

RADIO FIX AND HOLDING DATA RECORD

NAME: BADGER VOR/DME

STATE: WI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 430700.67N/0881703.64W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	BADGER	BAE	VOR/DME	H						45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	W	BAE	VOR/DME	270.00	090.00	R	1	2800 17500	4 16
2	NW	BAE	VOR/DME	333.00	153.00	R	1	2800 17500	4 16
3	NE	BAE	VOR/DME	066.74	246.74	R	1	2700 8000	4 6
4	W	WP	WP	270.00	090.00	R	4	2800 6000	5 6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	430157.00N/0882336.00W	1418	4E
2	200	AAO	431439.00N/0881939.00W	1513	4E
3	200	TOWER (55-000551)	430922.00N/0880907.00W	1349	5D
4	200	TOWER (55-001851)	430141.53N/0882332.34W	1630	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

MAG VAR: E02/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CICERO			KMDW	CHICAGO	IL (US)
DP	MIDWAY			KMDW	CHICAGO	IL (US)
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE			KPWK	CHICAGO/PROSPECT HEIGHTS/WHEELING	IL (US)
DP	MITCHELL			KMKE	MILWAUKEE	WI (US)
EN ROUTE	J101					(US)
EN ROUTE	J16					(US)
EN ROUTE	J34					(US)
EN ROUTE	J36					(US)
EN ROUTE	J538					(US)
EN ROUTE	J68					(US)
EN ROUTE	J70					(US)
EN ROUTE	J89					(US)
EN ROUTE	V170					(US)
EN ROUTE	V191					(US)
EN ROUTE	V217					(US)
EN ROUTE	V30					(US)
EN ROUTE	V63					(US)
IAP	VOR-A			KBUU	BURLINGTON	WI (US)
IAP	VOR/DME-A			K57C	EAST TROY	WI (US)
IAP	LOC RWY 36			KFLD	FOND DU LAC	WI (US)
IAP	LOC RWY 26			KUNU	JUNEAU	WI (US)
IAP	RNAV (GPS) RWY 20			KUNU	JUNEAU	WI (US)
IAP	ILS OR LOC RWY 07L			KENW	KENOSHA	WI (US)
IAP	RNAV (GPS) RWY 23			KC02	LAKE GENEVA	WI (US)
IAP	ILS OR LOC RWY 18			KMSN	MADISON	WI (US)
IAP	ILS OR LOC/DME RWY 36			KMSN	MADISON	WI (US)
IAP	ILS RWY 18 (SA CAT I-II)			KMSN	MADISON	WI (US)
IAP	ILS RWY 36 (CAT II-III)			KMSN	MADISON	WI (US)
IAP	ILS RWY 36 (SA CAT I)			KMSN	MADISON	WI (US)
IAP	ILS OR LOC RWY 19R		1	KMKE	MILWAUKEE	WI (US)
IAP	ILS OR LOC RWY 1L		1	KMKE	MILWAUKEE	WI (US)
IAP	ILS OR LOC RWY 7R		1	KMKE	MILWAUKEE	WI (US)
IAP	ILS RWY 1L (CAT II)		1	KMKE	MILWAUKEE	WI (US)
IAP	ILS RWY 1L (CAT III)		1	KMKE	MILWAUKEE	WI (US)
IAP	LOC RWY 25L		1	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 13			KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 19L		4	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 19R		4	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 1L		4	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 1R			KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 7L			KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) Z RWY 25L		4	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) Z RWY 7R		4	KMKE	MILWAUKEE	WI (US)
IAP	LOC RWY 15L		1	KMWC	MILWAUKEE	WI (US)

IAP	RNAV (GPS) RWY 04L		KMWC	MILWAUKEE	WI (US)
IAP	ILS OR LOC RWY 4		KRAC	RACINE	WI (US)
IAP	NDB RWY 23		KRYV	WATERTOWN	WI (US)
IAP	NDB RWY 5		KRYV	WATERTOWN	WI (US)
IAP	RNAV (GPS) RWY 23		KRYV	WATERTOWN	WI (US)
IAP	RNAV (GPS) RWY 29		KRYV	WATERTOWN	WI (US)
IAP	ILS OR LOC RWY 10	1	KUES	WAUKESHA	WI (US)
IAP	RNAV (GPS) RWY 28		KUES	WAUKESHA	WI (US)
IAP	VOR -A	2	KUES	WAUKESHA	WI (US)
IAP	RNAV (GPS) RWY 13		KETB	WEST BEND	WI (US)
IAP	RNAV (GPS) RWY 31		KETB	WEST BEND	WI (US)
IAP	RNAV (GPS) RWY 6		KETB	WEST BEND	WI (US)
IAP	VOR RWY 13		KETB	WEST BEND	WI (US)
STAR	AGUDE		KCFE	BUFFALO	MN (US)
STAR	AGUDE		KFBL	FARIBAULT	MN (US)
STAR	AGUDE		KGYL	GLENCOE	MN (US)
STAR	AGUDE		KMGD	MAPLE LAKE	MN (US)
STAR	AGUDE		KANE	MINNEAPOLIS	MN (US)
STAR	AGUDE		KFCM	MINNEAPOLIS	MN (US)
STAR	AGUDE		KLVN	MINNEAPOLIS	MN (US)
STAR	AGUDE		KMIC	MINNEAPOLIS	MN (US)
STAR	EAU CLAIRE		KMSP	MINNEAPOLIS	MN (US)
STAR	WILDD		KMSP	MINNEAPOLIS	MN (US)
STAR	AGUDE		KSGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE		K21D	ST PAUL	MN (US)
STAR	AGUDE		KSTP	ST PAUL	MN (US)
STAR	AGUDE		KRNH	NEW RICHMOND	WI (US)
STAR	AGUDE		KOEO	OSCEOLA	WI (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, AREA, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 36

DATE OF REVISION: 09/10/2020

REASON FOR REVISION:

REMOVED IAP K61C, VOR-A FROM FIX USE.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A422

NAME: MICHAEL DARDEN

APPROVED BY:

DATE:

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZAU

ATC FACILITY: MKE APP CON, CHI APP CON

OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: DUPAGE VOR/DME

STATE: IL

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 415325.34N/0882100.64W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	DUPAGE	DPA	VOR/DME	L						17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	W	DPA	VOR/DME	248.00	068.00	R	1		2500	10000	4	15
2	W		WP	248.00	068.00	R		4	4000	6000	5	6
3	S	DPA	VOR/DME	169.51	349.51	R	1		3000	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	415509.00N/0882551.00W	1214	4E
1	310	AAO	415509.00N/0882551.00W	1214	4E
2	200	AAO	415509.00N/0882551.00W	1214	4E
3	200	TOWER (17-001880)	414827.00N/0881607.00W	1187	4D

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 2L	KDPA	CHICAGO/WEST CHICAGO	IL (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAG VAR: 2E 1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	MIDWAY			KMDW	CHICAGO	IL (US)
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE			KPWK	CHICAGO/PROSPECT HEIGHTS/WHEELING	IL (US)
EN ROUTE	V172					(US)
EN ROUTE	V6					(US)
IAP	ILS OR LOC RWY 13C			KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) Z RWY 13C			KMDW	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 22R		1	KORD	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 27L			KORD	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 27R			KORD	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 28C		1	KORD	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 28R		1	KORD	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 9R			KORD	CHICAGO	IL (US)
IAP	ILS PRM RWY 28C (CP)		1	KORD	CHICAGO	IL (US)
IAP	ILS PRM RWY 28C (CP) (SA CAT I, CAT II/III)		1	KORD	CHICAGO	IL (US)
IAP	ILS PRM Y RWY 10R (CP)		1	KORD	CHICAGO	IL (US)
IAP	ILS RWY 27L (SA CAT I, II/III)			KORD	CHICAGO	IL (US)
IAP	ILS RWY 27R (SA CAT I, CAT II/III)			KORD	CHICAGO	IL (US)
IAP	ILS RWY 28C (CAT II & III)		1	KORD	CHICAGO	IL (US)
IAP	ILS RWY 28C (SA CAT I)		1	KORD	CHICAGO	IL (US)
IAP	ILS RWY 28R (CAT II & III)		1	KORD	CHICAGO	IL (US)
IAP	ILS RWY 28R (SA CAT I)		1	KORD	CHICAGO	IL (US)
IAP	ILS Y OR LOC Y RWY 10R		1	KORD	CHICAGO	IL (US)
IAP	ILS Z OR LOC Z RWY 10R		1	KORD	CHICAGO	IL (US)
IAP	ILS Z RWY 10R (SA CAT I, CAT II/III)		1	KORD	CHICAGO	IL (US)
IAP	RNAV (GPS) PRM RWY 28C (CLOSE PARALLEL)		2	KORD	CHICAGO	IL (US)
IAP	RNAV (GPS) PRM Y RWY 10R (CP)		2	KORD	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 22R		2	KORD	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 28C		2	KORD	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 28R			KORD	CHICAGO	IL (US)
IAP	RNAV (GPS) Y RWY 10R		2	KORD	CHICAGO	IL (US)
IAP	RNAV (GPS) Z RWY 10R		2	KORD	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 9			KARR	CHICAGO/AURORA	IL (US)
IAP	LOC RWY 33			KARR	CHICAGO/AURORA	IL (US)
IAP	RNAV (GPS) RWY 27			KARR	CHICAGO/AURORA	IL (US)
IAP	VOR RWY 36			KARR	CHICAGO/AURORA	IL (US)
IAP	LOC/DME RWY 9			KLOT	CHICAGO/ROMEOVILLE	IL (US)
IAP	RNAV (GPS) RWY 20			KLOT	CHICAGO/ROMEOVILLE	IL (US)
IAP	RNAV (GPS) RWY 9			KLOT	CHICAGO/ROMEOVILLE	IL (US)
IAP	ILS OR LOC RWY 10			KDPA	CHICAGO/WEST CHICAGO	IL (US)

IAP	ILS OR LOC RWY 2L	1	KDPA	CHICAGO/WEST CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 10		KDPA	CHICAGO/WEST CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 20R		KDPA	CHICAGO/WEST CHICAGO	IL (US)
IAP	ILS OR LOC RWY 2		KDKB	DE KALB	IL (US)
SPECIAL IAP	RNAV (GPS)-A		KLL22	DOWNERS GROVE	IL (US)
SPECIAL IAP	VOR-A		K68IS	HAMPSHIRE	IL (US)
SPECIAL IAP	VOR-A	3	K82IS	HUNTLEY	IL (US)
STAR	JANESVILLE		KORD	CHICAGO	IL (US)

REQUIRED CHARTING: SECTIONAL, VFR TERMINAL AREA, HELICOPTER ROUTE, DP, STAR, IAP, AREA, EN ROUTE LOW, SPECIAL IAP, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 27

DATE OF REVISION: 09/10/2020

REASON FOR REVISION:

1. REMOVED UNPLANNED HOLDING AND ALL ASSOCIATED NOTES.
2. FIX USE: REMOVED IAP VOR-A K1C5.
3. FIX USE: REMOVED IAP VOR RWY 26 AND VOR-A AT K3CK.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: TARA MARTINELLI

APPROVED BY:

DATE:

OFFICE: AJV-A430

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZAU

ATC FACILITY: CHICAGO APP CON, CHICAGO DEP CON, DPA ATCT, PWK ATCT.

OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: GIPPER VORTAC **STATE:** MI **COUNTRY:** US **ICAO REGION CODE:** K5

LATITUDE/LONGITUDE: 414607.00N/0861906.42W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	GIPPER	GIJ	VORTAC	H							45000

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	N	GIJ	VORTAC	000.87	180.87	L	1		2300	10000	4	9
2	W	GIJ	VORTAC	281.93	101.93	R	1		2400	10000	4	9
3	W	GIJ	VORTAC	270.00	090.00	L	1 1/2		18000	45000		29
4	E		WP	090.00	270.00	R		10	6000	10000	15	15

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-001350)	415251.00N/0861813.00W	1250	5D
2	200	TOWER (18-001917)	414435.00N/0863125.00W	1180	5D
4	230	TOWER (18-001499)	414457.00N/0860711.00W	1300	5D

REASON FOR NONSTANDARD HOLDING:

PAT 1 AT REQUEST
PAT 3 AT REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.
PATTERN 4: EVALUATED AT 10 DME LEG LENGTH AT ATC REQUEST.
ASSIGNED FACILITY MAG VAR: 00E 1965

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CICERO			KMDW	CHICAGO	IL (US)
DP	MIDWAY			KMDW	CHICAGO	IL (US)
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE			KPWK	CHICAGO/PROSPECT HGTS/WHEELING	IL (US)
DP	MITCHELL			KMKE	MILWAUKEE	WI (US)
EN ROUTE	J146		3			(US)
EN ROUTE	J554		3			(US)
EN ROUTE	V10					(US)
EN ROUTE	V156					(US)
EN ROUTE	V228					(US)
EN ROUTE	V526					(US)
EN ROUTE	V55					(US)
EN ROUTE	V6					(US)
EN ROUTE	V6-10					(US)
IAP	ILS OR LOC RWY 27			KEKM	ELKHART	IN (US)
IAP	RNAV (GPS) RWY 18			KEKM	ELKHART	IN (US)
IAP	RNAV (GPS) RWY 36			KEKM	ELKHART	IN (US)
IAP	VOR RWY 9		2	KEKM	ELKHART	IN (US)
IAP	ILS OR LOC RWY 27		1	KGSH	GOSHEN	IN (US)
IAP	RNAV (GPS) RWY 02			KPPO	LA PORTE	IN (US)
IAP	RNAV (GPS) RWY 20			KPPO	LA PORTE	IN (US)
IAP	ILS OR LOC RWY 27L		1	KSBN	SOUTH BEND	IN (US)
IAP	ILS OR LOC RWY 9R		1	KSBN	SOUTH BEND	IN (US)
IAP	ILS RWY 27L (SA CAT I & II)		1	KSBN	SOUTH BEND	IN (US)
IAP	VOR RWY 18		1	KSBN	SOUTH BEND	IN (US)
IAP	VOR RWY 28			KBEH	BENTON HARBOR	MI (US)
IAP	RNAV (GPS) RWY 09			KC91	DOWAGIAC	MI (US)
IAP	RNAV (GPS) RWY 5			KAZO	KALAMAZOO	MI (US)
IAP	RNAV (GPS) RWY 15			K3TR	NILES	MI (US)
IAP	RNAV (GPS) RWY 33			K3TR	NILES	MI (US)
IAP	VOR-A			K3TR	NILES	MI (US)
STAR	GOSHEN		3	KIGQ	CHICAGO	IL (US)
STAR	FISSK (RNAV)		4	KMDW	CHICAGO	IL (US)
STAR	GOSHEN		3	KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)		4	KMDW	CHICAGO	IL (US)
STAR	KNOX			KORD	CHICAGO	IL (US)
STAR	GOSHEN		3	KGYG	GARY	IN (US)
STAR	GOSHEN		3	K05C	GRIFFITH	IN (US)
STAR	GOSHEN		3	K3HO	HOBART	IN (US)

REQUIRED CHARTING: DP, STAR, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 31

DATE OF REVISION: 08/13/2020

REASON FOR REVISION:

DELETED VOR-A (KMGC) AND VOR RWY 10 (KC65) FROM FIX USE.
ADDED COTROLLER LOW AND CONTROLLER HIGH TO REQUIRED CHARTING.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: THERON CYRUS

APPROVED BY:

DATE:

OFFICE: AJV-A430

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZAU

ATC FACILITY: SBN APP CON, SBN ATCT

OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: IOWA CITY VOR/DME **STATE:** IA **COUNTRY:** US **ICAO REGION CODE:** K3

LATITUDE/LONGITUDE: 413108.26N/0913647.71W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	IOWA CITY	IOW	VOR/DME	H						45000

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	S	IOW	VOR/DME	197.00	017.00	L	1		2600	6000	4	5
2	E	IOW	VOR/DME	100.00	280.00	R	1		3000	6000	4	5
3	S		WP	172.06	352.06	R		4	2600	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (19-001376)	413025.00N/0913346.00W	1097	5D
2	200	TOWER (19-001376)	413025.00N/0913346.00W	1097	5D
3	200	TOWER (19-001376)	413025.00N/0913346.00W	1097	5D

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAG VAR: 5E 1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DES MOINES			KDSM	DES MOINES	IA (US)
DP	TAKEOFF MINIMUMS			KIOW	IOWA CITY	IA (US)
DP	CICERO			KMDW	CHICAGO	IL (US)
DP	MIDWAY			KMDW	CHICAGO	IL (US)
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE			KPWK	CHICAGO/PROSPECT HGTS/WHEELING	IL (US)
DP	BLUFS			KOMA	OMAHA	NE (US)
EN ROUTE	J10					(US)
EN ROUTE	J146					(US)
EN ROUTE	J192					(US)
EN ROUTE	J60					(US)
EN ROUTE	V216					(US)
EN ROUTE	V6					(US)
EN ROUTE	V6-8					(US)
EN ROUTE	V67					(US)
EN ROUTE	V8					(US)
IAP	ILS OR LOC RWY 27 (ALT MA)		1	KCID	CEDAR RAPIDS	IA (US)
IAP	ILS OR LOC RWY 9 (ALT MA)		1	KCID	CEDAR RAPIDS	IA (US)
IAP	RNAV (GPS) RWY 27			KCID	CEDAR RAPIDS	IA (US)
IAP	RNAV (GPS) RWY 31			KCID	CEDAR RAPIDS	IA (US)
IAP	RNAV (GPS) RWY 25		3	KIOW	IOWA CITY	IA (US)
IAP	RNAV (GPS) RWY 30		3	KIOW	IOWA CITY	IA (US)
IAP	VOR-A		1	KIOW	IOWA CITY	IA (US)
IAP	ILS OR LOC RWY 24 (ALT MA)		2	KMUT	MUSCATINE	IA (US)
IAP	VOR/DME RWY 31			KOOA	OSKALOOSA	IA (US)
IAP	RNAV (GPS) RWY 11			K8C4	TIPTON	IA (US)
IAP	VOR RWY 11			K8C4	TIPTON	IA (US)
IAP	VOR RWY 36			KAWG	WASHINGTON	IA (US)
IAP	ILS OR LOC RWY 09			KMLI	MOLINE	IL (US)
STAR	RIVERS			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP, STAR, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14

DATE OF REVISION: 06/20/2019

REASON FOR REVISION:

1. REMOVED "/DME" FROM FIX USE TITLE AT WASHINGTON (KAWG). - UPDATED CRITERIA REQUIRED FOR NAMING CONVENTION.
2. CONTROLLER CHANGED TO CONTROLLER LOW IN REQUIRED CHARTING.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: LEO PALMER

APPROVED BY:

DATE: 04/26/2019

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

DISTRIBUTION:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: KEELER VOR/DME

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 420839.88N/0860721.74W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MAA
1	KEELER	ELX	VOR/DME	L					17500

HOLDING:

HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	S	ELX	VOR/DME	201.31	021.31	L	1		2500	6000	4	5
2	E	ELX	VOR/DME	085.68	265.68	L	1		2500	6000	4	5
3	E		WP	086.00	266.00	L		4	2500	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-001065)	420112.00N/0861405.00W	1112	5D
2	200	AAO	420354.00N/0855924.00W	1165	4E
3	200	TOWER (26-002131)	421202.20N/0855815.00W	1284	5D

REASON FOR NONSTANDARD HOLDING:

PAT 1 AIR TRAFFIC REQUEST

PAT 2 AIR TRAFFIC REQUEST

PAT 3 AIR TRAFFIC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE			KPWK	CHICAGO/PROSPECT HGTS/WHEELING	IL (US)
EN ROUTE	V100					(US)
EN ROUTE	V277					(US)
EN ROUTE	V55					(US)
IAP	ILS OR LOC RWY 27			KEKM	ELKHART	IN (US)
IAP	RNAV (GPS) RWY 10		3	KBEH	BENTON HARBOR	MI (US)
IAP	VOR RWY 28		2	KBEH	BENTON HARBOR	MI (US)
IAP	RNAV (GPS) RWY 27			KC91	DOWAGIAC	MI (US)
IAP	RNAV (GPS) RWY 9			KC91	DOWAGIAC	MI (US)
IAP	RNAV (GPS) RWY 5			KAZO	KALAMAZOO	MI (US)
IAP	VOR-A		1	K3TR	NILES	MI (US)
IAP	RNAV (GPS) RWY 23			KLWA	SOUTH HAVEN	MI (US)
IAP	RNAV (GPS) RWY 5			KLWA	SOUTH HAVEN	MI (US)
IAP	VOR RWY 23			KLWA	SOUTH HAVEN	MI (US)
IAP	VOR-A			KHAI	THREE RIVERS	MI (US)

REQUIRED CHARTING: DP, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 27

DATE OF REVISION: 08/13/2020

REASON FOR REVISION:

1. REMOVED PAT 1 ELX VOR/DME CRS INBOUND 181.27 FROM HOLDING PATTERNS.

2. REMOVED 200 AAO (1040) AND UPN 200 TOWER (26-000381) FROM CONTROLLING OBSTRUCTIONS.

3. REMOVED UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 2600 AND ADDED HOLDING LIMITED TO ESTABLISHED PATTERNS TO HOLDING RESTRICTIONS.

4. REMOVED IAP VOR-A AT KC91 FROM FIX USE.

5. REMOVED AIRSPACE DOCKET: 17-AGL-1.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: RICHARD CHRISTENSEN

APPROVED BY:

DATE:

OFFICE: AVJ-A430

NAME: GEORGE DAVIS

SIGNATURE:**DISTRIBUTION:**

NFDC
FPO: CEN
ARTCC: ZAU
ATC FACILITY: SBN APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: PEOTONE VORTAC STATE: IL COUNTRY: US ICAO REGION CODE: K5
 LATITUDE/LONGITUDE: 411610.68N/0874727.79W TYPE:

AIRSPACE DOCKET: FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	PEOTONE	EON	VORTAC	L						17500

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	N	EON	VORTAC	001.00	181.00	R	1	2600 6000	4 5
2	N		WP	001.00	181.00	R	4	2600 6000	5 6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (17-001091)	411804.00N/0874935.00W	1236	5D
2	200	TOWER (17-001091)	411804.00N/0874935.00W	1236	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPTIOUS TERRAIN EVALUATION COMPLETED.
 FACILITY MAG VAR: 2E/YR 1965.
 PAT 2 USED BY KMDW (4W/2015) AND KC56 (3W/2010). TRUE INBOUND COURSES ARE 1 DEGREE DIFFERENT BUT CONTROLLING OBSTACLE AND HOLDING ALTITUDES ARE THE SAME.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CICERO			KMDW	CHICAGO	IL (US)
DP	MIDWAY			KMDW	CHICAGO	IL (US)
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE			KPWK	CHICAGO/PROSPECT HGTS/WHEELING	IL (US)
EN ROUTE	V156					(US)
EN ROUTE	V171					(US)
EN ROUTE	V173					(US)
EN ROUTE	V24					(US)
EN ROUTE	V38					(US)
EN ROUTE	V399					(US)
IAP	LOC RWY 36			KIGQ	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 36			KIGQ	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 9			KIGQ	CHICAGO	IL (US)
IAP	VOR-A			KIGQ	CHICAGO	IL (US)
IAP	ILS OR LOC RWY 13C		1	KMDW	CHICAGO	IL (US)
IAP	ILS OR LOC/DME RWY 31C		1	KMDW	CHICAGO	IL (US)
IAP	ILS OR LOC/DME RWY 4R		1	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 13L		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 22R		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 31R		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 4L			KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) Z RWY 13C		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) Z RWY 22L		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) Z RWY 31C		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) Z RWY 4R		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (RNP) X RWY 22L		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (RNP) Y RWY 13C		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (RNP) Y RWY 22L		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (RNP) Y RWY 31C		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (RNP) Y RWY 4R		2	KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 2			KLOT	CHICAGO/ROMEOVILLE	IL (US)
IAP	RNAV (GPS) RWY 16			KIKK	KANKAKEE	IL (US)
IAP	RNAV (GPS) RWY 22			KIKK	KANKAKEE	IL (US)
IAP	RNAV (GPS) RWY 34			KIKK	KANKAKEE	IL (US)
IAP	RNAV (GPS) RWY 27		2	KC56	MONEE	IL (US)
IAP	RNAV (GPS) RWY 9		2	KC56	MONEE	IL (US)
IAP	VOR-A			KC09	MORRIS	IL (US)
IAP	COPTER ILS RWY 30 (ALT MA)		1	KGYG	GARY	IN (US)
IAP	ILS OR LOC RWY 30 (ALT MA)		1	KGYG	GARY	IN (US)
IAP	VOR OR GPS-A			K50I	KENTLAND	IN (US)
SPECIAL IAP	ILS Z RWY 31C		1	KMDW	CHICAGO	IL (US)
STAR	GOSHEN			KIGQ	CHICAGO	IL (US)
STAR	GOSHEN			KMDW	CHICAGO	IL (US)
STAR	MOTIF			KMDW	CHICAGO	IL (US)
STAR	GOSHEN			KGYG	GARY	IN (US)
STAR	MOTIF			KGYG	GARY	IN (US)
STAR	GOSHEN			K05C	GRIFFITH	IN (US)

STAR GOSHEN K3HO HOBART IN (US)

REQUIRED CHARTING: DP, STAR, IAP, EN ROUTE LOW, SPECIAL IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 21

DATE OF REVISION: 09/10/2020

REASON FOR REVISION:

REMOVED VOR RWY 4 AND VOR RWY 22 (KIKK) FROM FIX USE.

REMOVED "SPECIAL ILS Z RWY 31C, KMDW, CHICAGO, IL" FROM FIX RESTRICTIONS.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A432 **NAME:** STEVEN SCHUTRUM

APPROVED BY: **DATE:** **OFFICE:** AJV-A430 **NAME:** LONNIE EVERHART

SIGNATURE:

DISTRIBUTION: **NFDC**
 FPO: CEN
 ARTCC: ZAU
 ATC FACILITY: ORD APP CON, MDW ATCT
 OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: PETTY STATE: WI COUNTRY: US ICAO REGION CODE: K5
 LATITUDE/LONGITUDE: 424938.48N/0873802.11W TYPE: WP, INT, DME

AIRSPACE DOCKET: 18-AGL-21 FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	CHICAGO HEIGHTS	CGT	VORTAC	L	356.00	358.00	79.06	79.06	6000	17500
2	BADGER	BAE	VOR/DME	H	119.00	121.00	33.50	33.50	2700	17500
3	NORTHBROOK	OBK	VOR/DME	H	023.09	021.09		38.98	2700	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
CGT	VORTAC	R-356	80	6000	17500

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING ALTITUDES MIN DME	MAX	TEMPLATES MIN	MAX
1	SE	BAE	VOR/DME	119.00	299.00	R	1	3000	5000	6	7

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	SHIP	424520.00N/0873237.00W	728	4E
1	310	AAO	424949.00N/0874912.00W	860	4E

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 4	KRAC	RACINE	WI (US)

REMARKS:

CHICAGO HEIGHTS (FAC 1) AND BADGER (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CICERO	1, 2, 3		KMDW	CHICAGO	IL (US)
DP	MIDWAY	1, 2, 3		KMDW	CHICAGO	IL (US)
DP	O'HARE	1, 2, 3		KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE	1, 2, 3		KPWK	CHICAGO/PROSPECT HGTS/WHEELING	IL (US)
EN ROUTE	V170	1, 2, 3				(US)
EN ROUTE	V7	1, 2, 3				(US)
IAP	RNAV (GPS) RWY 15			KENW	KENOSHA	WI (US)
IAP	RNAV (GPS) RWY 25R			KENW	KENOSHA	WI (US)
IAP	ILS OR LOC RWY 4	2, 3	1	KRAC	RACINE	WI (US)

REQUIRED CHARTING: DP, IAP, AREA, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 20

DATE OF REVISION: 05/21/2020

REASON FOR REVISION:

1. FIX MAKE-UP FACILITIES: DELETED FAC 3 (FAH).
2. ESV: DELETED FAH INFORMATION.
3. FIX USE: DELETED FAH FROM ALL DPS AND AIRWAYS.
4. HOLDING RESTRICTION: DELETED UNPLANNED HOLDING ABOVE 2700 NOTE.
5. HOLDING CONTROLLING OBSTACLE: DELETED UNPLANNED HOLDING PATTERN CONTROLLER.
6. ADDED AIRSPACE DOCKET NUMBER: 18-AGL-21.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A433 NAME: SCOTT BAGENSIE

APPROVED BY: DATE: OFFICE: AJV-A430 NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION: NFDC
 FPO: CEN
 ARTCC: ZAU
 ATC FACILITY: MKE APP CON
 OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ROBERTS VOR/DME STATE: IL COUNTRY: US ICAO REGION CODE: K5
 LATITUDE/LONGITUDE: 403454.13N/0880951.36W TYPE:

AIRSPACE DOCKET: FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	ROBERTS	RBS	VOR/DME	L							17500

HOLDING: HOLDING TYPE OF ACTION: MODIFY

REMARKS:

ASSIGNED FACILITY MAG VAR: E02/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CICERO			KMDW	CHICAGO	IL (US)
DP	MIDWAY			KMDW	CHICAGO	IL (US)
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	BLOKR (RNAV)			KARR	CHICAGO/AURORA	IL (US)
DP	JORJO (RNAV)			KPWK	CHICAGO/PROSPECT HEIGHTS/WHEELING	IL (US)
DP	PAL WAUKEE			KPWK	CHICAGO/PROSPECT HGTS/WHEELING	IL (US)
DP	BLOKR (RNAV)			KLOT	CHICAGO/ROMEOVILLE	IL (US)
DP	JORJO (RNAV)			KUGN	CHICAGO/WAUKEGAN	IL (US)
DP	BLOKR (RNAV)			KDPA	CHICAGO/WEST CHICAGO	IL (US)
DP	BLOKR (RNAV)			KGYG	GARY	IN (US)
EN ROUTE	J19-71					(US)
EN ROUTE	J19					IL (US)
EN ROUTE	J71					IL (US)
EN ROUTE	V191					IL (US)
EN ROUTE	V227					IL (US)
EN ROUTE	V233					IL (US)
EN ROUTE	V429					IL (US)
IAP	ILS OR LOC RWY 20			KBMI	BLOOMINGTON/NORMAL	IL (US)
IAP	ILS OR LOC RWY 29			KBMI	BLOOMINGTON/NORMAL	IL (US)
IAP	ILS OR LOC/DME RWY 2			KBMI	BLOOMINGTON/NORMAL	IL (US)
IAP	ILS RWY 20 (CATII)			KBMI	BLOOMINGTON/NORMAL	IL (US)
IAP	RNAV (GPS) RWY 14L			KCMI	CHAMPAIGN/URBANA	IL (US)
IAP	RNAV (GPS) RWY 22			KCMI	CHAMPAIGN/URBANA	IL (US)
IAP	VOR RWY 4			KCMI	CHAMPAIGN/URBANA	IL (US)
IAP	VOR/DME RWY 14L			KCMI	CHAMPAIGN/URBANA	IL (US)
IAP	VOR/DME RWY 22			KCMI	CHAMPAIGN/URBANA	IL (US)
IAP	ILS OR LOC RWY 22L			KORD	CHICAGO	IL (US)
IAP	ILS RWY 22L (SA CAT I)			KORD	CHICAGO	IL (US)
IAP	ILS RWY 22L (SA CAT II)			KORD	CHICAGO	IL (US)
IAP	LOC RWY 2			KLOT	CHICAGO/ROMEOVILLE	IL (US)
IAP	ILS OR LOC RWY 21			KDNV	DANVILLE	IL (US)
IAP	ILS OR LOC RWY 4			KIKK	KANKAKEE	IL (US)
IAP	RNAV (GPS) RWY 34			KIKK	KANKAKEE	IL (US)
IAP	RNAV (GPS) RWY 4			KIKK	KANKAKEE	IL (US)
IAP	RNAV (GPS) RWY 24			KPNT	PONTIAC	IL (US)
IAP	RNAV (GPS) RWY 6			KPNT	PONTIAC	IL (US)
IAP	VOR RWY 24			KPNT	PONTIAC	IL (US)
IAP	VOR RWY 27			KTIP	RANTOUL	IL (US)
IAP	VOR OR GPS - A			KC16	URBANA	IL (US)
STAR	AARCH (RNAV)			KSTL	ST LOUIS	MO (US)
STAR	VANDALIA			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP, STAR, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 15

DATE OF REVISION: 09/10/2020

REASON FOR REVISION:

REMOVED VOR RWY 4 AND VOR RWY 22 (KIKK) FROM FIX USE.
 ADDED CONTROLLER LOW AND CONTROLLER HIGH TO CHARTING REQUIREMENTS.
 FIX USE: ADDED ILS RWY 22L (SA CAT I/II) AT KORD.

4/22/2020: THIS IS AN UPDATED COPY OF THE FORMS DEVELOPED ON 3/22/2019:

1. REMOVED VOR RWY 18 (K1C1) FROM FIX USE.
2. DELETED HOLDING AND ASSOCIATED DATA.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A432 NAME: STEVEN SCHUTRUM

APPROVED BY:**DATE:****OFFICE:** AJV-A430**NAME:** LONNIE EVERHART**SIGNATURE:****DISTRIBUTION:****NFDC****FPO:** CEN**ARTCC:** ZAU**ATC FACILITY:** ORD APP CON, BMI ATCT, CMI ATCT**OTHER:**