

# RADIO FIX AND HOLDING DATA RECORD

NAME: BENJO

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 415308.45N/0851233.15W

TYPE: WP, INT, 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	GIPPER	GIJ	VORTAC	H	081.60	081.60	50.25	50.25		18000	45000
2	FORT WAYNE	FWA	VORTAC	H	005.00	359.00		54.38		18000	45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

GIPPER (FAC 1) AND FORT WAYNE (FAC 2) USED TO ESTABLISH FIX COORDINATES

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J554	1, 2				(US)
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 05/24/2018

## REASON FOR REVISION:

ADDED WP TO FIX TYPE.

ADJUSTED FIX COORDINATES FROM 415247.15N-0851232.73W TO 415308.45N-0851233.15W - FIX MOVED 0.35 NM NORTH.

CHANGED FAC 1 (GIJ) DME DIST FROM 50.21 TO 50.25 IN FIX MAKE-UP.

CHANGED FAC 2 (FWA) DME DIST FROM 54.02 TO 54.38 IN FIX MAKE-UP.

ADDED STAR TO REQUIRED CHARTING.

FIX USE: ADDED BRWNZ RNAV STAR AT CLE, AKR, CAK, BKL, CGF, 1G3, LPR, LNN.

DEVELOPED BY:

DATE: 12/19/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZAU, ZOB

ATC FACILITY:

OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: BRWNZ

STATE:

COUNTRY: CA

ICAO REGION CODE: CY

LATITUDE/LONGITUDE: 415100.43N/0821204.69W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION: ESTABLISH

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING MIN	ALTITUDES MAX	TEMPLATES MIN MAX
1	NW		WP	292.76	112.76	L	10	10000	45000	15 30

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (CA-000476)	420035.00N/0823345.00W	1102	9I

## REASON FOR NONSTANDARD HOLDING:

PAT 1 REQUESTED BY ATC

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
PAT 1 - 10 NM LEG LENGTH REQUESTED BY ATC.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)		1	KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)		1	KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)		1	KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)		1	KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)		1	KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY:

DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: ZYZ, CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: COWCH

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 415653.14N/0841657.02W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/19/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: ZAU  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DEEKN

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413939.34N/0814753.74W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DETMR

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 420708.54N/0850538.99W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION: ESTABLISH

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING MIN	ALTITUDES MAX	TEMPLATES MIN MAX
1	W		WP	279.57	099.57	L	10	10000	45000	15 30

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (26-000903)	420327.20N/0845953.10W	1462	5D

## REASON FOR NONSTANDARD HOLDING:

PAT 1 REQUESTED BY ATC.

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
PAT 1 - 10 NM LEGS REQUESTED BY ATC.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)		1	KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)		1	KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)		1	KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)		1	KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)		1	KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/19/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: ZOB  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DOZRR

STATE:

COUNTRY: CA

ICAO REGION CODE: CY

LATITUDE/LONGITUDE: 420102.69N/0821040.65W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**REMARKS:**

CHANGES TO THIS FIX MUST BE COORDINATED WITH NAVCANADA, AERONAUTICAL INFORMATION MANAGEMENT (AIM).

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON, ZYZ  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DYXON

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413937.69N/0815118.72W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: FRYYE

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 420027.89N/0832011.22W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION: ESTABLISH

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING MIN	ALTITUDES MAX	TEMPLATES MIN MAX
1	W		WP	283.69	103.69	L	10	10000	45000	15 30

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	STACK (26-000438)	415327.00N/0832043.00W	1386	5D

## REASON FOR NONSTANDARD HOLDING:

PAT 1 REQUESTED BY ATC.

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
PAT 1 - 10 NM LEG LENGTH REQUESTED BY ATC.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)		1	KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)		1	KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)		1	KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)		1	K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)		1	KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)		1	KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY:  
OTHER:

QUALITY  
14  
CHECKED



# RADIO FIX AND HOLDING DATA RECORD

NAME: GOLIC

STATE:

COUNTRY: CA

ICAO REGION CODE: CY

LATITUDE/LONGITUDE: 415334.65N/0822503.86W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**REMARKS:**

CHANGES TO THIS FIX MUST BE COORDINATED WITH NAVCANADA, AERONAUTICAL INFORMATION MANAGEMENT (AIM).

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON, ZYZ  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** HASTE **STATE:** MI **COUNTRY:** US **ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 424015.43N/0851002.50W **TYPE:** WP, 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	PULLMAN	PMM	VOR/DME	H	073.18	073.18	43.40	43.40		18000	45000

**HOLDING:** **HOLDING TYPE OF ACTION:** NO CHANGE

**REMARKS:**

PULLMAN (FAC 1) USED TO ESTABLISH FIX COORDINATES

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J34	1				(US)
EN ROUTE	J547	1				(US)
EN ROUTE	J94	1				(US)
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

**REQUIRED CHARTING:** STAR, CONTROLLER, EN ROUTE HIGH

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 6 **DATE OF REVISION:** 05/24/2018

**REASON FOR REVISION:**

ADDED WP TO FIX TYPE.  
ADDED STAR TO REQUIRED CHARTING.  
FIX USE: ADDED BRWNZ RNAV STAR TO AKR, CAK, BKL, CGF, CLE, 1G3, LPR, LNN.

**DEVELOPED BY:** **DATE:** 12/19/2017 **OFFICE:** AJV-5431 **NAME:** MICHAEL CURRAN

**APPROVED BY:** **DATE:** **OFFICE:** AJV-5430 **NAME:** PATRICK MULQUEEN

**SIGNATURE:**

**DISTRIBUTION:** NFDC  
FPO: CEN  
ARTCC: ZAU, ZOB  
ATC FACILITY:  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: HAVEN

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423229.24N/0841448.81W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 05/24/2018

## REASON FOR REVISION:

DELETED DME AND INT FROM FIX TYPE.  
ADDED WP TO FIX TYPE.  
DELETED FAC 1 (JXN V/DME) AND FAC 2 (DXO V/DME).  
DELETED CHART NOTE: CHART ON CONTROLLER CHART 9.  
DELETED DP FROM REQUIRED CHARTING.  
ADDED STAR TO REQUIRED CHARTING.  
DELETED CONTROLLER AND ENROUTE LOW FROM REQUIRED CHARTING.  
DELETED REMARK: UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 5000.

DEVELOPED BY:

DATE: 12/19/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY:  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: HICKR

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 412208.00N/0820743.36W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

## FIX USE: USE TYPE

## USE TITLE

## FAC PAT

## AIRPORT IDENT CITY

## STATE

IAP	ILS OR LOC RWY 6L			KCLE	CLEVELAND	OH (US)
IAP	ILS OR LOC RWY 6R			KCLE	CLEVELAND	OH (US)
IAP	ILS RWY 6L (CAT II & III)			KCLE	CLEVELAND	OH (US)
IAP	ILS RWY 6R (SA CAT II)			KCLE	CLEVELAND	OH (US)
IAP	RNAV (GPS) Y RWY 6L			KCLE	CLEVELAND	OH (US)
IAP	RNAV (GPS) Y RWY 6R			KCLE	CLEVELAND	OH (US)
IAP	RNAV (RNP) Z RWY 6L			KCLE	CLEVELAND	OH (US)
IAP	RNAV (RNP) Z RWY 6R			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: JIIMM

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 412607.51N/0820815.43W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: KLLAY

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413154.26N/0820907.66W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: KWYNN

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 420849.08N/0834152.01W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY:  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: LOGGR

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 420839.57N/0860641.42W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/19/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY:  
OTHER:

QUALITY  
14  
CHECKED



# RADIO FIX AND HOLDING DATA RECORD

NAME: MAAAK

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413828.36N/0821009.18W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MCKOY

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 415926.14N/0830630.86W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

## REMARKS:

CHANGES TO THIS FIX MUST BE COORDINATED WITH NAVCANADA, AERONAUTICAL INFORMATION MANAGEMENT (AIM).

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: ZYZ  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MNZEL

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423240.02N/0844505.69W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/19/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: ZAU  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: OLYEE

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 424704.67N/0852910.01W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	KKISS (RNAV)			KDTW	DETROIT	MI (US)
STAR	RKCTY (RNAV)			KDTW	DETROIT	MI (US)
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/04/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: ZOB  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: OZZYY

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413018.32N/0813956.47W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: QUUBE

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414119.29N/0815129.06W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY:

DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: RDZON

STATE:

COUNTRY: CA

ICAO REGION CODE: CY

LATITUDE/LONGITUDE: 415752.34N/0824645.45W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

## REMARKS:

CHANGES TO THIS FIX MUST BE COORDINATED WITH NAVCANADA, AERONAUTICAL INFORMATION MANAGEMENT (AIM).

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: ZYZ  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: SCHAM

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 424209.63N/0850339.20W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: ZOB  
OTHER:

QUALITY  
14  
CHECKED



# RADIO FIX AND HOLDING DATA RECORD

NAME: SIIPE

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414802.30N/0813745.77W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: SLOTR

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414910.66N/0815047.94W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

FIX USE:  
USE TYPE

USE TITLE

FAC

PAT

AIRPORT IDENT

CITY

STATE

STAR BRWNZ (RNAV)  
STAR BRWNZ (RNAV)  
STAR BRWNZ (RNAV)  
STAR BRWNZ (RNAV)  
STAR BRWNZ (RNAV)  
STAR BRWNZ (RNAV)  
STAR BRWNZ (RNAV)  
STAR BRWNZ (RNAV)

KAKR  
KCAK  
KBKL  
KCGF  
KCLE  
K1G3  
KLPR  
KLNN

AKRON  
AKRON  
CLEVELAND  
CLEVELAND  
CLEVELAND  
KENT  
LORAIN/ELYRIA  
WILLOUGHBY

OH (US)  
OH (US)  
OH (US)  
OH (US)  
OH (US)  
OH (US)  
OH (US)  
OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: TAMDE

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413100.06N/0820948.02W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 10			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 05/24/2018

## REASON FOR REVISION:

FIX USE: ADDED BRWNZ RNAV STAR AT CLE, AKR, CAK, BKL, CGF, 1G3, LPR, LNN.  
ADDED STAR TO REQUIRED CHARTING.

DEVELOPED BY:

DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: TRRKY

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414330.40N/0815603.92W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY:

DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: USASN

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 411028.84N/0813227.68W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/21/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: CLE APP CON  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: WEEDN

STATE:

COUNTRY: CA

ICAO REGION CODE: CY

LATITUDE/LONGITUDE: 415837.27N/0825605.98W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

## REMARKS:

CHANGES TO THIS FIX MUST BE COORDINATED WITH NAVCANADA, AERONAUTICAL INFORMATION MANAGEMENT (AIM).

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: ZYZ  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: WINNZ

STATE:

COUNTRY: CA

ICAO REGION CODE: CY

LATITUDE/LONGITUDE: 415526.66N/0823429.63W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

## REMARKS:

CHANGES TO THIS FIX MUST BE COORDINATED WITH NAVCANADA, AERONAUTICAL INFORMATION MANAGEMENT (AIM).

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY: DATE: 12/20/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY: DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: ZYZ  
OTHER:

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: ZIINE

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414611.17N/0861826.72W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:  
USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

STAR	BRWNZ (RNAV)			KAKR	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KCAK	AKRON	OH (US)
STAR	BRWNZ (RNAV)			KBKL	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCGF	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			KCLE	CLEVELAND	OH (US)
STAR	BRWNZ (RNAV)			K1G3	KENT	OH (US)
STAR	BRWNZ (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
STAR	BRWNZ (RNAV)			KLNN	WILLOUGHBY	OH (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/24/2018

DEVELOPED BY:

DATE: 12/19/2017

OFFICE: AJV-5431

NAME: MICHAEL CURRAN

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY:  
OTHER:

QUALITY  
14  
CHECKED