

Low IFR conditions just over the mountains tempts two pilots with perfect conditions to practice IFR. It all goes as planned until one surprise event creates a cascade of consequences. Which devil would you choose if forced to weigh multiple benefits that come with multiple drawbacks? There are no easy choices, and none come for free.

IFR Mastery

Bump In The Lights

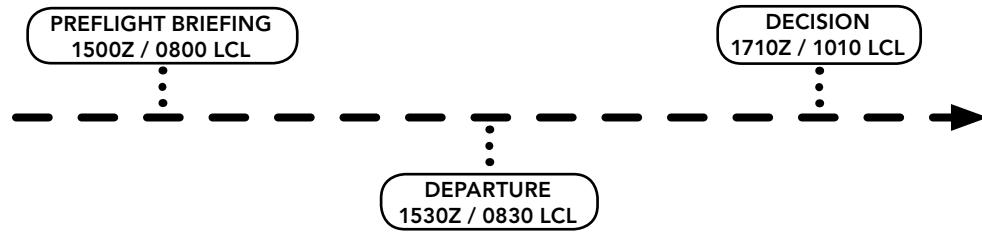
RESOURCES



Scenario Choices:

CHOICE 1	CHOICE 2	CHOICE 3	CHOICE 4	CHOICE 5
Leave the gear extended, and request ILS Runway 28R at Montgomery (KMYF) again.	Leave the gear extended, but request the RNAV (GPS) Runway 28R at Montgomery (KMYF) instead.	Invoke emergency authority, and request clearance for Miramar Marine Air Corps Station (KNKX), which is also at minimums, but has better ALSF-1 approach lighting. Request an approach for Runway 24R. Leave the gear down.	Leave the gear extended. Request clearance to Borrego Valley (L08), which is reporting clear, but is over the mountains to the east. Hope you have enough fuel with the drag and 154-knot max gear speed.	Retract the gear, and request a clearance to Borrego Valley (L08). Hope the gear extends on arrival.
				

Timeline



Flight Plan

Aircraft ID	Flight Rules	Type of Flight	Type of Aircraft	Proposed Dept Time	Departure Airport	Destination Airport
N927CF	IFR	GenAv	BE33/G	1530Z	KTRM	KTRM
Route of Flight						Altitude
MECCA1 TRM V208 OCN						8000
Cruise Speed	Est. Flight Time (hh:mm)	Fuel on Board (hh:mm)	Remarks			
165 KTS	01:45	03:10	REQ PLA AT KCRQ AND KMYF			
Alternate Airport(s)	Number Aboard	Color of Aircraft	Pilot's Name and Contact Info			
KTRM	2	W/R	Pilot N. Command			

Fuel Calculation

Fixs	Leg	Fuel Burn
		Leg/Total
KTRM-		
KCRQ	45 minutes	13.5/13.5
Approaches	60 minutes	18.0/31.5
Return to-		
KTRM	40 minutes	13.0/44.5
Reserve	45 minutes	13.5/58.0
Need at least 58 gals - 60 gals on board		

Preflight Weather

METARs

KTRM 141452Z AUTO 00000KT 10SM CLR 29/08 A2965 RMK AO2 SLP045 T02940078

KCRQ 141453Z 19004KT 3/8 SM FG R24/3600 VV002 16/16 A2981 RMK AO2 SLP092 T01610156

KCRQ 141353Z AUTO 11004KT 1/4SM FG R24/2000 VV001 16/16 A2980 RMK AO2 SLP091 T01560156

KNKX 141455Z 00000KT 1/2SM BR OVC003 18/15 A2982 RMK AO2 SLP093 T01780150

KMYF 141451Z VRB03KT 1/4SM FG OVC001 18/16 A2983 RMK AO2 SLP101 T01940156

TAFs

KTRM 141233Z 1412/1512 14008KT P6SM SCT150 BKN200
FM141900 14010G18KT P6SM SCT150CB BKN200
FM150300 34010KT P6SM SCT150 BKN200
FM150700 33005KT P6SM SCT100 BKN200

KCRQ 141233Z 1412/1518 23004KT P6SM FEW015
FM141300 VRB04KT 1/4SM FG
FM141800 2408KT 4SM BR FEW015 SCT150
FM150200 VRB04KT P6SM OVC012

KNKX 1412/1512 VRB05KT 9999 OVC003 QNH2976INS
BECMG 1417/1419 28006KT 9999 SCT020 QNH2973INS
BECMG 1506/1508 VRB05KT 9999 BKN015 QNH2973INS

KSAN 141233Z 1412/1512 VRB05KT P6SM SCT017 SCT150
FM141200 VRB04KT 1/2SM FG
FM141800 VRB05KT P6SM BKN020
FM141900 24008KT P6SM SCT025

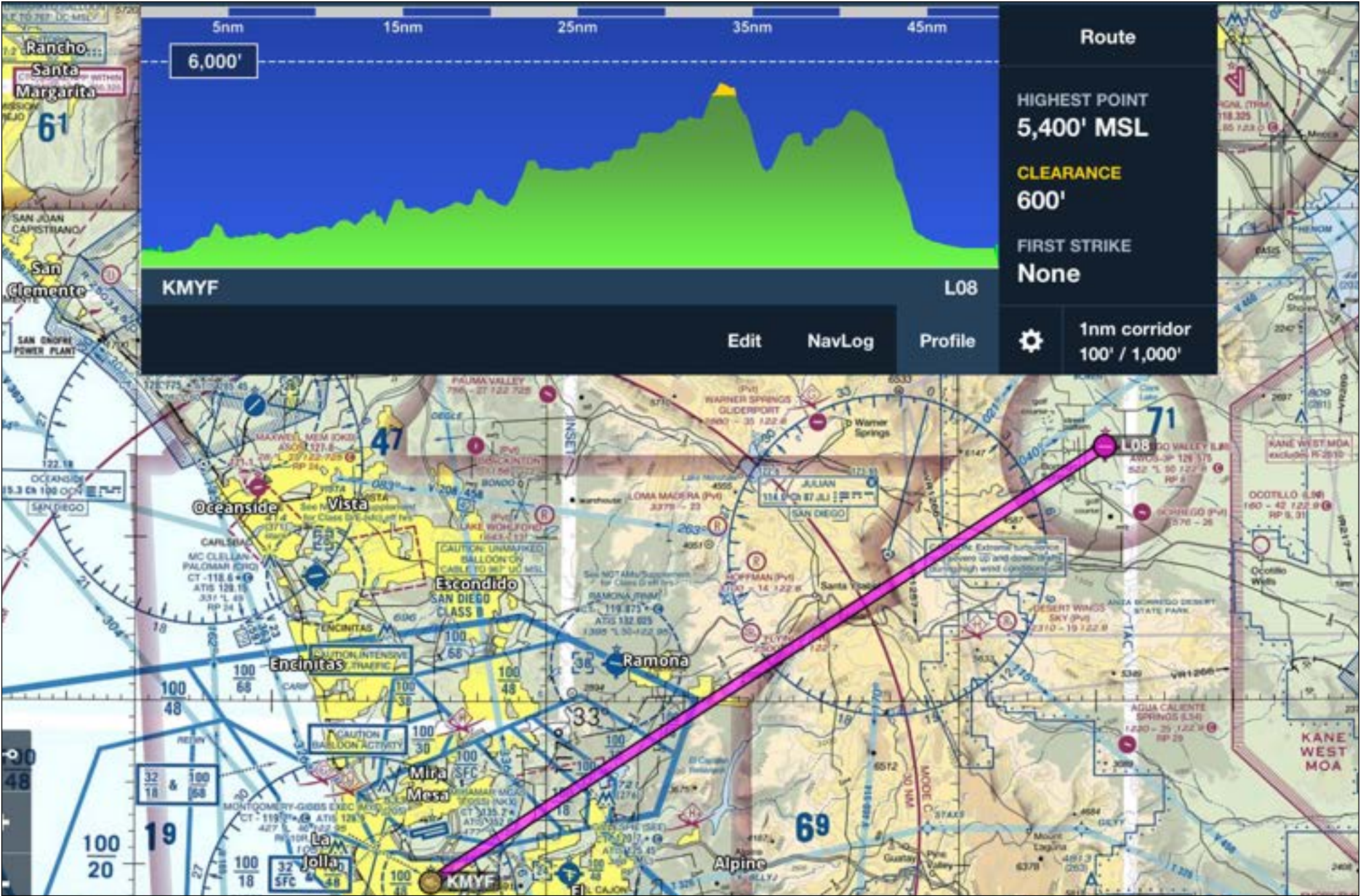
Filed Route of Flight to KCRO







Profile of Route to Borrego Valley (L08)



SAN DIEGO, CALIFORNIA 18312

RNAV (GPS) RWY 24R

WAAS CH 61450 W24B	APCH CRS 243°	Rwy Idg 12,000 TDZE 475 Arpt Elev 477	AL-903 [UN]	MIRAMAR MCAS (JOE FOSS FLD) (KNKX)	
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⚠ When ALS inop, increase CAT ABCD vis to ½ mile.
***** When ALS inop, increase CAT ABCD vis to ¾ mile.**
***** When ALS inop, increase CAT AB vis to 1 mile,**
CAT CD vis to 2 miles.

ALS-1

MISSED APPROACH: Climb to 3000 direct HOTIG, 288° track to REDIN and hold.

ATIS * 352.0	SOCAL APP CON 132.2 269.1	FOSS TOWER * 135.2 298.925 0	GND CON 128.625 307.325	CLNC DEL 125.975 254.325	LA CENTER 291.7	ASR/ PAR
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DME/DME RNP-0.3 NA
 For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F).

CAUTION: Intermediate deceleration segment descent gradient 309 FPM is greater than 150 FPM.

EMERG SAFE ALT 100 NM 13,600

3000 	HOTIG 	REDIN 	VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 57°)
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† LNAV only

† FOSEB

† 1.7 NM to RWY 24R

3 NM **3.5 NM**

ELEV 477 **TDZE 475**

GP 3.00° TCH 53

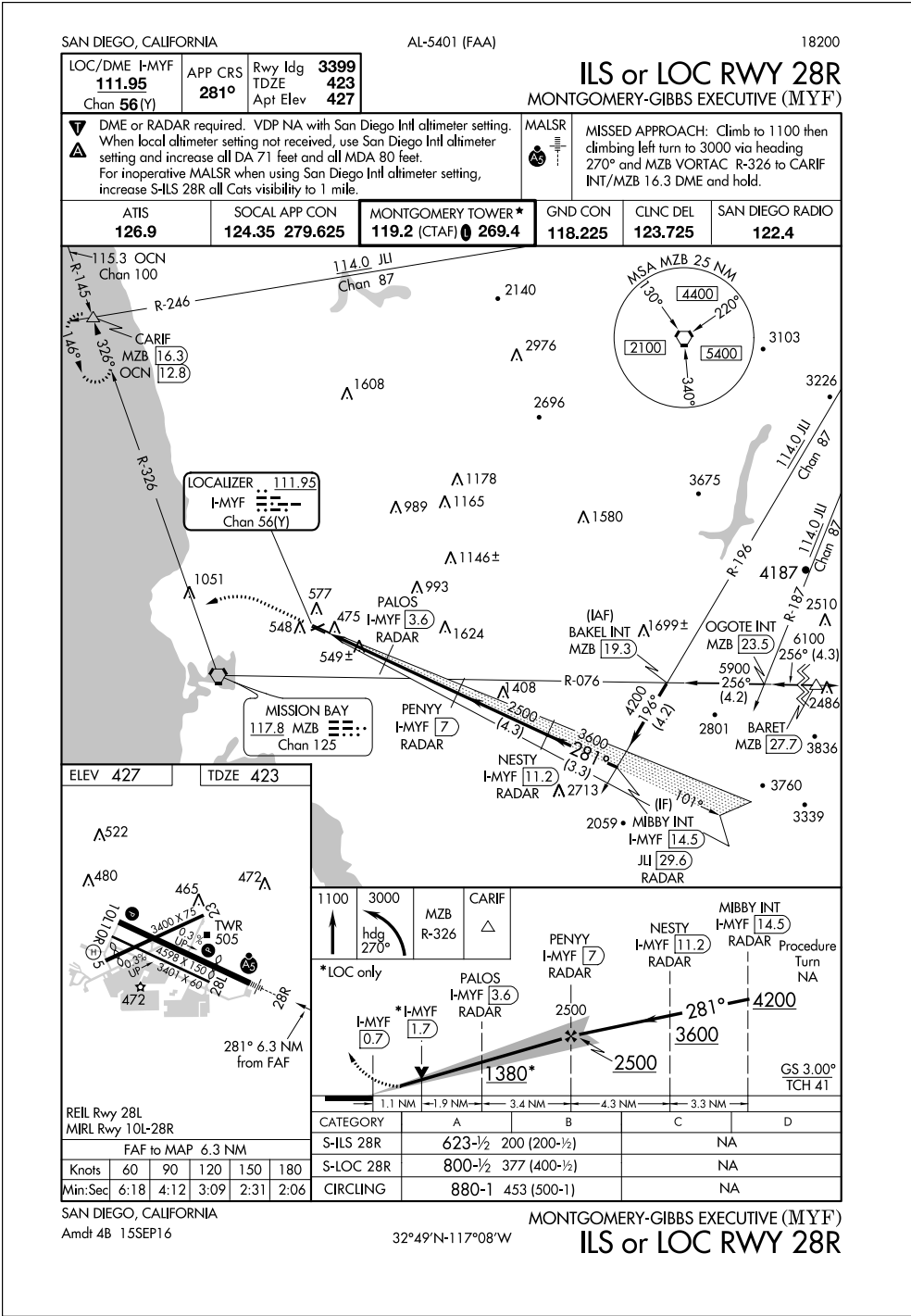
CATEGORY	A	B	C	D
LPV DA *	675-½	200	(200-½)	
LNAV/VNAV DA **	725-½	250	(300-½)	
LNAV MDA ***	1080-½ 605 (700-½)	1080-1¾ 605 (700-1¾)		
CIRCLING	1080-1 603 (700-1)	1080-1¾ 603 (700-1¾)	1180-2¼ 703 (800-2¼)	

HIRL Rwy 6L-24R

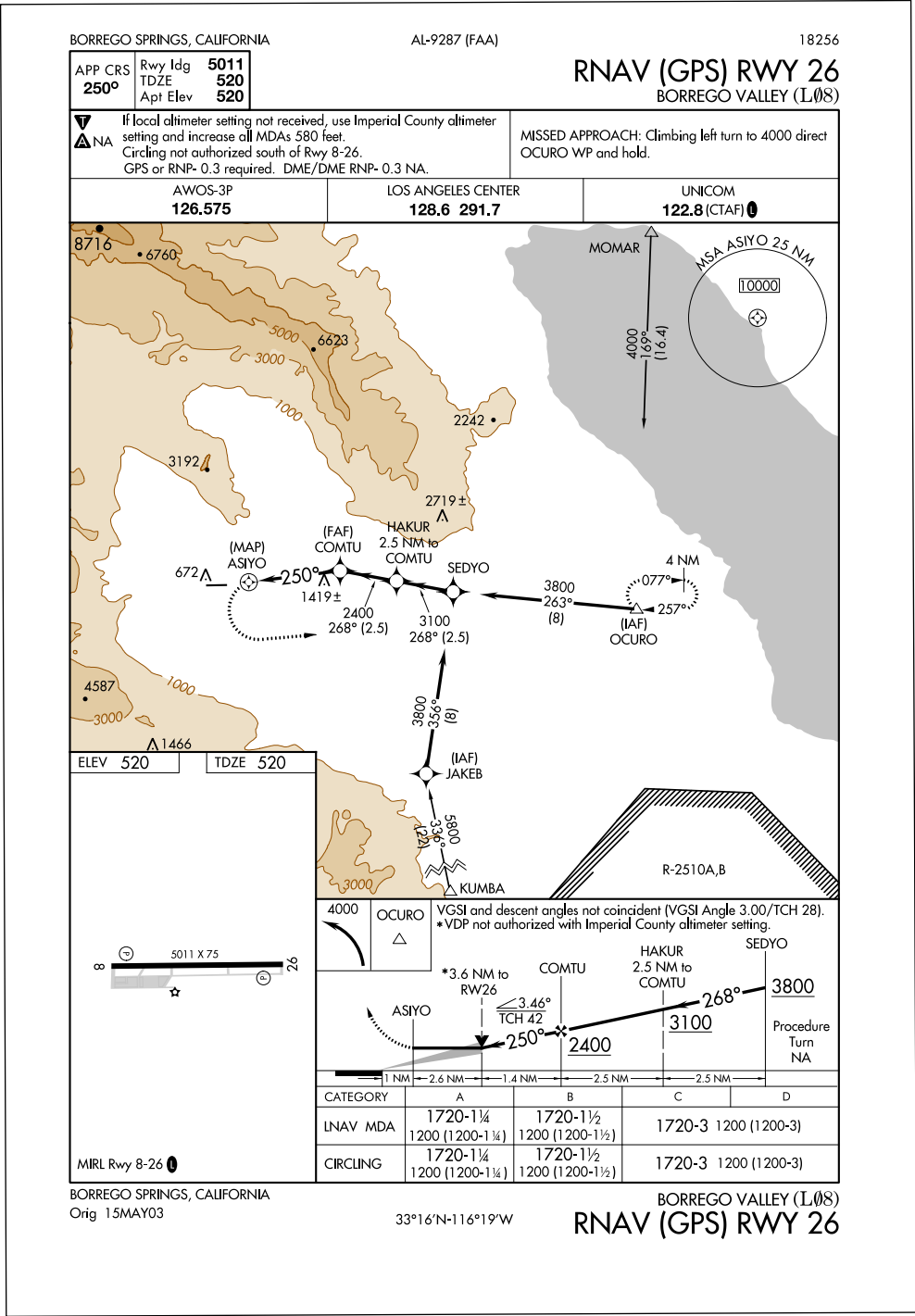
HIRL Rwy 6R-24L

RNAV (GPS) RWY 24R

Approach Chart: Montgomery (KMYF)



Approach Chart: Borrego Valley (L08)





NOTE

Do not attempt to operate the electric trim system until the cause of the malfunction has been determined and corrected.

LANDING GEAR MANUAL EXTENSION

Manual extension of the landing gear can be facilitated by first reducing airspeed. Then proceed as follows:

1. LDG GR MOTOR Circuit Breaker (Right Subpanel) - OFF (pull out)
2. Landing Gear Switch Handle - DOWN position
3. Handcrank Handle Cover (at rear of front seats) - REMOVE
4. Handcrank - ENGAGE and TURN COUNTERCLOCKWISE AS FAR AS POSSIBLE (approximately 50 turns)

CAUTION

The manual extension system is designed to lower the landing gear only. DO NOT ATTEMPT TO RETRACT THE GEAR MANUALLY.

5. If electrical system is operative, check landing gear position lights and warning horn (check LDG GR RELAY circuit breaker engaged).
6. Handcrank - DISENGAGE. Always keep it stowed when not in use.

WARNING

Do not operate the landing gear electrically with the handcrank engaged, as damage to the mechanism could occur.

After emergency landing gear extension, do not move any landing gear controls or reset any switches or circuit breakers until airplane is on jacks, as failure may have been in the gear-up circuit and gear might retract.



LANDING GEAR RETRACTION AFTER PRACTICE MANUAL EXTENSION

After practice manual extension of the landing gear, the gear can only be retracted electrically, as follows:

1. Handcrank - CHECK, STOWED
2. Landing Gear Motor Circuit Breaker - IN
3. Landing Gear Switch Handle - UP

INDUCTION SYSTEM ICING

If the induction system alternate air source door becomes frozen in the closed position, the Alternate Air Pull and Release Control T-handle should be pulled and released to force the door open.

EMERGENCY STATIC AIR SOURCE SYSTEM

THE EMERGENCY STATIC AIR SOURCE SHOULD BE USED FOR CONDITIONS WHERE THE NORMAL STATIC SOURCE HAS BEEN OBSTRUCTED. When the airplane has been exposed to moisture and/or icing conditions (especially on the ground), the possibility of obstructed static ports should be considered. Partial obstruction will result in the rate of climb indication being sluggish during a climb or descent. Verification of suspected obstruction is possible by switching to the emergency system and noting a sudden sustained change in rate of climb. This may be accompanied by abnormal indicated airspeed and altitude changes beyond normal calibration differences.