

**FEDERAL AVIATION ADMINISTRATION**  
**FLIGHT STANDARDS SERVICE**  
**COPTER ILS STANDARD INSTRUMENT APPROACH PROCEDURE**  
**TITLE 14 CFR PART 97.35**

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.

<b><u>HELIPORT</u></b> ROCHESTER INTL	<b><u>HELIPORT ID</u></b> KRST	<b><u>PROCEDURE NAME</u></b> COPTER ILS Y OR LOC Y RWY 31	<b><u>ORIGINAL/AMENDMENT</u></b> 3	<b><u>CITY</u></b> ROCHESTER	<b><u>STATE</u></b> MN
<b><u>SURFACE ELEVATION</u></b> 1317	<b><u>TDZE</u></b> 1304	<b><u>SUPERSEDED</u></b> COPTER ILS OR LOC RWY 31	<b><u>ORIGINAL/AMENDMENT</u></b> 2	<b><u>DATED</u></b> 01/15/2009	<b><u>MAG VAR</u></b> 1E
<b><u>FACILITY</u></b> I-RST	<b><u>COORDINATES OF FACILITIES</u></b>	<b><u>ACTUAL EFFECTIVE DATE</u></b>	<b><u>REQUIRED EFFECTIVE DATE</u></b> 01/03/2019	<b><u>CANCEL/SUSPEND</u></b>	<b><u>EPOCH YEAR</u></b> 2005

**TERMINAL ROUTES**

<b><u>FROM</u></b>	<b><u>FIX TYPE</u></b>	<b><u>TO</u></b>	<b><u>FIX TYPE</u></b>	<b><u>LEG TYPE</u></b>	<b><u>FO/FB</u></b>	<b><u>RNP</u></b>	<b><u>COURSE</u></b>	<b><u>DISTANCE</u></b>	<b><u>ALTITUDE</u></b>
RST VOR/DME		MINGO INT					057.64	9.16	2900
EMORE INT	IF/IAF	MINGO INT	NOPT				311.14	13.14 (I-RST)	2800

**MISSED APPROACH**

**MAP:**

ILS: DA  
 LOC: 4.52 NM AFTER MINGO INT

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 2000 THEN CLIMBING LEFT TURN TO 3000 DIRECT RST VOR/DME AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):**

CLIMB TO 2000 THEN CLIMBING RIGHT TURN TO 4800 ON HEADING 050 AND ODI VORTAC R-282 TO EYATE INT/UKN 55.46 DME AND HOLD (DME REQUIRED).

**PROFILE:**

1. PT      **SIDE OF COURSE**      **OUTBOUND**      **FT WITHIN**      **MILES OF (IAF)**
2. HOLD SE MINGO INT, RT, 311.14 INBOUND, 2800 FT. IN LIEU OF PT (IAF), MAX 5000.
3. **FAC:** 311.14      **PFAF:** MINGO INT      **DIST PFAF TO MAP:**      **DIST PFAF TO THLD:** 4.52
4. **MIN ALT:** MINGO INT 2800
5. **DIST TO THLD FROM OM:**      **MM:**      **IM:**      **150 HAT:**      **GS ANT:** 1129
6. **MIN GS INCPT:** 2800      **GS ALT AT PFAF :** MINGO INT 2800      **OM:**      **MM:**      **IM:**
7. **GP ANGLE:** 3.00      **34:1:**      **20:1:**      **TCH:** 56.1
8. **MSA FROM:** RST VOR/DME 090-270 3900, 270-090 3300

**EQUIPMENT REQUIREMENTS NOTES:**



NOTES:

CHART NOTE: FOR INOPERATIVE ALS, INCREASE VISIBILITY TO 1 MILE.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT RST VOR/DME ON V82-170 WESTBOUND AND .

ADDITIONAL FLIGHT DATA:

CHART: ASR.  
CHART IN PLANVIEW: EYATE INT/UKN 55.46 DME  
CHART FAS OBST: 1365 TREE 435356N/0922904W.  
1510 AAO 435113N/0922325W.  
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD SE EYATE INT/UKN 55.46 DME, RT, 320.35 INBOUND.  
HOLD SW, RT, 025.14 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD - NA WHEN CONTROL TOWER CLOSED.; LOC: STANDARD - NA WHEN CONTROL TOWER CLOSED.

CATEGORY:	COPTER														
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
H-ILS 31	1504	1200	200		NA			NA			NA				
H-LOC 31	1620	1200	316		NA			NA			NA				

CHANGES - REASONS

FEEDER SEGMENT FROM RST VOR/DME TO MINGO INT COURSE/DISTANCE CHANGED FROM 057.41/9.15 TO 057.64/9.16 - UPDATED COURSE/DISTANCE FORMULA CALCULATIONS.  
INTERMEDIATE SEGMENT FROM EMORE INT TO MINGO INT DISTANCE CHANGED FROM 13.19 TO 13.14 - MINGO INT MOVED 224 FT.  
H-ILS 31 VISIBILITY CHANGED FROM 1600 TO 1200 - IAW 8260.3D 12-3-3 B. (1)  
H-LOC 31 VISIBILITY CHANGED FROM 1600 TO 1200 - 8260.3D 12-3-3 A. (1)  
H-LOC 31 MDA/HAT CHANGED FROM 1660/356 TO 1620/316 - LOWER CONTROLLING OBSTACLE IN FINAL APPROACH SEGMENT.  
FINAL SEGMENT MINGO INT TO RWY 31 THLD DISTANCE CHANGED FROM 4.48 TO 4.52 - MINGO INT MOVED 224 FT.  
RST TCH CHANGED FROM 50.1 TO 56.068 - TO MATCH AIRNAV DATA.  
CHART NOTE CHANGED FROM FOR INOPERATIVE MALSR, INCREASE VISIBILITY TO RVR 2400 TO CHART NOTE: FOR INOPERATIVE ALS, INCREASE VISIBILITY TO RVR 2400 - IAW 8260.19H 8-6-11 O. (3) (D).  
PROCEDURE NAME CHANGED FROM COPTER ILS OR LOC RWY 31 TO COPTER ILS Y OR LOC Y RWY 31 - IAW 8260.3D 1-6-2 D.

11-2-18: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 10-5-18.  
1. CHANGED MINGO INT/RST 9.16 DME TO MINGO INT.  
2. ADDED 2800 MINGO INT TO LINE 4 8260-3.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☐ HAI ☒ NBAA ☒ OTHER:

FLIGHT CHECKED BY  
GREGORY SCOTT WIEBE

DEVELOPED BY  
ROBERT GRIM

APPROVED BY  
PATRICK MULQUEEN

Digitally signed by  
DONALD H LANIER  
Nov 21, 2018

Digitally signed by  
ROBERT GRIM  
Nov 20, 2018

Digitally signed by  
DONALD H LANIER  
Nov 21, 2018

OFFICE  
FIOG

OFFICE  
AJV-5431

OFFICE  
AJV-5430

DATE  
11/01/2018

DATE  
09/04/2018

DATE

TITLE  
MANAGER



FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

<u>HELIPORT</u> ROCHESTER INTL	<u>HELIPORT ID</u> KRST	<u>PROCEDURE NAME</u> COPTER ILS Y OR LOC Y RWY 31	<u>AMDT NO.</u> 3	<u>CITY</u> ROCHESTER	<u>STATE</u> MN	<u>SURFACE ELEVATION</u> 1317	<u>FACILITY</u> I-RST
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PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM RST VOR/DME TO MINGO INT

RNP DISTANCE PAT MAP HAT HMAS  
9.16

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
1.TWR (27-001882)	434814.47N/0923448.79W	1595	50	20	2C	1000					2600
2.TERRAIN	434736.00N/0923542.00W	1385 (1400)								AS1500	2900

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE

FROM EMORE INT (IF/IAF) TO MINGO INT

RNP DISTANCE PAT MAP HAT HMAS  
13.14

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
3.TWR (27-001323)	434359.20N/0920506.20W	1692	250	125	4E	500				AC125 AT527 SA-44	2800
7.TERRAIN	434209.00N/0921709.00W	1368 (1400)								AS1000	2400

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: ILS

FROM

MINGO INT

TO

DA

<u>RNP</u>	<u>DISTANCE</u> 4.52	<u>PAT</u>	<u>MAP</u> DA	<u>HAT</u> 200			<u>HMAS</u>					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
								ASC				1504

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LOC

FROM

MINGO INT

TO

4.52 NM AFTER MINGO INT

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
	4.52		4.52 NM AFTER MINGO INT	316								
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
5.TREE (27-055942)	435356.30N/0922903.91W		1365	20	3	1A	250					1620

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



HOLD-IN-LIEU OF PT

FROM

MINGO INT

TO

P-4

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u> P-4	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
6.TWR (27-002477)	435117.71N/0922010.62W	1655	250	50	4D	1000				AT145	2800
7.TERRAIN	434603.00N/0922136.00W	1369 (1400)								AS1000	2400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : ILS

FROM

DA

TO

RST VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u> 1336					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
								ASC				3000
8.WINDMILL (27-020309)	434738.51N/0924029.28W		1799	500	50	5D	1000					2800
9.TERRAIN	434715.00N/0924030.00W		1415 (1400)								AS1500	2900

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH : LOC

FROM  
4.52 NM AFTER MINGO INT

TO  
RST VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u> 1370				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				3000
8.WINDMILL (27-020309)	434738.51N/0924029.28W	1799	500	50	5D	1000					2800
9.TERRAIN	434715.00N/0924030.00W	1415 (1400)								AS1500	2900

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

MISSED APPROACH ALTERNATE : ILS

FROM  
DA

TO  
EYATE INT/UKN 55.46 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u> 1336					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
								ASC				4800
10.TWR (27-000201)	440228.13N/0922025.47W		2244	20	3							2300
11.TERRAIN	440433.00N/0921745.00W		1362 (1400)								AS1500	2900

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:



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PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KRST	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KRST	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>

WX REMARKS:

<u>PRIMARY NAVAID</u> I-RST	<u>MONITOR POINT</u> RST ATCT	<u>HRS OPERATION</u> TWR OPEN TWR CLOSED	<u>CAT</u> 1 3
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>		<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW02 - MIRL (PCL), REIL, VASI-4L		NPI-G	
RW20 - MIRL (PCL), REIL, PAPI-4L		NPI-G	
RW13 - TDZ, MALSR (PCL), HIRL (PCL), C/LINE, PAPI-4L		PIR-G	APPROACH
RW31 - TDZ, MALSR (PCL), HIRL (PCL), C/LINE, PAPI-4L		PIR-G	APPROACH

<u>GLIDESLOPE ANGLE</u> 3.00	<u>ELEV RWY THRESHOLD</u> 1304.1	<u>TCH</u> 56.1	<u>ELEV GS ANTENNA</u> 1301.0	<u>DISTANCE FROM RWY</u> 1129	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 54.9
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS



<u>HELIPORT</u>	<u>HELIPORT</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>SURFACE ELEVATION</u>	<u>FACILITY</u>
ROCHESTER INTL	ID KRST	COPTER ILS Y OR LOC Y RWY 31	3	ROCHESTER	MN	1317	I-RST

and/or

**5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS**

**PART C: GENERAL REMARKS:**

VDP NOT ESTABLISHED - FINAL FACILITY DOES NOT HAVE DME.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

8260.3D 12-3-3 A. (1) AND B. (1) APPLIED TO ILS AND LOC VISIBILITY.

AVERAGE VEGETATION HEIGHT PER FPT 100 FT.

REDUNDANT WEATHER SOURCES ON FIELD.

ORDER 8260.3 CHAPTER 2 APPLIED TO 1510 AAO 435113.40N/0922325.05W.



<u>HELIPORT</u>	<u>HELIPORT</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>SURFACE ELEVATION</u>	<u>FACILITY</u>
ROCHESTER INTL	ID KRST	COPTER ILS Y OR LOC Y RWY 31	3	ROCHESTER	MN	1317	I-RST
PART D: AIRSPACE							
DOCKET #							
ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE							
DISTANCE FROM	THLD	TO 1000FT POINT	2.95				
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	0.86				
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	312.14				
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1310				
DISTANCE FROM	THLD	TO 1500FT POINT	6.55				
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	8.00				
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	312.14				
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	1369				
THRESHOLD COORDINATES (IF STR-IN)	435412.69N/0922912.15W						
ARP COORDINATES	435429.80N/0923000.10W						
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 13 DISTANCE 0.88 NM						
FAF COORDINATES	435110.57N/0922434.16W						
FIX NAME COORDINATES							
REMARKS							
HOLDING AT 435110.57N/0922434.16W 2800 - 5000 FT.							



<u>HELIPORT</u>	<u>HELIPORT</u> <u>ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>SURFACE ELEVATION</u>	<u>FACILITY</u>
ROCHESTER INTL	KRST	COPTER ILS Y OR LOC Y RWY 31	3	ROCHESTER	MN	1317	I-RST

PART E: PREPARED BY

<u>NAME</u>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
ROBERT GRIM	AJV-5431	09/04/2018	AERONAUTICAL INFORMATION SPECIALIST

