

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
 Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT</u> GRAND FORKS INTL	<u>AIRPORT ID</u> KGFK	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35L	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> GRAND FORKS	<u>STATE</u> ND	
<u>AIRPORT ELEVATION</u> 845	<u>TDZE</u> 845	<u>SUPERSEDED</u> RNAV (GPS) RWY 35L	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 04/28/2016	<u>MAG VAR</u> 6E	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 28 FEBRUARY 2019	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
GFK VOR/DME		ERIXE		TF	FO	2.00	173.23	12.21	2600
SHELS		JOCOR		TF	FB	2.00	306.03	17.05	2600
UNIZY		IGIME		TF	FB	2.00	051.77	23.57	3000
JOCOR	IAF	ERIXE	NOPT	TF	FB	1.00	328.30	8.26	2600
IGIME	IAF	ERIXE	NOPT	TF	FB	1.00	083.93	5.00	2600
ERIXE	IF/IAF	JAGBI		TF	FB	1.00	354.02	6.00	2600
JAGBI	FAF	RW35L	MAP	TF	FO	0.30	354.02	5.26	
RW35L	MAP	1095 MSL		CA			354.02		
1095 MSL		FODIB		DF	FO	1.00			2600

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW35L

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2600 DIRECT FODIB AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

QUALITY
25
CHECKED

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD S ERIXE, RT, 354.02 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 354.02FAF: JAGBIDIST FAF TO MAP: 5.26DIST FAF TO THLD: 5.26

4. MIN ALT: ERIXE 2600, JAGBI 2600

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.61GS ANT:

6. MIN GP INCPT: 2600GP ALT AT FAF : JAGBIDOM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 55.0

8. MSA FROM: RW35L 3300

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON GFK VOR/DME AIRWAY RADIALS 112 CW 234.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LNAV CAT D.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C .

ADDITIONAL FLIGHT DATA:

CHART VDP AT 1.00 NM TO RW35L*
*LNAV ONLY
WAAS CHANNEL #70313
REFERENCE PATH ID: W35A
CHART FAS OBST: 943 TRANSMISSION_LINE 475425N/0971012W.
HOLD N, RT, 174.02 INBOUND
LTP HAE: 230.6 M

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LPV DA	1095	2400	250	1095	2400	250	1095	2400	250	1095	2400	250			
LNAV/VNAV DA	1174	2600	329	1174	2600	329	1174	2600	329	1174	4000	329			
LNAV MDA	1200	2400	355	1200	2400	355	1200	3000	355	1200	5000	355			
CIRCLING	1280	1	435	1300	1	455	1300	1 1/2	455	1400	2	555			



CHANGES - REASONS

- RNAV (GPS) 35L ORIG-A
- 1. LPV VIS CHANGED FROM 1/2 SM TO RVR 5000 ALL CATS - RVR SYSTEM INSTALLED FOR RWY 35L (FDC 6/5852).
 - 2. LNAV/VNAV VIS CHANGED FROM 1/2 SM TO RVR 3000 ALL CATS - RVR SYSTEM INSTALLED FOR RWY 35L (FDC 6/5852).
 - 3. LNAV VIS CATS A/B CHANGED FROM 1/2 SM TO RVR 2400, CAT C CHANGED FROM 1/2 SM TO RVR 2600, AND CAT D CHANGED FROM 1 SM TO RVR 2600 - RVR SYSTEM INSTALLED FOR RWY 35L - RVR SYSTEM INSTALLED FOR RWY 35L (FDC 6/5852).
 - 4. DELETED NOTE "INOP TABLE DOES NOT APPLY TO LNAV CAT D" - VIS REQUIREMENTS CHANGED WITH INSTALLATION OF RWY 35L RVR (FDC 6/5852).
 - 5. CHANGED INOP MALSR NOTE TO READ "FOR INOPERATIVE MALSR, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO RVR 5000" - RVR SYSTEM INSTALLED FOR RWY 35L (FDC 6/5852).
 - 6. ADDED NOTE "FOR INOPERATIVE MALSR WHEN USING CROOKSTON ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILTY TO RVR 5000 AND LNAV CAT C/D VISIBILITY TO RVR 6000" - RVR SYSTEM INSTALLED FOR RWY 35L (FDC 6/5852).
 - 7. CHANGED ALTIMETER SETTING NOTE TO READ "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CROOKSTON ALTIMETER SETTING AND INCREASE ALL DA/MDA 80 FEET; INCREASE LPV ALL CATS VISIBILITY 1/8 MILE, LNAV/VNAV ALL CATS AND LNAV CAT C/D VISIBILITY 1/4 MILE - RVR SYSTEM INSTALLED FOR RWY 35L (FDC 6/5852).

- RNAV (GPS) RWY 35L ORIG-B
- 1. TERMINAL ROUTES: CHANGED ALL INSTANCES OF 1045 MSL TO 1095 MSL - NEW LNAV CONTROLLING OBSTACLE; ABBREVIATED AMENDMENT TO CLEAR T-NOTAM.
 - 2. PROFILE LINE 2: ADDED MAX HOLDING ALTITUDE 6000 - IAW CURRENT CRITERIA.
 - 3. ADDITIONAL FLIGHT DATA: CHANGED VDP FROM 0.94 NM TO 1.00 NM - CURRENT EVALUATION.
 - 4. ADDITIONAL FLIGHT DATA: CHANGED FAS OBSTACLE FROM 910 TREE TO 943 TREE - NEW LNAV CONTROLLING OBSTACLE.
 - 5. ADDITIONAL FLIGHT DATA: DELETED "ROUTE TYPE DESCRIPTION: A, R", "APPROACH ROUTE QUALIFIER 1: W, J", AND "APPROACH ROUTE QUALIFIER 2: S" - NO LONGER REQUIRED.
 - 6. MINIMUMS: CHANGED LPV VISIBILITY ALL CATS FROM RVR 5000 TO RVR 2400 - CLEAR T-NOTAM/MINIMUMS ARE NOT BEING LOWERED, THEY ARE BEING RESTORED TO PREVIOUS STATE IAW 8260-19, PARA 8-3-4.C.; MINIMUMS WERE 1/2 SM PRIOR TO APPLICATION OF RVR AND WERE INCORRECTLY RAISED TO 5000 WHEN THEY SHOULD HAVE BEEN 2400.
 - 7. MINIMUMS: CHANGED LNAV/VNAV CATS A-B VISIBILITY FROM RVR 3000 TO RVR 2600 - RESTORED CAT A-B VISIBILITY MINIMUMS ARE NOT BEING LOWERED, THEY ARE BEING RESTORED TO PREVIOUS STATE IAW 8260-19, PARA 8-3-4.C.; MINIMUMS WERE 1/2 SM PRIOR TO APPLICATION OF RVR AND WERE INCORRECTLY RAISED TO 3000 WHEN THEY SHOULD HAVE BEEN 2600.; UNABLE TO CHANGE CAT D VISIBILITY LOWER THAN THE EQUIVALENT OF 3/4 SM VIA ABBREVIATED AMENDMENT BECAUSE VISIBILITY PRIOR TO RVR WAS 3/4 SM.
 - 8. MINIMUMS: CHANGED LNAV MDA ALL CATS FROM 1180 TO 1200 - NEW CONTROLLING OBSTACLE.
 - 9. DELETED "DME/DME RNP-0.3 NA" NOTE AND ADDED PBN REQUIREMENTS NOTE "RNP APCH" - IAW CURRENT CRITERIA.
 - 10. DELETED SECONDARY ALTIMETER SETTING NOTES AND INOPERATIVE LIGHTING NOTES FOR SECONDARY ALTIMETER SETTING- PRIMARY ALTIMETER SOURCE IS ON AWOS AND SECONDARY NOTES ARE NOT REQUIRED TO BE CHARTED; THEY ARE NOW ON THE 8260-9 FOR CONTINGENCY PURPOSES.
 - 11. CHANGED INOPERATIVE APPROACH LIGHTS NOTE FROM "FOR INOP MALSR, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO RVR 5000" TO "CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LNAV CAT D.- VALUE IS ALREADY ABOVE WHAT IT WOULD BE INCREASED TO.
 - 12. CHANGED PROFILE NOTE FROM "VGSI AND RNAV GLIDEPATH NOT COINCIDENT" TO "VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" - IAW CURRENT CRITERIA.
 - 13. CHANGED PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVALS AT GFK VOR/DME VIA AIRWAY RADIALS 112 CW 234" TO "PROCEDURE NA FOR ARRIVAL ON GFK VOR/DME AIRWAY RADIALS 112 CW 234" - IAW CURRENT CRITERIA.
 - 14. FAS DATA BLOCK INFORMATION DATA FIELD: LTP/FTP LATITUDE/LONGITUDE CHANGED FROM 475620.7500N/0971052.4100W TO 475620.7440N/0971052.4570W.
 - 15. FAS DATA BLOCK INFORMATION DATA FIELD: FPAP LATITUDE/LONGITUDE CHANGED FROM 475733.3500N/0971052.4100W TO 475749.7880N/0971052.4135W.
 - 16. FAS DATA BLOCK INFORMATION DATA FIELD: LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM +2308 TO +2306.
 - 17. FAS DATA BLOCK INFORMATION DATA FIELD LENGTH OFFSET CHANGED FROM "0008" TO "0512".
 - 18. FAS DATA BLOCK INFORMATION CRC REMAINDER: CHANGED FROM F318B385 TO 7C2E671A.
 - 19. NEW CIRCLING CONTROLLING OBSTRUCTIONS ALL CATS - NO CHANGE TO MINIMUMS.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: GFK ATCT, GFK APP CON, ZMP, AMGR

FLIGHT CHECKED BY

BROC STARRETT

Digitally signed by

MARK D ADAMS

Dec 03, 2018

OFFICE

FICO

DATE

11/20/18

DEVELOPED BY

JOHN THORNTON

Digitally signed by

JOHN R THORNTON

Oct 16, 2018

OFFICE

AJV-5421

DATE

08/22/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

MARK D ADAMS

Nov 30, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KGFK
RUNWAY	RW35L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W35A
LTP/FTP LATITUDE	475620.7440N
LTP/FTP LONGITUDE	0971052.4570W
LTP/FTP ELLIPSOIDAL HEIGHT	+02306
FPAP LATITUDE	475749.7880N
FPAP LONGITUDE	0971052.4135W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0512
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	7C2E671A

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+02574
FPAP ORTHOMETRIC HEIGHT	+02574

