

LETTER OF AGREEMENT

EFF: 05/06/2007

AMMENDED: 11/15/2008

1. PURPOSE: This agreement defines air traffic control procedures and coordination responsibilities between the Virtual Boston ARTCC (vZBW) and the Virtual New York ARTCC (vZNY).
2. DISCLOSURE: The Virtual Boston ARTCC and Virtual New York ARTCC are affiliated with the Virtual Air Traffic Simulation (VATSIM) network. The procedures outlined in this document may identically or closely resemble real world procedures; however, information in this document is intended exclusively for use in the VATSIM flight simulation environment and shall **never be used for actual flight or air traffic control operations**. The Virtual New York and Boston ARTCCs are not affiliated with the FAA or any of its dependencies.
3. DEFINITIONS: ZBW = Boston ARTCC, ZNY = New York ARTCC, N90 = NY TRACON, Y90 = Bradley TRACON, AA = Albany TRACON, G90 = Providence TRACON, SA = Syracuse TRACON.

Initiate handoff implies handing off (F4) unless otherwise specified in this document.
Completed handoff implies a transfer of communications has occurred

4. PROCEDURES:

a. GENERAL

- (1) Boston and New York Centers shall assume control of TRACON airspace within their respective ARTCCs if the TRACON position is not manned. When this occurs, all airspace and altitude restrictions and crossing instructions agreed to below still apply.

(2) Without prior co-ordination New York Center may:

- (a) Turn aircraft 30 degrees left or right of track “on contact”.
- (b) Clear aircraft direct the following waypoints within ZBW airspace:

SYR VOR (For aircraft filed **J59 [PSB-SYR]**)

RKA VOR (For aircraft filed **J190 [CFB-RKA]**)

HNK VOR (For aircraft filed **J217 [ETG-HNK]** or **J49 [PSB-HNK]**)

(3) Without prior co-ordination Boston Center may:

- (a) Turn aircraft 30 degrees left or right of track “on contact”.
- (b) Clear aircraft direct the following waypoints in ZNY airspace:

SAX VOR (For aircraft filed **J77** or **J80 [BAF-SAX]**)

LOLLY intx (For aircraft filed on **IGN[STAR]** only)

CRANK intx (For aircraft filed on **SHAFF[STAR]** or **HELON[STAR]** only)

- (c) Initiate a handoff to N90 for any aircraft requesting VFR flight following services with a destination within N90 airspace.

(4) Both New York and Boston Center controllers shall assure:

- (a) All aircraft are at 1x simulation rate prior to initiating handoff.
- (b) Aircraft bound to; the same airport, any ZBW/ZNY airports or on the same route segment **and** the same altitude are separated by no less than **10nm** (steady or increasing) unless further MIT separation is requested by ZBW, ZNY, N90, or the TMU.
NOTE: MIT separation of less than 10nm is permitted providing that one of the aircraft has enough groundspeed to complete an overtake in adequate time and both are in level flight at different altitudes.
- (c) Handoff requests are made **at least** 10nm prior to ARTCC boundary unless otherwise specified in this document and may be initiated up to 50nm without prior ATC coordination. Handoffs may be requested via an automated handoff, landline coordination, or private message.
- (d) All conflicts, imminent situations, or MIT separation **must** be resolved/established prior to handoff or handoff is subject to refusal.
- (e) Any aircraft departing N90 into ZBW airspace are cleared to their assigned exit (departure gate) before handoff is completed unless previously coordinated with Boston Center.

b. ARRIVALS:

(1) New York Center/TRACON shall:

- (a) Initiate handoff for aircraft bound to Boston Logan (KBOS) at least 10nm **southwest of MERIT** or **over BDR** VOR at an altitude not above 17,000.
- (b) Clear turbojet aircraft bound to Boston Logan (KBOS) to cross **NEWES** at and maintain **FL240** or filed cruise altitude if lower and initiate handoff prior to passing the JFK VOR.
- (c) Clear turbojet aircraft bound to Boston Logan (KBOS) transiting NY Center's **area C** via **ALB.GDM[STAR]** to cross the ARTCC boundary **at or below FL310**.
- (d) Initiate a handoff for aircraft bound to Windsor Locks (KBDL) **prior to** crossing the **DPK** VOR at or below **FL200**, but no lower than the lowest useable flight level.
- (e) Clear aircraft bound to Windsor Locks (KBDL) via **RKA** or **HNK** **at or below FL270** to join the **SWEDE[STAR]** arrival.
- (f) Route aircraft bound to Providence (KPVD) via **HTO.JORDN [STAR]** to cross **HTO** **at or below 15,000** and **250 knots** or via **HTO.SEY** to cross **20 miles west of SEY** (~JORDN intersection) at and maintain **11,000** for aircraft not equipped to navigate via the JORDN2 arrival.
- (g) Clear high altitude aircraft bound to Albany (KALB) to descend and maintain the **lowest usable flight level** and to cross the ARTCC boundary at or below **FL240**.
- (h) Clear aircraft bound to Syracuse (KSYR) to cross the ARTCC boundary: Via the **HNK/DNY/RKA/CFB** VOR at or below **FL200**. Or via the **ITH** VOR or **J59/V35** at or below **11000**.
NOTE: Handoffs via ITH/J59/V35 should be initiated to Syracuse Approach (SA).

(2) Boston Center shall:

- (a) Initiate handoff for turbojet aircraft bound to New York's Kennedy (KJFK) at least **10nm** east of **CCC** VOR and clear such aircraft to cross **CCC** at and maintain **12,000** and **250 knots**.
- (b) Initiate handoff for prop aircraft bound to New York's Kennedy (KJFK) from the east/northeast prior to **YODER** intersection and clear such aircraft to maintain **10,000 or if lower, their filed cruise altitude**.
- (c) Route turbojet aircraft bound for New York's Kennedy (KJFK) from the north via **IGN.IGN[STAR]** and clear such aircraft to cross **LENDY** intersection at and maintain **FL190**. Handoff such aircraft to **NY Center** prior to **IGN** VOR.
- (d) Route prop aircraft bound for New York's Kennedy (KJFK) from the west via **PWL.PWL[STAR]** and clear such aircraft to cross **LOVES** intersection at and maintain **6,000**.
- (e) Initiate handoff for prop aircraft bound to New York's Kennedy (KJFK) from the west/northwest passing **PWL** VOR.
- (f) Route prop aircraft bound for New York's LaGuardia (KLGA) via the **NOBBI[STAR]** arrival to cross NOBBI intersection at and maintain **8,000** and initiate handoff prior to **PWL** VOR.
- (g) Initiate handoff for aircraft bound to New York's LaGuardia (KLGA) from the east/northeast on the **HAARP[STAR]** arrival prior to **VALRE** intersection to cross **BAYSE** at and maintain **9,000**.
- (h) Route aircraft bound to New York's LaGuardia (KLGA) from the north/west not on the **NOBBI[STAR]** or **HAARP[STAR]** via **IGN** to cross **IGN** at and maintain **12,000** and **250 knots** or from the east, via **VALRE** intersection to cross **VALRE** at and maintain **8,000**.
- (i) Initiate handoff for aircraft bound to New York's Newark Liberty (KEWR) on the **SHAFF[STAR]**, **FLOSI[STAR]**, **HELON[STAR]** or filed **V213** prior to **IGN** VOR to cross **CRANK** at and maintain **7,000** or **15nm north of SAX** at and maintain **7,000**. Slower aircraft may be cleared to cross **SAX** at and maintain **6,000**.
- (j) When runway 16 is in use, clear aircraft bound to Westchester County (KHPN) **direct FARAN** to join the runway 16 localizer to maintain **4,000**

c. DEPARTURES:

(1) New York Center/TRACON shall:

- (a) Route aircraft bound to Boston Logan (KBOS) from NY airports via **MERIT.ORB.ORB[STAR], MERIT.ORB.PVD.INNDY[STAR]** (jets) or **MERIT.ORB.V16.WOONS, BDR.V229.HFD.V3.WOONS** (props)
- (b) Restrict all aircraft bound to Boston Logan (KBOS) at or below FL230.
- (c) Route aircraft bound for Boston Logan (KBOS) from Philadelphia via **DITCH.J225.JFK.ORB[STAR], DITCH.J225.JFK.INNDY[STAR]** (jets) or **DITCH.V312.DRIFT.V308.ORB.WOONS[STAR]** (props)
- (d) Ensure that any aircraft not on these primary routings are on approved routes as listed on Simroutes, the FAA preferred/coded route database or listed TEC routings within the Airport Facility Directory.

(2) Boston Center/A90 shall:

- (a) Route aircraft bound to New York's Kennedy (KJFK) via **LUCOS.SEY067.SEY.PARCH.CCC.ROBER** (jets) or **BOSOX.V419.V14.ORB.V16.DPK.JFK** (props)
- (b) Route aircraft bound to New York's LaGuardia (KLGA) via **GYLDE.BAF.IGN.HAARP[STAR]** (jets) or **BOSOX.BDL.VALRE.V157.HAARP, GYLDE.BAF.PWL.V405.CASSH.V123.HAARP, BOSOX.V1.MAD.V475.** (props)
- (c) Route aircraft bound to New York's Newark Liberty (KEWR) via **GYLDE.BDL.SHAFF[STAR]** or **BOSOX.BDL.IGN.FLOSI.V213.SAX, BOSOX.V1.HFD.V3.CMK.V188.SAX.** (props)
- (d) Ensure that any aircraft not on these primary routings are on approved routes as listed on Simroutes, the FAA preferred/coded route database or listed TEC routings within the Airport Facility Directory.

5. DEVIATIONS: Any deviations from preferred routes or any aforementioned route in this document shall be coordinated with ZBW or ZNY.

- (1) If a pilot is unable to accept either a preferred route or any aforementioned route in this document, amend the flight plan as best as possible and coordinate with the adjacent ARTCC as needed.

6. FREQUENCY/CALLSIGN USE:

a. Callsigns/Frequencies:

(1) N90 (Primary / Secondary positions)

(a) KJFK: NY_CAM_APP – 127.40; NY_RBR_APP – 125.70

(b) KLGA: NY_HRP_APP – 120.80; NY_NBI_APP – 126.40

(c) KEWR: NY_ARD_APP – 128.55; NY_NOA_APP – 120.15

(2) ZNY

(a) KND HI: 125.32 (primary)

(b) MIP HI: 128.57

(c) ARD LO: 134.60

(d) PTO LO: 124.62

(e) JOBOC (oceanic): 125.925

(3) ZBW

(a) CAM HI: 128.32

(b) BOS HI: 127.82

(c) CON LO: 134.70 (primary)

(d) BOSOX LO: 133.42

(4) Y90

(a) WEST: 123.95 (primary)

(b) FINAL: 127.22

(5) AA

(a) 118.05 (primary)

(6) G90

(a) 135.40 (primary)

(7) SA

(a) 126.12 (primary)

Paul Byrne

Air Traffic Manager, Virtual Boston
ARTCC

Matthew Kreilein

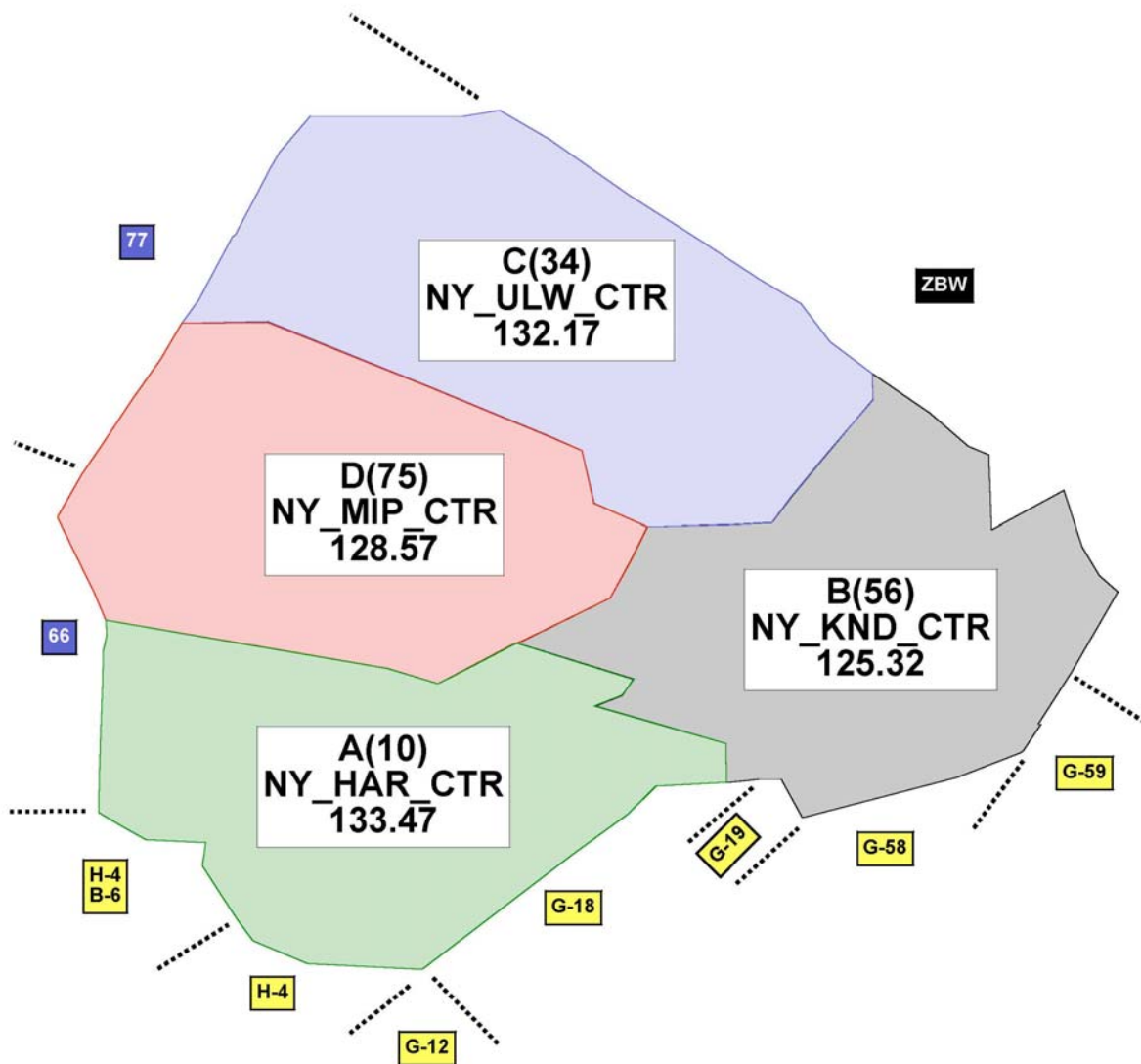
Air Traffic Manager, Virtual New York
ARTCC

7. ATTACHMENTS: New York Center Sectorization(s), N90 Kennedy Sectorization, N90 LaGuardia Sectorization.

ATTACHMENT

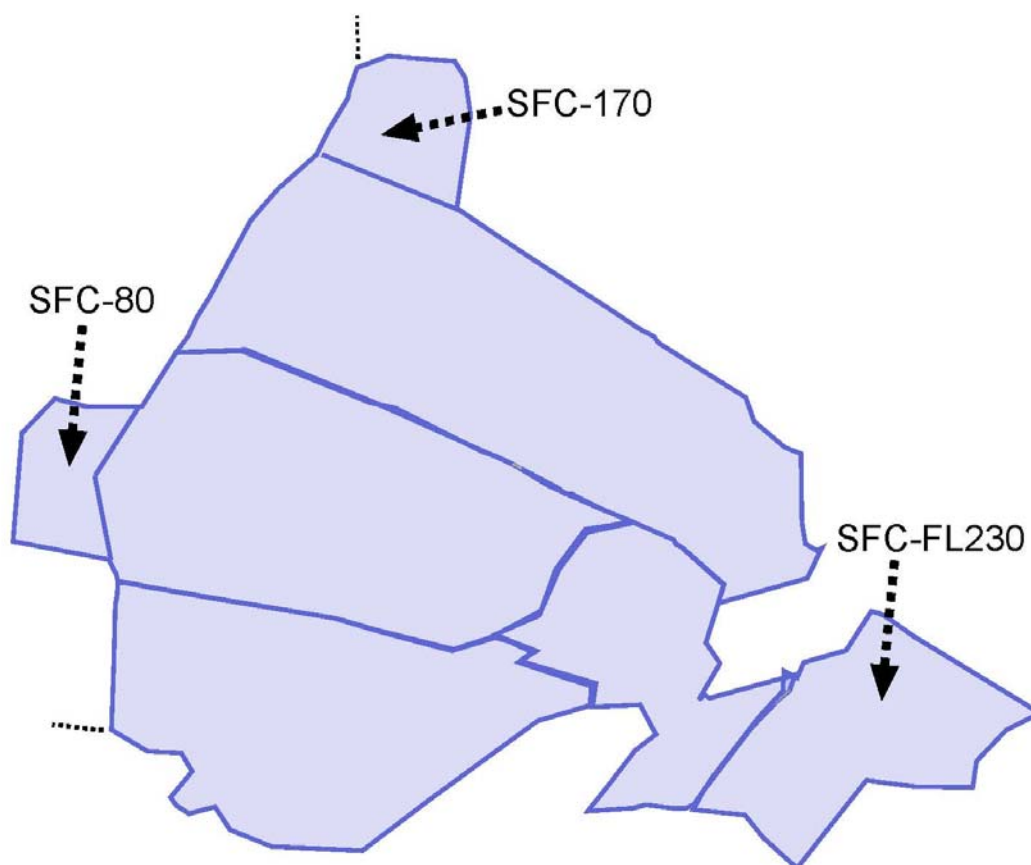
NEW YORK CENTER SECTORIZATION

ZNY OPERATIONAL HIGH ALTITUDE SECTORIZATION



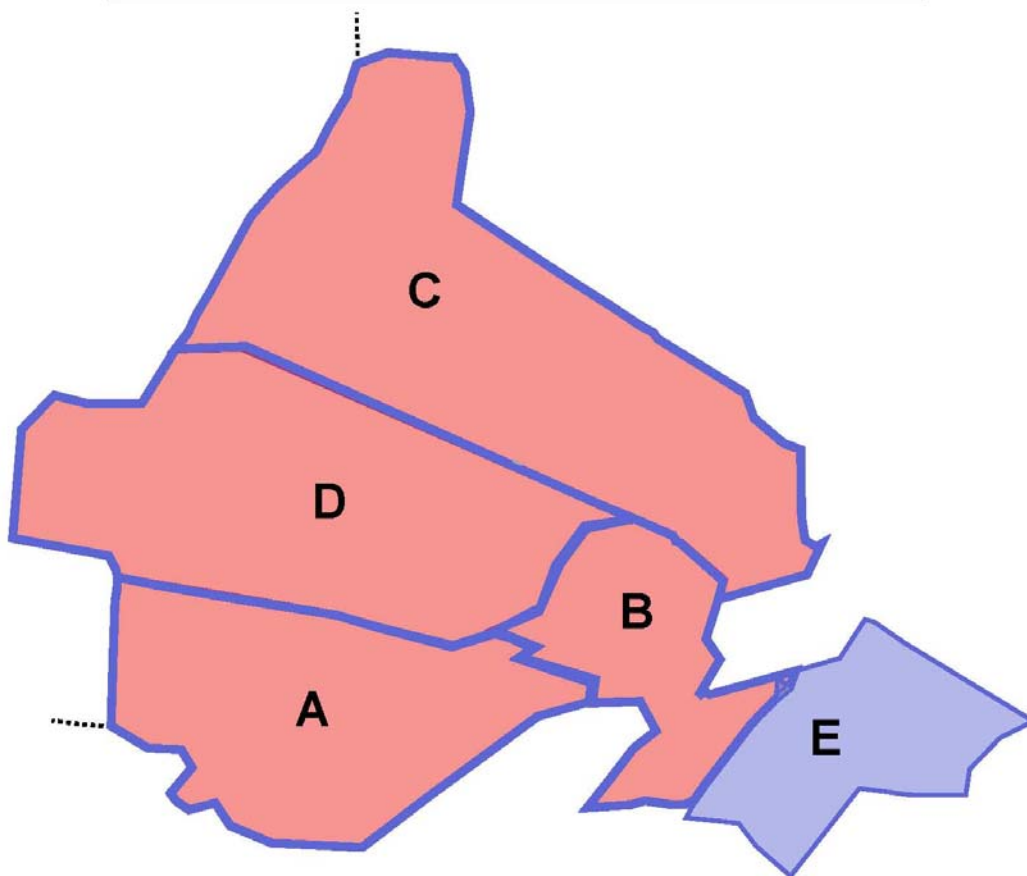
ALL sectors are >FL240 and above

ZNY ONE CENTER OPERATION



When one Center position is manned:
NY_KND_CTR (B-56) on 125.32
controls all of New York Center

ZNY TWO CENTER OPERATION



With two center controllers online, a High/Low split is in effect:

NY_ARD_CTR (B-55) on 134.60

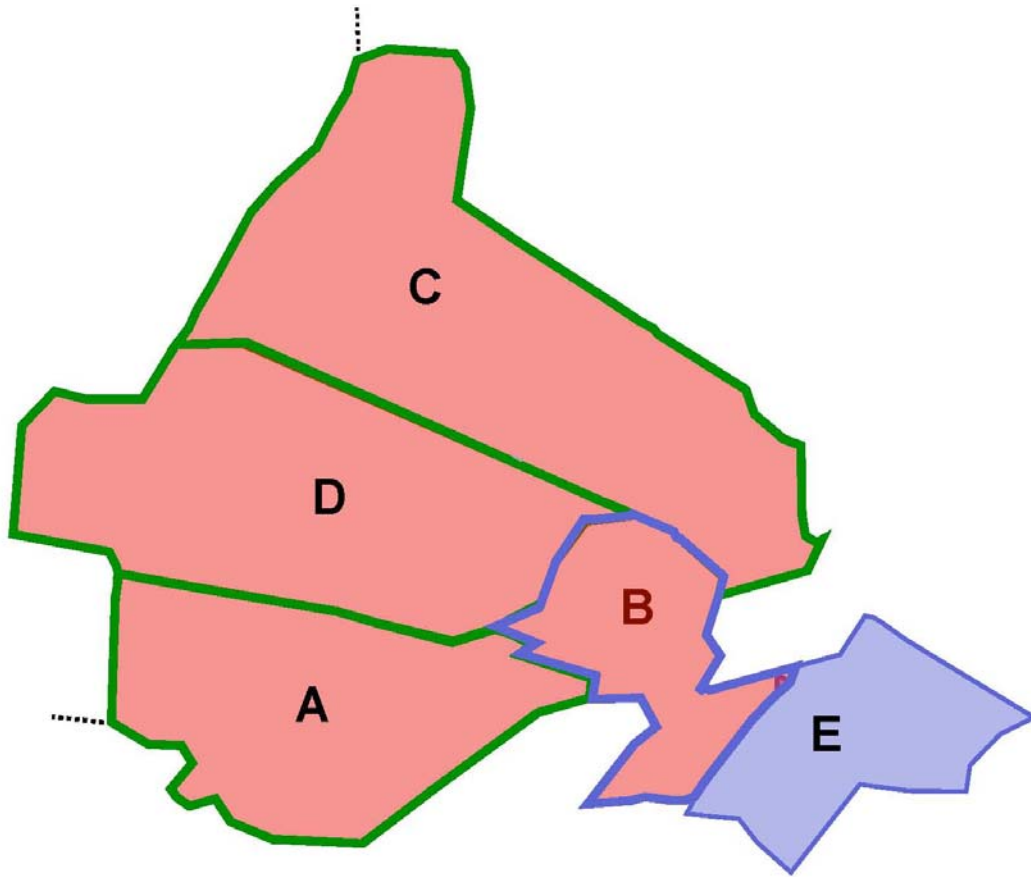
A, B, C, and D sectors SFC-FL240 (outlined in blue)

E sector SFC-FL230 (filled in blue)

NY_KND_CTR (B-56) on 125.32

A, B, C, and D sectors >FL240 (filled red)

ZNY THREE CENTER OPERATION



With three centers online, a High Low/Low split is in effect:

NY_ARD_CTR (B-55) on 134.60

B sector SFC-FL240 (outlined in blue)

E sector SFC-FL230 (filled in blue)

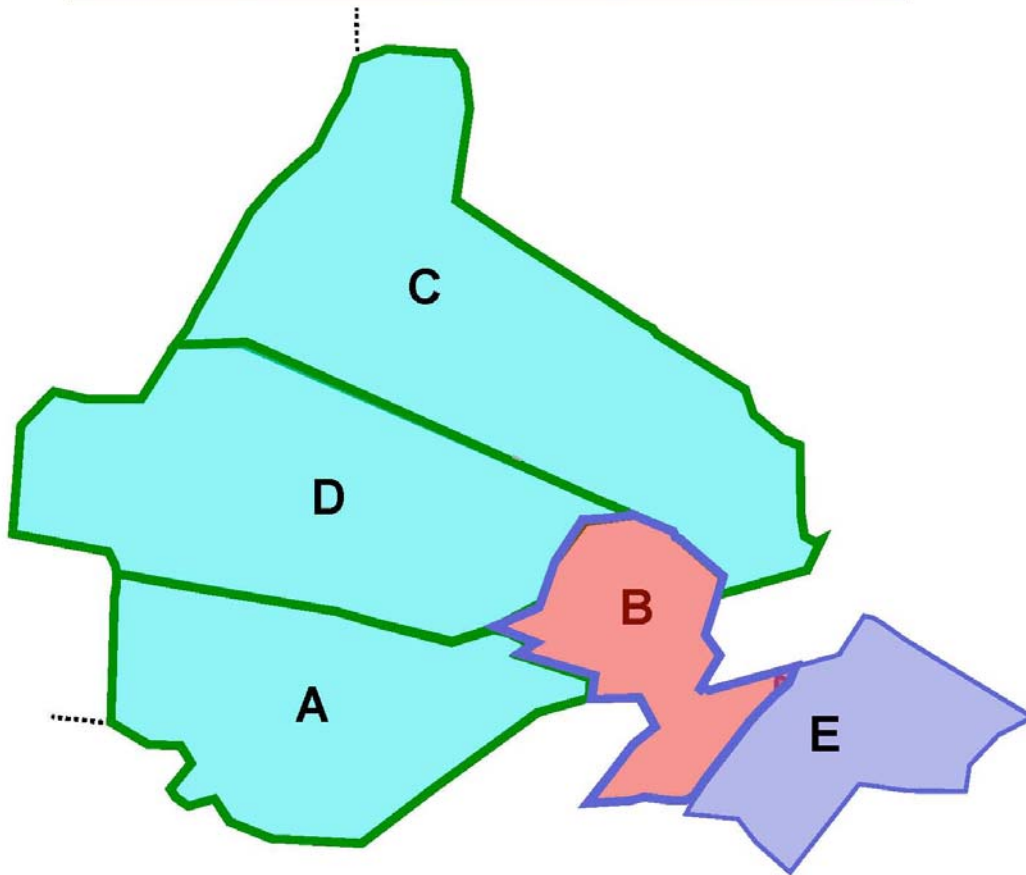
NY_PTO_CTR (D-92) on 124.62

A, C, and D sectors SFC-FL240 (outlined in green)

NY_KND_CTR (B-56) on 125.32

A, B, C, and D sectors >FL240 (filled red)

ZNY FOUR CENTER OPERATION



With four centers online, a High/High Low/Low split is in effect:

NY_ARD_CTR (B-55) on 134.60

B sector SFC-FL240 (outlined in blue)

E sector SFC-FL230 (filled in blue)

NY_PTO_CTR (D-92) on 124.62

A, C, and D sectors SFC-FL240 (outlined in green)

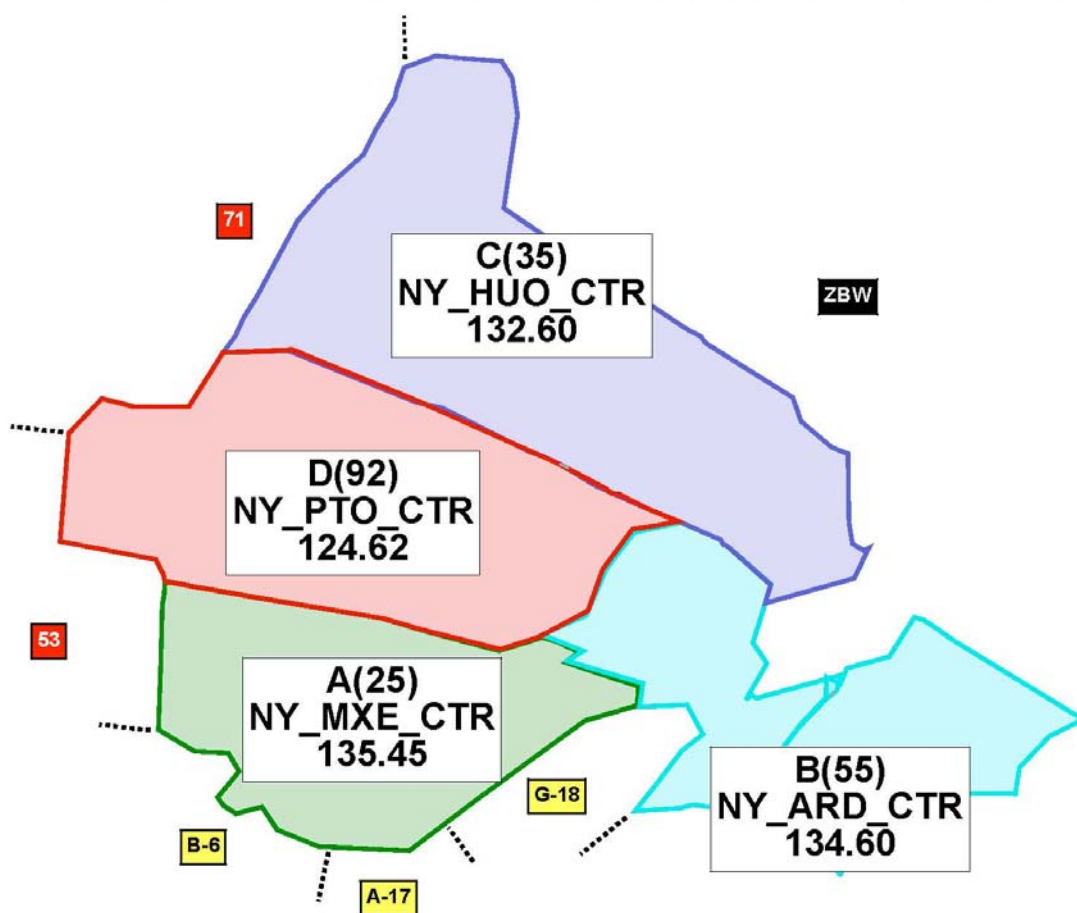
NY_KND_CTR (B-56) on 125.32

B sector >FL240 (filled red)

NY_MIP_CTR (D-75) on 128.57

A, C, and D sectors >FL240 (filled light blue)

ZNY OPERATIONAL LOW ALTITUDE SECTORIZATION



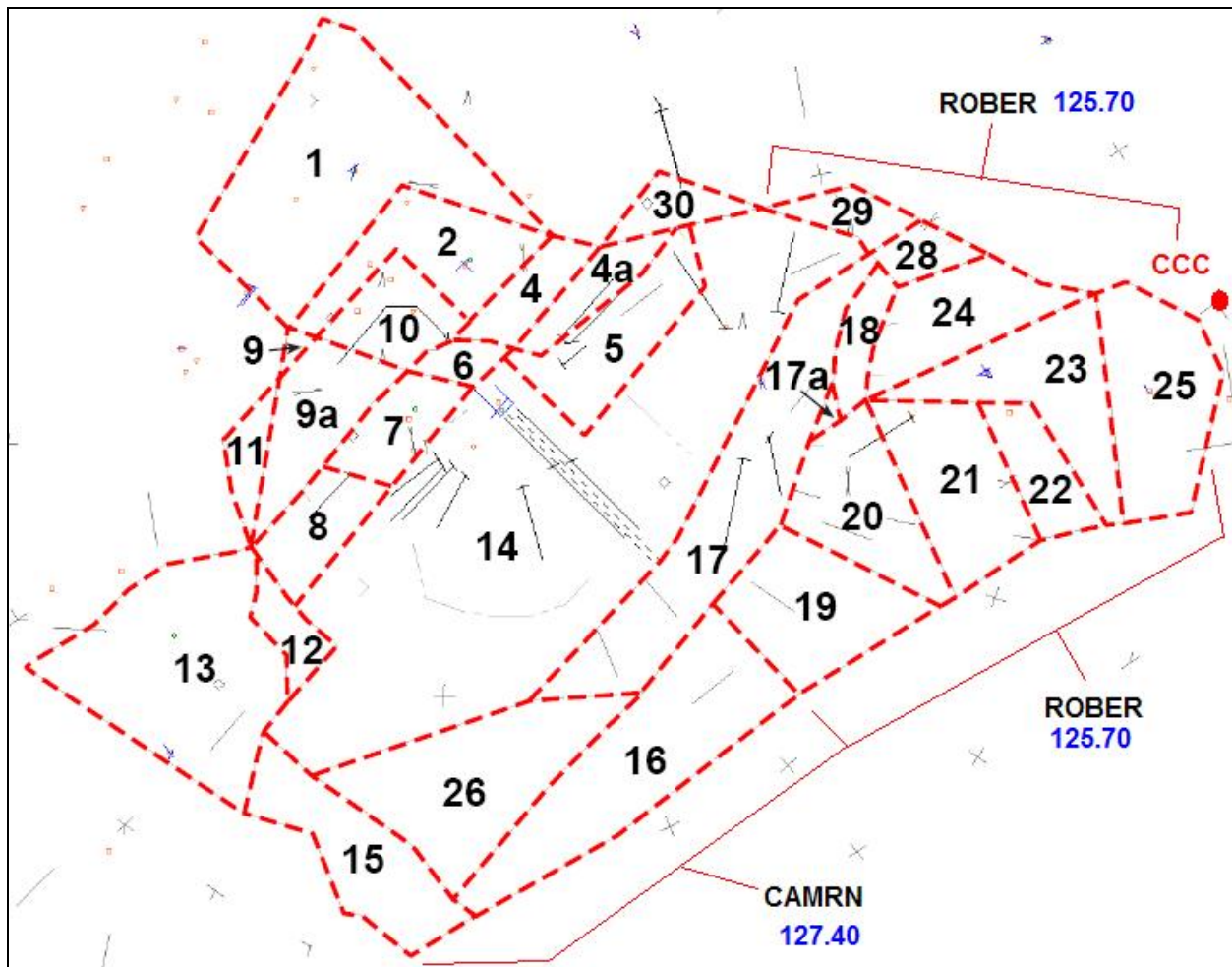
ALL sectors are SFC-FL240 except
for the MANTA sector in light blue,
which is SFC-FL230

ATTACHMENT

vZBW/vZNY LOA

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NEW YORK TRACON – KENNEDY SECTORIZATION

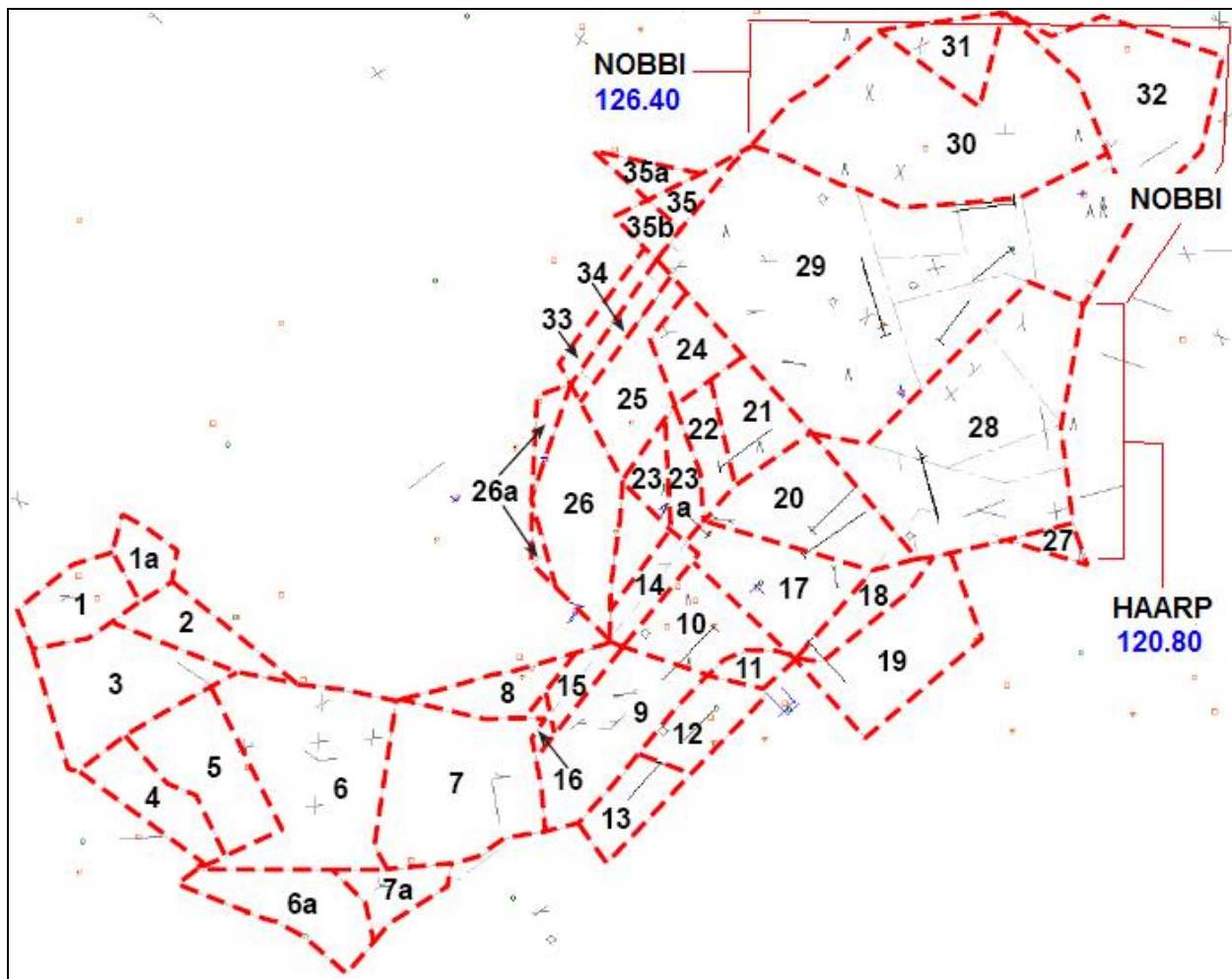


ATTACHMENT

NEW YORK TRACON – LAGUARDIA SECTORIZATION

vZBW/vZNY LOA

EFF: 5/06/07



vZBW/vZNY LOA

EFF: 5/06/07