EAATS Jalalabad CH-47 SFTS Tactical Scenario

1. SITUATION

A Taliban stronghold been reported in the mountain valleys vicinity N34.41.67 E070.36.03 Four CH47 helicopters will transport assault force from Jalalabad to LZ Blue (N34.41.67 E070.36.03). The worst weather during the operation is forecast to be ceiling 6000 BKN and visibility 5 statute miles.

a. Enemy Forces: Enemy forces occupy multiple homes in small village just west of LZ Blue. Radar Threat SA4 located N34.30.00 E070.20.00
b. Friendly Forces: Are located at Jalalabad N34.24.00 E070.29.91
c. Weather forecast VMC 8 miles sky clear.
   OAJL: PA 1800, Temp 30, Wind calm, ALT 29.90.
   Primary LZ: PA forecast 4500, Temp 30.

2. MISSION

Transport 10 personnel, 5000 lb. vehicle to LZ Blue. (N34.41.67 E070.36.03).

3. EXECUTION

a. Commander's Intent: Air movement will avoid enemy contact. Insert team and supplies on objective, engage enemy, pick up team and return to Jalalabad.
b. Ground Tactical Plan: Insertion team will continue to engage enemy positions and apprehend or destroy enemy combatants.
c. Concept of Operation: This is a suspected insurgent leadership strong hold and is a target of opportunity. Ranger element will engage insurgents and capture any personnel and/or intelligence data.
d. Tasks to maneuver Units: NA
e. Coordinating Instructions:
   Risk reduction and control measures: The air mission commander will include flight routes in air mission FRAGO to provide horizontal separation between CH-47 flight routes. The risk management process will be accomplished at individual unit level and appropriate controls implemented. Hazards assessed as high risk will be elevated to the Commander 1st Brigade for risk decision. If weather falls below 2000-3, the air portion of the operation will be postponed until weather improves and is forecast to remain at or above 2000-3 for the duration of the air operation

4. SERVICE AND SUPPORT

Class I – V at Jalalabad only.

5. COMMAND AND SIGNAL

a. Command—Overall commander is Commander 1st Brigade __th Infantry Division (Mechanized).
   1) Ground force commander is Commander 1st Bn 1028th IN.
   2) Air Mission Commander is commander C/4-1028th AVN.
b. Signal per 1st Brigade SOI.

Instructor Operator Set up Instructions

Open Afghanistan folder, load Jalalabad Formation initial condition set. Open recordings tab and click on playback. The formation will appear in parking. Take of freeze and formation will taxi to the runway, fly to destination, land and return to Jalalabad and park.

Training Objectives:

Dust Takeoff and Landing:

Practice dust take off. Aviator maintains attitude and heading while applying appropriate power to climb out of dust. The use of TRC and P-hold should be encouraged. Neutralize the cyclic prior to raising thrust so TRC is able to stabilize P-hold.

Practice dust landings to surface using HSDH cues, TRC and p-hold. Turn on HSDH, TRC and P-hold during before landing check. Maintain airspeed above ETL on approach (use 30 KIAS) to stay ahead of dust. Establish angle of approach with thrust to the appropriate hover altitude (approx. 25 feet AGL). At hover altitude activate ALT-INT or release thrust brake if already activated. Decelerate using HSDH velocity vector to activate TRC and P-hold (smooth cyclic application is crucial so TRC can take over stabilization). Lower thrust so aircraft contacts the ground. Perform after landing (move cyclic to 1 ½ inches aft to stabilize aft gear).

Inadvertent IMC:

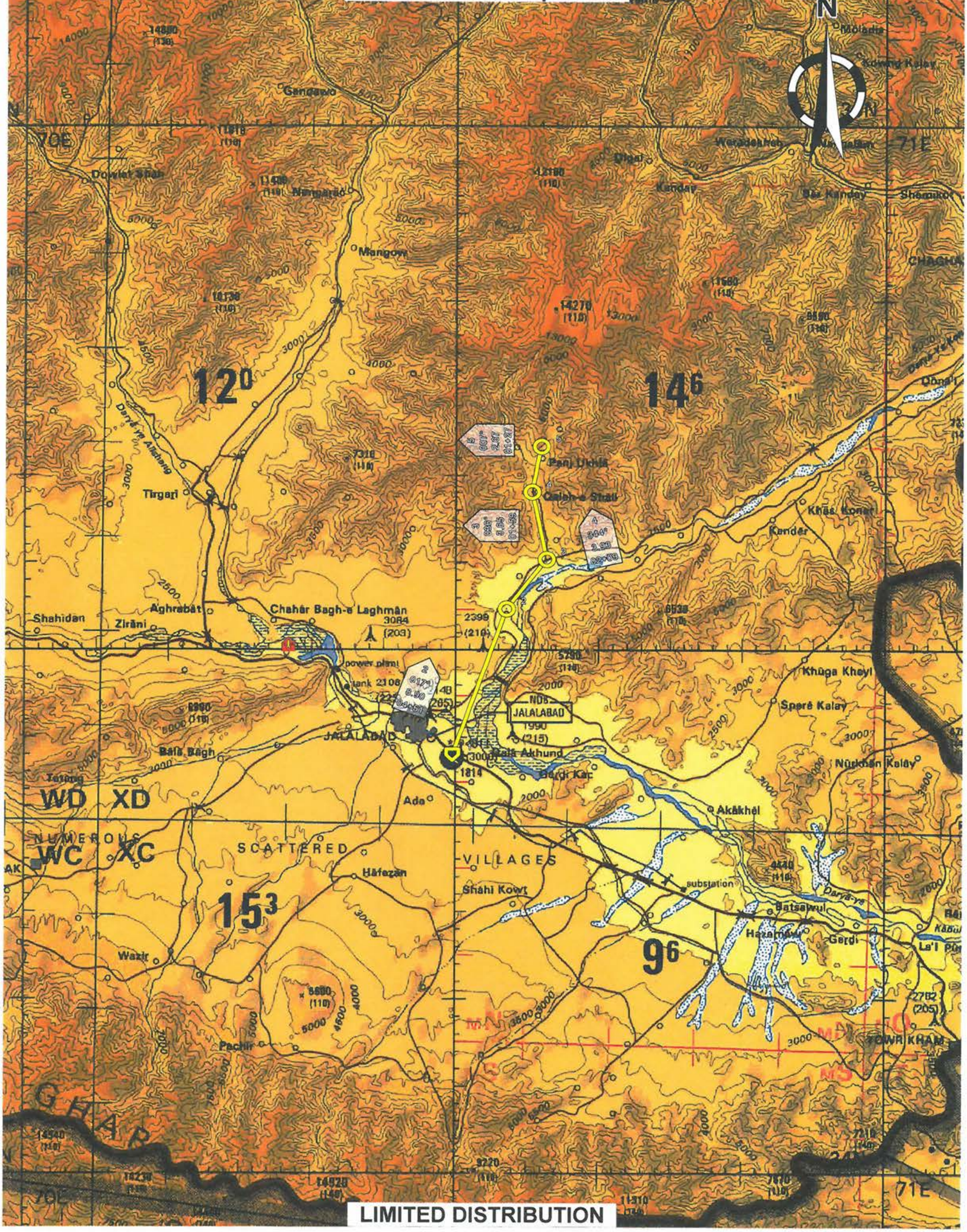
The weather has a ragged broken\scattered layer that varies from 2000 to 12000 feet. Visibility is good from 4 to 5 miles. Use visibility reduction over time achieve IMC condition. (Recommend ½ mile visibility over 5 minutes). Spatial disorientation may occur over the desert with ½ mile visibility due to the lack of horizon and lack of ground texture.

Radar Threat:

Place SA4 10 miles west of route as depicted on map. TIV and route considerations should be considered.

+

LIMITED DISTRIBUTION
ECRG 1:500 K - Equal Arc



N
70E
71E
Gandawo
Dowlat Shah
Nangarao
Mangow
Kandav
Sar Kanday
Tirgari
Aghrabat
Shahidan
Zirani
Chahar Bagh-e Laghman
power plant
tank 2106
Panj Ukhla
Qalah-e Shah
Kandar
Khas Konar
Khuga Kheyl
Spare Kalay
Nurkhan Kalay
NDB
JALALABAD
JALALABAD
Bala Bagh
Baba Akhund
Gerdi Kac
Ada
Akakhel
Hafezan
Shahi Kowt
substation
Batsawul
Hazarnow
Gerdi
La'l Pur
TORKHAM
Wazir
Pachir
12⁰
14⁶
15³
9⁶
WD XD
WC XC
NUMEROUS
SCATTERED
VILLAGES
14270 (110)
7310 (110)
3084 (203)
2399 (219)
1990 (215)
1814
2782 (205)
8600 (110)

LIMITED DISTRIBUTION

RouteName:C:\Users\Planner\Desktop\Pilot FileDate: 8 MAR 16 NAVDATE: 3 MAR 16

CLEARANCE	TAKE-OFF, CLIMB, CRUISE DATA CH-47F (T55-GA-714A) Climb: 1840M Cruise: 109 Wind: Wind: 260/001 Temp: +15C FF: 2027
FREQUENCIES	FOB: N/C ROUTE AVG WIND: RES: N/C 0

DEP FIELD DATA	TOT DIST	TOT ETE	TOT FUEL
INS ChkPt = CHARLESTON	19.2	00+10+26	6888

TP# DTD# KIND ALT	FIX/PT ID DESCRIPTION (ADD PT ID) (DESCRIPTION) INS X-Check	NAV CHAN FREQ	LAT LON VAR ELEV	MH MC (MH) (TH)	DIST LEG TOT	CAS GS TAS IMN	ETE ETA (DVT FF)	FUEL: LEG USED TOT REMG CONT.FUEL (FF)
TP 1 DTD	OAJL/A JALALABAD		N 34 24.00 E070 29.91	129 129	0.0 0.0		00+00+00 00:00:00	0 6888
STTO 1840M	CHS/R 033/645		2.9E 1840					352 ( )
TP 2 DTD	.TURN POINT		N 34 32.35 E070 33.67	017 018	8.9 8.9	106 110 109 .17	00+04+51 00:04:51	164 6724
TURN 1840M	CHS/R 033/644		3.0E 1840					188 (2027)
TP 3 DTD	.TURN POIN		N 34 35.20 E070 36.44	036 036	3.6 12.5	106 110 109 .17	00+01+59 00:06:50	67 6657
TURN 1840M	CHS/R 033/644		3.0E unk					121 (2019)
TP 4 DTD	.RELEASE POI		N 34 39.05 E070 35.41	344 345	3.9 16.5	107 110 110 .17	00+02+09 00:08:59	72 6585
TURN 1840M	CHS/R 033/643		3.0E unk					49 (2024)
TP 5 DTD	.LANDING		N 34 41.67 E070 36.03	007 008	2.7 19.2	107 110 110 .17	00+01+27 00:10:26	49 6536
TURN 1840M	CHS/R 033/643		3.0E unk					0 (2020)

AF FORM 70(Modified 05/17/2002, INS X-Check added) - CFPS Ver. 4.2

CH-47 PERFORMANCE PLANNING CARD

For use of this form, see TC 3-04.34; the proponent agency is TRADOC.

POINT NAME: Departure — **DEPARTURE DATA** — DTD ID: Jbad

OPERATING WT:	29308	T/O FUEL WT:	5800	LOAD:	8000
PRESSURE ALT:	1800	FAT:	30	TAKEOFF GWT:	35108 / 43108

FUEL MANAGEMENT

TIME: QTY: PPH: BURNOUT: RSV:

	DUAL ENGINE				SINGLE ENGINE			
	NO LOAD		WITH LOAD		NO LOAD		WITH LOAD	
MAX TQ AVAIL - 10 MIN. / S/E	100				110			
MAX TORQUE AVAIL - 30 MIN.	93							
CONTINUOUS TORQUE AVAIL	84				84			
MAX GWT TO HVR 10 MIN. / SE IGE/OGE	50000	50000	50000	50000	36704	*33370	*34152	*33370
MAX GWT TO HVR 30 MIN. IGE/OGE	50000	49264	50000	49264				
MAX GWT TO HVR CONT IGE/OGE	50000	45651	46721	45651				
PREDICTED HVR TQ - IGE/OGE	52	59	75	78	104	*118*	*150*	*155*
GO / NO GO TQ	87		97					
MAX MSN PROFILE GWT / VALIDATION	39630	61	39630	67				

POINT NAME: Cruise — **CRUISE DATA** — DTD ID:

AIRSPEED LIMIT: 149 / 133	LCT RET Vne: 81 / 67	DRAG FACTOR: 0 / 0	
PRESSURE ALT: 5000 FAT: 24	DUAL ENGINE	SINGLE ENGINE	
	NO LOAD / WITH LOAD	NO LOAD	WITH LOAD
MAX TQ AVAIL - 10 MIN. / S/E	91	98	
CONTINUOUS TORQUE AVAIL	75	76	
MAX GWT CONT PWR	48205 / 48205		
MAX R/C AND ENDURANCE IAS	68 / 72		
MAX RANGE IAS	127 / 126		
CRUISE SPEED - IAS	100 / 100	70	70
CRUISE TQ (+ DRAG FACTOR)	45 / 51	76	*90*
CRUISE FUEL FLOW	2238 / 2422	1606	1856
MINIMUM SINGLE ENGINE IAS		25	50
MAXIMUM SINGLE ENGINE IAS		107	92
MAX GWT S/E / SESC	/ 39904	10040	5990

POINT NAME: Arrival — **ARRIVAL DATA** — DTD ID:

LANDING GWT:	33308 / 38558	DUAL ENGINE				SINGLE ENGINE		
PRESSURE ALT:	4500 FAT: 24	NO LOAD		WITH LOAD		NO LOAD		WITH LOAD
MAX TQ AVAIL - 10 MIN. / S/E		97				102		
MAX TQ AVAIL - 30 MIN.		88						
CONTINUOUS TORQUE AVAIL		79				79		
MAX GWT TO HVR 10 MIN. / SE IGE/OGE		49330	49173	49330	49173	33712	*30650	*31368	*30650
MAX GWT TO HVR 30 MIN. IGE/OGE		49330	45964	47041	45964				
MAX GWT TO HVR CONT IGE/OGE		47063	42788	43790	42788				
PREDICTED HVR TQ - IGE/OGE		50	57	67	69	100	*113*	*133*	*138*

CH-47F S/N: Created: 16 Sep 16 13:35

REMARKS: Asterisks (*) indicate calculations that exceed AWR limits or aircraft capabilities.

PERFORMANCE CONFIGURATION

EAPS:	Installed	IRSS:	Installed	Skis:	Not Installed	Max Structural GWT:	50000

ADDITIONAL INPUTS

INPUT NAME	DEPARTURE	CRUISE	ARRIVAL	ARRIVAL 2
SESC Lapse Rate / 1000 ft	N/A	Lapse Temperature (-2	N/A	N/A
Engine High Temp Limit	Limit Temperature	Limit Temperature	Limit Temperature	Limit Temperature
Hover Height (No Load)	10	N/A	10	80
Hover Height (With Load)	40	N/A	40	80
Heater	N/A	Off	N/A	N/A
Transmission Limit	Limit Torque	Limit Torque	Limit Torque	Limit Torque
Int/Aux/Main Fuel Weight	5800	4000	4000	6901
Sling Load Weight	0	0	0	0
Int/Add Load Weight	8000	5250	5250	3000
Sling Load Flat Plate Drag	N/A	0.00	N/A	N/A
Fixed/Add Flat Plate Drag	N/A	8.30	N/A	N/A
Torque Available Factor	1.00	1.00	1.00	1.00
Torque Available Decrease	0	0	0	0
Torque Required Factor	1.00	1.00	1.00	1.00
Torque Required Increase	0	0	0	0
Fuel Flow Factor	N/A	1.00	N/A	N/A
Fuel Flow Increase	N/A	0	N/A	N/A
Sling Airspeed Limit	N/A	200	N/A	N/A

ADDITIONAL OUTPUTS

OUTPUT NAME	NO LOAD	WITH LOAD
Validation Point	Arrival2	Arrival2
Cruise GWT	33308	38558
SESC Best Endurance IAS	67	72
SESC Max GWT Ref IAS	73	73

NOTES:

POINT NAME: Arrival 2 — **ARRIVAL 2 DATA** — DTD ID: kmui

LANDING GWT:	36209 / 39209	DUAL ENGINE				SINGLE ENGINE		
PRESSURE ALT:	8000 FAT: 20	NO LOAD		WITH LOAD		NO LOAD		WITH LOAD
MAX TQ AVAIL - 10 MIN. / S/E		86				89		
MAX TQ AVAIL - 30 MIN.		78						
CONTINUOUS TORQUE AVAIL		71				71		
MAX GWT TO HVR 10 MIN. / SE IGE/OGE		42851	42851	42851	42851	*26850	*26850	*26850	*26850
MAX GWT TO HVR 30 MIN. IGE/OGE		40731	40731	40731	40731				
MAX GWT TO HVR CONT IGE/OGE		38013	38013	*38013	*38013				
PREDICTED HVR TQ - IGE/OGE		66	66	74	74	*133*	*133*	*148*	*148*

Route File: 737-47ppc Version: IPACX CH47 v3.1.0.1094

WEIGHT AND BALANCE CLEARANCE FORM F - TRANSPORT

LEMAC	
MAC	
Constant	1000

DATE: 16 Sep 16	MDS: CH-47F	FROM: **Departure**	STATION:
MISSION: 737	SERIAL NO:	TO: **Arrival 2**	PILOT:

REMARKS:

External Payload

Consists of Sling Load, Rigging, and Hoist Load.

Expendables

Consists of Ammo (L Door Gun, R Door Gun, and Tail Gun), Chaff, and Flares.

REF	ITEM	WEIGHT	LON MOM	LAT MOM
1	Basic Aircraft (From Chart C)	27900	9560.0	
2	Corrections	0	0.0	
3	Crew - Pilot/Co-Pilot	400	30.0	
4	Crew's Baggage	308	13.3	
6	Emergency Equipment	65	2.0	
7	Other Equip	35	0.6	
8	TRP CDR	0	0.0	
	CE/GNR RH/LH	400	54.0	
	FE	200	94.2	
	Ramp GNR	0	0.0	
9	OPERATING WEIGHT	29308	9754.1	
10	Main Fuel	3739	1185.3	
	Aux Fuel	2061	647.2	
12	TOTAL AIRCRAFT WEIGHT	35108	11586.5	
13	D Cargo	5000	1515.0	
	Passengers	3000	933.0	
PAYLOAD				
16	RAMP WEIGHT	43108	14034.5	
17	RAMP CG (Inches)		325.6	
18	TAXI FUEL	0	0.0	
19	TAKEOFF WEIGHT	43108	14034.5	
20	TAKEOFF CG (Inches)		325.6	
	Expendable Fuel at Takeoff	5800	1832.4	
21	ZERO FUEL WEIGHT	37308	12202.1	
22	Less Expendables / Loads	-5000	-1245.0	
23	EST LANDING FUEL	6901	2178.1	
24	EST LANDING WEIGHT	39209	13135.2	
25	EST LANDING CG (Inches)		335.0	

LIMITATIONS	
Ramp Weight vs Limit (lbs)	43108 <= 50000
Takeoff Weight vs Limit (lbs)	43108 <= 50000
Landing Weight vs Limit (lbs)	39209 <= 50000
Zero Fuel Weight vs Limit (lbs)	37308 <= 50000
Load vs Allowable Load (lbs)	8000 <= 14892
Remaining Allowable Load (lbs)	6892
CG LIMITS - LONGITUDINAL	FWD CURRENT AFT
Ramp Longitudinal CG (Inches)	317.7 <= 325.6 <= 337.0
Takeoff Longitudinal CG (Inches)	317.7 <= 325.6 <= 337.0
Landing Longitudinal CG (Inches)	314.7 <= 335.0 <= 339.3
Zero Fuel CG (Inches)	317.7 <= 327.1 <= 337.0
CG LIMITS - LATERAL	LT CURRENT RT
Ramp Lateral CG (Inches)	
Takeoff Lateral CG (Inches)	
Landing Lateral CG (Inches)	
Zero Fuel CG (Inches)	

SIGNATURES	
COMPUTED BY SIGNATURE	
WEIGHT AND BALANCE AUTHORITY	
PILOT SIGNATURE	

JALALABAD (OAJL)

▽IFR TAKE-OFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

Military Airports and Selected Civilian Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in feet MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (military), or the applicable civil volume. Users will recognize graphic ODPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of the IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specific route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting an IFR clearance.

At some locations where an ODP has been established, a Diverse Vector Area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedures.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation, and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

MILITARY USERS: IFR departure procedures not published as graphic Departure Procedures and take-off minima are included below and are established to assist pilots in obstacle avoidance. Refer to appropriate service directives for take-off minimums.

CIVIL USERS: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less-one statute mile. (2) Aircraft having more than two engines-one-half statute mile. These standard minima apply in the absence of any different minima listed below.

AIRPORT NAME	TAKE-OFF MINIMUMS

JALALABAD (OAJL) Orig, 16119
Jalalabad, Afghanistan
Diverse departure not authorized.
TAKE-OFF OBSTACLES: Rwy 13: Building 851' from DER, 652' left of centerline, 26' AGL/1840' MSL. Building 275' from DER, 321' left of centerline, 20' AGL/1835' MSL. Building 1814' from DER, 154' right of centerline, 41' AGL/1869' MSL. Building 1701' from DER, 505' right of centerline, 30' AGL/1862' MSL. Building 1670' from DER, 687' right of centerline, 24' AGL/1859' MSL. Building 343' from DER, 181' right of centerline, 19' AGL/1840' MSL. Building 16' from DER, 268' right of centerline, 31' AGL/1847' MSL. Building 7' from DER, 286' right of centerline, 21' AGL/1849' MSL. Building 259' from DER, 240' right of centerline, 18' AGL/1840' MSL. **Rwy 31:** Tank 79' from DER 403' left of centerline, 25' AGL/1860' MSL. Building 788' from DER, 375' right of centerline, 22' AGL/1853' MSL. Building 219' from DER, 395' right of centerline, 16' AGL/1851' MSL. Tower 999' from DER, 350' left of centerline, 52' AGL/1902' MSL. Building 1726' from DER, 581' left of centerline, 17' AGL/1862' MSL. Building 68' from DER, 496' right of centerline, 30' AGL/1857' MSL. Building 434' from DER, 606' right of centerline, 9' AGL/1843' MSL. Pylon 5364' from DER, 1724' right of centerline, 35' AGL/1869' MSL. Tank 14' from DER, 401' left of centerline, 25' AGL/1870' MSL. Building 1004' from DER, 498' left of centerline, 22' AGL/1869' MSL. Building 451' from DER, 582' right of centerline, 30' AGL/1862' MSL.

Orig 16119

JALALABAD (OAJL)

JESOV TWO (RNAV) DEPARTURE

SHL-3211 [USAF]

JALALABAD, AFGHANISTAN

JALALABAD TOWER
129.7 231.0

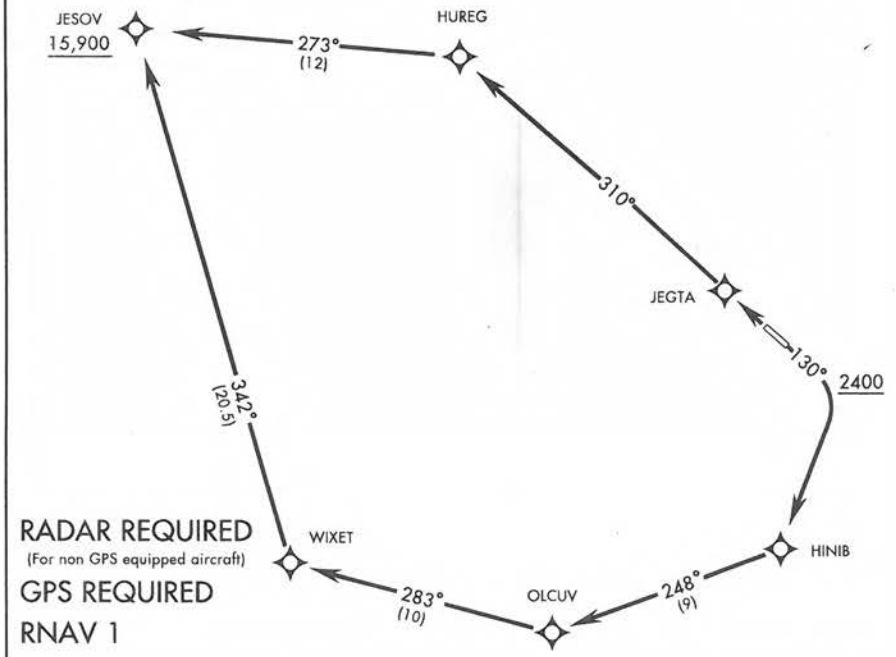
10,130

Rwy	Knots	60	120	180	240	300	360
13*ⓐ	V/V(fpm)	350	700	1050	1400	1750	2100
13†ⓑ	V/V(fpm)	425	850	1275	1700	2125	2550
31*ⓒ	V/V(fpm)	483	966	1449	1932	2415	2898
31†ⓓ	V/V(fpm)	547	1094	1641	2188	2735	3282

* Minimum Climb Rate † ATC Climb Rate

ⓐ to 7900
ⓑ to 15,900
ⓒ to 7500
ⓓ to 15,900

Procedure not authorized when aerostats east of the rwy are aloft.



RADAR REQUIRED
(For non GPS equipped aircraft)

GPS REQUIRED

RNAV 1

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 13: Climb on heading 130° to 2400, then climbing right turn direct HINIB. Then track 248° to OLCUV, track 283° to WIXET, track 342° to JESOV. Cross JESOV at or above 15,900, thence...

TAKE-OFF RWY 31: Climb direct JEGTA, then track 310° to HUREG, track 273° to JESOV. Cross JESOV at or above 15,900, thence...

...Proceed on course or as directed by ATC.

JESOV TWO (RNAV) DEPARTURE

TERPS

JALALABAD, AFGHANISTAN

JALALABAD (OAJL)

JALALABAD, AFGHANISTAN

RNAV (GPS) - A

APCH CRS	Rwy ldg	N/A
339°	TDZE	N/A
	Arpt Elev	1840

AL-3211 [USAF]

JALALABAD (OAJL)

DME/DME RNP-0.3 NA

Circling to Rwy 31 not authorized at night.

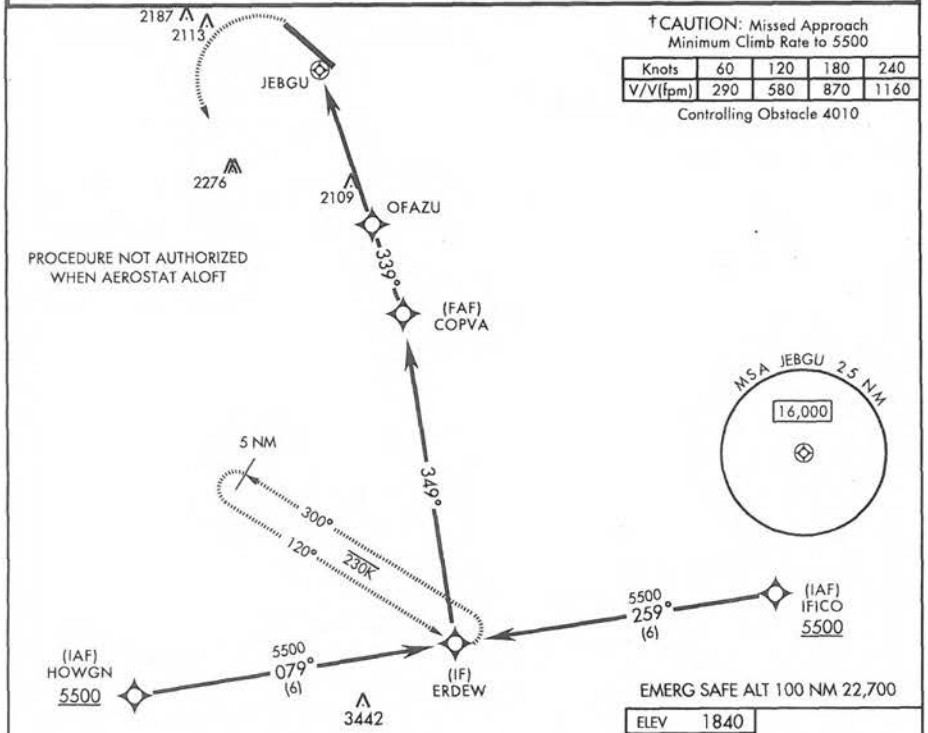
MISSED APPROACH: Climbing left turn to 5500 direct ERDEW and hold.

JALALABAD TOWER
129.7 231.0

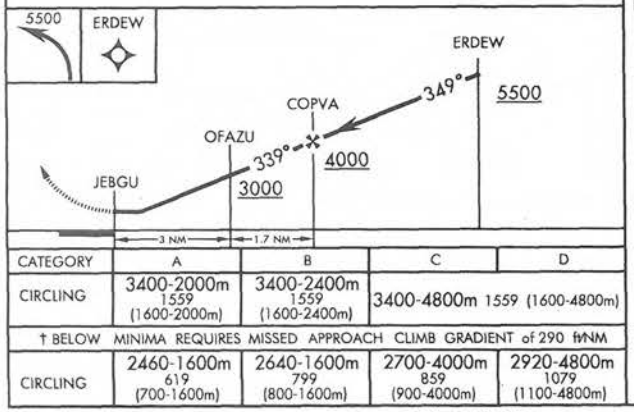
†CAUTION: Missed Approach Minimum Climb Rate to 5500

Knots	60	120	180	240
V/V(fpm)	290	580	870	1160

Controlling Obstacle 4010



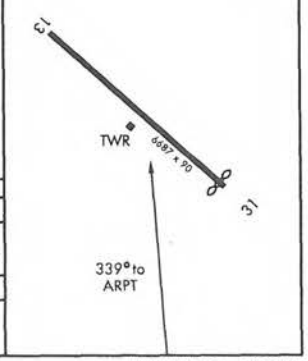
EMERG SAFE ALT 100 NM 22,700



CATEGORY	A	B	C	D
CIRCLING	3400-2000m 1559 (1600-2000m)	3400-2400m 1559 (1600-2400m)	3400-4800m 1559 (1600-4800m)	
† BELOW MINIMA REQUIRES MISSED APPROACH CLIMB GRADIENT of 290 ftNM				
CIRCLING	2460-1600m 619 (700-1600m)	2640-1600m 799 (800-1600m)	2700-4000m 859 (900-4000m)	2920-4800m 1079 (1100-4800m)

ELEV 1840

Rwy 31 ldg 6483'



JALALABAD, AFGHANISTAN

34°24'N-70°30'E

JALALABAD (OAJL)

Amdt 1 28APR16

TERPS

RNAV (GPS) - A

JALALABAD, AFGHANISTAN

RNAV (GPS) RWY 13

APCH CRS	Rwy ldg	6687
141°	TDZE	1840
	Arpt Elev	1840

AL-3211 [USAF]

JALALABAD (OAJL)

DME/DME RNP-0.3 NA

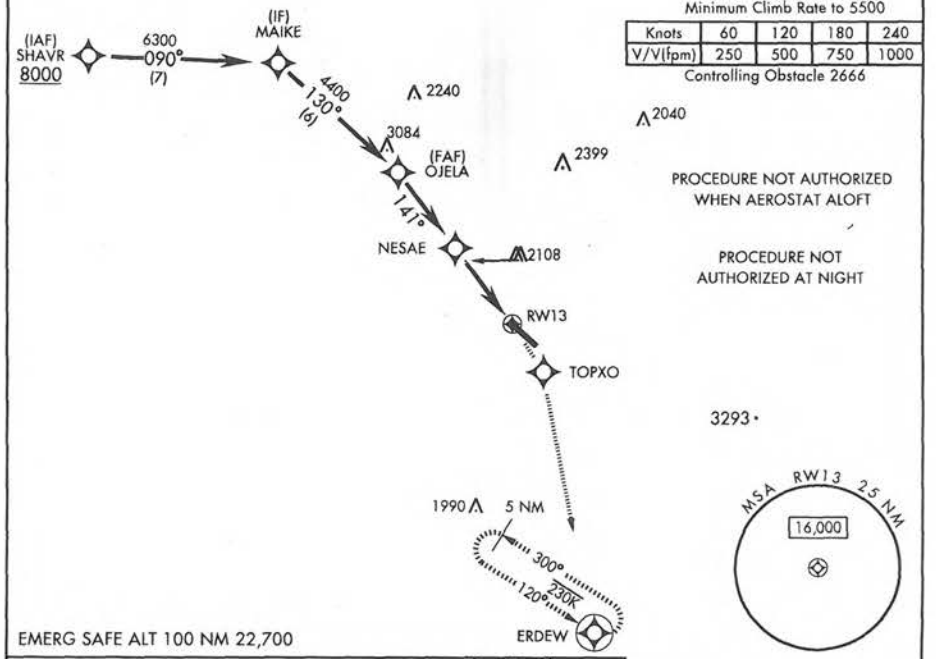
MISSED APPROACH: Climbing to 5500 direct TOPXO, then track 167° to ERDEW and hold.

JALALABAD TOWER
129.7 231.0

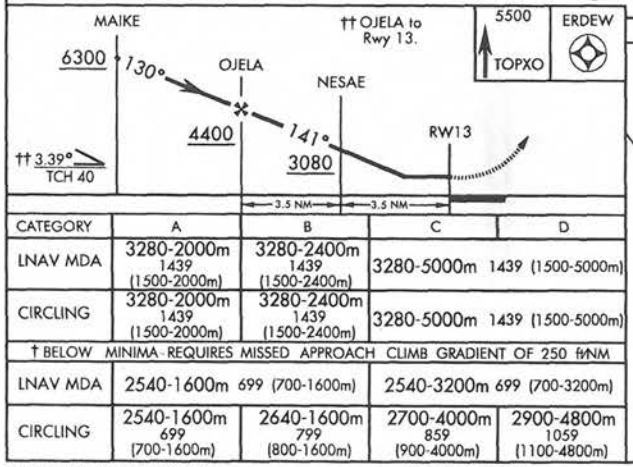
† CAUTION: Missed Approach Minimum Climb Rate to 5500

Knots	60	120	180	240
V/V(fpm)	250	500	750	1000

Controlling Obstacle 2666



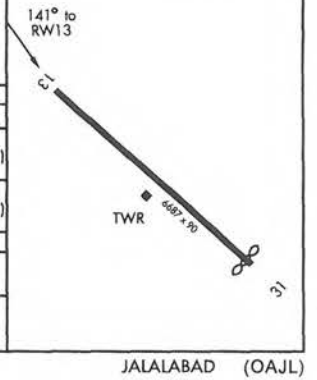
EMERG SAFE ALT 100 NM 22,700



CATEGORY	A	B	C	D
LNAV MDA	3280-2000m 1439 (1500-2000m)	3280-2400m 1439 (1500-2400m)	3280-5000m 1439 (1500-5000m)	
CIRCLING	3280-2000m 1439 (1500-2000m)	3280-2400m 1439 (1500-2400m)	3280-5000m 1439 (1500-5000m)	
† BELOW MINIMA REQUIRES MISSED APPROACH CLIMB GRADIENT OF 250 ftNM				
LNAV MDA	2540-1600m 699 (700-1600m)		2540-3200m 699 (700-3200m)	
CIRCLING	2540-1600m 699 (700-1600m)	2640-1600m 799 (800-1600m)	2700-4000m 859 (900-4000m)	2900-4800m 1059 (1100-4800m)

ELEV 1840 TDZE 1840

Rwy 31 ldg 6483'



JALALABAD, AFGHANISTAN

34°24'N-70°30'E

JALALABAD (OAJL)

Amdt 1 28APR16

TERPS

RNAV (GPS) RWY 13