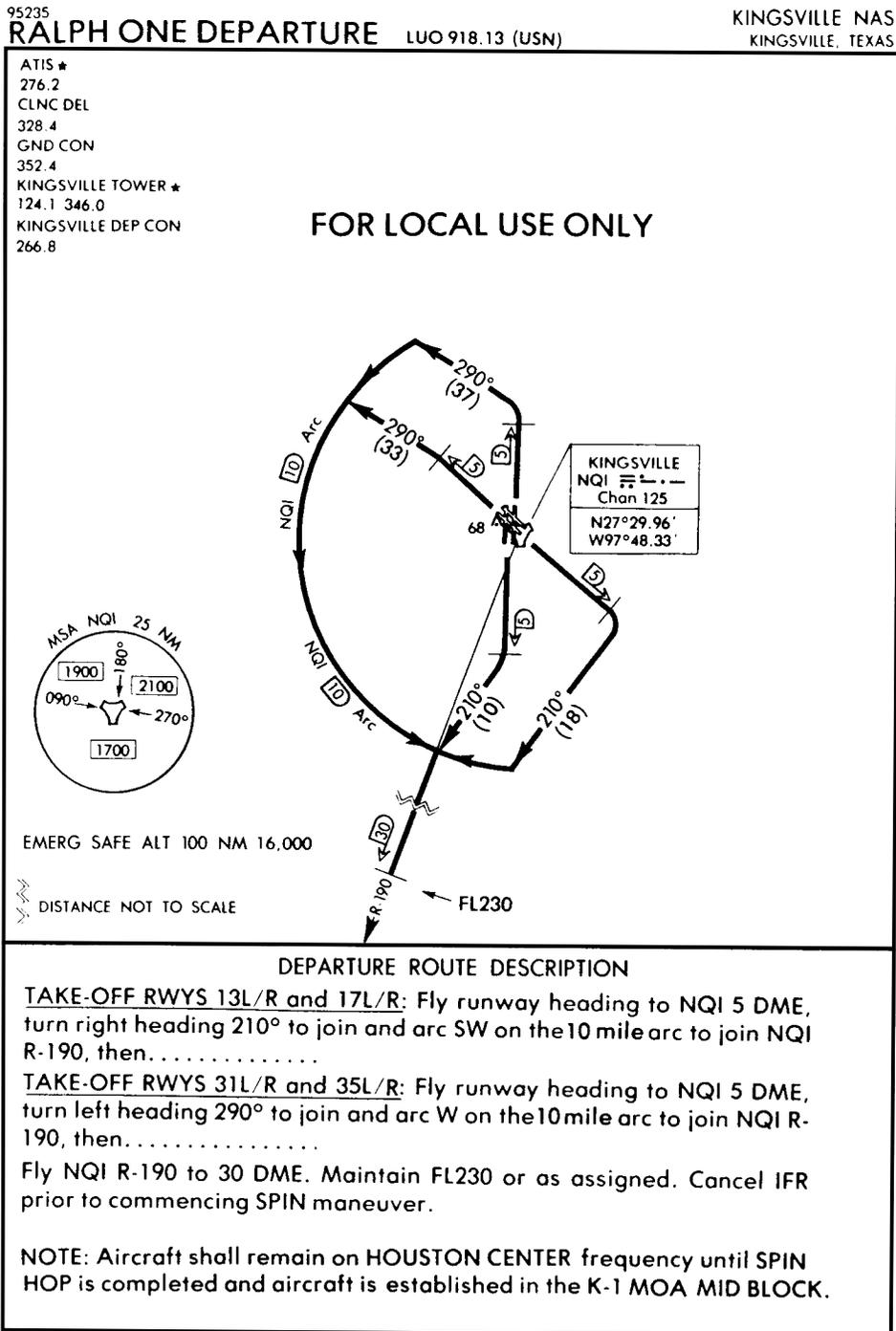
NOTE: VHF used temporarily because of limited number of transmitter/receivers on hand at Kingsville ATC facility.

Overlay 5: Spin-I

*Sg 2, fr 24
Fig 23: Ralph One
Departure*

*Sg 2, fr 25
Kings III MOA Special
Operating Areas
Fig 13: Kings I, II, &
III Military Operating
Areas*

Overlay 1: West - 10



RALPH ONE DEPARTURE

KINGSVILLE, TEXAS
 KINGSVILLE NAS

Figure 23: RALPH ONE DEPARTURE

- (1) Northern boundary: line from 029R/20 to 023/55
 - (2) Southern boundary: line from 052R/20 to 062R/55
 - (3) Western boundary: 20 DME arc from 029R to 052R
 - (4) Eastern boundary: 55 DME arc from 023R to 062R
- b. EAST - 9: primarily used for ACM, Form, and TacForm training; area frequency: 118.35/BTN 9 (TAC E)

Overlay 2: EAST - 9

NOTE: VHF used temporarily because of limited number of transmitter/receivers on hand at Kingsville ATC facility.

- (1) Northern boundary: line from 023R/55 to 025R/78
 - (2) Southern boundary: line from 062R/55 to 064R/78
 - (3) Western boundary: 55 DME arc from 023R to 062R
 - (4) Eastern boundary: 78 DME arc from 025R to 064R
- c. R 6312 - Yankee/Dixie target area (air-to-ground); area frequencies: 301.0 Yankee/BTN 26, 321.8 Dixie
- (1) Boundaries - visually defined (1,000 ft AGL to 12,000 ft MSL)
 - (2) Coded departure -
 - (a) To - Duval 1
 - (b) From - Duval 1R

**Overlay 3: R 6312
Target Area**

NOTE: Refer to your In-Flight Guide for VFR and target communications procedures.

3. Kings IV and V MOA

NOTE: There are no SOAs designated within the Kings IV or Kings V MOAs at this time.

4. W-228D special operating area

NOTE: All scheduling for the use of W-228 areas is coordinated through Seagull (NAS Corpus Christi). For Navy Kingsville aircraft conducting ALGUN or ACM flights, W-228D is defined off the Kingsville TACAN (channel 125X).

a. Controlling agency: Seagull - 320.4/134.1

NOTE: The following number for Seagull is difficult to obtain from the base directory and information, so is included here for your convenience: 7-3748.

b. Coded departure/special instructions:
Gun Four

5. ALGUNS

NOTE: Refer to the panels in the FLIP IFR Enroute High Altitude United States charts for the following information: number; effective altitude; times used, UTC; controlling agency; and panel location.

NOTE: IFR departure to and controlled recovery from MOA shall be made by **all** GUN aircraft while proceeding to and from the ranges. Refer to the In-Flight Guide for appropriate coded departure. VMC shall be maintained at all times in the range.

a. Whiskey ALGUN - 309.8/BTN 28 (W-228)

Sg 2, fr 26
Fig 24: FLIP IFR
Enroute High Altitude -
U.S., H-5 Navigational
Chart

Sg 2, fr 27
Fig 21: W-228D
Gunnery Range and
A-632B Alert Area

W-168A	UNLTD	Intermittent	Intermittent	VFR-IFR	ZMA CNTR/FSS	D,E
W-168B	To FL 290	Intermittent	Intermittent	VFR-IFR	ZMA CNTR/FSS	D,E
W-168C	FL 290 To UNLTD	Intermittent	Intermittent	VFR-IFR	ZMA CNTR/FSS	D,E
W-174A,F&G	To FL 700	Intermittent	1200-0400Z†	VFR-IFR	ZMA CNTR/FSS	D,E
W-174B-D	To FL 700	Intermittent*1	1200-0400Z†	VFR-IFR	ZMA CNTR/FSS	D,E
W-177A	To FL 500	Cont	Sunrise-0600Z†	VFR-IFR	ZJX CNTR/FSS	F,G
W-177B	To FL 240	Cont	Sunrise-0600Z†	VFR-IFR	ZJX CNTR/FSS	E,F,G
W-228A-D	To FL 450	Cont	Cont	VFR-IFR	ZHU CNTR/FSS	B
W-386A-D	A: E of 75°30' UNLTD; W of 75°30' Above FL 600 To UNLTD B-D: UNLTD	Intermittent	Intermittent	VFR-IFR	ZDC CNTR/FSS GIANTKILLER (233.7 or 127.65)	H
W-453	To FL 500	Cont*1	Intermittent	VFR-IFR	ZHU CNTR/FSS	C,D
W-465A&B	To FL 700	Intermittent*1	1200-0400Z†	VFR-IFR	ZMA CNTR/FSS	E
W-465C	FL 210 To FL 700	Intermittent*1	1200-0400Z†	VFR-IFR	ZMA CNTR/FSS	E
W-470A-C	UNLTD	Intermittent	Intermittent	VFR-IFR	ZJX CNTR/FSS	D

Figure 24: FLIP IFR ENROUTE HIGH ALTITUDE - U.S., H-5 NAVIGATIONAL CHART

NOTE: Whiskey ALGUN in W-228D is the primary ALGUN range but may be used for ACM. When W-228D is not available, gun flights will be directed to alternate ALGUN areas.

- (1) Defined by: Navy Kingsville TACAN channel 125X)
- (2) Boundaries: NQI 125R with a 5-mile radial buffer to the north and a 5-mile radial buffer to the south from the 50 to 90 DME
- (3) Operating altitudes: 8,000 ft - FL270

NOTE: Letter of agreement - above 270 has to be requested by 1800, 24 hours prior from Houston Center via phone call to Seagull.

Sg 2, fr 28
Laredo ALGUN
Fig 13: *Kings I, II, & III Military Operating Areas*

- b. Laredo ALGUN: used as an alternate gunnery range - 384.4/BTN 11 ALGUN
 - (1) Defined from Laredo TACAN (channel 121X)
 - (2) Boundaries: area 5 radial buffer either side of LRD 100R from 20 to 90 DME
 - (3) Operating altitudes: 8,000 ft - FL 230

Overlay 1: *Kingsville ALGUN*

- c. Kingsville ALGUN: used as an alternate gunnery range - 384.4/BTN 11 ALGUN
 - (1) Defined from Kingsville TACAN (channel 125X)
 - (2) Boundaries: 5 radial buffer on both sides of 200R from 12 to 69 DME
 - (3) Operating altitudes: 8,000 ft - FL 230

NOTE: ACM D not available when hot.

NOTE: RVERA recovery precludes NQI ALGUN and limits Laredo ALGUN to 75 DME versus 90 DME.

- d. Freer ALGUN - used as an alternate gunnery range - 384.4/BTN 11 ALGUN
- (1) Defined by: Laredo TACAN (channel 121X)
 - (2) Boundaries: 5 radial buffer on both sides of LRD 050R from 38 to 70 DME
 - (3) Operating altitudes: 8,000 ft - FL 230
- e. Orange Grove ALGUN - used as an alternate gunnery range - 384.4/BTN 11 ALGUN
- (1) Defined by: Navy Orange Grove TACAN (channel 63X)
 - (2) Boundaries: 5 radial buffer on both sides of the NOG 315R from 35 to 65 DME
 - (3) Operating altitudes: 8,000 ft - FL230

NOTE: Changes due to weather or traffic will be specified in ATIS broadcasts, i.e., RVERA recovery precludes NQI ALGUN and limits Laredo ALGUN to 75 DME versus 90 DME.

NOTE: Standard MOA communication procedures: After terminating radar service, aircraft will check in on appropriate MOA frequency. Transiting the MOA to an ACM, ALGUN or SPIN, aircraft will call "transiting." When in the MOA but outside an ACM, ALGUN or SPIN area, aircraft will monitor MOA area frequency.

NOTE: The In-Flight Guide lists communications frequencies for each of the MOAs and SOAs. Refer to the frequencies card or MOA chart for specific frequencies and check for specific ALGUN communications procedures in the ALGUN section.

Sg 2, fr 29
Freer ALGUN
Fig 13: Kings I, II, & III Military Operating Areas

Overlay 1: Orange Grove ALGUN

Sg 3, fr 2
Lesson Organization

Sg 3, fr 3
Fig 2: NAS Kingsville
(NQT) Airport
Diagram

NOTE: Boundary alert calls are broadcast on area common frequency if an aircraft encroaches on the 5-mile buffer of an area boundary. This is not a call on guard. All aircrew will respond by ident and will take necessary corrective action.

III. Ground Operations, Rules, and Regulations **1.1.2.2, 1.1.2.2.3**

A. Engine start

1. Anti-collision lights on prior to start
2. No refueling being conducted within 50 ft of aircraft preparing to start
3. No strobe lights used in line

B. Max power in the line (normally 70%, but in accordance with SOP)

C. Taxi speed

1. Line: No faster than a man can walk
2. Taxiway: No faster than a man can trot

NOTE: Taxi light will be used as required for night taxi, exercising care not to blind other pilots.

D. Takeoff - Night section takeoffs are not authorized

E. Early turnoffs - All aircraft (in accordance with SOP)

LESSON NOTES

Direct your class to review closely their respective squadron standard operating procedures (SOPs) for specific instructions and regulations that will govern their day-to-day operational activities and specific aircraft restrictions.

IV. Departures 1.1.2.2, 1.1.2.2.4

A. Departures for cross-country flight

1. All flights will depart in accordance with clearance. Published, standard instrument departures (SIDs) are normally assigned for aircraft departing the local area on cross-country flights

- a. Palacios-Three departure
- b. HOBOZ-One departure

NOTE: Local instrument departures (LIDs) are normally used to depart NAS Kingsville to the MOAs. LIDs are not used to intercept Victor and jet airways for navigation.

B. Departures to the MOAs

NOTE: All aircraft leaving NAS Kingsville airspace or requiring MOA-related activities shall depart NAS Kingsville on an IFR flight plan using a local instrument departure (LID) or VFR on an IFR flight plan. Each coded departure (LID) has a specific use. The Premont Two, the most commonly used departure at NQI to the Kings I MOA, is described below. The Banks I to the Kings IV and V MOAs and the X-Ray Two departure to the local VFR area is also described in this section. Refer to your In-Flight Guide for descriptions and use of the other coded departures used to reach Kings III, spin areas, and ALGUNS.

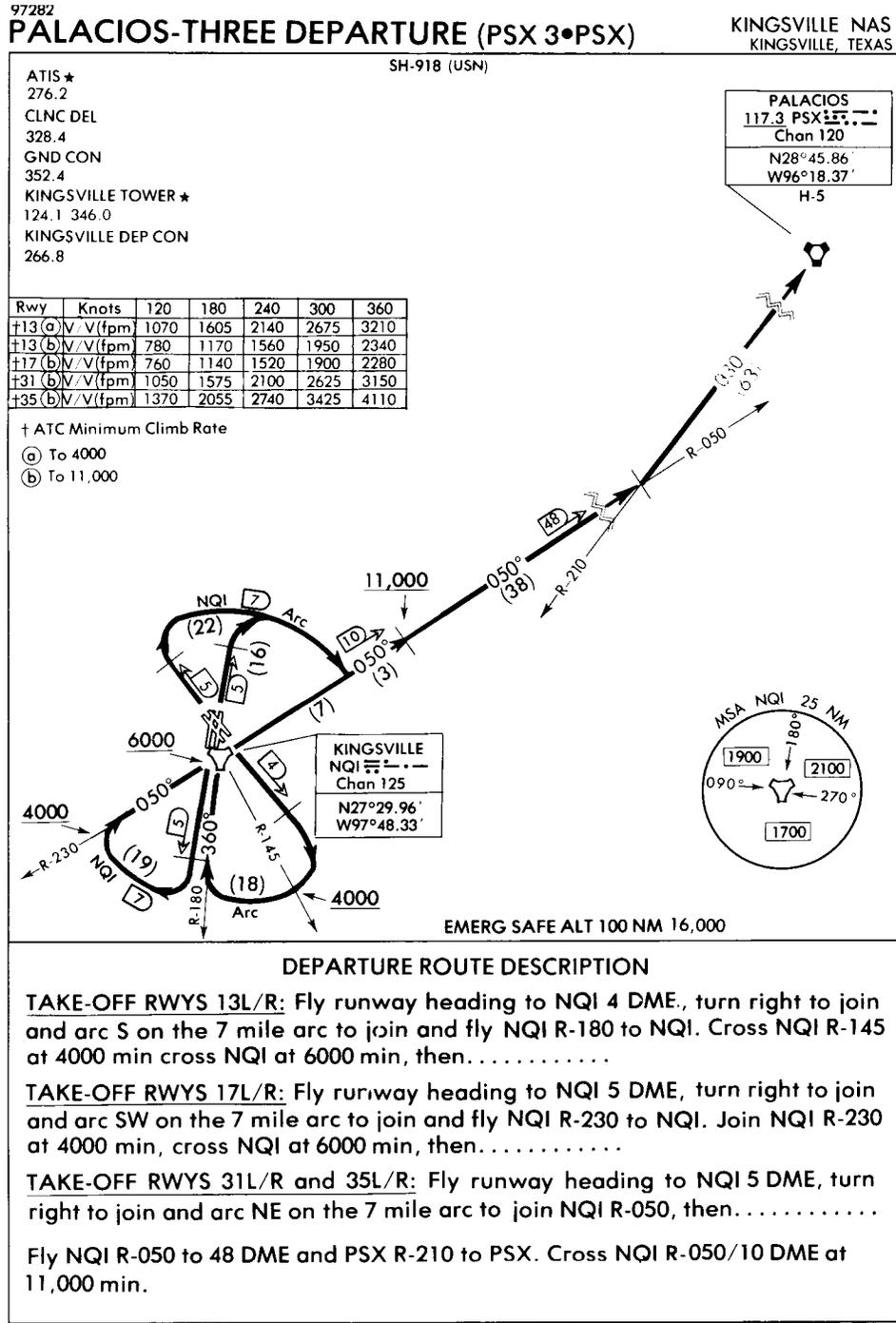
1. Premont Two—used for reaching Kings I low and mid-MOA only
 - a. Will automatically activate Kingsville Two MOA when transiting to Kingsville One MOA
 - b. Normally clear underlying altitudes of both MOAs to allow for unrestricted climb to MOA altitudes unless advised otherwise

Sg 4, fr 2
Lesson Organization

Sg 4, fr 3
Fig 25: Palacios
Three Departure

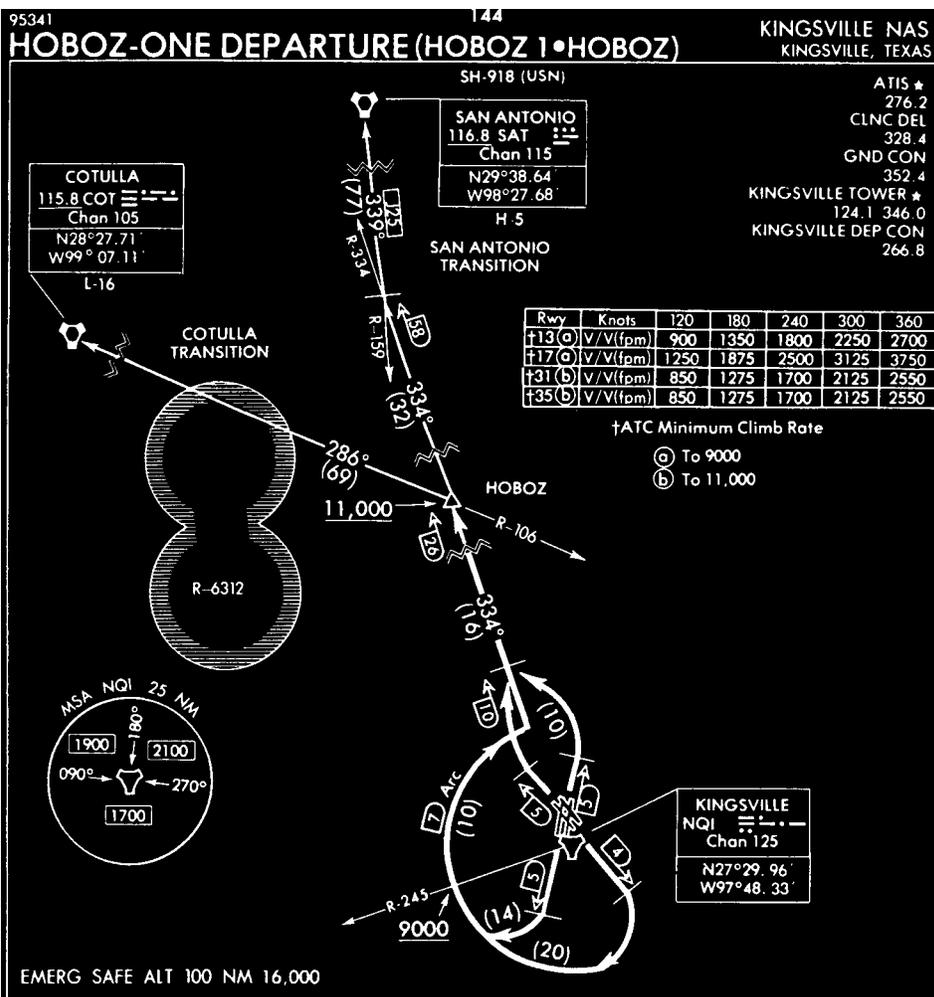
Sg 4, fr 4
Fig 26: HOBOZ One
Departure

Sg 4, fr 5
Fig 14: Premont Two
Departure



PALACIOS-THREE DEPARTURE (PSX 3•PSX) KINGSVILLE, TEXAS
KINGSVILLE NAS

Figure 25: PALACIOS THREE DEPARTURE



ATURE

- c. Once established in Kingsville One MOA, Kingsville Two MOA and underlying altitudes will return to their previous status
- d. Aircraft shall not reenter these areas unless cleared to do so by Kingsville ATCF

NOTE: The area underlying the Kings II MOA is not part of the Kings I MOA.

NOTE: A pilot may request "Take off VFR" to the alert area (a 02XX series squawk) and still be on an IFR flight plan but not receive IFR handling. Field conditions must be VFR (normal operations at NAS Kingsville will not authorize a 1200 VFR squawk). This could expedite the launch of aircraft due to reduced separation criteria with approach IFR traffic. At any time during a VFR takeoff, the pilot may "Request IFR handling." At that time, he reverts to IFR departure procedures and receives a 4XXX series squawk.

- d. Includes four options (Premont Two)
 - (1) VMC and want to proceed direct
 - (a) Report VMC
 - (b) Request direct or request radar vectors
 - (c) "Terminate," when above 2,000 ft MSL or beyond 4 DME

NOTE: After radar service is no longer required from Kingsville Departure and clear of traffic area, the pilot may request "terminate" and continue VMC. ("**Terminate**" means: radar service terminated, maintain VMC, frequency change approved, contact Kingsville Approach for recovery. It **does not** mean that you have "**anceled**" your IFR clearance, i.e., you keep your assigned squawk.)

- (2) VMC want to fly LID
 - (a) Report VMC
 - (b) Terminate (+2,000 ft MSL 4 nm)
 - (c) Continue with LID flight procedure
- (3) IMC want to proceed direct to MOA
 - (a) Above 2,000 ft MSL or beyond 4 DME
 - (b) Request “direct” or request “radar vectors” to MOA
 - (c) Upon reaching VMC, report “VMC terminate”

NOTE: If not VFR-ON-TOP by assigned altitude, departure control will continue IFR handling up to FL230 within lateral limits of Kingsville MOAs or assigned airspace.

- (4) IMC and want to fly LID
 - (a) Fly LID procedure as published
 - (b) Do not report “VMC, terminate” until VFR on top
 - (c) Upon reaching VMC, report “VMC terminate”

NOTE: If not VFR-ON-TOP by assigned altitude, departure control will continue IFR handling up to FL230 within lateral limits of Kingsville MOAs or assigned airspace.

WARNING: Pilots may not “terminate” and then fly out of the lateral boundaries of the Kingsville One or Two MOA trying to avoid weather en route to Kingsville One MOA.

*Sg 4, fr 6, p1
Kings I MOA Area A
Divisions With
Ground Reference*

*Sg 4, fr 6, p2
Kings I MOA Area A
Divisions Without
Ground Reference*

*Fig 27: Kings I MOA
Area A Divisions
With/Without Ground
Reference*

2. Aircraft entering and/or transiting the Kings I MOA Area A should maintain 9,500 ft MSL (weather permitting) prior to checking in on area common (Button 5). After check-in, the pilot may continue to climb to working altitude if he has determined his route of flight will not conflict with aircraft established in the area. Otherwise, he should transit to his area at 9,500 ft MSL
3. During daytime, aircraft working the Kings I MOA Area A with ground reference shall divide the area laterally according to KINGS I MOA AREA A DIVISIONS WITH GROUND REFERENCE depiction; when working day VMC above an overcast, divide the area according to KINGS I MOA AREA A DIVISIONS WITHOUT GROUND REFERENCE depiction. During nighttime, the Kings I MOA is not subdivided into A, B, C, D and all aircraft shall check in on and monitor button 5; night flights should normally subdivide the Kings I vertically by altitude blocks versus laterally

C. Departure to Kings IV and V

NOTE: To reach the Kings IV or V MOAs, you must transit a civilian corridor that runs southwest from the Corpus Christi VORTAC.

1. VFR
 - a. File an IFR flight plan (to activate the MOA)
 - b. Request VFR to the MOA with flight following

NOTE: A VFR departure relieves the controller of providing IFR separation from other traffic. The pilot assumes responsibility for maintaining proper separation from all traffic (a.k.a. MARSAs) en route to the MOA. All aircraft monitor BTN 25, VFR common.

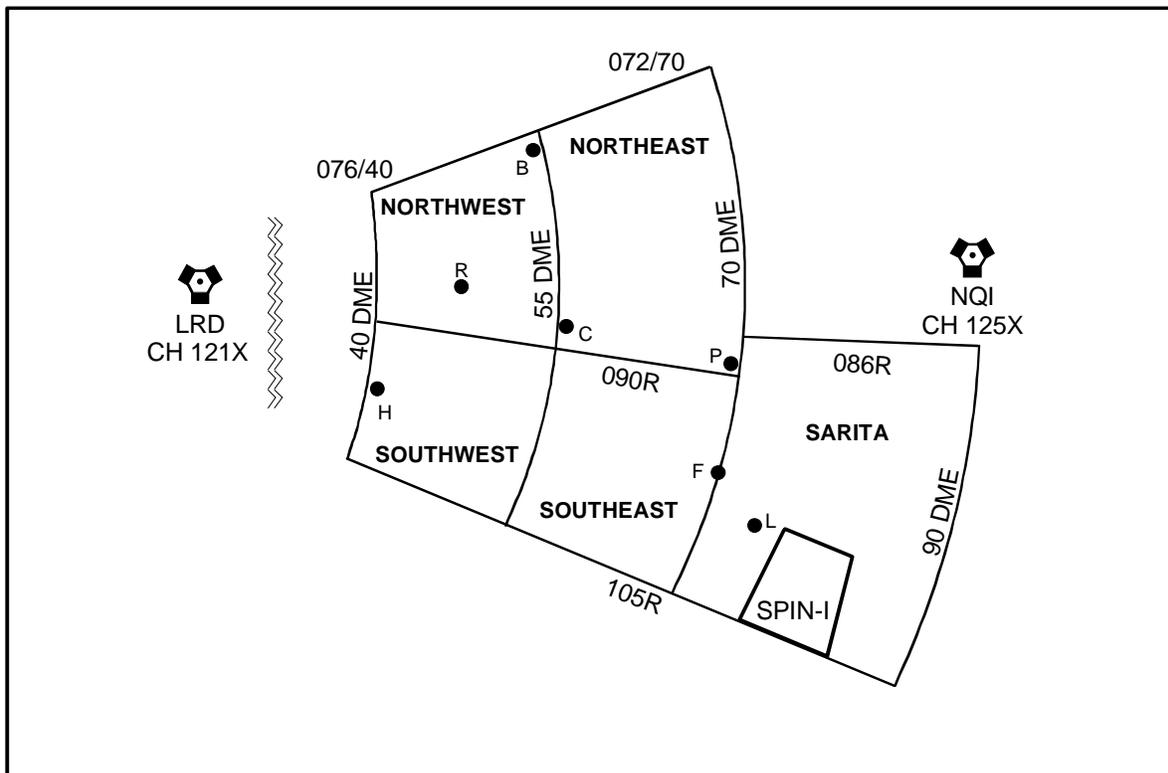
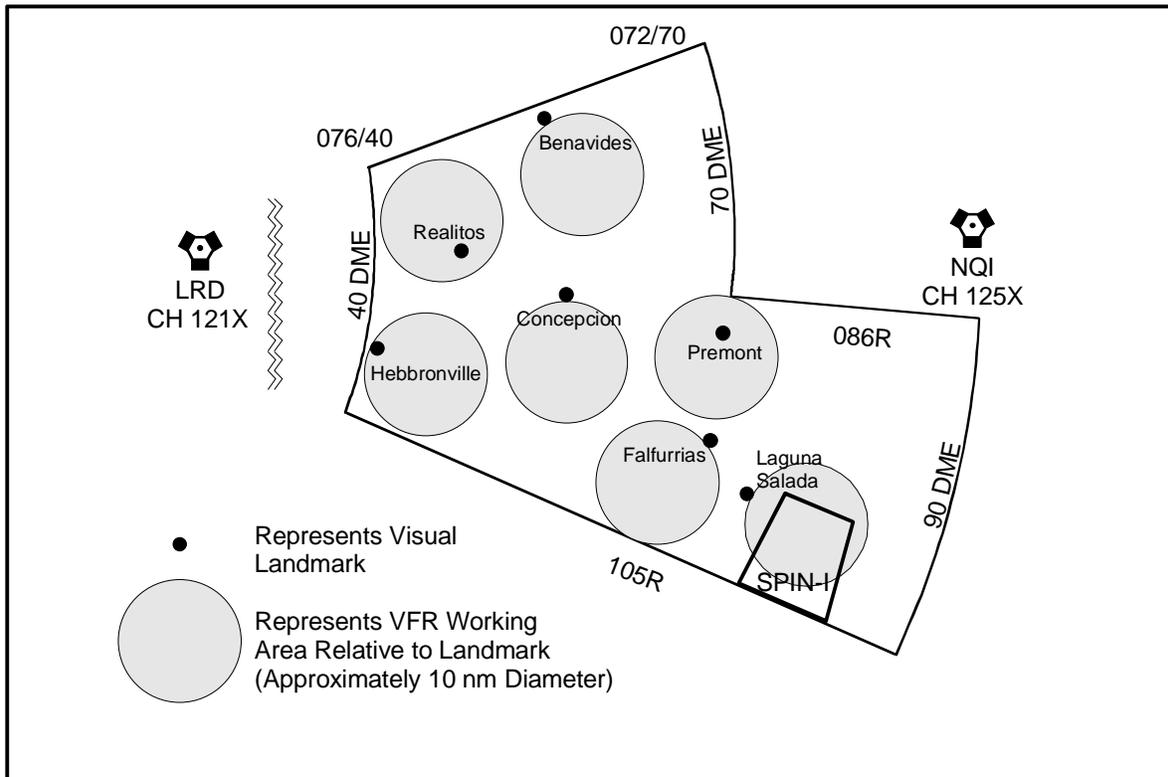


Figure 27: KINGS I MOA AREA A DIVISIONS WITH/WITHOUT GROUND REFERENCE

Sg 4, fr 7
Fig 18: Banks One
Departure

2. IFR - Banks One Departure
 - a. Radar vectors to the 040-degree radial, 25 DME
 - b. Climb and maintain 17,000 ft MSL
 - c. Then intercept NQI 015-degree radial, 50 DME
 - d. Delay 0 + 45, WAADE, NQI

Sg 4, fr 8
Fig 28: Local
Working Area
Restrictions

D. Departure to the Alert Areas

NOTE: Local VFR working area is defined as that airspace underlying the Kingsville MOAs and under or within the lateral confines of the alert areas. The altitude envelope when within the lateral confines of the Kingsville MOA is 3,000 ft to 17,999 ft MSL. The altitude envelope, when outside the lateral confines of the MOAs but within the lateral confines of the alert area, is from 3,000 ft to 11,000 ft MSL.

1. VFR (Local VFR area)

NOTE: VFR procedures are used for flights **not** requiring MOA-related activity, i.e., flights not requiring aerobatic maneuvers.

- a. Contact clearance delivery and request a VFR departure and VFR squawk
- b. VFR Departure:
 - (1) Notify Departure Control when leaving their frequency; monitor VFR common 308.2/BTN 25
 - (2) Maintain runway heading until passing 2,000 ft MSL or 4 DME (noise abatement)
 - (3) Request flight following

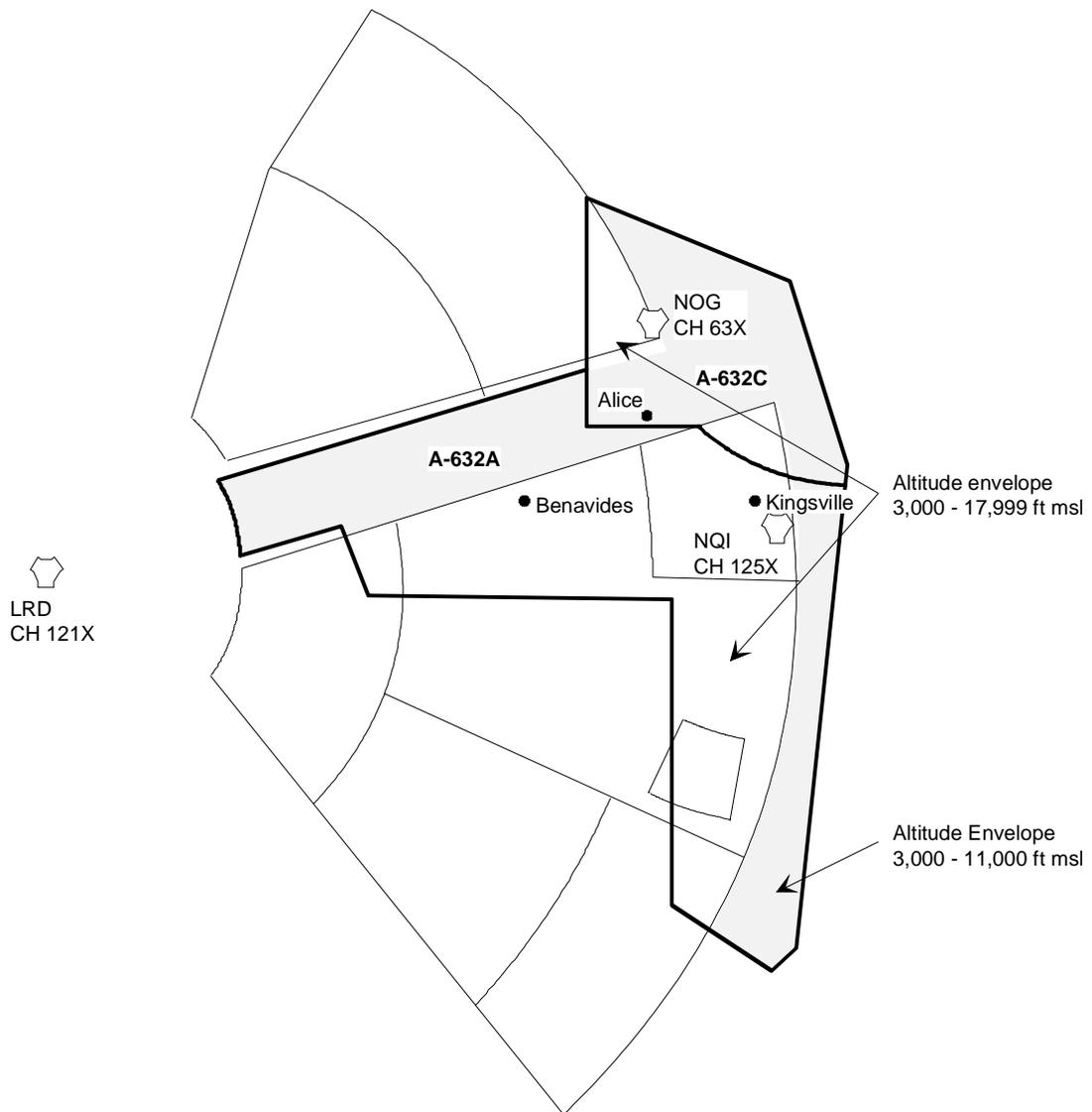


Figure 28: LOCAL WORKING AREA RESTRICTIONS

Sg 4, fr 9
Fig 22: X-Ray Two
Departure

Sg 5, fr 2
Lesson Organization

2. IFR

NOTE: IFR procedures are used when departing to the local VFR working area when field weather is less than VMC.

- a. Contact clearance delivery and request X-RAY TWO departure to the local VFR area
- b. Proceed IFR via the X-RAY Two LID to the local VFR area and "CANCEL" when VFR

V. Recovery 1.1.2.2, 1.1.2.2.4.1

NOTE: When contacting Kingsville Approach for recovery, aircrew should state, "Kingsville Approach, call sign, radial/DME from NQI, coded recovery, and current ATIS."

NOTE: Kingsville Approach may request aircrew to "IDENT," to confirm aircraft position. After initial contact, aircrew should advise Approach if any deviation from normal coded recovery, such as low initial, straight-in, or 360-degree turns for altitude reduction, is desired.

A. VFR

1. Attempt to contact Kingsville Approach Control at least 25 miles from the airfield for TOPS VFR radar service to the VFR traffic pattern

NOTE: VFR recoveries apply **only** to aircraft returning from the alert areas below the MOA or airspace within the lateral confines of the alert areas and aircraft returning from Kings IV or Kings V MOAs when transiting within the altitude and lateral confine structure described for "local VFR areas."

2. Restrictions

- a. Remain clear
 - (1) City of Kingsville
 - (2) King Ranch Headquarters

- (3) Celanese plant
 - (4) Built-up areas of the air station where practicable
 - b. Avoid overflying
 - (1) Trailer parks
 - (a) 1 mile south of the airfield boundary and 1.5 miles northwest of the air station
 - (b) Turning left downwind off runway 31L (when directed by tower)
 - (2) City of Bishop
 - (3) Brickhouse 1.3 nm abeam runway 35L
 - c. Remain east of Hwy 77 bypass
3. TOPS VFR recovery (VFR recovery with radar advisories from the MOAs)

NOTE: TOPS VFR recovery from the MOAs can only be used when recovering VFR and transiting via the alert areas.

- a. Cleared to NQI/NOG via direct
- b. Maintain VFR

NOTE: When returning from the MOA on a VFR recovery, you are still on an IFR 4XXX squawk with monitors to the initial.

- c. Proceed to VFR initial via direct or radar vectors for sequencing if directed by Kingsville approach
- d. Report field in sight to Kingsville Approach for handoff to Kingsville tower

B. IFR coded recoveries

NOTE: Aircraft desiring an IFR arrival/approach at NAS Kingsville are handed off from an adjoining ATC facility or contact Kingsville Approach directly for clearance to conduct a coded recovery procedure listed below or published instrument/radar approach procedure from the operating areas. IFR instrument/radar approaches are covered in the "Field Entry" section of this document.

Sg 5, fr 3

Waade Recovery to RWY 13R (Plan View)

Sg 5, fr 4

Waade Recovery to RWY 13R (Approach Profile)

Fig 29: Waade Recovery to RWY 13R

Sg 5, fr 5

RVERA Recovery to RWY 35L/R (Plan View)

Sg 5, fr 6

RVERA Recovery to RWY 35L/R (Approach Profile)

Fig 30: RVERA

Recovery to RWY 35L/R

1. Waade recovery
 - a. Cleared to Waade (NQI 270R/026) via direct
 - b. Cross Waade at assigned altitude
 - c. Expect further clearance (time) as assigned
2. RVERA recovery
 - a. Cleared to RVERA (NQI 182R/031) via direct
 - b. Cross RVERA at assigned altitude
 - c. Expect further clearance (time) as assigned
3. TOPS IFR recovery (used when descending through IFR conditions to anticipated VFR conditions)
 - a. Cleared to NQI or NOG via direct
 - b. Maintain VMC within the MOA until assigned radar vectors and/or altitude by NQI ATCF
 - c. With cloud ceiling at or above 2,600 ft MSL, report, "VMC cancel," when underneath

NOTE: If ceiling is below 2,600 ft MSL, pilot may cancel only if low initial is available. Otherwise, pilot shall proceed by instrument approach to ensure traffic separation.

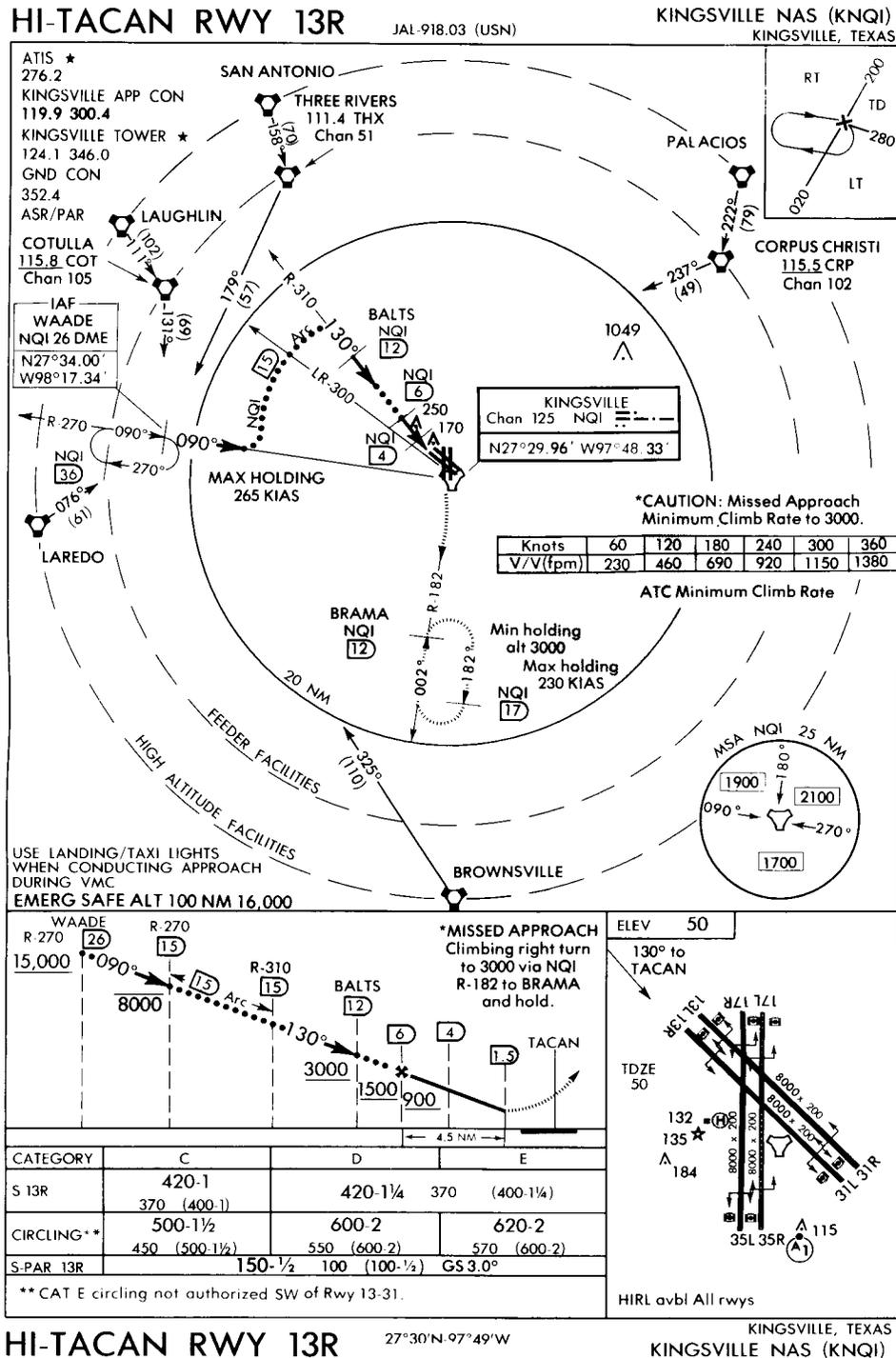


Figure 29: WADE RECOVERY TO RWY 13R

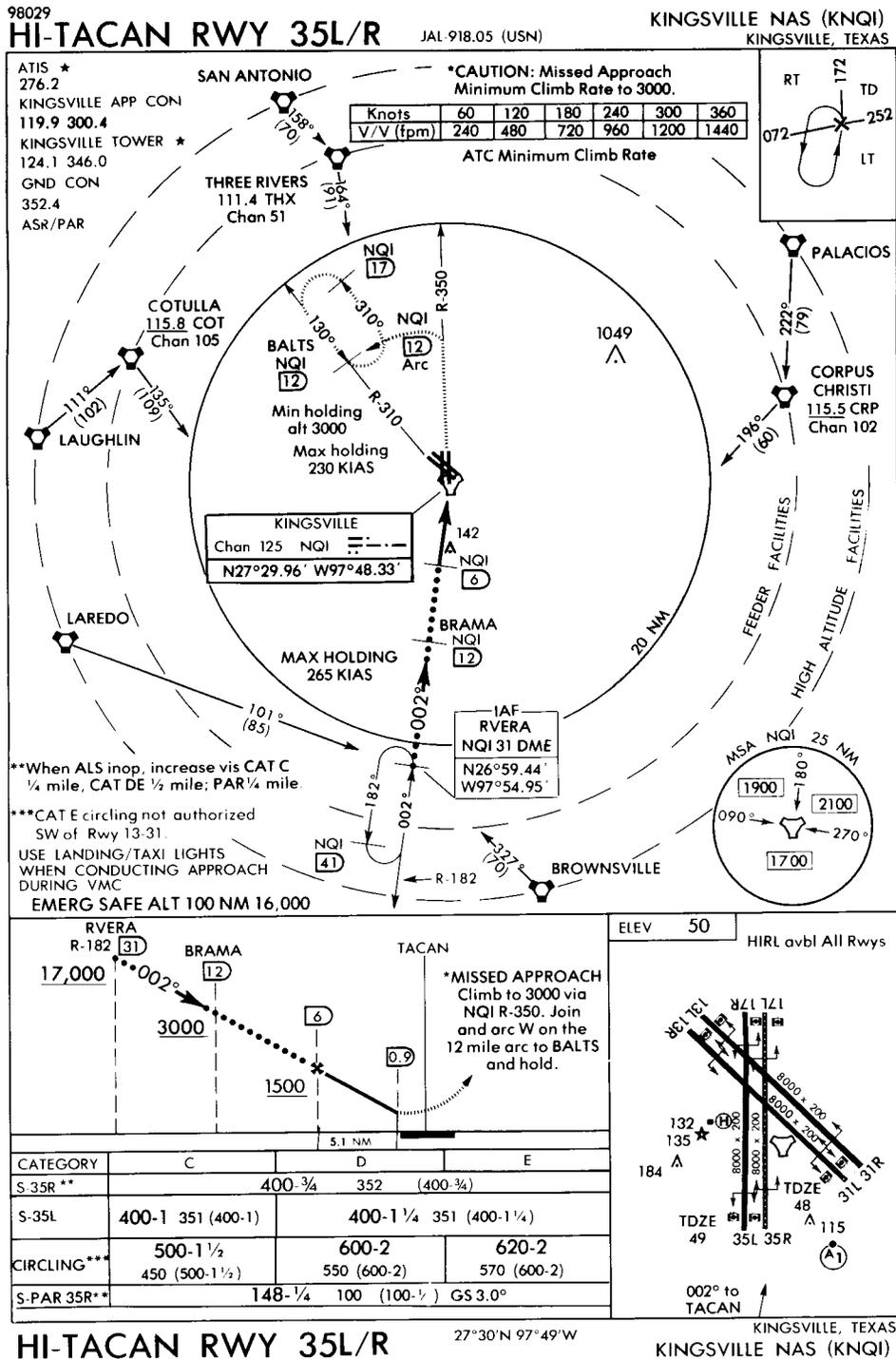


Figure 30: RVERA RECOVERY TO RWY 35L/R

4. TOPS GCA recovery (used when IFR conditions exist on deck and a precision radar approach is desired or when executing a penetration to a practice GCA)
 - a. Cleared to NQI/NOG via direct
 - b. Maintain VMC within the MOA until assigned radar vectors and/or altitude by NQI ATCF
 - c. Approach control will issue descent and radar vectors to GCA final
5. TOPS ILS recovery - An IFR recovery procedure from the MOA in which the aircraft is cleared to NQI/NOG via direct, maintaining VMC within the MOA until assigned radar vectors and altitude by NQI ATCF. Approach control will issue descent and radar vectors to intercept the ILS final approach course

NOTE: Aircraft exiting the Kings III MOA on a TOPS GCA, TOPS ILS, or TOPS IFR recovery must be below 11,000 ft MSL prior to exiting.

6. Returning from Kings IV or V

NOTE: Aircraft returning from Kings IV and V MOAs will contact Houston Center, on 350.3, before leaving those MOAs. Pilots will request the appropriate recovery (VFR, radar vectors, TACAN approach, etc.) from the center.

C. IFR, non-coded recoveries

NOTE: Normal IFR traffic will be expected to comply with IFR procedures as published in appropriate flight information publications. See the IFR (enroute) Supplement and SW High Altitude Terminal Information publication (approach plates) for procedures, field and approach information.

VI. Field Entry Procedures (VFR, IFR) **1.1.2.2, 1.1.2.2.5**

Sg 6, fr 2
Lesson Organization

Sg 6, fr 3
Fig 31: VFR Field
Entry

NOTE: For more detailed information and exact scale, see Brownsville Sectional Chart.

A. VFR field entry (TOPS VFR entry from the MOA)

NOTE: Three types of VFR entry procedures are used at NAS Kingsville: straight-in, overhead, and standard downwind. The one selected is dependent on factors such as traffic, aircraft position, pilot preference, aircraft or field conditions, etc.

1. VFR straight-in approach

NOTE: Do not confuse terminology and procedure with “visual approach,” which is an IFR procedure. This is a local “VFR procedure.”

- a. Request “VFR straight-in” from Approach Control on initial contact
- b. Enter a 6-nm initial at 1,000 ft MSL on the extended centerline of the departure runway

NOTE: Weather minimums for a VFR straight-in approach are ceiling, 1,000 ft AGL visibility 3 nm.

- c. Begin descent to intercept desired glideslope

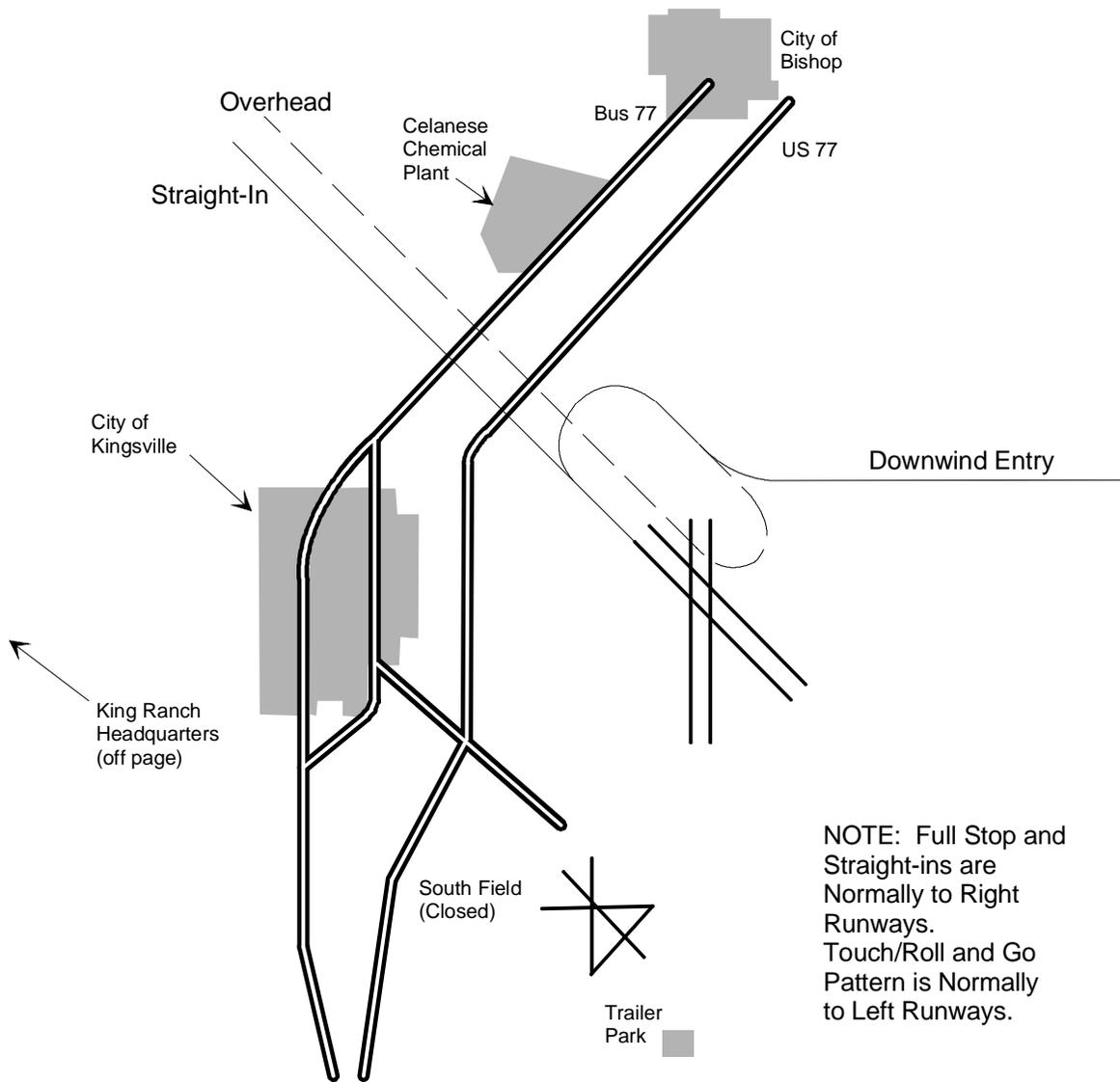


Figure 31: VFR FIELD ENTRY

*Sg 6, fr 4, 5, 6, 7
Fig 32, 33, 34, 35:
Overhead Approach*

2. Overhead approaches

NOTE: (Standard BREAK, normal recovery at Kingsville) Report a 5-nm initial at **2,500** ft MSL (advise tower if full-stop), and line up on pattern side of the duals so as not to break over the runway (max offset 500 ft laterally). At pilot/flight leader's discretion, request a low initial from approach control on initial contact. If approved, enter a 5-nm initial at 1,100 ft MSL (1,050 ft AGL). Otherwise, descend at 4 nm to 1,100 ft MSL. Report the "Numbers" and execute a level BREAK: left pattern for runways 13, 17, 31, and 35 (or as tower directs). Established on downwind, descend to 600 ft AGL (650 ft MSL) and report "Abeam" with intentions.

a. Standard break (normal recovery at Kingsville)

- (1) Report "initial" at 5 nm, **2,500** ft MSL or "low initial" at 5 nm and 1,100 ft MSL (advise tower if full-stop)
- (2) Lined up on pattern side of duals, (left of the left runway - max offset 500 ft laterally)
- (3) At 4 nm, commence descent to 1,100 ft MSL
- (4) Report "numbers" and execute level break first two-thirds of runway length or as directed by tower
 - (a) Left pattern for runways 13, 17, 31, and 35
 - (b) As tower directs

NOTE: Do **not** break over the runways at NQI!

- (5) Established on downwind, descend to 600 ft AGL and report "abeam" with intentions

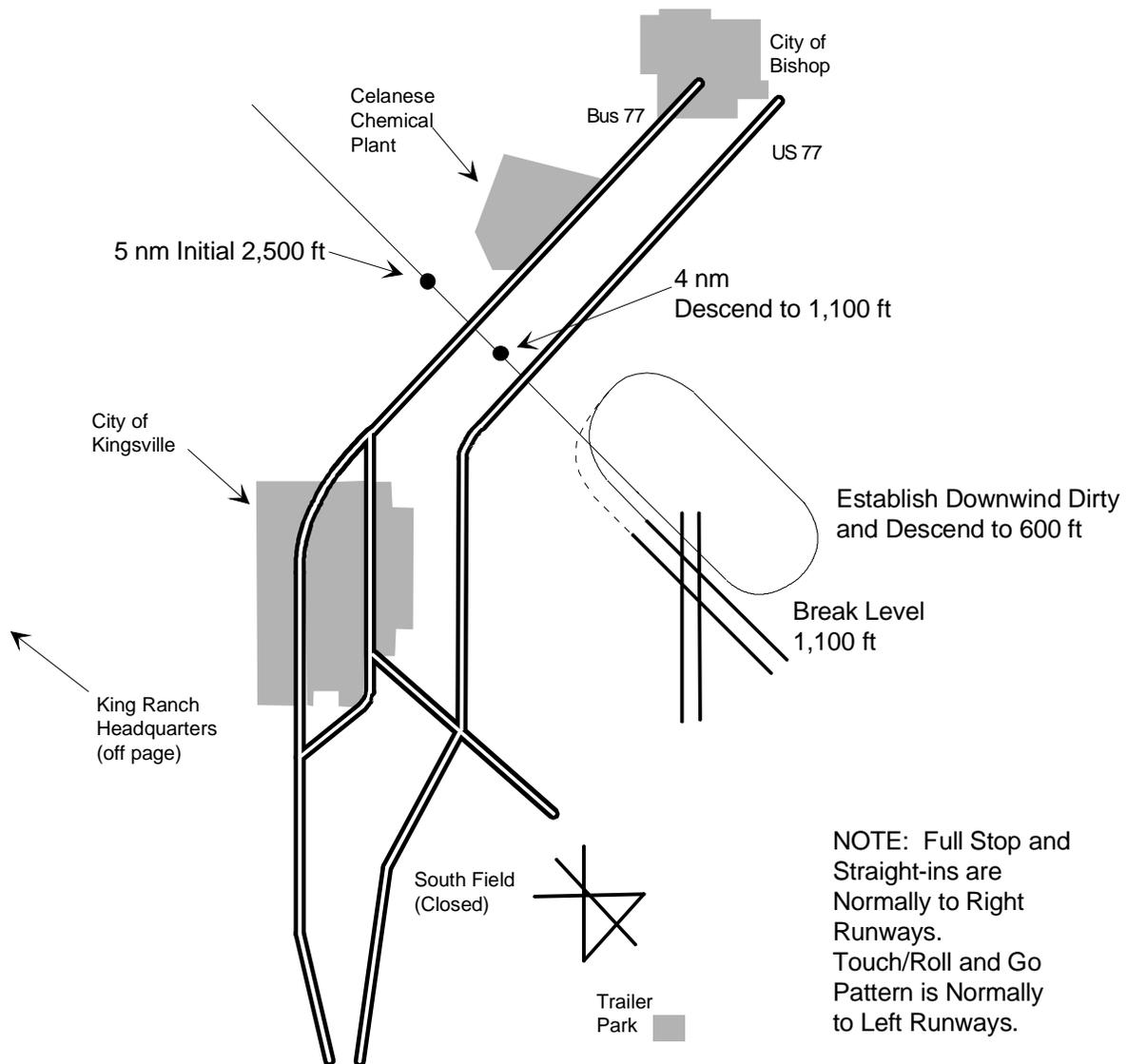


Figure 32: OVERHEAD APPROACH (RWY 13)

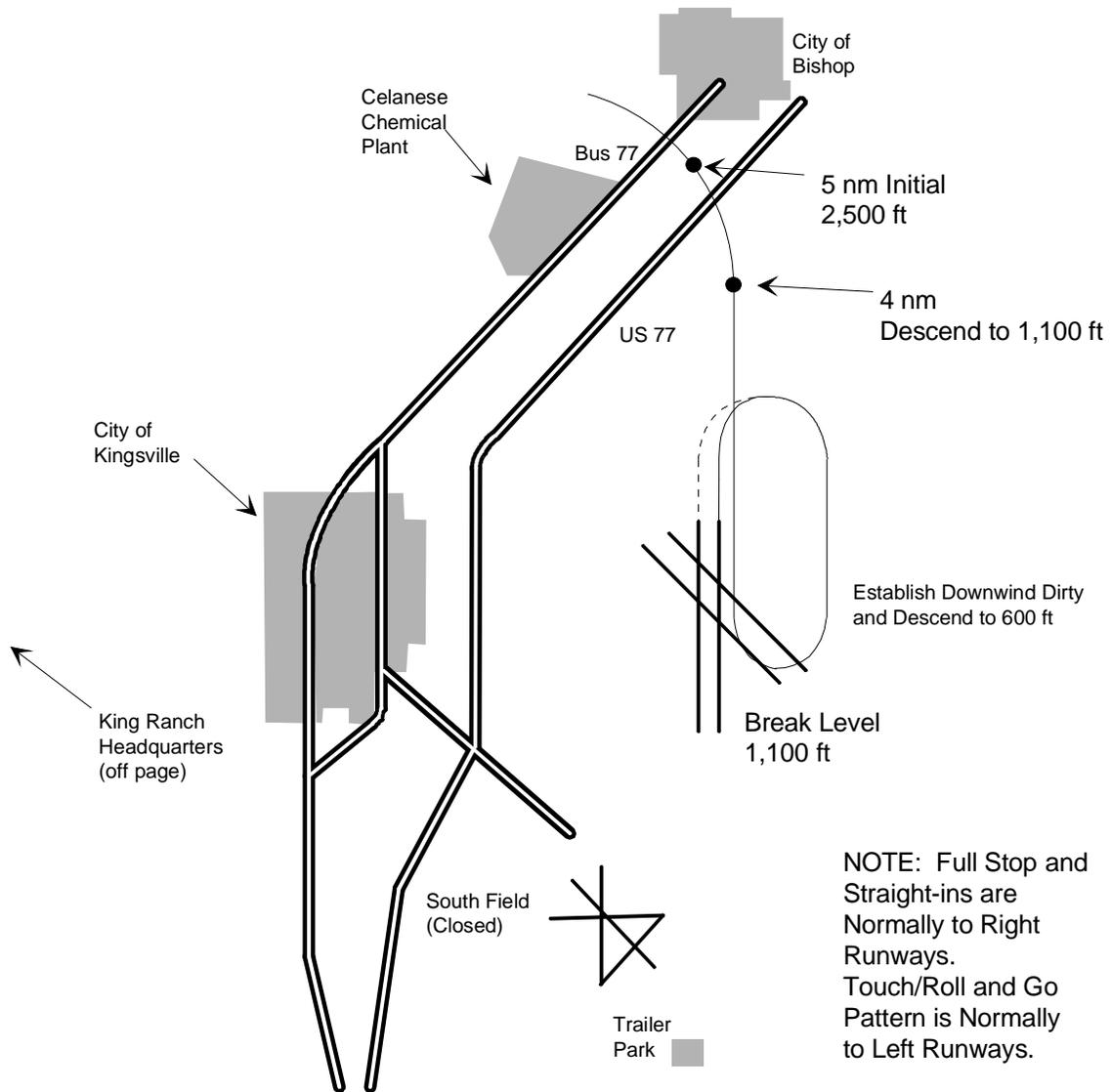


Figure 33: OVERHEAD APPROACH (RWY 17)

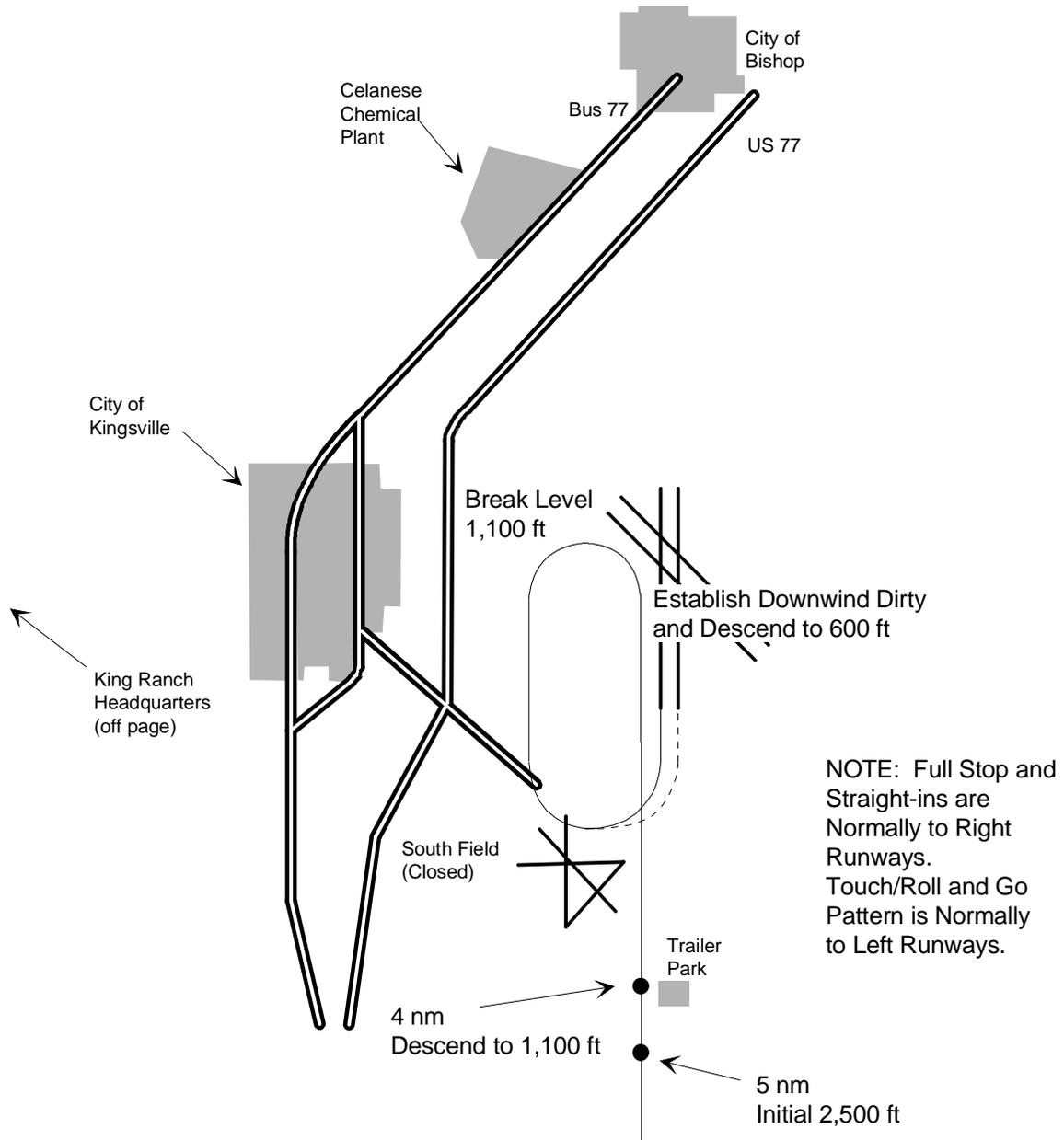


Figure 34: OVERHEAD APPROACH (RWY 35)

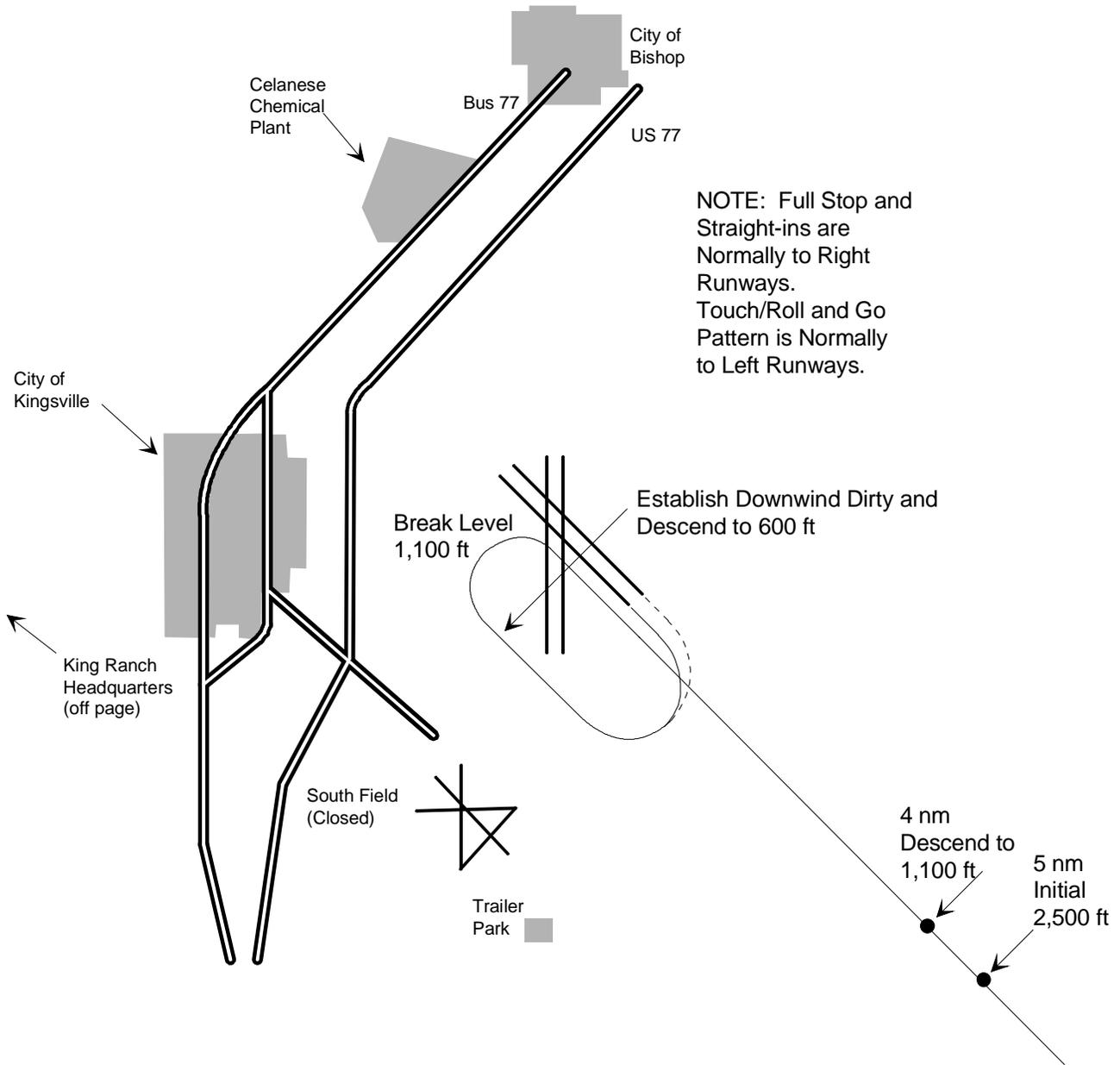


Figure 35: OVERHEAD APPROACH (RWY 31)

NOTE: At the flight leader's discretion, request a low initial from Kingsville Approach on initial contact. Low initial usually approved if no instrument or straight-in traffic precedes the flight or if pilot has all preceding traffic in sight. If approved, i.e., GCA traffic permits, enter a 5-nm initial at 1,100 ft MSL and report "low initial" to the tower.

b. Carrier break

NOTE: Carrier breaks are authorized but are subject to tower approval based on traffic conditions.

- (1) Request carrier break on initial contact with tower
- (2) Enter from high (2,500 ft) or low (1,100 ft) initial
- (3) At 4 nm, descend to 850 ft MSL
- (4) Break as directed by tower
- (5) Descend to 600 ft AGL on downwind

NOTE: The pattern at the carrier is 600 ft AGL. NQI pattern is 600 ft AGL (650 ft MSL).

3. Standard downwind entry

- a. Approach airport at 1,100 ft MSL (1,050 ft AGL)
- b. Contact tower when directed by Kingsville Approach
- c. Report to tower, "Call sign, position relative to the field for a downwind entry"

NOTE: Unless otherwise directed, enter the downwind leg for the pattern in use, 45 degrees off-heading. Remain well clear of departure corridor for duty runway.

*Sg 6, fr 8, 9, 10, 11
Fig 36, 37, 38, 39:
Standard Downwind
Entry*

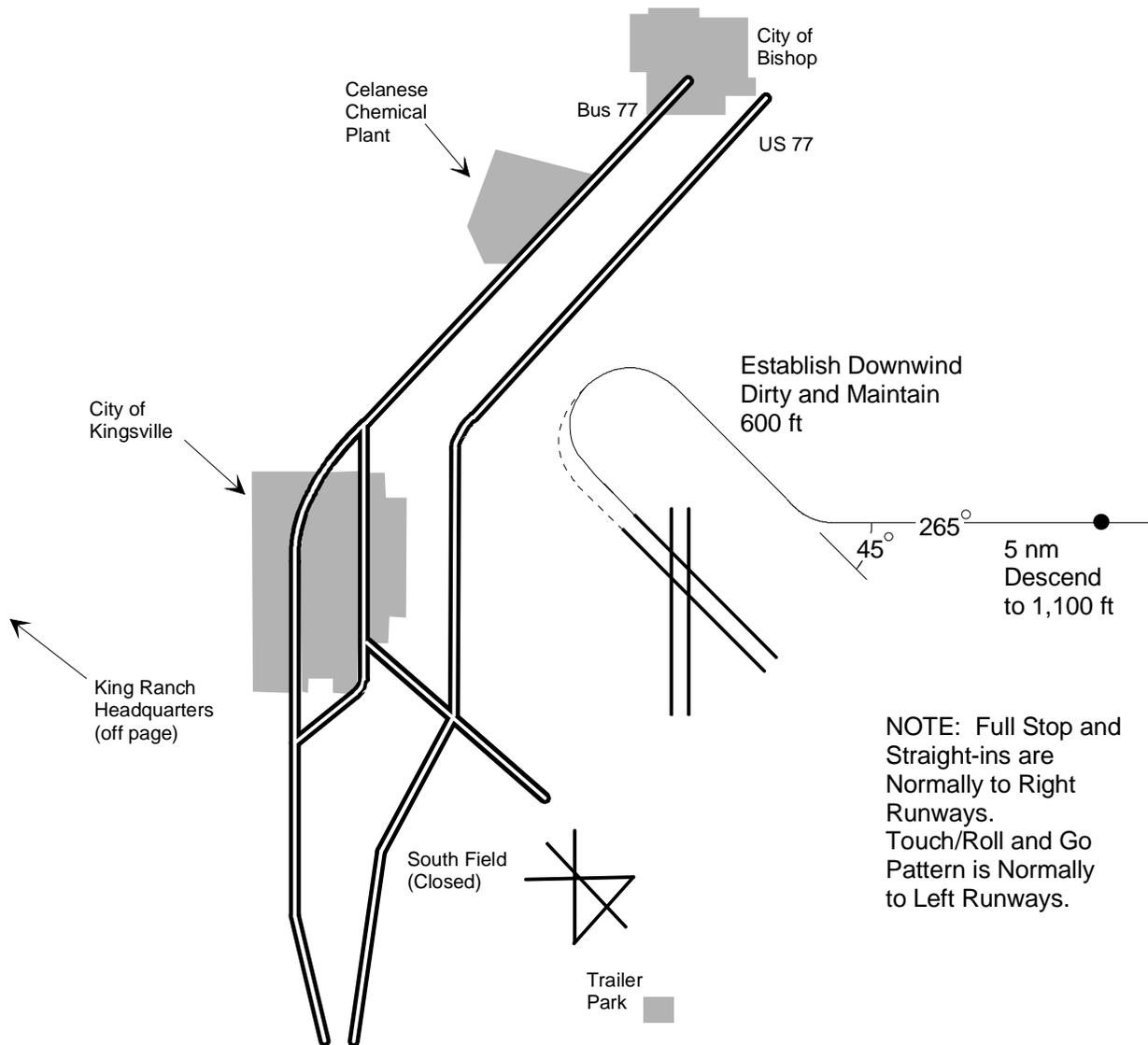


Figure 36: STANDARD DOWNWIND ENTRY (RWY 13)

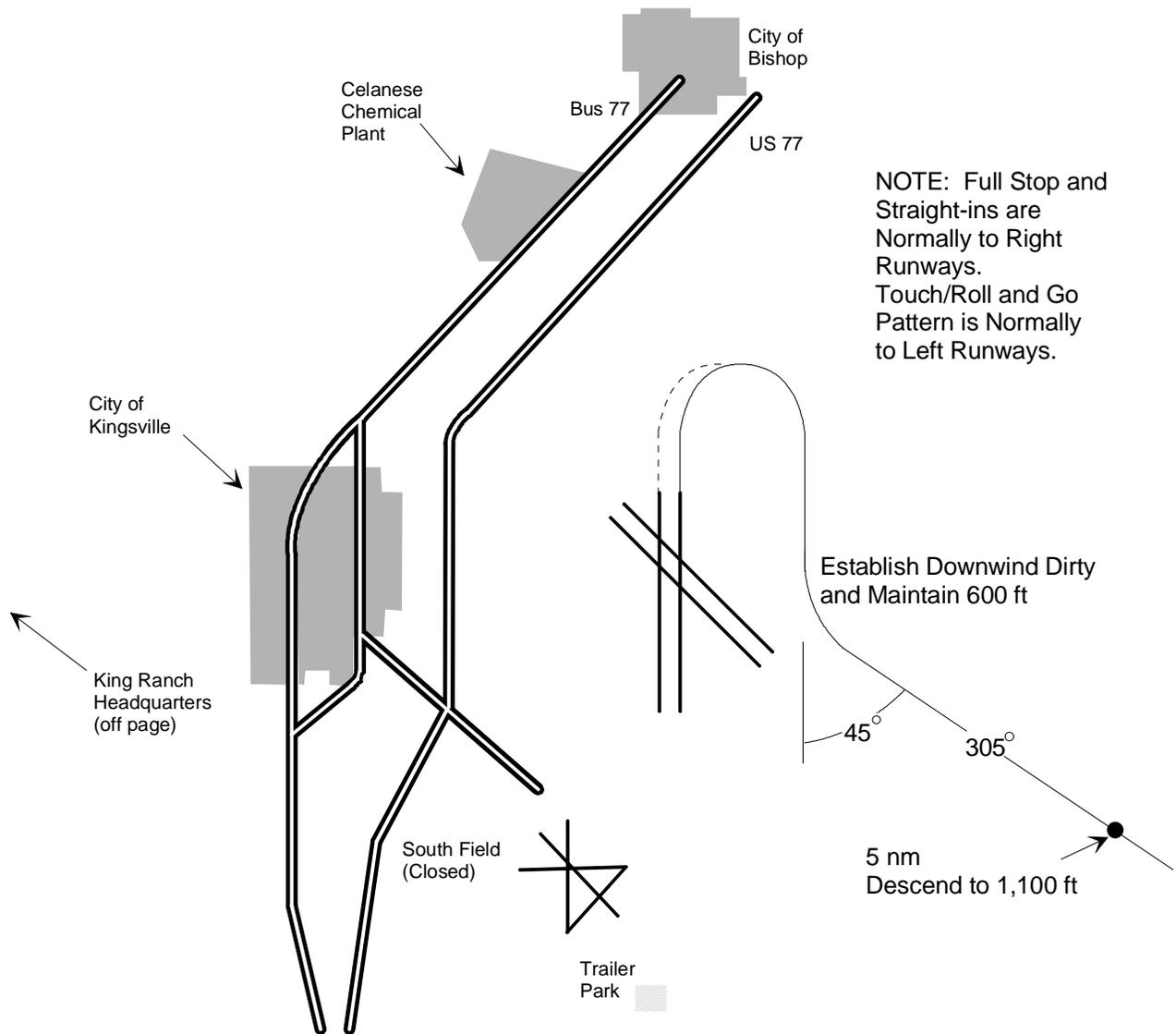


Figure 37: STANDARD DOWNWIND ENTRY (RWY 17)

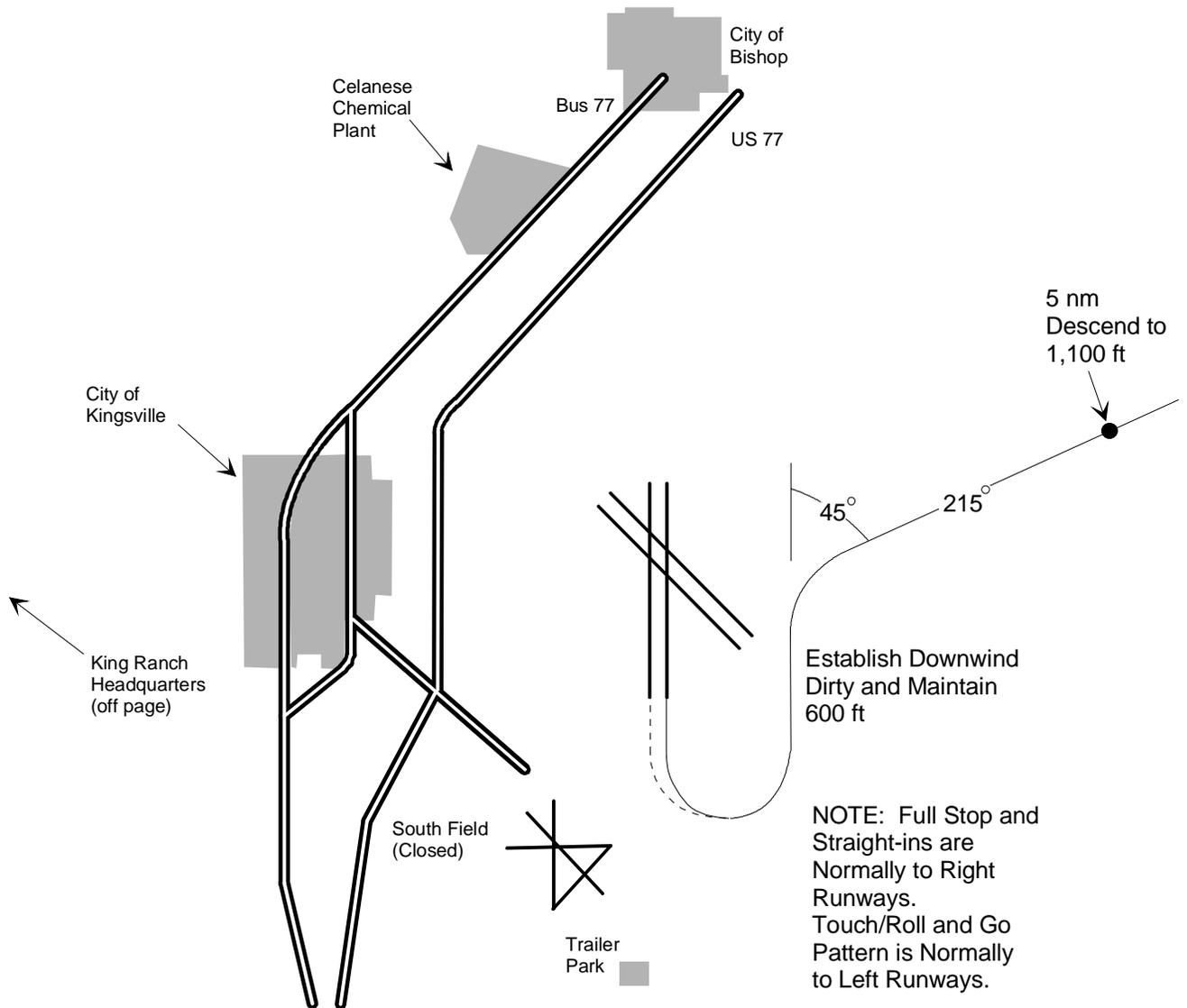


Figure 38: STANDARD DOWNWIND ENTRY (RWY 35)

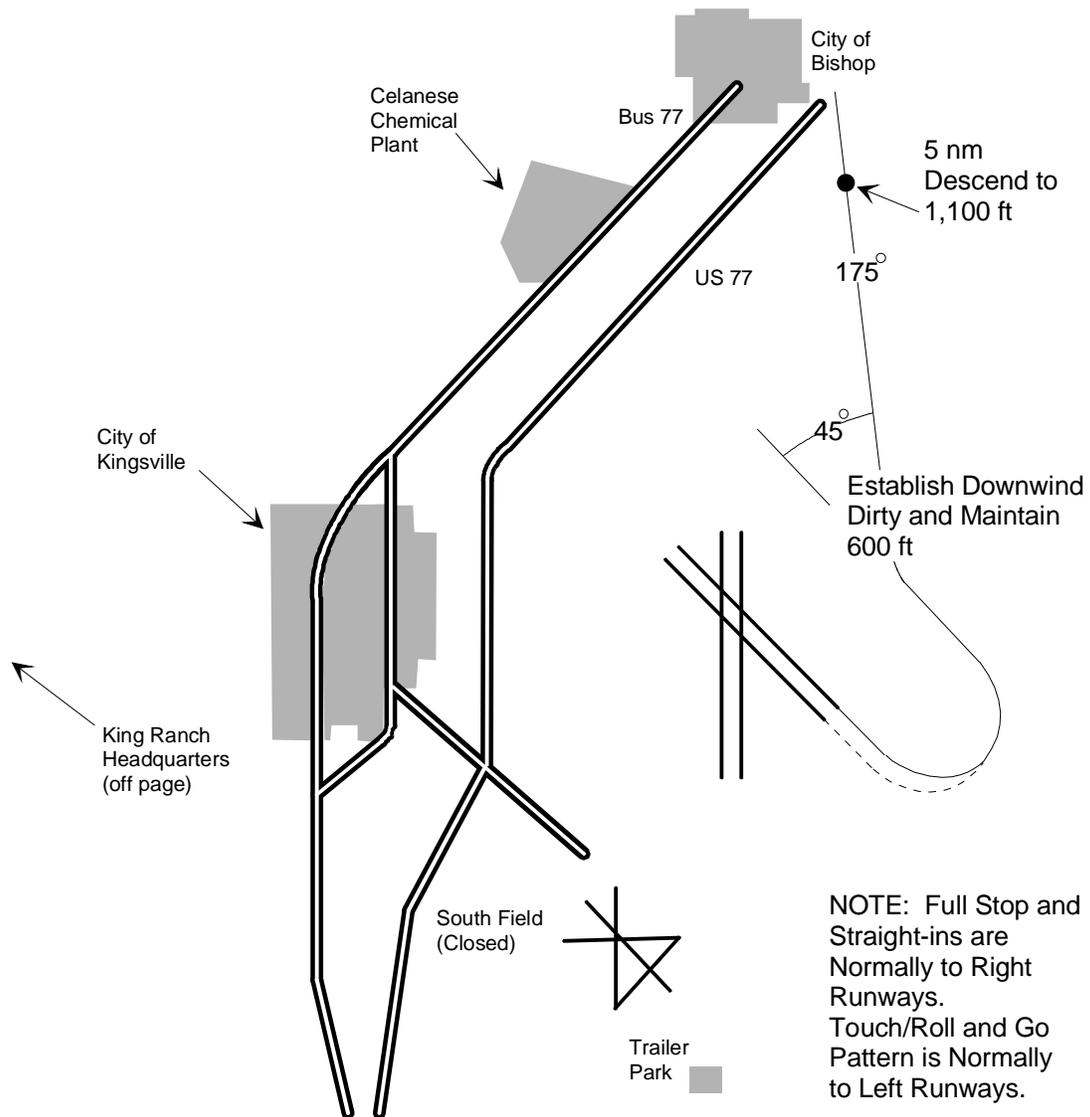


Figure 39: STANDARD DOWNWIND ENTRY (RWY 31)

- e. Establish downwind at 600 ft AGL
- f. When abeam, report "abeam" with intentions

B. IFR Field Entry

NOTE: NAS Kingsville presently has four types of instrument approaches available. They are TACAN, ASR, ILS, and PAR. You will become very familiar with all NQI approaches in the basic and radio instrument phases of flight training. Published instrument and radar approaches are all acceptable field entry procedures when appropriate. Training phase, field conditions, and instructor preference will govern the use of instrument approaches as a field entry procedure for a given flight. The most common entry procedure for a GCA or ASR approach from the MOAs is the TOPS GCA. The TOPS VFR is commonly used for a VFR recovery on an IFR flight plan.

Sg 7, fr 2
Lesson Organization

VII. Patterns 1.1.2.2, 1.1.2.2.6

LESSON NOTES

This section deals with aircraft that have already completed initial entry to the field and wish to remain and do touch and go's. Additionally, this section will discuss field delay procedures when equipment failure or emergency procedures are in progress.

Sg 7, fr 3
Fig 40: Standard No
Wind VFR Landing
Pattern

- A. Standard no wind VFR pattern (touch-and-go)
 - 1. Downwind altitude: 600 ft AGL (650 ft MSL)
 - 2. Distance abeam: Approximately 1 nm
 - 3. Minimum altitude to turn downwind
 - a. Day: 300 ft AGL

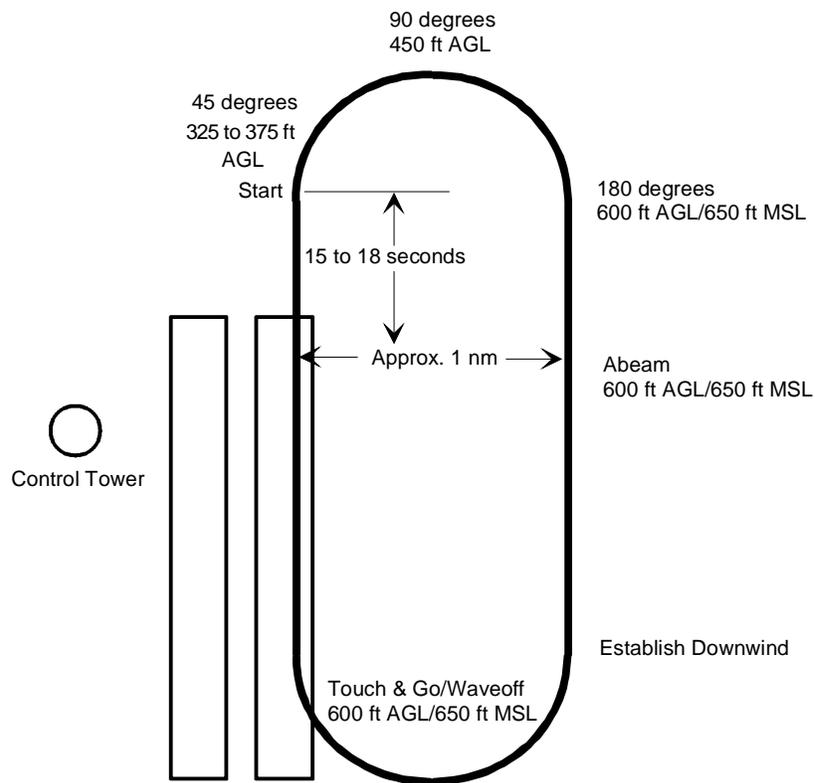


Figure 40: STANDARD NO WIND VFR LANDING PATTERN

- b. Night: 500 ft AGL
- B. Delta pattern: in the event of a temporary runway closure or an aircraft emergency, the tower may instruct aircraft in pattern to Delta
 - 1. Less than a five-minute delay is anticipated
 - a. Tower will direct the pattern to **Delta Easy**
 - (1) All pattern aircraft will remain dirty
 - (2) Maintain pattern altitude 600 ft AGL (650 ft MSL), unless otherwise directed by tower
 - (3) Maintain pattern airspeed and interval
 - b. Fly normal pattern route until directed by tower to reenter the normal traffic pattern
 - 2. More than five-minute delay is anticipated
 - a. Tower will direct the pattern to **Delta Clean**
 - (1) All pattern aircraft will clean up
 - (2) Climb to 2,000 ft MSL (or 500 feet below overcast) or as directed
 - (3) Maintain 200 KIAS
 - (4) Maintain interval
 - (5) Fly a racetrack pattern
 - (6) Remain within 3 nm from field
 - b. When directed by tower
 - (1) Reenter the normal traffic pattern
 - (2) Maintain interval

Sg 7, fr 4
Fig 41: Delta Clean Pattern

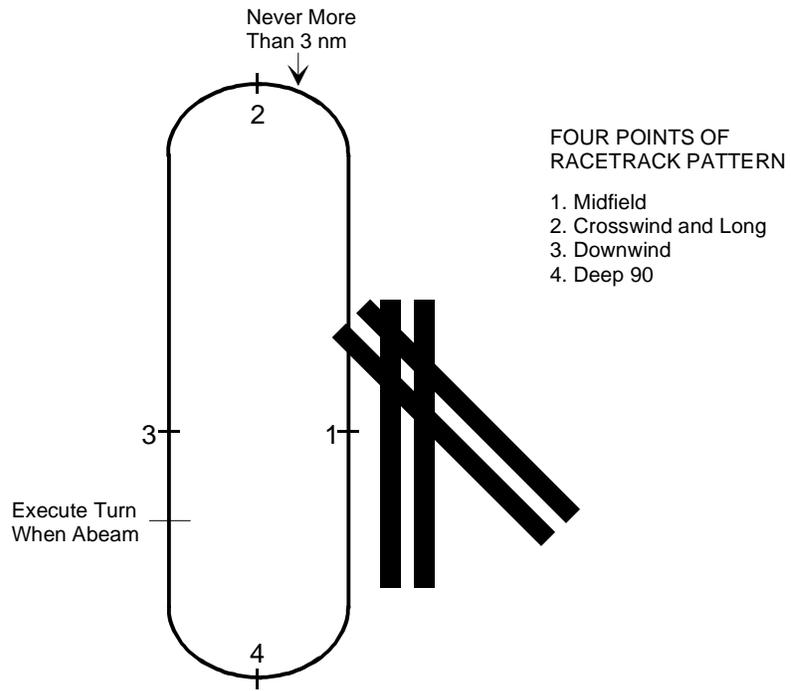


Figure 41: DELTA CLEAN PATTERN

NOTE: The racetrack pattern consists of four points: #1—midfield, #2—crosswind & long, #3—downwind, #4—deep 90

3. No transmissions are required unless directed by the tower

NOTE: For banner recovery, the tower will direct the pattern to Delta Easy at 1,000 ft MSL.

Sg 8, fr 2
Lesson Organization

VIII. General Emergency/Special Procedures **1.1.2.2, 1.1.2.2.8.1**

A. Emergency field entries (actual and practice)

1. GCA

- a. (TOPS GCA recovery—PAR; ASR on request): Normally, 1,800 ft MSL downwind, base, and dogleg to final approach course
- b. Perform landing checks per FTI, or when directed by approach control for sequencing

NOTE: GCA approaches are normally to the inboard runways.

- (1) Emergency fuel/low oil GCA: expect 30 second-to-glideslope gear warning
- (2) Minimum fuel GCA: (MAINTAIN VMC if simulated), expect descent to 1,200 ft MSL on downwind, 800 ft MSL on base leg 3-4 nm final, and a 30 second-to-glideslope gear warning

2. Hung ordnance approach (request and advise: ACTUAL or Practice):

- a. Enter 10 nm straight-in at 1,000 ft MSL or as directed
- b. Lead requests “ACTUAL or PRACTICE” hung ordnance approach on initial contact with approach

- c. Lead ensures flight breakup prior to reporting 3 nm from assigned runway

NOTE: The approach will normally be to the departure runway.

3. No-flap approaches

NOTE: To the maximum extent possible, conduct no-flap landings from a straight-in or instrument approach.

- a. In the VFR pattern, request a left downwind from runways 13/17 or a right downwind from runways 31/35 to remain east of field and preclude overflight of HWY 77 by-pass
- b. If flown to the west, keep no-flap patterns east of HWY 77 by-pass

4. Precautionary approaches

NOTE: Practice precautionary approaches (PPAs) will normally be conducted at NALF Orange Grove; however, traffic permitting, they may be conducted at NAS Kingsville. All PPA approaches shall be conducted in VFR conditions during daylight hours only. Additionally, all "practice" precautionary approaches will normally be made to the duty runways. Request the type of precautionary approach on initial contact with approach control. Fly the precautionary approach in accordance with NATOPS.

- a. Precautionary approach
 - (1) Request type of PA from approach control on initial contact
 - (a) Straight-in
 - (b) Overhead
 - (c) Abeam

- (2) Tower will assign runway no later than 3 nm straight-in
 - (3) Tower may direct normal pattern for practice approaches
 - (4) Fly precautionary approach requested in accordance with NATOPS
4. Emergency landing pattern
 - a. Practice precautionary approach
 - (1) Request "high key" from tower

NOTE: The tower will assign traffic direction and runway.
 - (2) Report "low key" with the gear
 - (3) Fly procedure in accordance with NATOPS

NOTE: Altitudes may be varied to maintain VMC.
 - B. NORDO (to/from/within MOAs, SOAs, alert areas, and at the field)
 1. Lost communications procedure (FAA/ICAO)
 - a. Squawk 7600 (only)
 - b. Make all transmissions in "the blind"
 - c. If experiencing difficulty other than radio failure, squawk 770"X," indicating difficulty with last digit (use HEFOE code). Kingsville approach will anticipate an arrested landing for aircraft squawking 7700
 2. VFR
 - a. Pilots returning to Kingsville NORDO and VFR shall

- (1) Perform lost communications procedure
- (2) Make overhead pattern and approach to the inboard runway
 - (a) Day - rock aircraft wings
 - (b) Night - flash external lights bright
- (3) Look for a green Aldus lamp signal from tower, for clearance to land

NOTE: Control tower will use appropriate Aldus lamp signal to indicate desired pilot action. Once cleared to land, the NORDO aircraft are expected to land on the inboard runway of the duals at NAS Kingsville.

3. IFR

- a. All ETAs are 45 minutes (0+45) after takeoff regardless of scheduled flight duration
- b. Flight en route to the MOAs will proceed via coded departure assigned

NOTE: If not within the assigned altitude block at completion of coded departure, climb until within the lateral confines of the MOA until established within that block.

- c. 5 minutes prior to NORDO ETA, commence:
 - (1) Squawk "lost communications"
 - (2) Climb or descend to FL190 within the MOA
 - (3) Proceed to the HI TACAN IAF in use
 - (4) Maintain FL190 until ETA, then commence approach

- d. If NORDO IFR is within Kings III, IV, or V MOA, proceed to IAF for the HI-TACAN in use and execute approach
- e. NORDO to, from, or within the alert areas
 - (1) Initiate lost communications procedure
 - (2) On X-RAY 2 departure prior to cancelling or VFR on top
 - (a) Proceed to arrive at Point X-Ray (NQI 220R/25) 0+45 after takeoff at 10,000 ft MSL
 - (b) Maintain VMC
 - (c) Monitor appropriate UHF/VHF frequencies
 - (d) Proceed to the field using a VFR for NORDO recovery
 - (3) IMC
 - (a) Depart Point X-Ray 0+45 after takeoff and proceed via the NQI 20 DME arc
 - (b) Arc north or south to intercept the appropriate HI-TACAN final approach course at 5,000 ft MSL
 - (c) Execute the final portion of the HI-TACAN approach
- f. W-228D NORDO
 - (1) Initiate lost communications procedure
 - (2) VMC
 - (a) Maintain VMC

- (b) Return to NQI VFR for NORDO recovery
- (3) IMC
 - (a) Proceed to NQI 125R/44 DME fix at 13,000 ft MSL
 - (b) Proceed inbound on NQI 125R at 13,000 ft MSL until crossing the 13 DME fix
 - (c) Turn left/right and proceed direct to the NQI 182R/12 DME fix or to the NQI 310R/12 DME fix descending to 3,000 ft MSL
 - (d) Execute the final portion of the HI-TACAN 13R or 35R approach
 - (e) If required, circle to land on the duty
- g. GCA/ASR NORDO procedures--the definition of the lost communications procedures is: "If no transmissions are received for one minute in the pattern or five (PAR)/fifteen (ASR) seconds on final approach, attempt contact on 300.4 (13) and proceed VFR. If unable, proceed with the final portion of the high TACAN runway 13R/35R approach, maintain 3,000 ft until established on the 310/182 radial, ONE TWO (12) mile DME fix." "Circle to runway _____" will be added to the end of the lost communications when the active runway is 13L, 17L/R, 31L/R, or 35L
- 4. NORDO in the pattern
 - a. Initiate lost communications procedure
 - b. Rock wings (in break or first downwind)

- c. First pass, check for Aldus lamp
 - (1) Green light - land
 - (2) No green light
 - (a) Rock wings - and go around
 - (b) Maintain interval
- d. Second pass
 - (1) Green light - land
 - (2) No "red" light - land on inboard runway, if clear

Sg 9, fr 2
Lesson Organization

IX. Typical flight sequence from NAS Kingsville

NOTE: A typical flight sequence from NAS Kingsville to a MOA and return to Kingsville is described below.

- A. Ground operations prior to takeoff **1.1.2.2, 1.1.2.2.3**
 - 1. Place departure on request with dispatch via land line
 - 2. Preflight
 - 3. Start aircraft
 - 4. Monitor ATIS
 - 5. Contact clearance delivery, and copy clearance
 - 6. Check out with base, after final checker
 - 7. Contact ground control for taxi clearance with ATIS information
 - 8. Taxi to hold short for duty runway: taxi interval IAW SOP

- B. Takeoff and departure 1.1.2.2, 1.1.2.2.4**
1. Contact tower for runway access and takeoff clearance
 2. Perform normal takeoff
 3. Comply with departure procedure
 4. Contact departure when safely airborne or when directed
 5. When able, request "terminate" with departure control
- C. Mission activities: IAW brief**
1. Check into the MOA on "common" freq
 2. Check out of the MOA on "common" freq
- D. Return to base 1.1.2.2, 1.1.2.2.5, 1.1.2.2.4.1**
1. Monitor ATIS
 2. Contact Kingsville Approach; request TOPS VFR recovery (maintain VFR)
 3. Proceed to initial IAW TOPS VFR recovery
 4. Prior to initial, report field in sight
 5. When directed by Kingsville Approach, squawk standby and switch to control tower
 6. Report initial to control tower with intentions
 7. Enter overhead approach
 8. Report the numbers
 9. Within first two-thirds of runway or when directed by tower and with interval in sight, break to downwind

10. Report "abeam" with intentions
- E. Ground operations after landing **1.1.2.2, 1.1.2.2.3**
 1. Clear duty runway
 2. Contact ground control and taxi to line
 3. Contact base with aircraft status
 4. Shut down

Sg 10, fr 2
Lesson Organization

- X. NALF Orange Grove, NOG **1.1.2.2, 1.1.2.2.7**

NOTE: NALF Orange Grove is the outlying field used by TRAWING TWO.

Sg 10, fr 3
NAS Kingsville/NALF
Orange Grove &
Surrounding Areas
Fig 1: *NAS Kingsville*
Areas of Operation

Sg 10, fr 7
NALF Orange Grove
Aerial Photograph
Menu

LESSON NOTES

Using the projected graphics and aerial photographs, identify the geographical relationship of NALF Orange Grove to NAS Kingsville, the Kingsville MOAs, and other landmarks. Identify unique features (such as obstacles) and areas with operating restrictions.

- A. Location
 1. Northwest of Kingsville on NQI TACAN 323 radial at 26 DME
 2. 10.5 nm north of Alice
 3. 33 nm west of Corpus Christi International Airport
- B. Hours of operation: IAW flight schedule
- C. Elevation: 257 ft MSL
- D. NAVAIDs: TACAN channel 63X (NOG)

E. Runways: two sets of active runways

1. 13/31: 8,000 X 200 ft
2. 01/19: 8,000 X 200 ft

F. Arresting gear

1. E-28
 - a. Each runway equipped with two sets of bidirectional rotary hydraulic arresting gear
 - b. Arresting gear locations from approach end of runway
 - (1) Runway 13, 1,500 ft
 - (2) Runway 31, 1,500 ft
 - (3) Runway 01, 1,500 ft
 - (4) Runway 19, 1,500 ft

G. Field lighting facilities

1. Airport beacon: green and split-white rotating beacon located near control tower operates at night and during IMC; may be secured for night FCLP operations at request of landing signal officer
2. Runway lighting
 - a. Medium intensity runway lights on both runways
 - b. Lighted distance markers on both sides of both runways at 1,000-ft intervals
 - c. Permanent carrier deck lights on runway 13 operated by control tower

NOTE: Temporary carrier deck lighting will be made available on other runways with 30-minute notice.

Sg 10, fr 14
Fig 42: NALF Orange Grove (NOG) Airport Diagram

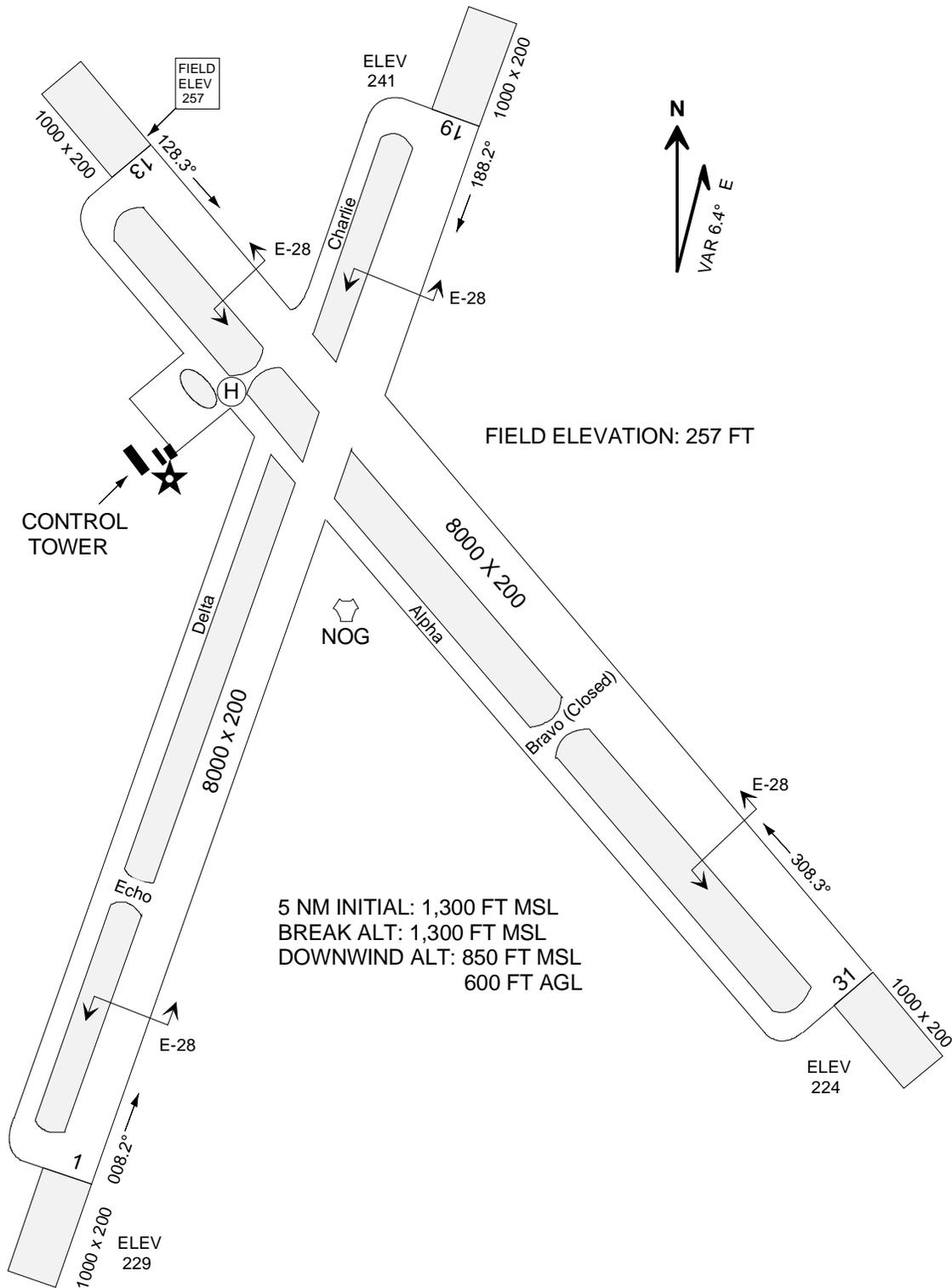


Figure 42: NALF ORANGE GROVE (NOG) AIRPORT DIAGRAM

3. Approach lighting system: none
4. Taxiway lighting: standard blue taxiway lights on both sides of all taxiways
5. Tetrahedron: free-swinging, lighted wind indicator northeast of control tower indicates direction only

NOTE: The tetrahedron is lighted during hours of darkness only when local flying is in progress.
6. OLS: One Fresnel lens on left side of each runway in use, approximately 750 ft from approach end; glideslope normally set at 3-1/4 degrees

H. Communications **1.1.2.2, 1.4.20.1**

1. ATIS: 265.2 UHF (preset channel 21)
2. Ground control: 267.4 UHF/126.2 VHF (preset channel 22)
3. Tower (primary): 344.4 UHF/119.35 VHF (preset channel 23)
4. Paddles (tower secondary): 318.8 UHF (preset channel 24)

I. Arrivals

1. VFR from NAS Kingsville
 - a. Remain east of NQI 325 radial
 - b. Maintain 4,500 ft MSL (weather permitting) or appropriate VFR cruising altitude
2. VFR from MOA
 - a. Contact NQI APP CNTL and request TOPS VFR, TOPS GCA, ILS or TACAN recovery to Orange Grove

Sg 10, fr 15
Fig 43:
Communication
Frequencies for NALF
Orange Grove

<u>AGENCY</u>	<u>FREQUENCY</u>	<u>PRESET CHANNEL</u>
ATIS (NQI)	265.2 UHF	21
GROUND CONTROL	267.4 UHF/126.2 VHF	22
TOWER (PRIMARY)	344.4 UHF/119.35 VHF	23
PADDLES (TOWER SECONDARY)	318.8 UHF	24

Figure 43: COMMUNICATION FREQUENCIES FOR NALF ORANGE GROVE

- b. Proceed to VFR initial via direct or radar vectors for sequencing if directed

NOTE: NOG initial is 5 nm runway centerline and 1,300 ft MSL. Prior to initial, report field in sight to approach control. Approach will direct "squawk standby" and switch you to tower. Report "initial - with intentions" to NOG tower. Avoid Alice Airport 10 nm south!

3. IFR from Kingsville to Orange Grove

- a. Utilize an appropriate radar or instrument approach listed in the DOD High and Low approach plates

NOTE: Minimum vectoring altitude at NOG is 1,800 ft MSL.

- b. PAR available all runways; ILS available to runway 13
- c. Approaches (U.S. Low VOL-6)

- (1) TACAN A
- (2) TACAN 13
- (3) TACAN 31
- (4) ILS/DME 13

NOTE: Special VFR shall not be less than 900/2

- d. NOG not accepting VFR traffic
 - (1) Approach control will issue either TACAN-A, TACAN-RWY 13, or TACAN-RWY 31 approach

NOTE: These TACAN approaches are found in the Low Altitude Approach plates.

Sg 10, fr 16, fr 17
Fig 44: NALF Orange Grove TACAN-A Arrival

Sg 10, fr 18, fr 19
Fig 45: NALF Orange Grove TACAN-RWY 13 Arrival

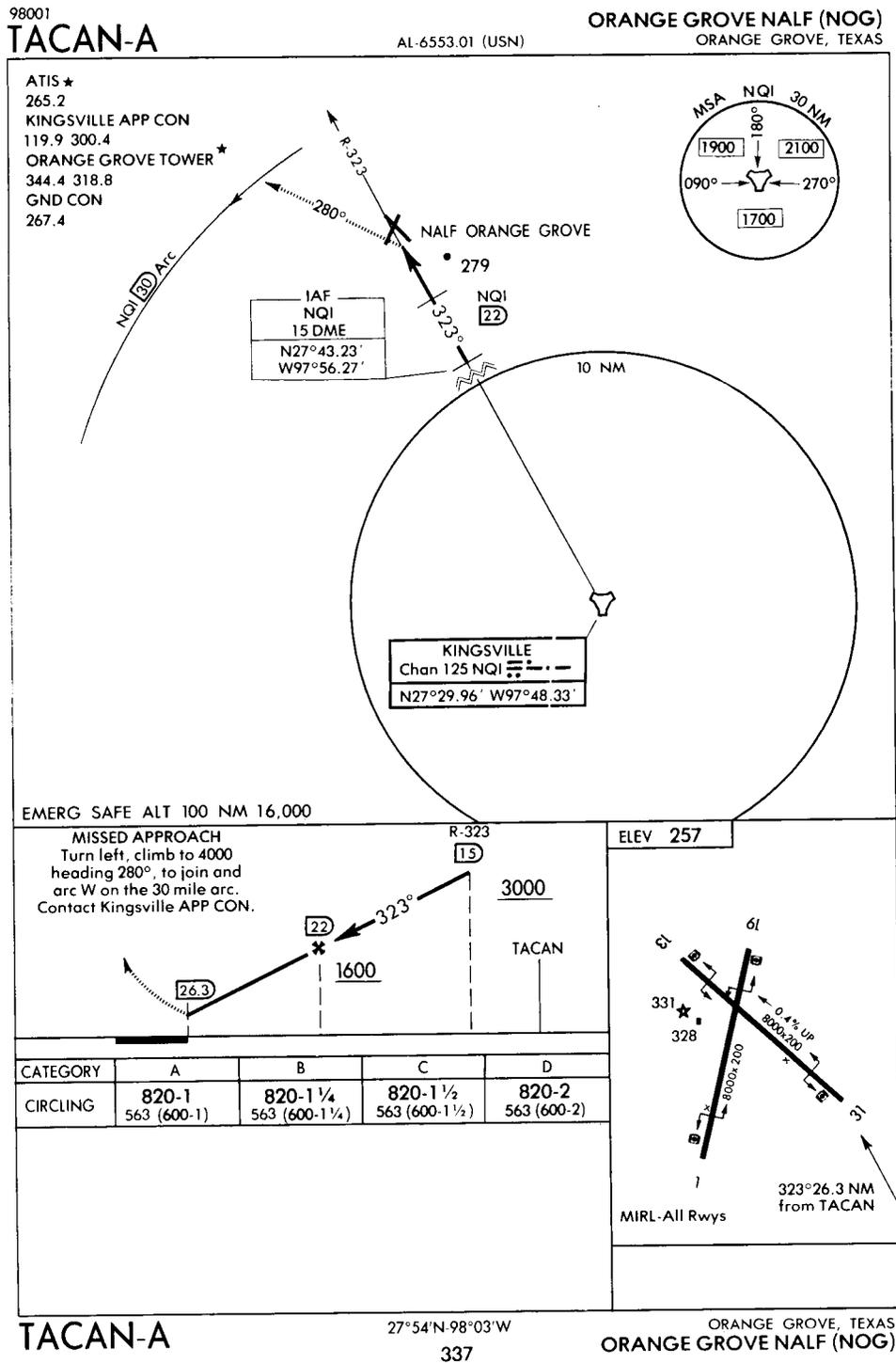


Figure 44: NALF ORANGE GROVE TACAN-A ARRIVAL

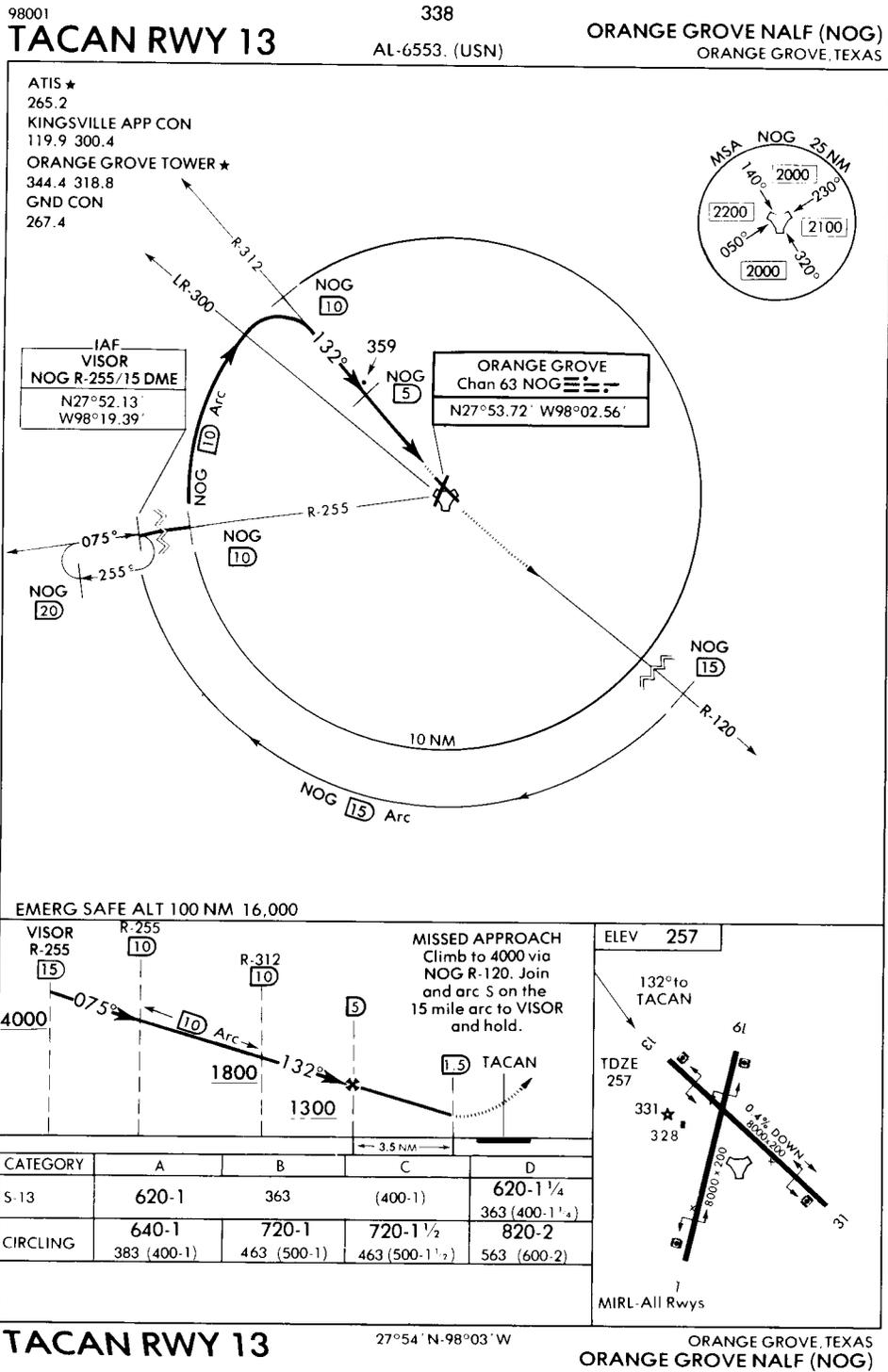


Figure 45: NALF ORANGE GROVE TACAN-RWY 13 ARRIVAL

Sg 10, fr 20,21
Fig 46: NALF Orange
Grove TACAN - RWY
31 Arrival

Sg 10, fr 22
Fig 47: NOG VFR
Overhead Approach

Sg 10, fr 23,24
Fig 48: ILS/DME
Rwy 13

(2) Expect radar vectors from approach control to intercept final portion of assigned TACAN approach

4. IFR from Kingsville MOA

a. Contact NQI approach control and request

(1) TOPS IFR

(2) TOPS GCA

(3) TACAN recovery to Orange Grove

(4) ILS recovery to Orange Grove

J. Patterns

1. Standard pattern

a. Left-hand traffic pattern will be used for all runways VFR

b. Initial 5 nm on runway extended centerline at 1,300 ft MSL (1,050 ft AGL); avoid Alice airport 10 nm south

c. Break altitude 1,300 ft MSL

d. Downwind altitude 600 ft AGL (850 ft MSL)

e. All aircraft shall offset to the **left and break left**

2. Delta patterns: Delta pattern procedures are the same as those used at NAS Kingsville. Refer to paragraph VII.B.

K. Departures

1. VFR

a. Maintain VMC, runway heading, and 750 ft MSL (500 ft AGL) until 3 nm and clear of traffic pattern

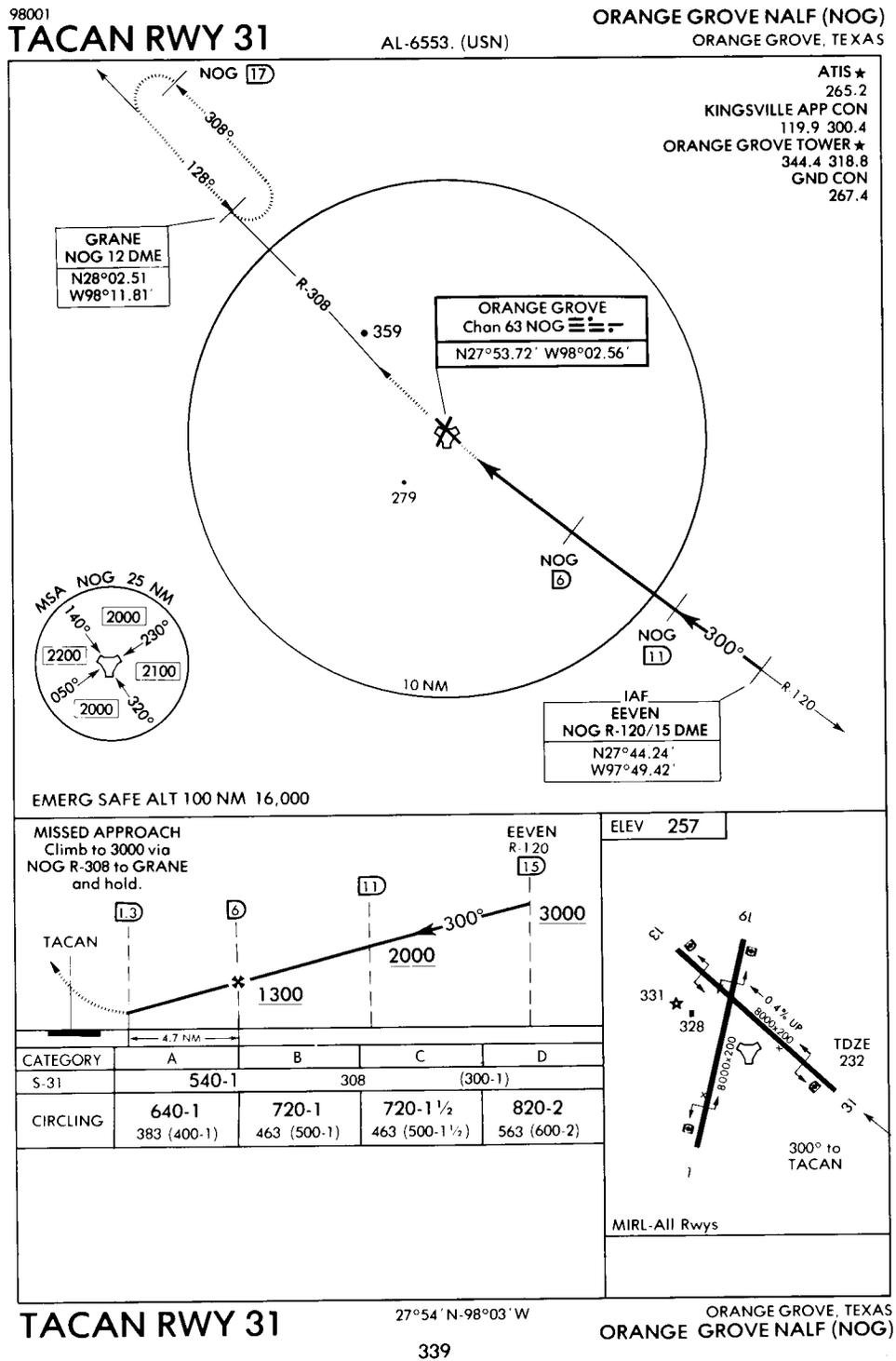


Figure 46: NALF ORANGE GROVE TACAN-RWY 31 ARRIVAL

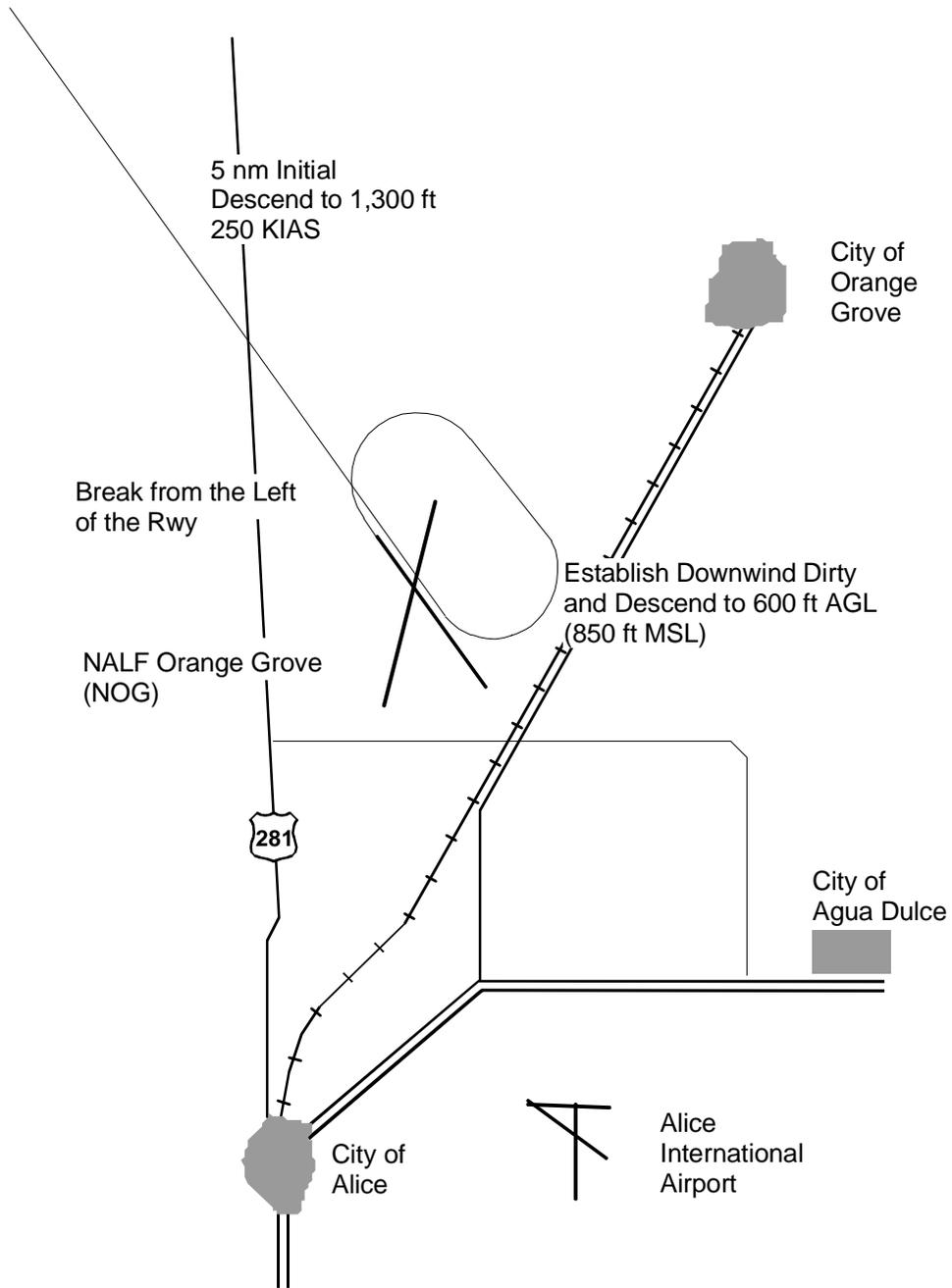


Figure 47: NOG VFR OVERHEAD APPROACH

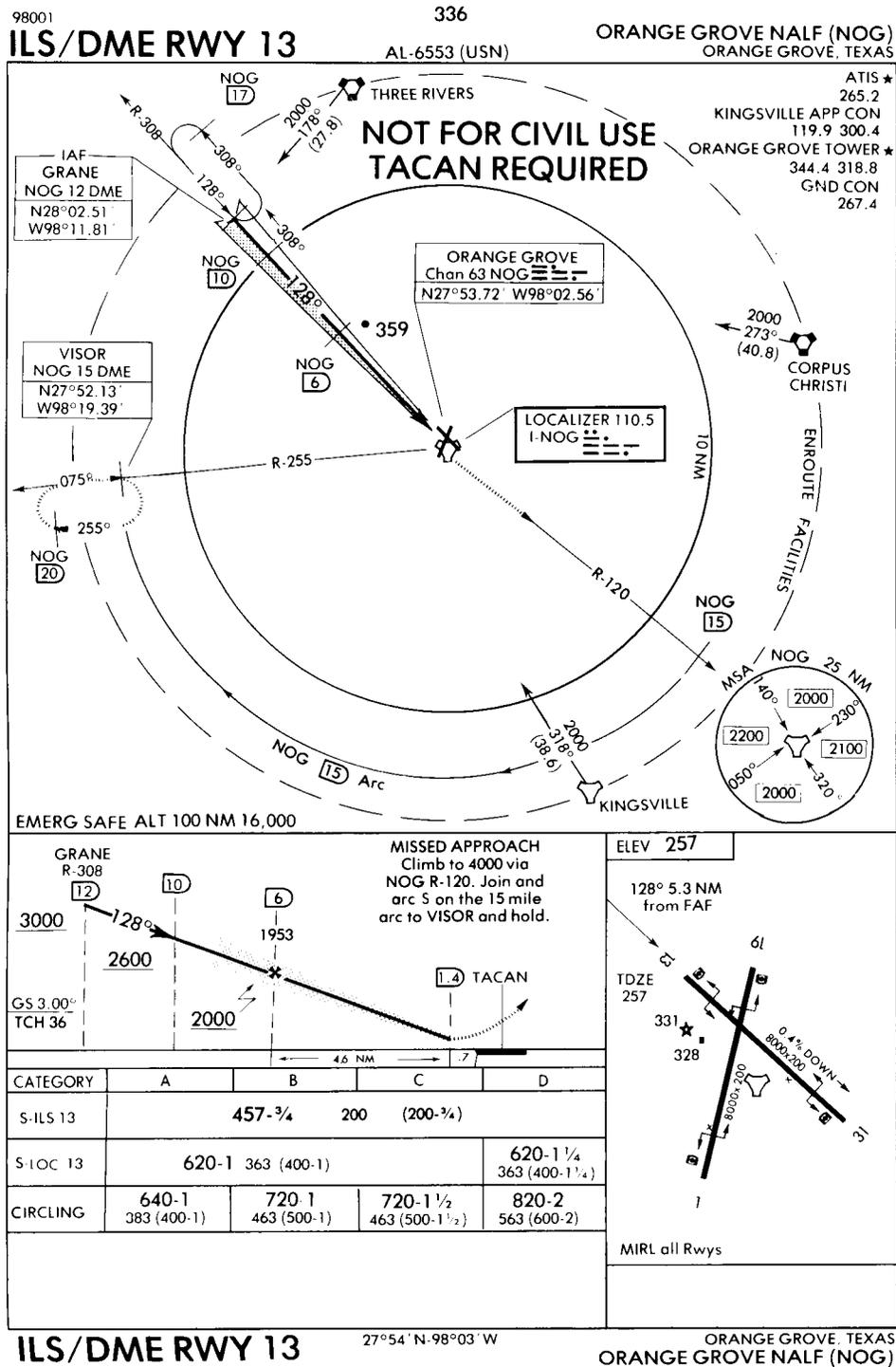


Figure 48: ILS/DME RWY 13

- b. Contact NQI approach passing 2,500 ft MSL or as NOG tower directs
- c. Departing for NQI, remain west of the NQI 325R at 3,500 ft MSL (weather permitting)

NOTE: Expect TOPS VFR (radar advisories) recovery from Kingsville Approach to the VFR initial or downwind entry at NQI.

- d. Departing to MOA
 - (1) Contact NOG ground, request desired departure
 - (2) Fly departure as cleared

2. IFR

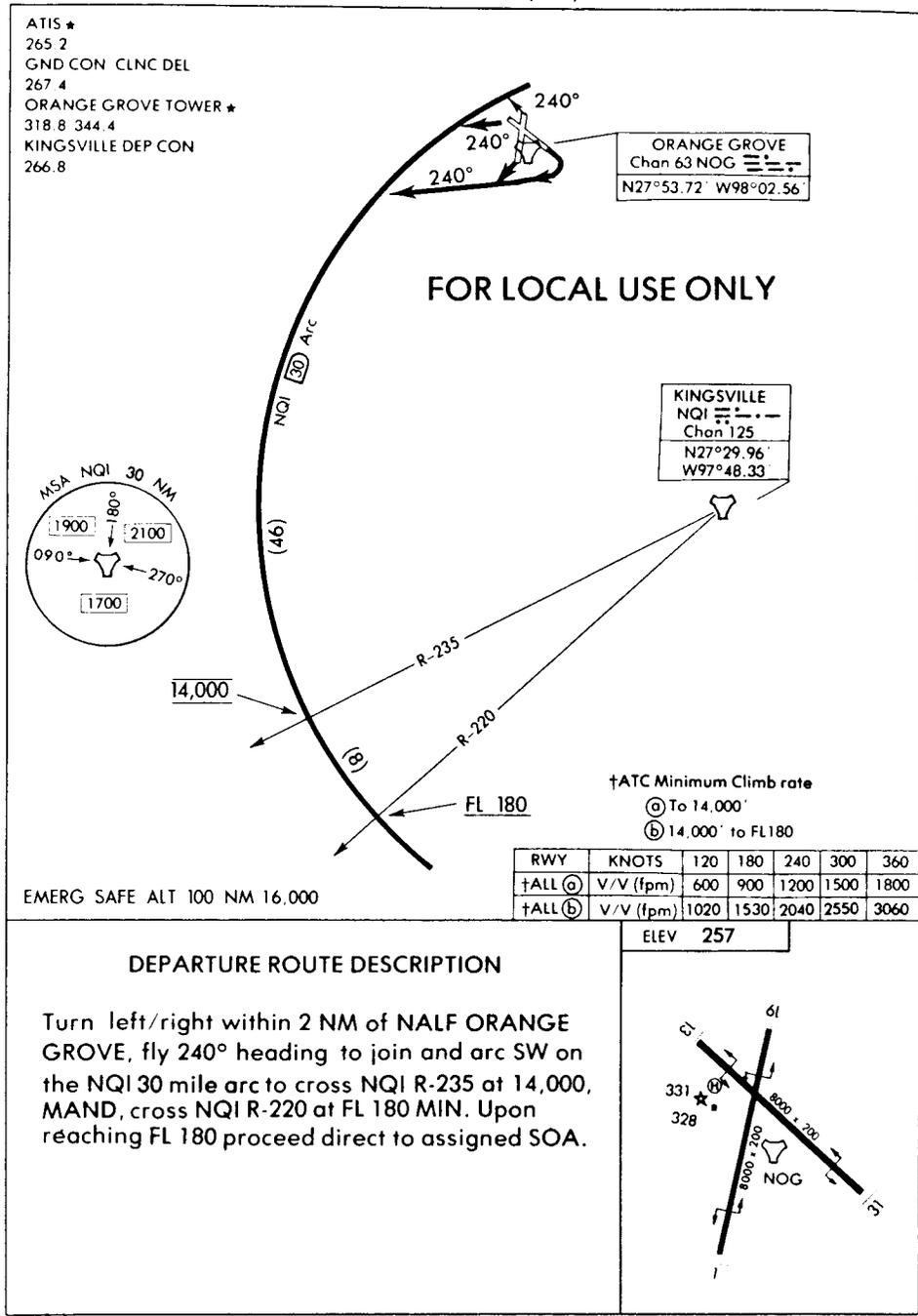
- a. IFR departure to NQI
 - (1) Request BARNN 1R or IFR departure from NOG tower
 - (2) Contact Kingsville Approach for radar vectors
- b. Departing to KINGS I MOA - utilize Wells Three Departure
- c. Departing to KINGS III MOA - utilize Freer 2 Departure
- d. Departing to KINGS IV and V - utilize Grove I Departure

L. Areas of avoidance

- 1. City of Alice
- 2. Alice airport below 2,500 ft AGL and 5 sm

Sg 10, fr 25
Fig 49: Wells Three
Departure

WELLS THREE DEPARTURE LUO 918.11 (USN) ORANGE GROVE NALF
ORANGE GROVE, TEXAS



WELLS THREE DEPARTURE

ORANGE GROVE, TEXAS
ORANGE GROVE NALF

Figure 49: WELLS THREE DEPARTURE

NOTE: Aircraft in the pattern shall attempt to avoid all ranch houses by at least 1,000 ft horizontally and 500 ft AGL vertically.

Sg 11, fr 2
Lesson Organization

Sg 11, fr 3
Fig 50: Divert
Airfields

XI. Divert airfields 1.1.2.2, 1.1.2.2.2, 1.1.2.2.7

NOTE: Heading/distance figures for all divert airfields are from NAS Kingsville.

LESSON NOTES

It is not necessary to discuss each divert airfield in detail, but do discuss at least one airfield to identify the important points. The students may study the remaining airfields on their own. You may also want to make additional points gained from your experience with these airfields.

Emphasize that some divert fields may not have the proper facilities for a particular situation. For instance, Harlingen, Laredo, and Laughlin airports have no arresting gear. In the event of a total hydraulic failure, these fields would be inappropriate. NALF Orange Grove does not have ILS or approach lighting and, therefore, may not be appropriate under low visibility conditions.

Overlay 1

- A. NALF Orange Grove, NOG
 1. Heading/distance: 323 degrees/26 nm
 2. Longest runway: 8,000 ft/200 (all)
 3. NAVAIDs: TACAN, at field
 4. Approaches available:
 - a. TACAN
 - b. ILS/LOC
 5. Elevation: 257 ft MSL

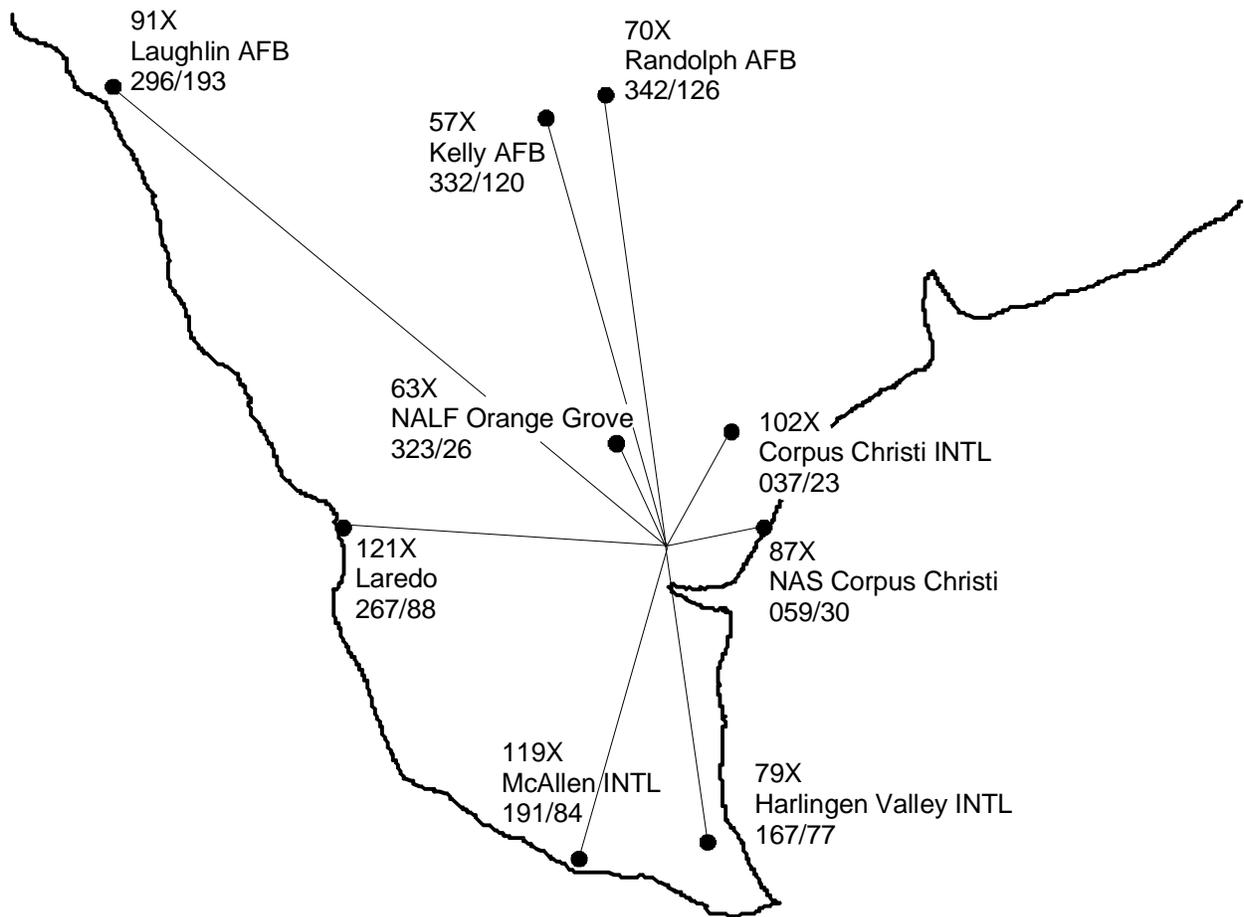


Figure 50: DIVERT AIRFIELDS

Overlay 2

6. Arresting gear: E-28(B)

B. NAS Corpus Christi, NGP

1. Heading/distance: 059 degrees/30 nm

2. Longest runway: 8,000 ft/200 ft (13R/31L)

3. NAVAIDs: VORTAC, at field

4. Approaches available

a. VOR/TACAN

b. ASR/PAR

5. Elevation: 19 ft MSL

6. Arresting gear: E-28(B) available on runways 13R/
31L and 17/35

Overlay 3

C. Laredo International Airport, LRD

1. Heading/distance: 267 degrees/88 nm

2. Longest runway: 8,000 ft/150 ft (17L/35R)

3. NAVAIDs: VORTAC 320 degrees, 4.6 nm to field

4. Approaches available

a. VOR/TACAN

b. ILS/LOC

5. Elevation: 508 ft MSL

6. Arresting gear: none

Overlay 4

D. Harlingen/Valley INTL

1. Heading/distance: 167 degrees/77 nm

2. Longest runway: 8,300 ft/150 ft (35L/17R)

3. NAVAIDS
 - a. VORTAC: 107 degrees, 7.8 nm to field
 4. Approaches available
 - a. VOR/TACAN
 - b. ILS/LOC
 5. Elevation: 36 ft MSL
 6. Arresting gear: none
- E. Kelly AFB, SKF
1. Heading/distance: 332 degrees/120 nm
 2. Longest runway: 11,550 ft/300 ft (15/33)
 3. NAVAIDS
 - a. TACAN: at field
 4. Approaches available
 - a. TACAN
 - b. ILS/LOC
 - c. ASR
 5. Elevation: 690 ft MSL
 6. Arresting gear
 - a. E-5
 - b. BAK-9 (E-27)
 - c. BAK-12

<i>Overlay 5</i>

Overlay 6**F. Randolph AFB, RND**

1. Heading/distance: 342 degrees/126 nm
2. Longest runway: 8,353 ft/200 ft (14R/32L)
3. NAVAIDs
 - a. TACAN: at field
 - b. VOR: at field
4. Approaches available
 - a. VOR/LOC
 - b. ILS
 - c. ASR
5. Elevation: 762 ft MSL
6. Arresting gear: BAK-12, BAK-15

Overlay 7**G. Laughlin AFB, DLF**

1. Heading/distance: 296 degrees/193 nm
2. Longest runway: 8,858 ft/150 ft (13/31 center)
3. NAVAIDs: VORTAC, at field
4. Approaches available
 - a. TACAN
 - b. VOR/LOC
 - c. ILS/ASR
5. Elevation: 1,082 ft MSL
6. Arresting gear: No A gear

H. Corpus Christi International Airport, CRP

1. Heading/distance: 037 degrees/23 nm
2. Longest runway: 7,508 ft/150 ft (13/31)
3. NAVAIDs: VORTAC; 192 degrees, 8.5 nm to field
4. Approaches available
 - a. VOR/TACAN
 - b. ILS/LOC
5. Elevation: 44 ft MSL
6. Arresting gear: none

Overlay 8**I. McAllen/Miller INTL**

1. Heading/distance: 191 degrees/84 nm
2. Longest runway: 7,100 ft/150 ft (13/31)
3. NAVAIDs:
 - a. VORTAC: at field
4. Approaches available
 - a. VOR
 - b. ILS/LOC
5. Elevation: 107 ft MSL
6. Arresting gear: none

Overlay 9

Sg 12, fr 2
Review Menu

SUMMARY

During this lesson, we discussed course rules for both NAS Kingsville and NALF Orange Grove, to include:

- * NAS Kingsville airfield characteristics and operating procedures
- * NAS Kingsville military operating areas (MOAs), alert areas, special operating areas (SOAs) within the MOAs, 228D SOA, and ALGUNS
- * Ground operations, rules, and regulations
- * Departure for cross-country flight, to the MOAs, to Kings IV and V, and to the alert areas
- * Recoveries: VFR and IFR (coded and non-coded)
- * Field entry procedures (VFR, IFR)
- * Patterns
 - Standard VFR
 - Delta
- * General emergency/special procedures
- * Typical flight sequence from/to NAS Kingsville
 - Ground operations prior to takeoff
 - Takeoff and departure
 - Mission activities
 - Return to base
 - Ground operations after landing
- * NALF Orange Grove airfield characteristics and course rules
- * Divert airfield information

CONCLUSION

Safe operation of your aircraft from chock to chock in the heavy air traffic of the Kingsville training area requires strict adherence to course rules and constant vigilance.