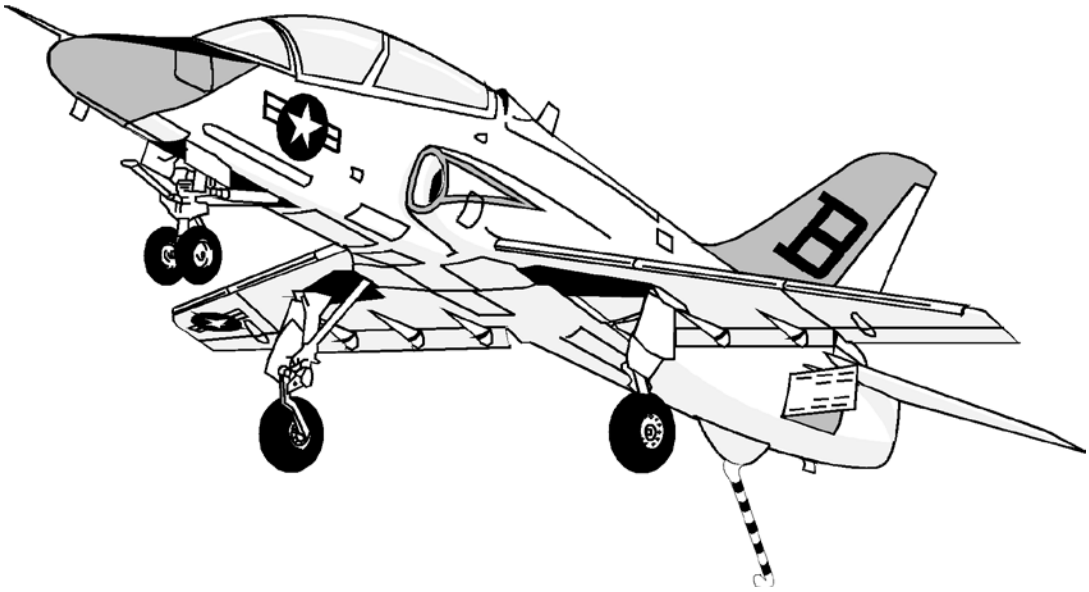
TRAINING AIR WING TWO
IN-FLIGHT GUIDE

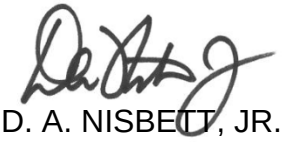


FEB 14 (*Next Revision NOV 15*)

The Training Air Wing TWO In-Flight Guide is promulgated for standardization of instruction and guidance to instructors and students assigned to Training Air Wing TWO.

This publication will be used in support of the CNATRA T-45 training curricula at NAS Kingsville, Texas.

This document will be revised on a bi-annual basis. Recommendations for changes may be submitted to Commander, Training Air Wing TWO, Naval Air Station, Kingsville, Texas 78363-5100, ATTN: Operations Officer (361) 516-6006, DSN 876-6006.



D. A. NISBETT, JR.

Distribution:
CNATRA (10)
TRAWING TWO Book Issue (600) plus originals
NASK OPERATIONS (25)

Interim Change Summary		
Change #	Date	Comments

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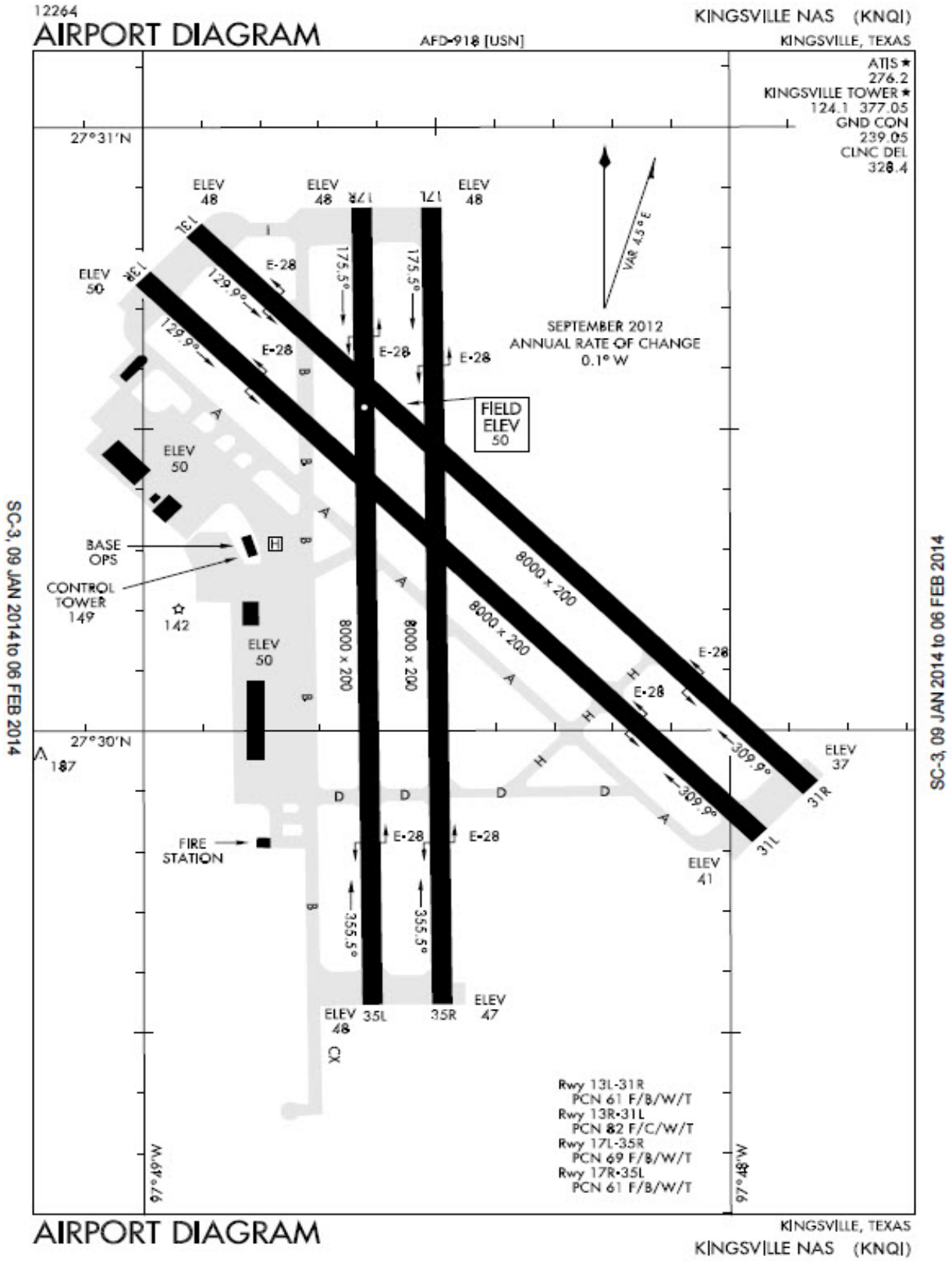
NAS KINGSVILLE

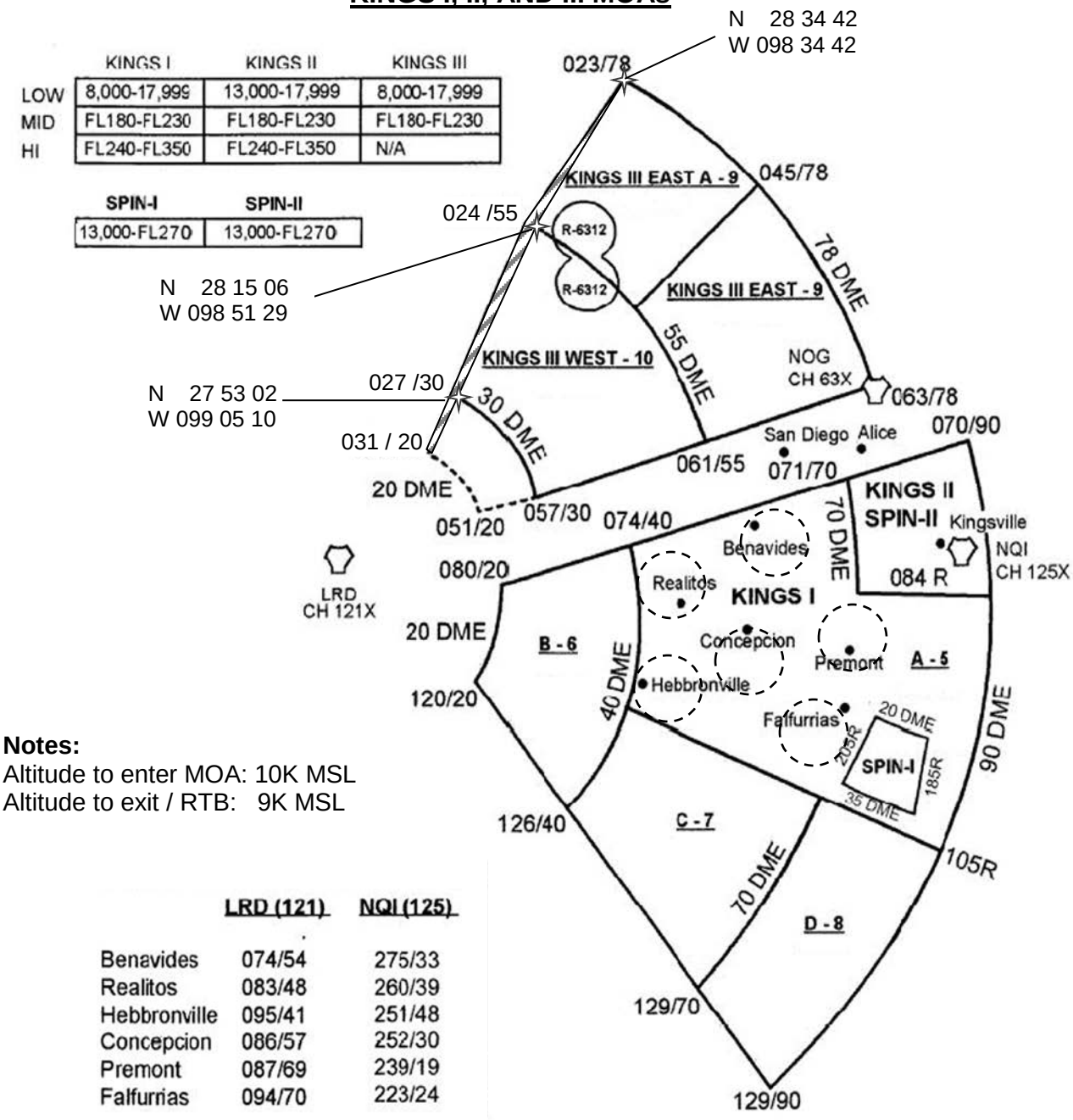


TW-2/NAS KINGSVILLE COMMUNICATION FREQUENCY PLAN

	FACILITY	UHF	VHF
1	STRIKE OPS	302.6	
2	NQI GND	239.05	
3	NQI TOWER	377.05	124.1
4	NQI DEPARTURE	266.8	121.05
5	KINGS IA	237.85	
6	KINGS IB	314.05	
7	KINGS IC	357.45	
8	KINGS ID	302.275	
9	KINGS III EAST	281.05	
10	KINGS III WEST/ALT GCA		128.45
11	SPIN/GCA	269.35	
12	ARRIVAL	322.425	
13	KINGSVILLE APPROACH	290.45	119.9
14	GCA	254.4	
15	GCA	349.0	
16	GCA	305.2	118.35
17	GCA	310.8	128.45
18	GCA	355.6	
19	GCA	263.075	
20	KINGSVILLE LSO	315.85	
21	NOG ATIS	254.35	
22	NOG GROUND	229.4	
23	NOG TOWER	281.425	119.35
24	NOG LSO	318.85	
25	VFR ALERT AREA	308.2	
26	DIXIE TARGET	322.875	
27	SEAGULL	317.55	134.1
28	W-228 NORTH	309.8	
29	CLEARANCE	328.4	
30	KINGSVILLE ATIS	276.2	

Dispatch	**274.8**	**MFE TWR**	**118.5**	**VT-21**	**VT-22**
FSS	**255.4**	**HRL TWR**	**119.3**	**277.8**	**252.25**
HOU Cntr HI	**323.2/319.8**	**BRO TWR**	**118.9**	**282.0**	**313.525**
HC (KING HI)	**273.6/133.75**	**CRP ATIS**	**126.8**	**286.0**	**326.6**
HC (To KIV&V)	**350.3**	**CRP APP**	**120.9**	**291.15**	**328.1**
W228 South	**225.6**	**CRP TWR**	**119.4**	**303.55**	**336.725**
King IV	**266.575**	**Signature CRP**	**130.875**	**353.425**	
King V	**271.35**	**HOU CNTR**	**307.2**		
NGP ATIS	**290.9**	**LRD ATIS**	**125.775**		
NQI METRO	**225.6**	**LRD TWR**	**120.1**		
Yankee TRGT	**299.15**				

KINGS I, II, AND III MOAs



Notes:
Altitude to enter MOA: 10K MSL
Altitude to exit / RTB: 9K MSL

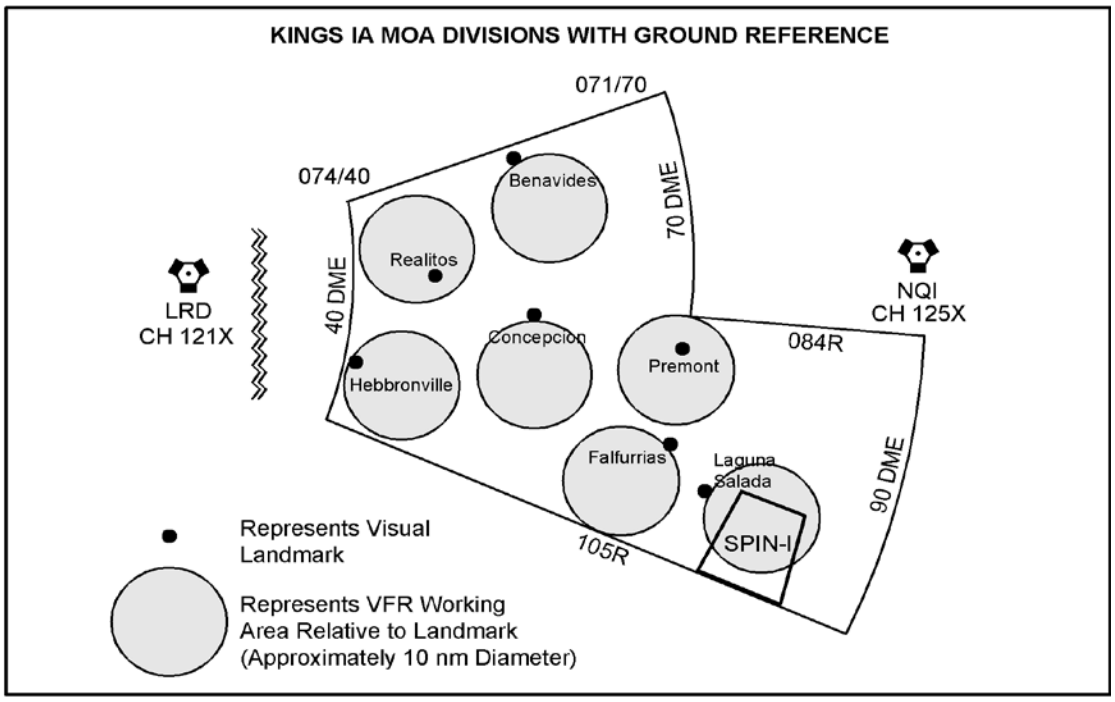
	LRD (121)	NQI (125)
Benavides	074/54	275/33
Realitos	083/48	260/39
Hebbronville	095/41	251/48
Concepcion	086/57	252/30
Premont	087/69	239/19
Falfurrias	094/70	223/24

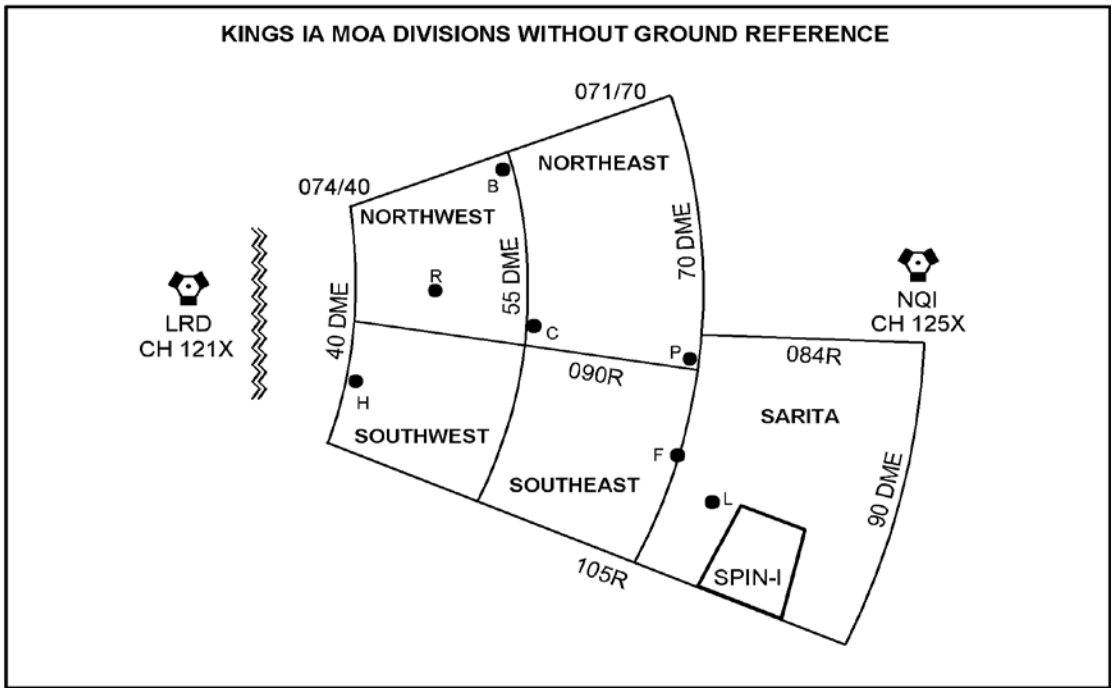
Kings III Boundary Restrictions:

- Aircraft will remain outside of 30 DME of LRD VORTAC unless clearance is received from ATC to operate as close as 20 DME.
- IAW agreement with Houston Center, in order to ensure adequate IFR separation from aircraft on the LEMIG1 arrival, TW-2 aircraft in the **KINGS III** shall remain south and east of the line formed by the following points:

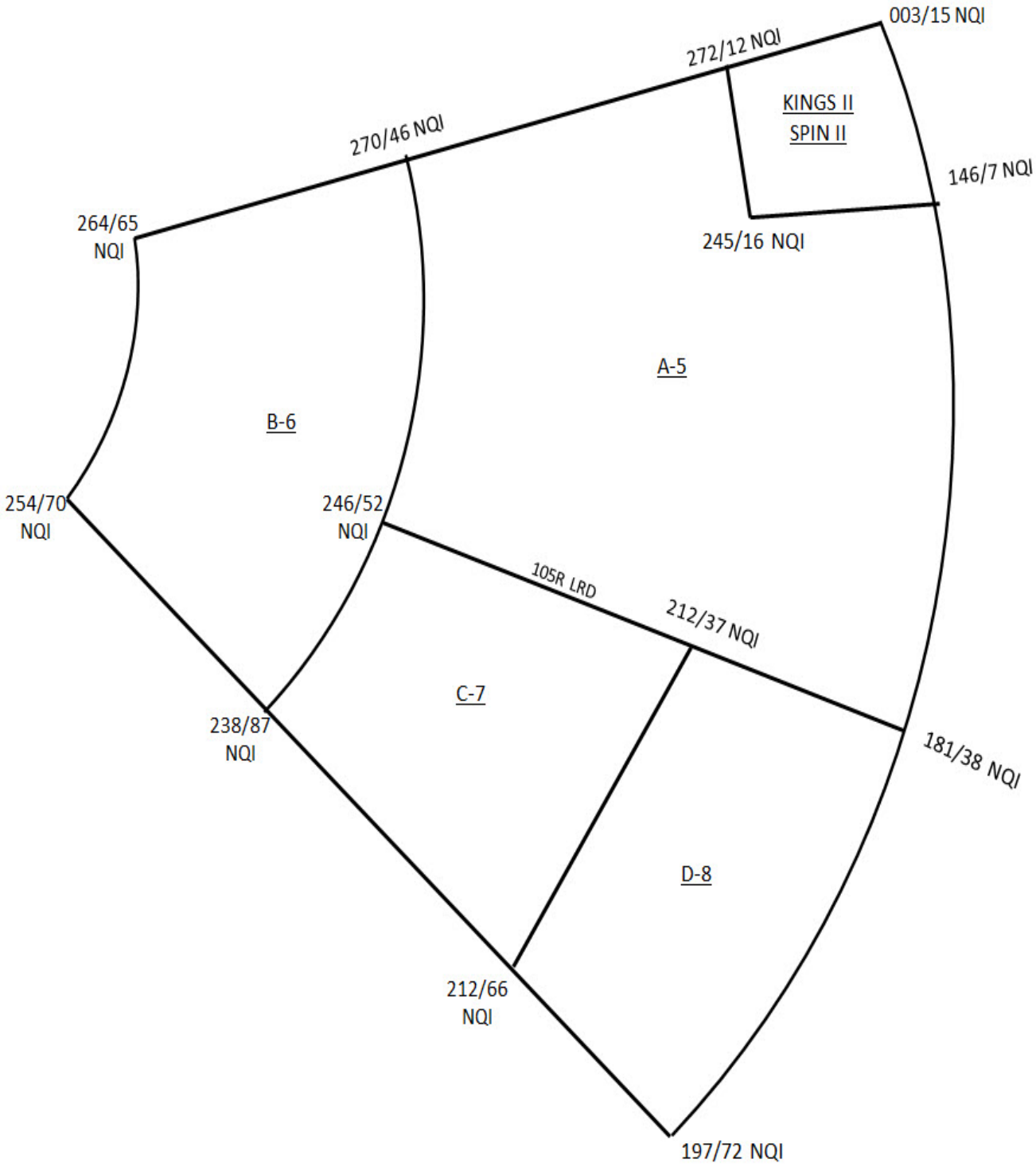
N 27 53 02	W 099 05 10	(LRD 027 / 30)
N 28 15 06	W 098 51 29	(LRD 024 / 55)
N 28 34 42	W 098 34 42	(LRD 023 / 78)

KINGS IA MOA DIVISIONS

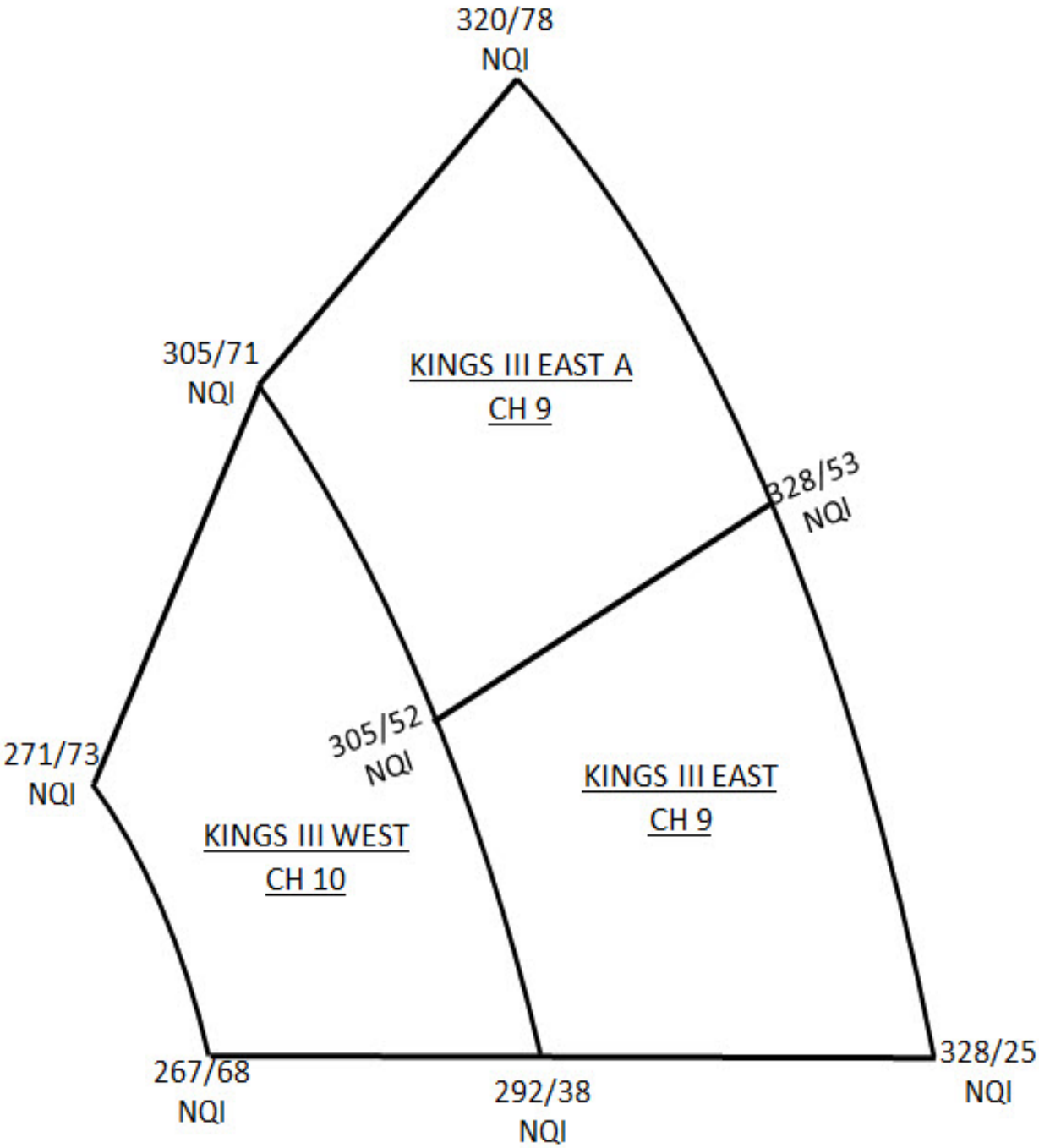




KINGS I ALTERNATE MOA DIVISIONS
FOR USE WHEN LRD VORTAC OUT OF SERVICE
(ALL POINTS ARE OFF NQI TACAN)



KINGS III ALTERNATE MOA
FOR USE WHEN LRD VORTAC OUT OF SERVICE
(ALL POINTS ARE OFF NQI TACAN)



KINGS IV AND V MOAs

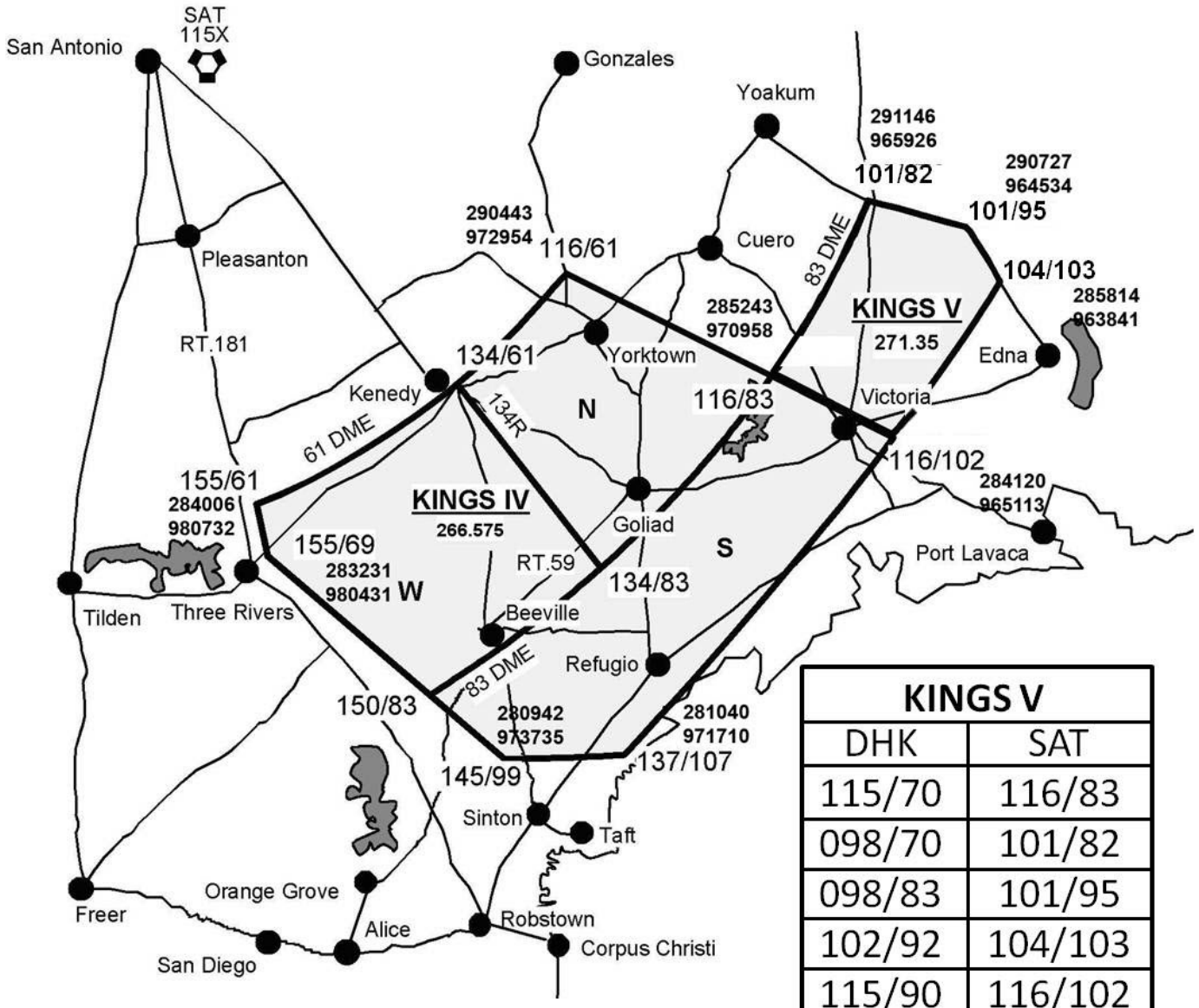
CODED ROUTE: BANKS 2: NQI 150 NQI NQI134020 SINTO NQI015050 K3MOA/D0+30 NQI

KINGS IV FREQ: 266.575
HOUSTON CTR: 128.15
AREA FREQ: 269.3 or as assigned

ALTITUDES: LOW: 9,000'-17,999'
MID: FL180-FL230 HI: N/A
SCHEDULING: TW-2 STRIKE OPS

SEQUENCE: N/W/S: 25, 30, 29, 28, 27, 26, 25, 24, 23, 30, 23, 22, 29

**SEE PAGE 8 FOR ALL APPLICABLE KINGS IV/V NOTES



KINGS V	
DHK	SAT
115/70	116/83
098/70	101/82
098/83	101/95
102/92	104/103
115/90	116/102

KINGS IV ALTERNATE MOA
FOR USE WHEN SAT VORTAC OUT OF SERVICE

CODED ROUTE: BANKS 2: NQI 150 NQI NQI134020 SINTO NQI015050 NQMOA/D0+30 WAADE NQI
KINGS IV FREQ: 266.575
HOUSTON CTR: 128.15
AREA FREQ: 269.3 or as assigned
Notes:

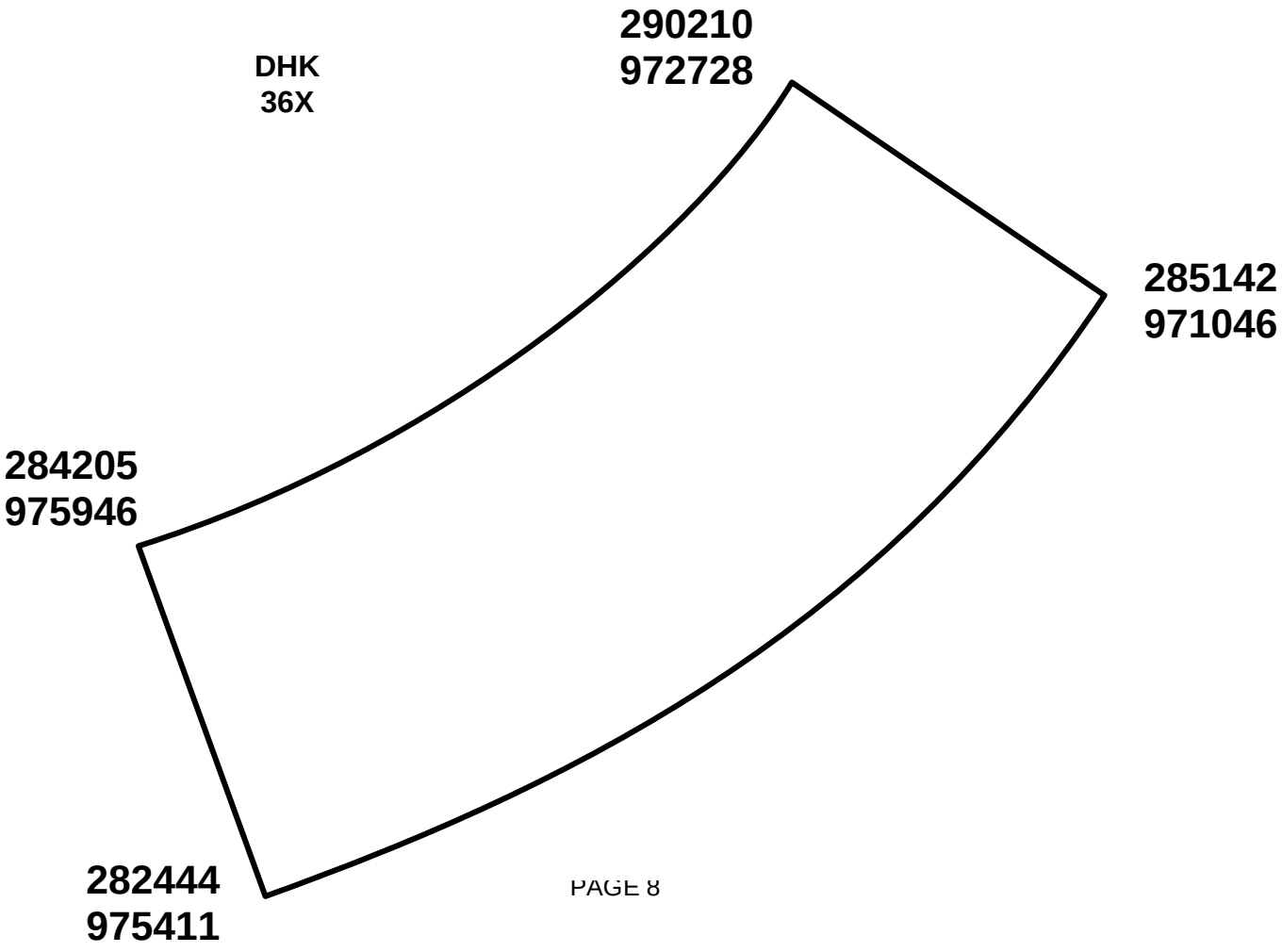
ALTITUDES: LOW: 9,000'-17,999'
MID: FL180-FL230 HI: N/A
SCHEDULING: TW-2 STRIKE OPS

1. Pilots will check in with Houston Center on assigned frequency (expect 128.15) and request the "KINGS IV MOA 9,000 ft to FL230" or "Low and Mid Blocks". Do not request the "S" or "W". If Houston assigns anything other than the entire KINGS IV, request a reason and report it to Strike Operations/WDO on RTB.

2. If more than one flight is assigned the KINGS IV, you must establish MARSA prior to entry and report this to Houston Center.

3. You may request a discrete frequency or monitor Houston Center frequency on COMM1 while using tactical frequency in COMM2 for flight communications.

4. Do not exit the MOA without checking out with Houston Center. Aircraft exiting the KINGS IV and V contact Houston Center on 350.3 (or as assigned) before leaving those MOAs. Aircrew will request the appropriate recovery (VFR, Radar Vectors, TACAN Approach, etc.) from Houston Center.



W-228D PROCEDURES

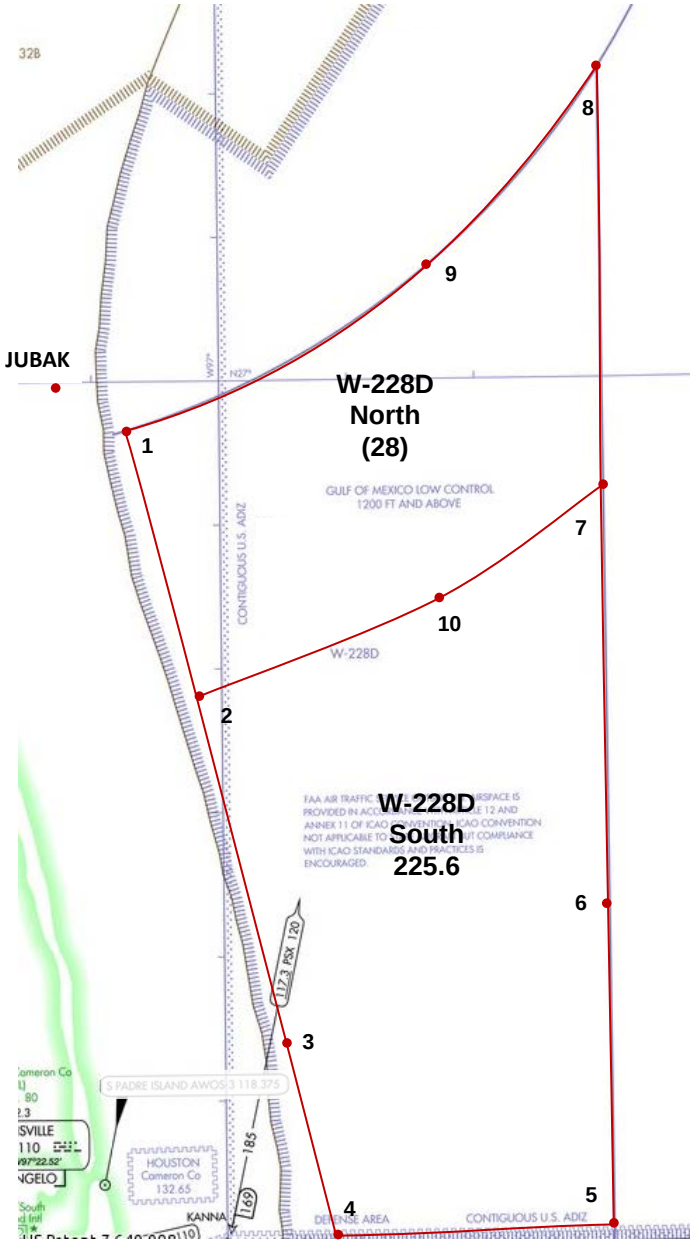
CODED ROUTE: GUN-4: NQI 130 NQI NQI-SID JUBAK W228D/D0+30 NQI
SEAGULL FREQ: BTN 27 (317.55)
CRP APPROACH 348.725
AREA FREQ: North BTN 28 (309.8) South 225.6
ALTITUDES: SFC TO FL450
(NORMALLY SCHED 8K TO FL 230)
SCHEDULING: TW-2 STRIKE OPS

Note: All flights will be cleared into and out of the Warning Area by SEAGULL. Once cleared into the Warning Area, flights are MARSA and shall deconflict the airspace on button 28 utilizing the areas as depicted below.

Deconfliction: Traffic proceeding to W-228D North should maintain in the block 11,000' - 15,000' MSL. Traffic proceeding to W-228D South should maintain 9,000' until clear of the North. Exiting aircraft should be at 8,000 ft MSL before exiting the area.

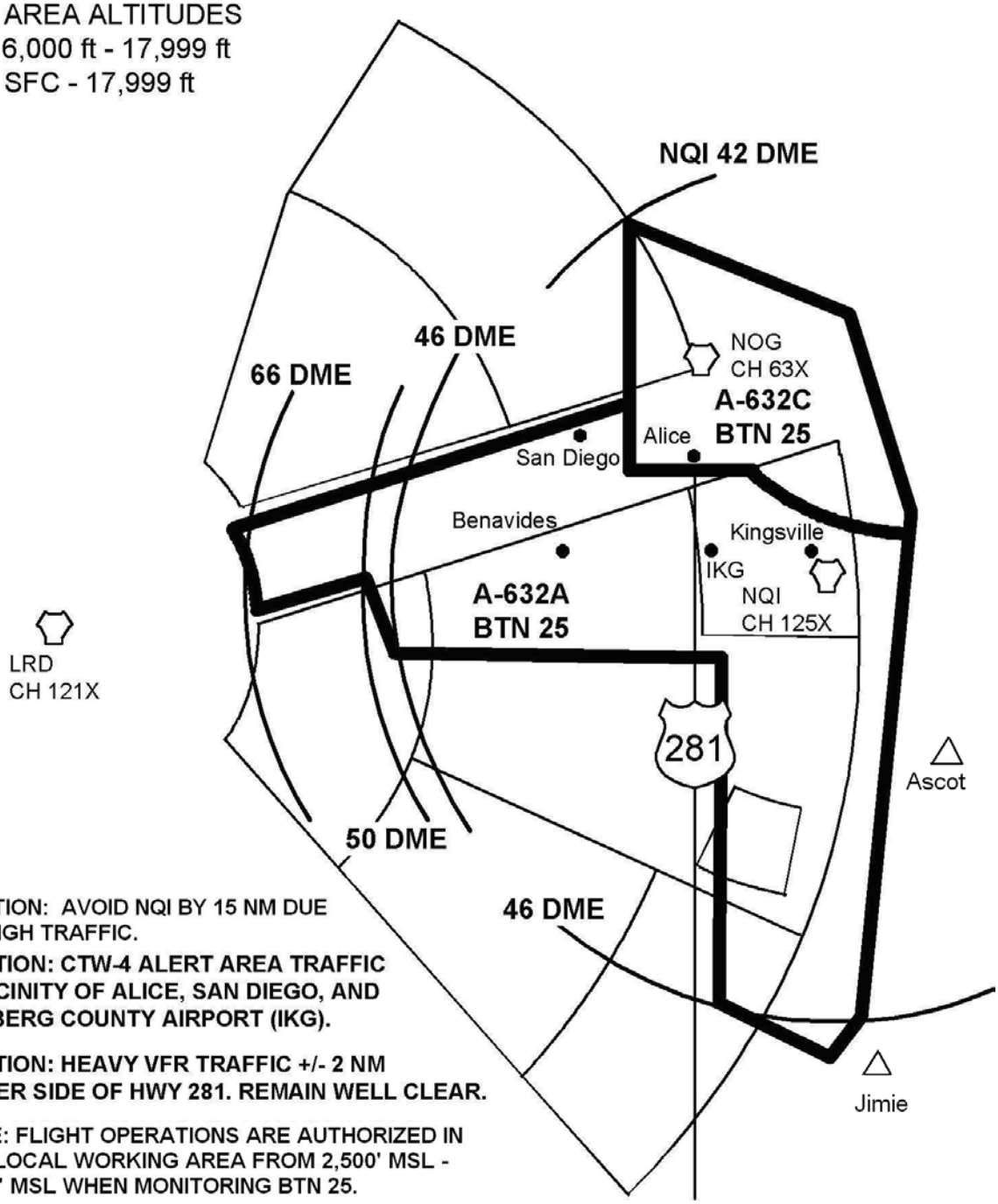
Waypoint sequences for each area on page 49.

JB	Lat/Long	27°02'05" N	97°10' 02" W
	CRP	157°	56nm
	NQI	129°	44nm
1	Lat/Long	26° 56' 10" N	97° 07' 48" W
	CRP	155°	60nm
	NQI	129°	49nm
2	Lat/Long	26° 37' 12" N	97° 01' 26" W
	CRP	155°	80nm
	NQI	137°	63nm
3	Lat/Long	26° 13' 30" N	96° 54' 07" W
	CRP	155°	104nm
	NQI	143°	91nm
4	Lat/Long	26° 00' 00" N	96° 54' 30" W
	CRP	159°	110nm
	NQI	144°	102nm
5	Lat/Long	26° 00' 00" N	96° 30' 01" W
	CRP	150°	118nm
	NQI	135°	113nm
6	Lat/Long	26° 23' 02" N	96° 30' 01" W
	CRP	142°	104nm
	NQI	129°	97nm
7	Lat/Long	26° 52' 26" N	96° 30' 01" W
	CRP	132°	80nm
	NQI	114°	79nm
8	Lat/Long	27° 18' 40" N	96° 30' 01" W
	CRP	074°	59nm
	NQI	092°	70nm
9	Lat/Long	27° 07' 30" N	96° 43' 34" W
	CRP	132°	60nm
	NQI	107°	62nm
10	Lat/Long	26° 44' 31" N	96° 42' 58" W
	CRP	142°	80nm
	NQI	124°	74nm



ALERT AREAS 632A AND 632C

ALERT AREA ALTITUDES
632A 6,000 ft - 17,999 ft
632C SFC - 17,999 ft



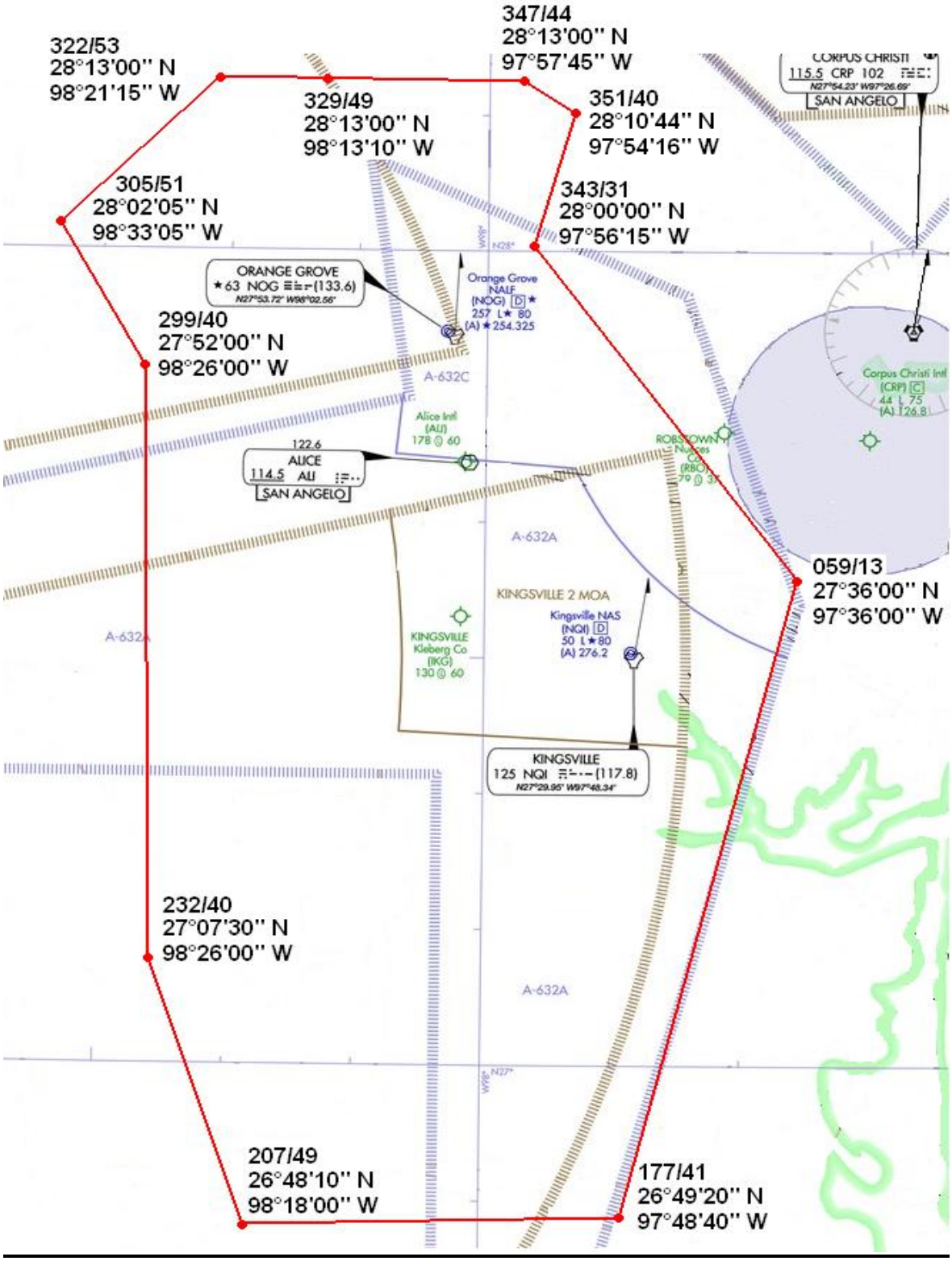
CAUTION: AVOID NQI BY 15 NM DUE TO HIGH TRAFFIC.

CAUTION: CTW-4 ALERT AREA TRAFFIC IN VICINITY OF ALICE, SAN DIEGO, AND KLEBERG COUNTY AIRPORT (IKG).

CAUTION: HEAVY VFR TRAFFIC +/- 2 NM EITHER SIDE OF HWY 281. REMAIN WELL CLEAR.

NOTE: FLIGHT OPERATIONS ARE AUTHORIZED IN THE LOCAL WORKING AREA FROM 2,500' MSL - 7,500' MSL WHEN MONITORING BTN 25.

KINGSVILLE TERMINAL AIRSPACE



NAS KINGSVILLE/CTW-2 BASH PROCEDURES

1. For normal **airfield operations**, the following restrictions apply to respective BASH conditions:

LOW:
- Normal operations, no restrictions.

MODERATE:
- Normal traffic pattern altitudes and airspeeds in effect unless specifically restricted (e.g., left-hand pattern closed, overhead closed, or initial closed).
- The *high* initial should be utilized to the maximum extent possible.
- Both break altitudes (carrier and high break) will be available unless otherwise specifically restricted.
- Break airspeed should be at or below 300 KIAS.
- Both section takeoffs and interval takeoffs are authorized at the discretion of flight lead unless specifically restricted. Flight leads shall state intention for section takeoff with WDO (e.g. PIC – "200 and flight out of chocks, section take-off." WDO – "Negative 200, birds IVO departure corridor. Expedite climb through 2,000'. Have a safe flight."). All climb outs *should* be expedited through 2,000' AGL.
- Section approaches are authorized at the discretion of the flight lead.
- Division flight leads *should* consider recovery by section or straight-in.
- FCLPs: the LSO on station will determine if FCLP operations can continue.
- Single ship solo students will recover via GCA or VFR straight-in.
- Single ship solo students will full stop at the discretion of the WDO or RDO.

SEVERE:
- Takeoffs not authorized.

Recoveries will not normally be authorized. To the maximum extent possible, aircrew should consider diverting or recovering via PA (Low Oil GCA if IMC). For formation flight, it is at the flight lead's discretion to break up the flight and to coordinate an alternate recovery or to divert.

2. **Weapons sorties** shall check BASH condition using the AHAS website for the planned target area and adhere to the following restrictions:

LOW: Normal pattern and SOP restrictions.

MODERATE: Minimum altitude for all operations is 1000' AGL.

SEVERE: No weapons pattern sorties permitted unless BASH condition is downgraded to moderate or low by visual confirmation of flight lead or target personnel.

3. **ONAV stage events** shall check the BASH condition using the AHAS website for each segment of the intended Military Training Route (MTR) and adhere to the following restrictions:

LOW: Normal route and SOP restrictions.

MODERATE: Route segment limited to 1000' AGL or minimum route altitude, whichever is higher.

SEVERE: Route segment limited to 1500' AGL or minimum route altitude, whichever is higher.

4. The WDO is the final authority in setting the BASH condition. Aircrew can upgrade the BASH condition without WDO approval, but only the WDO can downgrade the BASH condition.

AIRSPACE DEFINITIONS

1. The local working area is defined as that airspace underlying the Kingsville MOAs and Alert Area boundaries, from the 2,500' to 7,500' MSL. If outside the lateral boundaries of the Kingsville MOAs, but within the lateral confines of the Alert Areas, the usable altitudes are from 2,500 ft to 17,999' MSL. When operating within the Kingsville MOAs or Alert Areas, ensure that the area common frequency is monitored.

2. The Kingsville Terminal Airspace is defined as "an irregular, coffin shaped area extending roughly 40 miles to the south, 35 miles to the west and 40 miles to the north. It extends upward from the surface up to and including 15,000 feet, excluding Arrival Control airspace and MOA Control airspace."

3. The lowest usable altitude in the K1A MOA is 10,500 ft MSL to avoid entering and exiting course rules traffic.

Note: Kingsville Approach Control shall provide VFR flight following and traffic advisories to VFR aircraft in the local working area, within the boundaries of the Kingsville Terminal Airspace, on the VFR ALERT AREA frequency (Button 25).

DEPARTURE INFORMATION

To remain clear of arrival airspace, VFR jet aircraft shall maintain runway heading until passing 3,000 ft MSL. All departing aircraft shall contact Departure Control on button 4 or assigned frequency.

Geographic reference points:
Point B– 250/30, N272321 W0982003 (Concepcion)
Point C (RICTO) - 225/20 (Falfurrias)
Point D – 210/35, N270237 W0981151 (Laguna Salada)

VFR DEPARTURE PROCEDURES

1. Contact Clearance Delivery (Button 29) and request a VFR squawk to the KINGS 1 MOA or Alert area.

   a. VFR Departure to Alert area. Proceed to the local working area with radar advisories. Notify DEP CNTL when leaving their frequency. Check in and monitor VFR ALERT AREA (Button 25).

   b. VFR Monitors to the MOA. Report "Terminate" to switch. Do not turn prior to reaching 3,000 ft MSL. (The ATC instruction, "Terminate," is defined as: (Call Sign) radar services terminated, maintain VMC, frequency change approved, permitted to enter Kingsville MOA/ATCAA or local working area. Contact NQI Approach or Houston Center for recovery.)

   c. XRAY TWO Route. Proceed IFR via the SID (or as assigned) to the local working area and "cancel" when VFR-on-top. Notify DEP CNTL when leaving their frequency, and check in and monitor VFR ALERT AREA (Button 25).

2. Dual runway departures. Request with tower, traffic permitting, there may be delays for coordination.

3. If extending straight ahead for flight join, notify departure of intentions upon check-in. For traffic or airspace, you may be required to turn prior to flight join.

a. If ceiling is at or below 2000', flight must be joined prior to 7 NM or flight lead shall elect to do a TACAN RNDV.

4. If not on a local 51XX code, the ATCA is not active and the aircraft must remain below 18000 ft MSL.

IFR DEPARTURES TO THE KINGSVILLE MOAs

1. IFR departures shall be in accordance with current standard instrument departures (SID), approved coded routes, or as directed by Kingsville Departure Control. Pilots going to the Kingsville MOAs will file departures with base operations dispatch via phone or radio. All aircraft will receive an ATC clearance from Clearance Delivery.

2. The following options are available for aircraft departing NQI and entering the Kingsville MOAs on a Premont 2 or Cybil 1:

a. If VMC and wish to proceed direct to the MOA, report "Direct point (B,C,D)(or radar vectors), terminate" when above 3,000 ft MSL or beyond 4 DME.

b. If VMC but want to fly the SID, report "Terminate."

c. If IMC and wish to proceed direct to the MOA,

(1) For the Kings 1 MOA: request "Direct point (B,C,D)" (or radar vectors) when above 3,000 ft MSL. If not VFR-ON-TOP by assigned altitude, Kingsville Departure Control will continue IFR handling up to 15000 ft within the lateral limits of the Kingsville MOAs or assigned airspace. On reaching VMC, the pilot should report "Terminate".

(2) For the Kings 3 MOA: continue on coded route to Kings 3 until established inside the MOA. When reaching VMC on top, report "Terminate" as desired. Note: Flights may request working block up to 15,000' enroute to the Kings 3 MOA.

d. If IMC and wish to fly the SID, no request is required. Report "Terminate" once VFR-on-top. If not VFR-on-top by assigned altitude, Kingsville Departure Control will continue IFR handling up to 15000 ft within the lateral limits of the Kingsville MOAs or assigned airspace.

e. If a flight is launching as singles, wingmen must cancel prior to flight join-up (cannot break 1000/3 bubble). Notify departure of intentions to join as a flight enroute to MOA.

3. The ATC instruction, "Terminate," is defined as: (Call Sign) radar services terminated, maintain VMC, frequency change approved, permitted to enter Kingsville MOA/ATCAA. Contact NQI Approach or Houston Center for recovery.

NOTE: Request to terminate shall be done in VMC and is a request to switch discrete frequency. NASK Air Traffic Control shall not allow aircraft to terminate until all conflicts between the requesting aircraft and existing IFR traffic has been resolved. Traffic calls will be issued for existing VFR traffic and previously terminated aircraft prior to terminating. Kingsville aircraft will be MARSA with other military aircraft operating in the MOA.

a. Kingsville Departure Control may allow you to "proceed direct" but require that you "remain this frequency" to offer radar advisories until established in the Kingsville MOA. Pilots may not "terminate" and then fly out of the lateral boundaries of the Kingsville MOAs trying to avoid weather.

4. Aircraft entering and/or transiting the KINGS IA MOA should maintain 10,000 ft MSL (weather permitting) and check in on area common (Button 5). After check-in, the pilot may continue to climb to working altitude if coordinated with aircraft established in the area. Otherwise, transit at 10,000 ft MSL.

5. When the KINGS I MOA is activated by a Premont 2 coded route, the KINGS II MOA will also be activated, and underlying altitudes will normally be available to Kingsville Approach Control. In all cases, when the aircraft is established in the KINGS I MOA, the KINGS II MOA and underlying altitudes will

return to their previous status. Aircraft shall not reenter these areas unless cleared to do so by Kingsville Approach Control.

Note: The area underlying the KINGS II MOA is not part of the KINGS I MOA.

6. During daytime, aircraft working the KINGS IA MOA with ground reference shall divide the area laterally according to "KINGS IA MOA DIVISIONS WITH GROUND REFERENCE" depiction (refer to page 4). When working day VMC above an overcast, divide the area according to the "KINGS IA MOA DIVISIONS WITHOUT GROUND REFERENCE" depiction (refer to page 4). 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 MOA vertically by altitude blocks, but may do so laterally if required.

7. Aircraft departing NAS Kingsville for the KINGS III MOA will normally receive instructions *to* "maintain 12,000 ft". Maintain assigned altitude until established within the lateral boundaries of the KINGS III MOA. Pilots may request a higher transit altitude from Kingsville Departure Control if desired.

ARRIVAL INFORMATION

CAUTION: TACAN 13R FAC crosses VFR landing pattern for 13L. During VMC, pilots flying the TACAN approach are responsible for either discontinuing approach at 3 NM or taking over visually and adjusting FAC to not interfere with 13L pattern

RECOVERY FROM THE MOAs

1. When departing KINGS IA or KINGS III VMC, descend to and transit at 9,000 ft MSL within working area boundaries unless no conflicting traffic exists. When departing KINGS I B, C, or D, descend prior to leaving the working area to enter KINGS IA and transit at 9,000 ft MSL. Every effort should be made to check in prior to crossing MOA boundaries.

2. Prior to departing the KINGS I or III MOAs, contact Kingsville Approach Control (Button 13) and state call sign, altitude, and ATIS information received. Flights must have IFR clearance or be acknowledged as VFR by approach control prior to crossing the MOA boundary.

3. When departing the KINGS II make contact on the approach frequency assigned for the High Block.

~~4.~~ Kingsville Approach Control may request aircrew to "IDENT" to confirm position. After initial contact, aircrew should advise Kingsville Approach Control of desired VFR or IFR recovery.

5. Aircraft exiting the KINGS III for an IFR recovery (including GCA, ILS, etc.) must be below 15,000 ft MSL prior to exiting.

6. Aircraft exiting the KINGS IV and V contact Houston Center on 350.3 (or as assigned) before leaving the MOA. Aircrew will request the appropriate recovery (VFR, Radar Vectors, TACAN Approach, etc.) from Houston Center.

7. Notes on Hi-TACAN approaches:

   a. ATC will be required to sanitize the airspace around WAADE/RVERA if aircraft are requesting an IFR HI TACAN recovery. They will <u>not</u> sanitize the area if aircraft request a VFR High TACAN recovery. WAADE sanitized area will include the KINGS IA north of the LRD 085 radial. RVERA sanitized area will include KINGS IA, east of LRD 70 mile arc and portions of K1D, as directed by ATC.

   b. IP's are responsible for MARSA coordination within the KINGS IA if using the HI TACAN approach. (WAADE: Coordinate with "A" aircraft. RIVRA: Coordinate with "A" and "D" aircraft)

   c. If doing approach VFR, IP's must coordinate with the Alert Area prior to leaving the lower limits of the MOA. Expect IFR pickup at BALTZ or BRAMA.

VFR ARRIVALS and VFR TOWER PATTERN SPECIFICS

1. Remain clear of the city of Kingsville, King Ranch Headquarters, Celanese Plant, and when practicable, the built-up areas of the air station. Avoid overflying the city of Bishop and the trailer parks 1 mile south and 1.5 miles northwest of the air station. Remain east of the HWY 77 bypass.

2. Contact Kingsville Approach Control at least 25 DME from the airfield for VFR advisory services to the VFR traffic pattern, request one of the following: Overhead, Straight-In, Type of PA, or Downwind entry.

a. VFR STRAIGHT-IN APPROACH Proceed to and report 5 NM (not DME) at 1,000 ft MSL. Begin a descent as appropriate to intercept the desired glideslope.

b. OVERHEAD APPROACH

Initial:	2,500 ft MSL/5 NM (Descend to Break Altitude at 4 NM)	Wx: 3000/5 or greater
Low Initial:	1,100 ft MSL/5 NM	Wx: 2000/5 or greater (must be requested from arrival)
Short Initial:	1,100 ft MSL/3 NM	(Must be requested from Kings Arrival or Tower)
Hi Break:	1,100 ft MSL (1050 ft AGL)	
Carrier Break:	800 ft AGL (850 ft MSL)	

NOTE:

All daytime left breaks will be Carrier breaks unless requested or as directed due to BASH. (Aircrew do not need to request the carrier break.) Right breaks and night breaks will be flown at 1100 ft MSL.

Distances are from end of runway (not DME).

Low Initial will only be approved if there is no instrument or straight-in traffic conflict.

BREAK LEFT OF THE LEFT RUNWAY UNLESS DIRECTED BY TOWER.

If told to set up for a right hand break, set up right of the right. Tower may direct, "Set up right of the right for PA traffic." **Unless told otherwise, this will be for the left hand break.**

c. DOWNWIND ENTRY. Approach the airport at 1,100 ft MSL (1,050 ft AGL). On initial contact with Kingsville Tower, report position relative to the field for a downwind entry. Unless otherwise directed, enter the downwind leg for pattern in use, 45 degrees off heading. Once established on downwind with interval in sight, descend to 600 ft AGL (650 ft MSL) and report abeam for a normal approach to the landing runway.

d. TOUCH-AND-GO PATTERN. 600 ft AGL (650 ft MSL), Once interval established, **pilots are not required to request downwind thereafter unless lost sight, unsure of interval, or as directed by Tower.**

e. NO-FLAP APPROACHES. To the maximum extent possible no-flap landings should be conducted from a straight-in or instrument approach. **Notify approach of intentions.**

(1) Depart and Re-enter for straight-in no flap
- On prior pass, request (on tower freq) to depart and re-enter for no flap straight in.
- Off T&G, climb straight ahead to 1500' MSL. Expect tower to provide direction of turn out and frequency change to arrival.

- Turn out at 200 KIAS. For north flow runways, expect left turn out off left runway, right turn out off right runway. For south flow runways, expect left turn out.
- If comms not established with arrival, turn no earlier than 2 NM or 1500 feet.
- Remain clear of City of Kingsville if North flow.
- Proceed to 5 miles at 1000' MSL and perform visual straight in approach.
- Contacted tower when directed.

(2) Pattern no flap. In the event a no-flap landing is desired from the tower touch and go pattern, one of the following procedures shall be used:

- Request a "pattern no-flap" at the abeam on the pass prior.
- Adjust pattern to account for configuration change and other pattern traffic (increase space on interval). Pattern will be wide and deep.
- Fly 600' AGL on downwind.
- Target 175 KIAS and maintain 600 ft AGL until approx 90 deg position.

Note: Do not descend below 300 ft AGL without a "ball".

g. DEPART AND RE-ENTER

When cleared by tower, switch arrival and climb to 1500 feet,
North flow runways - EXPECT left turn out off left runway, right turn out off right runway.
South flow runways – EXPECT left turn out.
Turn no earlier than 2 NM and 1500 feet or as assigned. Expect sequencing from Arrival.
Remain clear of City of Kingsville if North flow.
Enter low initial unless otherwise directed.
Contact tower when directed.

(1) Following an Approach:

(a). Aircrew desiring to re-enter the overhead break following an instrument approach will make that request with Kingsville Approach Control during the initial approach request.

(b). Following the instrument approach, climb on runway heading to 1,500 ft MSL and 2NM (or as assigned) prior to turning to the initial, maintain VFR, and expect to remain on the assigned approach frequency until being cleared to the initial. Arrival Control will provide radar advisories and sequencing to the initial. If at night, climb to 2,500' MSL prior to the initial.

(2) When established in the VFR tower pattern:

(a). Aircrew desiring to depart the tower pattern and re-enter via the break will make the request to "depart and re-enter" with Kingsville Tower during the normal abeam call. Tower will normally clear the aircraft to depart straight ahead, maintain VFR, and contact Arrival Control for sequencing to the initial. Contact Arrival Control on Button 12 (or assigned) and request sequencing to the initial. Pilots can expect to receive an IFF squawk. When clear of VFR traffic pattern, climb to 1,500 ft MSL and turn no earlier than 2 NM (or as assigned),

(b). During daylight operations, Tower may allow aircraft to remain on Tower frequency. The clearance should read: "Cleared to depart and re-enter, **short initial**, remain tower frequency". Remain in the tower pattern at pattern altitude until cleared by Kingsville Tower to depart, then climb to 1,500 ft MSL and proceed to the short initial at 3 NM and 1,100' MSL. Remain within the confines of the Class D airspace.

h. PRECAUTIONARY APPROACHES FOR T-45 AIRCRAFT

(1) Straight-in PAs: Normally commenced from 5 NM at 5,000 ft AGL. Request from Kingsville Approach Control on initial contact.

(2) Overhead PA: Request high key from Kingsville Approach Control on initial contact or with Kingsville Tower on the pass prior if established in the landing pattern. Inbound to field; commence from high key overhead the field at 5,000 ft AGL. Pattern; Turn out in the direction assigned and expect opposite traffic to high key (i.e., "Left turn out to high key approved, make right traffic"). Report high key and low key to Kingsville Tower.

(3) Abeam PA: Request low key from Kingsville Tower. Normally commenced from 3,000 ft AGL. To avoid conflict with break traffic, Kingsville Tower may assign turnout opposite pattern for low key on same side, (i.e., "Right turn out approved, report right low key)". Remain clear of clouds.

CAUTION: WATCH FOR INBOUND BREAK TRAFFIC

Note: BREAK DECONFLICTION WITH AIRCRAFT AT LOW KEY. Kingsville Tower may direct break traffic to enter on the non-pattern side of the runways to deconflict with low key traffic. **The break will still be in the normal direction to the left unless Kingsville Tower advises otherwise** (i.e., for Runway 13, "Setup right of the right, traffic is a T-45 approaching left low key".

h. DELTA PATTERN. In the event of a temporary runway closure, aircraft emergency, or HALO flight transit, Kingsville Tower may instruct aircraft in the pattern to "DELTA." All aircraft shall maintain their interval in either DELTA pattern. No transmissions are required unless directed by Kingsville Tower.

(1) DELTA EASY (dirty)
maintain pattern altitude
130 kts
maintain interval, fly racetrack pattern until directed by Tower to reenter the normal traffic pattern

(2) DELTA CLEAN
clean up
climb to assigned altitude (maintain VMC)
maintain 200 KIAS
maintain interval, and fly a racetrack pattern
Remain within 3 NM until directed by Tower to reenter the normal traffic pattern

IFR ARRIVALS APPROACHES

1. Aircrew desiring an IFR arrival at NAS Kingsville are handed off from an adjoining ATC facility or should contact Kingsville Approach control directly for clearance to conduct a published instrument approach procedure, or one of the following:

NOTE: If returning from the MOA, maintain VFR within the confines of the MOA until communications with approach are established.

a. VECTORS TO FINAL or INITIAL Radar vectors at or above 2,000 ft MSL to ILS or TACAN final approach course. Radar Vectors may also be requested to the visual overhead through an overcast layer. With ceiling at or above 3,000 ft MSL, report "Cancel" when underneath. If ceiling is below 3,000 ft MSL, aircrew may cancel only if the LOW INITIAL is available. Otherwise, aircrew shall proceed by instrument approach to ensure traffic separation.

b. GCA Normally 2,000 ft MSL downwind, base, and dogleg to final approach course. Expect descent and radar vectors to GCA final approach course.

(1) Minimum Fuel/Low Oil Pressure GCA. Same as normal GCA except expect a "30 seconds-to-glideslope" warning.

(2) Emergency Fuel GCA: Same as normal GCA except expect a "30 seconds-to-glideslope" warning. Minimum Vectoring Altitude for Kingsville Approach Control is 1,800 ft MSL.

NOTE: If VMC, aircrew may request early hook and 800 ft base leg. The aircrew must declare they accept responsibility for terrain clearance.

(3) **Inform Kingsville Approach Control as early as possible if approach airspeed will be nonstandard (i.e., no-flap or full-flap approach).**

VFR NIGHT FAM ROUTE INFORMATION

CHECKPOINT	RAD/DME (NQI)	OUTBOUND HEADING	BINGO	TIME (240 KGS)
Falfurrias	224/24.5	326	630	0+00
Benavides	276/33	208	680	7+00
Hebbronville	252/48	285	750	13+00
Laredo Intl Airport	268/88.5	063	960	24+15
Freer	294/49	137	750	37+00
Premont	239/19			47+00

The night FAM route will be flown at 240 KTS ground speed but no slower than 200 KTAS.

All bingo fuels are NATOPS clean, zero drag index, sea level bingos +200 lbs flown at maximum range. They will get you on deck with 500 lbs reserve.

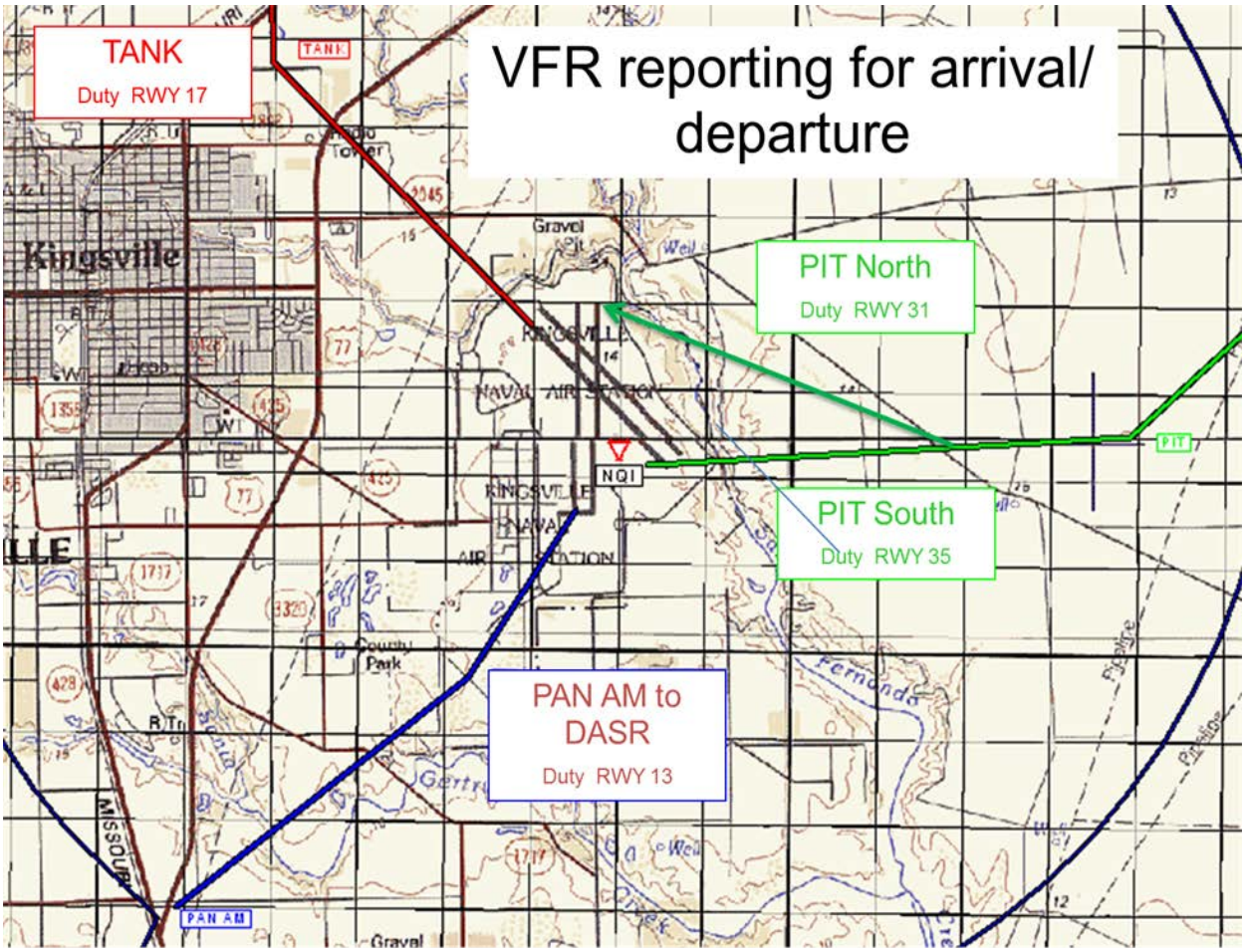
Note: All aircraft flying the NFAM route shall depart Freer and maintain course to Premont until south of Benavides/NQI R-270 prior to preceding to NQI for recovery. This requirement is to aid deconfliction with traffic departing Orange Grove.

CAUTION: CTW-4 AIRCRAFT MAY BE UTILIZING VFR CRUISING ALTITUDES IN THE VICINITY OF RIVIERA, FALFURRIAS, HEBBRONVILLE, ALICE AND MATHIS. DECONFLICTION SHALL BE ON LOCAL BTN 25 (308.2) IN CONJUNCTION WITH FLIGHT FOLLOWING ON KINGSVILLE APPROACH CONTROL.

HELICOPTER OPERATIONS

1. Vertical Separation
   a. Helicopters shall be at 200 ft AGL and below for all traffic in and out of reporting points to deconflict pattern altitudes.
   b. At or below 500 ft AGL inside 5 NM of NQI to deconflict from 5 NM initial traffic

2. Approach and Departure
   a. As Directed by ATC for expeditious operations, WX or traffic.
   b. Landing RW 13: App end of 35s, ground taxi to A intersection then B to ramp
   c. Landing RW 17: App end of 13s
   d. Landing RW 31: App end of 17s
   e. Landing RW 35: App end of 31s
   f. Report all reporting points for traffic deconfliction
   g. Reverse for departures



R-6312 TARGET PROCEDURES

T-45 ROUTES BETWEEN NQI AND R-6312

1. Altitude en route to the target is 6,500 ft MSL weather permitting, or an appropriate VFR altitude beneath an overcast layer. Remain south of NQI R-300 until reaching San Diego, then proceed northwest to the orbit point (over the lake) for Yankee Target.

2. Off-target rendezvous will be made at 5,500 ft MSL at 250 KIAS. Once clear of the restricted area, proceed direct to NQI at an appropriate VFR altitude at or below 7,500 ft MSL. Remain at or above 5,500 ft MSL until clear of Alice, then proceed to the initial of the runway in use.

Note: If above 8,000 ft MSL to/from R-6312, deconflict other aircraft using the KINGS III on BTN 9 or 10.

3. If hung ordnance, avoid overflight of populated areas

4. If NORDO, fly 2,000 ft above the pattern in use with same turn direction

5. To transit to the target on an IFR flight plan, flights can file the DUVAL 1 Coded Route (and DUVAL 1R to return to Kingsville). When filing, specify that the flight will use the restricted area.

6. Target Reference Information:

YANKEE TARGET INFORMATION

N 28°14'51" W 98°43'31"

ELEVATION: 265'

Target Radial and DME:

NQI	(Ch 125)	307/066
LRD	(Ch 121)	033/059
COT	(Ch 105)	113/024
THX	(Ch 43)	237/034
NOG	(Ch 63)	294/043

DIXIE TARGET INFORMATION

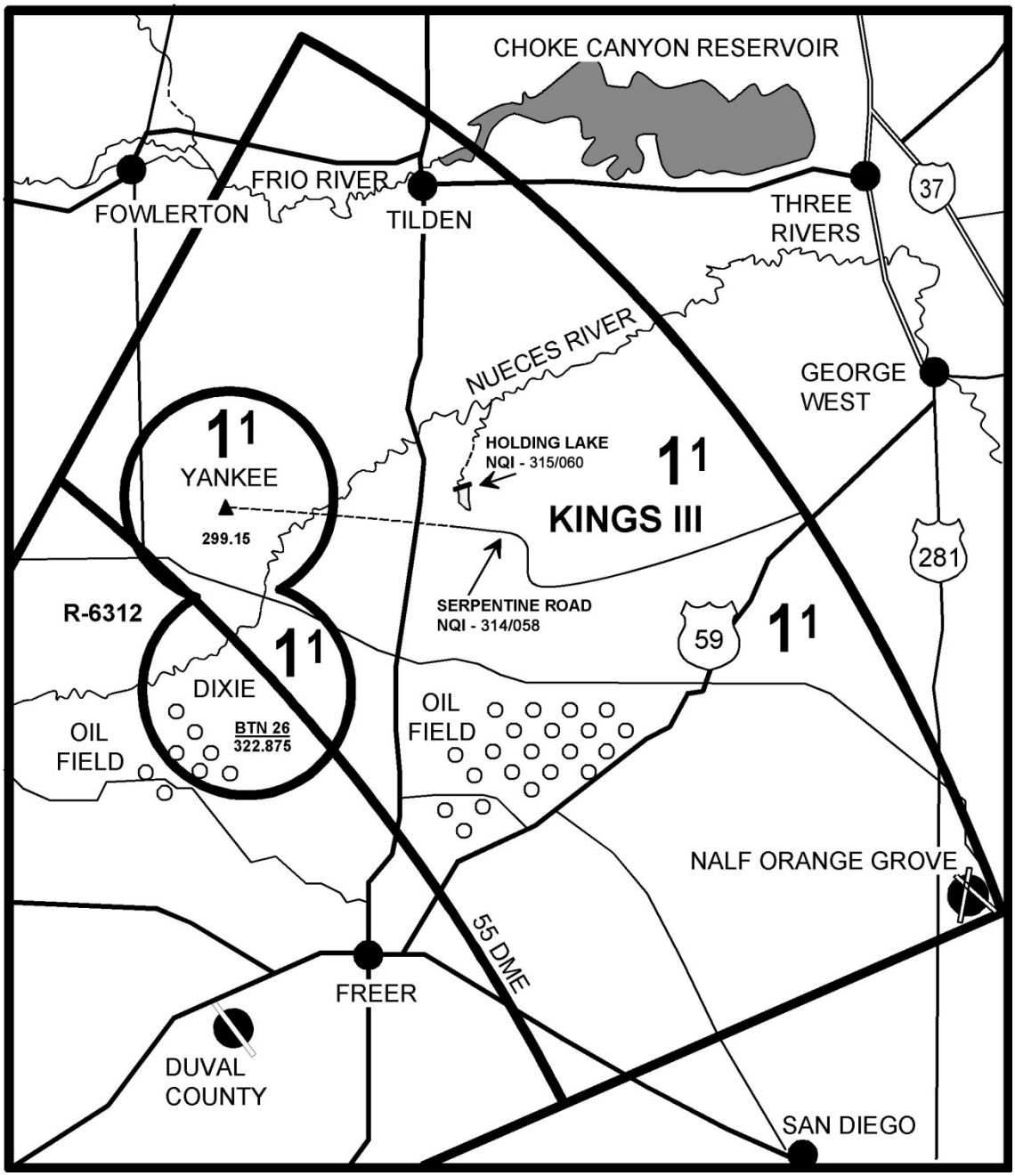
N 28°05'54" W 98°42'52"

ELEVATION: 300'

Target Radial and DME:

NQI	(Ch 125)	301/061
LRD	(Ch 121)	040/053
COT	(Ch 105)	128/030
THX	(Ch 43)	223/038
NOG	(Ch 63)	284/037

R-6312 TARGET AREA

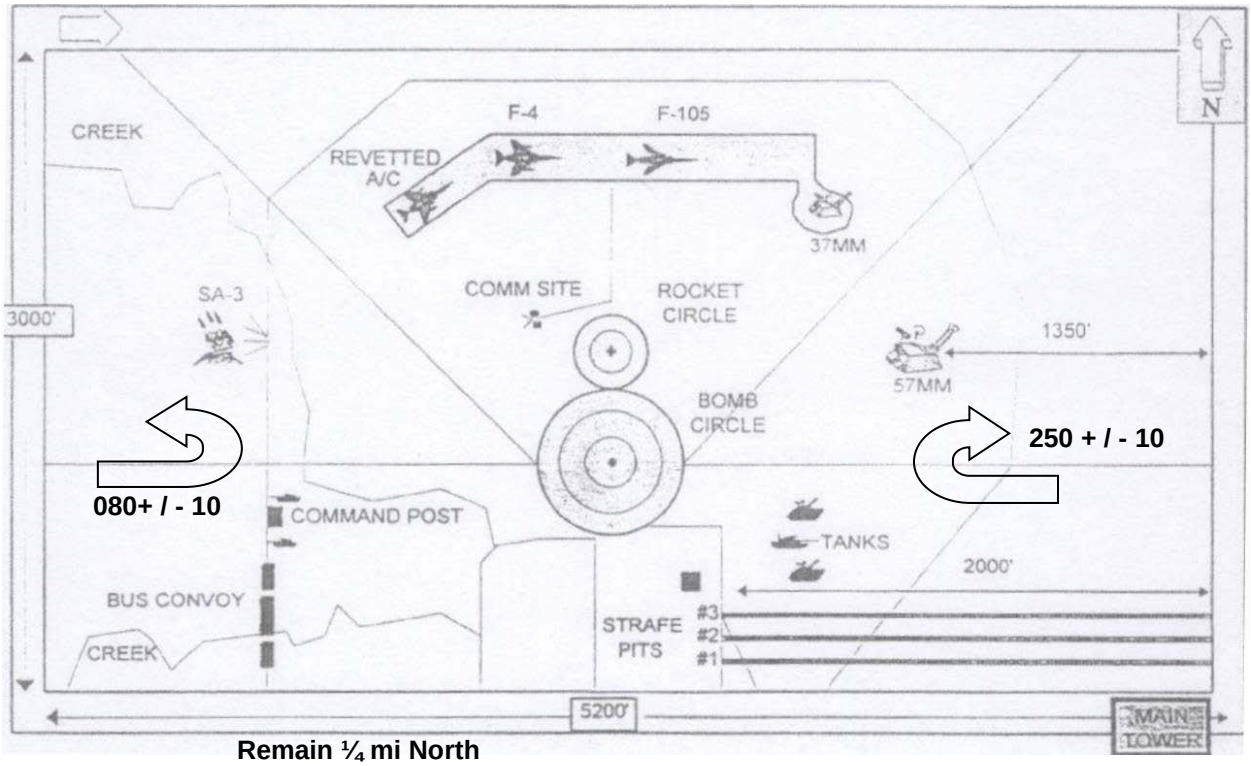


YANKEE: LRD 023-035R, 54-64 DME N28°14'51" W98°43'31" 269 FT
DIXIE: LRD 030-043R, 48-59 DME N28°05'54" W98°42'52" 300 FT

SURFACE TO FL230

Note: Lead aircraft should make a "target hot" call to KINGS III E and W, as appropriate, to provide deconfliction for the "lame duck" pattern.

Yankee Target

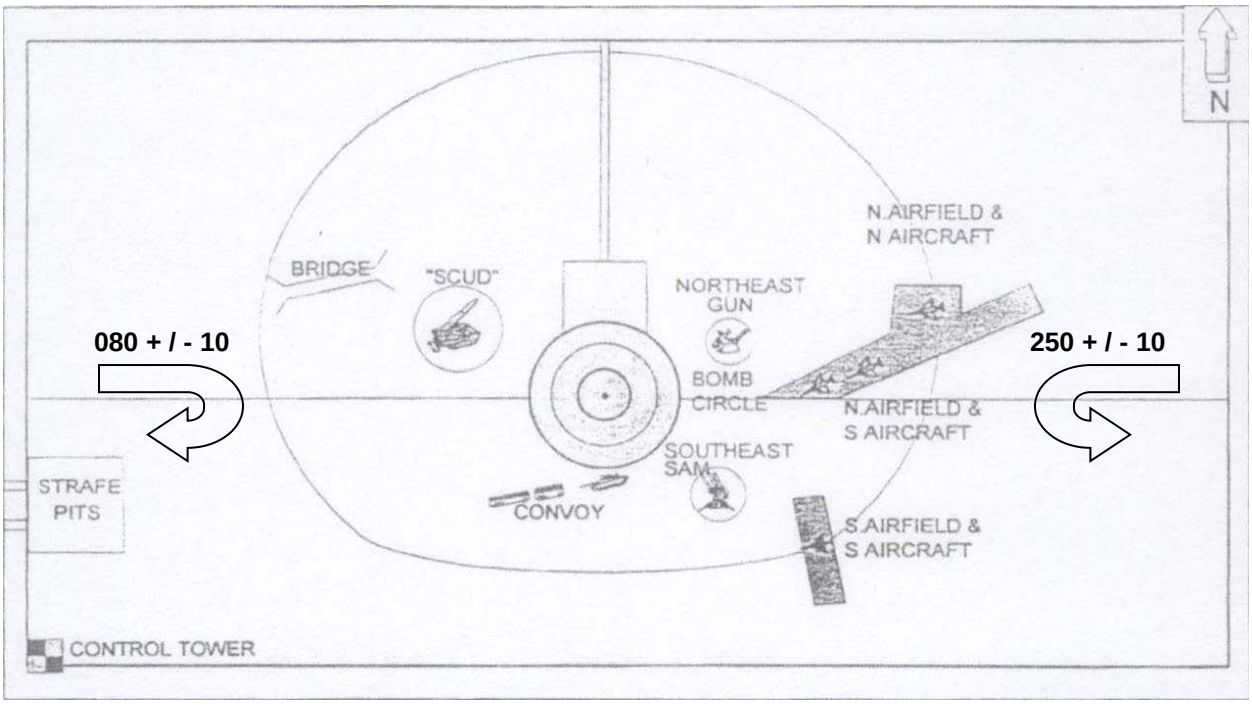


Remain ¼ mi North

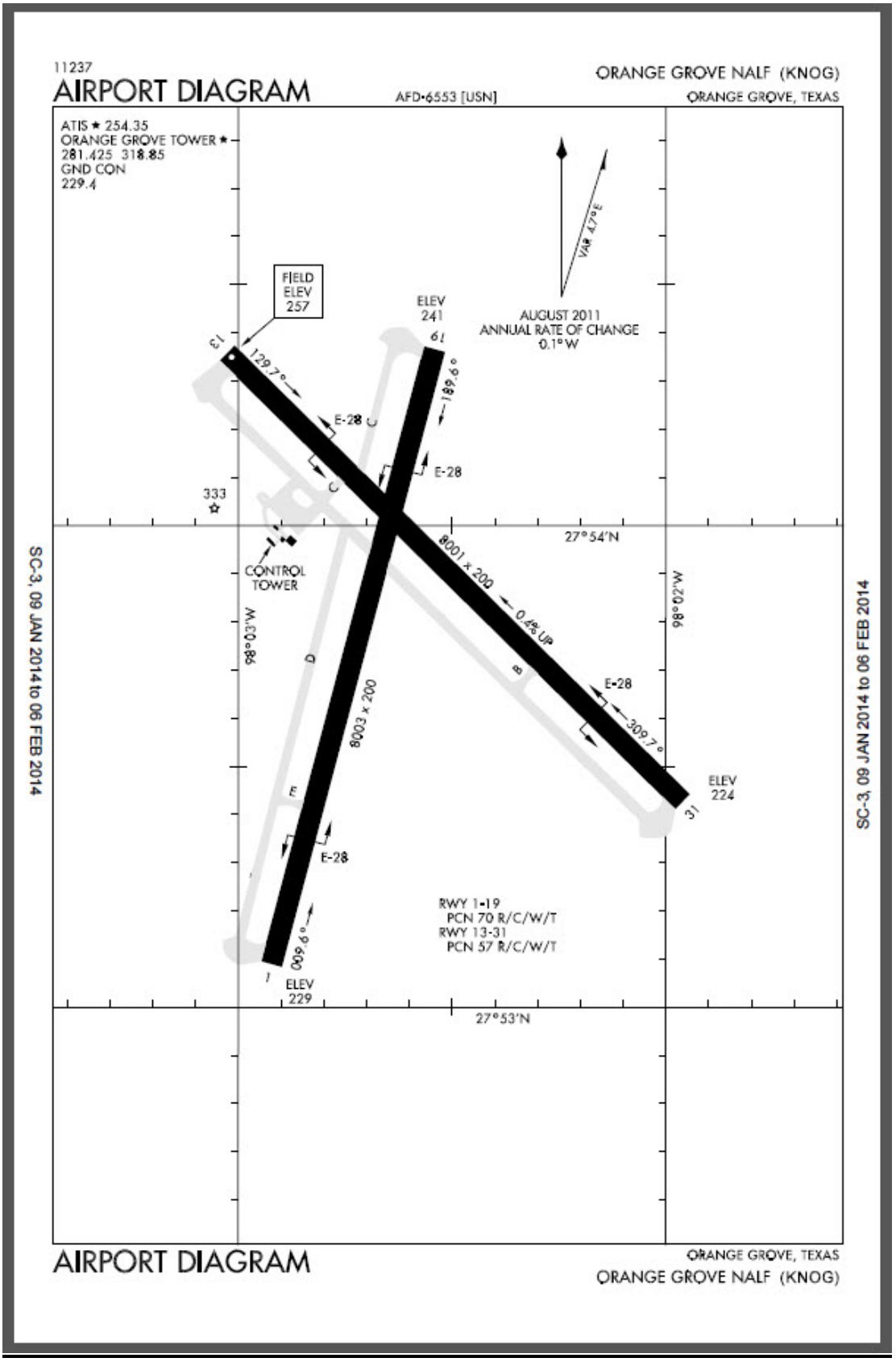
FM 624

Remain ¼ mi South

Dixie Target



NALF ORANGE GROVE



NALF ORANGE GROVE PROCEDURES

ARRIVALS

1. VFR from Kingsville to Orange Grove

a. RWY 13 L/R: Fly runway heading climbing to 4,500 ft MSL to NQI 3 DME, turn left to parallel NQI R-330 (remain east of NQI R-330 / NOG R-150) then...

b. RWY 17 L/R: Fly runway heading climbing to 4,500 ft MSL to NQI 3 DME, turn left to heading 360° until NQI R-090, then left turn to parallel NQI R-330 (remain east of NQI R-330 / NOG R-150), then...

c. RWY 31 L/R: Fly runway heading climbing to 4,500 ft MSL to NQI 3 DME, turn right to heading 360° until NQI R-330 then turn left to parallel NQI R-330 (remain east of NQI R-330 / NOG R-150), then...

d. RWY 35 L/R: Fly runway heading climbing to 4,500 ft MSL to NQI 3 DME, turn left to parallel NQI R-330 (remain east of NQI R-330 / NOG R-150), then...

...Arriving NOG: intercept the NOG 7 DME arc as appropriate to proceed to the runway extended centerline, then proceed to the initial.

NOTE: If weather precludes VFR transit at 4,500 ft MSL, utilize 2,500 ft MSL. If unable utilize IFR procedures.

CAUTION: REMAIN CLEAR OF ALICE AIRPORT (KALI) BY 5NM AND/OR 3000 ft MSL. ADVISE ATC OF DEVIATIONS FOR WEATHER OR LOST INTERVAL.

2. IFR from Kingsville to Orange Grove

a. Utilize the BARNN1 (and BARNN 1R) coded route

b. ILS available to runway 13. Minimum vectoring altitude is 2,000 ft at NOG.

TRAFFIC PATTERN

1. The VFR initial is 5 NM on runway extended centerline at 1,300 ft MSL (approx. 1,050 ft AGL). Avoid Alice Airport located 10 NM south.

2. Make left traffic for all runways. Break from the left side of the runway at 800 ft AGL (1,050 ft MSL) Fly the downwind at 600 ft AGL (850 ft MSL). For BASH MODERATE condition, execute high break at 1300' MSL.

3. "DELTA CLEAN" and "DELTA EASY" patterns and altitudes are the same as NAS Kingsville.

DEPARTURES

1. If established in the pattern, inform tower of intention to depart at the abeam on pass prior to departing.

2. VFR from Orange Grove to Kingsville:

Maintain VFR, fly runway heading climbing to 750 ft MSL (500 ft AGL) to 1NM and clear of the traffic pattern, then...

a. Departing RWY 01/19/31: Climbing LEFT turn, contact Kingsville Approach Control passing 2,500ft MSL, or as Orange Grove Tower directs. Remain west of NQI R-330 / NOG R-150 at 3,500 ft MSL. Expect VFR recovery from Kingsville Approach control to the initial.

b. Departing RWY 13: Climbing RIGHT turn to 145° heading, contact Kingsville Approach Control passing 2,500 ft MSL, or as Orange Grove Tower directs. Remain west of NQI R-330 / NOG R-150 at 3,500 ft MSL. Expect VFR recovery from Kingsville Approach Control to the initial.

CAUTION: REMAIN CLEAR OF ALICE AIRPORT (KALI) BY 5NM AND/OR 3000 ft MSL. ADVISE ATC OF DEVIATIONS FOR WEATHER OR LOST INTERVAL.

AIRCRAFT DEPARTING ALICE ARE INSTRUCTED TO CLIMB TO 2000 FT MSL AND FLY HEADING 090 DEG.

3. IFR:

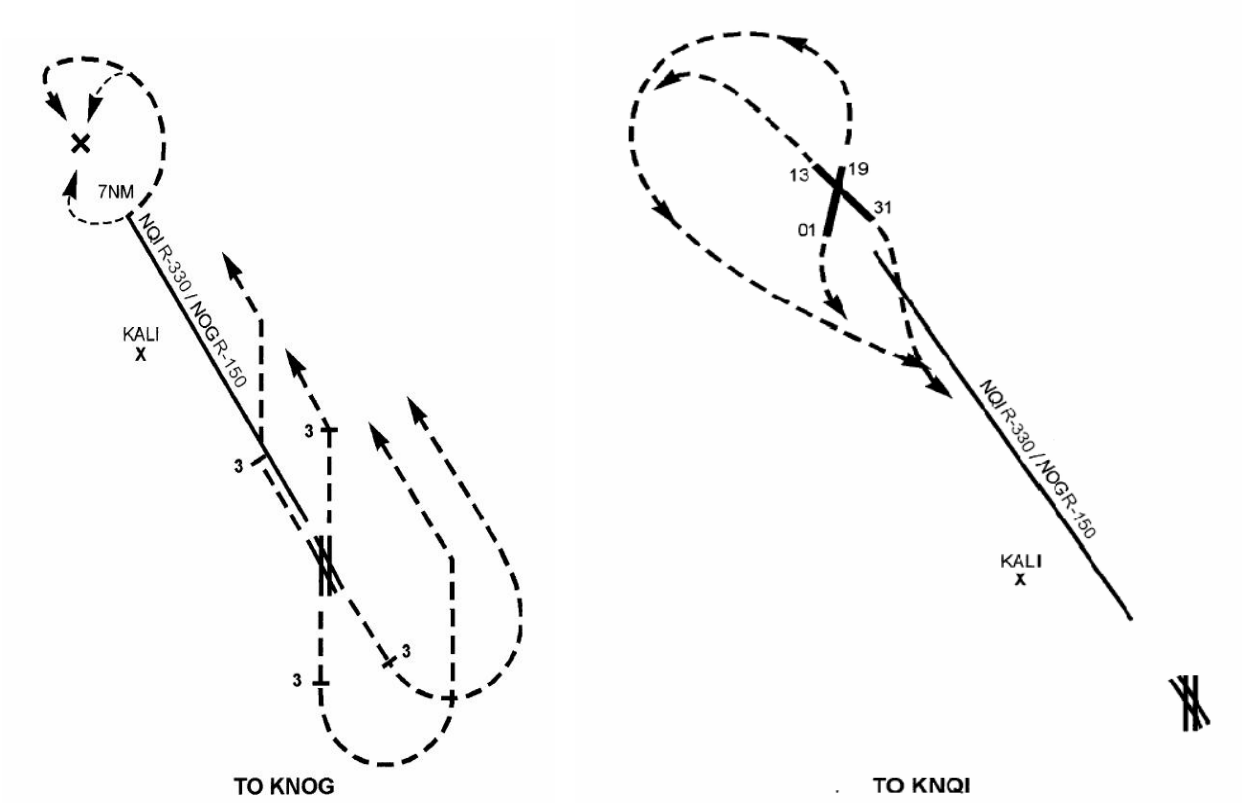
a. Departing to NQI, request BARNN 1R or IFR departure from Orange Grove Tower. Contact Kingsville Approach Control for radar vectors.

b. Departing to KINGS 1 MOA, utilize the WELLS 3 coded route.

c. Departing to KINGS III MOA, utilize the FREER 2 coded route.

d. Departing to KINGS IV & V MOA, utilize the GROVE 1 coded route.

Note: Procedures for departing NALF Orange Grove to the KINGS I MOA are a bit more restrictive due to the corridor between Orange Grove, the Kingsville MOAs and Kingsville ATC assigned airspace. Aircraft departing Orange Grove will maintain 15,000 ft MSL or lower until established in the KINGS I MOA. (If the aircraft reports VMC, Kingsville Approach Control will instruct to remain at or below 15,000 ft MSL until established in the KINGS I MOA). If the aircraft is not "VFR on top" at 15,000 ft MSL, the aircraft will maintain 15,000 ft until established in the MOA.



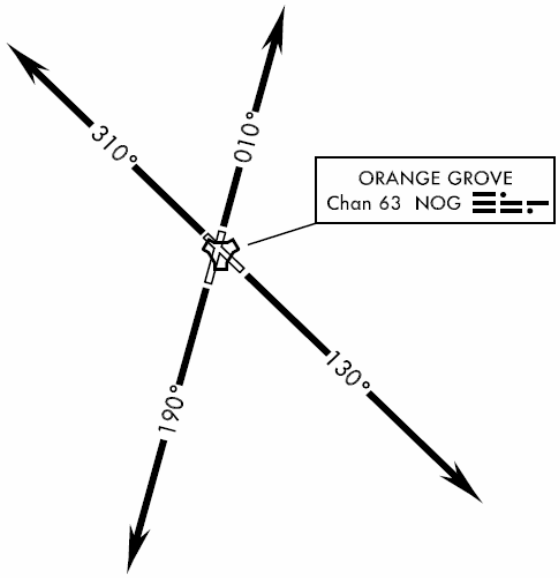
ORANGE GROVE ONE (NOG1•NOG)

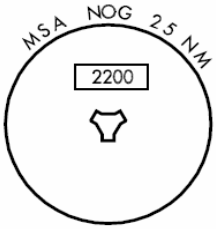
ORANGE GROVE NALF (KNOG)
ORANGE GROVE, TEXAS

ATIS 254.35
GND CON
229.4
ORANGE GROVE TOWER ★
281.425 318.85
KINGSVILLE DEP CON
266.8

LUO-6553 [USN]

FOR LOCAL USE ONLY





EMERG SAFE ALT 100 NM 16,000

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 1: Climb to 2000 via heading 010°, thence . . .

TAKE-OFF RWY 13: Climb to 2000 via heading 130°, thence . . .

TAKE-OFF RWY 19: Climb to 2000 via heading 190°, thence . . .

TAKE-OFF RWY 31: Climb to 2000 via heading 310°, thence . . .

Expect radar vectors to join assigned route.

LOST COMMUMICATIONS: If no transmissions are received for one minute after departure, climb to assigned altitude. Proceed direct assigned navaid or intercept NOG TACAN 7 DME arc, then arc to respective departure radial then via departure radial to assigned departure fix. Then via assigned route. Once established on departure radial climb to filed altitude.

ORANGE GROVE ONE (NOG1•NOG)
ORANGE GROVE, TEXAS
ORANGE GROVE NALF (KNOG)

FCLP PROCEDURES NALF ORANGE GROVE

ARRIVALS

1. VFR, IFR and Day/Night from Kingsville to Orange Grove

a. Same as Orange Grove normal arrivals.

b. FCLP pattern entry if the weather is less than 1,000/3 shall only be from on deck at Orange Grove, or by instrument approach.

c. Arriving FCLP aircraft will be stacked overhead by NOG tower on Button 23 while FCLP's are in progress. Aircraft will be in the delta clean configuration at assigned altitude. Aircraft will be sequenced to the initial and switched to LSO control (Button 24) upon entry into the FCLP pattern

TRAFFIC PATTERN

1. Make left traffic for all runways. Set up on the left side of the runway in use for the carrier break at 800 ft AGL (1050 ft MSL).

2. Non-FCLP aircraft will be considered on a case-by-case basis by the LSO.

3. FCLP aircraft, expect switch to LSO frequency once wings level established on downwind.

4. FCLP aircraft will be cleared for takeoff and full stop landings by NOG Tower on Button 24. Tower will monitor the FCLP frequency (Button 24) and retains the responsibility for safe operation during FCLP evolutions.

5. "DELTA EASY" and "DELTA CLEAN" patterns are the same as NAS Kingsville.

6. For airborne departures to NQI, contact NOG Tower on Button 23 on the upwind for instructions.

DEPARTURES

1. From NALF Orange Grove

a. Same as GROVE normal departure procedures.

REFERENCE INFORMATION

CTW-2 STANDARD T-45 FUEL PLANNING DATA

Based on T-45 NATOPS flight manual
Actual performance will vary with prevailing temperature, winds, drag index and varying gross weight.

For initial planning only.

Total usable fuel (JP-8/JET A+) …… 2,861 lbs
Start/Taxi/Take off …… 200
Penetration …… 200
GCA …… 250
Reserve (20 min @ 10,000 ft MSL) …… 300
Low level (360 KGS @ 12K GW=6.6 LB/NM=2,375 PPH//300 KGS=5.0 LB/NM=1,500 PPH)

JP-4 = 6.5 LB/GAL JP-5 = 6.8 LB/GAL JP-8 (JET A+) = 6.7 LB/GAL

Climb Out (13K GW, 250 KIAS to 10K, 300 KIAS to .75 IMN)

Altitude	KIAS	NM	Time	Fuel Used (lbs)
5,000	250	04	0+01	60
10,000	250	08	0+02	110
15,000	300	14	0+03	180
20,000	300	22	0+04	240
25,000	300	32	0+05	320
30,000	283/.75	44	0+07	380
35,000	253/.75	60	0+09	460
40,000	225/.75	91	0+13	570

En route (Optimum Cruise @ 12K GW)

Altitude	#/NM	IMN	CAS	#/HR	TAS
5,000	4.76	.38	230	1,195	250
10,000	4.35	.42	230	1,138	262
15,000	3.88	.46	230	1,102	282
20,000	3.42	.51	230	1,073	310
25,000	3.09	.56	230	1,055	340
30,000	2.82	.61	230	1,047	370
35,000	2.58	.68	230	997	380

Normal descent (12K GW IDLE W/SPD BRAKES IN)

Altitude	IAS	NM	Time	Fuel Used (lbs)
5,000	250	10	2+30	19
10,000	250	20	4+30	36
15,000	250	31	6+30	57
20,000	250	41	8+30	66
25,000	250	52	10+30	79
30,000	250	64	12+15	90
35,000	235	74	14+00	100
40,000	209	84	15+30	108

IFR FLIGHT PLAN FILING CRITERIA

<table>
<tr><td>DESTINATION WEATHER
ETA plus and minus one (1) hour</td><td colspan="3">ALTERNATE WEATHER
ETA plus and minus one (1) hour</td></tr>
<tr><td>0-0 up to, but not including,
published minimums</td><td colspan="3">3,000–3 or better</td></tr>
<tr><td rowspan="2">Published minimums up to, but not including 3,000-3 (single-piloted absolute minimums 200-1/2)</td><td rowspan="2">NON-PRECISION</td><td colspan="2">PRECISION</td></tr>
<tr><td>ILS</td><td>PAR</td></tr>
<tr><td></td><td>*Published minimums plus 300-1</td><td>Published minimums plus 200-1/2</td><td>*Published minimums plus 200-1/2</td></tr>
<tr><td>3,000-3 or better</td><td colspan="3">No alternate required</td></tr>
<tr><td colspan="4">*In the case of a single-piloted or other aircraft with only one operable UHF/VHF transceiver, radar approach minimums may not be used as the basis for selection of an alternate airfield.</td></tr>
</table>

<table>
<tr><td colspan="2">WEATHER CRITERIA FOR TAKEOFF</td></tr>
<tr><td>SPECIAL Instrument Rating</td><td>0-0. No takeoff ceiling or visibility minimums apply.

Takeoff shall depend on the judgment of the pilot and urgency of the flight.</td></tr>
<tr><td>STANDARD Instrument Rating</td><td>Published minimums for available nonprecision approach, but not less than 300/1. When precision approach available for runway in use, takeoff authorized down to precision approach minimums, but in no case less than 200 feet and ½ SM/2,400 feet RVR.</td></tr>
</table>

WX CONTACT INFORMATION

NQI Base Operations:	x6108 / (Fax x4470)
Dispatch (CD):	x6812 / 274.8
WX NQI	x6186 / (Fax x6131)
WX Norfolk	757-444-2581
WX San Diego	619-545-2196

REGIONAL FIELD "QUICK REFERENCE" NAV/COMM GUIDE

AIRFIELD	ID	TAC	VOR	TWR UHF	TWR VHF	ILS	ILS FREQ	FROM NQI
KINGSVILLE NAS N 27°18' W 97°28'48"	NQI	125		377.05 (3)	124.1	HI-13R	110.9	
NALF ORANGE GROVE N 27°32'24" W 98°1'48"	NOG	63		281.425 (23)	119.35	HI-13	110.5	328/27
ALICE INTL N 27°26'24" W 98°0'36"	ALI		(114.5)		123.0	LOC- 31	109.3/30	317/19
BROWNSVILLE N 25°32'24" W 97°15'	BRO	110	(116.3)	239.3	118.9	13R	110.3/40	164/98
CORPUS NAS N 27°24'36" W 97°10'12"	NGP	87	(114.0)	340.2	134.85	13R	111.3	063/30
CORPUS INTL N 27°27'36" W 97°18'	CRP	102	(115.5)	257.8	119.4	13 35	110.3/40 109.5/32	041/23
ELLINGTON N 29°21'36" W 95°5'24"	EFD	31		253.5	126.05	HI-17R HI-35L HI-22	110.3 111.1 110.1	043/188
HARLINGEN / VALLEY INTL N 26°7'48" W 97°23'24"	HRL	29	(109.2)	317.6	119.3	17R	111.5/52	170/77
LACKLAND AFB (KELLY ANNEX) N 29°13'48" W 98°20'24"	SKF	57		322.35	124.3	HI-15 HI-33	110.1 110.7	336/120
LAREDO INTL N 27°19'12" W 99°16'12"	LRD	121	(117.4)	257.9	120.1	17R	111.9/56	268/88
LAUGHLIN AFB N 29°12'36" W 100°27'36"	DLF	91	(114.4)	307.375	125.2	HI-13C HI-31C	110.3 108.9	302/192
MCALLEN INTL N 26°6' W 98°8'24"	MFE	119	(117.2)	256.9	118.5	13	111.7/54	192/83
RANDOLPH AFB N 29°18'36" W 98°9'36"	RND	70	(112.3)	294.7	128.25	HI-14L HI-32R	109.9/36 109.3/36	345/124
SAN ANTONIO INTL N 29°19'12" W 98°16'48"	SAT	115	(116.8)	257.8	119.8	03 12R 30L	109.7/34 110.9/46 110.9/46	340/126
VICTORIA REGIONAL N 28° 51' W 96° 55'	VCT	27 (VOR DME)	(109.0)	257.95	126.075	13L	111.5/52	023/93

LOCAL CODED ROUTES – (BY DESTINATION)

Per Letter of Agreement – 12 DEC 2013

DESTINATION	DESCRIPTION ROUTE	
A-632A	NQI 070 NQI NQI-SID RICTO A632A/D0+15 NQI	X-RAY2
Alice	NGP 040 NGP NQI ALI	ALICE1
Corpus (CRP)	NOG 050 NOG SINTO CRP	SPITZ 1R
Corpus (CRP)	NQI 050 NQI SINTO CRP	STAGE 1
Corpus (CRP)	CRP 060 CRP RICTO K1MOA/D0+30..CRP	RAAGE 1
Corpus (CRP)	CRP 060 CRP ALI K3MOA/D0+30..CRP	FIISH 1
Corpus (CRP)	CRP 040 CRP NQI242019 IR135 NQI298051 CRP (REQ 070 UPON EXIT)	CRP135
Corpus (CRP)	CRP 030 CRP NGP043020 IR136 NQI303060 CRP (REQ 070 UPON EXIT)	CRP136
Corpus (CRP)	CRP 080 CRP THX182015 IR147 LRD047051 CRP (REQ 050 UPON EXIT)	CRP147
Corpus (CRP)	CRP 030 CRP NQI121024 IR166 NQI249016 CRP (REQ 030 UPON EXIT)	CRP166
Corpus (CRP)	CRP 080 CRP BRO359039 IR167 LRD156034 CRP (REQ 070 UPON EXIT)	CRP167
Corpus NAS (NGP)	ALI 050 ALI NQI JETTY NGP	ALICE1R
Corpus NAS (NGP)	NOG 050 NOG NQI JETTY NGP	HALIK 1R
Corpus NAS (NGP)	NQI 070 NQI K1MOA/D0+15 NGP (REQ GCA OR TACAN APCH NGP)	KING 21
Corpus NAS (NGP)	NQI 050 NQI JETTY NGP	VILLE 1R
Ellington (EFD)	NQI 230 NQI NQI-SID CRP PSX ECHOE DELVE EFD	GRUBB1
Fort Worth NAS (NFW)	NQI 260 NQI NQI-SID CRP THX SLUGG -STAR NFW (HURREVAC)	HURRY 22
Fort Worth NAS (NFW)	NQI 250 NQI NQI-SID CRP PSX TNV LOA DODJE -STAR NFW (HURREVAC)	HURRY 25
IR-135	NQI 050 NQI NQI242019 IR135 NQI298051 NQI REQ 070 UPON EXIT	KING 135
IR-136	NQI 050 NQI NGP NGP043020 IR136 NQI303060 NQI REQ 070 UPON EXIT	KING 136

IR-147	NQI 080 NQI NQI-SID HOBOZ THX182015 IR147 LRD047051 NQI REQ 050 UPON EXIT	KING 147
IR-148	NQI 100 NQI NQI-SID HOBOZ THX324019 IR148 THX053042 THX NQI310012 NQI REQ 120 UPON EXIT	KING 148
IR-149	NQI 100 NQI NQI-SID HOBOZ SAT263043 IR149 LRD040028 NQI REQ 120 UPON EXIT	KING 149
IR-166	NQI 030 NQI NQI121024 IR166 NQI249016 NQI REQ 030 UPON EXIT	KING 166
IR-167	NQI 050 NQI BRO359039 IR167 LRD156034 NQI REQ 070 UPON EXIT	KING 167
KINGS I	NQI 230 NQI-SID RICTO NQI230035/D0+15 NQI	PREMONT 2
KINGS I	NOG 070 NOG NQI225030 K1MOA/D0+15 NQI	WELLS 3
KINGS I	NQI 070 NQI-SID HOBOZ THX COT LRD WAADE NQI (Night Flight)	KNITE 5
KINGS I (SPIN I)	NQI 270 NQI NQI-SID RICTO NQI195030/D0+ 15 NQI (KISP1)	RALPH 1
KINGS 1 (HIGH)	NQI 370 NQI NQI-SID RICTO HIBLK NQI (Must call for release prior to departure)	KING HI
KINGS II	NQI 270 NQI NQI-SID RICTO KISP2/D0+30 NQI	RETCH 4
KINGS III	NQI 120 NQI NQI315030 K3MOA/D0+45 NQI	CYBIL 1
KINGS III	NOG 080 NOG THX190022 THX218023 THX218032 NOG (Combines FREER1/1R)	FREER 2
KINGS IV & V	NQI 150 NQI NQI134020 SINTO NQI015050 K3MOA/ D0+30 NQI	BANKS 2
KINGS IV & V	NOG 150 NOG THX165022 K4MOA/D0+45 WAADE NQI NOTE: Dept. on GROVE 1 require a release from ZHU	GROVE 1
Kingsville	MFE 170 MFE JIMIE NQI (Pilot will request HI-TACAN with NQI Approach)	CHECK 1R
Kingsville	VCT 050 VCT WAADE NQI	DUBIE 1R
Kingsville	NQI 080 NQI NQI310023 THX190023 THX218023 THX218032 NQI302027 NQI	DUVAL 2
Kingsville	NOG 030 NOG NQI	BARNN 1R
Kingsville	R6312 090 R6312 THX218032 NQI302027 NQI	DUVAL 1R

Kingsville	EFD 220 EFD NGP-SID NGP NQI	GRUBB1R
Kingsville	SKF 230 SKF SAT160069 WAADE NQI	KING 3R
Kingsville	RND 230 RND SAT160069 WAADE NQI	KING 4R
Kingsville	NGP 060 NGP K1MOA/D0+10 WAADE NQI (Limited to NQI A/C only)	KING 21R
Kingsville	LRD 070 LRD105025/D0+45 NQI	KING 23R
Kingsville	PSX209026 160 PSX209026 WAADE NQI	KING 151R
Kingsville	COT143025 150 COT143025 WAADE NQI	KING 156R
Kingsville	LRD 070 LRD WAADE NQI	KING 24R
Kingsville	CRP 040 CRP NQI	STAGE 1R
Kingsville	MFE 060 MFE NQI	TRAIL 1R
Kingsville	NGP 040 NGP JETTY NQI	VILLE 1
Kingsville	LRD 070 LRD LRD045035 K3MOA/D0+45 NQI	CYBIL 2R
Kingsville	CRP 060 CRP ALI K3MOA/D0+30 NQI	FIISH2
Kingsivlle	CRP 060 CRP RICTO K1MOA/D0+30 NQI	RAAGE2
Lackland AFB	NQI 220 NQI NQI-SID HOBOZ KSY209032 SKF (REQ TACAN APCH SKF)	KING 3
Laredo (LRD)	NQI 070 NQI NQI-SID RICTO K1MOA/D0+45 LRD	KING 23
Laredo (LRD)	NQI 060 NQI-SID RICTO LRD	KING 24
Laredo (LRD)	NQI 120 NQI NQI315030 K3MOA/D0+45 LRD	CYBIL 2
Laughlin (DLF)	NQI 260 NQI NQI-SID HOBOZ COT DLF **(HURREVAC)**	HURRY 21
Laughlin (DLF)	NQI 260 NQI LRD DLF **(HURREVAC)**	HURRY 24
McAllen (MFE)	NQI 070 NQI NQI-SID RICTO K1MOA/D0+15 LRD/ D0+10 MFE	CHECK 1
McAllen (MFE)	NQI 070 NQI NQI203041 MFE	TRAIL 1
Orange Grove	NQI 040 NQI NOG	BARNN 1
Orange Grove	NGP 040 NGP NQI NOG	HALIK 1
Orange Grove	CRP 040 CRP NOG	SPITZ 1
Orange Grove	R6312 090 R6312 THX218032 NOG	FREER 1R

Orange Grove	NOG 080 NOG THX190022 THX218023 THX218032 NOG (Combines FREER1/1R)	FREER 2
Randolph AFB	NQI 220 NQI NQI-SID HOBOZ RANDY RND (REQ TACAN APCH RANDY)	KING 4
R-6312	NQI 080 NQI NQI310023 THX190023 THX218023 R6312	DUVAL 1
R-6312	NOG 080 NOG THX190022 THX218023 R6312	FREER 1
Sheppard AFB (SPS)	NQI 260 NQI NQI-SID CRP J25 SAT J23 MQP SPS **(HURREVAC)**	HURRY 23
Victoria (VCT)	NQI 170 NQI NQI-SID CRP K4MOA/D0+45 VCT (Delay Kingsville 4 MOA)	DUBIE 1
VR-151	NQI 150 NQI NQI-SID CRP PSX175020 VFR (VR151)	KING 151
VR-156	NQI 160 NQI NQI-SID HOBOZ COT328032 VFR (VR156)	KING 156
W-228D	NQI 130 NQI NQI-SID JUBAK W228D/D0+30 NQI	GUN 4

LOCAL CODED ROUTES – (ALPHABETICAL)

Per Letter of Agreement – 12 DEC 2013

ALICE1	NGP 040 NGP ALI
ALICE 1R	ALI 050 ALI NQI JETTY NGP
BANKS 2	NQI 150 NQI NQI134020 SINTO NQI015050 K3MOA/D0+30 NQI
BARNN 1	NQI 040 NQI NOG
BARNN 1R	NOG 030 NOG NQI
CHECK 1	NQI 070 NQI NQI-SID RICTO K1MOA/D0+15 LRD/D0+10 MFE
CHECK 1R	MFE 170 MFE JIMIE NQI (Pilot will request HI-TACAN with NQI Approach)
CRP135	CRP 040 CRP NQI242019 IR135 NQI298051 CRP (REQ 070 UPON EXIT)
CRP136	CRP 030 CRP NGP043020 IR136 NQI303060 CRP (REQ 070 UPON EXIT)
CRP147	CRP 080 CRP THX182015 IR147 LRD047051 CRP (REQ 050 UPON EXIT)
CRP166	CRP 030 CRP NQI121024 IR166 NQI249016 CRP (REQ 030 UPON EXIT)
CRP167	CRP 080 CRP BRO359039 IR167 LRD156034 CRP (REQ 070 UPON EXIT)
CYBIL 1	NQI 120 NQI NQI315030 K3MOA/D0+45 NQI
CYBIL 2	NQI 120 NQI NQI315030 K3MOA/D0+45 LRD
CYBIL 2R	LRD 070 LRD LRD045035 K3MOA/D0+45 NQI
DUBIE 1	NQI 170 NQI NQI-SID CRP K4MOA/D0+45 VCT
DUBIE 1R	VCT 050 VCT WAADE NQI
DUVAL 1	NQI 080 NQI NQI310023 THX190023 THX218023 R6312
DUVAL 1R	R6312 090 R6312 THX218032 NQI302027 NQI
DUVAL 2	NQI 080 NQI NQI310023 THX190023 THX218023 THX2188032 NQI302027 NQI
FIISH1	CRP 060 CRP ALI K3MOA/D0+30 CRP

FIISH2	CRP 060 CRP ALI K3MOA/D0+30 NQI
FREER 1	NOG 080 NOG THX190022 THX218023 R6312
FREER 1R	R6312 090 R6312 THX218032 NOG
FREER 2	NOG 080 NOG THX190022 THX218023 THX218032 NOG **NOTE:** Combines FREER1/1R
GROVE 1	NOG 150 NOG THX165022 K4MOA/D0+45 WAADE NQI **NOTE:** Departures on the GROVE 1 require a release from ZHU
GRUBB1	NQI 230 NQI NQI-SID CRP PSX ECHOE DELEVE EFD
GRUBB1R	EFD 220 EFD NGP-SID NGP NQI
GUN4	NQI 130 NQI NQI-SID JUBAK W228D/D0+30 NQI
HALIK 1	NGP 040 NGP NQI NOG
HALIK 1R	NOG 050 NOG NQI JETTY NGP
HURRY 21	NQI 260 NQI NQI-SID HOBOZ COT DLF (HURREVAC)
HURRY 22	NQI 260 NQI NQI-SID CRP THX SAT SLUGG-STAR NFW (HURREVAC)
HURRY 23	NQI 260 NQI NQI-SID CRP J25 SAT J23 MQP SPS (HURREVAC)
HURRY 24	NQI 260 NQI LRD DLF (HURREVAC)
HURRY 25	NQI 250 NQI NQI-SID CRP PSX TNV LOA DODJE-STAR NFW (HURREVAC)
KINHI	NQI 370 NQI NQI-SID RICTO HIBLK NQI (Maintenance Check Flight) (Must call for release prior to departure)
KING 3	NQI 220 NQI NQI-SID HOBOZ KSY209032 SKF (Request TACAN Approach at SKF)
KING 3R	SKF 230 SKF SAT160069 WAADE NQI
KING 4	NQI 220 NQI NQI-SID HOBOZ RANDY RND (Request TACAN Approach RANDY)
KING 4R	RND 230 RND SAT160069 WAADE NQI
KING 21	NQI 070 NQI K1MOA/D0+15 NGP (Request GCA or TACAN Approach NGP)

KING 21R NGP 060 NGP K1MOA/D0+10 WAADE NQI
(Limited to NQI A/C only)

KING 23 NQI 070 NQI NQI-SID RICTO K1MOA/D0+45 LRD

KING 23R LRD 070 LRD105025/D0+45 NQI

KING 24 NQI 060 NQI-SID RICTO LRD

KING 24R LRD 070 LRD WAADE NQI

KING 135 NQI 050 NQI NQI242019 IR135 NQI298051 NQI
REQ 070 UPON EXIT

KING 136 NQI 050 NQI NGP NGP043020 IR136 NQI303060 NQI
REQ 070 UPON EXIT

KING 147 NQI 080 NQI NQI-SID HOBOZ THX182015 IR147 LRD047051 NQI
REQ 050 UPON EXIT

KING 148 NQI 100 NQI NQI-SID HOBOZ THX324019 IR148 THX053042 THX
NQI310012 NQI
REQ 120 UPON EXIT

KING 149 NQI 100 NQI NQI-SID HOBOZ SAT263043 IR149 LRD040028 NQI
REQ 120 UPON EXIT

KING 151 NQI 150 NQI NQI-SID CRP PSX175020 VFR (VR151)

KING 151R PSX209026 160 PSX209026 WAADE NQI

KING 156 NQI 160 NQI NQI-SID HOBOZ COT328032 VFR (VR156)

KING 156R COT143025 150 COT143025 WAADE NQI

KING 166 NQI 030 NQI NQI121024 IR166 NQI249016 NQI
REQ 030 UPON EXIT

KING 167 NQI 050 NQI BRO359039 IR167 LRD156034 NQI
REQ 070 UPON EXIT

KNITE 5 NQI 070 NQI-SID HOBOZ THX COT LRD WAADE NQI
(Night Flight)

PREMONT 2 NQI 230 NQI-SID RICTO NQI230035/D0+15 NQI

RAAGE 1 CRP 060 CRP RICTO K1MOA/D0+30 CRP

RAAGE2 CRP 060 CRP RICTO K1MOA/D0+30 NQI

RALPH 1	NQI 270 NQI NQI-SID RICTO NQI195030/D0+ 15 NQI SPIN1
RETCH 4	NQI 270 NQI NQI-SID RICTO KISP2/D0+30 NQI SPIN2
SPITZ 1	CRP 040 CRP NOG
SPITZ 1R	NOG 050 NOG SINTO CRP
STAGE 1	NQI 050 NQI SINTO CRP
STAGE 1R	CRP 040 CRP NQI
TRAIL 1	NQI 070 NQI NQI203041 MFE
TRAIL 1R	MFE 060 MFE NQI
VILLE1	NGP 040 NGP JETTY NQI
VILLE 1R	NQI 050 NQI JETTY NGP
WELLS 3	NOG 070 NOG NQI225030 k1MOA/D0+15 NQI
XRAY2	NQI 070 NQI NQI-SID RICTO A632A/D0+15 NQI

LOCAL/EAST WAYPOINT PLAN

PAGE 1: LOCAL AIRFIEDS			
LAT	**LONG**	**ID**	**DESCRIPTION**
N27 30 46	W97 48 50	13LNQI	RWY 13L NQI
N27 30 48	W97 48 37	17LNQI	RWY 17L NQI
N27 29 57	W97 47 55	31LNQI	RWY 31L NQI
N27 29 36	W97 48 31	35LNQI	RWY 35L NQI
N27 29 57	W97 48 19	NQI	NAS KINGSVILLE
N27 53 43	W98 02 33	NOG	ORANGE GROVE
N27 45 40	W97 29 46	KCRP	CRPUS CRISTI INTL
N27 54 13	W97 26 41	CRP	CRP VORTAC
N27 41 11	W97 17 41	NGP	TRUAX
N27 32 37	W99 27 41	KLRD	LAREDO INTL
N27 28 43	W99 25 04	LRD	LRD VORTAC
N26 10 33	W98 14 19	MFE	MCALLEN
N29 31 09	W98 17 06	RND	RANDOLPH
N29 23 29	W98 34 51	SKF	KELLY
N28 51 12	W96 55 06	KVCT	VICTORIA RGNL

PAGE 2: KINGS 1A,B,C,D			
LAT	**LONG**	**ID**	**DESCRIPTION**
N27 33 49	W98 40 27	A1/B5	LRD 074/40
N27 12 19	W98 44 05	A2B4C1	LRD 105/40
N26 51 31	W97 53 08	A3/D5	LRD 105/90
N27 23 33	W97 44 04	A4	LRD 084/90
N27 24 33	W98 06 31	A5	LRD 084/70
N27 40 56	W98 07 29	A6	LRD 071/70
N27 29 00	W99 02 34	B1	LRD 080/20
N27 16 06	W99 07 36	B2	LRD 120/20
N27 00 34	W98 53 06	B3/C2	LRD 126/40
N26 37 30	W98 32 00	C3/D2	LRD 128/70
N26 59 52	W98 13 28	C4/D1	LRD 105/70
N26 21 56	W98 17 56	D3	LRD 129/90
N26 51 31	W97 53 08	D4	LRD 105/90
N27 45 44	W97 45 33	SP2NE	LRD 070/90
N27 17 0	W98 05 28	RICTO	NQI 225/20

PAGE 3: W228D / SOUTH			
LAT	**LONG**	**ID**	**DESCRIPTION**
N26 56 10	W97 07 48	WD1	CRP 155/60
N26 37 12	W97 01 26	WD2	CRP 155/80
N26 13 30	W96 54 07	WD3	CRP 155/104
N26 00 00	W96 54 30	WD4	CRP 159/110
N26 00 00	W96 30 01	WD5	CRP 150/118
N26 23 02	W96 30 01	WD6	CRP 142/104
N26 52 26	W96 30 01	WD7	CRP 132/80
N27 18 40	W96 30 01	WD8	CRP 074/59
N27 07 30	W96 43 34	WD9	CRP 132/60
N26 44 31	W96 42 58	WD10	CRP 142/80
N25 54 30	W97 25 30	BRO	BROWNSVILLE
N26 13 30	W97 39 15	HRL	HARLINGEN
N27 02 05	W97 10 02	JUBAK	NQI 125/44
N27 29 48	W97 33 02	JETTY	CRP 184/25
N26 44 49	W97 44 35	JIMIE	MFE 028/43

PAGE 4: KINGS 3 / TARGETS / SPIN 1			
LAT	**LONG**	**ID**	**DESCRIPTION**
N28 15 06	W98 51 29	K3E1W6	LRD 024/55
N28 00 59	W98 34 47	K3E2W5	LRD 045/55
N27 46 56	W98 26 37	K3E3W4	LRD 061/55
N27 52 24	W98 01 19	K3E4	LRD 063/78
N28 14 23	W98 13 37	K3E5	LRD 045/78
N28 34 42	W98 37 42	K3E6	LRD 023/78
N27 53 02	W99 05 10	K3W1	LRD 027/30
N27 48 01	W98 59 08	K3W2	LRD 041/30
N27 41 03	W98 54 17	K3W3	LRD 057/30
N28 05 54	W98 42 52	DIXIE	DIXIE TARGET
N28 14 51	W98 43 31	YANKE	YANKEE TARGET
N27 12 24	W97 59 13	SP1P1	NQI 205/20
N26 59 14	W98 07 20	SP1P2	NQI 205/35
N26 55 17	W97 54 28	SP1P3	NQI 185/35
N27 10 09	W97 51 51	SP1P4	NQI 185/20

PAGE 5: KINGS 4 / NORTH			
LAT	**LONG**	**ID**	**DESCRIPTION**
N29 04 43	W97 29 54	K4P1	SAT 116/61
N28 50 12	W 97 44 20	K4P2	SAT 134/61
N28 40 00	W98 06 58	K4P3	SAT 155/61
N28 21 36	W97 51 43	K4P4	SAT 150/83
N28 09 42	W97 37 35	K4P5	SAT 145/99
N28 10 40	W97 17 10	K4P6	SAT 137/107
N28 41 20	W96 51 13	K4P7	SAT 116/102
N28 52 43	W97 09 58	K4P8	SAT 116/83
N28 32 48	W97 29 25	K4P9	SAT 134/83
N29 38 38	W98 27 40	SAT	SAN ANTONIO
N28 58 37	W98 30 03	LEMIG	SAT 175/40
N28 35 02	W98 20 06	ICEMN	SAT 166/64
N28 27 43	W99 07 06	COT	COTULLA
N28 30 18	W98 09 01	THX	THREE RIVERS
N28 54 01	W96 58 44	VCT	VICTORIA

PAGE 6: FIXES			
LAT	**LONG**	**ID**	**DESCRIPTION**
N28 04 22	W97 33 24	AIMEE	NGP 323/27
N29 04 30	W95 14 01	APRIL	EFD 182/32
N27 39 25	W97 56 39	BALTS	NQI 318/12
N27 17 57	W97 49 16	BRAMA	NQI 180/12
N28 02 32	W99 14 43	BRANI	COT 186/26
N28 57 30	W98 56 18	DUBBY	KSY 209/32
N27 58 21	W98 36 01	DUVAL	NOG 274/30
N27 54 54	W97 56 55	HOBOZ	NQI 339/26
N27 29 28	W96 54 04	MACKK	NGP 113/24
N27 08 50	W99 06 55	NELEE	LRD 131/25
N29 15 09	W97 34 37	RANDY	DHK 110/40
N26 58 56	W97 50 45	RVERA	NQI 180/31
N28 05 22	W97 39 41	SINTO	CRP 305/16
N27 33 58	W98 17 13	WAADE	NQI 275/26
N29 09 24	W96 24 04	ZEBEE	PSX 340/24

PAGE 7: FIXES/NAVAIDS			
LAT	**LONG**	**ID**	**DESCRIPTION**
N27 07 07	W97 25 01	ASCOT	CRP 169/47
N30 35 30	W96 25 00	CLL	COLLEGE STATION
N27 46 08	W97 52 02	DAYET	NOG 124/12
N29 21 39	W100 46 18	DLF	LAUGHLIN
N29 36 21	W95 09 34	EFD	ELLINGTON
N26 19 36	W98 22 36	FATOR	MFE 312/12
N28 02 20	W98 12 29	GRANE	NOG 310/13
N27 54 31	W97 39 27	JAGRU	I-CRP
N27 46 27	W99 19 42	KAHAN	LRD 006/18
N27 18 18	W97 35 58	LOCOE	CRP 184/37
N27 48 23	W97 09 51	RYNOL	NGP 038/10
N30 57 07	W102 58 32	FST	FORT STOCKTON
N30 00 52	W100 17 59	RSG	ROCK SPRINGS
N29 55 43	W100 04 13	WEBOX	DLF 037/50
N28 49 23	W95 33 57	YAWNS	HUB 192/52

PAGE 8: IR ROUTE / NAVAIDS			
LAT	**LONG**	**ID**	**DESCRIPTION**
N27 16 00	W97 26 00	IR166A	IR 166 PT A
N27 05 00	W97 27 00	IR166B	IR 166 PT B
N26 50 00	W97 35 00	IR166C	IR 166 PT C
N26 53 00	W98 08 00	IR166D	IR 166 PT D
N27 25 00	W98 34 00	IR166E	IR 166 PT E
N27 30 00	W98 47 00	IR166F	IR 166 PT F
N27 47 00	W98 50 00	IR166G	IR 166 PT G
N27 57 00	W98 37 00	IR166H	IR 166 PT H
N27 37 00	W98 23 00	IR166I	IR 166 PT I
N27 25 00	W98 06 00	IR166J	IR 166 PT J
N32 46 33	W113 58 19	MOHAK	GBN 247/66
N32 36 37	W116 58 44	PGY	POGGI
N32 44 00	W117 11 22	KSAN	SAN DIEGO INT
N31 22 29	W100 27 17	SJT	SAN ANGELO
N31 21 30	W100 29 48	KSJT	SAN ANGELO RGNL

PAGE 9: NAVAIDS WEST			
LAT	**LONG**	**ID**	**DESCRIPTION**
N32 00 33	W102 11 25	MAF	MIDLAND
N31 56 36	W102 12 06	KMAF	MIDLAND INTL
N31 57 06	W106 16 20	EWM	NEWMAN
N31 48 24	W106 22 42	KELP	EL PASO INTL
N32 16 09	W109 15 47	SSO	SAN SIMON
N32 53 09	W111 54 31	TFD	STANFIELD
N33 18 11	W111 39 05	IWA	WILLIE
N32 57 22	W112 40 27	GBN	GILA BEND
N32 46 05	W114 36 10	BZA	BARD
N32 44 55	W115 30 30	IPL	IMPERIAL
N32 46 55	W117 13 31	MZB	MISSION BAY
N32 38 48	W114 36 48	NYL	YUMA
N32 49 54	W115 40 52	NJK	EL CENTRO
N32 52 06	W117 08 30	KNKX	MCAS MIRAMAR
N32 42 09	W117 12 58	KNZY	NORTH ISLAND

PAGE 10: IR ROUTES			
LAT	**LONG**	**ID**	**DESCRIPTION**
N27 22 00	W98 08 00	IR135A	IR 135 PT A
N26 54 00	W98 08 00	IR135B	IR 135 PT B
N26 43 00	W98 32 00	IR135C	IR 135 PT C
N27 19 00	W98 39 00	IR135D	IR 135 PT D
N27 26 00	W98 50 00	IR135E	IR 135 PT E
N27 47 00	W98 50 00	IR135F	IR 135 PT F
N27 57 00	W98 37 00	IR135G	IR 135 PT G
N27 54 00	W97 01 00	IR136A	IR 136 PT A
N28 04 00	W97 13 00	IR136B	IR 136 PT B
N28 13 00	W97 57 00	IR136C	IR 136 PT C
N28 26 00	W98 46 00	IR136D	IR 136 PT D
N28 04 00	W99 15 00	IR136E	IR 136 PT E
N28 06 00	W98 43 00	IR136F	IR 136 PT F
N32 22 42	W88 48 15	MEI	MERIDIAN
N32 33 12	W88 33 18	KNMM	NAS MERIDIAN

PAGE 11: NAVAIDS EAST			
LAT	**LONG**	**ID**	**DESCRIPTION**
N28 45 51	W96 18 22	PSX	PALACIOS
N29 16 09	W94 52 03	VUH	SCHOLES
N29 15 42	W93 41 02	METZY	VUH 084/62
N29 37 22	W92 55 26	PEKON	HUB 085/123
N28 10 13	W94 07 45	MUSYL	VUH 143/76
N30 08 29	W93 06 20	LCH	LAKE CHARLES
N31 15 24	W92 30 03	AEX	ALEXANDRIA
N31 18 16	W90 15 29	MCB	MCCOMB
N32 22 00	W88 27 30	EWA	KEWANEE
N32 13 20	W86 19 11	MGM	MONTGOMERY
N29 39 47	W92 22 25	LLA	WHITE LAKE
N30 11 37	W91 59 33	LFT	LAFAYETTE
N30 02 18	W91 53 00	KARA	ACADIANA RGNL
N30 23 47	W84 21 00	KTLH	TALLAHASEE
N30 20 19	W81 30 35	CRG	CRAIG (JAX)

PAGE 12: NAVAIDS EAST/CQ			
LAT	**LONG**	**ID**	**DESCRIPTION**
N30 29 06	W91 17 38	BTR	BATON ROUGE
N29 39 51	W90 49 44	TBD	TIBBY
N30 05 15	W90 35 19	RQR	RESERVE
N29 51 00	W90 00 10	HRV	HARVEY
N29 49 36	W90 01 36	KNBG	NAVY NEW ORLEANS
N30 18 07	W88 01 34	TRADR	NPA 264/37
N30 21 12	W87 19 06	KNPA	NAS PENSACOLA
N30 28 24	W87 11 12	KPNS	PENSACOLA RGNL
N30 43 33	W88 21 33	SJI	SEMMES
N30 49 34	W86 40 44	CEW	CRESTVIEW
N30 47 37	W85 08 14	OJHAP	SZW 288/42
N30 33 22	W84 22 26	SZW	SEMINOLE
N30 30 16	W82 33 10	TAY	TAYLOR
N30 29 00	W81 41 00	KJAX	JACKSONVILLE INTL
N34 54 08	W76 52 29	NKT	CHERRY POINT

PAGE 13: NAVAIDS EAST/CQ			
LAT	**LONG**	**ID**	**DESCRIPTION**
N30 12 12	W80 58 01	SNOOC	CRG 108/29
N30 26 49	W80 47 18	JAWSS	CRG 083/38
N30 14 00	W81 40 30	KNIP	NAS JAX
N30 23 30	W81 26 00	KNRB	MAYPORT NS
N30 13 06	W81 52 36	KVQQ	CECIL FIELD
N30 21 26	W81 53 02	11NEN	RW 11 WHTHSE
N30 21 02	W81 51 36	29NEN	RW 29 WHTHSE
N32 07 39	W81 12 07	SAV	SAVANNAH
N32 28 48	W80 43 12	KNBC	MCAS BEAUFORT
N25 29 18	W80 23 00	KHST	HOMESTEAD AFB

PAGE 14: JAX CQ			
LAT	**LONG**	**ID**	**DESCRIPTION**
N32 00 00	W80 30 00	158C2	LINE OF DEATH 1
N31 12 00	W80 58 00	158C3	LINE OF DEATH 2
N30 34 00	W80 58 00	158C4	LINE OF DEATH 3
N29 52 00	W81 02 00	158C5	LINE OF DEATH 4
N28 50 00	W80 29 00	158C6	LINE OF DEATH 5

WEST WAYPOINT PLAN

PAGE 1: WEPS DET			
LAT	**LONG**	**ID**	**DESCRIPTION**
N32 49 48	W115 40 18	KNJK	NAF EL CENTRO
N32 39 24	W114 36 24	KNYL	MCAS YUMA
N33 49 48	W116 30 24	KPSP	PALM SPRINGS INTL
N32 41 54	W117 12 48	KNZY	NAS NORTH ISLAND
N32 52 06	W117 08 30	KNKX	MCAS MIRAMAR
N32 55 49	W115 43 48	ST	SHADETREE
N32 51 49	W115 53 05	LL	LOOM LOBBY
N33 02 29	W115 17 05	KB	KITTY BAGGAGE
N32 56 30	W115 13 39	IB	INKEY BARLEY
N32 27 34	W114 24 08	CW	CACTUS WEST
N34 15 00	W115 05 00	IR217G	
N33 48 00	W115 18 00	IR217H	
N33 29 00	W115 44 00	IR217I	
N33 23 00	W116 05 00	IR217J	
N33 07 00	W116 01 00	IR217K	

PAGE 2: WEST NAVAIDS			
LAT	**LONG**	**ID**	**DESCRIPTION**
N27 29 57	W97 48 20	KNQI	NAS KINGSVILLE
N27 54 14	W97 26 41	CRP	CORPUS CHRISTI
N27 45 40	W97 29 46	KCRP	CORPUS CHRISTI INTL
N28 30 18	W98 09 02	THX	THREE RIVERS
N28 27 43	W99 07 06	COT	COTULLA
N29 21 39	W100 46 18	DLF	LAUGHLIN
N30 57 07	W102 58 32	FST	FORT STOCKTON
N31 57 06	W106 16 20	EWM	NEWMAN
N31 48 57	W106 16 54	ELP	EL PASO
N31 48 24	W106 22 40	KELP	EL PASO INTL
N32 16 32	W107 36 20	DMN	DEMING
N32 16 09	W109 15 47	SSO	SAN SIMON
N32 02 00	W109 45 29	CIE	COCHISE
N32 05 43	W110 54 53	TUS	TUSCON
N32 06 58	W110 56 28	KTUS	TUSCON INTL

PAGE 3: WEST NAVAIDS			
LAT	**LONG**	**ID**	**DESCRIPTION**
N33 18 11	W111 39 05	IWA	MESA GATEWAY
N33 25 59	W111 58 13	PXR	PHOENIX
N32 53 09	W111 54 31	TFD	STANFIELD
N33 27 13	W112 49 29	BXK	BUCKEYE
N32 57 22	W112 40 27	GBN	GILA BEND
N32 46 31	W113 58 17	MOHAK	MOHAK
N32 46 05	W114 36 10	BZA	BARD
N32 44 55	W115 30 30	IPL	IMPERIAL
N33 37 41	W116 09 36	TRM	THERMAL
N33 52 12	W116 25 47	PSP	PALM SPRINGS
N34 06 07	W114 40 55	PKE	PARKER
N33 35 45	W114 45 40	BLH	BLYTHE
N34 06 44	W115 46 11	TNP	TWENTYNINE PALMS
N34 45 58	W114 28 27	EED	NEEDLES
N35 07 52	W115 10 35	GFS	GOFFS

PAGE 4: WEST NAVAIDS			
LAT	**LONG**	**ID**	**DESCRIPTION**
N33 08 25	W116 35 09	JLI	JULIAN
N32 36 37	W116 58 44	PGY	POGGI
N32 46 55	W117 13 31	MZB	MISSION BAY
N32 42 09	W117 12 58	NZY	NORTH ISLAND
N33 14 28	W117 25 02	OCN	OCEANSIDE
N33 55 06	W117 31 48	PDZ	PARADISE
N33 55 59	W118 25 55	LAX	LOS ANGELES
N34 57 45	W116 34 41	DAG	DAGGET
N34 42 09	W112 28 49	DRK	DRAKE
N35 37 28	W113 32 40	PGS	PEACH SPRINGS
N35 15 37	W113 56 02	IGM	KINGMAN
N35 59 44	W114 51 48	BLD	BOULDER CITY
N35 08 50	W111 40 27	FLG	FLAGSTAFF
N36 04 46	W115 09 35	LAS	LAS VEGAS
N36 14 40	W115 01 30	LSV	NELLIS AFB

PAGE 5: WEST NAVAIDS			
LAT	**LONG**	**ID**	**DESCRIPTION**
N35 28 34	W108 52 22	GUP	GALLUP
N35 02 37	W106 48 58	ABQ	ALBUQUERQUE
N34 22 01	W105 40 41	CNX	CORONA
N33 20 15	W104 37 16	CME	CHISUM
N32 28 53	W99 51 49	ABI	ABILENE
N35 03 42	W110 47 42	INW	WINSLOW
N34 25 27	W109 08 37	SJN	ST JOHNS
N33 16 57	W107 16 49	TCS	TRUTH OR CONSEQUE
N31 52 29	W103 14 37	INK	WINK
N32 00 33	W102 11 25	MAF	MIDLAND
N31 56 36	W102 12 06	KMAF	MIDLAND INTL
N31 21 30	W100 29 48	KSJT	SAN ANGELO RGNL
N31 22 29	W100 27 17	SJT	SAN ANGELO
N30 35 52	W99 49 03	JCT	JUNCTION
N30 00 52	W100 17 59	RSG	ROCK SPRINGS

PAGE 6: CQ / KNUC / TRTLE MOA (1)			
LAT	**LONG**	**ID**	**DESCRIPTION**
N32 36 38	W117 41 19	ZOOLU	ZOOLU
N32 26 36	W117 30 04	SIERA	SIERA
N32 49 13	W117 50 33	WIZKY	WIZKY
N32 43 18	W117 42 49	ORDER	ORDER
N32 31 09	W117 22 58	SKATE	SKATE
N32 37 45	W117 09 51	SHARK	SHARK
N32 03 00	W117 24 00	A	PT A
N32 13 00	W117 36 00	B	PT B
N32 22 00	W117 36 00	C	PT C
N32 44 05	W117 11 17	KSAN	SAN DIEGO INTL
N32 52 20	W118 26 10	NSD	BEAVER (AREA)
N33 01 20	W118 35 19	KNUC	SAN CLEMENTE
N34 40 03	W114 00 01	TRTLE1	POINT 1
N34 23 02	W114 00 02	TRTLE2	POINT 2
N34 14 08	W114 30 15	TRTLE3	POINT 3

PAGE 7: TRTLE MOA(2)/ VR 259/269			
LAT	**LONG**	**ID**	**DESCRIPTION**
N34 14 09	W115 29 46	TRTLE4	POINT 4
N34 18 48	W115 24 59	TRTLE5	POINT 5
N34 41 49	W115 15 51	TRTLE6	POINT 6
N32 26 00	W110 30 00	VR259A	
N32 02 00	W109 45 00	VR259B	
N31 45 00	W109 05 00	VR259C	
N31 44 00	W109 50 00	VR259D	
N31 54 00	W110 43 00	VR259E	
N31 39 00	W111 30 00	VR259F	
N32 26 00	W110 30 00	VR269A	
N32 53 00	W110 22 00	VR269B	
N33 07 00	W110 47 00	VR269C	
N33 04 00	W111 40 00	VR269D	
N33 00 00	W112 25 00	VR269E	
N33 04 00	W113 00 00	VR269F	

PAGE 8: R2507 / ABEL SOUTH MOA			
LAT	**LONG**	**ID**	**DESCRIPTION**
N33 14 00	W115 22 00	2507A	R-2507 PT1
N33 22 00	W115 15 00	2507B	R-2507 PT2
N33 09 00	W114 57 00	2507C	R-2507 PT3
N33 01 00	W115 06 00	2507D	R-2507 PT4
N33 14 00	W115 22 00	2507E	R-2507 PT5
N33 24 00	W115 33 00	2507F	R-2507 PT6
N33 29 00	W115 42 00	2507G	R-2507 PT7
N33 33 00	W115 34 00	2507H	R-2507 PT8
N33 29 00	W115 42 00	ABELNA	ABEL NORTH PT1
N33 33 00	W115 33 00	ABELNB	ABEL NORTH PT2
N33 31 00	W115 03 30	ABELNC	ABEL NORTH PT3
N33 15 30	W114 55 00	ABELND	ABEL NORTH PT4
N33 09 00	W114 56 00	ABELNE	ABEL NORTH PT5
N33 01 00	W115 06 00	ABELNF	ABEL NORTH PT6
N33 24 00	W115 33 00	ABELNG	ABEL NORTH PT7

PAGE 9: KANE E/W MOA			
LAT	**LONG**	**ID**	**DESCRIPTION**
N33 28 30	W115 41 30	KANEEA	KANE EAST 1
N33 23 00	W115 33 00	KANEEB	KANE EAST 2
N32 57 00	W115 26 30	KANEEC	KANE EAST 3
N32 56 00	W115 40 00	KANEED	KANE EAST 4
N33 07 00	W115 50 30	KANEEE	KANE EAST 5
N33 23 00	W115 50 30	KANEEF	KANE EAST 6
N33 29 00	W115 42 00	KANEWA	KANE WEST 1
N33 28 00	W115 51 00	KANEWB	KANE WEST 2
N33 18 00	W116 10 00	KANEWC	KANE WEST 3
N32 57 00	W116 10 00	KANEWD	KANE WEST 4
N32 50 00	W116 01 00	KANEWE	KANE WEST 5
N32 50 00	W115 55 00	KANEWF	KANE WEST 6
N33 01 00	W116 02 00	KANEWG	KANE WEST 7
N33 07 00	W115 57 00	KANEWH	KANE WEST 8
N33 07 00	W115 51 00	KANEWI	KANE WEST 9

PAGE 10: VR244 / 239			
LAT	**LONG**	**ID**	**DESCRIPTION**
N33 57 00	W112 28 48	VR244A	
N34 10 00	W112 16 00	VR244B	
N33 56 48	W111 49 00	VR244C	
N33 51 00	W111 30 48	VR244D	
N33 38 00	W111 12 48	VR244E	
N33 25 30	W111 01 00	VR244F	
N33 10 30	W111 02 00	VR244G	
N32 47 00	W110 58 00	VR244H	
N33 54 00	W112 17 00	VR239A	
N34 04 00	W112 00 00	VR239B	
N34 04 00	W111 27 00	VR239C	
N34 00 18	W110 51 00	VR239D	
N33 21 00	W110 13 00	VR239E	
N32 47 00	W110 57 00	VR239F	
N32 38 00	W111 24 00	VR239G	

PAGE 11: VR299 / 176			
LAT	**LONG**	**ID**	**DESCRIPTION**
N34 44 00	W114 20 00	VR299A	
N34 28 00	W113 37 00	VR299B	
N34 00 00	W114 13 00	VR299C	
N33 26 00	W114 39 00	VR299D	
N33 07 00	W114 53 00	VR299E	
N32 49 00	W114 50 00	VR299F	
N32 46 00	W115 16 00	VR299G	
N32 55 00	W115 30 00	VR299H	
N34 27 00	W108 47 00	VR176B	
N34 00 00	W109 00 00	VR176C	
N33 49 00	W109 06 00	VR176D	
N33 25 00	W109 11 00	VR176E	
N33 25 00	W108 15 00	VR176F	
N33 03 00	W107 59 00	VR176G	
N32 34 00	W107 27 00	VR176H	

PAGE 12: VR1266 / 243			
LAT	**LONG**	**ID**	**DESCRIPTION**
N32 58 00	W114 40 00	V1266A	
N33 21 43	W115 04 19	SHACK	
N33 27 00	W115 10 00	V1266B	
N33 34 00	W115 21 00	V1266C	
N33 34 00	W115 35 00	V1266D	
N33 31 04	W115 40 39	BRIDGE	
N33 30 00	W115 44 00	V1266E	
N33 19 00	W116 34 00	V1266F	
N33 00 00	W116 28 00	V1266G	
N33 01 21	W116 05 14	MINE	
N33 57 00	W112 28 30	VR243A	
N34 14 00	W112 24 30	VR243B	
N34 21 00	W112 55 00	VR243C	
N34 56 30	W113 06 30	VR243D	
N35 04 30	W113 54 00	VR243E	

PAGE 13: VR1267/289			
LAT	**LONG**	**ID**	**DESCRIPTION**
N32 58 00	W114 40 00	V1267A	
N33 27 00	W115 10 00	V1267B	
N33 47 00	W115 06 00	V1267C	
N33 58 00	W114 29 00	V1267D	
N34 05 00	W113 46 00	V1267E	
N33 43 00	W113 42 00	V1267F	
N33 21 00	W113 37 00	V1267G	
N33 06 00	W113 27 00	V1267H	
N34 55 00	W115 04 00	VR289A	
N34 51 00	W115 28 00	VR289B	
N34 31 00	W115 31 00	VR289C	
N34 09 00	W115 34 00	VR289D	
N33 53 00	W115 23 00	VR289E	
N33 41 00	W115 34 00	VR289F	
N33 29 00	W115 44 00	VR289G	

PAGE 14: Quail MOA			
LAT	**LONG**	**ID**	**DESCRIPTION**
N33 44 00	W115 00 00	QUAILA	
N33 55 00	W115 00 00	QUAILB	
N34 12 00	W114 00 00	QUAILC	
N33 38 00	W114 00 00	QUAILD	
N33 44 00	W114 32 00	QUAILE	

T-45C WAYPOINT SETUP FOR MOA BOUNDARIES

1	OPEN			31	SP2NE	N27 45 44	W97 45 33
2	OPEN			32	A1/B5	N27 33 49	W98 40 27
3	OPEN			33	A2B4C1	N27 12 19	W98 44 05
4	OPEN			34	A3/D4	N26 51 31	W97 53 08
5	OPEN			35	A4	N27 23 33	W97 44 04
6	OPEN			36	A5	N27 24 33	W98 06 31
7	OPEN			37	A6	N27 40 56	W98 07 29
8	OPEN			38	B1	N27 29 00	W99 02 34
9	OPEN			39	B2	N27 16 06	W99 07 36
10	KNOG	N27 53 43	W98 02 33	40	B3/C2	N27 00 34	W98 53 06
11	KCRP	N27 46 12	W97 30 06	41	C3/D2	N26 37 30	W98 32 00
12	KLRD	N27 32 36	W99 27 42	42	C4/D1	N26 59 52	W98 13 28
13	KMFE	N26 10 36	W98 14 18	43	D3	N26 21 56	W98 17 56
14	CRP	N27 46 12	W97 30 06	44	K3E1W6	N28 15 06	W98 51 29
15	LRD	N27 32 36	W99 27 42	45	K3E2W5	N28 00 59	W98 34 47
16	WAADE	N27 33 58	W98 17 13	46	K3E3W4	N27 46 56	W98 26 37
17	RVERA	N26 58 56	W97 50 45	47	K3E4	N27 52 24	W98 01 19
18	DUVAL	N27 58 21	W98 36 01	48	K3E5	N28 14 23	W98 13 37
19	SINTO	N28 05 22	W97 39 41	49	K3E6	N28 34 42	W98 34 42
20	JUBAK	N27 02 05	W97 10 02	50	K3W1	N27 53 02	W99 05 10
21	DIXIE	N28 06 06	W98 43 06	51	K3W2	N27 48 01	W98 59 08
22	K4P1	N29 04 43	W97 29 51	52	K3W3	N27 41 03	W98 54 17
23	K4P2	N28 50 12	W97 44 20	53	WD1	N26 56 10	W97 07 48
24	K4P3	N24 40 00	W98 06 58	54	WD2	N26 37 12	W97 01 26
25	K4P4	N28 21 36	W97 51 43	55	WD4	N26 00 00	W96 54 30
26	K4P5	N28 09 42	W97 37 35	56	WD5	N26 00 00	W96 30 01
27	K4P6	N28 10 40	W97 17 10	57	WD7	N26 52 26	W96 30 01
28	K4P7	N28 41 20	W96 51 13	58	WD8	N27 18 40	W96 30 01
29	K4P8	N28 52 43	W97 09 58	59	WD9	N27 07 30	W96 43 34
30	K4P9	N28 32 48	W97 29 25	60	WD10	N26 44 31	W96 42 58

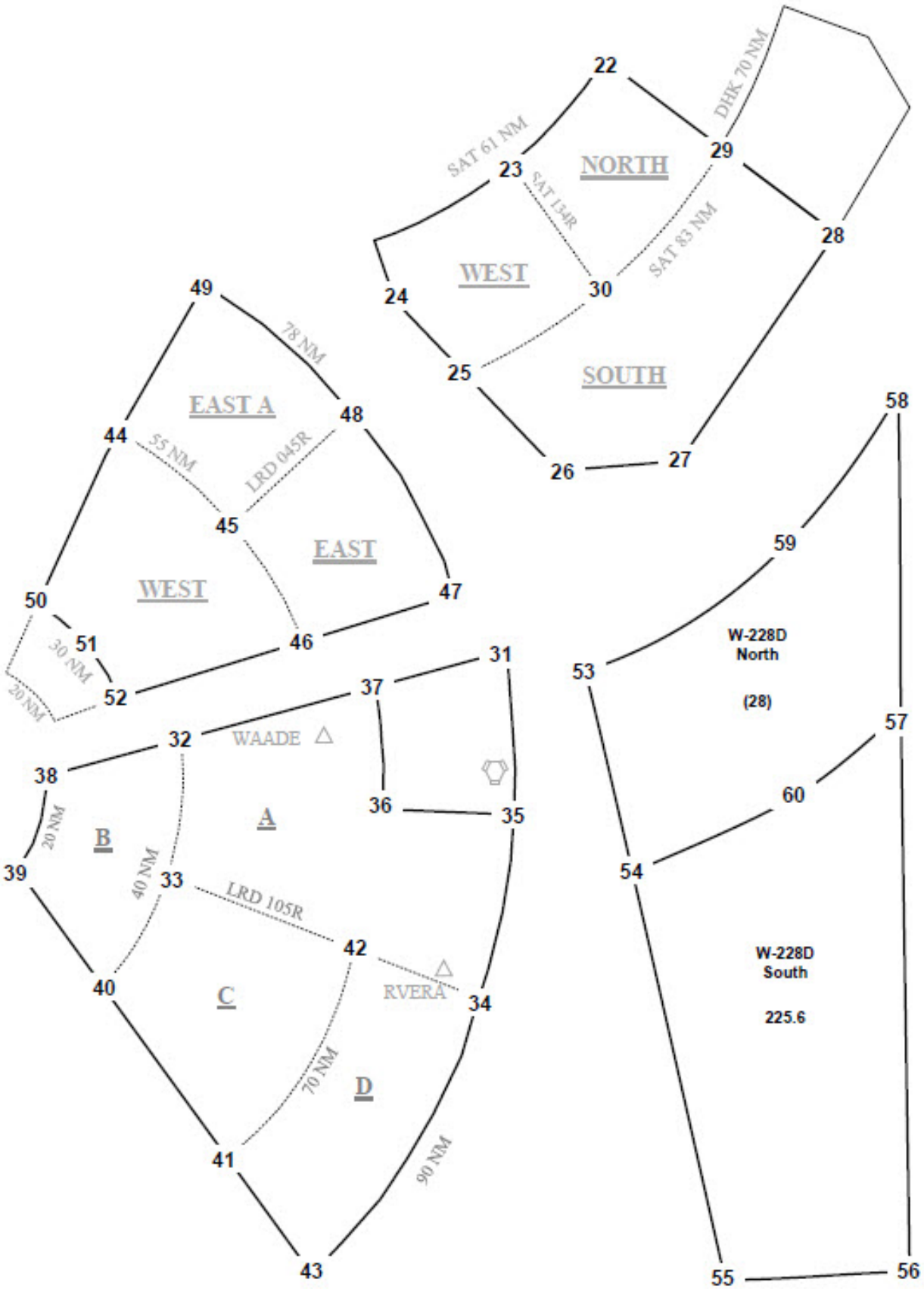
W-228D SEQ 1: 54, 60, 57, 58, 59, 53, 54, 55, 56, 57

K3 MOA SEQ 2: 44, 45, 46, 47, 48, 45, 48, 49, 44, 50, 51, 52, 46

K1 MOA SEQ 3: 41, 42, 34, 43, 40, 33, 32, 33, 34, 35, 36, 37, 31, 35, 31, 38, 39, 40

K4 MOA 25, 30, 29, 28, 27, 26, 25, 24, 23, 30, 23, 22, 29

GREF 10, 11, 12, 21


22
DHK 70 NM
SAT 61 NM
23
NORTH
29
SAT 134R
SAT 83 NM
28
WEST
24
30
49
78 NM
25
SOUTH
EAST A
48
58
44
55 NM
LRD 045R
26
27
45
59
EAST
WEST
50
47
W-228D
North
(28)
51
46
30 NM
53
31
20 NM
52
37
57
32
WAADE
38
60
36
35
20 NM
B
A
54
39
40 NM
33
LRD 105R
42
W-228D
South
225.6
40
C
RVERA
34
70 NM
D
41
90 NM
43
55
56

AIRCRAFT/SIMULATOR PLACARD COMM FREQ CARD

1	STRIKE	302.6	16	GCA	305.2	KNQI 13R
2	GROUND	239.05	17	GCA	310.8	ILS 110.9 CH 125
3	TOWER	377.05	18	GCA	355.6	FAC 130 deg
4	DEPARTURE	266.8	19	GCA	263.075	KCRP 13 (102)
5	KINGS IA	237.85	20	NQI LSO	315.85	ILS 110.3 CH 40
6	KINGS 1B	314.05	21	NOG ATIS	254.35	FAC 129 deg
7	KINGS 1C	357.45	22	NOG GRND	229.4	KLRD 17R
8	KINGS 1D	302.275	23	NOG TWR	281.425	ILS 111.9 CH 56
9	KINGS IIIE	281.05	24	NOG LSO	318.85	FAC 175 deg
10	KINGS IIIW	128.45	25	ALERT A/C	308.2	KMFE 13
11	SPIN/GCA	269.35	26	DIXIE	322.875	ILS 111.7 CH 54
12	ARRIVAL	322.425	27	SEAGULL	317.55	FAC 134 deg
13	APPROACH	290.45	28	W-228D N	309.8	KNOG 13
14	GCA	254.4	29	CLEARANCE	328.4	ILS 110.5 CH 63
15	GCA	349.0	30	ATIS	276.2	FAC 130 deg

AIRCRAFT/SIMULATOR PLACARD NAVAID CARD

FIELD	TAC	VOR	ILS/LOC/FAC	TWR	APCH
ALICE		114.5	109.3/30/308	123.0	290.45
BROWNSVILLE	110	116.3	110.3/40/128	118.9	119.5
CORPUS INTL	102	115.5	110.3/40/129	119.4	120.9
NAS CORPUS	87	114.0	111.3/87/129	340.2	120.9
EL PASO	99	115.2	111.5/52/219	118.3	119.15
HARLINGEN	29	109.2	111.5/52/176	119.3	120.7
NAS KINGSVILLE	125		110.9/125/130	377.05	290.45
LAREDO	121	117.4	111.9/56/175	257.9	307.2
LAUGHLIN	91	114.4	110.3/91/128	307.375	259.1
MCALLEN	119	117.2	111.7/54/134	118.5	121.0
ORANGE GROVE	63		110.5/63/130	281.425	290.45
RANDOLPH	70	112.3	109.9/36/145	294.7	318.1

FLIP TO BACK COVER FOR

EMERGENCY PROCEDURES

PLANNED EJECTION

When a planned ejection is necessary, the aircraft will normally be vectored by Kingsville Approach Control to the EAST of NAS Kingsville. Kingsville Approach Control will initiate the SAR procedures, vector helicopters, and provide assistance to the airborne on-scene-commander.

If NORDO, a pilot faced with a planned ejection situation should broadcast intentions on GUARD, SQUAWK 7700, proceed southeast on the **NQI R-115**, and then **eject between 5-15 DME**. **Lat/Long for 10 DME is N 27 25 12 / W 97 38 28.**

WET RUNWAY RECOVERY PROCEDURES

1. When there is sufficient water on the runways to constitute a hazard to recovering aircraft, the Wet Runway Recovery procedures will be activated. The Wet Runway Recovery procedures may be initiated by:

a. Tower Personnel

b. Wing Duty Officer

c. Strike Ops Duty Officer

d. Any pilot airborne

e. Runway Duty Officer

2. When Wet Runway Recovery procedures have been activated, the following procedures shall be followed:

a. All student solos shall perform a short-field arrestment

b. Within crosswind limitations, off-duty runways should be used to the maximum extent possible for arrested landings

c. If an off-duty arrestment is not practical, arrestments shall be made on only one of the dual runways and the other runway shall remain open for traffic not requiring an arrestment

d. If only one runway is available, aircraft not requiring an arrestment will land prior to those requiring arrestments

e. The flight lead/pilot-in-command (PIC) shall consider diverting to NALF Orange Grove, NAS Corpus Christi, or Corpus Christi International Airport if the number of arrestments being requested will cause unacceptable delays in landing

3. The following are the priorities when multiple aircraft are requesting traps:

a. Emergency aircraft (including fuel)
b. Minimum fuel aircraft
c. Student Solos
d. Dual SNA/IP

4. These procedures may be modified as each situation dictates by good headwork and sound judgment on the part of each flight lead/PIC

SEARCH AND RESCUE (SAR) PROCEDURES

FIRST TO ARRIVE/ON-SCENE-COMMANDER (OSC)

1. Orbit at an altitude sufficient to initiate the SAR effort. Initiate MAYDAY call on GUARD, then contact Kingsville Approach Control 290.45 MHz/Button 13 (PRIMARY) or Kingsville Tower 377.05 MHz/Button 3 (ALTERNATE); or GUARD 243.0 MHz as a last resort.

2. Initial SAR Report

   a. MAYDAY, MAYDAY, MAYDAY, (your call sign)

   b. Location of crash site (NQI RADIAL/DME and L/L if available)

   c. Type of aircraft involved and call sign

   d. Number of persons involved and their apparent condition. Do not use aircrew names.

   e. Your fuel state (in minutes). If low state, coordinate an on-station relief.

   f. Brief description of crash site (i.e., private or public property, and obvious property damage or civilian injury)

   AFTER INITIAL CONTACT, SAR UNITS WILL BE SWITCHED TO 282.8 MHz (SAR COMMON) BY THE SAR COORDINATOR FOR RADAR SERVICE AND OVERALL COORDINATION.

3. IFF/SIF – Emergency/7700 or as assigned by SAR Coordinator

4. Use TACAN and local area charts to determine the crash position and to assist SAR units

5. Perform low altitude survey to determine aircrew condition. If two aircraft are on-scene, OSC should orbit high for communication relay.

STUDENT AVIATORS: 2,500 ft *AGL* AND 250 KIAS MINIMUM, 25° ANGLE OF BANK MAXIMUM

6. Compute a bingo fuel to land with sufficient reserve. Honor your bingo.

HUNG/UNEXPENDED ORDNANCE PROCEDURES

Request and Advise: ACTUAL or Practice and hung or unexpended. Enter a 5 NM straight-in at 1,000 ft AGL or as directed. Commence flight separation at 10NM to ensure flight separation prior to reporting 3 NM from the assigned runway. The approach will normally be to the departure runway. DO NOT OVERFLY POPULATED AREAS. (Recommend DME for detachment of wing aircraft, -4 at 10, -3 at 7, -2 at 4.)

UNSAFE GEAR/VISUAL CHECK PROCEDURES

Aircraft experiencing gear problems or otherwise requiring visual inspection should request to “hold overhead” or enter an appropriate DELTA pattern. Coordinate inspection considering configuration with other aircraft. If able, fly 200 KIAS if clean and 150 KIAS if dirty (gear and ½ flaps). Notify Kingsville Tower when ready to reenter the pattern for sequencing.

Plan to use the un-briefed rendezvous airspeeds of 200 KIAS (clean) and 150 KIAS (dirty) if a NORDO aircraft is involved.

LOST PLANE PROCEDURES

THE FIVE C's

CONFESS	State your emergency
CLIMB	
CONSERVE	Fly MAX ENDURANCE until oriented, then fly MAX RANGE
COMMUNICATE	GUARD or best frequency/IFF – Emergency, Mode 3/A - 7700
COMPLY	with ATC instructions

VMC CONDITIONS

1. Admit you are lost

2. Climb to optimum altitude for fuel conservation

3. Climb toward coastline (over land – fly east, over water – fly west)

4. While climbing, attempt TACAN, VOR, or UHF orientation

5. At optimum altitude, fly at MAX ENDURANCE

6. Attempt contact with the following agency for a UHF STEER:

AGENCY	BTN	FREQ
Kingsville Tower	3	377.05/GUARD
Kingsville Approach Control	13	290.45/GUARD
Navy Corpus Tower		340.2/GUARD
Lackland (Kelly Annex) Tower		322.35/GUARD
ANY FSS RADIO		255.4/GUARD

Phraseology: **PAN/PAN, PAN/PAN, PAN/PAN, THIS IS NAVY JET (CALL SIGN), I AM A LOST AIRCRAFT, FUEL ON BOARD: XX MINUTES. PAN/PAN, PAN/PAN, PAN/PAN.**

7. If no contact is made, squawk EMERGENCY/Mode 3A 7700

8. If a coastline is reached without establishing radio contact:

   a. Parallel the coast on northerly heading

   b. If the indicated heading is more than 023, you are north of Corpus Christi. If the indicated heading is less than 023, you are south of Corpus Christi.

   c. When oriented, proceed VFR to the closest suitable field depending on available fuel

CAUTION: IF ENGINE FLAMEOUT DUE TO FUEL STARVATION APPEARS IMMINENT, PREPARE TO EJECT!

6. HEFOE SIGNALS

Give Weeping Signal (wrist on forehead), then show fingers for system:

1 finger	Hydraulic
2 finger	Electrical
3 finger	Fuel
4 finger	Oxygen
5 finger	Engine

7. STANDARD LIGHT SIGNALS (ALDIS LAMP)

LIGHT	AIRBORNE	ON DECK
STEADY GREEN	Cleared to land	Cleared for takeoff
FLASHING GREEN	Return for landing	Cleared to taxi
STEADY RED	Give way to other aircraft	STOP
FLASHING RED	Field unsafe, DO NOT LAND	Taxi clear of duty runway
FLASHING RED & GREEN	EXTREME CAUTION	EXTREME CAUTION
FLASHING WHITE		Return to chocks

8. LSO-IFLOLS LOST COMM SIGNALS

SIGNAL		MEANING
Red Waveoff Lights		"WAVEOFF"
Green Cut Lights	-3 seconds in the groove	"ROGER, BALL" or LOST COMM "FULL STOP, THIS PASS"
	-subsequent flashes -steady cut lights	"POWER"
Alternate Flashing Waveoff/Cut Lights		"BINGO" to briefed field

LOST COMM PROCEDURES

RADIO FAILURE TO/FROM/WITHIN MOAS/WORKING AREAS

1. **IMC LOST COMM Procedures**

a. Flights en-route to a Kingsville MOA will proceed via the assigned coded departure to that Kingsville MOA. If not within the assigned altitude block at completion of the coded departure, climb within the lateral confines of that Kingsville MOA until established within that assigned altitude block.

b. Prior to exiting Kingsville 1, 2, or 3 MOA, pilots shall squawk "Lost communications (7600)", turn lights to bright and flashing, climb or descend to 9000 feet within the lateral confines of the MOA, and proceed to the LO-TACAN IAF in use (BALTS southerly flow, BRAMA northerly flow). For the Kings 2 MOA, ensure squawk is 7600 prior to descending below 13K. Maintain 9K until IAF, descend in holding, and execute the TACAN approach for runway in use upon reaching IAF point and altitude. Execute full stop to RIGHT runway unless wave-off lights observed.

c. Prior to exiting the Kingsville 4 or 5 MOA/ATCAA, squawk 7600, climb or descend to FL 190 within the MOA and proceed to IAF for HI-TACAN approach in use. Maintain FL190 until ETA, then execute the HI TACAN approach. For low fuel state, aircrew may proceed to WAADE even if NQI is north flow; expect circling approach. Execute full stop to RIGHT runway unless wave-off lights observed.

d. If NQI TACAN is inoperative and weather conditions preclude a VFR recovery, proceed to the NOG TACAN or ILS IAF (GRANE – ILS 13, TECUR – TCN 13, DAYET – TCN 31). Descend to and maintain 5000' en-route to the IAF and execute the ILS or TCN approach. If the NOG TACAN is inoperative and weather conditions preclude a VFR recovery, the pilot will divert to the nearest suitable alternate airfield.

e. If outside Kingsville airspace, execute LOST COMM procedures IAW FAA procedures.

2. **VMC LOST COMM Procedures**. Single aircraft returning to NQI LOST COMM and VMC shall squawk 7600, turn lights to bright and flashing, proceed to LO-TACAN IAF in use, (BALTS southerly flow, BRAMA northerly flow) at 3000ft MSL. Then proceed directly to a 5NM extended centerline and execute a visual straight in to the RIGHT runway of the runways in use, unless fouled or closed. Look for a green ALDIS light signal from Kingsville Tower for clearance to land. If no ALDIS light observed, execute full stop to RIGHT runway unless wave-off lights observed.

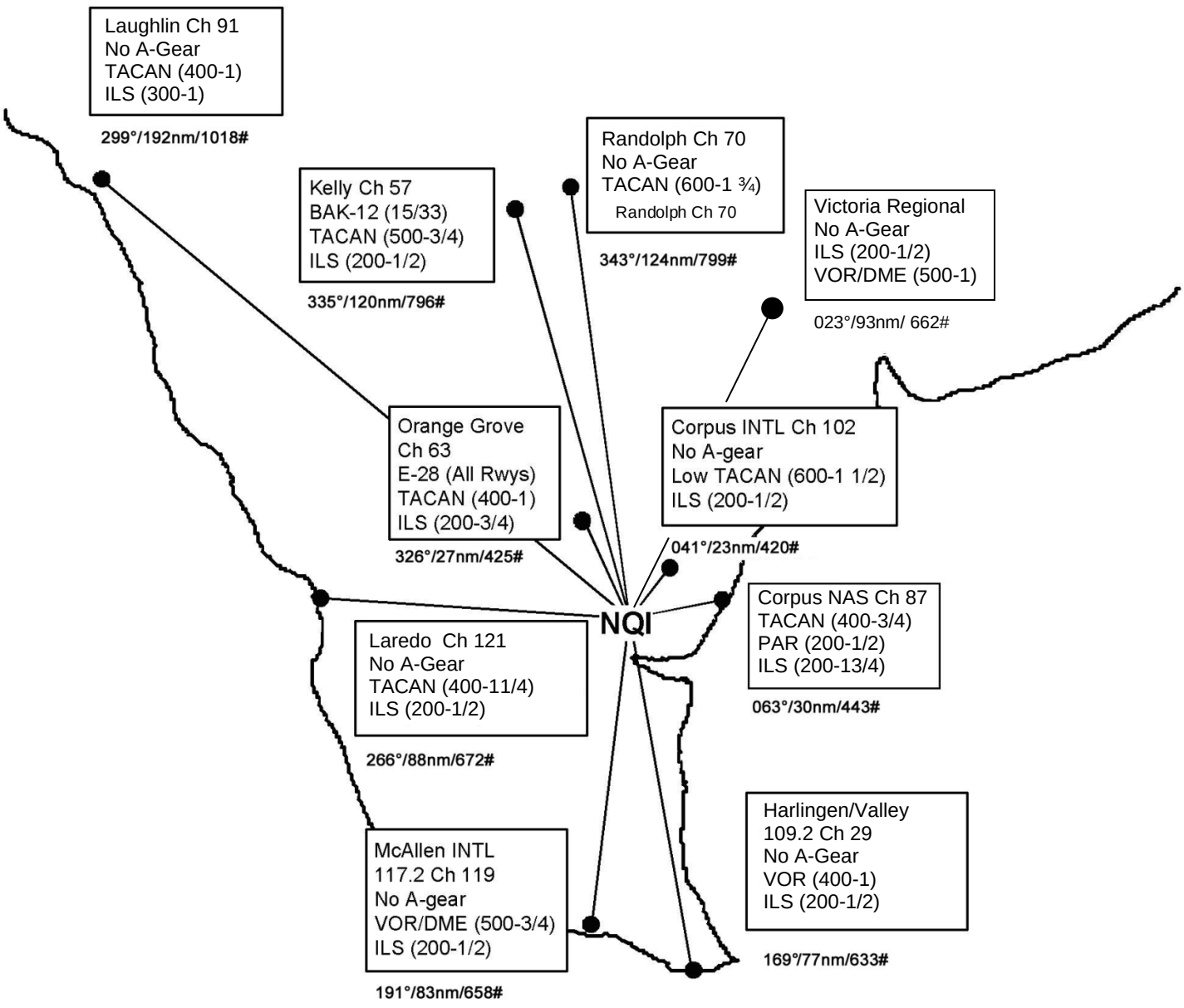
3. **W-228D IMC LOST COMM Procedures.** Squawk 7600, descend to 9000 ft MSL prior to leaving the lateral boundaries of the Warning area, then proceed direct to the IAF for the LOW TACAN approach in use (BALTS southerly flow, BRAMA northerly flow). Descend to 3000' while performing one turn in holding (fuel permitting) then commence approach.

4. **GCA LOST COMM Procedures.** The definition of the Lost Communications Procedure is: "If no transmissions are received for one minute in the pattern or five (PAR)/fifteen (ASR) seconds on final approach, attempt contact on button 13 and proceed with local LOST COMM VFR recovery procedures. If unable to maintain VMC, climb to 3000' and proceed to the IAF of the LO-TACAN approach for runway in use (BALTS south flow, BRAMA north flow), maintain 3,000 ft until established at the IAF then execute approach."

NOTE: For TW-2 aircraft only, the above may be abbreviated from the controller by saying "Lost Comm 13/17/31/35 in effect".

5. If experiencing difficulty in addition to radio failure, squawk 7700. Kingsville Tower will be prepared for an arrested landing.

DIVERT AIRFIELDS



T-45 BINGO Clean, no wind, MRT climb @ 300 KIAS, idle descent, 300# reserve

EMERGENCY PROCEDURES

DIVERT FIELDS

LOST COMM PROCEDURES

LOST PLANE PROCEDURES

SEARCH AND RESCUE (SAR) PROCEDURES

HUNG ORDNANCE PROCEDURES

UNSAFE GEAR / VISUAL INSPECTION PROCEDURES

WET RUNWAY RECOVERY PROCEDURES

PLANNED EJECTION