

VATUSA CHICAGO ARTCC AND MILWAUKEE TRACON

LETTER OF AGREEMENT

EFFECTIVE: 05/16/2019

SUBJECT: INTERFACILITY COORDINATION

1. **PURPOSE:** This agreement establishes coordination procedures and defines delegation of airspace between VATUSA C90 TRACON and O'HARE ATCT. This agreement is supplemental to procedures contained within FAA Order 7110.65.
2. **DISCLAIMER:** Information contained herein is designed and specifically for use in a virtual air traffic control environment. It is not applicable, nor should it be referenced for live operations in the National Airspace System (NAS).
3. **RESPONSIBILITY:** MKE ATCT is responsible for control of IFR traffic at or below 13,000 feet within boundaries depicted in figure C.
4. **RADAR PROCEDURES:** This Letter of Agreement is applicable to Chicago ARTCC and Milwaukee ATCT.

a.) Milwaukee Metropolitan Arrivals

- 1.) Clearance limit is the airport of intended landing unless MKE ATCT advises that holding will be necessary.
- 2.) ZAU must route arrivals to cross such entry fixes at the altitude limitations and established on headings, or via route then direct destination, as show below:

<u>Entry Fix</u>	<u>Heading</u>	<u>All Jet</u>	<u>MKE Prop</u>	<u>Satellite Prop</u>
BRAVE	BRAVE..EXARR	10,000	8,000	6,000
BJB	Direct	14,000	14,000	14,000
WAITS	BAE VORTAC	9,000	9,000	9,000
DREWED	GOPAC STAR	12,000	11,000	11,000
LYSTR		14,000/12,000	14,000/12,000	14,000/12,000
ZEMEL		AOB 10,000 descending to 7,000	N/A	14,000/12,000 6,000 or 4,000

5. APPROVAL:

/Matthew Campbell/
Air Traffic Manager

/Jackson Gilliam/
Deputy Air Traffic Manager

/Chris Hadden/
Training Administrator

Note: Turbo-Prop aircraft are considered props

Note: MKE has control for lower on all BRAVE arrivals upon initial contact of radar handoff and communication transfer.

Note: Milwaukee Metropolitan arrivals, 14,000 feet and above from the north, must cross 15 NM north of the west bend VOR at 14,000 and be cleared via West Bend direct.

Note: WAIT entry fix crossing apply only during periods Madison ATCT assumed by ZAU.

Note: GOPAC STAR (RNAV) jet arrivals must be assigned 250 knots when MKE is landing runway 7R or 1L. ZAU releases control at DREWD. Waukegan Regional (UGN) arrivals via the GOPAC STAR must be treated the same as MKE arrivals.

Note: SUDDS GATE arrivals must be established on V2 SUDDS or direct SUDDS within the SUDDS arrival gate as depicted in attachment C. When required ZAU will hold SUDDS GATE arrivals at SUDDS at 14,000 and above. When MKE Runway 25L is in use, SUDDS gate arrivals must be issued a heading to intercept the 25L localizer or LYSTR direct CITKI and cross 55E of BAE at 250 knots,

Note: ZEMEL is restricted to Kenosha regional (ENW) and John H Batten airport (RAC) arrivals. Non-RNAV aircraft shall be assigned a heading for ZEMEL heading not be coordinated. ZAU releases control for descents and turns up to 60 degrees upon initial completion of radar/manual handoff and transfer of communication.

- 3.) ZAU releases control for descent of SUDDS arrivals to MKE ATCT upon completion of radar/manual handoff and transfer of communication.
- 4.) For all entry fix arrivals, ZAU releases control for turns up to 30 degree, upon completion of radar/manual handoff and transfer of communication.
- 5.) MKE ATCT will not hold arrivals at the entry fixes, at entry altitudes without prior approval from ZAU.
- 6.) Appleton (ATW) and Manitowoc (MTW) arrivals from the south/west must cross ZAU/Milwaukee Approach boundary at 14,000
- 7.) RIPPON Sector Arrivals overlying Madison Approach (MSN) or Volk RAPCON (VOK) airspace:
 - a.) Landing Sheboygan (SBM) and New Holstein (8D1), must be descending to 14,000 feet or level AOB 11,000.
 - b.) All remaining RIPPON sector arrivals must be level at or below 11,000 feet communications transfer to 127.0.
- 8.) RIPPON Sector Arrivals from the east must be descending to 14,000 feet and communications transfer to 125.35.
 - b.) Departures
 - (1) Enroute clearances for all aircraft departing airports within Milwaukee Approach Control Airspace must be issued by Milwaukee ATCT without Chicago ARTCC approval.
 - (a.) The aircraft is cleared via the filed route.

- (2) Milwaukee Metropolitan Departures with initial routing into ZAU airspace, must be issued the appropriate SID or departure corridor within:

<u>Corridor</u>	<u>Requested Altitude</u>	<u>ARTCC Sector</u>	<u>Heading</u>
GEARS	14,000 and above	BEARZ/PULLMAN	270 (Non-RNAV)
	11,000 through 13,000	PLANO/BADGER	GEARS JAYEX (RNAV) 270 (Non-RNAV)
HAWKN	14,000 and above	BEARZ/PULLMAN	HAWKN (RNAV) 320 (Non-RNAV)
	11,000 through 13,000	PLANO/BADGER	HAWKN (RNAV) 320 (Non-RNAV)
CYNDI	14,000 and above	BEARZ/PULLMAN	360
SQUIB	11,000 and above	BEARZ/PULLMAN	SQUIB (RNAV) 090 (Non-RNAV)
ACCRA/UECKR	16,000 and above	BEARZ/PULLMAN	360

Note: Departures requesting up to 13,000 feet with initial routing into ZAU BAE sector must be climbed to requested altitude by MKE ATCT.

Note: ACCRA/UECKR is for RNAV only aircraft. Non-RNAV aircraft requesting southbound routing must be routed via GEARS or SQUIB. ACCRA/UECKR departures that intercept other than FANZI or PRFEC must APREQ'ed.

(3.) Departures requesting 9,000 feet and below, routed over BRAVE, must be restricted to 5,000 feet and issued on course. ZAU has control to climb to the requested altitude within 15NM of the Milwaukee Approach Boundary.

(4.) Departures shall be assigned the following altitudes by MKE ATCT:

- a.) Props requesting 11,000 feet or above must be climbed to 11,000 feet.
- b.) Jets Requesting 13,000 feet or above must be climbed to 13,000 feet.

(5.) MKE ATCT releases control:

- a.) On all GEARS, HAWKN, CYNDI, SQUIB departures for climb and upon reaching 11,000 feet for turns not exceed 30 degrees.
- b.) On ACCRA and UECKR departure for climb and speed increases
- c.) Overflights

(1) Traffic terminating in C90 airspace at altitudes 14,000 feet and above from ZAU must:

- (a.) ORD (advanced RNAV) arrivals routed via the ERNNY/MADII STAR must cross CHDRR waypoint at 14,000 feet. MKE ATCT will advise ZAU of the arrival in use.
- (b.) Non-RNAV route to ORD arrivals coming from the North: FAH 180 heading RV ORD, cross FAH @ 140 and handoff to RIPON sector
- (c.) All other traffic terminating into C90 airspace at altitudes 14,000 and above from the north, must cross 15 NM north of West Bend (BJB) VOR at 14,000 feet and be cleared via BJB VOR direct Northbrook (OBK) VOR direct destination, regardless of appropriate altitude for direction of flight.

(2) Traffic terminating in C90 airspace from ZAU, north of V2 must be routed via LYSTR.V2.BAE (Destination).

- (3) Waukegan Regional (UGN) and PWK arrivals from ZAU must be routed via a.)
ZEMEL..EXARR..UGN or ZEMEL..EXARR..OBK..PWK
1. Jets cross ZEMEL at or below 10,000' descending to 7,000', props cross ZEMEL at 6,000'
 2. ZAU release control for decent and turns up to 60 degrees upon completion of handoff and transfer of communications.
 3. Non-RNAV equipped aircraft must be assigned a heading for ZEMEL. Headings need not be coordinated.
- b.) BRAVE..EXARR..UGN or BRAVE..EXARR..OBK..PWK
1. Jets cross BRAVE at 10,000' props cross BRAVE at 6,000'.
 2. ZAU releases control for descent and turns up to 30 degrees upon completion of handoff and transfer of communication.
- (4) When necessary, due to weather or unforeseen circumstances ZAU may route ORD traffic though MKE airspace via coordinated routes and headings.
- (5) ZAU must ensure Stevens Point (STE), Waupaca (PCZ), and South Wood County (ISW) arrivals cross 20 NM south of Minneapolis ARTCC boundary at 14,000 feet and are handed off to RIPON sector.
- (6) Green Bay arrivals, 14,000 feet and above, must be level at 14,000 feet no less than 50 NM from Green Bay VOTRAC (GRB)
- (7) C90 Prop departure overflying MKE ATCT airspace with routings into ZAU.
- a.) C90 may elect to handoff a C90 Area prop departure, requesting 14,000 or above, to MKE ATCT, C90 will stop the aircraft at 11,000.
 - b.) After accepting the handoff, MKE ATCT will restrict the aircraft to 11,000 feet to cross the northern boundary of the MKE/C90 corridor. After crossing the norther boundary, MKE ATC will climb the aircraft to 13,000 on course and handoff to ZAU.

6. GENERAL

a. ZAU radar separation standard require minimum of 5NM radar separation MKE ATCT must not transfer communications or control of aircraft until either vertical separation or 5NM radar separation, constant or increasing has been established.

b.) MKE ATCT is allocated the following beacon code subsets for internal use:
0140-0177, 4600-4677

d.) MKE ATCT shall inform ZAU of runway in use. ZAU must issue frequencies as follows:

(1) Runway 1L/19R:

<u>FIX</u>	<u>ALTITUDE</u>	<u>FREQUENCY</u>	<u>MKE ATCT POSITION</u>
GOPAC STAR	11,000-12,000	126.5	W/ARR
WAITS	SFC-6,000	125.35	W/DEP
	7,000-10,000	126.5	W/ARR
RNAV)	11,000-13,000	125.35	W/DEP
SUDDS	SFC-6,000	135.870	E/DEP
	7,000-14,000	118.000	E/ARR
BRAVE/ZEMEL	SFC-6,000	135.870	E/DEP
	7,000-14,000	118.000	E/ARR
BJB	14,000	127.350	RIPON

(2) Runway 7R/25L:

<u>FIX</u>	<u>ALTITUDE</u>	<u>FREQUENCY</u>	<u>MKE ATCT POSITION</u>
GOPAC STAR	11,000-12,000	126.5	W/ARR
WAITS	SFC-6,000	125.35	W/DEP
	7,000-10,000	126.5	W/ARR
RNAV)	11,000-13,000	125.35	W/DEP
SUDDS	SFC-6,000	135.870	E/DEP
	7,000-14,000	118.000	E/ARR
BRAVE/ZEMEL	SFC-6,000	135.870	E/DEP
	7,000-14,000	118.000	E/ARR
BJB	14,000	127.350	RIPON

7. SPECIAL USE AIRSPACE

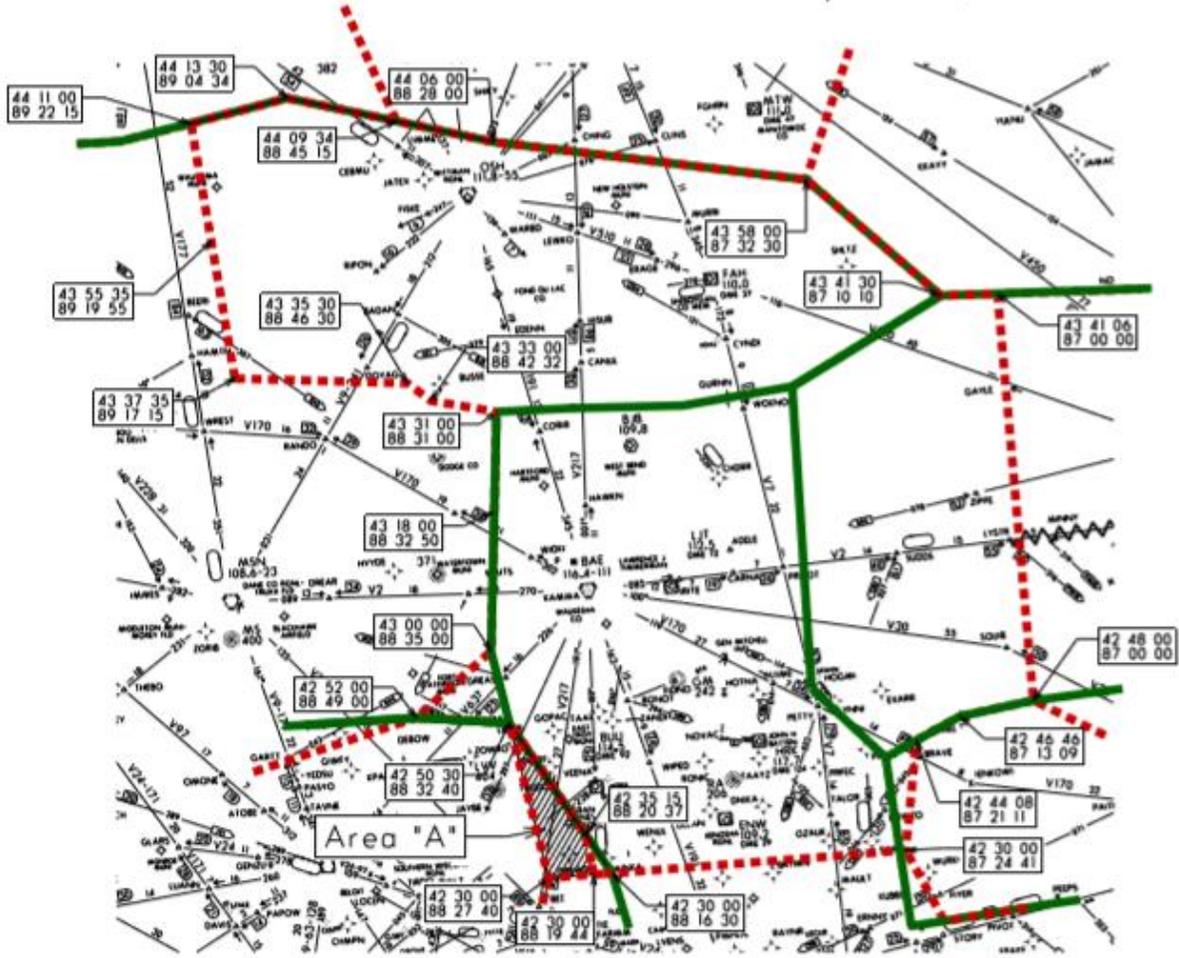
a. Non-Participating IFR aircraft are not authorized to operate within special use airspace when said airspace has been released by the controlling agency to use the using agency:

b. Chicago ARTCC shall notify Milwaukee ATCT of use times and cancelation of VOLK East MOA, R-6903 and the MINNOW MOA.

Attachment A

CHICAGO ARTCC / MILWAUKEE ATCT LETTER OF AGREEMENT ATTACHMENT A

REV 2 EFF: April 27, 2017

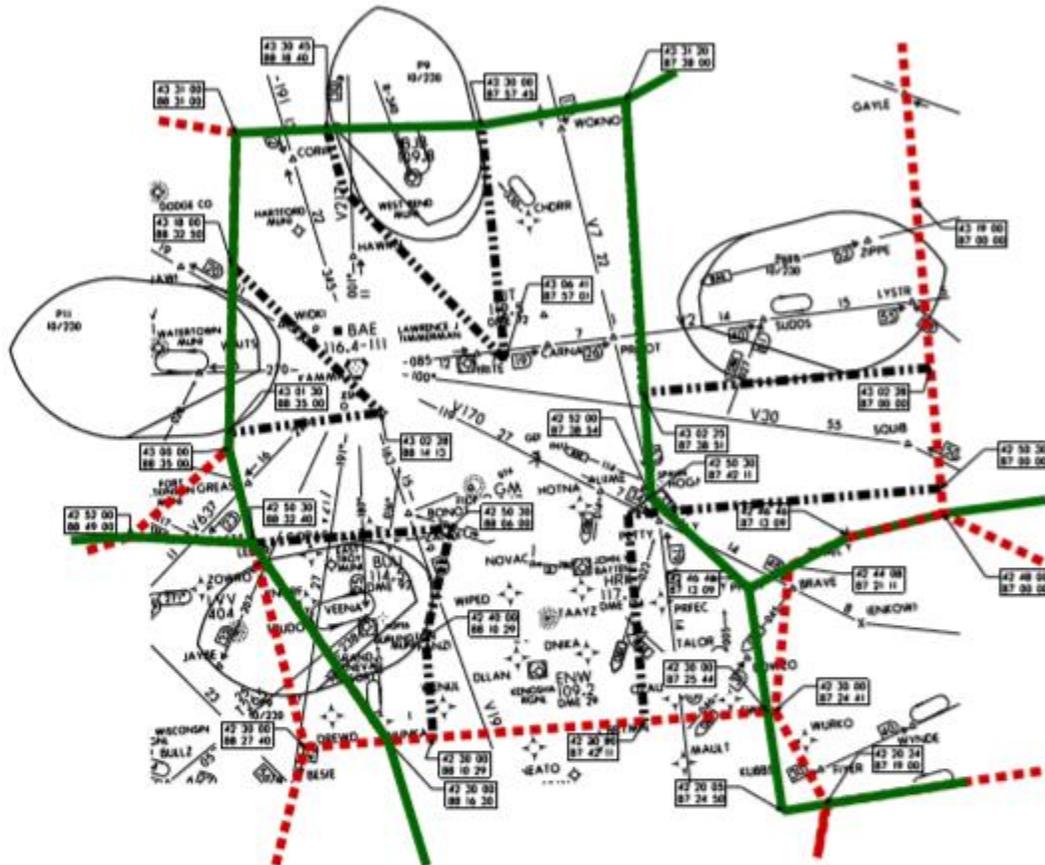


 MKE Approach Control Boundary 13,000' and Below except Area A and airspace delegated to C90 (See Attachment C)

 ZAU Sector Boundary

CHICAGO ARTCC / MILWAUKEE ATCT LETTER OF AGREEMENT ATTACHMENT B

REV 2 EFF: April 27, 2017



LEGEND

- ZAU SECTOR BOUNDARY
- - - - - APPROACH CONTROL BOUNDARY, MKE APCH
13,000 FEET AND BELOW, EXCLUDING
AREA A, AS DEPICTED ON ATTACHMENT C
- - - - - HAWKN, CYNDI, ENW, SQUIB & GREAS
DEPT CORRIDORS
(APPLICABLE UNDER RADAR ENVIRONMENT ONLY)

NOTE: NON-RADAR ARRIVAL CLEARANCE LIMITS

RUNWAY 1L OR 7R APCH - BUU VOR
RUNWAY 19R OR 25L APCH - WAITS INT

HOLDING PATTERN INFORMATION
P NUMBER - PATTERN NUMBER
1ST NUMBER - ALTITUDE (THOUSANDS OF FEET)
2ND NUMBER - SPEED CATEGORY (KTS)

SIMULTANEOUS HOLDING AUTHORIZED AT AND BELOW ALTITUDES INDICATED ON PATTERNS THAT DO NOT OVERLAP.

