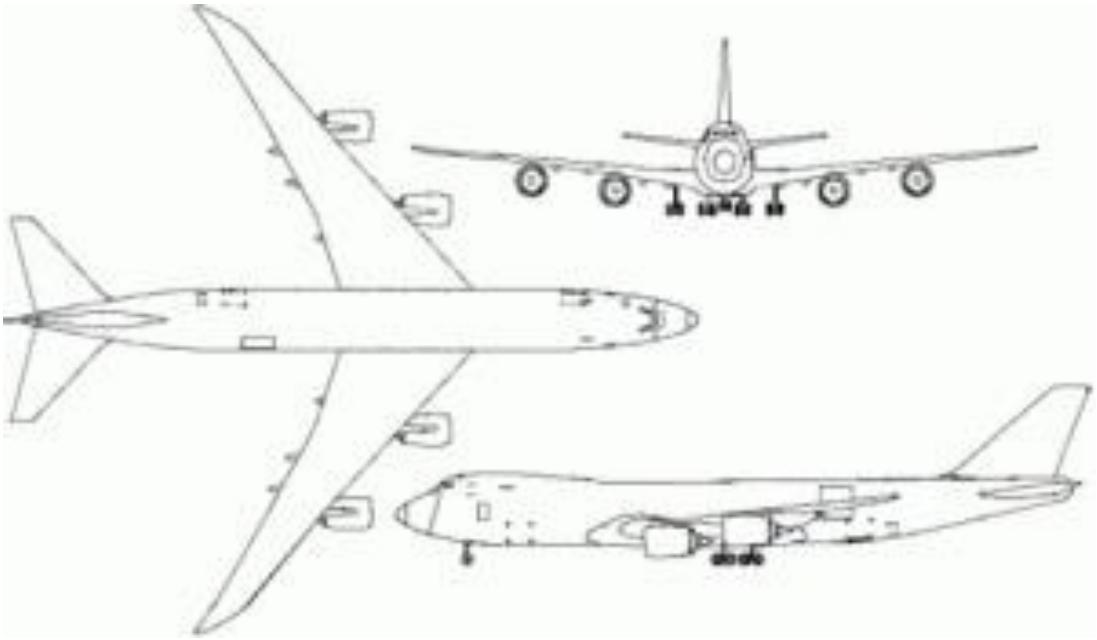
VIRTUAL UNITED STATES AIR FORCE MISSION QUALIFICATION TRAINING HANDBOOK for the E-4B



APPROVED FOR USE BY
COMMANDER, AIR MOBILITY COMMAND
COMMANDER, AIR EDUCATION AND TRAINING COMMAND

www.vusaf.us

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Contents

COURSE INTRODUCTION

VIRTUAL UNITED STATES AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND SCOTT AIR FORCE BASE ILLINOIS

Dear Future AMC Pilot:

Congratulations on graduating Initial Flight Training, and welcome to Air Mobility Command. You are now on track to becoming a fully mission-ready pilot as part of the Virtual United States Air Force!

Prior to becoming mission ready, you must complete Mission Qualification Training. Mission Qualification Training (MQT) is a training program that upgrades newly assigned crew members to Combat Mission Ready (CMR) or Basic Mission Capable (BMC) to accomplish the unit mission. Depending on your assigned airframe, this may include basic fighter tactics, various air-to-ground strike profiles, and/or combat air patrol techniques. Entry into MQT and training will start no later than 7 workdays after the crewmember has arrived on base and has been cleared for flying duties. If the crew member elects to take leave prior to entering MQT, the timing will begin after the termination of the crew member's leave. Crew members will complete all required MQT sorties within 90 calendar days after arriving at their duty station. Training is complete upon SQ/CC certification to CMR or BMC. While it may look challenging, I assure you that we will be more than happy to help get you trained and ready.

//signed//
BrigGen. Jamaal Brathwaite, vUSAF
Commander, Air Mobility Command
Scott Air Force Base, Illinois

OPERATIONAL REQUIREMENTS / SETTINGS

REQUIRED SIMULATOR SETTINGS

UNLIMITED FUEL:	OFF	MSFS REALISM SETTINGS PANEL
"G" FORCES:	OFF	MSFS REALISM SETTINGS PANEL
DAMAGE & COLLISIONS:	OFF	MSFS REALISM SETTINGS PANEL
REALISM SLIDERS:	MAX	MSFS REALISM SETTINGS PANEL
AIR TRAFFIC TAGS:	OFF	MSFS TRAFFIC CONTROL PANEL

REQUIRED PROGRAMS

The following programs are required in order to initially qualify to enrollment into MQT training:
MICROSOFT FLIGHT SIMULATOR X (ANY VERSION) or LOCKHEED MARTIN'S PREPAR3D (ANY VERSION)
xPlane is currently being evaluated by vAFOTEC for use as a combat platform, and is not currently available as an AMC-platform.

JOINFS - HTTP://PMEM.UK/JOINFS/
JoinFS provides for latency-free multiplayer missions through a peer-to-peer style network.

Required MSFS Settings:

Unlimited fuel:	Off	MSFS realism settings panel
"G" Forces:	Off	MSFS realism settings panel
Damage & Collisions:	Off	MSFS realism settings panel
Realism Sliders:	Max	MSFS realism settings panel
Air Traffic Tags:	Off	MSFS traffic control panel

The Following Pages are Airport Information on Airports that you will Frequent during Training.

Please Check AirNav , Navigraph and Other Sources for More Current Information.

KOFF **Offutt Air Force Base**
Omaha, Nebraska, USA

- **FAA INFORMATION EFFECTIVE 28 NOVEMBER 2024**
- **Location**

FAA Identifier: OFF

Lat/Long:	41-07-09.5840N 095-54-30.6610W 41-07.159733N 095-54.511017W 41.1193289,-95.9085169 (estimated)
Elevation:	1048.2 ft. / 319.5 m (surveyed)
Variation:	02E (2020)
From city:	8 miles SE of OMAHA, NE
Time zone:	UTC -6 (UTC -5 during Daylight Saving Time)
Zip code:	68113

- **Airport Operations**

Airport use:	Private use. Permission required prior to landing
Activation date:	05/1941
Control tower:	yes
ARTCC:	MINNEAPOLIS CENTER
FSS:	COLUMBUS FLIGHT SERVICE STATION
NOTAMs facility:	OFF (NOTAM-D service available)
Attendance:	MON-FRI 0600-2200, ALL SAT-SUN 0700-1900
Pattern altitude:	3548.2 ft. MSL TPA: VFR RECTANGULAR TFC PAT 2500 FT MSL, OVHD TFC PAT 3000 FT MSL, OVHD TFC RMN WI 5 NM.
Wind indicator:	yes
Segmented circle:	no
Beacon:	white-green (lighted land airport) Operates sunset to sunrise.
International operations:	ACFT ARR FM FOREIGN AREAS CONFIRM ETA & CSTMS RQR ONE HR PRIOR NTC THRU FSS.

- **Airport Communications**

ATIS:	126.025 273.5
OFFUTT GROUND:	121.7 289.4
OFFUTT TOWER:	123.7 279.625
OMAHA APPROACH:	120.1 ;WEST 124.5 ;EAST
OMAHA DEPARTURE:	120.1 ;WEST 124.5 ;EAST
AANDY STAR:	120.1 ;WEST 124.5 ;EAST
CLASS C:	120.1 ;WEST 124.5 ;EAST
COMD POST:	311.0 321.0
EMERG:	121.5 243.0
GCA:	290.55 340.9 378.8
HOWRY STAR:	120.1 ;WEST 124.5 ;EAST
IC:	120.1 ;WEST
LANTK STAR:	120.1 ;WEST 124.5 ;EAST
MARWI STAR:	120.1 ;WEST 124.5 ;EAST
OPS:	318.7 ;RAF OPS
PMSV METRO:	227.4

SFA: 379.4
TIMMO STAR: 120.1 ;WEST 124.5 ;EAST
WX AWOS-3 at PMV (10 nm S): 118.975 (402-298-7524)
WX AWOS-3 at MLE (10 nm NW): 118.25 (402-895-6778)
WX AWOS-3 at CBF (11 nm NE): 126.575 (712-323-1542)
WX ASOS at OMA (11 nm N): PHONE 402-271-7515
WX AWOS-3 at BTA (20 nm NW): 120.225 (402-426-0448)

- ALL RAF AIRCRAFT CONTACT RAF OPERATIONS; CALL SIGN PLAINSMAN; 30 MINUTES PRIOR TO ARRIVAL. PLAINSMAN OPERATES 24 HRS.
- FREQS 263.0 243.0 UNRELIABLE UP TO 12 MILES NW.
- REMARKS: CLASS C AIRSPACE 20 NM OUT ON SCTR FREQ.
- RMK: ATC WILL ENHANCE SFC OBSN WHEN TWR VIS GREATER THAN OR LESS THAN 4 SM, LESS THAN 4 SM AND DIFFERENT THAN RPT VIS, TORNADO, FUNNEL CLOUD, LIGHTNING OR THUNDERSTORMS OBSERVED.
- RMK: REMOTE BRIEFING SVC AVBL 15 OWS DSN 576-9755, C618-256-9755.
- A/G: REMARKS: SEE GLOBAL HF SYSTEMS LISTING IN FIH.
- REMARKS: AN/FMQ-19 FULLY OPR AND OPR IN AUTOMATED MODE. WX SENSOR ON RWY 31 SITED BLW GRADE OF RWY, OCNL CAUSING UNREPRESENTATIVE VIS MEASUREMENTS TO RPRT IN OBSN. OBSN PT OBST FR 360DEG-080DEG AND 130DEG-340DEG. SFC OBSN AUGMENTED WHEN ATC PERS CAN VIS SEE ENTIRE RY AND/OR WF PERS CAN VIS SEE END OF RY.
- **Nearby radio navigation aids**
- **Airport Services**

Fuel available: 100
100:F18 FUEL NOT FOR SALE TO PUBLIC.
Parking: hangars
Airframe service: MAJOR
Powerplant service: MAJOR
Bottled oxygen: LOW
Bulk oxygen: LOW

- **Runway Information**

Runway 13/31

Dimensions: 11703 x 150 ft. / 3567 x 46 m
Surface: asphalt/concrete/grooved, in good condition
SFC TYPE: PEM
Weight bearing capacity: PCN 89 /R/B/W/T
Runway edge lights: high intensity

	RUNWAY 13	**RUNWAY 31**
Latitude:	41-07.767667N	41-06.551667N
Longitude:	095-55.499667W	095-53.522667W
Elevation:	1048.2 ft.	971.7 ft.
Traffic pattern:	left	left
Runway heading:	127 magnetic, 129 true	307 magnetic, 309 true
Displaced threshold:	1008 ft.	1091 ft.
Declared distances:	LDA:10695	LDA:10612
Markings:	precision, in good condition	precision, in good condition
Visual slope indicator:	4-light PAPI on right (3.00 degrees glide path)	4-light PAPI on left (2.80 degrees glide path)
RVR equipment:	touchdown, midfield, rollout	touchdown, midfield, rollout
Approach lights:	ALSF1: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category I) RWY 13 ALSF 1 NSTD : RWY 13 MISSING	ALSF1: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category I)

	TWO LGT BARS DUE TO OFF BASE ROAD AND RR.	RWY 31 ALSF 1 NSTD : RWY 31 HAS AN ADDNL LGT BAR.
Runway end identifier lights:	yes	yes
Touchdown point:	yes, lighted	yes, lighted
Instrument approach:	LOC/GS	ILS
Obstructions:	none	rr, 450 ft. from runway, 18:1 slope to clear 50+-1 FROM DSPLCD THR.

- **Airport Ownership and Management from official FAA records**

Ownership: U.S. Air Force
Owner: USAF
3902D AIR BASE WING/SAC/
OFFUTT AFB, OMAHA, NE 68113
Manager: CHIEF OF AFLD MANAGEMENT
3902D AIR BASE WING/SAC/
OFFUTT AFB, OMAHA, NE 68113
Phone 402-294-2793

- **Additional Remarks**
- **Instrument Procedures**

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should download the free Adobe Reader.
NOT FOR NAVIGATION. Please procure official charts for flight.
FAA instrument procedures published for use from 28 November 2024 at 0901Z to 26 December 2024 at 0900z.

STARs - Standard Terminal Arrivals

AANDY TWO (RNAV)	2 pages: [1] [2] (288KB)
HOWRY THREE	download (220KB)
LANTK TWO	download (129KB)
MARWI FOUR	download (151KB)
TIMMO ONE (RNAV)	download (191KB)

IAPs - Instrument Approach Procedures

HI-ILS OR LOC Z RWY 31	download (160KB)
ILS OR LOC RWY 13	download (149KB)
ILS OR LOC Y RWY 31	download (160KB)
RNAV (GPS) RWY 13	download (116KB)
RNAV (GPS) RWY 31	download (106KB)
HI-TACAN Z RWY 13	download (148KB)
HI-TACAN Z RWY 31	download (140KB)
TACAN Y RWY 13	download (148KB)
TACAN Y RWY 31	download (139KB)
NOTE: Special Take-Off Minimums/Departure Procedures apply	download (355KB)

KRND Randolph Air Force Base
Universal City, Texas, USA

Location

FAA Identifier:	RND
Lat/Long:	29-31-44.0630N 098-16-40.9100W 29-31.734383N 098-16.681833W 29.5289064,-98.2780306 (estimated)
Elevation:	760.9 ft. / 231.9 m (surveyed)
Variation:	05E (2010)
From city:	13 miles NE of UNIVERSAL CITY, TX
Time zone:	UTC -5 (UTC -6 during Standard Time)
Zip code:	78148

Airport Operations

Airport use:	Private use. Permission required prior to landing
Activation date:	09/1937
Control tower:	yes
ARTCC:	HOUSTON CENTER
FSS:	SAN ANGELO FLIGHT SERVICE STATION
NOTAMs facility:	RND (NOTAM-D service available)
Attendance:	MON-FRI 1300-0100Z++ CLSD WEEKEND & FEDERAL HOL.
Pattern altitude:	TPA: RWY 15L/33R 2600 FT AGL OVERHEAD, RWY 15R-33L 1800 FT AGL.
Segmented circle:	no
Lights:	SS-SR
Beacon:	white-green (lighted land airport) Operates sunset to sunrise.

Airport Communications

ATIS:	290.525 327.8 ;HANGOVER
HANGOVER GROUND:	119.65 124.75 ;HANGOVER TWR 275.8 353.75 ;HANGOVER TWR [MON-FRI 1300-0100Z++, CLSD WEEKEND & FEDERAL HOL.]
HANGOVER TOWER:	120.5 ;HANGOVER TWR 128.25 291.1 ;HANGOVER TWR 294.7 [MON-FRI 1300-0100Z++, CLSD WEEKEND & FEDERAL HOL.]
SAN ANTONIO APPROACH:	124.45
SAN ANTONIO DEPARTURE:	127.1
CLEARANCE DELIVERY:	338.35 ;RWY 15L/33R
EMERG:	121.5 243.0

PMSV METRO: 239.8
PTD: 372.2
WX ASOS at SAT (10 nm W): PHONE 210-805-5583
WX ASOS at SSF (15 nm SW): PHONE 210-927-9391
WX ASOS at BAZ (16 nm NE): 119.325 (830-629-7979)

- PMSV METRO: FULL SVC AVBL 0500-0200Z++ MON-FRI, 1700-2200Z SUN, AS RQR, CLSD SAT AND FEDERAL HOL AT DSN 487-2992, C210-652-2992. AN/FMQ-19 ASOS IN USE, AUGMENTED BY HUMAN OBSERVER AS NEC DUR AFLD OP HR. BACKUP WX OBSN VIEW LTD, RSTD FR S-NW BY FLIGHTLINE FAC AND TREES. CTC 26 OWS DSN 331-2616/2690/2603, C318-529-2616/2690/2603 DUR WX FLT CLOSURE OR EVAC. WHEN POSSIBLE, PROVIDE 2 HR PN FOR ALL RQR BRIEFS.
- FREQ 120.5/291.1 FOR TFC CTL RWY 15R-33L WHEN STUDENT TRNG IN PROGRESS.
- WX OPR H24 MON-THU, 0500-0300Z++ FRI, 0300-0500Z++ SUN AT DSN 487-3040, C210-652-3040. AN/FMQ-19 ASOS IN USE, AUGMENTED BY HUMAN OBSERVER AS NEC DUR AFLD OP HR. BACKUP WX OBSN VIEW LTD, RSTD FR S-NW BY FLIGHTLINE FAC AND TREES. CTC 26 OWS DSN 331-2651/2633/2635/2636, C318-529-2651/2633/2635/2636 DUR WX FLT CLOSURE OR EVAC. WHEN POSSIBLE, PROVIDE 2 HR PN FOR ALL RQR BRIEFS.

Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
RND at field	RANDOLPH VORTAC	112.30	05E
SATr118/11.8	SAN ANTONIO VORTAC	116.80	08E
SSFr019/(18.4)	STINSON VOR	108.40	09E

Airport Services

Parking: hangars
Airframe service: MINOR
Powerplant service: NONE
Bottled oxygen: NONE
Bulk oxygen: HIGH/LOW

Runway Information

Runway 15L/33R

Dimensions: 8351 x 200 ft. / 2545 x 61 m
Surface: concrete
Weight bearing capacity: PCN 54 /R/A/W/T
Runway edge lights: high intensity

	RUNWAY 15L	RUNWAY 33R
Latitude:	29-32.565132N	29-31.371452N
Longitude:	098-16.557577W	098-15.770605W
Elevation:	742.4 ft.	722.8 ft.
Traffic pattern:	left	left
Markings:	NSTD, in good condition	NSTD, in good condition
Visual slope indicator:	4-light PAPI on left (3.00 degrees glide path)	4-light PAPI on left (3.00 degrees gli path)
RVR equipment:	touchdown	touchdown
Approach lights:	ALSF1: standard 2,400 foot high intensity approach lighting system with	ALSF1: standard 2,400 foot high intensity approach lighting system w

	centerline sequenced flashers (category I)	centerline sequenced flashers (category I)
Runway end identifier lights:	no	no
Touchdown point:	yes, no lights	yes, no lights
Instrument approach:	LOC/GS	ILS

Runway 15R/33L

Dimensions:	8352 x 200 ft. / 2546 x 61 m FIRST 1000 FT RWY 15R & FIRST 2500 FT RWY 33L CONC; MIDDLE 48 FT ASPH.	
Surface:	PEM	
Weight bearing capacity:	PCN 22 /R/C/W/T	
Runway edge lights:	high intensity	
	RUNWAY 15R	**RUNWAY 33L**
Latitude:	29-32.097317N	29-30.903540N
Longitude:	098-17.593183W	098-16.806027W
Elevation:	760.9 ft.	727.3 ft.
Traffic pattern:	left	left
Markings:	numbers only, in good condition	numbers only, in good condition
Visual slope indicator:	4-light PAPI on left (3.00 degrees glide path)	4-light PAPI on left (3.00 degrees gli path)
Runway end identifier lights:	no	no
Touchdown point:	yes, no lights	yes, no lights
Instrument approach:	LOC/GS	LOC/GS

Airport Ownership and Management from official FAA records

Ownership: U.S. Air Force
Owner: U.S. AIR FORCE
RANDOLPH AFB
UNIVERSITY CITY, TX 78148
Manager: COMMANDING OFFICER
RANDOLPH AFB
UNIVERSITY CITY, TX 78148

Instrument Procedures

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should download the free Adobe Reader.

NOT FOR NAVIGATION. Please procure official charts for flight.
FAA instrument procedures published for use from 10 August 2023 at 0901Z to 07 September 2023 at 0900z.

STARs - Standard Terminal Arrivals

BRAUN THREE (RNAV) ****CHANGED****	2 pages: [1] [2] (326KB)
BRAUN THREE (RNAV), CONT.2	download (157KB)
CENTERPOINT TWO	download (217KB)
LEMIG ONE	download (220KB)

MARCS ONE	2 pages: [1] [2] (389KB)
STONEWALL ONE	download (214KB)

IAPs - Instrument Approach Procedures

HI-ILS OR LOC Z RWY 15L	download (155KB)
HI-ILS OR LOC Z RWY 33R	download (150KB)
ILS OR LOC RWY 15R	download (142KB)
ILS OR LOC RWY 33L	download (148KB)
ILS OR LOC Y RWY 15L	download (146KB)
ILS OR LOC Y RWY 33R	download (155KB)
RNAV (GPS) RWY 15L	download (132KB)
RNAV (GPS) RWY 15R ****CHANGED****	download (124KB)
RNAV (GPS) RWY 33L	download (135KB)
RNAV (GPS) RWY 33R	download (153KB)
HI-TACAN A	download (130KB)
HI-TACAN B	download (121KB)
TACAN RWY 15R	download (114KB)
TACAN RWY 33L	download (110KB)

KBLV Scott Air Force Base/MidAmerica Airport

Belleville, Illinois, USA

FAA INFORMATION EFFECTIVE 21 MARCH 2024

Location

FAA Identifier: BLV
Lat/Long: 38-32-42.6230N 089-50-06.6680W
38-32.710383N 089-50.111133W
38.5451731,-89.8351856
(estimated)
Elevation: 459.1 ft. / 139.9 m (surveyed)
Variation: 02W (2020)
From city: 14 miles E of BELLEVILLE, IL
Time zone: UTC -5 (UTC -6 during Standard Time)
Zip code: 62225

Airport Operations

Airport use: Open to the public
Activation date: 07/1942
Control tower: yes
ARTCC: KANSAS CITY CENTER
FSS: SAINT LOUIS FLIGHT SERVICE STATION

NOTAMs facility: BLV (NOTAM-D service available)
Attendance: CONTINUOUS
Pattern altitude: TFC PAT: OVHD, FTR ACFT, 2500 FT; RECTANGULAR 2000 FT; LGT ACFT AND COPTER RECTANGULAR 1500 FT. DURG VFR COND; TKOF, LOW APCH, TOUCH AND GO AND CLSD PAT, ACFT WILL NOT EXCEED 2000 FT TIL FLD BDRY TO AVOID OVHD PAT.
Wind indicator: yes
Segmented circle: no
Beacon: white-green (lighted land airport)
Operates sunset to sunrise.
Landing fee: yes, LNDG FEE (N/A FOR MIL AIRCRAFT).
Fire and rescue: ARFF index B
Airline operations: ARFF INDEX C AVBL WITH 72 HRS PRIOR NOTICE 618-566-5233.
International operations: US CUSTOMS USER FEE ARPT.

Airport Communications

UNICOM: 122.95
ATIS: 128.7 256.7
SCOTT GROUND: 119.2 275.8
SCOTT TOWER: 128.25 253.5 236.6 271.3
SAINT LOUIS APPROACH: 125.2
SAINT LOUIS DEPARTURE: 125.2
CLEARANCE DELIVERY: 119.875 263.025
AR OPS: 49.95
BUUDD STAR: 119.15
CENTRALIA STAR: 119.15
COMD POST: 138.55 ;126 ARW 139.9 ;375 AMW 277.7 ;126 ARW 349.4 ;375 AMW
DELMA STAR: 128.1
DIXEE STAR: 128.1
FARMR STAR: 119.15
PMSV METRO: 239.8
PTD: 142.3 372.2
WX ASOS at CPS (15 nm W): PHONE 618-332-0001

Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
TOYr157/12.3	TROY VORTAC	116.00	04E
ENLr279/32.6	CENTRALIA VORTAC	115.00	04E
STLr121/35.7	ST LOUIS VORTAC	117.40	01E

NDB name	Hdg/Dist	Freq	Var	ID
GOOEY	313/6.1	385	02W	JD
ACORE	082/10.6	350	00E	CP

Airport Services

Fuel available: 100LL JET-A+
Parking: tiedowns
Airframe service: NONE
Bottled oxygen: NONE

Runway Information

Runway 14L/32R

Dimensions: 10000 x 150 ft. / 3048 x 46 m
Surface: concrete/grooved, in good condition
Weight bearing capacity: PCN 82 /R/B/W/T
Single wheel: 75.0
Double wheel: 209.0
Double tandem: 605.0
Dual double tandem: 840.0
Runway edge lights: high intensity

	RUNWAY 14L	**RUNWAY 32R**
Latitude:	38-33.371868N	38-32.175712N
Longitude:	089-50.009728W	089-48.567317W
Elevation:	441.4 ft.	441.8 ft.
Traffic pattern:	left	right
Runway heading:	139 magnetic, 137 true	319 magnetic, 317 true
Declared distances:	TORA:10000 TODA:10000 ASDA:10000 LDA:10000	TORA:10000 TODA:10000 ASDA:10000 LDA:10000
Markings:	precision, in good condition	precision, in good condition
Visual slope indicator:	4-light PAPI on right (3.00 degrees glide path)	4-light PAPI on left (3.00 degrees glide path)
RVR equipment:	touchdown, rollout	touchdown, rollout
Approach lights:		MALSR: 1,400 foot medium intensity approach lighti system with runway alignment indicator lights
Runway end identifier lights:	yes	
Touchdown point:	yes, no lights	yes, no lights
Instrument approach:	ILS/DME	ILS

Runway 14R/32L

Dimensions: 8006 x 150 ft. / 2440 x 46 m
HAS 1000 FT OVRN NW END.
Surface: asphalt/concrete/grooved
MISC: FIRST 6000 FT OF RY 32L IS ASPH, REMAINING 2001 FT IS CONC; LOCKED WHEEL TURNS ON ASPH PORTION OF RY PROHIBITED. 180 DEG TURNS ON ASPH PORTION OF RY IS AUTHORIZED FOR LGT & MED CATAGORY ACFT ONLY.
Weight bearing capacity: PCN 69 /R/B/W/T
Single wheel: 120.0
Double wheel: 250.0
Double tandem: 550.0
Dual double tandem: 1049.0

Runway edge lights: high intensity

	RUNWAY 14R	RUNWAY 32L
Latitude:	38-33.109595N	38-32.152322N
Longitude:	089-51.716380W	089-50.561365W
Elevation:	459.1 ft.	436.9 ft.
Traffic pattern:	right	left
Runway heading:	139 magnetic, 137 true	319 magnetic, 317 true
Displaced threshold:	no	184 ft.
Markings:	precision, in good condition	precision, in good condition
Visual slope indicator:	4-light PAPI on left (3.00 degrees glide path)	4-light PAPI on left (3.00 degrees glide path)
RVR equipment:	touchdown, rollout	touchdown, rollout
Approach lights:	ALSF1: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category I)	ALSF1: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category I)
Runway end identifier lights:	no	no
Touchdown point:	yes, no lights	yes, no lights
Instrument approach:	LOC/GS	ILS

Airport Ownership and Management from official FAA records

Ownership: U.S. Air Force
Owner: ST CLAIR COUNTY & USAF
10 PUBLIC SQUARE
BELLEVILLE, IL 62220
Phone 618-277-6600
375AMW SCOTT AFB BELLEVILLE IL 62225.
Manager: DARREN V. JAMES
9656 AIR TERMINAL DR, STE 100
MASCOUTAH, IL 62258-5501
Phone 618-566-5240
USAF BASE OPERATION 618-256-1861/MSGT STEPHANIE MARTINEZ 618-256-4101.

Airport Operational Statistics

Aircraft based on the field: 33
Single engine airplanes: 1
Helicopters: 5
Military aircraft: 27

Aircraft operations: avg 49/day *
55% military
31% transient general aviation
14% commercial
* for 12-month period ending 31 December 2021

Instrument Procedures

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should download the free Adobe Reader.

NOT FOR NAVIGATION. Please procure official charts for flight.
FAA instrument procedures published for use from 21 March 2024 at 0901Z to 18 April 2024 at 0900z.

STARs - Standard Terminal Arrivals
BUUDD THREE (RNAV) download (297KB)

CENTRALIA TWO (RNAV)	download (159KB)
DELMA FOUR (RNAV)	download (267KB)
DIXEE THREE (RNAV)	download (172KB)
FARMR THREE (RNAV)	download (209KB)

IAPs - Instrument Approach Procedures

ILS OR LOC RWY 14L ****CHANGED****	download (245KB)
ILS OR LOC RWY 14R	download (266KB)
ILS OR LOC RWY 32L	download (294KB)
ILS OR LOC RWY 32R	download (270KB)
RNAV (GPS) RWY 14L	download (242KB)
RNAV (GPS) RWY 14R	download (214KB)
RNAV (GPS) RWY 32L	download (219KB)
RNAV (GPS) RWY 32R	download (249KB)
TACAN RWY 14R	download (230KB)
TACAN RWY 32L	download (231KB)
TACAN-A ****CHANGED****	download (231KB)
Radar Approach Procedures available	download (152KB)
NOTE: Special Alternate Minimums apply	download (162KB)

Departure Procedures

GATEWAY ONE	2 pages: [1] [2] (407KB)
LINDBERGH EIGHT	2 pages: [1] [2] (293KB)
OZARK EIGHT	download (158KB)

MODULE 100: FAMILIARIZATION MODULE

SORTIE 101: LOCAL AREA FAMILIARIZATION

This flight will take you through Omaha area. This mission is simply to acclimate you to the procedures and terrain surrounding area. This flight will be conducted under visual flight rules.

OBJECTIVES: FAMILIARIZATION WITH LOCAL AREA REQUIREMENTS AND LOCAL INSTRUMENT PROCEDURES.
LOCATION: **Offutt Air Force Base**
DATE & TIME: DAYLIGHT HOURS
WX: REAL WORLD – VFR CEILING GREATER THAN 7500' REQUIRED
FLIGHT PLAN: Pilots Descretion

MISSION ORDERS:

Conduct the required preflight checks and prepare aircraft for takeoff.
Request ATC CLEARANCE
Take off and fly Area Familiarization flight around the area Flight plan Pilots Discretion upon Returning to Offutt AFB, Preform a Non precision approach, Fly Pattern work 2 touch n go, 2 full stop Pattern work, then preform a TACAN Approach and Land taxi to Parking

SPECIAL INSTRUCTIONS:

If VATSIM ATC is available, follow all departure/arrival instructions and request flight following. Ensure you follow procedures to request flight following.

SORTIE 102: PRECISION APPROACH & NIGHTTIME OPERATIONS

This is the exact same flight as Sortie 101, but under nighttime conditions to test your precision landing skills utilizing the ILS approach at Offutt Air Force Base.

MISSION SETUP

OBJECTIVES: EXECUTE AN ILS LANDING DURING NIGHT HOURS.
LOCATION: OFFUTT AIR FORCE BASE
DATE & TIME: **1900 LOCAL / 0100Z OR PILOTS DESCRETION**
WX: REAL WORLD WEATHER – NO MINIMUMS REQUIRED
FLIGHT PLAN:
ALTITUDE: PILOT DISCRETION

MISSION ORDERS:

Conduct the required preflight checks and prepare aircraft for takeoff.
Request VFR departure to the north (if ATC available),
When you have a visual on the airfield, navigate accordingly to set up for approach ILS, then take off and Remain in the Pattern and do Pattern Work, 2 T&G then taxi out and take off VFR and Make a TACAN Approach Land and Taxi to Parking

SPECIAL INSTRUCTIONS:

If VATSIM ATC is available, follow all departure/arrival instructions and request flight following. Ensure you follow procedures to request flight following.

SORTIE 103A: CROSS COUNTRY FLIGHT

OFFUTT AIR FORCE BASE (KOFF) to SCOTT AIR FORCE BASE (KBLV)

MISSION SETUP

OBJECTIVES: CROSS COUNTRY FLIGHT W/LOCAL INSTRUMENT PROCEDURES.
LOCATION: OFFUTT AIR FORCE BASE (KOFF) to SCOTT AIR FORCE BASE (KBLV)
DATE & TIME: **PILOTS DESCRETION**
WX: REAL WORLD WEATHER – NO MINIMUMS REQUIRED
SUGGESTED ROUTE:
ALTITUDE: PILOT DISCRETION

Overview:

The purpose of this mission is to offer you an opportunity to demonstrate your instrument skills and navigate cross country while operating a high-performance complex aircraft. During the sorties you will demonstrate basic knowledge and capabilities to aviate and navigate using the VOR, NDB instrumentation and published charts in real time weather (WX) conditions, ending the flight by performing a non-precision approach in daylight and a precision approach at night. Both flights shall be performed on the VATSIM network using real time weather updates either through Active Sky, vPilot or any third party software of your choice.

Mission Orders:

SORTIE 103A:

- Start FS and then start JoinFS.

- Start at KOFF ramp cold and dark in the E-4B. Perform preflight check and startup. File an IFR flight plan for KOFF to KBLV. Note: If ATC is online and re-routes you, notate this in your MIREP. Your routing from KOFF to is at your discretion but should leverage airways whenever possible while avoiding any significant weather notated in the SIGMETs. This information is all available on SkyVector.com using layers (for SIGMETs) and the World HI (aka IFR High) charts. A suggested route is available in the Misson Setup section.

- Before your decent, check the weather at KBLV and determine the best runway. If ATC is online follow their instructions for the active runway, otherwise use the weather and judgement to determine which runway you should land on using a non-precision approach (TACAN if able, or LOC if unable). All approaches must begin at an appropriate Initial Approach Fix (IAF) and not use "Vectors". ATC, if online, may vector you, you are to say unable and request the approach via the first IAF notated on the chart (not the closest to the runway – e.g. TACAN).

- Upon Top of Decent, descend via the arrival. If ATC is online and has not given you decent instructions, report Top of Decent to ATC. If ATC is not online, communicate Top of Decent on Unicom (122.8). During the descent, comply with all posted speed and altitude constraints notated on the chart. Additionally, compliance with the national speed limit (250kt indicated) below 10,000 ft is mandatory for this flight. As part of your MIREP, provide the current METAR for KBLV for this point in flight.

- Upon final approach, perform the published missed approach procedure and hold as notated in the approach chart and perform 1 full hold at the appropriate speed and leg distance. As a reminder, hold speeds are: 200kt below 6,000ft; 230kt 6,001ft to 14,000ft; 265kt at or above 14,001ft for non-high

performance Air Force Aircraft.

• If there is ATC online, request IFR clearance for the approach via the original IAF you used to land using the non-precision if minima allow, otherwise request a precision approach (ILS or RNAV GPS), and comply with ATC's instructions for routing. If there is no ATC online, leave the hold going direct to the IAF you used earlier and perform the non-precision if minima allow, otherwise perform a precision approach (ILS or RNAV GPS). It is the pilot's responsibility to ensure that they choose the correct approach for the conditions by referencing the minima at the bottom of the approach chart.

• Upon arrival and touch down, taxi clear of the runway and back to the hold short line of the active RWY and save your JoinFS file under your name and mission number of 103A .

SORTIE 104A:

MISSION SETUP

OBJECTIVES: FLIGHT FROM SCOTTS AIR FORCE BASE TO ANDREW AIR FORCE BASE
LOCATION: SCOTT AIR FORCE BASE
DATE & TIME: **PILOTS DESCRETION**
WX: REAL WORLD WEATHER – NO MINIMUMS REQUIRED
SUGGESTED ROUTE: GATWY1 CREEP J110 EMPTY DCT OTMAN/N0455F390 J30 BUCKO FRDMM5
ALTITUDE: PILOT DISCRETION

• Start at KBLV ramp cold and dark in the E-4B. Perform preflight check and startup. File an IFR flight plan for KBLV to KADW using the GATWY1 departure CREEP Transition and the FRDMM5 arrival via the BUCKO transition. If there is a newer SID or STAR, the pilot is to follow and comply with the most recent version. Additionally, the pilot is to comply with all routing, speed, and altitude restrictions as notated on departure and approach charts.

As in Sortie 103A, your routing from KBLV to KADW is at your discretion but should leverage airways whenever possible while avoiding any significant weather notated in the SIGMETs and must leverage the notated departures and arrivals. Also, as in 103A, if ATC is online and reroutes you, you must notate this in your MIREP. A suggested route is available in the Misson Setup section.

- As with 103A, you should fly the arrival while complying with all published routing and restrictions as well as including the current METAR for KBLV in your MIREP.

- For this initial approach you must use the RNAV (GPS) approach via the BUCKO transition regardless of the wind direction. If ATC is online, inform them of this and include "expect missed" when you request this approach.

- Perform the final approach and execute the published missed approach at the appropriate minimum plus 50 feet as notated on the chart. Remember it is your responsibility to call out a missed approach to ATC if they are online.

- After at least one full hold:

- If there is ATC online, request IFR clearance to KADW with the appropriate precision approach (RNAV GPS or ILS) for the winds. Follow ATC instructions and execute a full stop landing.
- If no ATC is online, proceed direct to the IAF for the appropriate precision approach (RNAV GPS or ILS) for the winds and execute a full stop landing.

- Upon landing, taxi to parking and shut down and file a flight report for both mission Sorties. Save your file under your name and mission number then email both files to File flight report via your SimAcars, indicate this mission number in the comment section.

MODULE200: AERIAL REFUELING MODULE

AAR PROCEDURE AND PHRASES.

Your AAR Route will be assigned by your Instructor when your Ready to do this Module

The Procedure There are 6 Points to a Air to Air Refuel they are as follows:
- First Contact at 30 nm
- Astern Position
- Observation Position
- Refuel
- Reform Area
- Leaving the Area

GREEN IS RECEIVER
Comms will Look like

Standard AAR Once on frequency and 30nm from the tanker, you would call:

TEXACO41 THIS IS RAZOR21 FLIGHT 2 TIMES F16 30NM TO THE SOUTH REQUESTING WET REFUEL (GIVE AMOUNT REQUIRED)

RAZOR 21 FLIGHT THIS IS TEXACO41 COPY YOUR REFUEL REQUEST CONTINUE APPROACH CALL AT 10NM

RAZOR21 FLIGHT CONTINUING APPROACH WILL CALL 10NM

At this point the tanker is aware that you are in the area and you need fuel so you will continue the approach when at 10nm from the tanker you would call the following:

TEXACO41 THIS IS RAZOR 21 FLIGHT HAVE YOU RADAR JUDY

10NM RAZOR21 FLIGHT CONTINUE APPROACH CLEARED ASTERN

(you repeat)RAZOR21 FLIGHT CLEARED ASTERN

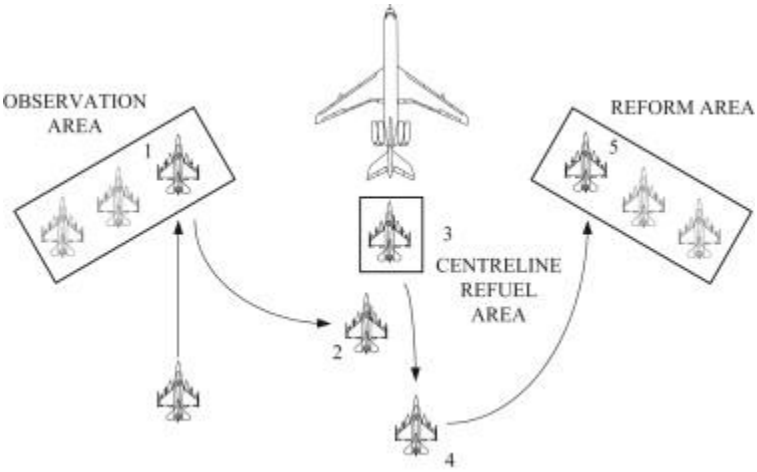
Astern is directly behind the tanker but 3nm back when you are in this position you call up with the following:

TEXACOS41, RAZOR21 FLIGHT ASTERN

RAZOR21 FLIGHT CLEARED TO THE OBSERVATION AREA RAZOR21 FLIGHT CLEARED OBSERVATION

This procedure is to be used for any AAR in any situation

The observation area is forming on tankers left (Port)wing



this is done to PID (Positively Identify) the receivers.

Once the receivers have been PID by the tanker you will be asked to drop back to the Pre-Contact position and you would be given you hose to connect to. This in 0.5nm from the tanker directly behind and the comms would be as follows:

TEXACO41 RAZOR21 FLIGHT OBSERVATION

RAZOR21 FLIGHT COPY, CLEARED PRE-CONTACT BOOM

RAZOR21 FLIGHT CLEARED PRE-CONTACT 21 LEFT HOSE 22 RIGHT HOSE

If there are more than 2 receivers the tanker will say for instance 21 cleared pre-contact left hose 22 right hose.(or BOOM) in the observation area.

At the point of pre-contact the taker will deploy the refueling boom when in position and stable the receivers call when ready at this point the flight has split to individual aircraft and they all make their own calls to the tanker as follows:

RAZOR 21 PRE-CONTACT

RAZOR21 CLEARED CONTACT

RAZOR 21 CLEARED CONTACT

At this point, the TANKER will connect to the BOOM when in position stable and connected the receiver will call: -

RAZOR 21 CONTACT

COPY RAZOR 21 FUEL FLOWING

When the requested amount of fuel has been passed the tanker will say:

RAZOR 21 FUEL TRANSFER COMPLETE CLEARED DISCONNECT, GO REFORM AREA

RAZOR 21 CLEAR DISCONNECT AND REFORM AREA

The reform area is to the right-wing of the tanker it is used to reform the flight before they are cleared to leave. If any aircraft are still refueling, then the aircraft will be held in the reform area.

Also if any aircraft are in the holding area then they will refuel from the tanker and then getcleared to the reform area, to join with the rest of their flight. Once all aircraft are ready and in reform area then the tanker will clear them to leave

RAZOR21 FLIGHT YOU ARE CLEARED TO LEAVE CONTACT CONTACT freq TO.....

TEXACOS41 RAZOR21 FLIGHT CLEARED TO LEAVE THANKS FOR THE FUEL CONTACTING .....

That is the basic refuelling procedure.

Emergency Procedures If at any point during the refuel the tanker call:

RAZOR 21 BREAKAWAY BREAKAWAY BREAKAWAY

The receiver must disconnect immediately and go to the reform area and await further instructions from the tanker.

https://www.vusaf.us/files/aetc/ACC-MQT/vUSAF%20AAR%20Script%2020240121.pdf

SORTIE 201A: AIR REFUELING ANCHOR AREAS

The purpose of this mission is to offer you an opportunity to demonstrate your instrument skills and navigate cross country while operating a high-performance complex aircraft. During the sorties you will demonstrate basic knowledge and capabilities to aviate and navigate using the GPS, VOR, NDB instrumentation and published charts in real time weather (WX) conditions. In addition, you will have the opportunity to set up orbit within an air refueling anchor area.

OBJECTIVES: SET UP ORBIT WITHIN AN AR ANCHOR AREA
LOCATION: AR669

DATE & TIME: DAYLIGHT HOURS
WX: REAL WORLD WEATHER – NO MINIMUMS REQUIRED

SUGGESTED ROUTE: KLTS Direct AR669 Direct KLTS
ALTITUDE: FL250/FL270

Overview:

Flight shall be performed on the VATSIM network using real time weather updates either through Active Sky, vPilot or any third party software of your choice.

Mission Orders:

- Start FS and then start JoinFS.
- Start at KOFF ramp cold and dark in the E-4B/ E-4. Perform preflight check and startup. File an IFR flight plan for KOFF to the ARR #
- Utilize the AP/1B to collect all pertinent data concerning ARR# . Make sure to utilize the Entry Point, ARIP, Anchor Point, Anchor Pattern, and Exit Point. A minimum of 3 orbits is required for this mission. (Hint: Programming the GPS coordinates of each point of the anchor area works the best)
- Before your decent, check the weather at KOFF and determine the best runway. If ATC is online follow their instructions for the active runway, otherwise use the weather and judgement to determine which runway you should land on using a precision approach. All approaches must begin at an appropriate Initial Approach Fix (IAF) and not use "Vectors". ATC, if online, may vector you, you are to say unable and request the approach via the first IAF notated on the chart (not the closest to the runway – e.g. SEATO for the TACAN).
- Upon Top of Decent, descend at pilot's discretion. If ATC is online and has not given you decent instructions, report Top of Decent to ATC. If ATC is not online, communicate Top of Decent on Unicom (122.8). During the descent, comply with all posted speed and altitude constraints notated on the chart. Additionally, compliance with the national speed limit (250kt indicated) below 10,000 ft is mandatory for this flight. As part of your MIREP, provide the current METAR for K for this point in flight.
- Upon final approach, perform the published missed approach procedure and hold as notated in the approach chart and perform 1 full hold at the appropriate speed and leg distance. As a reminder, hold speeds are: 200kt below 6,000ft; 230kt 6,001ft to 14,000ft; 265kt at or above 14,001ft for non-high performance Air Force Aircraft.
- If there is ATC online, request IFR clearance for the approach via the original IAF you used to land using the non-precision if minima allow, otherwise request a precision approach (ILS or RNAV GPS), and comply with ATC's instructions for routing. If there is no ATC online, leave the hold going direct to the IAF you used earlier and perform the non-precision if minimal allow, otherwise perform a precision approach (ILS or RNAV GPS). It is the pilot's responsibility to ensure that they choose the correct approach for the conditions by referencing the minima at the bottom of the approach chart.
- Upon arrival and touch down, taxi clear of the runway and back to the ramp to shutdown. Save your JoinFS file under your name and mission number of 201A

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SORTIE 201B: AIR REFUELING TRACKS

The purpose of this mission is to offer you an opportunity to demonstrate your instrument skills and navigate cross country while operating a high-performance complex aircraft. During the sorties you will demonstrate basic knowledge and capabilities to aviate and navigate using the GPS, VOR, NDB instrumentation and published charts in real time weather (WX) conditions. In addition, you will have the opportunity to set yourself on an AR Track.

OBJECTIVES: SET UP ON AN AR TRACK
LOCATION: AR102B
DATE & TIME: DAYLIGHT HOURS
WX: REAL WORLD WEATHER – NO MINIMUMS REQUIRED

SUGGESTED ROUTE: KLTS Direct AR102B Direct KLTS
ALTITUDE: FL240/FL300

Overview:

Flight shall be performed on the VATSIM network using real time weather updates either through Active Sky, vPilot or any third party software of your choice.

Mission Orders:

- Start FS and then start JoinFS.
- Start at KOFF ramp cold and dark in the E-4B/ E-4. Perform preflight check and startup. File an IFR flight plan for KOFF to ARR# ARIP, fly the length of the track, returning to KOFF Note: If ATC is online and re-routes you, notate this in your MIREP. Your routing from KOFF to ARR# is at your discretion but should leverage airways whenever possible while avoiding any significant weather notated in the SIGMETs. This information is all available on SkyVector.com using layers (for SIGMETs) and the World HI (aka IFR High) charts. A suggested route is available in the Misson Setup section.
- Utilize the AP/1B to collect all pertinent data concerning ARR#. Make sure to utilize the ARIP, ARCP, Navigation Points, and Exit Point. (Hint: Programming the GPS coordinates of each point of the track works the best)
- Before your decent, check the weather at KOFF and determine the best runway**. Once you have done that, plan on the approach to the opposite runway, circle to land the active runway**. If ATC is online follow their instructions for the active runway, otherwise use the weather and judgement to determine which runway you should land on using a precision approach. All approaches must begin at an appropriate Initial Approach Fix (IAF) and not use "Vectors". ATC, if online, may vector you, you are to say unable and request the approach via the first IAF notated on the chart (not the closest to the runway – e.g. SEATO for the TACAN).
- Upon Top of Decent, descend at pilot's discretion. If ATC is online and has not given you decent instructions, report Top of Decent to ATC. If ATC is not online, communicate Top of Decent on Unicom (122.8). During the descent, comply with all posted speed and altitude constraints notated on the chart. Additionally, compliance with the national speed limit (250kt indicated) below 10,000 ft is mandatory for this flight. As part of your MIREP, provide the current METAR for K for this point in flight.
- Upon final approach to the opposite runway, perform a circle to land the active runway. Circle should be conducted based on the approach plate data for that approach.
- Upon arrival and touch down, taxi clear of the runway and back to the ramp to shutdown. Save your JoinFS file under your name and mission number of 301B

The purpose of this sortie is to allow you an opportunity to experience and practice getting “Stern” position and the “Contact” position.

MISSION SETUP

OBJECTIVES: PERFORM AND EXECUTE ADVANCED FORMATION MOVEMENTS
LOCATION: ARR # per Instructor
DATE & TIME: Per Instructor
WX: REAL WORLD
FLIGHT PLAN:
ALTITUDE: BLOCK ALTITUDE FL270 TO FL290
REQUIRED FILES:

MISSION ORDERS:

Start your simulator at KOFF with proper tail booked and complete pre-flight checks.
If ATC is online follow normal departure procedures at their direction.
Once airborne fly to the AR Route Given to you by your Instructor fly to the Initial Point (ARIP)
Cross the ARIP at the briefed heading and altitude and call the Tanker advising:
“Air Force XXX, (Tanker Callsign) is IP inbound requesting XXXX lbs of fuel.”
Continue inbound to the Contact Point (ARCP) and follow the Tanker IP instructions.

SPECIAL INSTRUCTIONS

Use the communications protocol found in the vUSAF AAR Resource Document to conduct your aerial refueling. Your AR flight will be graded by the Tanker Pilot.

Mission

The E-4B "Nightwatch" serves as the National Airborne Operations Center and is a key component of the National Military Command System for the President, the Secretary of Defense and the Joint Chiefs of Staff. In case of national emergency or destruction of ground command and control centers, the aircraft provides a highly survivable command, control and communications center to direct U.S. forces, execute emergency war orders, and coordinate actions by civil authorities. The conduct of E-4B operations encompasses all phases of the threat spectrum. Additionally, the E-4B provides outside the continental United States travel support for the Secretary of Defense and his staff to ensure Title 10 command and control connectivity.

Features

The E-4B, a militarized version of the Boeing 747-200, is a four-engine, swept-wing, long-range, high-altitude airplane capable of refueling in flight. The main deck is divided into six functional areas: a command work area, conference room, briefing room, an operations team work area, communications area and rest area. An E-4B may include seating for up to 111 people, including a joint-service operations team, Air Force flight crew, maintenance and security component, communications team and selected augmentees.

The E-4B is protected against the effects of electromagnetic pulse and has an electrical system designed to support advanced electronics and a wide variety of communications equipment. An advanced satellite communications system provides worldwide communication for senior leaders through the airborne operations center. Other improvements include nuclear and thermal effects shielding, acoustic control, an improved technical control facility and an upgraded air-conditioning system for cooling electrical components.

To provide direct support to the President, the Secretary of Defense, and the JCS, at least one E-4B is always generated as a NAOC and on alert 24 hours a day, 7 days a week, with a global watch team at one of many bases selected throughout the world.

In addition to its national and NC3 mission, the E-4B provides support to the Federal Emergency Management Agency, which provides communications and command center capability to relief efforts following natural disasters, such as hurricanes and earthquakes.

Air Force Global Strike Command is the Air Force single-resource manager for the E-4B, and provides aircrew, maintenance, security and communications support. E-4B operations are directed by the JCS and executed through U.S. Strategic Command. USSTRATCOM also provides personnel for the NAOC battle staff.

Background

The E-4B evolved from the E-4A, which had been in service since late 1974. The first B model was delivered to the Air Force in January 1980, and by 1985 all aircraft were converted to B models. All E-4B aircraft are assigned to the 595th Command and Control Group at Offutt Air Force Base, Nebraska. The 595th C2G aligned under Eighth Air Force Oct. 1, 2016.

Variants

E-4A

Three aircraft produced (s/n 73-1676, 73-1677, and 74-0787), powered by Pratt & Whitney JT9D-7A (first two aircraft) or General Electric CF6-50E2 (third aircraft) turbofan engines. No bulge to house equipment on top of fuselage.[40] These were later converted to E-4Bs.[1]

E-4B

One built (s/n 75-0125) and equipped with 52,500 lbf (234 kN) CF6-50E2 engines. Has nuclear electromagnetic pulse protection, nuclear and thermal effects shielding, advanced electronics, and a wide variety of communications equipment.[40][1][41]

Specifications (E-4B)

[edit]

***Data from* USAF Fact Sheet,[1] Boeing 747-200 specifications[42]**

General characteristics

- **Crew: 4**
- **Capacity: up to 108 mission crew**
- **Length: 231 ft 4 in (70.51 m)**
- **Wingspan: 195 ft 8 in (59.64 m)**
- **Height: 63 ft 5 in (19.33 m)**
- **Wing area: 5,500 sq ft (510 m^2)**
- **Airfoil: root: BAC 463 to BAC 468 ; tip: BAC 469 to BAC 474[43]**
- **Empty weight: 410,000 lb (185,973 kg)**
- **Gross weight: 800,000 lb (362,874 kg)**
- **Max takeoff weight: 833,000 lb (377,842 kg)**
- **Powerplant: 4 × General Electric F103 turbofan engines, 52,500 lbf (234 kN) thrust each**

(General Electric CF6-50E2)

Performance

- **Maximum speed: 523 kn (602 mph, 969 km/h)**
- **Cruise speed: 483 kn (556 mph, 895 km/h) / M0.84**
- **Range: 6,200 nmi (7,100 mi, 11,500 km)**
- **Endurance: 150+ hours (with refueling)**[12]

12 hours (without refueling)

- **Service ceiling: 45,000 ft (14,000 m)**
- **Wing loading: 150 lb/sq ft (730 kg/m^2)**
- **Thrust/weight: 0.26**