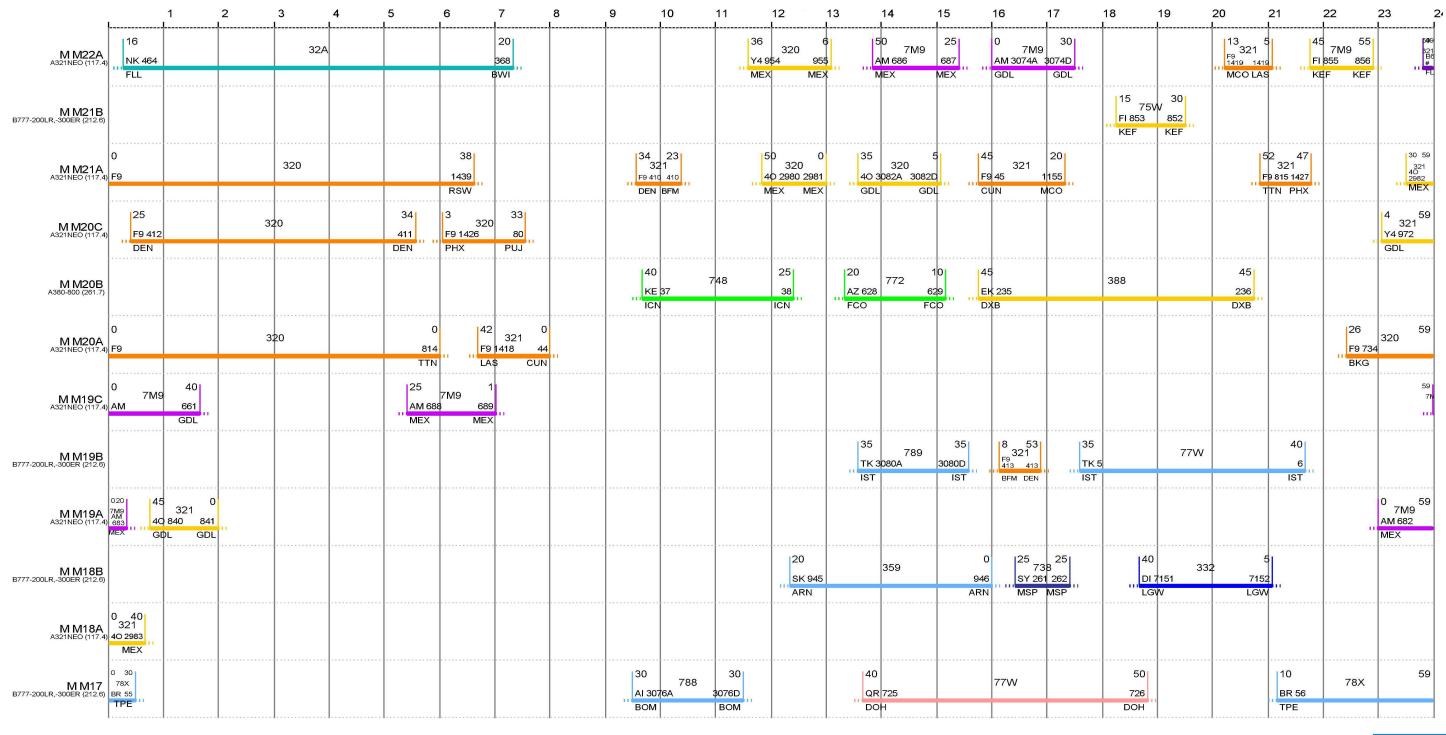


EXHIBIT 1-4 (1 OF 22)



NOVEMBER 2020

EXHIBIT 1-4 (2 OF 22)

Ramp Charts



	L	1	2	3	4 1	5 L	6 I	7 	8 I	9	10 !	11 1	12 I	13 L	14 L	15 I	16 I	17 I	18 1
M M16 B747-800 (224.6)														20 HU 230 PEK		20 807D РЕК		11	5 4 943 PH
M M15 B777-200LR,-300ER (212.6)								25 AI 127 DEL			77W			30 126 DEL		30 RJ 26 AMM	3	78	7
M M13 B747-800 (224.6)									55 789 ET 510 DUB	30 511 ADD						30 LO 9 KRK		25 2 WAW	
M M12 B777-200LR,-300ER (212.6)													40 MU PV0	773 255 3	50 256 PVG		15 59 3068A 30 MCO M	068D	20 OZ 2 ICN
M M11 A380-800 (261.7)															1 31 320 ^{1438 735} sw вкс	U	5 TP 229 LIS	339 228 LIS	
M M10 B777-200LR,-300ER (212.6)														40 C> HP	35X 806	20 807 HKG	10 EY 151 AUH		77
M M9 B777-200LR,-300ER (212.6)													15 CA 3077/ PEK		15 77D PEK		30 DY 7 BCN		30 7156 BCN
M M8 B777-200LR,-300ER (212.6)														n	55 77 KL 611 AMS	072 612 AMS		10 AF 136 CDG	789
M M7C A321NEO (117.4	>						35 73 		22 32N DL 2424 MSP M	2424		14 59 739 ^{DL} 972 972 ATL ATL	ū		2	50 30 320 550 2560 1SPMSP	195	25 738 8 1958 L ATL	3: DL 30 SI
M M7B B777-200LR,-300ER (212.6)																			
M M7A Embraer-170 (85.33)	0) DL			E7W			29 3530 JFK		11 46 E7W ^{DL} # #			54 30 E7W ^{DL} # BOBOS			56 31 CR9 ^{DL} 6210 6218 RDIRDU	4 40 E7W ^{DL} # #			
M M6 A321NEO (117.4	0) DL			22	3			45 306 LGA	271	35 223 8 2012 A ATL	15 59 739 2183 2183 ATL ATL	11	31 1 223 DL 2818 173 DTVMS	0 4 3P		54 45 223 _{DL} 1458 2775 LGA LGA			13 5 738 DL 1567 15 SLC SI

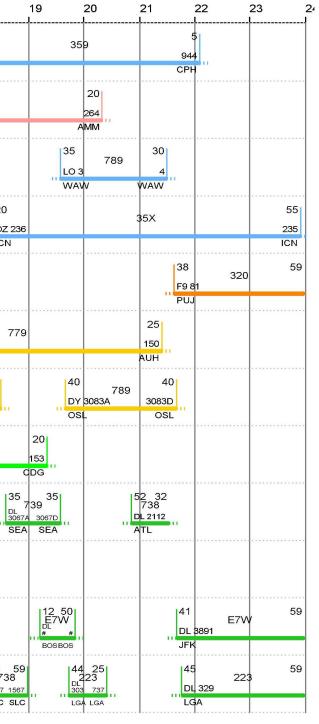


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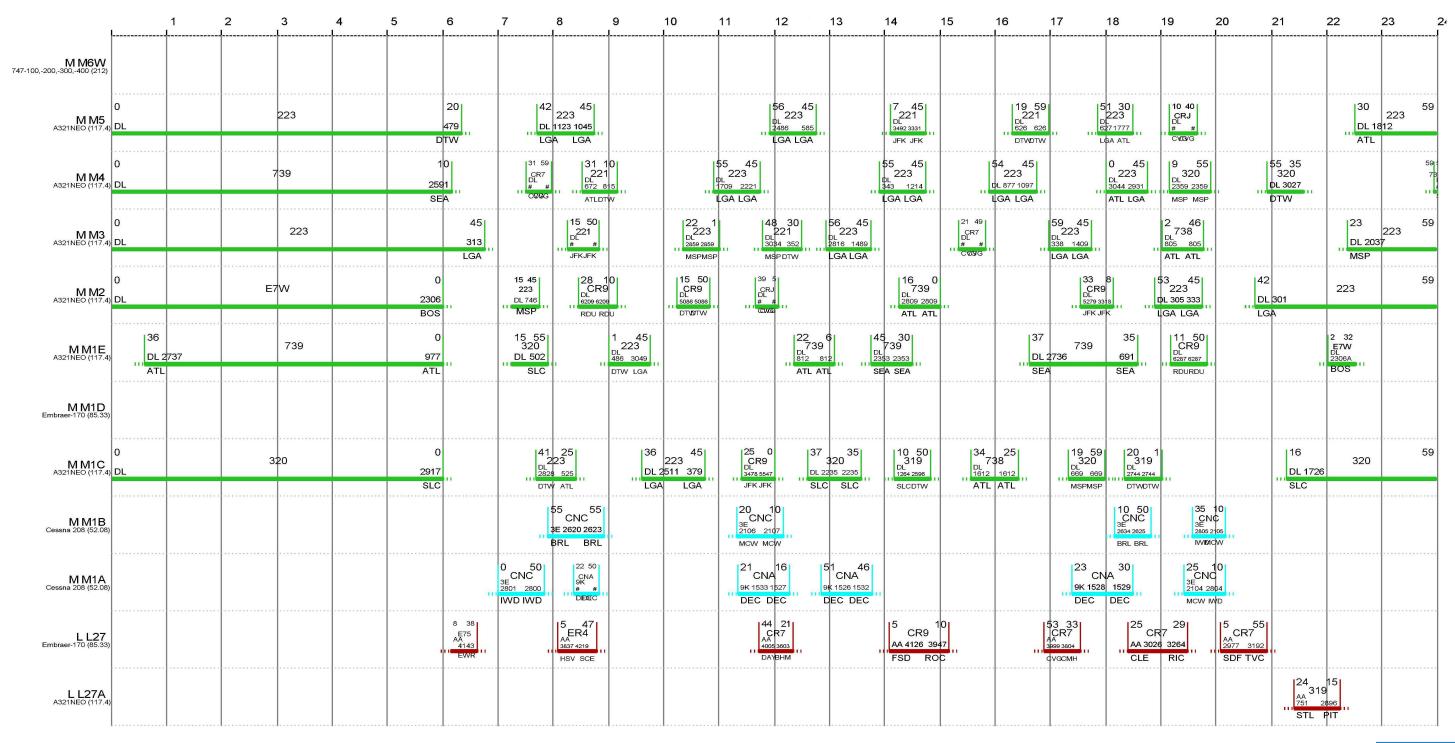
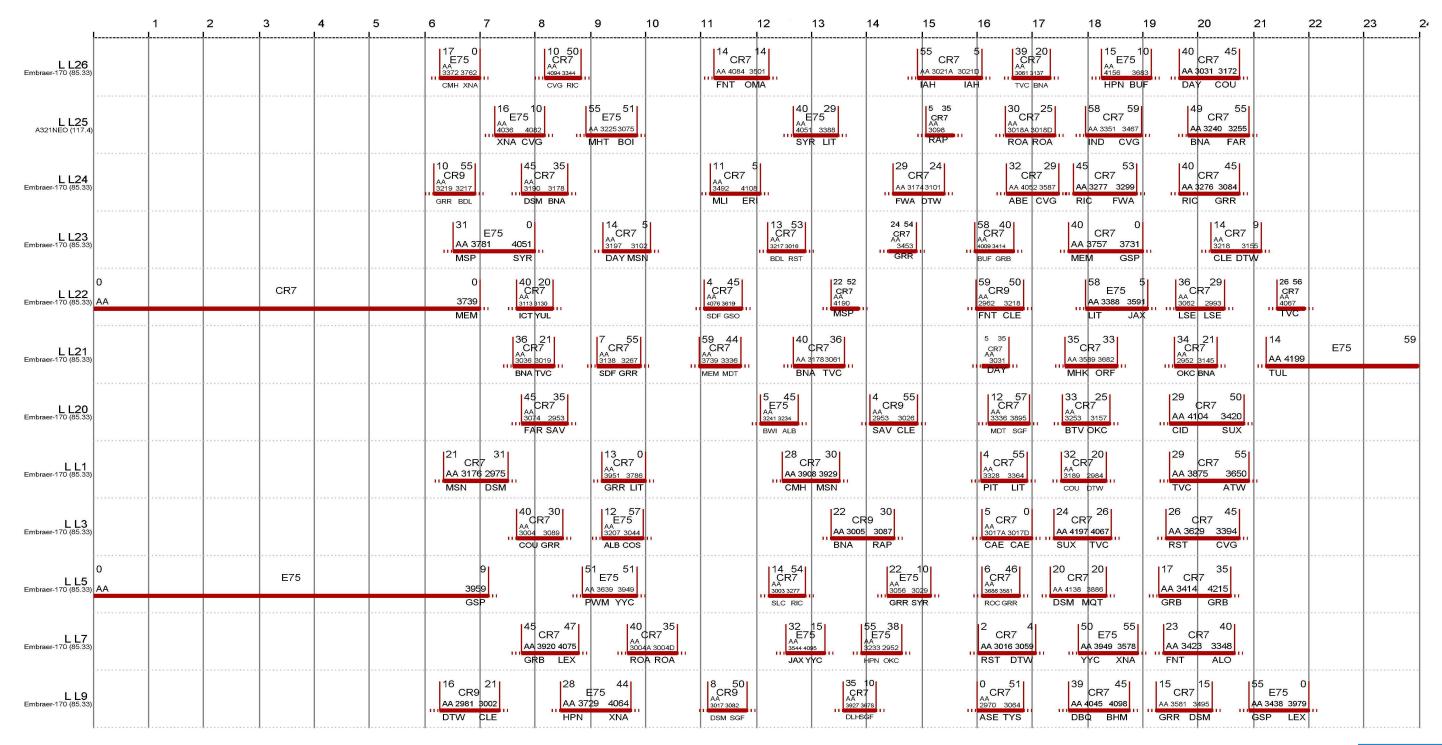


EXHIBIT 1-4 (4 OF 22)



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EXHIBIT 1-4 (5 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build

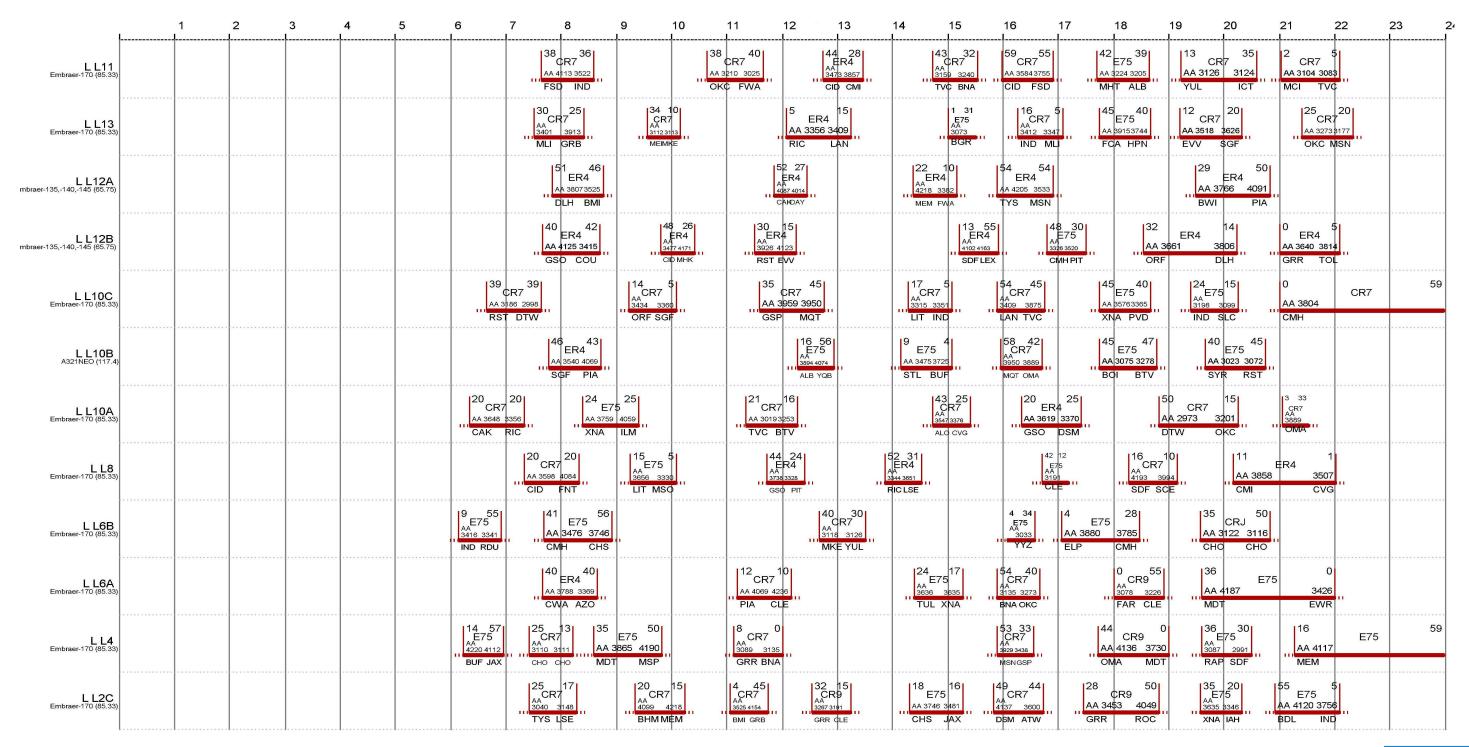
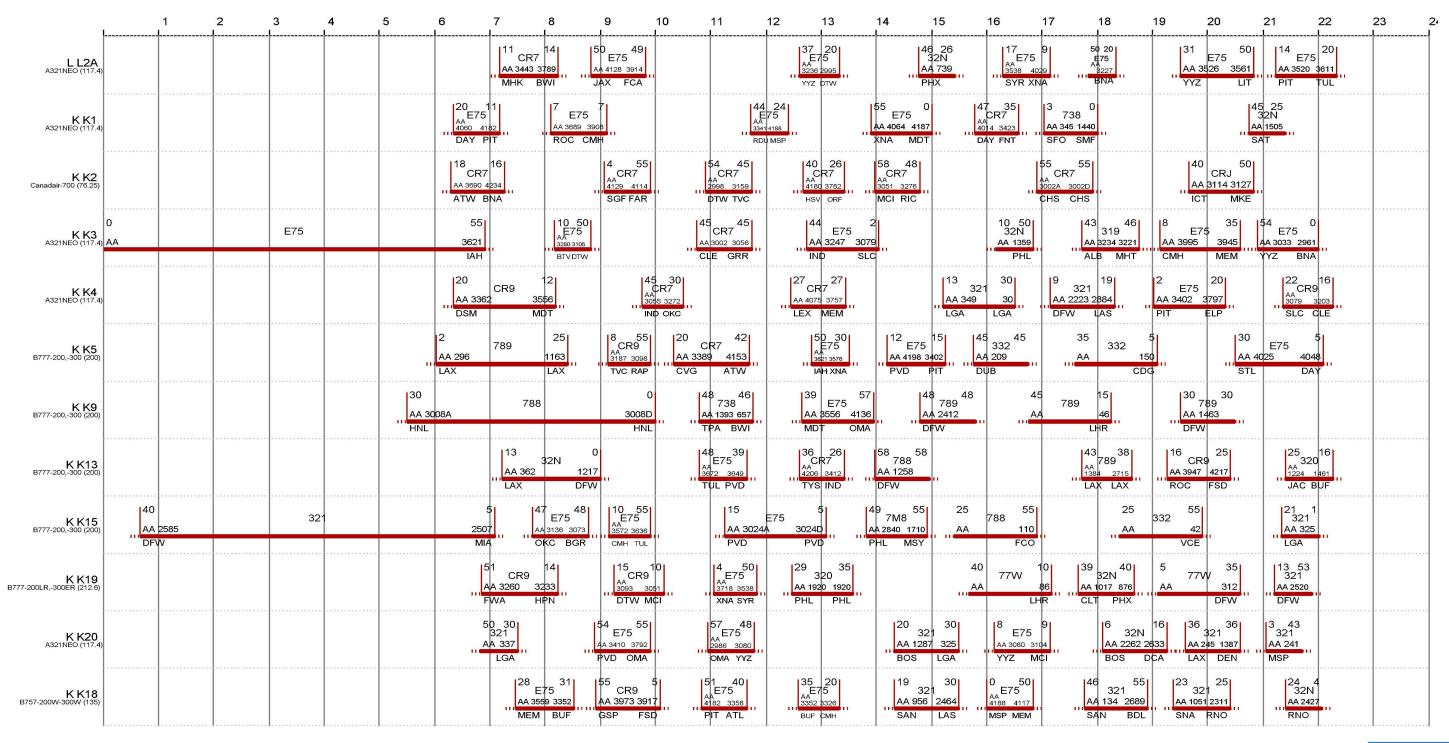


EXHIBIT 1-4 (6 OF 22)



NOVEMBER 2020

EXHIBIT 1-4 (7 OF 22)

Ramp Charts

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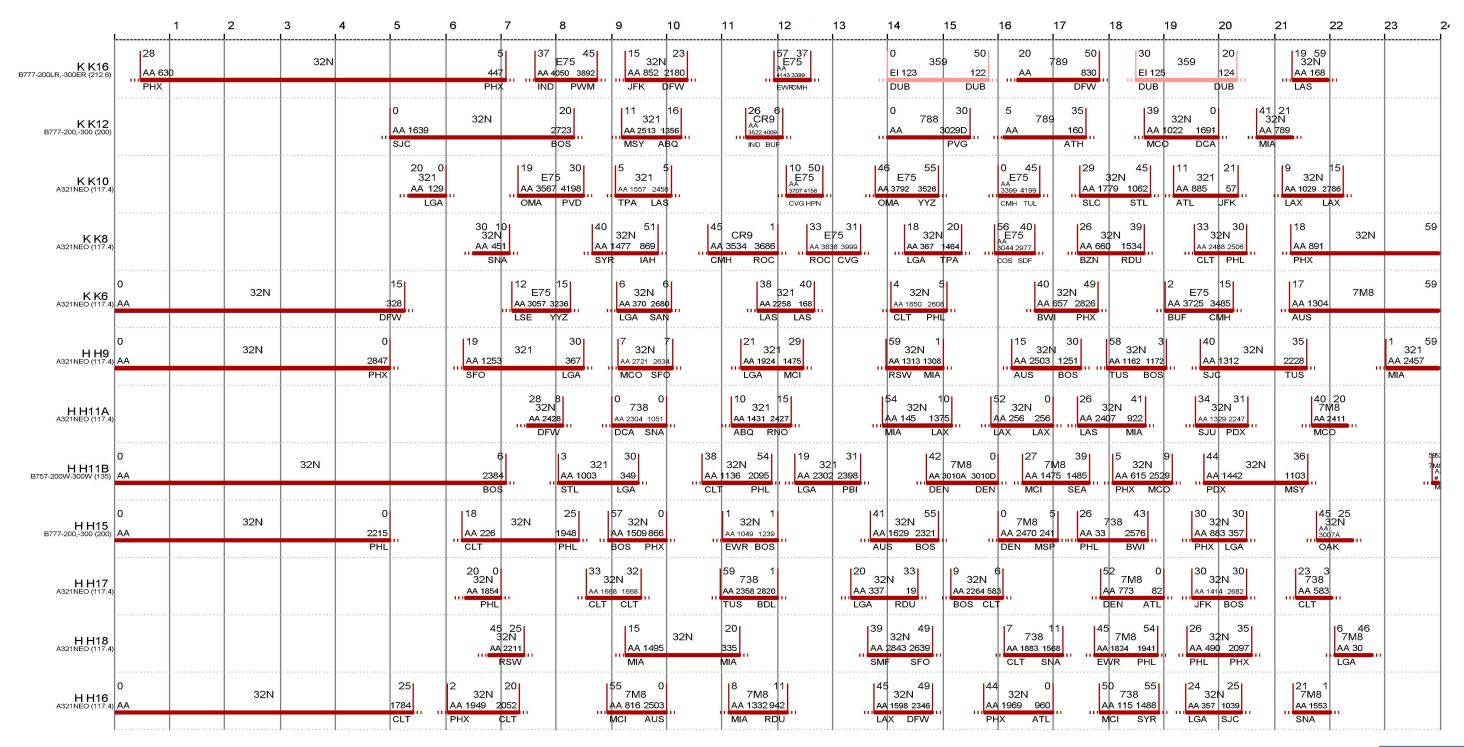


EXHIBIT 1-4 (8 OF 22)

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H H14 A321NEO (117.4)							10 AA 2324 PHL		18 878 CLT	55 40 CR7 3019A 3019D LNK LNK	25 	0 32N 71 2744 LAX	AA CL	50 32N 2817 1315 T IAH	35 4A 3012/ SEA	35 7M8 a 3012D a SEA	3 7M8 AA 869 115 IAH SJ		7M8 2820 1247
H H12 A321NEO (117.4)	0 AA		3	2N		0 140 BOS		19 7N AA 1110 PHL		0 2 7M8 AA 2849 1779 RDU SLC		14 738 AA 1167 11 DCA TE	01 AA 6	35 32N 601 601 X PHX	59 7M8 AA 2517 28 SJC AT	28	32N	1 0 32N AA 2881 1543 STL SAN	
H H10 A321NEO (117.4)								30 AA 4140 LEX	25 R9 3838 ROC	52 1 7M8 AA 1426 28 PIT CM		59 59 7M8 AA 242 1467 BOS PDX		30 2N 96 2796 MIA	14 738 AA 496 DCA		11 7M8 AA 1537 2 RDU EV	3 8 2 A	50 50 319 A 3825 3605 ASO IND
H H8 A321NEO (117.4)									35 321 383 395 SJU	55 57 7M8 AA 2582 1045 BWI SEA	ui i	4 3 738 AA 1110 1167 MCO DCA		3 0 738 AA 2780 1165 DEN SEA		25 71 3023A MCO		10 32 [,] AA 1356 ABQ	
H H6 A321NEO (117.4))						15 55 7M8 AA 998 MSP	35 73 AA G	896 CM		14 55 E75 AA 3801 3475 ELP STL	AA 17	30 21 ^{34 381} / LGA	2 54 AA 2667 1486 RDU DCA	PWM	25 19 4120 I BDL		12 31 AA 1573 SAT	2852 YYZ
H H5 A321NEO (117.4)	0 AA			7M8			30 345 SFO	16 32 AA 1980 ATL	0 1438 MIA	55 56 7M8 AA 1574 1312 ATL SJC	u 1	6 5 32N AA 2327 1553 AUS SNA		7 52 7M8 A 2754 115 FW MCI		26 19 ₃₉₉₅ CMH	59 7M8 AA 2691 2499 SFO DCA	AA 364	29 19 ^{49 3987} PWM
H H4 A321NEO (117.4)							25 32N AA 130 AT	¢ <u>AA</u>	19 v18 1637 PIT		AA 10 DFW	44 321 52 272 JFK		7M8 3005A 3005D SP PSP			15 AA 2853 IAC	319	29 1173 PIT
H H3A Canadair-700 (76.25)							15 CR7 AA 3149 2 CLE O	986 AA 4 MA ALC	ER4 1085 4005 DAY	2 50 CR7 3342 3763 AVP BNA	10 AA 3022A 3022I JAX JA	* 		14 2 CR7 4238 4138 DSM DSM		ŝ	4 39 CR7 682 3062	Å	0 20 CR7 3194 DAY
H H2 Canadair-700 (76.25)							14 1 CR7 AA 314732 TVC BV	41 3879	30 ER4 4206 X TYS	0 51 CR7 3150 3247 BNA IND	0 551	16 1 CR7 3148 3223 LSE MHT	MSN	26 R7 2 3078 FAR	25 ER AA 4154 GRB	APA 411 BMI EI			50 53 ER4 VA 3406 389 CWA MSI 6 50
H H1B Canadair-700 (76.25)							113	CMH 134	401		0 55 AA 3009A 3009D BUF BUF		34 CF 3071 CLE	COU	CRJ AA 3130 3122 YUL CHO	32	CR7		ER4 3624 3924 OL GSO
H H1A Canadair-700 (76.25)							CR7 AA 4214 3 TOL C	389 AA 3 VG JLN			55 45 CR7 3003A 3003D CAE CAE	110 551	26 1 CR7 3105 29 DTW F	NT	131		MEI	143	13 CR7 4013 4 SGF A
G G1B Canadair-700 (76.25)							14 1 CR7 3088 3055 FNT IND			49 55 CR7 AA 3535 4238 MQT DSM		10 55 ER4 4235 3547 BNA ALO	39 AA 3111 CH0		CR. AA 3115 31 ICT IC		7 49 ER4 3466 3343 JLN AZO		ER4 3732 3692 VA CMI

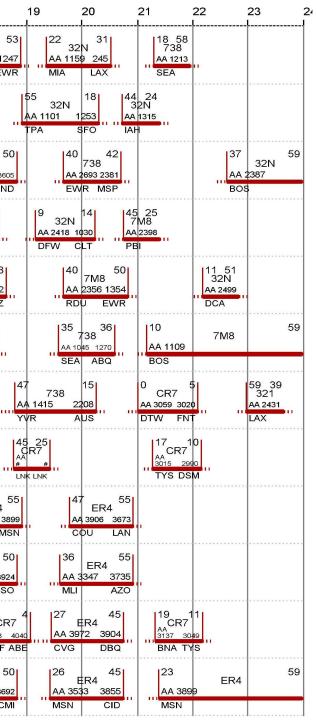


EXHIBIT 1-4 (9 OF 22)

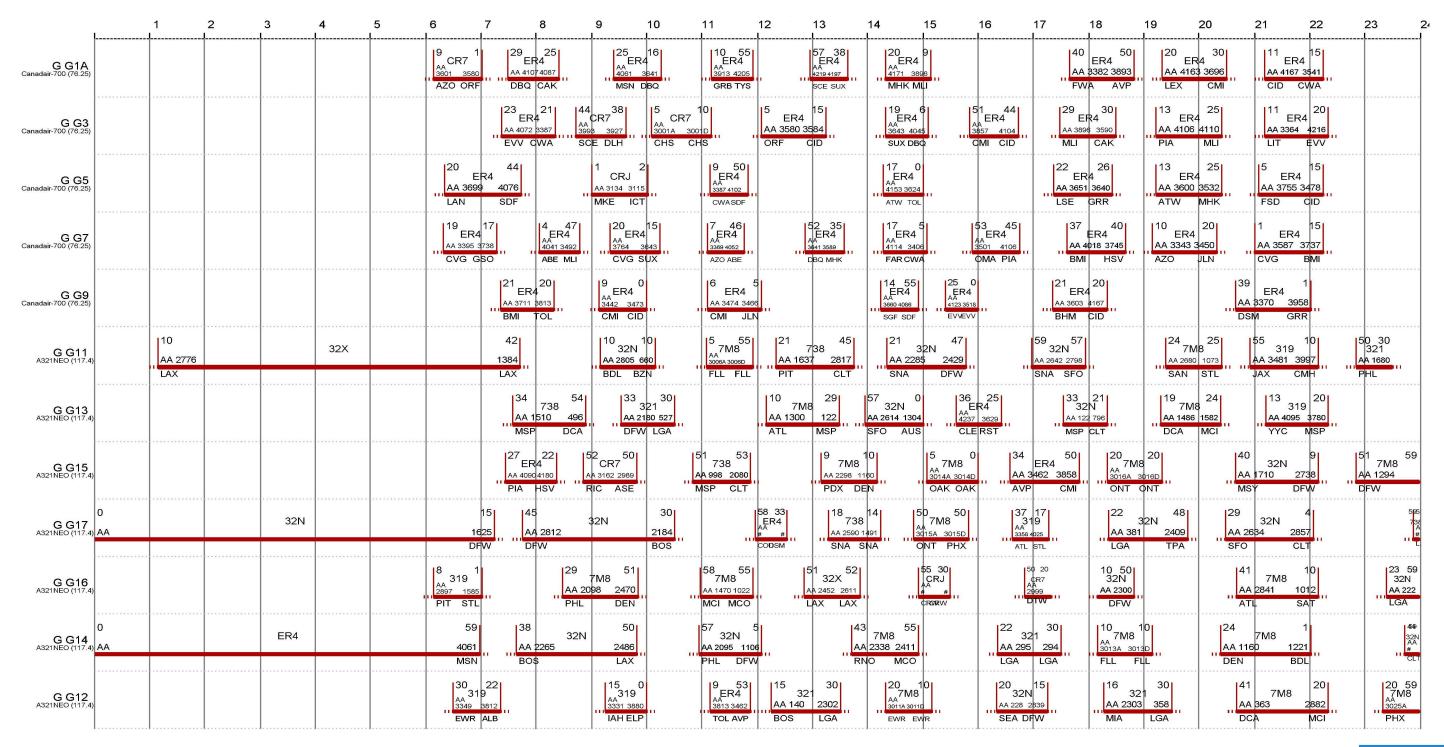
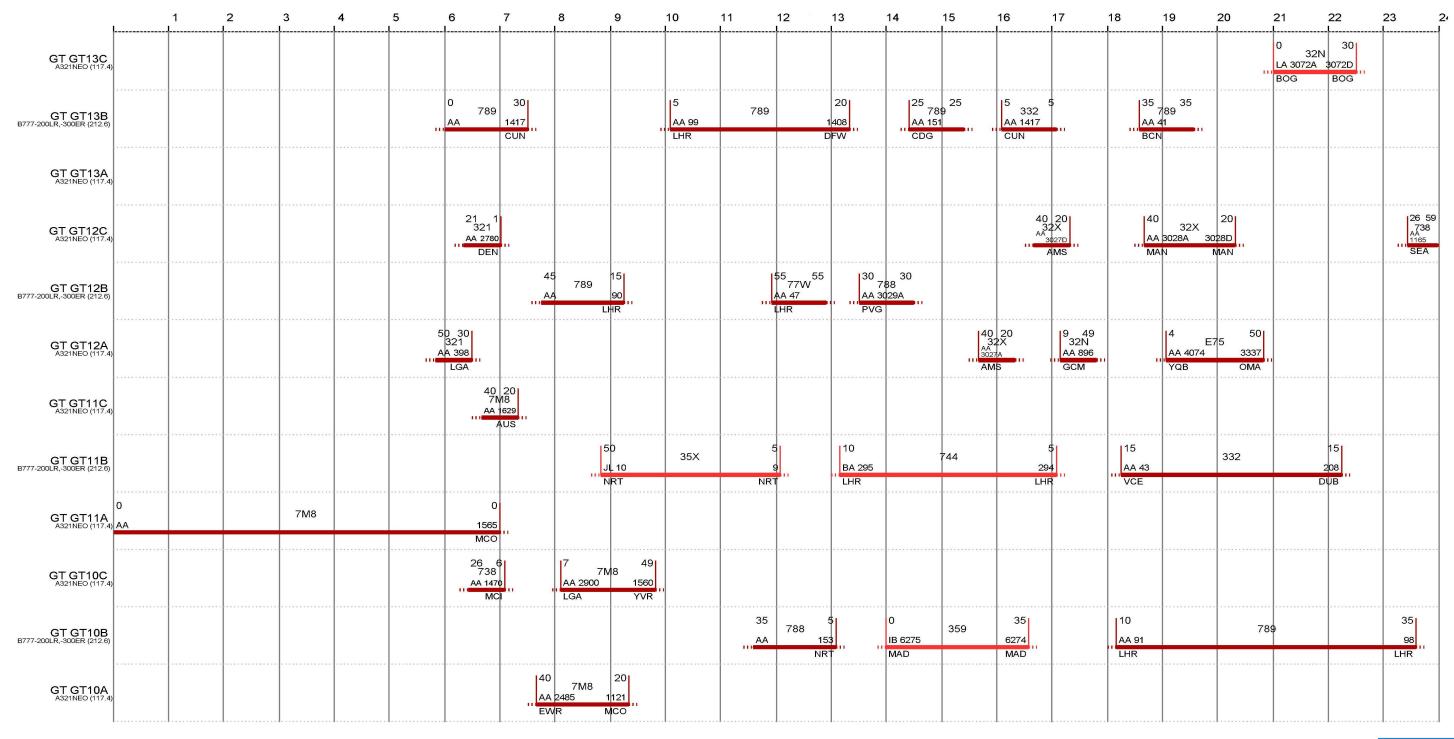


EXHIBIT 1-4 (10 OF 22)

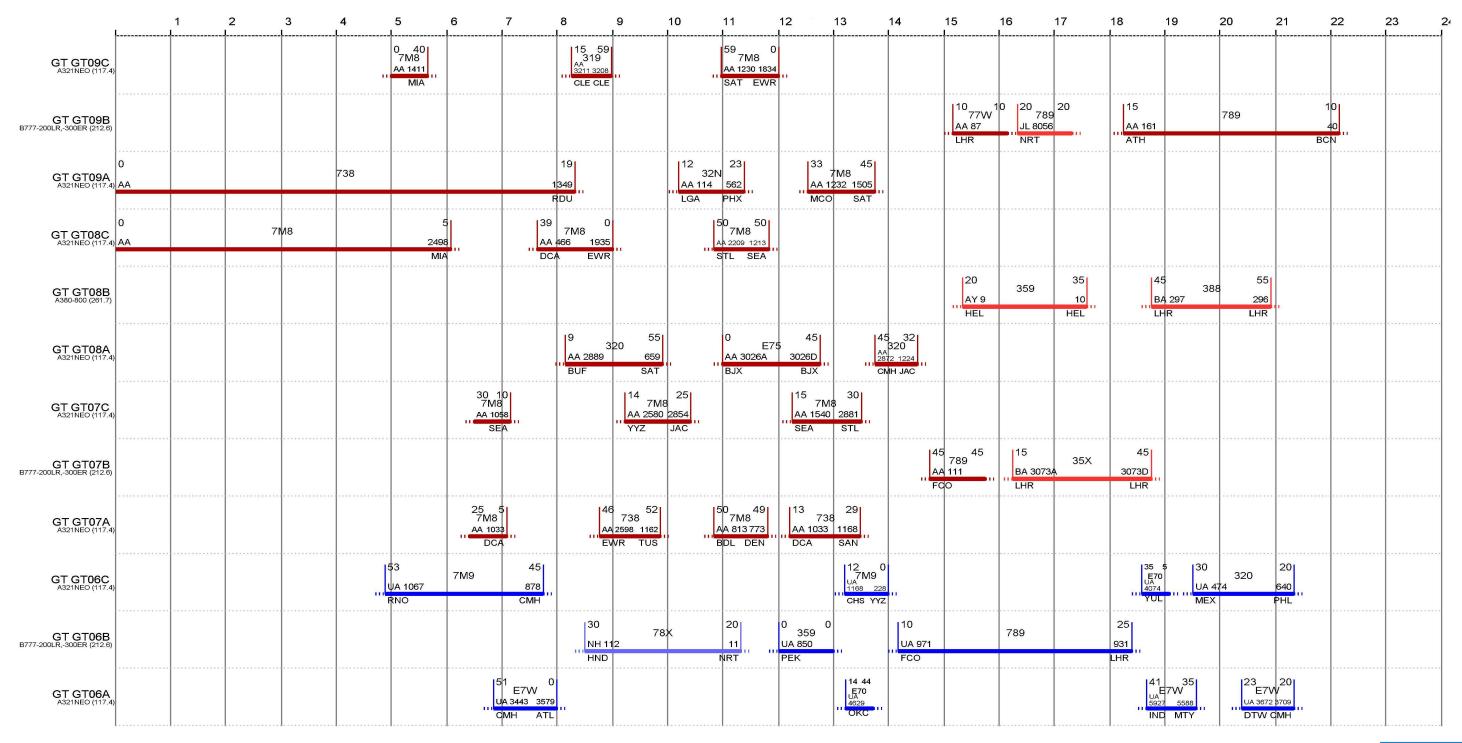


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EXHIBIT 1-4 (11 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build NOVEMBER 2022



NOVEMBER 2020

EXHIBIT 1-4 (12 OF 22)

,	L	1	2	3 	4 	5 .L	6 I	7	8	9	10 J	11 I	12 I	13 L	14 L	15 I	16 I	17 I	18 J
GT GT05C A321NEO (117.4)																		30 E7V UA 3046A 34 ALB	
GT GT05B B777-200LR,-300ER (212.6)								55 UA 844 GRU		359			45 881 NRT	0 359 UA		50 359 2039 592 LAX	15 78X UA 836 PVG	15	
GT GT05A A321NEO (117.4)																			
GT GT04 A321NEO (117.4)								51 50 CR5 UA 3899 3826 ATW HPN	11 55 CR9 UA 4538 4582 MCI SYR	10 CR9 4502 458 RDU MT	7			58 CRJ UA 3956 392 CRW CA		3 50 CR5 3834 3790 JL ATW	25 UA 3031A 3 MOB		
GT GT03 A321NEO (117.4)								3 52 CR5 A 5109 5808 MX FNT	15 CR5 UA 5841 51 TUL DI					19 71 CM 228 PTY	40 229 PTY		0 55 E7W 3043A 3043D BDL BDL	E UA 5	15 7W 5518
GT GT02 A321NEO (117.4)						20 0 739 UA 2043 IAH		13 UA 5069 EAU	55 RJ 5054 PAH	0 II	59 CR9 UA 4540 RAP	25 4585 CVG	2 CRJ UA 4838 MDT		CRJ	55 UA 4483 YQB	E7W	50 4251 YUL	25 UA PIA
GT GT01 A321NEO (117.4)								45 CR5 67 3893 IND	14 CRJ UA 3819 3 MKE 5	19 816 3GF		10 55 CRJ ^{UA} 3810 3911 CAE LEX		13 CR. UA 4877 RST	3768 U	6 50 CR5 A 3924 4818 LE MLI	14 44 E7W UA 5587 MTY	15 55 738 ^{UA} 3056A MBJ	
B B6 A321NEO (117.4)							10 0 CR5 ^{UA} 5082 5361 MKG BHN		7 0 CR5 A 5399 5087 BN AVL		10 CRJ UA 3962 48 ATW HS		,	9 CRJ UA 3863 3 ICT E	912 UA 3	35 R5 791 4820 MEM	39	0 CR7 3865 4841 B AVP	26 UA AZ
B B7 B757-200W-300W (135)							30 (CR5 UA 3894 LEX		8 55 CRJ A 3816 4864 ST PIA	20 CR9 UA 4511 4 CHS S		11	4 44 738 UA 211 YYZ	3826	3 3853 5	9 35 CRJ 043 5547 XKB XNA	5 E7W UA 3035A 30 MHT M	15 ^{85D} HT	5 UA 393 EVV
B B8 A321NEO (117.4)						35 73 ^{UA 1} C		58 UA 4144 ROA	0 70 4474 YQB	u)	8 43 CRJ UA # #		145 11 11	0 E7W 4386 4078 JL GSP		CRJ 3827 3906		56 0 CR5 UA 3783 3882 RST GSO	
B B9 A321NEO (117.4)							3 45 CR5 ^{UA} 5034 5083 FWA AVL	5 CR UA 4851 PIA		8 CR9 UA 4575 457 STL ELI			U, 38	9 30 44 CRJ UA 13 3776 509 AK RST AV		55 55 CRJ 4A 5887 5146 MKE SPI	37 UA CW	0 CR5 4848 4830 A ABE	
BB10 A321NEO (117.4)							25 (CR5 UA 5085 545 MBSRIC		30 R9 64 4541 MSO	8 CR5 UA 3842 48 GSP TU		4	2 27 ER4 A 725 4691 VV PIA	20 UA 472 STL	ER4	55 4723 SGF	29 UA 42 MEM	0 CR5 34 3984 FNT	_

NOVEMBER 2020

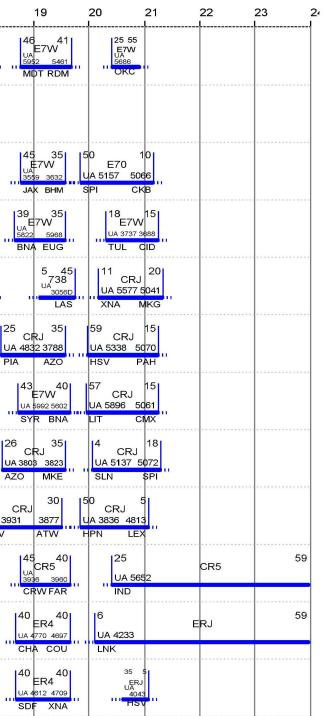
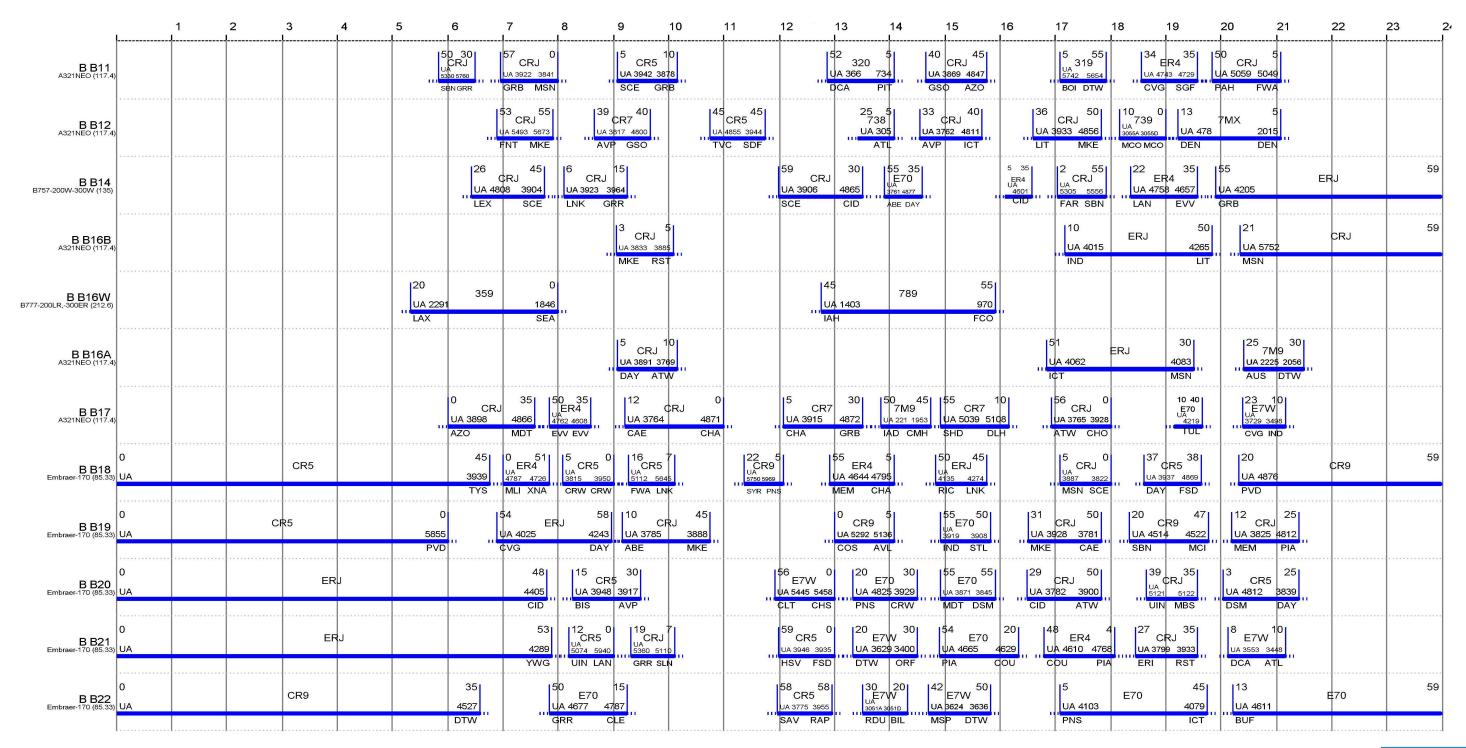


EXHIBIT 1-4 (13 OF 22)

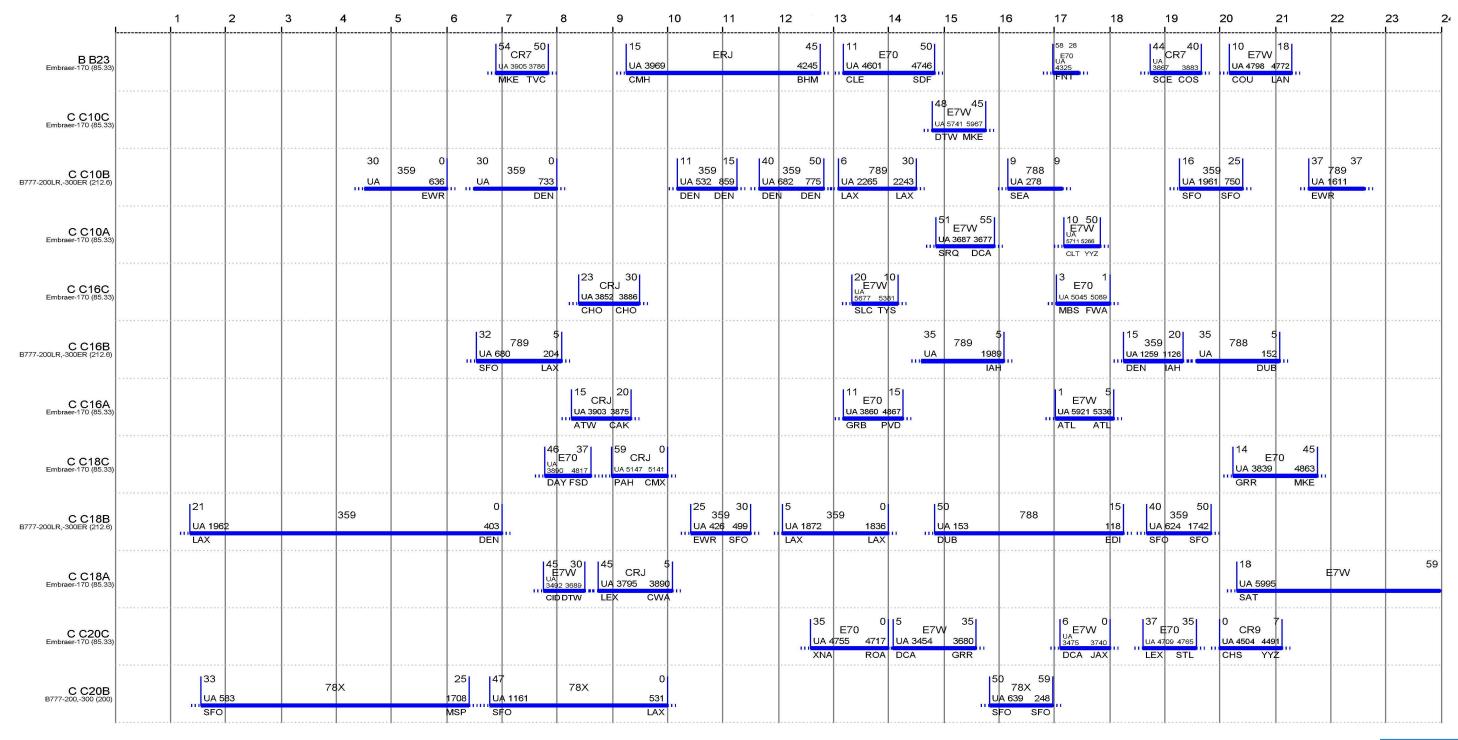
Ramp Charts

Simulation Data Package - With Project Full Build



NOVEMBER 2020

EXHIBIT 1-4 (14 OF 22)

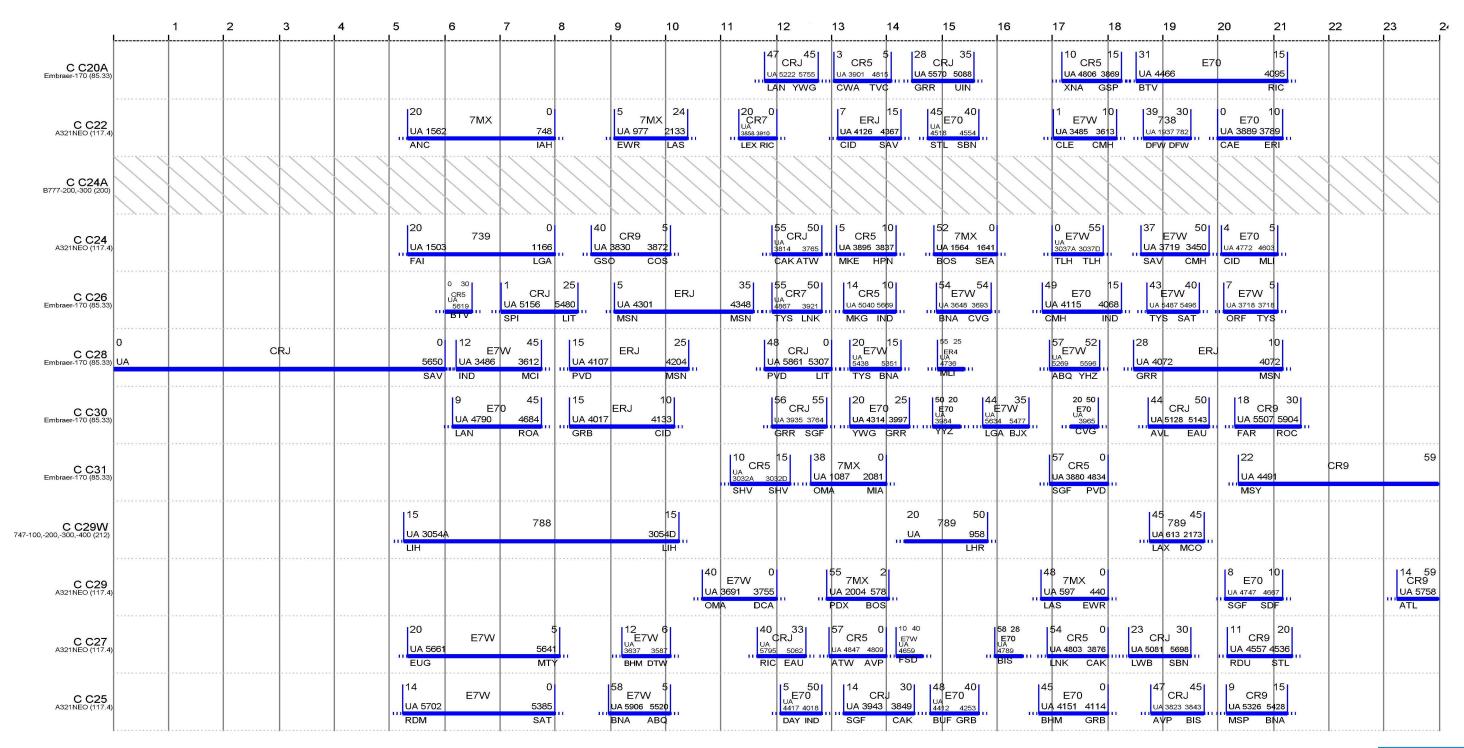


NOVEMBER 2020

EXHIBIT 1-4 (15 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build

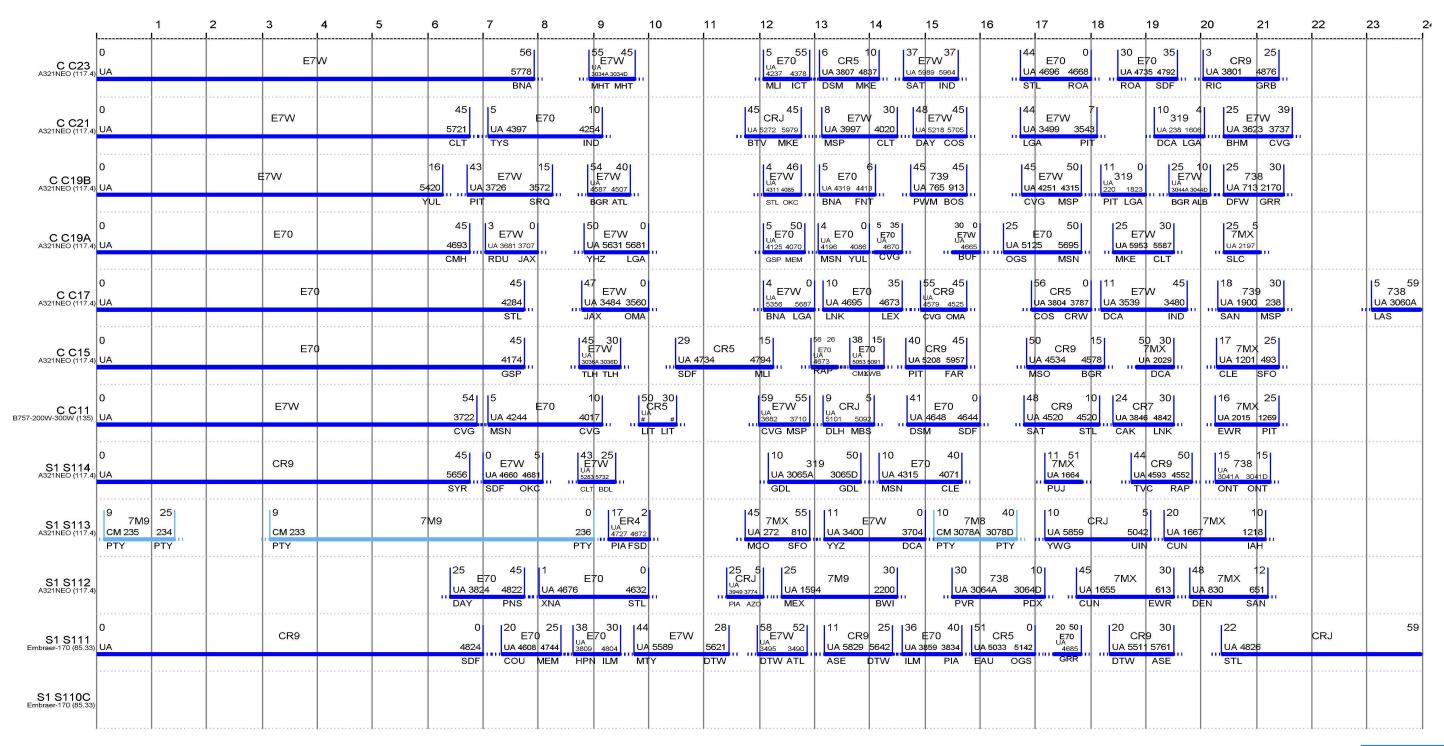


NOVEMBER 2020

EXHIBIT 1-4 (16 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build

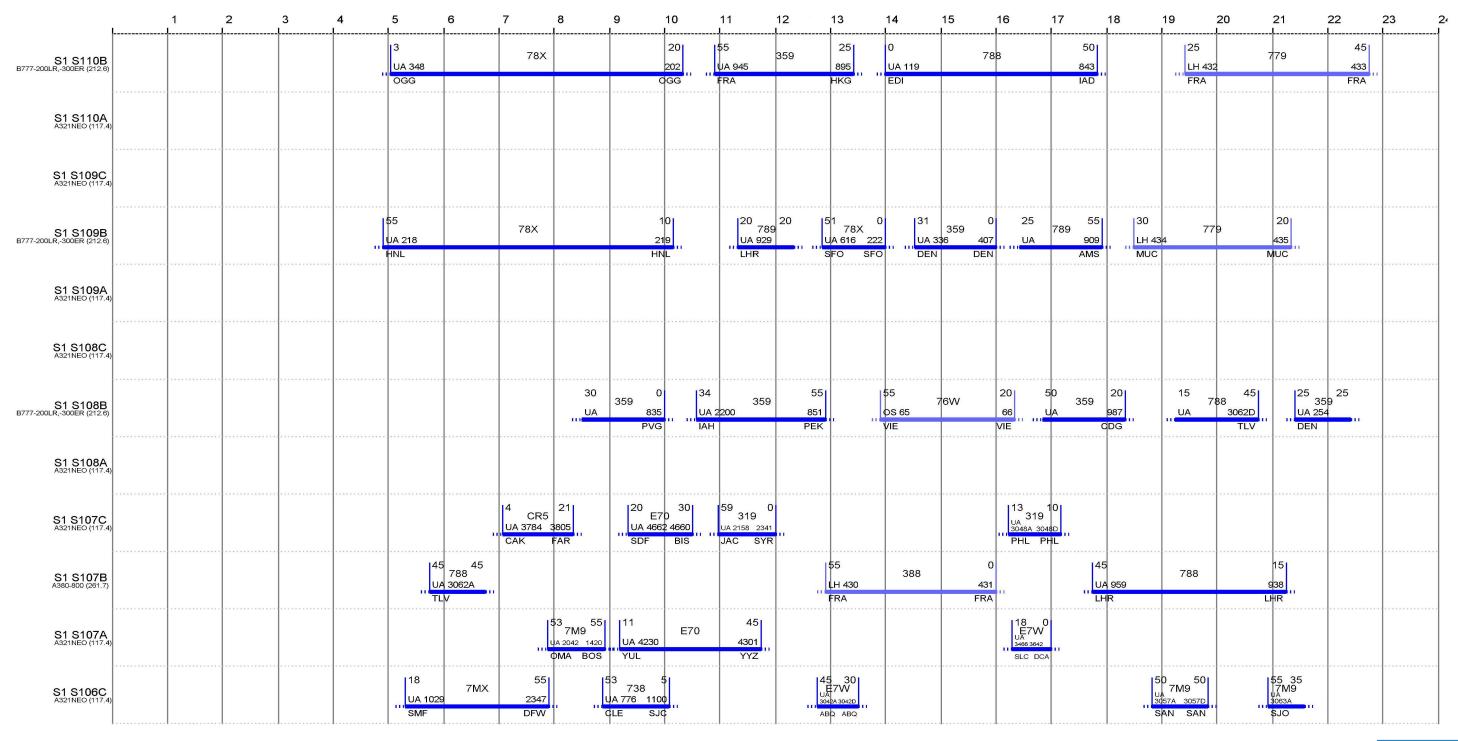


NOVEMBER 2020

EXHIBIT 1-4 (17 OF 22)

Ramp Charts

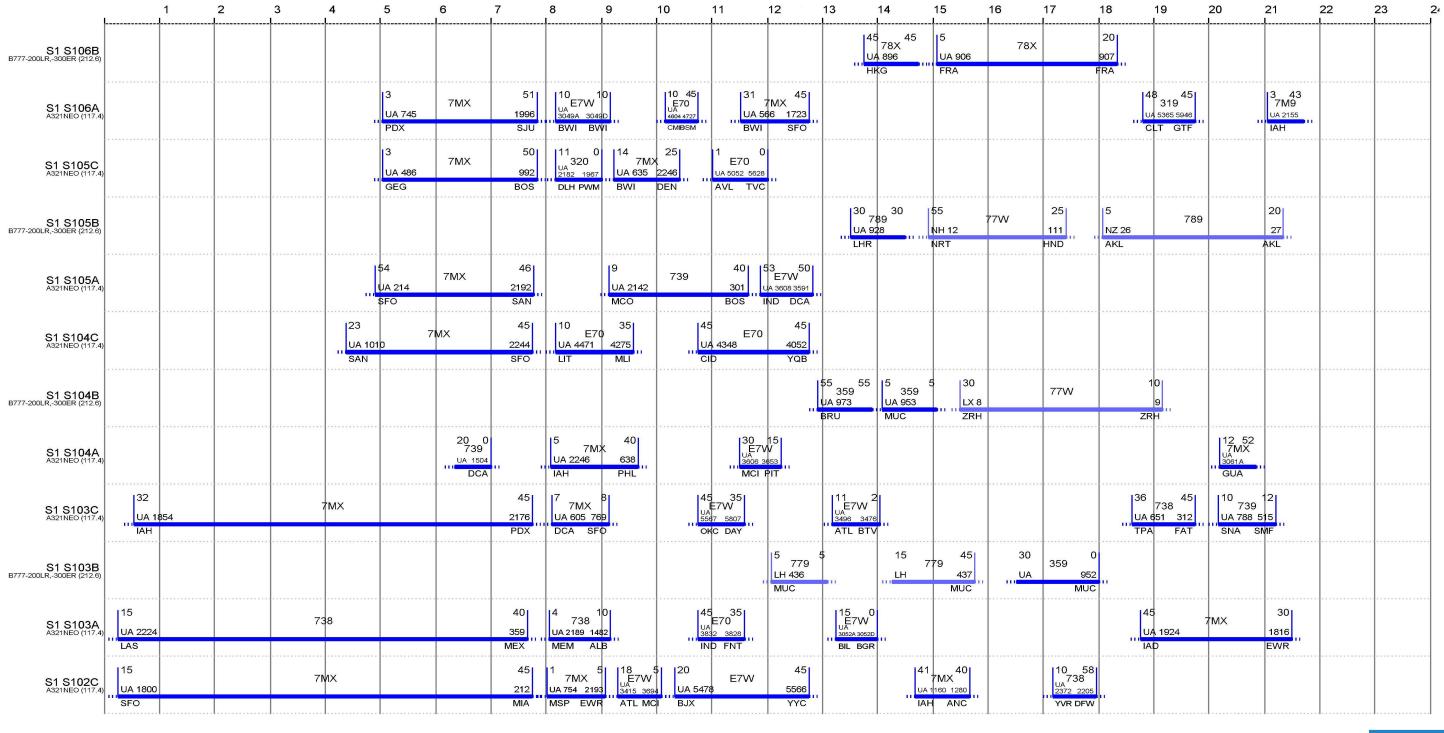
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Terminal Area Plan and Air Traffic Procedures EA

EXHIBIT 1-4 (18 OF 22)



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Terminal Area Plan and Air Traffic Procedures EA

NOVEMBER 2020

EXHIBIT 1-4 (19 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build

I	1	2	3	4 5 L	5 	6	7	8	9	10 L	11 J	12	13 I	14 L	15 J	16 I	17 I	18 L
S1 S102B B777-200LR,-300ER (212.6)													5 789 UA 908 AMS	5	1.1	50 50 78X JA 882 JRT		
S1 S102A A321NEO (117.4)					25 5 739 UA 654 MCO		5 50 E70 A 3773 3831 RI CAK	0 7MX UA 2001 11 EWR CU		50	33 UA 1 ALB	45 7MX 994 547 LAS			35 519 3629 TUL		6 738 UA 1194 15 JAC BI	
S1 S101C A321NEO (117.4)						0 30 739 A 714 BWI	4 UA 203 BOS			40 7MX 233 1659 CUN		5 0 7MX UA 397 241 ROC SEA						
S1 S101B B777-200LR,-300ER (212.6)													20 359 UA 986 CDG		78X A 1	15 35 995 UA WR	5 359 972 BRU	
S1 S101A A321NEO (117.4)						39 UA CL	7MX 2116 20		4 7 UA 449 BOS	MX 77 DFV		45 E70 4829 3785 XNA						28 UA (CH
S2 S224 A321NEO (117.4)) 30 /MX 2194 LAX	4 0 320 UA 1436 1556 ROC DCA		2 7MX UA 570 15 BUF S	90 UA 3835	25 R5 ₃₉₅₉ CLE	0 0 738 UA 586 1634 BUF DSM	36 UA LG4	738 2202 2406 A LGA	.	56 26 CR7 JA 5038 SHD	8 5 E70 UA 3920 3793 FSD HPN	
S2 S223 A321NEO (117.4)				UA I	30 VIX 707 DEN		49 739 JA 468 DCA	30 2267 FCA	55 7MX UA 301 22 DEN EV	97 UA 3778		9 739 JA 785 56 CLE LA			18 55 CR9 JA 5544 5466 BDL MSP		0 CR9 4578 4518 J RDU	ui 11
S2 S222 A321NEO (117.4)						40 114 141	738 2395 223 ⁻	i u u	55 739 UA 1845 14 ROC AN		,	5 ER4 UA 4778 ROA	4692 UA	3 50 CR9 4576 4553 GR RDU		5 0 E7W ^{UA} 5236 5694 DCA LGA	10 CRJ UA 4830 38 TVC D/	— 11 — 11
S2 S221 Embraer-170 (85.33)						30 (CR9 AC 8039 YVF	CR9	0		5 40 CR9 AC # # YULYUL		55 2 CR9 VA 5523 5810 BHM TUL	0 C AC 761	20 30 R9 AC 30 17612 AC 30 Z YYZ YVR	45 E75 079A 3079D YVR	27 CR9 8038 804 YVR YV	1 7679 7682	
S2 S220 A321NEO (117.4)	0 AC		CR9			45 7598 YUL	3 45 CR9 UA 4519 4539 YYZ BGR		13 55 223 503 504 YYZ YYZ	I.	40 CF AC 7593 YUL	7 592	56 739 UA 578 DFW	24 586 DFW	CR9 CAC AC # # 76	20 R9 3 7680 Z YYZ	9 739 UA 790 AUS	30 442 BDL
S2 S219 A321NEO (117.4)	0 AC		223		0 500 YYZ	36 UA AN	7MX 2350 2395 C LAS	.	51 1 7MX 1 UA 588 189 TPA SF			49 738 1633 521 SP SLC	15 73 UA 330 MIA	288 l	19 (1 739 JA 755 1195 EWR AUS	i	56 0 7MX UA 1598 1444 BOS ORF	15 UA 26 LAX
S2 S218 A321NEO (117.4)		36 UA 781 DEN		738					50 0 738 UA 531 588 DCA YYC	E7W UA # #	37 UA LG4	51 738 1953 1651 SAT	13 7M) UA 2287 SEA	2220 L	18 54 7MX JA 1544 1603 PHL PHX		3 1 739 UA 312 45 YYC RI	

NOVEMBER 2020

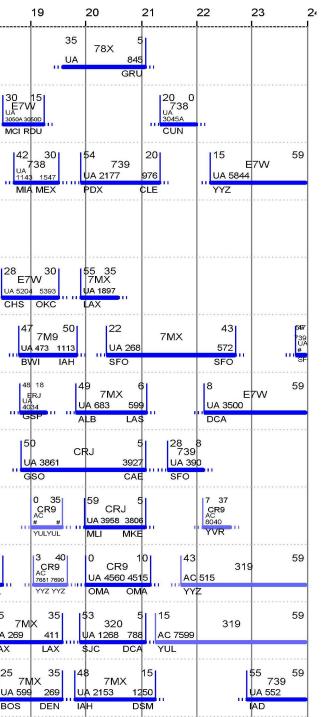
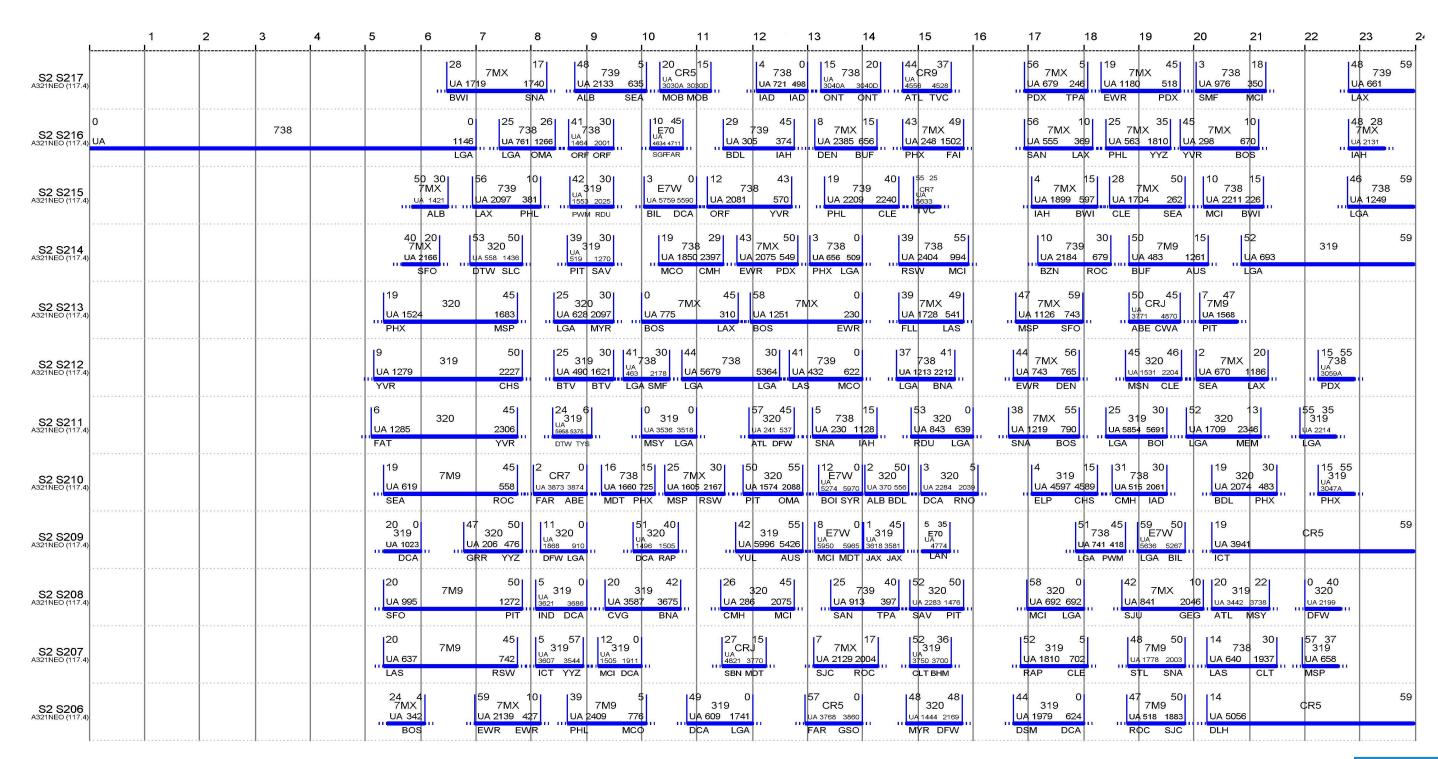


EXHIBIT 1-4 (20 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build

CDA



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

NOVEMBER 2020

EXHIBIT 1-4 (21 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build

1		1	2	3	4	5	6	7	8	9	10	11 I	12	13	14	15	16	17 1	8
S2 S205 A321NEO (117.4)	14 UA 1938 DEN			7M9			30 1533 RDU	⁵ CR5 UA 4817 CWA	30 3907 DSM		19 43 2116 UA IAH GT	319 5253 5955	39 UA LGA			0 319 41 387 JAC		4 10 738 UA 2046 626 OMA PHI) 3 5 U
S2 S204 A321NEO (117.4)						20 0 7MX UA 1155 		319 A 393 ເ	55 55 CRJ JA 3934 4849 FSD SBN	20 7M UA 374 IAD	2390 586	5 30 43 CRJ 34 5643 UA GRR AU	7M9 436 373		4523	55 2 319 UA 387 2175 BTV MSN		6 1 7M9 UA 1658 189 SYR BT	
S2 S203 A321NEO (117.4)						20 0 7MX UA 1456 BDL	11 III <mark>-</mark>	8 5 7M9 A 1662 2326 UF TPA	UA 1499	2 7M9 287 YVF	3 ⁻ UA 729	-	46 7M9 2406 2208 U MSY	18 7M UA 1989 SMF	9 1994 U.	6 320 A 592 110 PA SI		1	30 2284 ALB
S2 S202 A321NEO (117.4)						30 1 7M9 UA 81	4	5 45 7M9 UA 680 BUF	1 55 7M9 ^{UA 1967 632} DSM IAD	13 7M9 ^{UA 547 201} YYZ JA		7M9 2220		0 0 CR5 A 3794 4852 SD ABE	CR5 UA # #	55 7M9 UA 1705 15 CMH SM	38	59 0 7M9 UA 614 607 DFW SYR	J3 L
S2 S201 A321NEO (117.4)						20 0 7M9 UA 2140 LGA	30 UA 91 LAX	1 7M9 0 1161 CLE	UA 2086	2 M9 2185 BZN	i UA 1	45 7M9 634 609 EWR	55 50 7M9 3058A 3058D TPA TPA	3 7M9 UA 905 YVR	905 l	52 7M9 JA 633 39 MCO SA		7M9 2247 336	20 CF 3033A SHV
- Unassigned																			

Drawing: P:Simulation/KORD_TAP_EA\Assumptions\05-Gating\AutoCAD\TAP EA - Ramp Charts - WP Full Build_20200805.dwgLayout: Ramp Charts (22) Plotted: Nov 4, 2020, 06:44PM

Terminal Area Plan and Air Traffic Procedures EA

NOVEMBER 2020

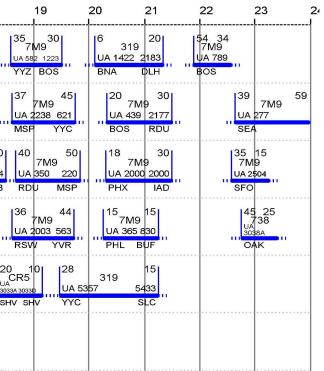
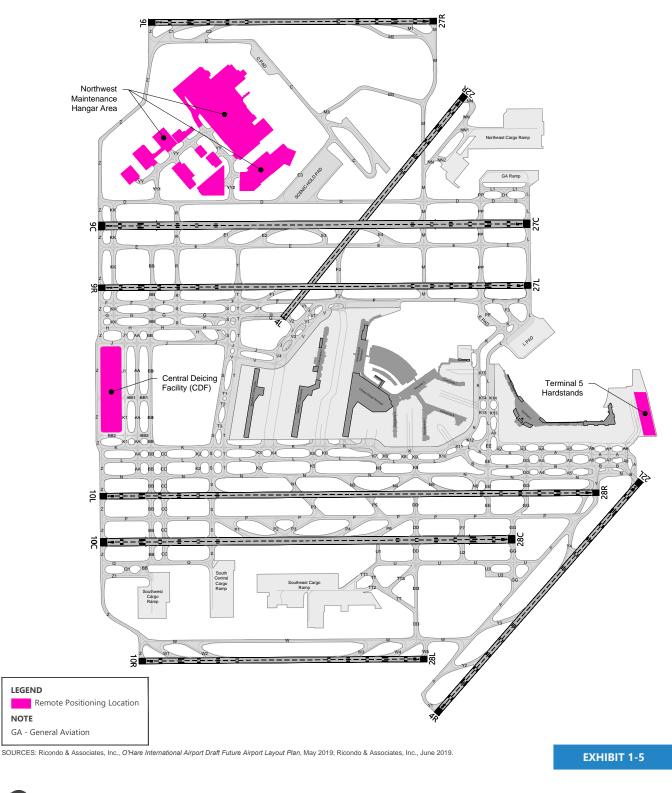


EXHIBIT 1-4 (22 OF 22)

Ramp Charts

Simulation Data Package - With Project Full Build NOVEMBER 2022

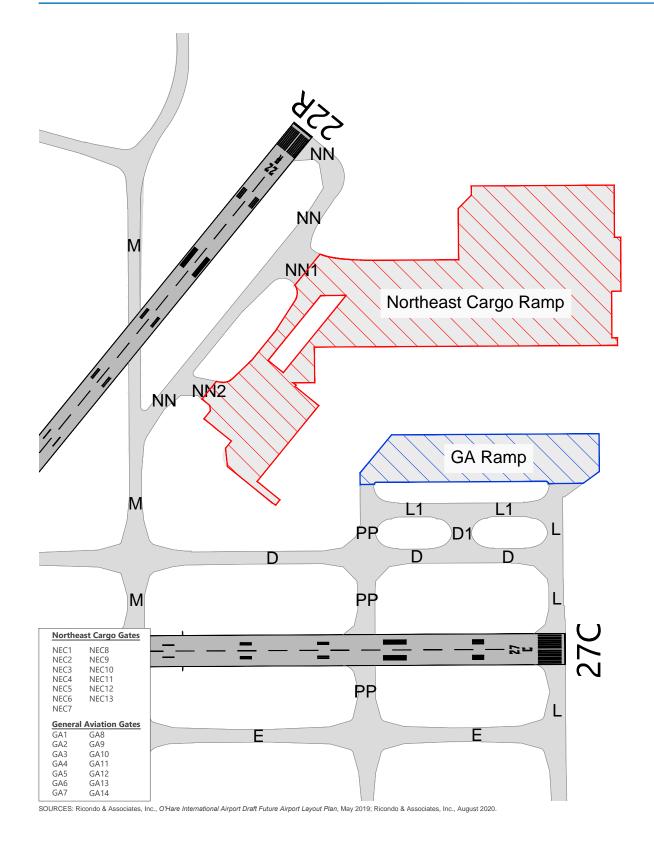


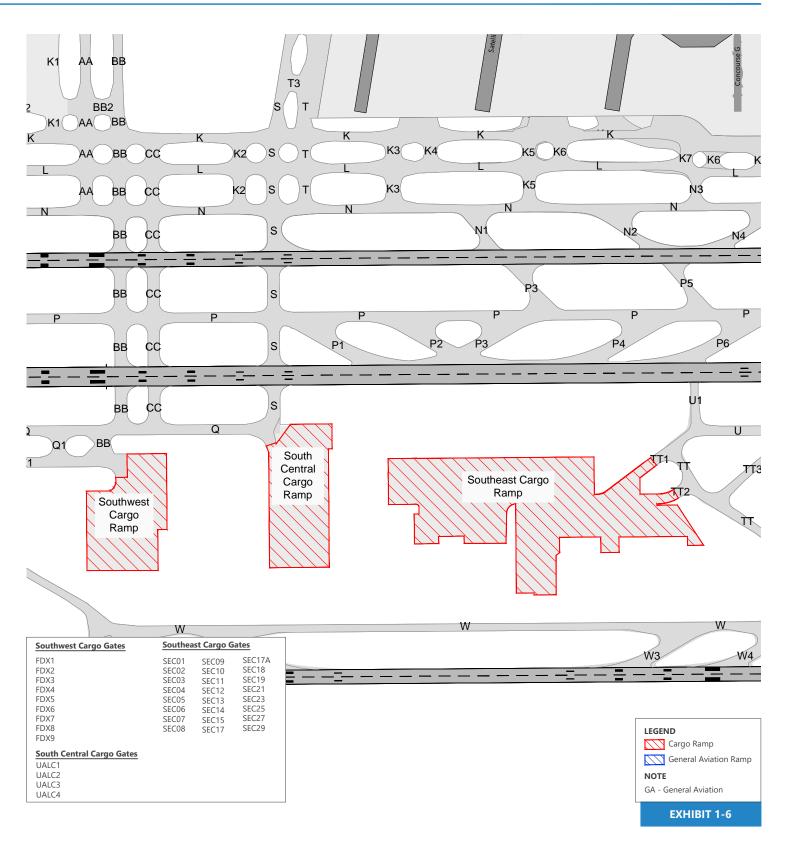


Repositioning Remote Locations

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Terminal Area Plan and Air Traffic Procedures EA





North 0 Not To Scale

Drawing: P:\Simulation\KORD_TAP_EA\Assumptions\02-Airfield\AutoCAD\TAP EA - GA and Cargo Parking Areas.dwgLayout: With Project - Full Build Plotted: Oct 30, 2020, 04:19PM

Terminal Area Plan and Air Traffic Procedures EA

Final Environmental Assessment

NOVEMBER 2020

General Aviation and Cargo Parking Areas

Simulation Data Package - With Project Full Build NOVEMBER 2022

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

West Flow

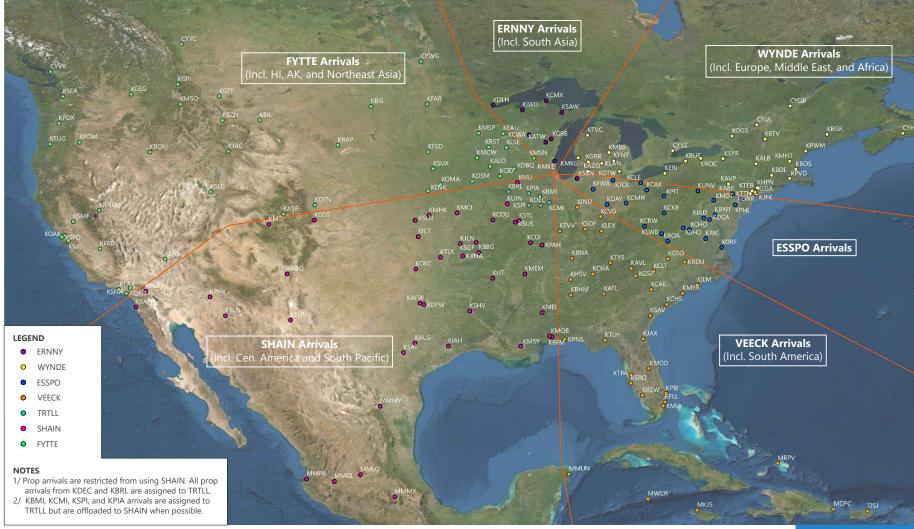
Not To Scale NORTH 0

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

Terminal Area Plan and Air Traffic Procedures EA

Arrival Fixes by Departure Airport





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

EXHIBIT 1-8

East Flow

NORTH 0 Not To Scale

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

Terminal Area Plan and Air Traffic Procedures EA

Arrival Fixes by Departure Airport