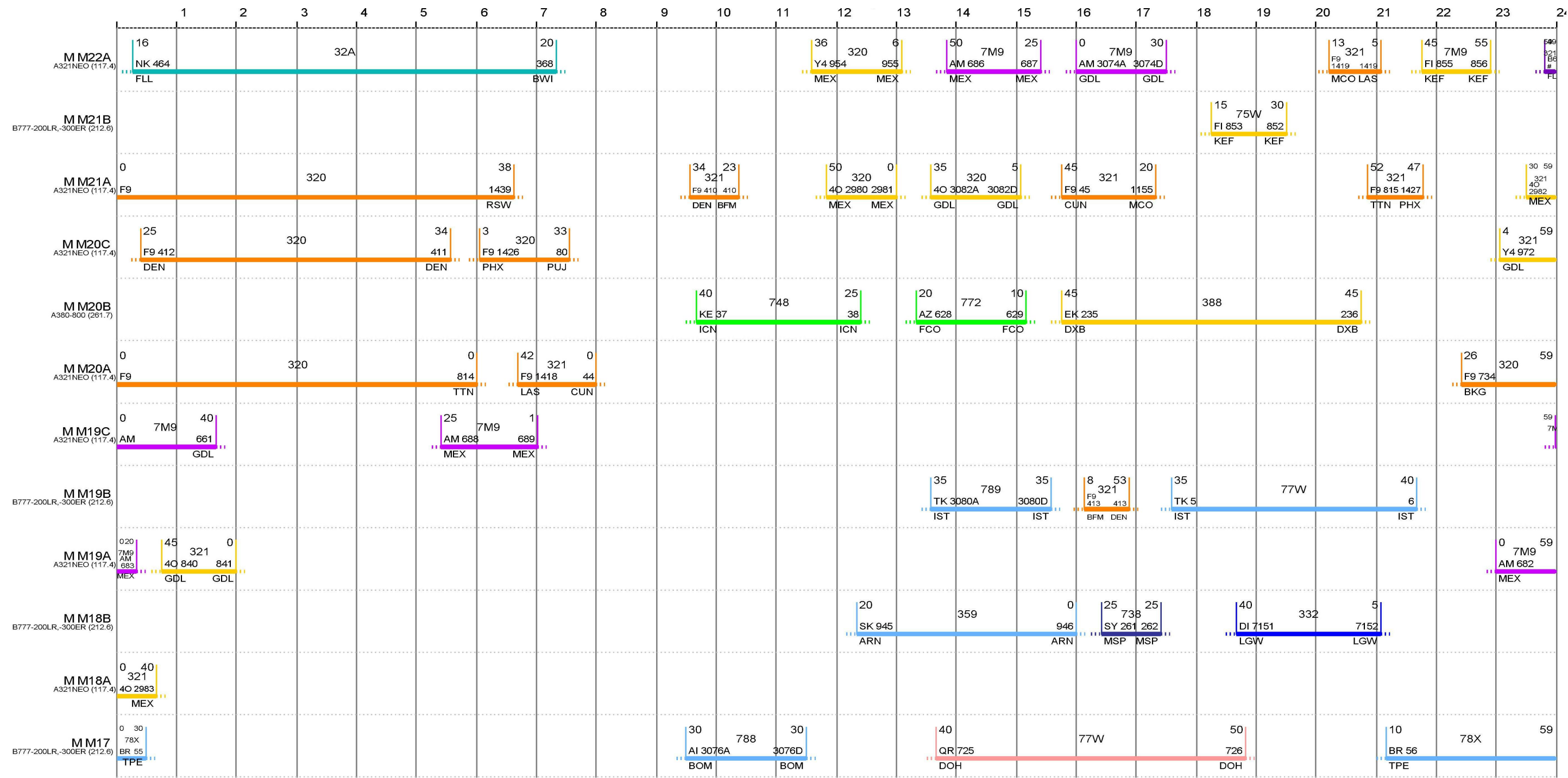


SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (1 OF 22)

Ramp Charts



SOURCE: Ricondo & Associates, Inc., December 2019.

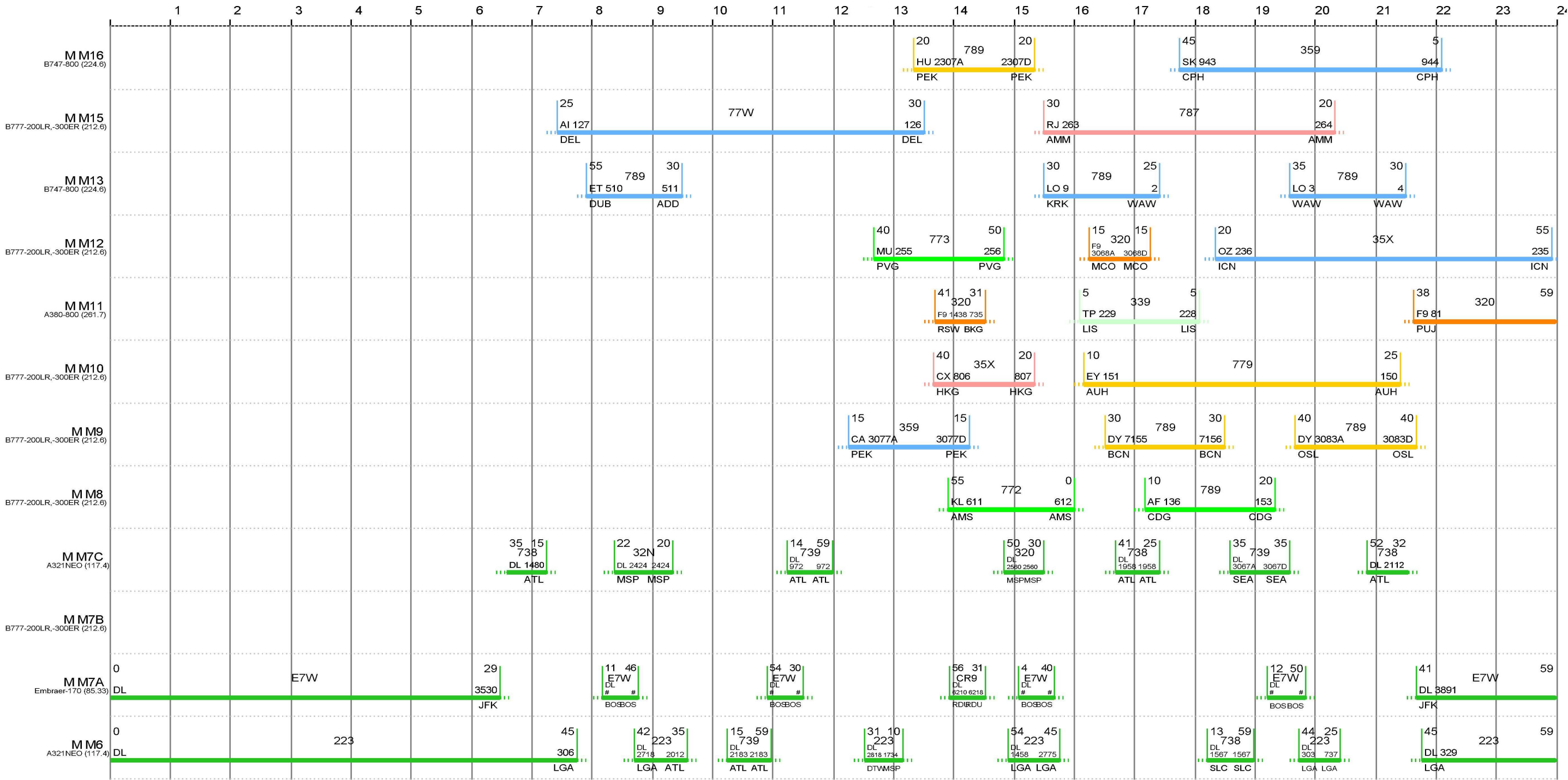
EXHIBIT 1-4 (2 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwg Layout: Ramp Charts (2) Plotted: Nov 4, 2020, 06:41PM

Terminal Area Plan and Air Traffic Procedures EA

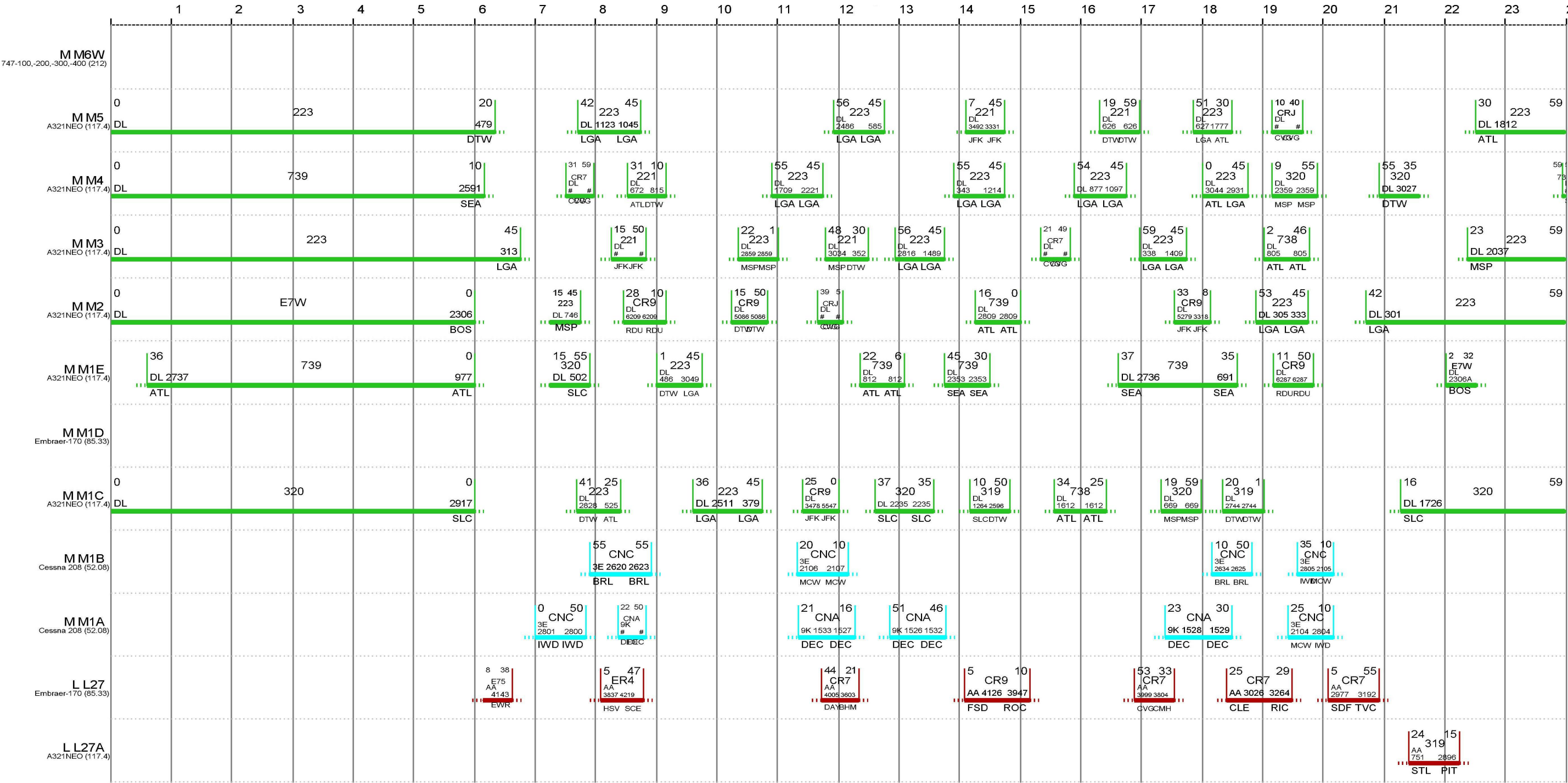
Simulation Data Package - With Project Full Build



SOURCE: Ricondo & Associates, Inc., December 2019.

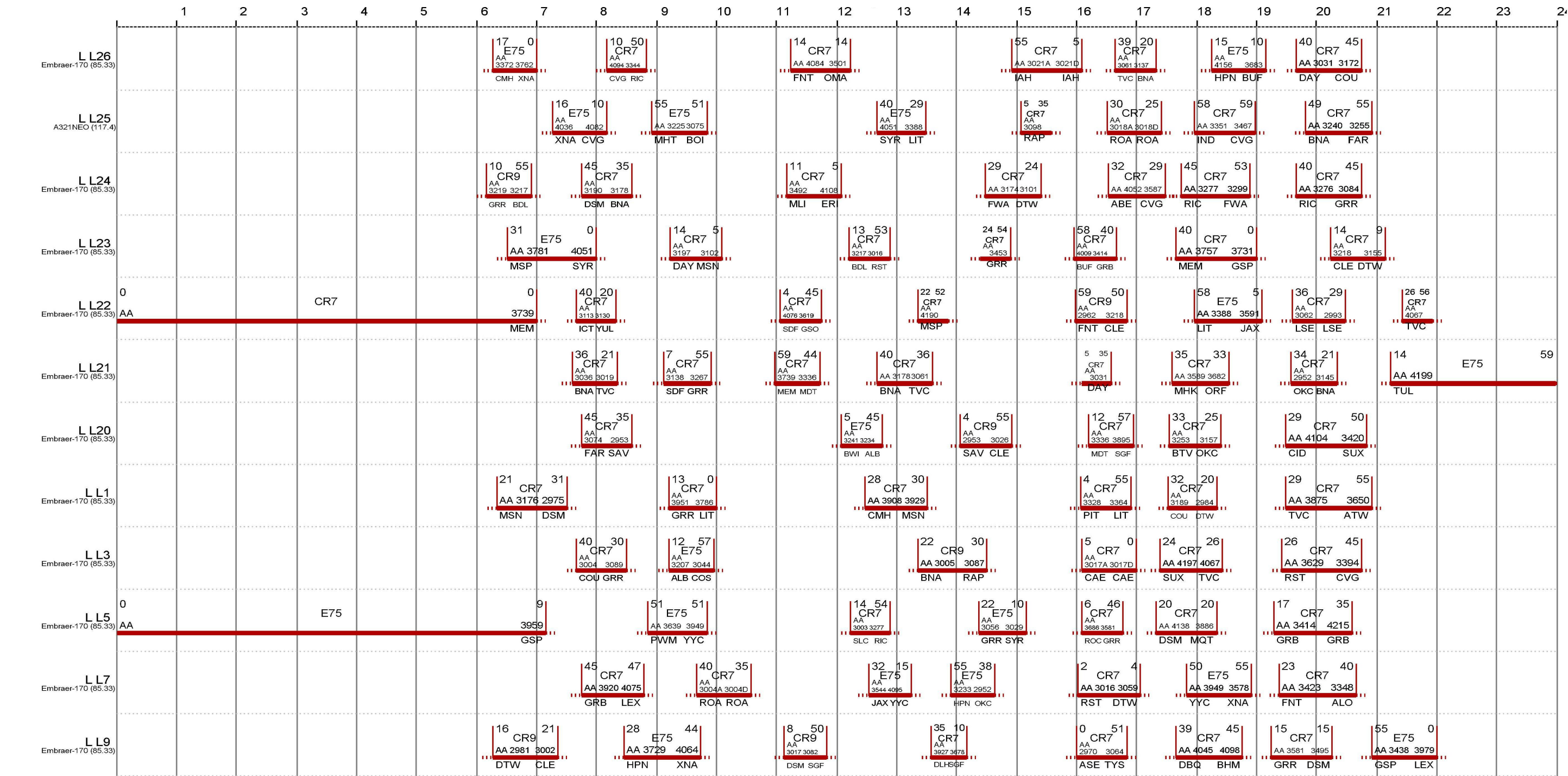
EXHIBIT 1-4 (3 OF 22)

Ramp Charts



SOURCE: Ricondo & Associates, Inc., December 2019.

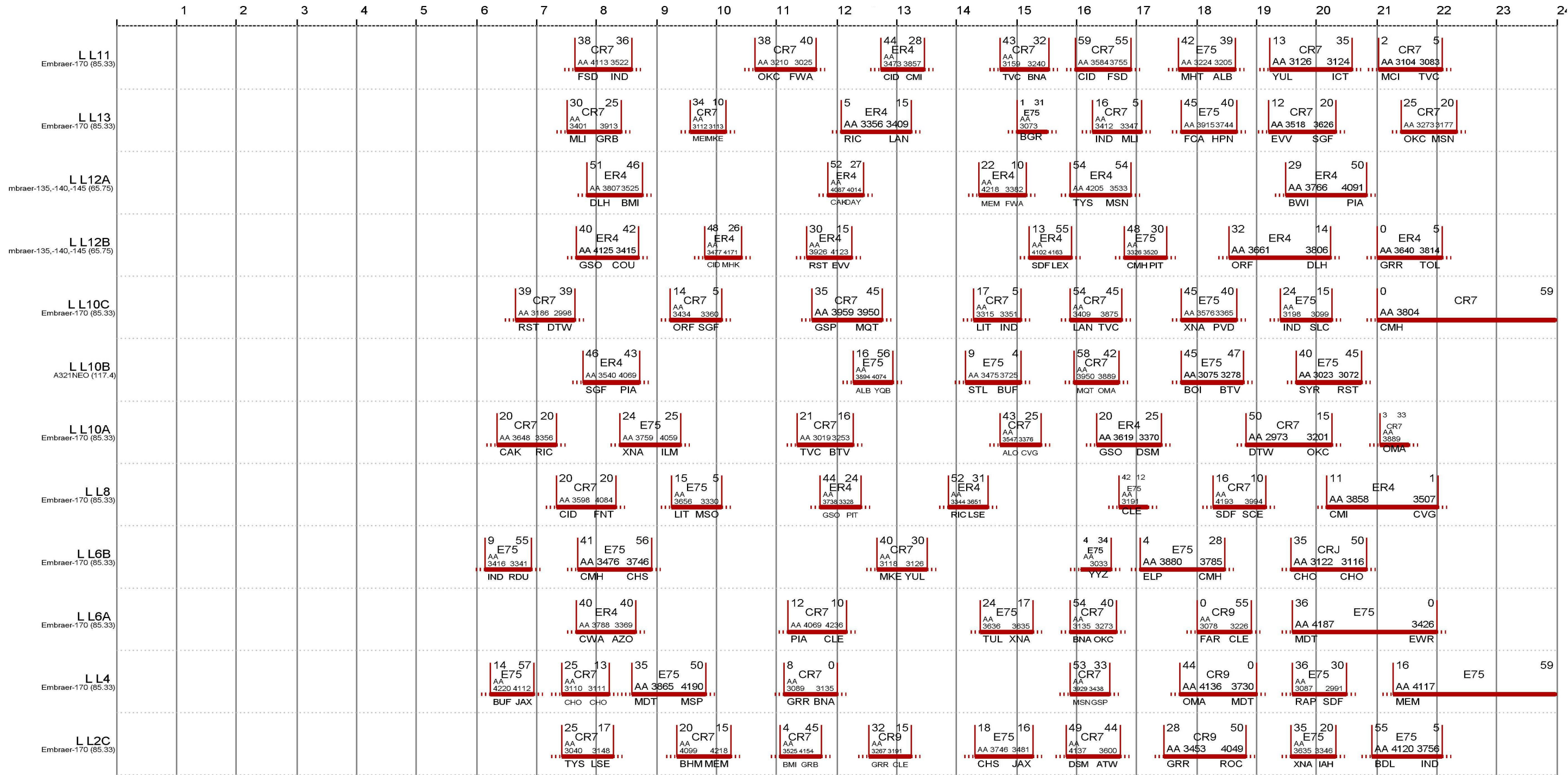
Ramp Charts



SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (5 OF 22)

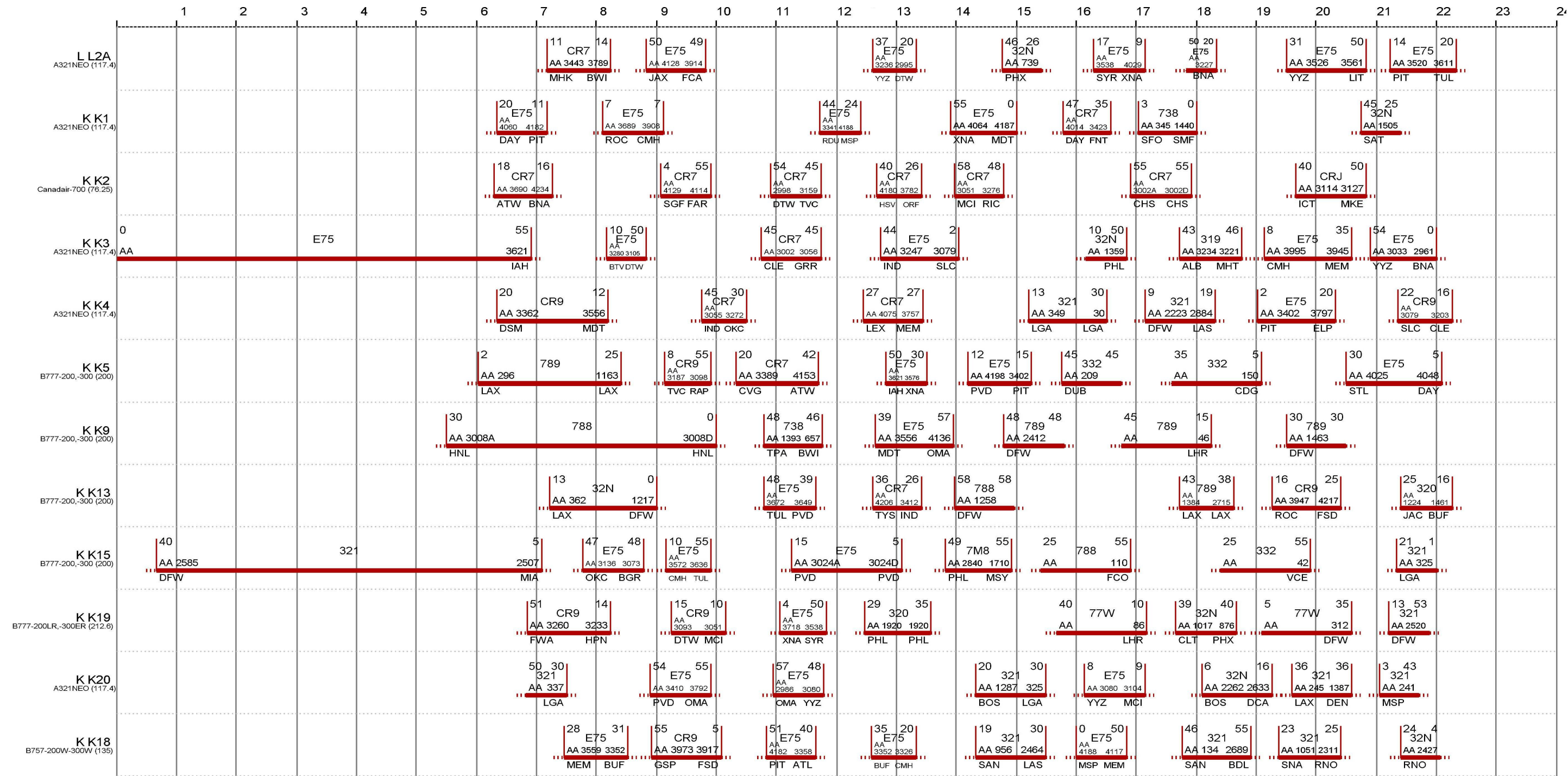
Ramp Charts



SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (6 OF 22)

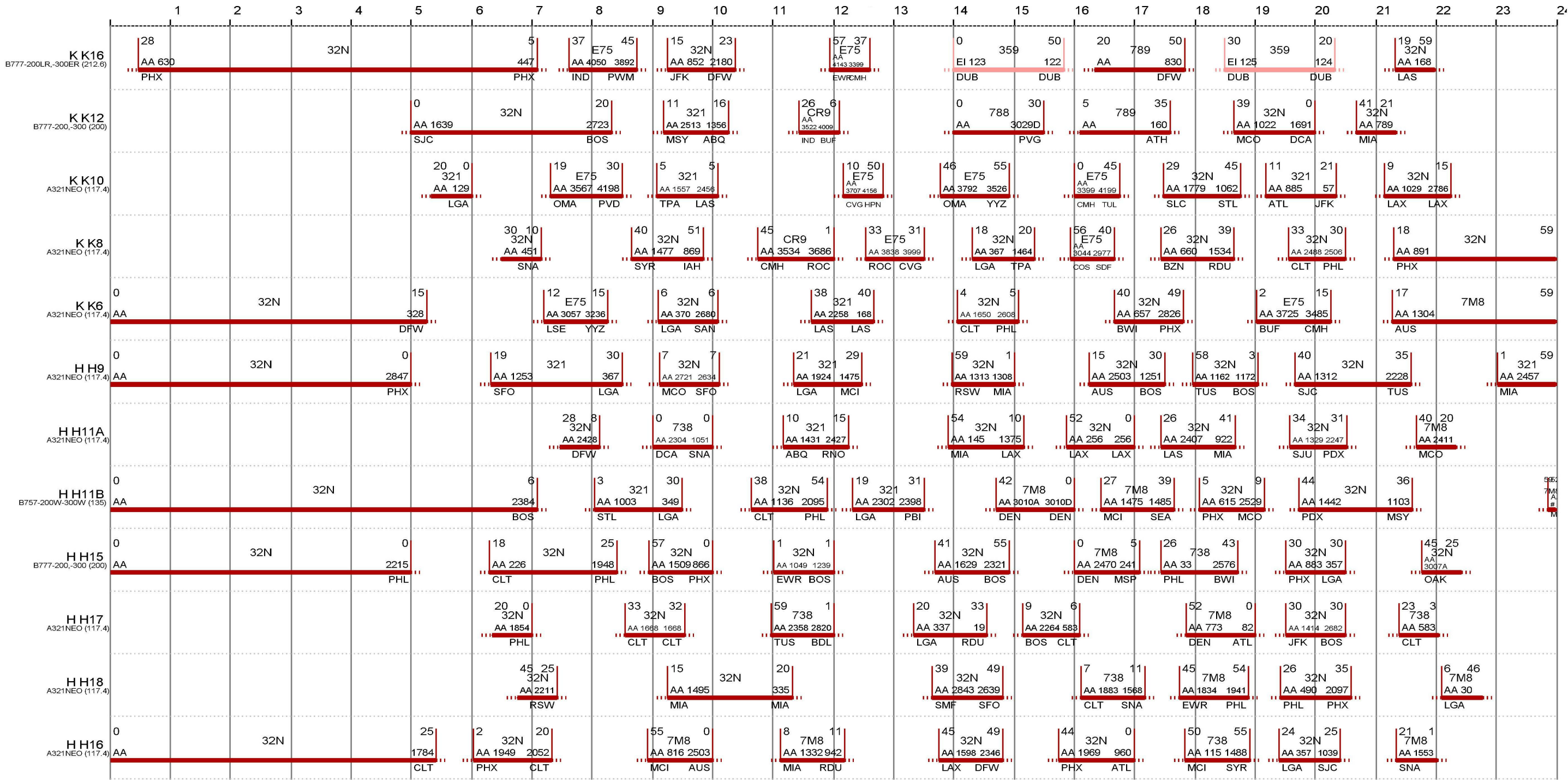
Ramp Charts

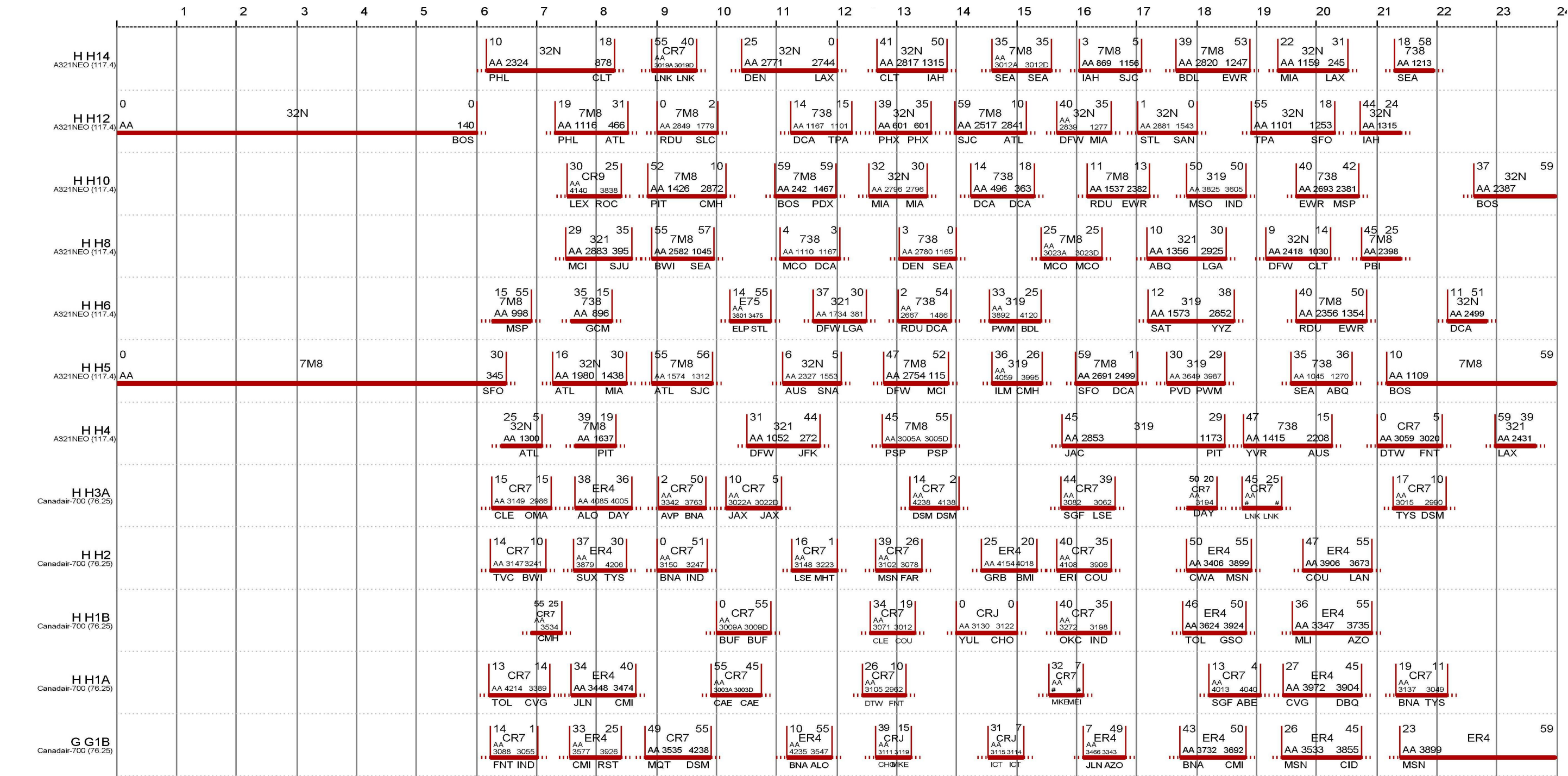


SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (7 OF 22)

Ramp Charts





SOURCE: Ricondo & Associates, Inc., December 2019.

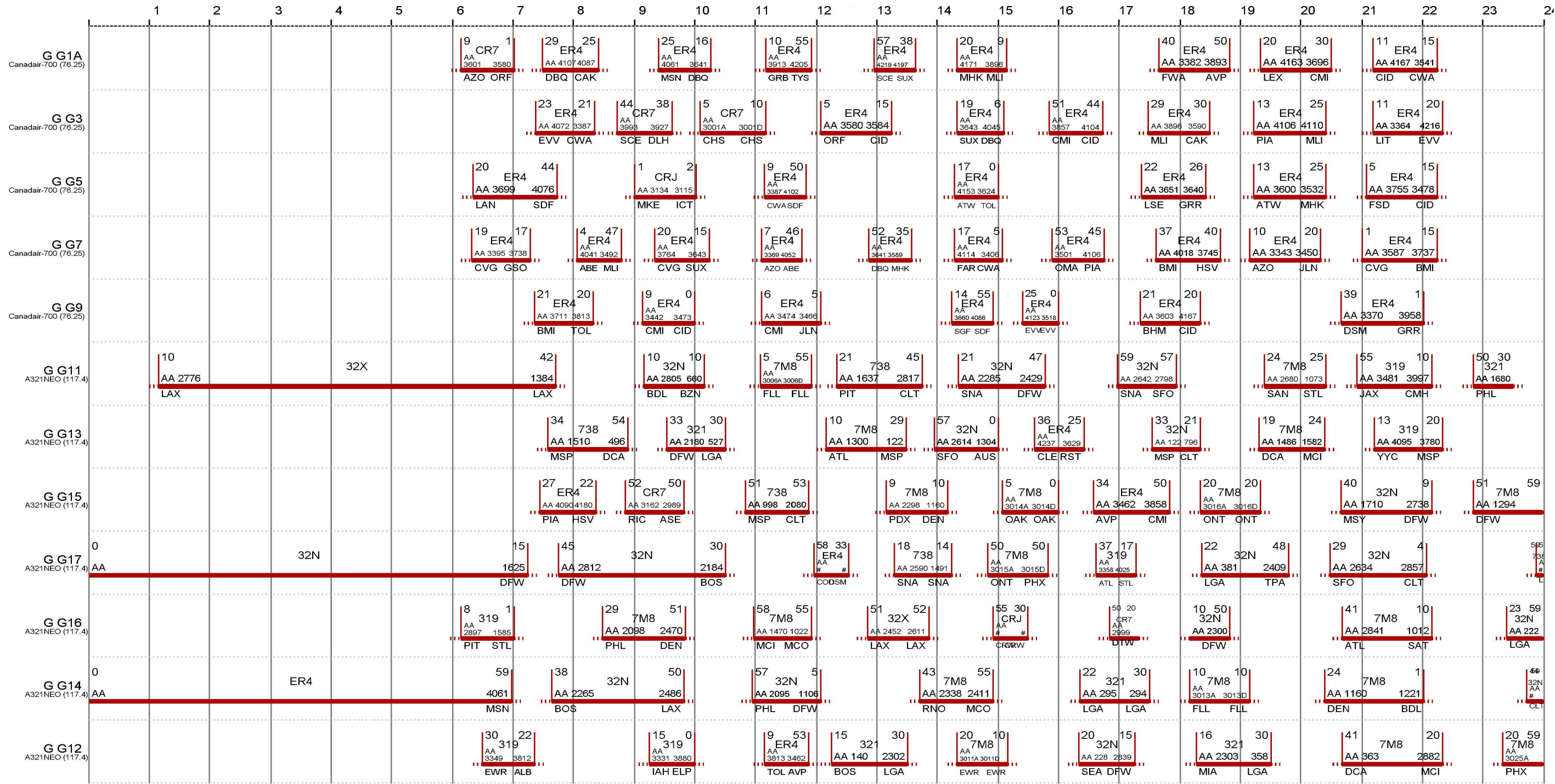
EXHIBIT 1-4 (9 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwg Layout: Ramp Charts (9) Plotted: Nov 4, 2020, 06:42PM

Terminal Area Plan and Air Traffic Procedures EA

Simulation Data Package - With Project Full Build



SOURCE: Ricondo & Associates, Inc., December 2019.

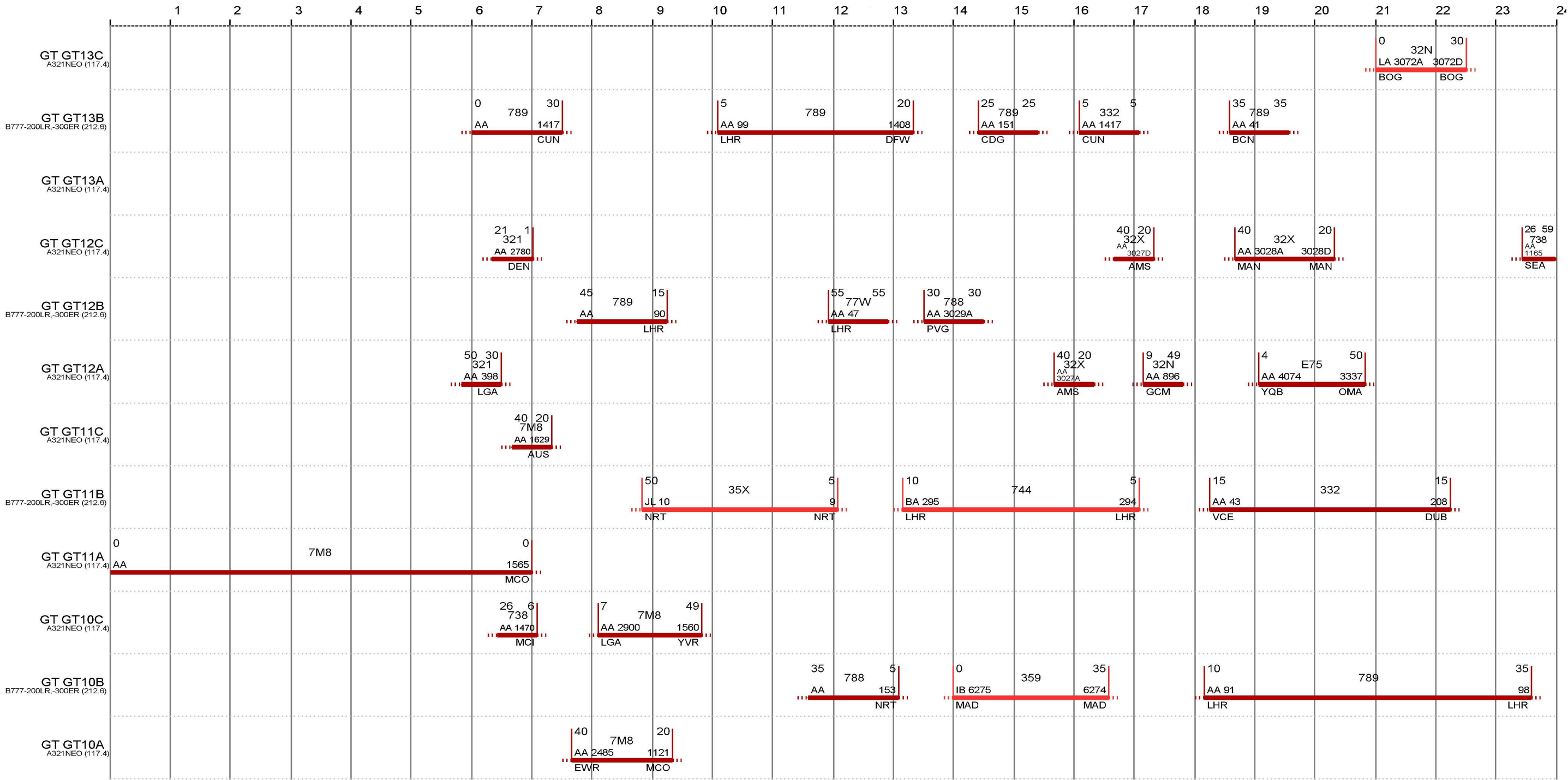
EXHIBIT 1-4 (10 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwg Layout: Ramp Charts (10) Plotted: Nov 4, 2020, 06:42PM

Terminal Area Plan and Air Traffic Procedures EA

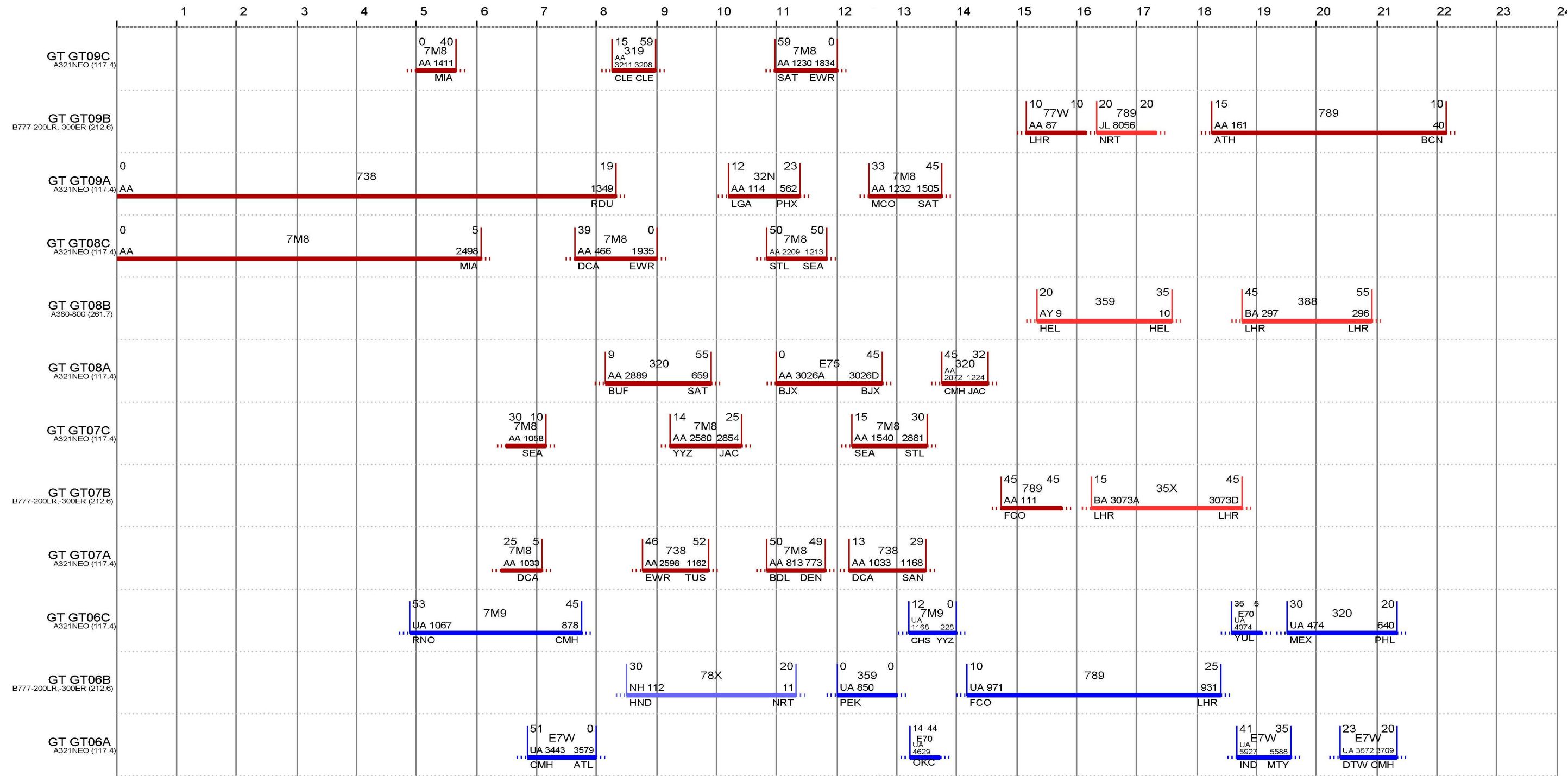
Simulation Data Package - With Project Full Build



SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (11 OF 22)

Ramp Charts



SOURCE: Ricondo & Associates, Inc., December 2019.

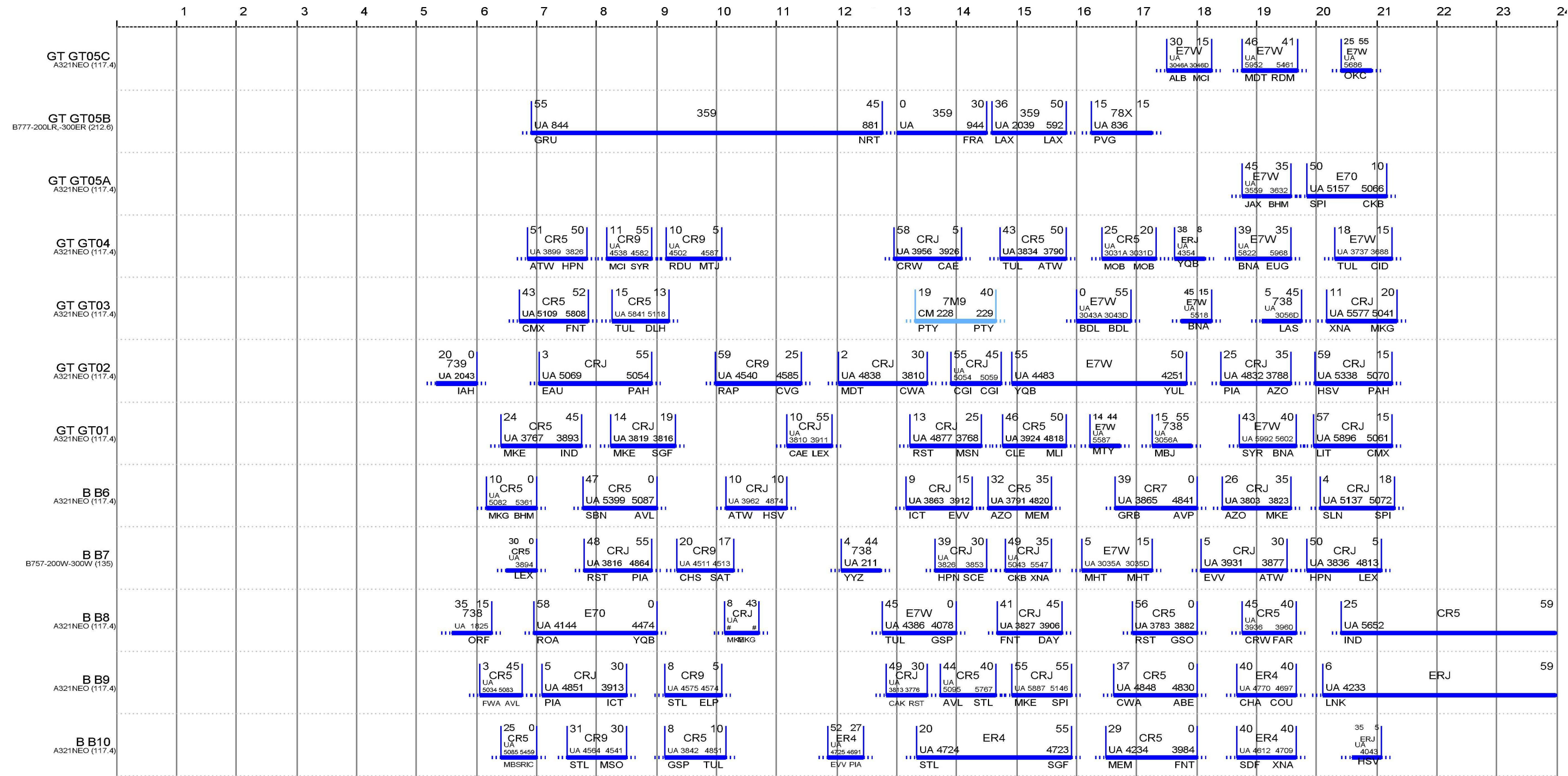
EXHIBIT 1-4 (12 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwg Layout: Ramp Charts (12) Plotted: Nov 4, 2020, 06:42PM

Terminal Area Plan and Air Traffic Procedures EA

Simulation Data Package - With Project Full Build

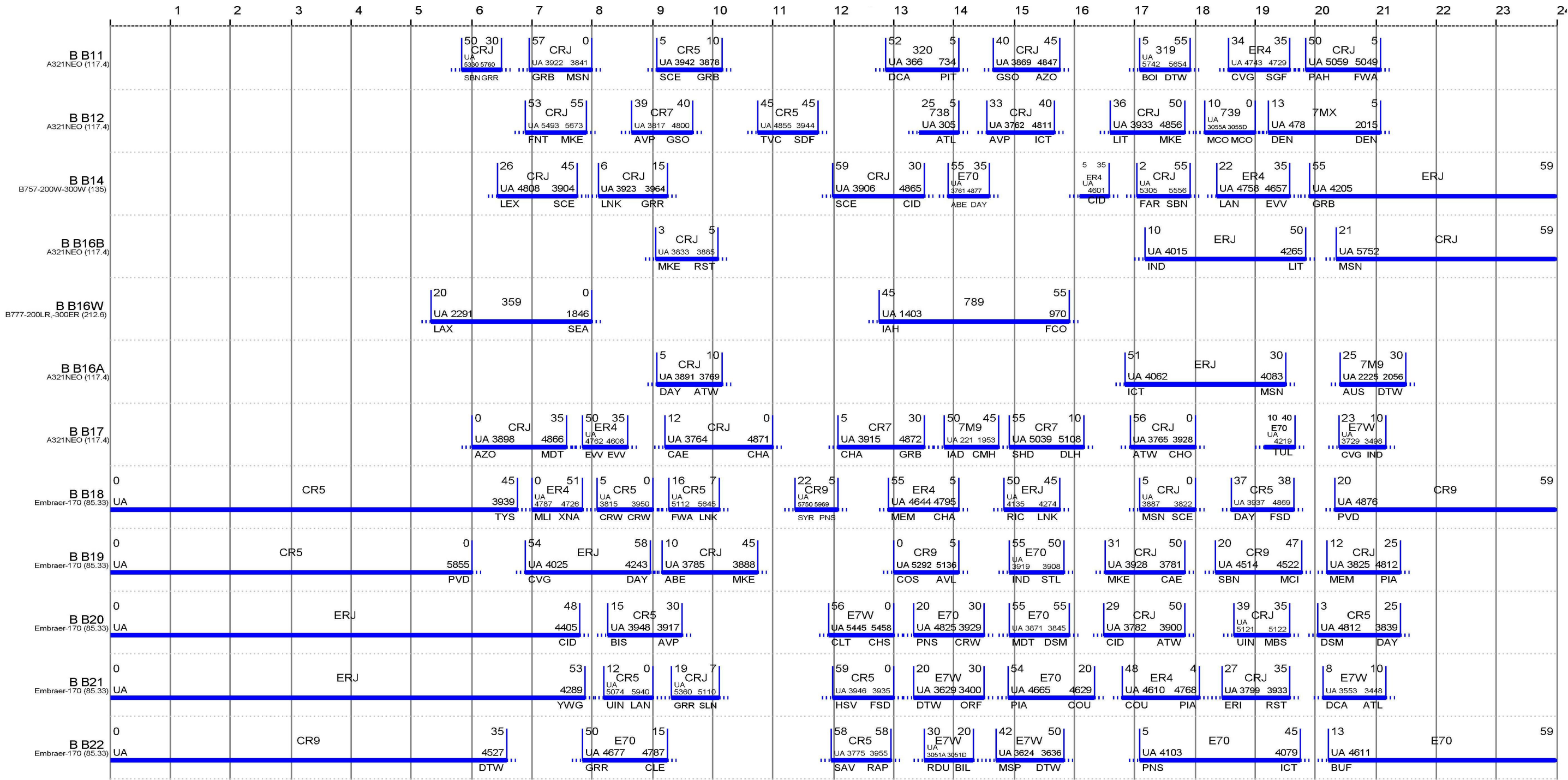


SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (13 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwg Layout: Ramp Charts (13) Plotted: Nov 4, 2020, 06:43PM

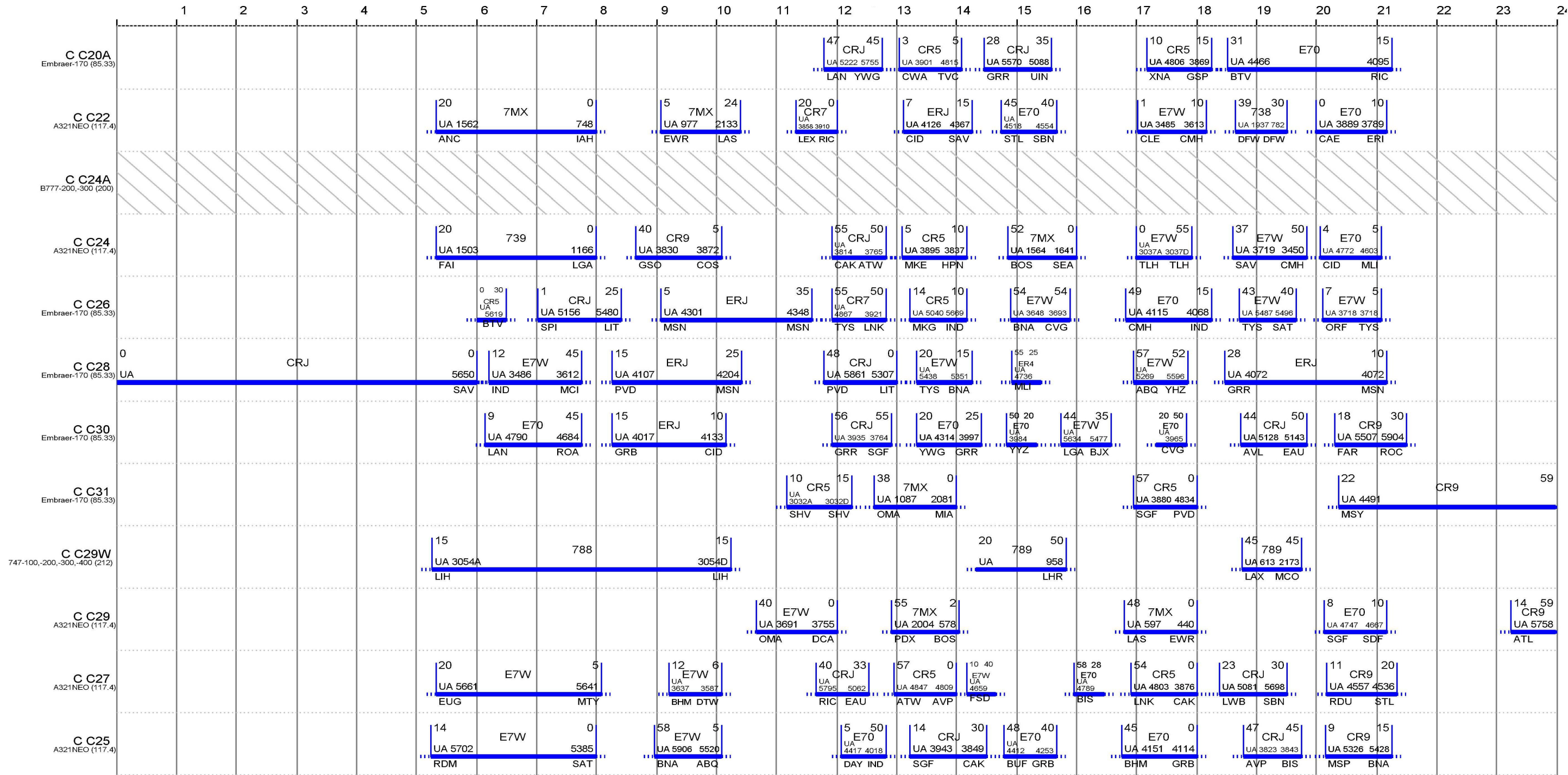


SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (14 OF 22)

Ramp Charts

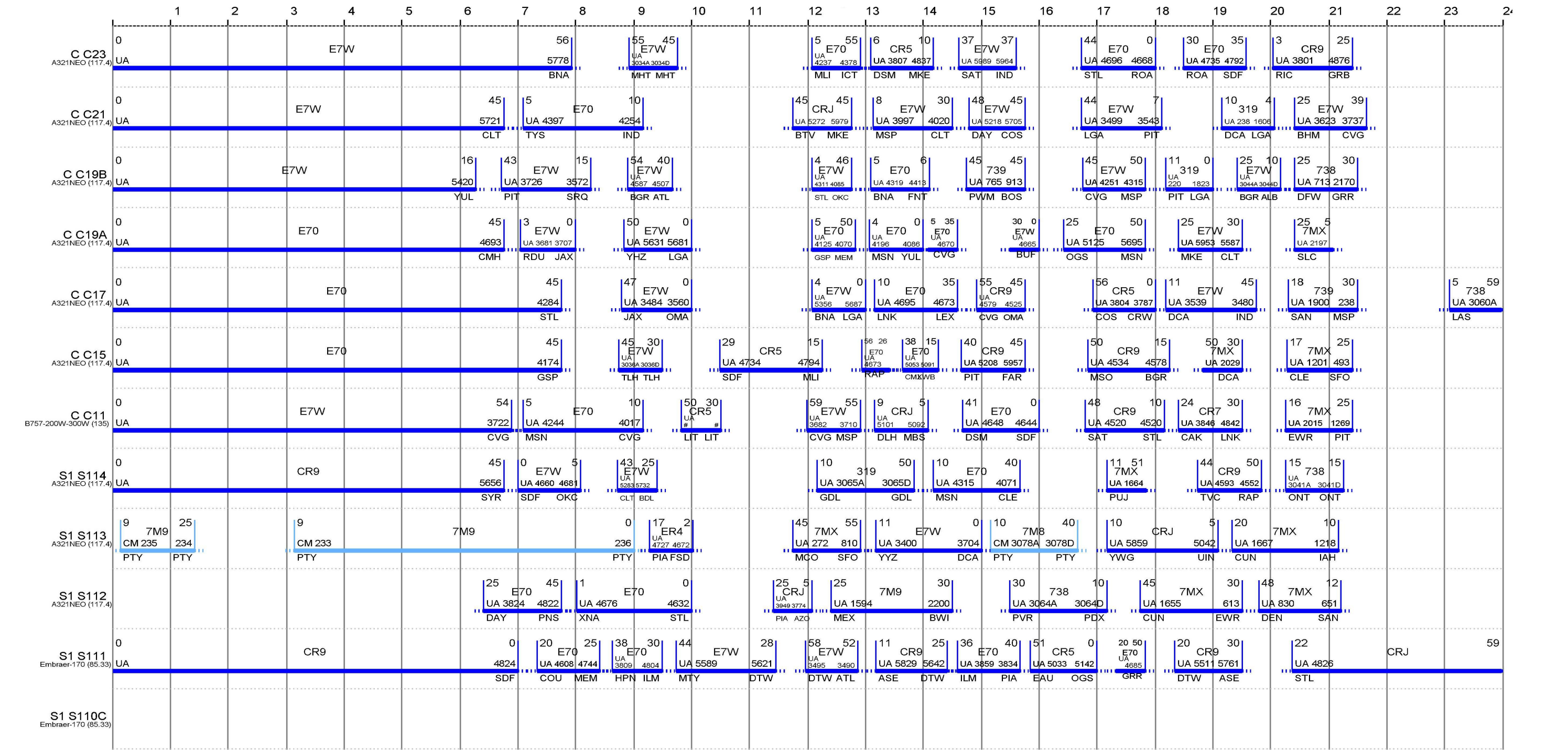




SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (16 OF 22)

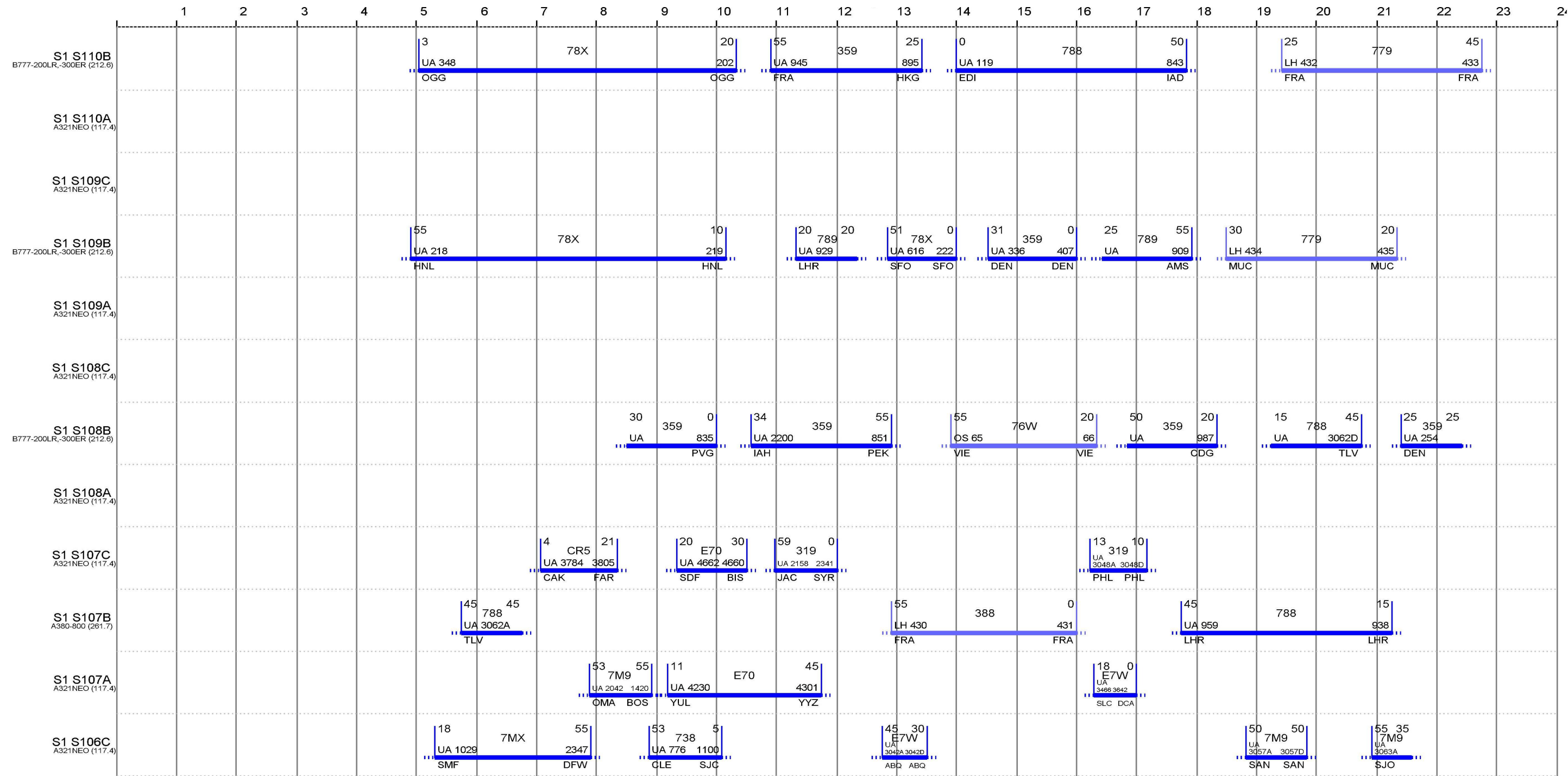
Ramp Charts



SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (17 OF 22)

Ramp Charts

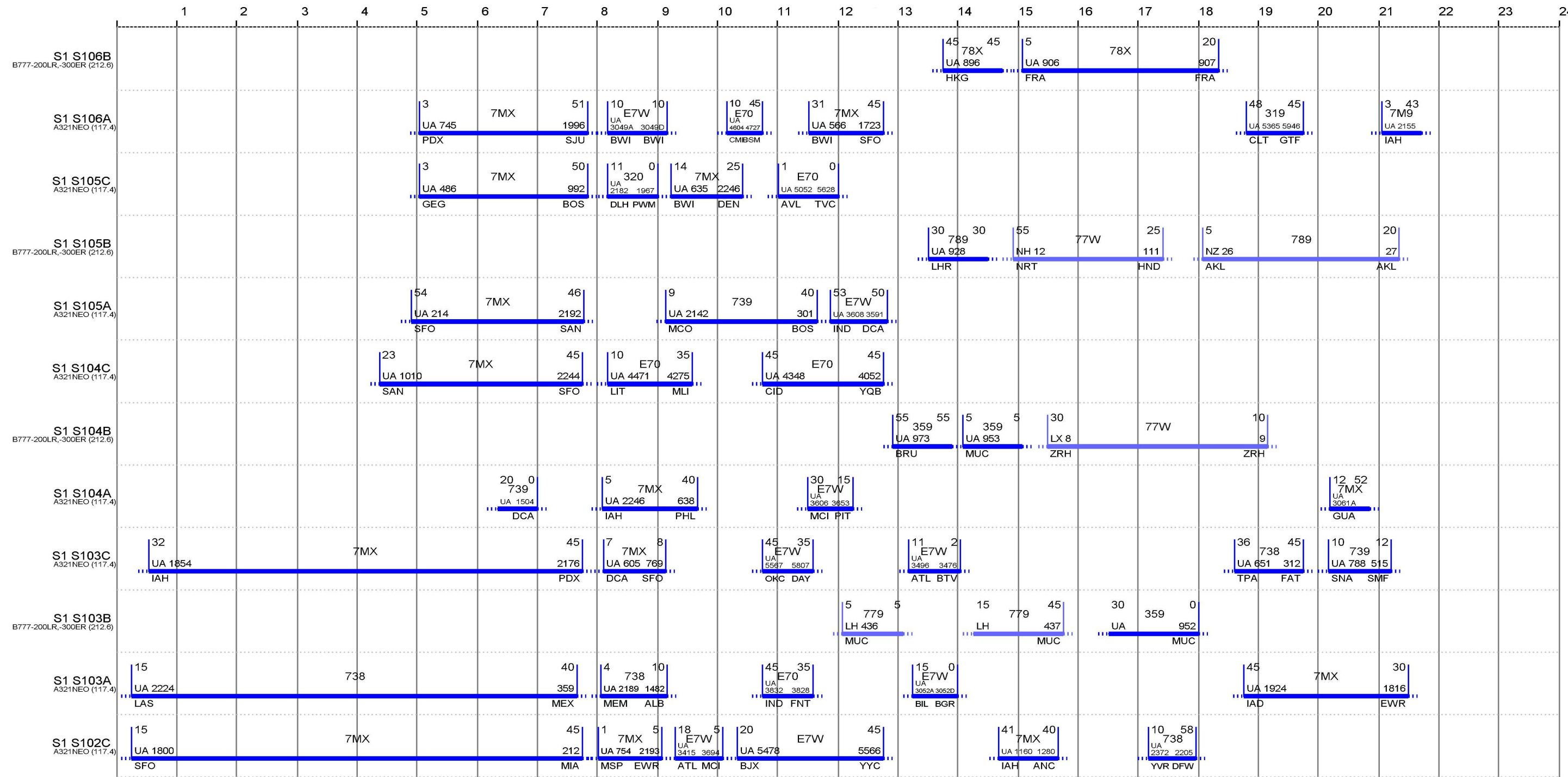


SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (18 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwg Layout: Ramp Charts (18) Plotted: Nov 4, 2020, 06:43PM



SOURCE: Ricondo & Associates, Inc., December 2019.

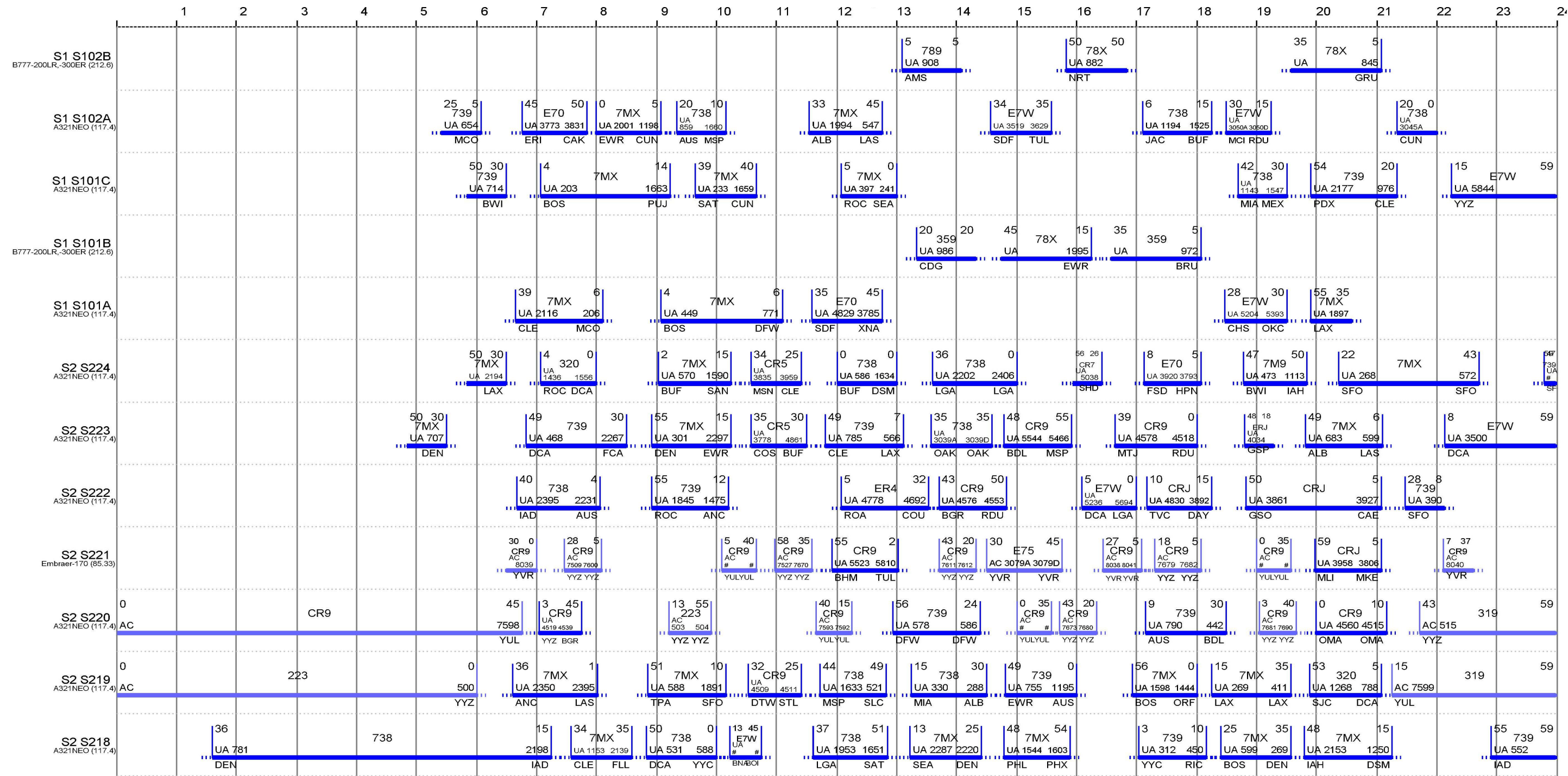
EXHIBIT 1-4 (19 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwg Layout: Ramp Charts (19) Plotted: Nov 4, 2020, 06:44PM

Terminal Area Plan and Air Traffic Procedures EA

Simulation Data Package - With Project Full Build



SOURCE: Ricondo & Associates, Inc., December 2019.

EXHIBIT 1-4 (20 OF 22)

Ramp Charts

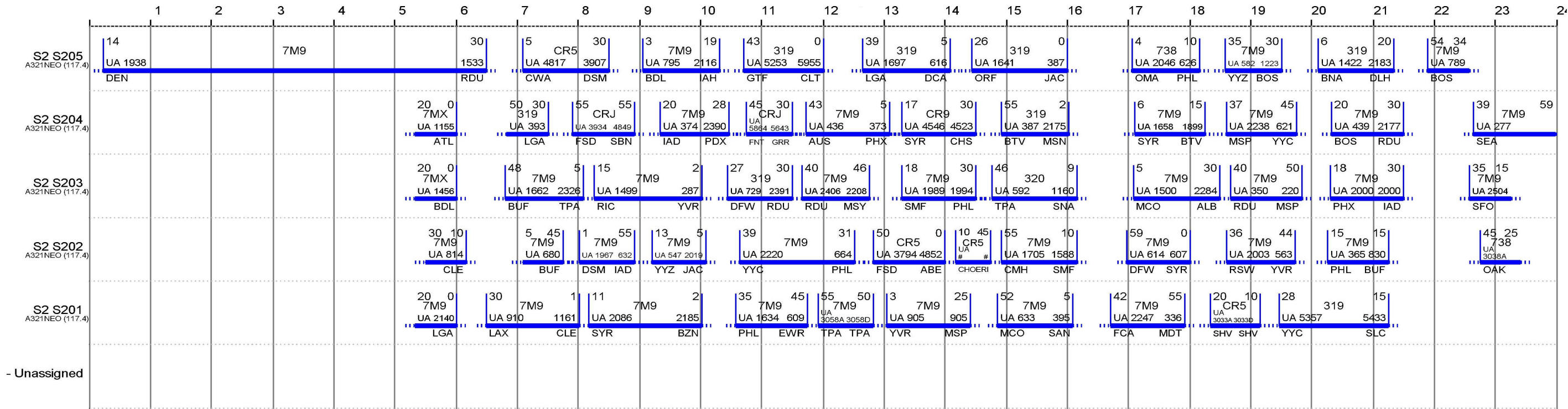
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S2 S217 A321NEO (117.4)						28 UA 1719 BWI	7MX 1740 SNA	17 1740 SNA	48 UA 2133 ALB	5 635 SEA	20 CR5 UA 3030A 3080D MOB MOB	15	4 738 UA 721 498 IAD IAD	15 738 UA 3040A 3040D ONT ONT	20 44 CR9 UA 4558 4528 ATL TVC		56 7MX UA 679 246 PDX TPA	5 19 7MX UA 1180 518 EWR PDX	45 3 738 UA 976 350 SMF MCI	18			48 739 UA 661 LAX	
S2 S216 A321NEO (117.4)	0 UA	738				0 1146 LGA	25 738 UA 761 1266 LGA OMA	26 738 UA 1464 2001 ORF ORF	41 738 UA 1464 2001 ORF ORF	30 10 E70 UA 4634 4711 SGFFAR	45 29 739 UA 305 374 BDL IAH	45 8 7MX UA 2385 656 DEN BUF	15 43 7MX UA 248 1502 PHX FAI	49 56 7MX UA 555 369 SAN LAX	10 25 7MX UA 563 1810 PHL YYZ	35 45 7MX UA 298 670 YVR BOS	10			48 28 7MX UA 2131 IAH				
S2 S215 A321NEO (117.4)						50 7MX UA 1421 ALB	30 56 739 UA 2097 381 LAX PHL	10 42 319 UA 1553 2025 PWM RDU	30 3 E7W UA 5759 5590 BIL DCA	0 12 738 UA 2081 570 ORF YVR	43 19 739 UA 2209 2240 PHL CLE	40 55 25 CR7 UA 5633 TVC		4 7MX UA 1899 597 IAH BWI	15 28 7MX UA 1704 262 CLE SEA	50 10 738 UA 2211 226 MCI BWI	15			46 738 UA 1249 LGA				
S2 S214 A321NEO (117.4)						40 7MX UA 2166 SFO	20 53 320 UA 558 1436 DTW SLC	50 39 319 UA 519 1270 PIT SAV	30 19 738 UA 1850 2397 MCO CMH	45 29 738 UA 2075 549 EWR PDX	50 3 738 UA 656 509 PHX LGA		39 738 UA 2404 994 RSW MCI		10 739 UA 2184 679 BZN ROC	30 50 7M9 UA 483 1261 BUF AUS	15 52 UA 693 LGA				319	59		
S2 S213 A321NEO (117.4)						19 UA 1524 PHX	320 1683 MSP	45 25 320 UA 628 2097 LGA MYR	30 0 7MX UA 775 310 BOS LAX	45 58 7MX UA 1251 230 BOS EWR		39 7MX UA 1728 541 FLL LAS		47 7MX UA 1126 743 MSP SFO	59 50 CRJ UA 3771 4870 ABE CWA	45 7 7M9 UA 1568 PIT								
S2 S212 A321NEO (117.4)						9 UA 1279 YVR	319 2227 CHS	50 25 319 UA 490 1621 BTV BTV	41 30 738 UA 463 2178 LGA SMF	30 44 738 UA 5679 5364 LGA LAS	41 37 738 UA 1213 2212 LGA BNA		44 7MX UA 743 765 EWR DEN	56 45 320 UA 1531 2204 MSN CLE	46 2 7MX UA 670 1186 SEA LAX	20 15 55 738 UA 3059A PDX								
S2 S211 A321NEO (117.4)						6 UA 1285 FAT	320 2306 YVR	45 24 319 UA 5958 5375 DTW TYS	0 0 319 UA 3536 3518 MSY LGA	0 57 320 UA 241 537 ATL DFW	15 5 738 UA 230 1128 SNA IAH		53 320 0 UA 843 639 RDU LGA		38 7MX UA 1219 790 SNA BOS	55 25 319 UA 5854 5691 LGA BOI	30 52 320 UA 1709 2346 LGA MEM	13 55 35 319 UA 2214 LGA						
S2 S210 A321NEO (117.4)						19 UA 619 SEA	7M9 558 ROC	45 2 CR7 UA 3873 3874 FAR ABE	0 16 738 UA 1660 725 MDT PHX	30 25 7MX UA 1605 2167 MSP RSW	50 50 320 UA 1574 2088 PIT OMA	55 12 0 E7W UA 5274 5970 BOI SYR	0 2 320 UA 370 556 ALB BDL	5 3 320 UA 2284 2039 DCA RNO		4 319 UA 4597 4589 ELP CHS	15 31 738 UA 515 2061 CMH IAD	30 19 320 UA 2074 483 BDL PHX	30 15 55 319 UA 3047A PHX					
S2 S209 A321NEO (117.4)						20 0 319 UA 1023 DCA	47 320 50 UA 206 476 GRR YYZ	50 11 320 UA 1888 910 DFW LGA	0 51 320 UA 1496 1505 DCA RAP		42 319 55 UA 5996 5426 YUL AUS	55 8 E7W UA 5950 5965 MCI MDT	0 1 45 319 UA 3618 3581 JAX JAX	5 35 E70 UA 4774 LAN		51 738 45 UA 741 418 LGA PWM	50 59 E7W UA 5636 5267 LGA BIL		19 UA 3941 ICT		CR5		59	
S2 S208 A321NEO (117.4)						20 UA 995 SFO	7M9 1272 PIT	50 5 319 UA 3621 3686 IND DCA	0 20 319 UA 3587 3675 CVG BNA	42 26 320 UA 286 2075 CMH MCI	45 25 739 UA 913 397 SAN TPA	40 52 320 UA 2283 1476 SAV PIT		58 320 0 UA 692 692 MCI LGA		42 7MX UA 841 2046 SJC GEG	10 20 319 UA 3442 3738 ATL MSY	22 0 40 320 UA 2199 DFW						
S2 S207 A321NEO (117.4)						20 UA 637 LAS	7M9 742 RSW	45 5 319 UA 3607 3544 ICT YYZ	57 12 319 UA 1505 1911 MCI DCA		15 27 CRJ UA 4821 3770 SBN MDT		7 7MX UA 2129 2004 SJC ROC	17 52 36 319 UA 3750 3700 CLT BHM		52 319 5 UA 1810 702 RAP CLE	5 48 7M9 UA 1778 2003 STL SNA	30 14 738 UA 640 1937 LAS CLT	37 57 319 UA 658 MSP					
S2 S206 A321NEO (117.4)						24 7MX UA 342 BOS	4 59 7MX UA 2139 427 EWR EWR	10 39 7M9 UA 2409 776 PHL MCO	5 49 319 UA 609 1741 DCA LGA		0 57 CR5 UA 3768 3860 FAR GSO		48 320 48 UA 1444 2169 MYR DFW		44 319 0 UA 1979 624 DSM DCA	0 47 7M9 UA 518 1883 ROC SJC	50 14 UA 5056 DLH			CR5		59		

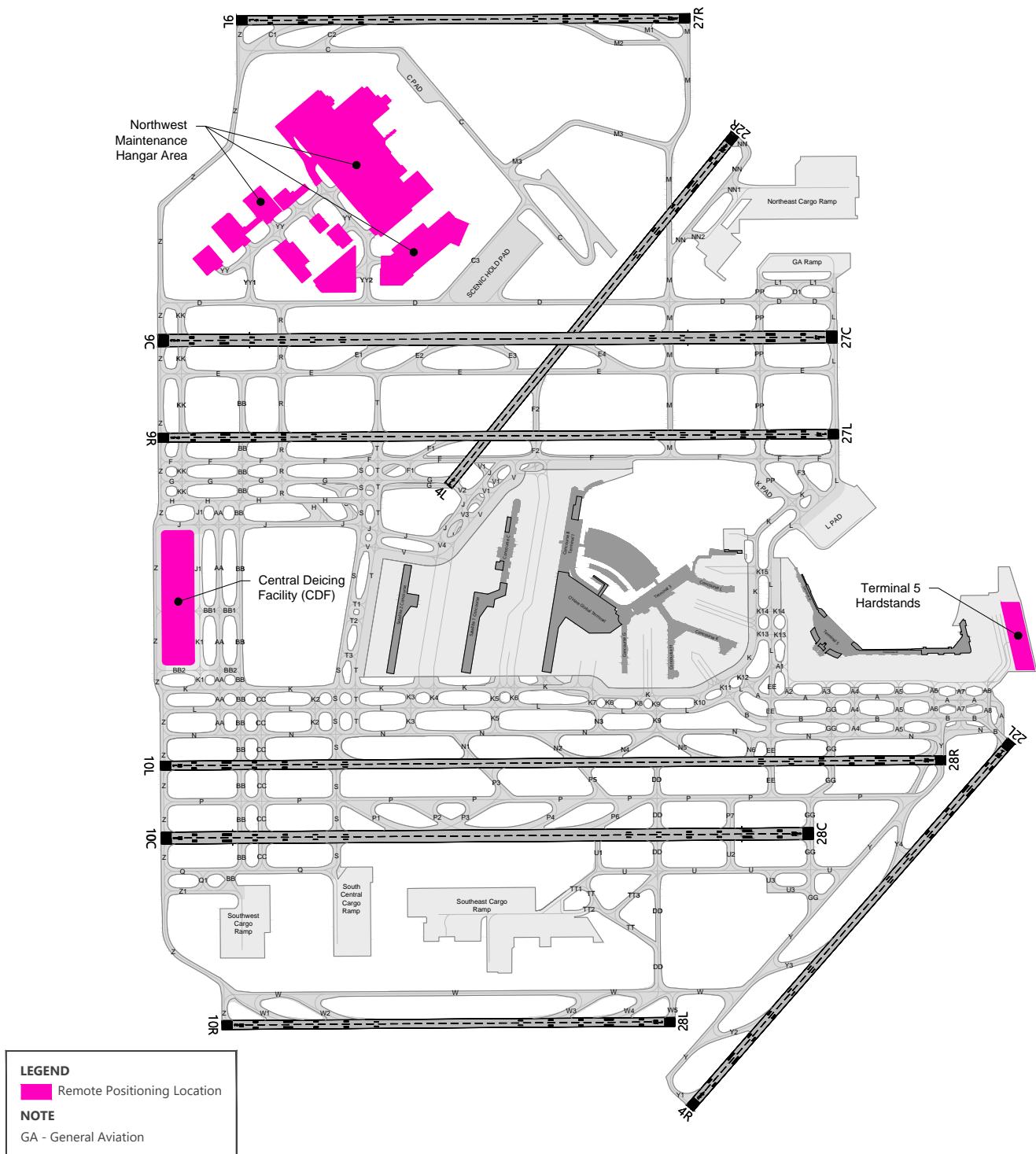
SOURCE: Ricondo & Associates, Inc., December 2019.

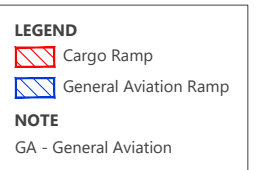
EXHIBIT 1-4 (21 OF 22)

Ramp Charts

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwgLayout: Ramp Charts (21) Plotted: Nov 4, 2020, 06:44PM







1.6 Arrival Fixes by Departure Airport

Arrival fixes were assigned based on the location of the departure airport. **Exhibits 1-7** and **1-8** depict the arrival fix assignments for West Flow and East Flow, respectively.

1.7 Taxi Speeds

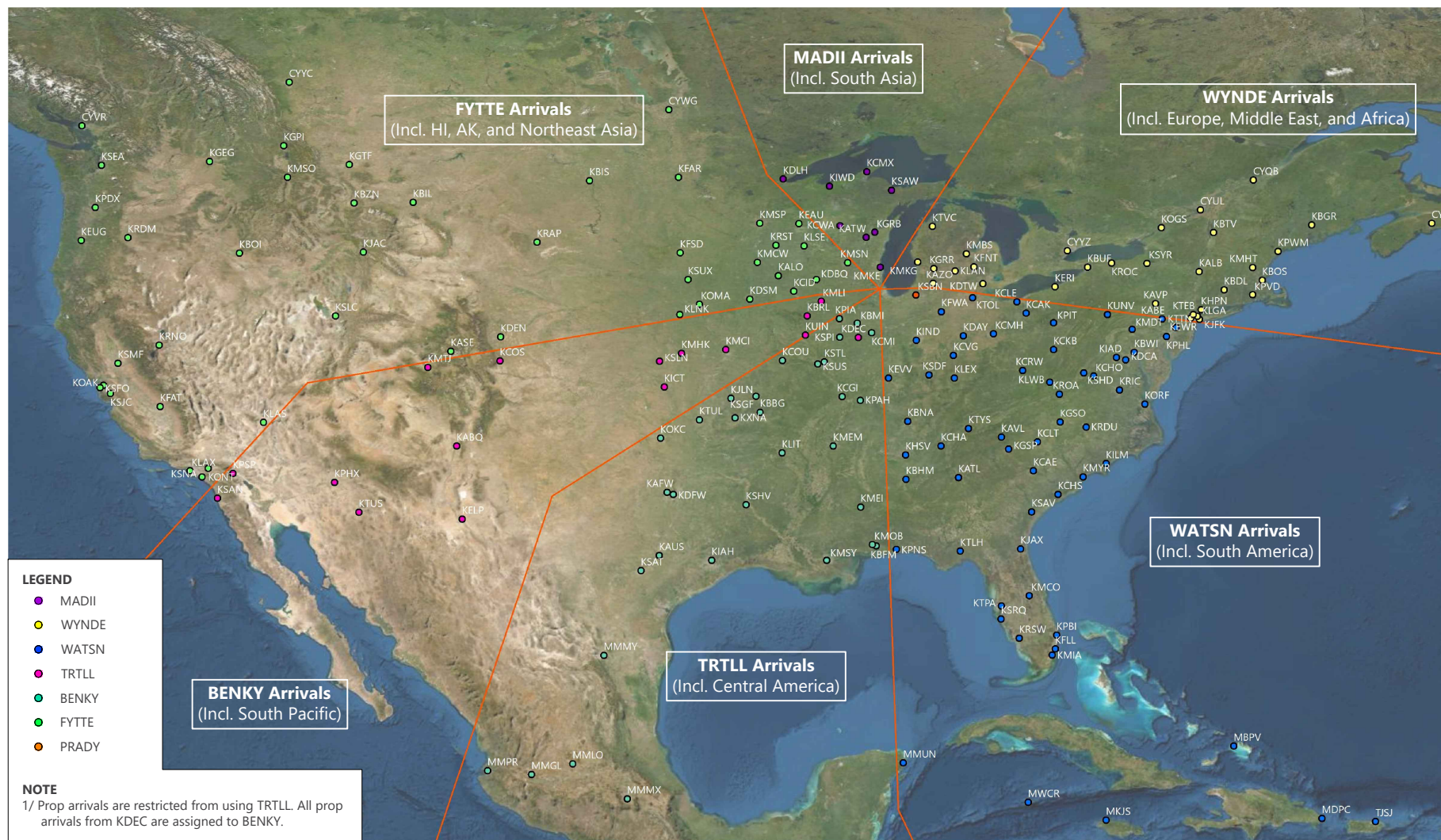
Taxi speeds were established for taxiways and aprons. **Exhibits 1-9** and **1-10** depict the taxi speeds for West Flow and East Flow, respectively.

1.8 Intersection Departure Procedures

Departures utilizing Runways 9R-27L and 10L-28R are encouraged to use intersection departure procedures whenever possible so that arrivals from the outboard runways (Runways 9L-27R, 9C-27C, 10C-28C, and 10R-28L) can taxi behind departing aircraft, reducing delay incurred by both arriving and departing aircraft. However, some departures cannot use intersection departure procedures due to runway length requirements. A subset of widebody⁷ operations that is representative of the characteristics of the operations that typically utilize the full length of the departure runway was restricted from using intersection departure procedures. This subset was defined based on the airline and the great circle distance⁸ from O'Hare to the destination airport. **Tables 1-2** and **1-3** detail the air carrier operations and cargo operations, respectively, that were in the DDFS and restricted from using intersection departures.

⁷ This refers to aircraft with a fuselage wide enough to accommodate two passenger aisles.

⁸ This is the shortest distance between two points on the surface of a sphere, measured along the surface of the sphere.



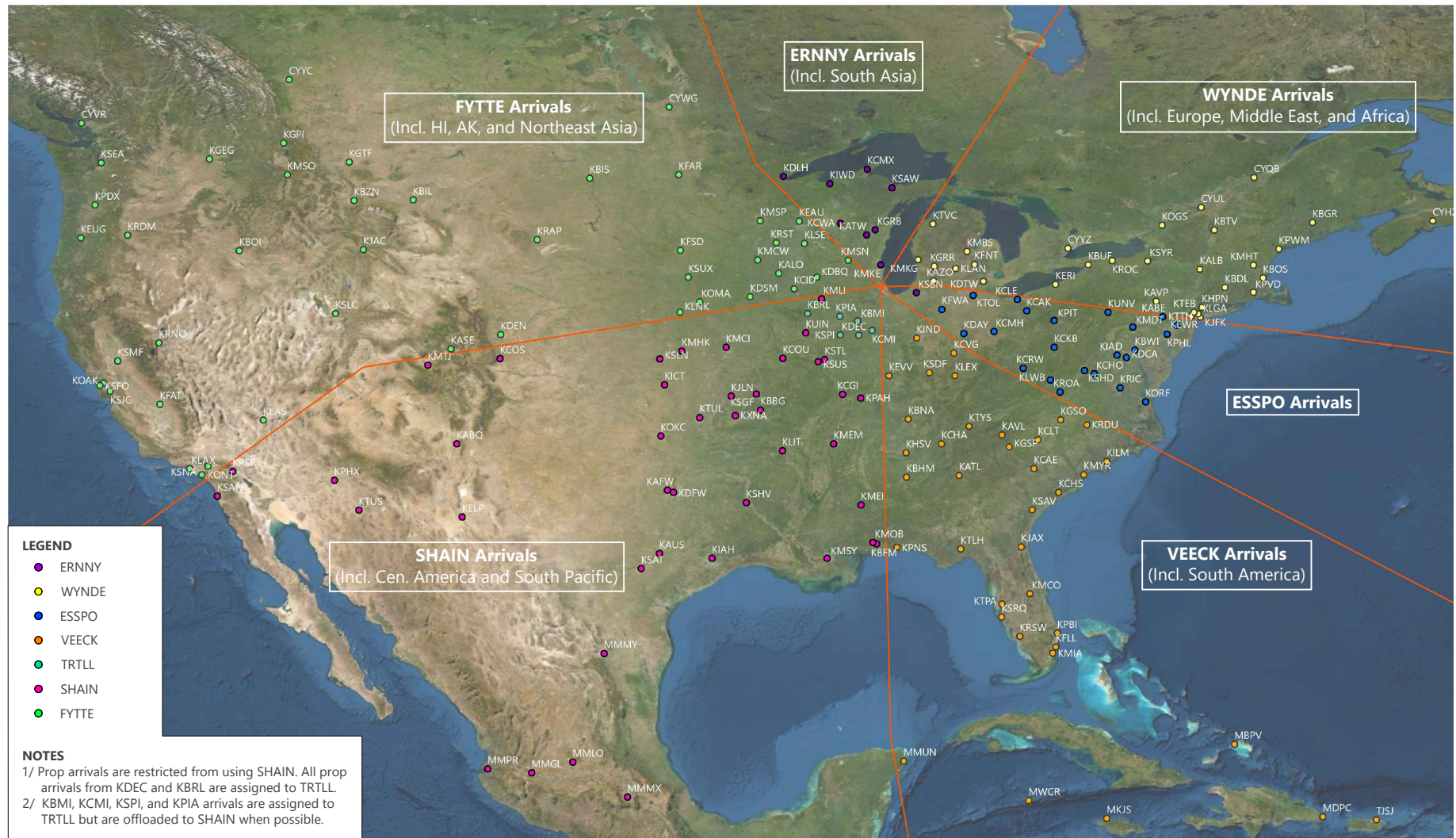
SOURCE: Terminal Area Plan and Air Traffic Procedures Environmental Assessment Air Traffic Workgroup, August 2019.

EXHIBIT 1-7

Arrival Fixes by Departure Airport West Flow



Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\04-Airspace\AutoCAD\KORD TAP EA - Arrival Fixes by Departure Airport.dwg Layout: WPFull_West Plotted: Oct 30, 2020, 04:22PM



SOURCE: Terminal Area Plan and Air Traffic Procedures Environmental Assessment Air Traffic Workgroup, August 2019.

EXHIBIT 1-8

Arrival Fixes by Departure Airport East Flow



Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\04-Airspace\AutoCAD\KORD TAP EA - Arrival Fixes by Departure Airport.dwg Layout: WPFull_East Plotted: Oct 30, 2020, 04:22PM