



VIRTUAL UNITED STATES AIR FORCE AIR EDUCATION AND TRAINING COMMAND UNDERGRADUATE PILOT TRAINING – M3 RATING

This mission provides an opportunity to demonstrate your **airmanship skills** while operating in **Low Level Controlled Airspace** and **Military Operating Areas (MOA)**. Low-level flight tactics are a fundamental part of vUSAF operations across various aircraft platforms.

You will navigate **AP1B Military Training Routes (IR-170)** and conduct maneuvering within **Laughlin MOA 2 (Burr Area)** before executing an **Emergency No-Power Landing Drill** and an **IFR recovery to KDLF**.

Prerequisite: Before starting the flying portion of the training for this rating, all associated academic materials must be thoroughly reviewed, and the 10-question open-book quiz must be completed with a score of **90% or higher**. This requirement must be met **prior to beginning any other sections** within this document.

Simulator Requirements

Ensure the following settings are applied in your simulator:

- All realism settings set to 'Realistic'
- Real World Weather enabled (for realistic training scenarios)
- Autopilot use is **authorized** when not in the Military Training Route



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UPT-202: Advanced Airmanship

Location: Laughlin AFB, Texas (KDLF)

Aircraft: C-12 (BE-12) King Air 250

Time & Weather Requirements:

- Flight must be conducted during daylight hours
- Real World Weather enabled

Required Software: JoinFS/FSRecorder, SimAcars & VATSIM client.

Required Charts: KDLF Airport Charts and AP1B Military Training Routes

Performance Tolerances: Heading ± 5 degrees, Altitude ± 100 ft

Pre-Mission Preparation

Before the mission, familiarize yourself with the following materials:

- AP1B Military Training Routes Manual – **IR-170 (pg 2-65)**
- MOA areas: **Laughlin MOA 1 and Laughlin MOA 2**
- Google Earth KMZ overlays for the **Laughlin AFB area**
- LAEKE SID & RIO1 Recovery

Preflight & Departure

- Claim your training flight via: www.vusaf.us/events/
- Begin at KDLF ramp in a cold and dark aircraft.
- Start JoinFS/FSRecorder, SimAcars, and VATSIM client
 - VATSIM CALLSIGN: AXXXX or as authorized by AETC/CC
- File an IFR flight plan with the following parameters:
 - Route: KDLF CMMGO DLF302039 IR170 DLF132039 QWAIL/D0+10
OTULE KDLF
 - Altitude: 7,000
 - Flight Plan Remarks: vUSAF.us Student Pilot / vUSAF UPT Flight 202
- Check METAR/TAF for weather conditions and determine the appropriate runway.
- Conduct a full preflight inspection and engine startup.
- Taxi to the active runway (13C/31C)

Takeoff & Climb

- Accomplish a Normal Takeoff Profile
- Fly the appropriate SID based on the Departure Runway
 - **INKO ONE** or **LAUGHLIN ONE**
- Climb to 3,000 ft MSL and proceed to DLF R-302/39NM.



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Low-Level Route Entry (IR-170)

- Before DLF R-302/39NM, request ATC clearance(*if online*) for entry into **IR-170 (Point A)**.
- Descend and maintain 600 ft AGL at 250 KIAS.
- Upon clearance, enter **IR-170** at **Point A** and proceed to **Point G**.
- Maintain a low altitude between **600 ft – 1,000 ft AGL**.
- Execute required radio call upon reaching **Point D**.

Maneuvering in Burr Area MOA

- Exit IR-170 at **Point G** and execute a **climbing left turn** to **8,000 ft MSL**.
- **If ATC is online**, Request clearance to SKI7 HI and LO
- **If ATC is offline**, Proceed to the Burr Area MOA at 070B220
- Climb to **13,000 ft MSL** within **Laughlin MOA 2**.
- Demonstrate one of the following maneuvers:
 - Aileron Roll / Barrel Roll / Chandelle
 - Cloverleaf / Immelmann / Lazy Eight
 - Loop / Split S
- After maneuvering, stabilize at **13,000 ft MSL**.

IFR Recovery to Laughlin AFB

- Upon climb-out, request an IFR recovery clearance to KDLF.
- Conduct an IFR approach to the appropriate runway.
- Execute a **full-stop landing** at KDLF.
- Taxi to parking and conduct engine shutdown checklist.

Post-Flight & Training Review

- Save recorded flight as 'A### Sortie 202'.
- Submit flight report via SimACARS.
- Send flight recording to instructors@vusaf.us
 - Include any relevant mission notes or weather deviations.
- Review instructor feedback and prepare for further training.



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UPT-202: Reference Material

IR-170

ORIGINATING ACTIVITY: 47 OSS/OSOR, 570 2nd Street,
Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864,
C830-298-5864.

SCHEDULING ACTIVITY: 87 FTS/DOS, 570 2nd Street,
Laughlin AFB, TX 78843 DSN 732-4690/5484,
C830-298-4690/5484. Scheduling hours 0730-1630 local Mon-Fri
(excluding holidays)

HOURS OF OPERATION: Sunrise-Sunset daily

ROUTE DESCRIPTION:

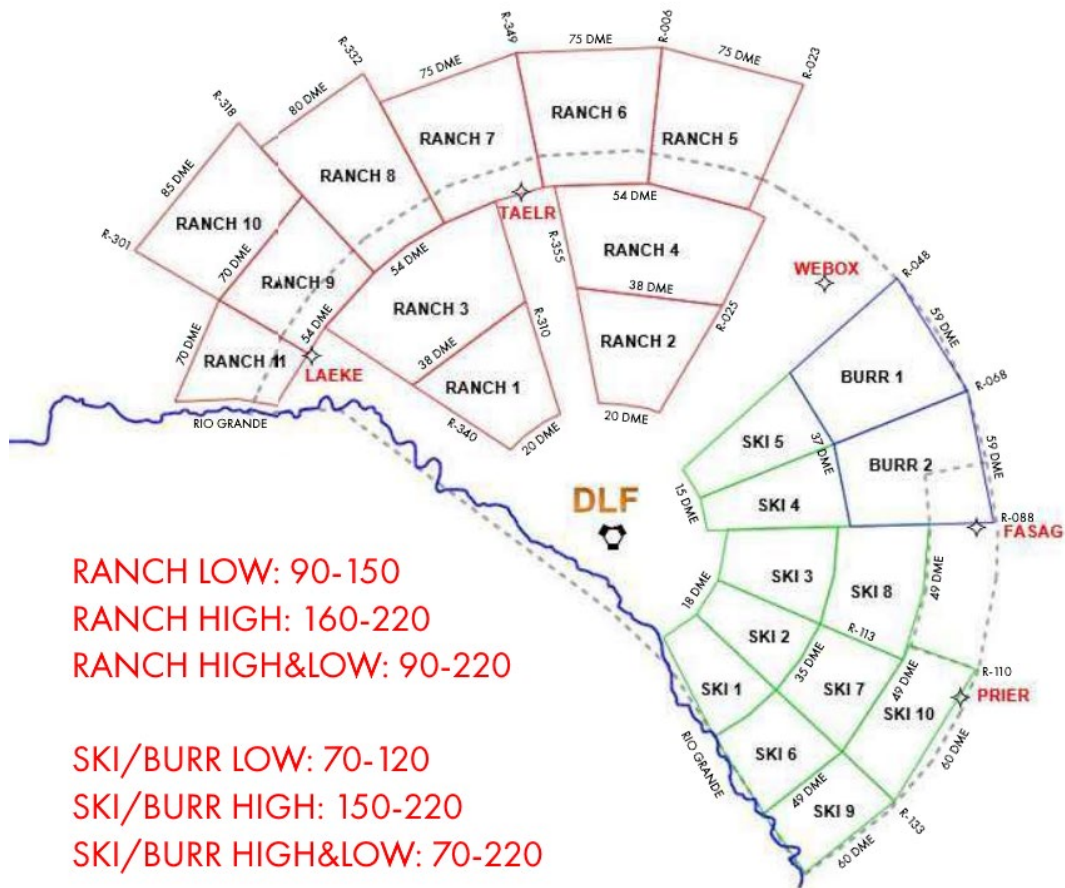
Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DLF 302/39	N29°46.00' W101°21.00'
SFC B 50 MSL to	B	DLF 324/44	N30°00.00' W101°10.50'
SFC B 35 MSL to	C	DLF 353/33	N29°54.90' W100°46.00'
SFC B 50 MSL to	D	RSG 141/16	N29°47.00' W100°09.00'
SFC B 30 MSL to	E	RSG 153/24	N29°38.00' W100°10.00'
SFC B 30 MSL to	F	DLF 082/30	N29°22.00' W100°12.00'
SFC B 50 MSL to	G	DLF 132/39	N28°52.00' W100°17.00'
SFC B 50 MSL to	H	DLF 137/57	N28°35.00' W100°08.00'
SFC B 50 MSL to	I	LRD 339/34	N28°02.00' W99°33.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for
entire route in VMC only.

ROUTE WIDTH - 5 NM either side of centerline from A to B;
5 NM tapering to 3 NM either side of centerline from B to D; 3
NM tapering to 4 NM either side of centerline from D to G; 4 NM
expanding to 5 NM either side of centerline from G to I.



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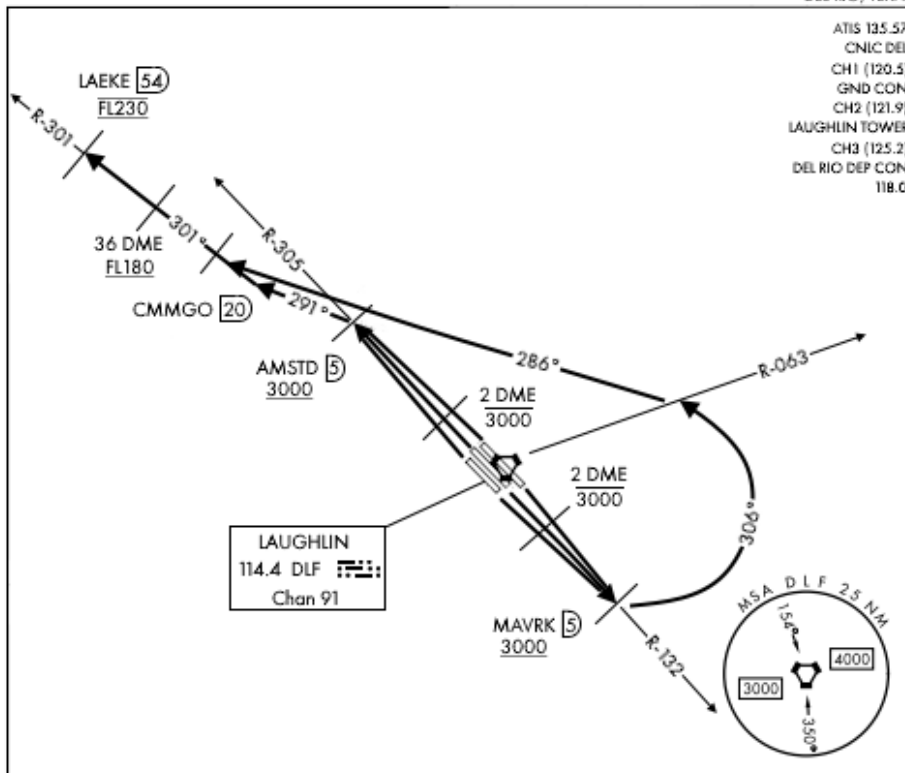




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LAEKE ROUTE

LAUGHLIN AFB (KDLF)
DEL RIO, TEXAS



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 13C: Climb on track 128°, thence...

TAKEOFF RWY 13L: Climb on track 131°, thence...

TAKEOFF RWY 13R: Climb on track 127°, thence...

...intercept DLF VORTAC R-132 to DLF 5 DME (MAVRK), cross 2 DME at or below 3000, cross DLF 5 DME (MAVRK) at or above 3000. Then turn left heading 306°. Crossing DLF VORTAC R-063, turn left heading 286° and intercept DLF VORTAC R-301 prior to CMMGO. Cross 36 DME at or above FL180, cross LAEKE at and maintain FL230.

TAKEOFF RWY 31C: Climb on track 308°, thence...

TAKEOFF RWY 31L: Climb on track 310°, thence...

TAKEOFF RWY 31R: Climb on track 306°, thence...

...intercept DLF VORTAC R-305 to DLF 5 DME (AMSTD), cross 2 DME at or below 3000, cross DLF 5 DME (AMSTD) at or above 3000. Then turn left heading 291° and intercept DLF VORTAC R-301 prior to CMMGO. Cross 36 DME at or above FL180, cross LAEKE at and maintain FL230.

LAEKE ROUTE

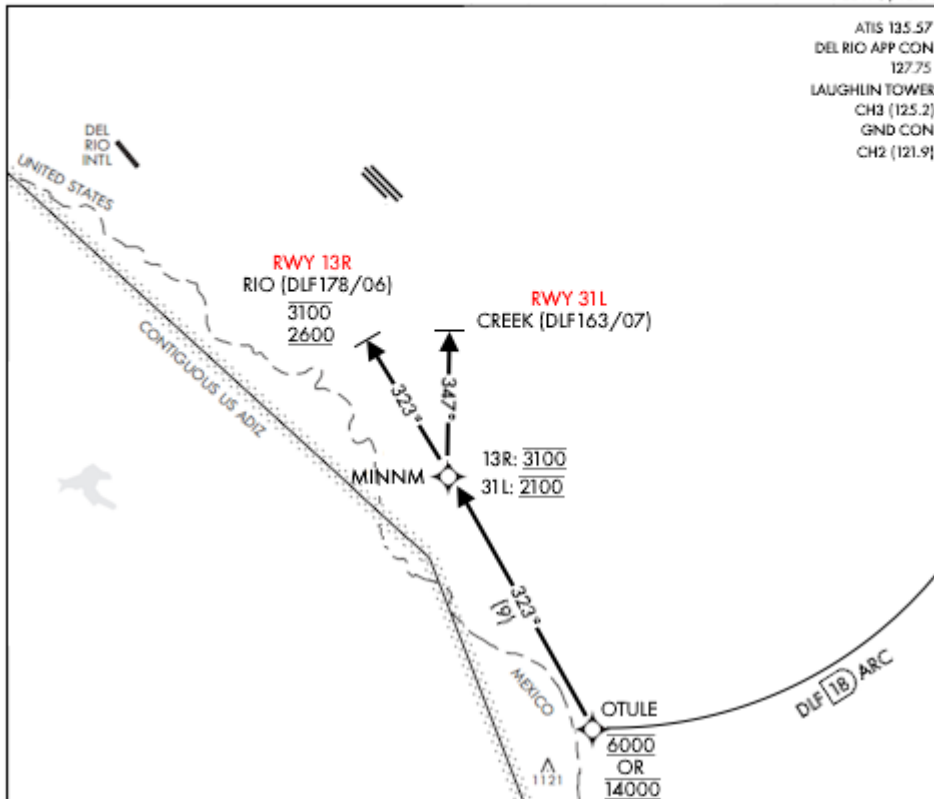
DEL RIO, TEXAS
LAUGHLIN AFB (KDLF)



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RIO1 RECOVERY

LAUGHLIN AFB (KDLF)
DEL RIO, TEXAS



ARRIVAL ROUTE DESCRIPTION

TO LAUGHLIN AFB: Cleared to KDLF via remain within the confines of the assigned sub area, descend and maintain 14000 for high only areas OR 6000 for all other areas. Reaching 6000/14000, proceed direct OTULE and remain outside the DLF VORTAC 18 DME arc. Cross OTULE at 6000/14000, then proceed to MINNM.

LANDING KDLF RUNWAY 13R: Cross MINNM at 3100, then proceed to RIO. Cross RIO between 3100 and 2600, and at RIO contact Laughlin Tower. NOTE - At MINNM, IFR is cancelled. Keep current squawk code and maintain VFR. If still IMC at 3100 enroute to MINNM, continue descent to 2600. If still IMC at 2600 over MINNM, climb to 3000, inform approach control, and expect radar vectors for an approach.

LANDING KDLF RUNWAY 31L: Cross MINNM at 2100, then proceed to CREEK. At CREEK, contact Laughlin Tower. NOTE - At MINNM, IFR is cancelled. Keep current squawk code and maintain VFR. If not VMC by 2600, climb to 3000, inform approach control, and expect radar vectors for an approach.

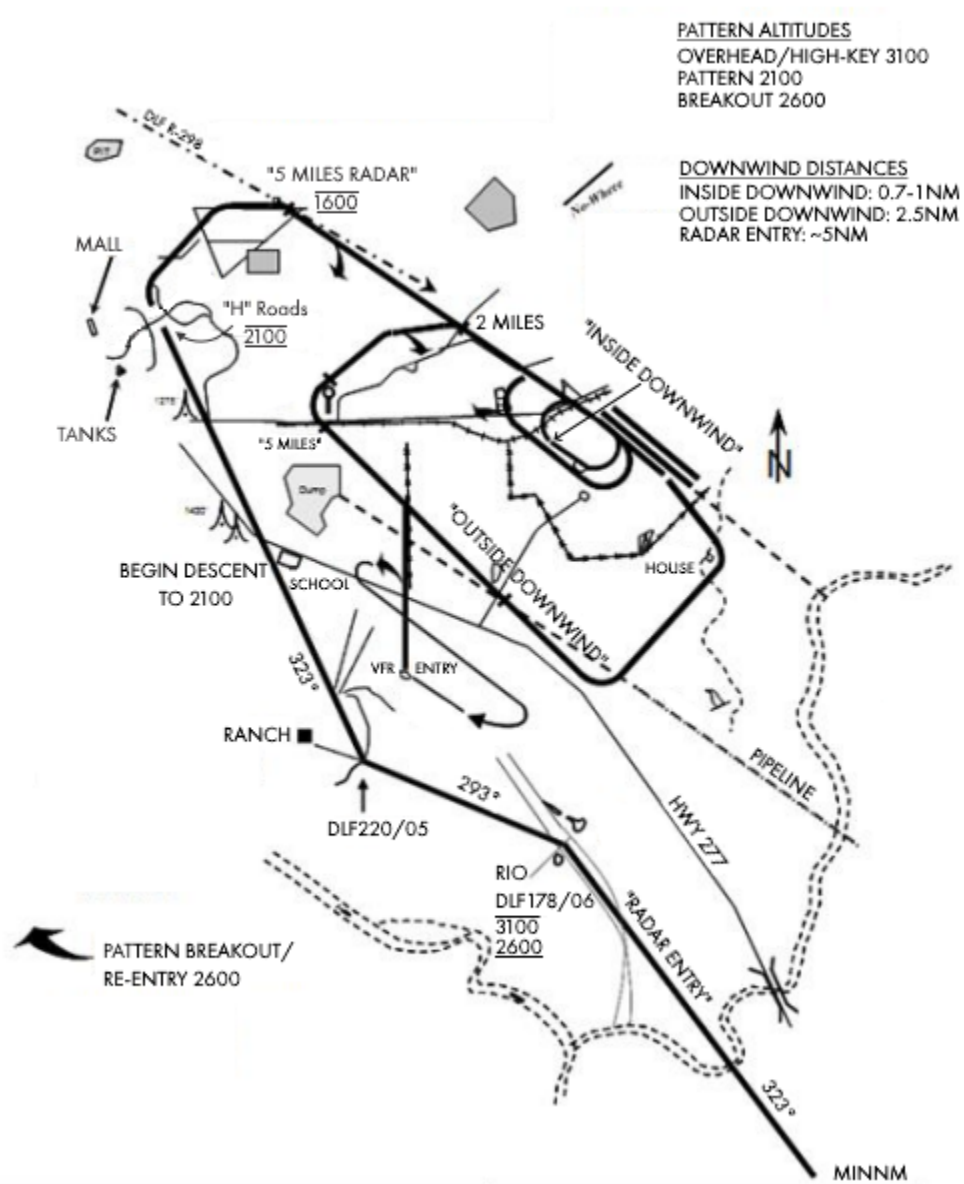
RIO1 RECOVERY

DEL RIO, TEXAS
LAUGHLIN AFB (KDLF)



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RUNWAY 13R



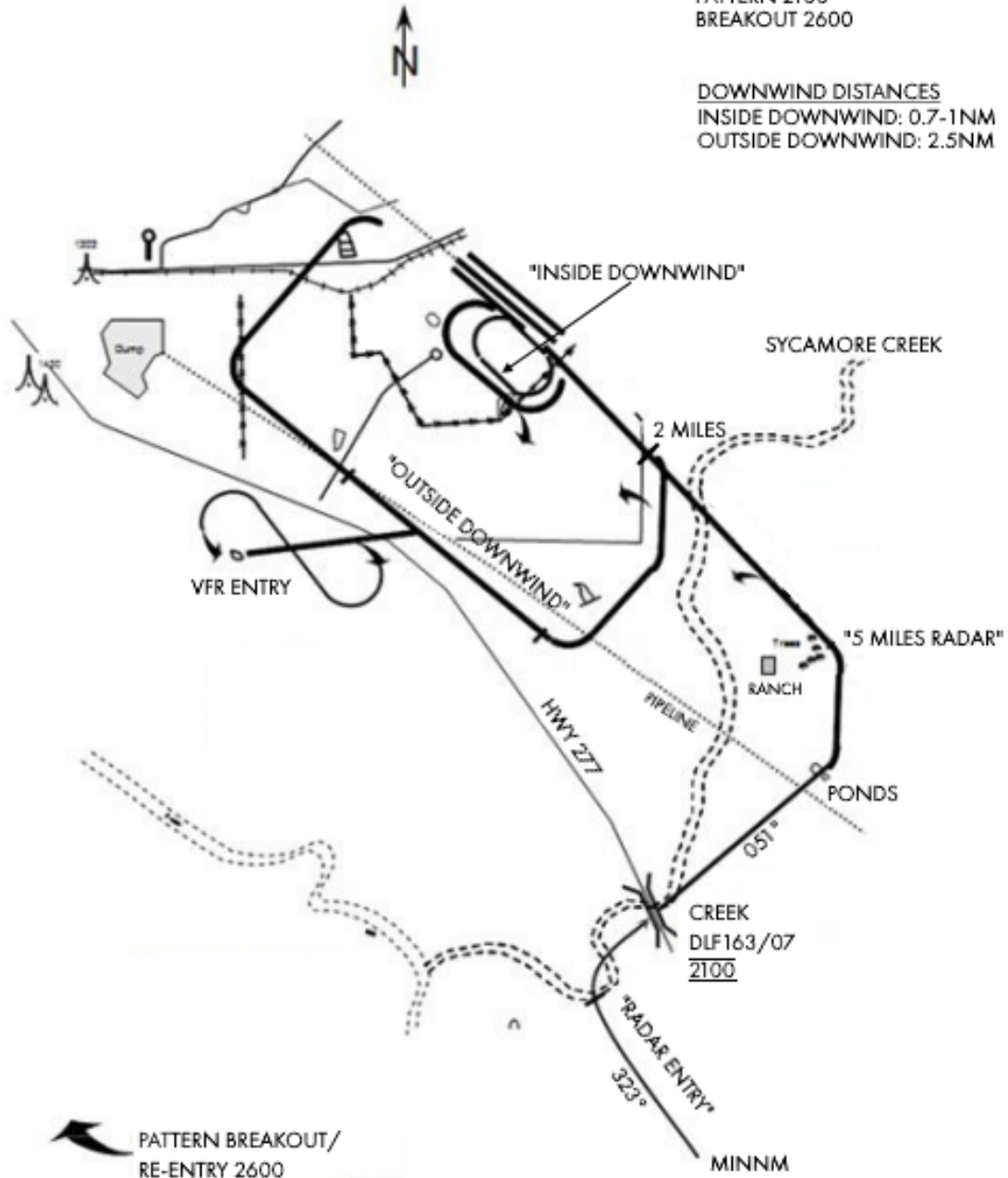


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RUNWAY 31L

PATTERN ALTITUDES
OVERHEAD/HIGH-KEY 3100
PATTERN 2100
BREAKOUT 2600

DOWNWIND DISTANCES
INSIDE DOWNWIND: 0.7-1NM
OUTSIDE DOWNWIND: 2.5NM





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IR170 STEREO EXAMPLE ATC COMM SCRIPT

CASH11: Laughlin clearance delivery, CASH11 request IFR with information alpha.
DEL: CASH11, Laughlin clearance delivery, cleared to KDLF airport via the LAEKE route to CMMGO, except maintain 7000. Departure frequency channel 5, squawk 7334.
CASH11: Cleared to KDLF airport via the LAEKE route to CMMGO, except maintain 7000. Departure frequency channel 5, squawk 7334, CASH11.
DEL: CASH11 readback correct, expect runway 31C.
CASH11: 31C, CASH11.

CASH11: Laughlin ground, CASH11 request taxi.
GND: CASH11, Laughlin ground, runway 31C taxi via G, H.
CASH11: Runway 31C taxi via G, H, CASH11.

CASH11: Laughlin Tower, CASH11 short 31C.
TWR: CASH11, Laughlin tower, runway 31C cleared for takeoff.
CASH11: 31C cleared for takeoff, CASH11.
TWR: CASH11 contact departure.
CASH11: Contact departure CASH11.

CASH11: Houston Center, CASH11 2300 climbing 7000. Request IR170 when able.
CTR: CASH11, Houston Center, radar contact. Verify your entry fix estimate, exit fix estimate and intentions after exit.
CASH11: Estimating point A entry at 2122, point G exit at 2135, then climb to 4000 direct Fort Clark for radar entry, CASH11.
CTR: CASH11 roger, maintain 3,100 until point point alpha, then cleared into IR170, maintain IR170 altitudes.
CASH11: Maintain 3,100 until point point alpha, then cleared into IR170, maintain IR170 altitudes.
CTR (When close to entry point): CASH11, radar services terminated, change to tactical frequency approved, report this frequency prior to exit.
CASH11: Wilco, CASH11.

CASH11: Houston Center, CASH11, 2 minutes from point G, request exit instructions.
CTR: CASH11 cleared to Laughlin AFB from IR170 point Golf via direct Fort Clark, maintain 4,000 and ident.
CASH11: Cleared to Laughlin AFB from IR170 point Golf via direct Fort Clark, maintain 4,000 and ident CASH11.
CTR: CASH11 radar contact, 40 miles south-east Laughlin. Information alpha current, advise when ready to cancel for radar entry.
CASH11: CASH11 has alpha, cancel IFR.
CTR: CASH11, IFR cancellation received, maintain VFR on current code, contact Laughlin tower at Fort Clark.
CASH11: Maintain VFR on current code, contact Laughlin tower at Fort Clark, CASH11.

CASH11: Laughlin tower, CASH11, Fort Clark, full stop.
TWR: CASH11, Laughlin tower, runway 31R, cleared to land.
CASH11: 31R cleared to land, CASH11.
TWR: CASH11 cross runway 31C and 31L at A, contact ground.
CASH11: Cross 31C and 31L at A, contact ground CASH11, hasta la vista!