

RADIO FIX AND HOLDING DATA RECORD

NAME: ANDOE

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 465015.87N/0920302.05W

TYPE: RADAR, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC	MRA	MAA
								NM FEET		
1	DULUTH	I-JUD	LOC		093.29	092.29		7.24 43988	3200	5900
2	LAKESIDE	LKI	TACAN	H			5.59	5.59	3200	5900
3	DULUTH	DLH	VORTAC	VH	066.15	071.15	6.63	6.63	3200	5900

HOLDING:

HOLDING TYPE OF ACTION:

REMARKS:

DULUTH (FAC 1) AND LAKESIDE (FAC 2) USED TO ESTABLISH FIX COORDINATES.
DLH DME USED TO IDENTIFY THE IAF FROM THE DLH FEEDER FOR THE ILS OR LOC RWY 27 AT DLH.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 27	1, 2, 3		DLH	DULUTH	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/14/2026

REASON FOR REVISION:

3/4/26: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/8/25.
1. CHANGED DLH MAG/TRUE COURSE FROM "070.15/075.15" TO "066.15/071.15" IN FIX MAKE-UP FACILITIES.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: DANIEL JOHNSEN

APPROVED BY:

DATE: 04/09/2026

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

Digitally signed by
CASIMIR L TABAKA
Mar 05, 2026



RADIO FIX AND HOLDING DATA RECORD

NAME: ANDOE OM STATE: MN COUNTRY: US ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 465016.23N/0920314.66W TYPE: RADAR, DME

AIRSPACE DOCKET: FIX TYPE OF ACTION: CANCEL

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	ANDOE	JU	OM								5900
2	DULUTH	I-JUD	LOC		093.29	092.29		7.10	43110	3200	5900
3	DULUTH	DLH	VORTAC	VH			6.49	6.49	39461	3200	5900

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

COORDINATES REFLECT LOCATION ON LOC/AZ CENTERLINE ABEAM THE ANDOE OM.
ACTUAL FACILITY LOCATION IS 465015.29N/920314.72W.
DLH DME USED TO COMPLY WITH 8260.19H FIGURE 7-5-2 DUE TO POSITIONING OF DLH VORTAC FEEDER FIX WITHIN THE SHADED AREA.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 27	1, 2, 3		DLH	DULUTH	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7 DATE OF REVISION: 10/10/2019

REASON FOR REVISION:

1. FIX MOVED 3 FT NORTH, COORDINATES UPDATED - TO ALIGN ON LOCALIZER CENTERLINE
2. FIX TYPE, ADDED "DME" - FIX NOW HAS DME.
3. ADDED FAC 3 - TO COMPLY WITH 8260.19H, FIGURE 7-5-2.
4. ADDED REMARK REGARDING DLH DME - FURTHER EXPLANATION.
5. FIX USE, ADDED FAC 3 TO KDLH ILS OR LOC RWY 27.
6. FIX USE, DELETED KDLH COPTER ILS OR LOC RWY 27 - PROCEDURE CANCELED.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A421 NAME: RUSSELL ROSLEWSKI

APPROVED BY: DATE: 10/03/2019 OFFICE: AJV-A420 NAME: MARLON ROBINSON

SIGNATURE:

DISTRIBUTION: NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY: DLH TOWER
OTHER:

Digitally signed by
CASIMIR L TABAKA
Mar 05, 2026



RADIO FIX AND HOLDING DATA RECORD

NAME: DAYAR

STATE: WI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 463314.77N/0921448.58W

TYPE: DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	DULUTH	DLH	VORTAC	VH	181.97	186.97	15.00	15.00		3200	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

ATC REQUEST EN ROUTE LOW CHARTING.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 27	1		DLH	DULUTH	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 05/14/2026

REASON FOR REVISION:

1. DLH CLASS CHANGED FROM "H" TO "VH" IN FIX MAKE-UP FACILITIES.
2. ADDED REMARK "ATC REQUEST EN ROUTE LOW CHARTING".
3. ADDED "MILITARY IAP" IN REQUIRED CHARTING.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: DANIEL JOHNSEN

APPROVED BY:

DATE: 04/09/2026

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

Digitally signed by
CASIMIR L TABAKA

Mar 05, 2026



RADIO FIX AND HOLDING DATA RECORD

NAME: WIRSA

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 464953.62N/0915028.76W

TYPE: DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	DULUTH	I-JUD	LOC		093.29	092.29		15.87		3200	5900
2	DULUTH	DLH	VORTAC	H			15.00	15.00		3200	5900
3	LAKESIDE	LKI	TACAN	H			14.21	14.21		3200	5900

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

DULUTH (FAC 1) AND DULUTH (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 27	1, 2, 3		DLH	DULUTH	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 05/14/2026

REASON FOR REVISION:

1. ADDED LKI IN FIX MAKE-UP FACILITIES.
2. ADDED REMARK "DULUTH (FAC 1) AND DULUTH (FAC 2) USED TO ESTABLISH FIX COORDINATES".
3. ADDED FAC 3 TO IAP ILS OR LOC RWY 27 AT DLH IN FIX USE.
4. ADDED "MILITARY IAP" IN REQUIRED CHARTING.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: DANIEL JOHNSEN

APPROVED BY:

DATE: 04/09/2026

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

Digitally signed by
CASIMIR L TABAKA
Mar 05, 2026

