Space CDM Space Operations Committee (SpOC) XIII

February 25, 2025

Federal Aviation Administration

ATO Space Operations is and is not…

ATO Space CDM is

- ✓ Focused on space operations
- ✓ An operating paradigm and a philosophy through information exchange
- ✓ Follows best practices of 25+ years history with Aviation CDM
- ✓ Allow space operators to build the collaboration framework with FAA – leverage existing industry bodies where appropriate rather than duplicate

ATO Space CDM is not

- × Not about licensing and regulation
- × ATO SpCDM is not a decision-making body (e.g., FACA)
- × Will not make decisions or consensus for FAA, rather inform ATO Space Operations
- × Not creating data standards

This work is voluntary for all industry stakeholders.

March High-volume Dates

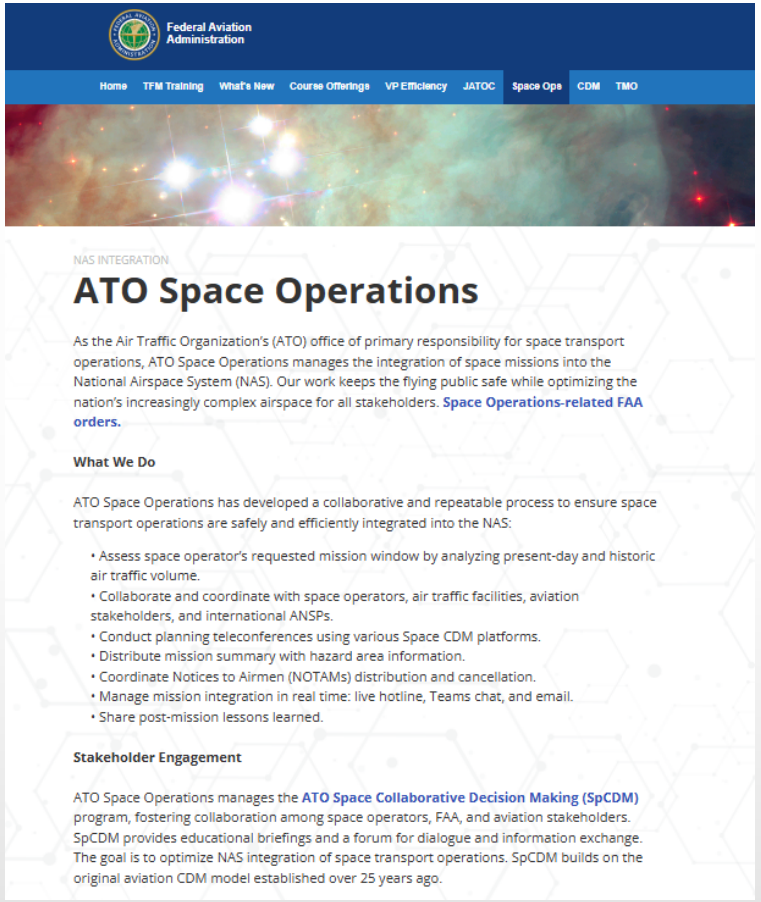
Updated 2/26/26

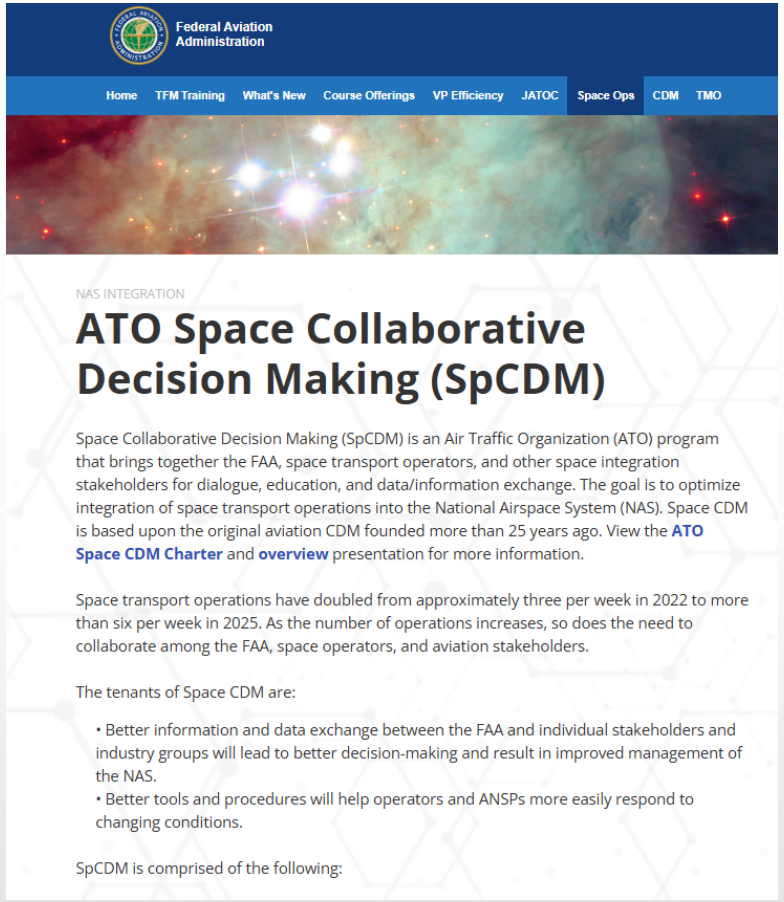
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 HIGH SKI COUNTRY NB	2 MODERATE SKI COUNTRY	3	4	5 HIGH SKI COUNTRY SB	6 HIGH SKI COUNTRY SB	7 HIGH SKI COUNTRY
8 HIGH SKI COUNTRY NB	9 MODERATE SKI COUNTRY	10	11 MODERATE	12 HIGH SKI COUNTRY SB	13 HIGH SKI COUNTRY SB	14 HIGH SKI COUNTRY
15 HIGH SKI COUNTRY NB	16 HIGH SKI COUNTRY	17	18 MODERATE	19 HIGH SKI COUNTRY SB	20 HIGH SKI COUNTRY SB	21 HIGH SKI COUNTRY
22 SKI COUNTRY	23 SKI COUNTRY	24	25	26 SKI COUNTRY	27 SKI COUNTRY	28 SKI COUNTRY

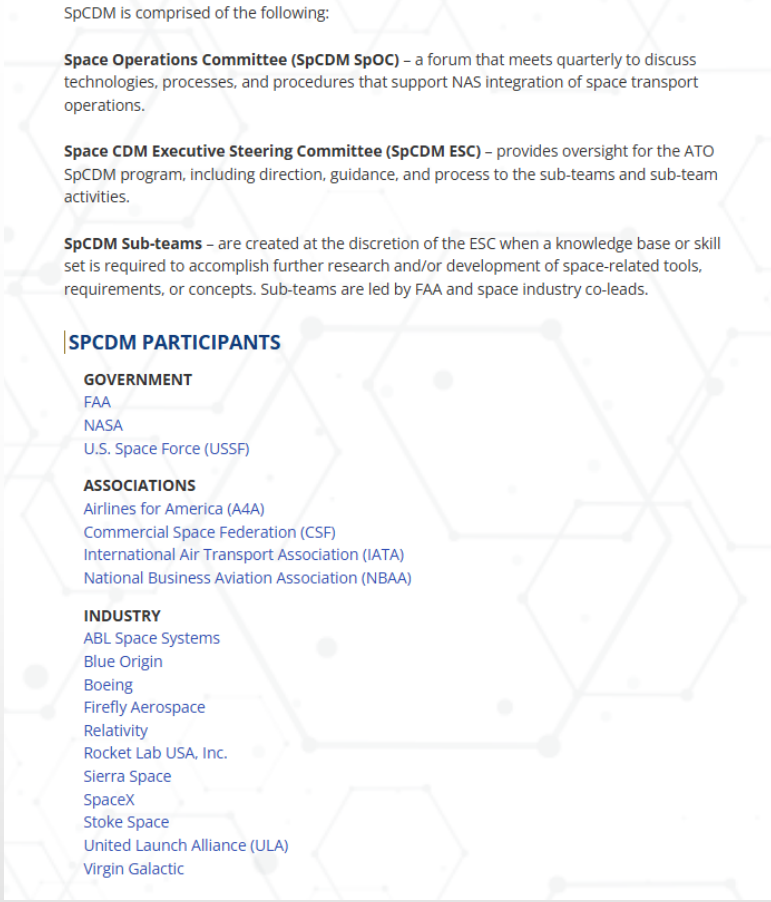
2025 – 2026 High Volume Traffic Days Update

March 1
March 5
March 6
March 7
March 8
March 12
March 13
March 14
March 15
March 16
March 19
March 20
March 21

TFM Learning Website Updates







https://tfmlearning.faa.gov

https://tfmlearning.faa.gov/Joint_Collaborative_Decision_Making.html

Common AHA Annual Averages January-December 2025

Common AHAs

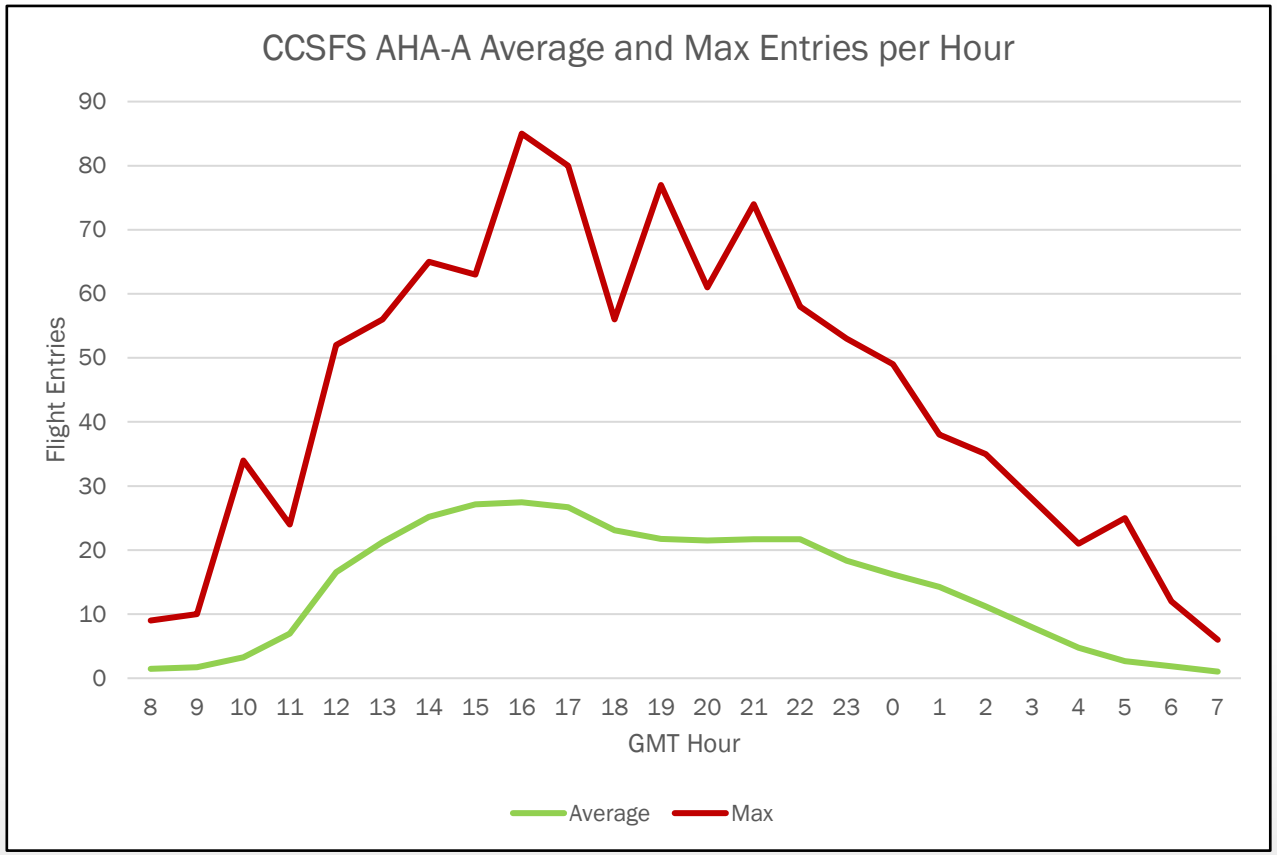
- Cape Canaveral Space Force Station (CCSFS)
  - AHA-A
  - AHA-B
- Vandenberg Space Force Base (VBG)
  - AHA-A
  - AHA-MMFR
  - AHA-REENTRY
- Boca Chica
  - AHA-FULL

CCSFS AHA-A

Weekday Averages

CCSFS AHA-A

	Hour (Z)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Total Entries	Average	400	350	294	304	347	354	371
	Max	709	551	596	514	612	649	648
Peak Load	Average	7	8	7	7	8	8	7
	Max	12	13	11	11	14	14	12



Hourly Averages

CCSFS AHA-A

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Total Entries	Average	1	2	3	7	17	21	25	27	27	27	23	22	21	22	22	18	16	14	11	8	5	3	2	1
	Max	9	10	34	24	52	56	65	63	85	80	56	77	61	74	58	53	49	38	35	28	21	25	12	6
Peak Load	Average	1	1	1	2	3	4	5	6	6	6	5	5	4	4	4	4	3	3	3	2	2	1	1	1
	Max	3	3	5	7	9	9	11	13	14	13	9	10	12	11	13	11	8	7	6	6	5	4	5	2

CCSFS AHA-A

Weekday Hourly Averages

CCSFS AHA-A Hourly Entries by Weekday

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Sunday	Average	1	1	4	8	19	22	28	30	31	30	29	28	25	25	24	22	16	15	11	7	5	2	2	1
	Max	4	4	12	18	52	56	58	51	49	52	56	77	61	57	58	53	41	36	25	14	15	10	7	3
	Launches	2		1	1				1		1					1		1			1		2	1	
Monday	Average	2	1	1	4	7	19	24	26	27	27	27	22	20	21	22	21	18	21	17	13	9	6	3	2	1
	Max	9	5	14	18	46	37	52	48	64	56	49	46	49	74	45	33	49	38	32	25	21	25	12	6
	Launches			1		1				1	1		1	1		2	1		1	2		1	2		2
Tuesday	Average	2	2	2	3	6	15	19	22	24	24	24	19	17	18	17	20	15	16	15	12	8	4	3	2	1
	Max	7	8	8	19	38	45	65	55	78	80	48	41	36	38	41	33	35	32	35	28	17	9	8	4
	Launches	2		1			1					1	2		2	1	2	3	1	1	1	1	2	1	
Wednesday	Average	2	2	2	6	14	20	22	23	24	24	20	19	19	20	18	17	13	12	9	7	4	2	2	1
	Max	5	8	6	14	33	36	41	53	51	57	49	47	38	50	43	38	35	28	24	16	16	9	6	4
	Launches				3		2		1	2			1						2		2		1	4	
Thursday	Average	1	2	3	6	16	22	26	26	27	24	22	22	22	22	24	19	14	13	9	7	5	3	2	1
	Max	5	10	11	16	40	50	50	63	79	41	35	46	41	45	48	44	35	25	21	15	13	8	7	4
	Launches	1	2			2								1		1		1	2	1	1	1			1
Friday	Average	1	1	3	7	15	20	23	28	28	29	24	22	23	24	23	20	17	13	11	9	6	3	2	1
	Max	7	5	8	18	37	46	40	61	85	70	39	47	50	54	55	43	40	29	26	24	18	10	6	4
	Launches					2			3		1		1				1		3		3				
Saturday	Average	2	1	4	8	18	23	30	31	32	30	26	24	24	22	22	18	17	15	13	9	5	3	1	1
	Max	5	5	34	24	44	56	65	53	53	55	53	60	53	54	55	39	41	27	25	21	15	11	7	3
	Launches		1		1					1	1		1						1		1	2		2	1

Top 10 and Bottom 10 values highlighted to identify most optimal/sub-optimal launch times

2025 Launches: 110

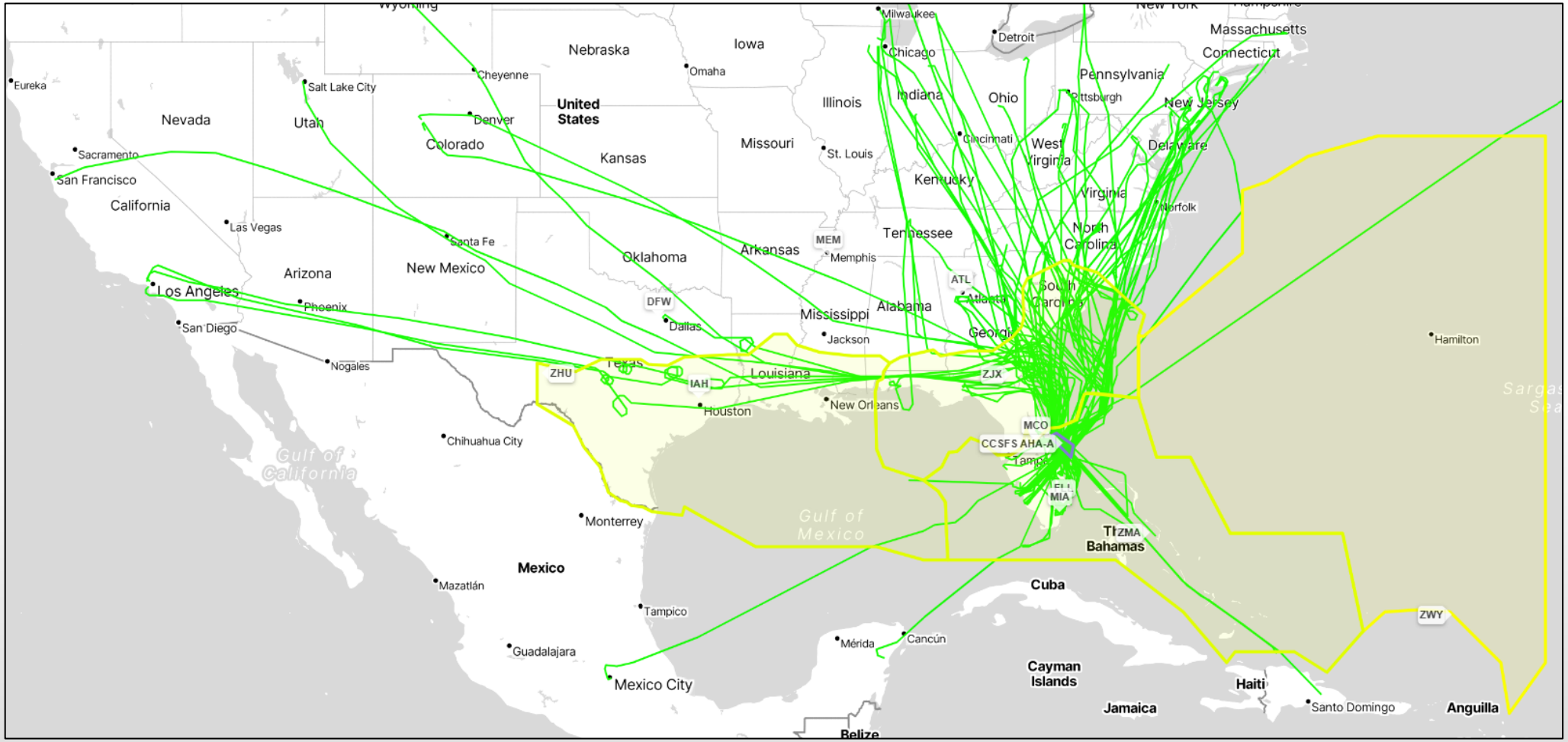
2025 Launches During:

Low-Traffic Hours: 7 (6.4%)

High-Traffic Hours: 5 (4.5%)

CCSFS AHA-A

Sample Busy Hour Throughput



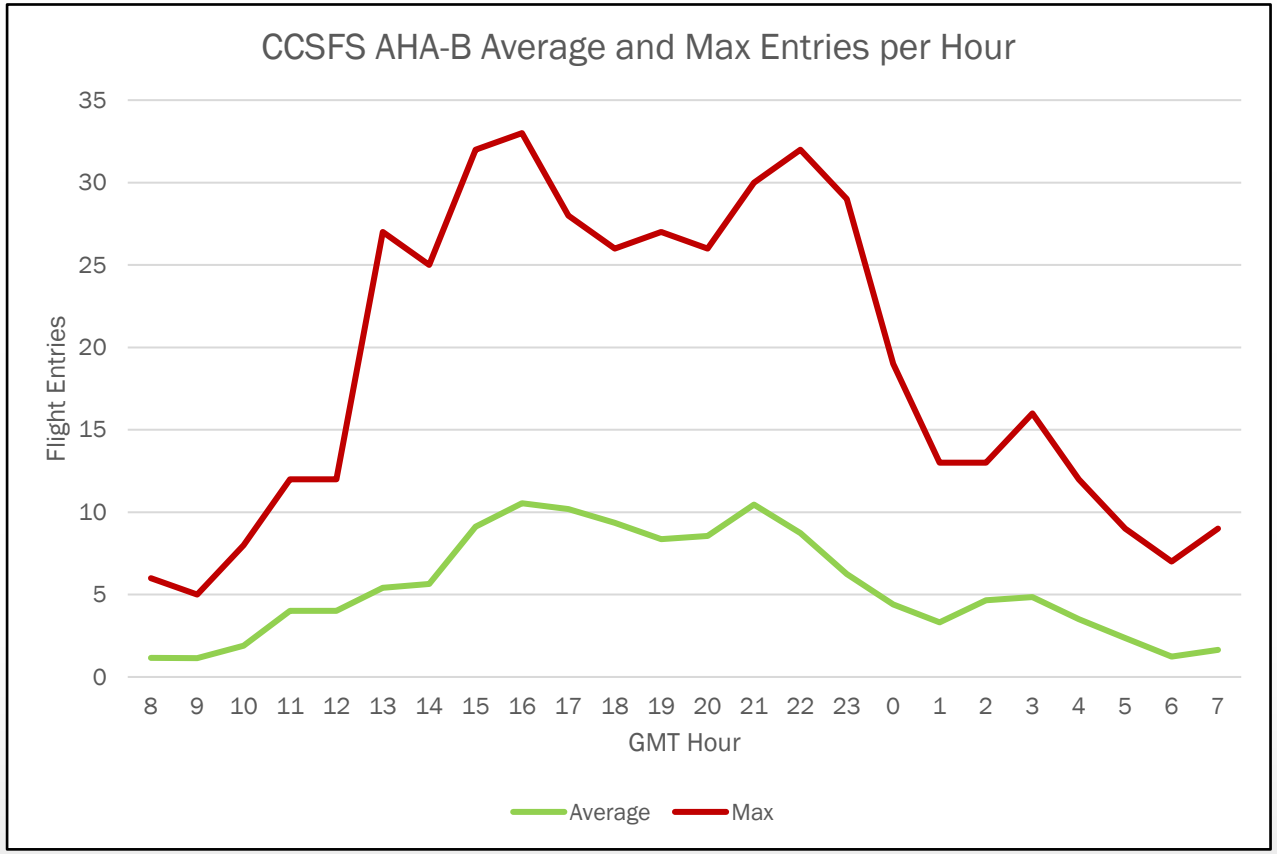
Time Range Shown: 03/16/2025 1900Z - 2000Z

CCSFS AHA-B

Weekday Averages

CCSFS AHA-B

	Hour (Z)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Total Entries	Average	130	108	125	126	137	124	165
	Max	200	193	244	224	288	240	297
Peak Load	Average	6	5	6	6	6	6	7
	Max	10	8	11	9	10	12	13



Hourly Averages

CCSFS AHA-B

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Total Entries	Average	1	1	2	4	4	5	6	9	11	10	9	8	9	10	9	6	4	3	5	5	4	2	1	2
	Max	6	5	8	12	12	27	25	32	33	28	26	27	26	30	32	29	19	13	13	16	12	9	7	9
Peak Load	Average	1	1	1	2	2	3	3	4	5	4	4	4	4	4	4	3	2	2	2	3	2	1	1	1
	Max	4	3	5	6	6	8	10	11	12	10	9	9	9	9	10	13	10	6	5	6	6	4	4	4

CCSFS AHA-B

Weekday Hourly Averages

CCSFS AHA-B Hourly Entries by Weekday

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Sunday	Average	1	1	1	1	4	4	5	6	9	11	11	10	9	8	10	9	8	6	4	4	5	3	3	1	1	2
	Max	3	4	4	4	9	9	9	18	21	23	22	20	18	17	22	23	18	19	13	11	15	8	8	6	6	5
Monday	Average	1	1	1	1	3	3	4	4	7	9	9	8	7	7	9	7	5	4	4	4	4	3	2	2	1	1
	Max	6	5	5	5	8	10	9	10	18	25	25	17	19	18	19	16	11	13	12	10	9	8	8	6	7	7
Tuesday	Average	1	2	1	2	4	5	6	5	9	10	10	9	8	8	9	8	6	4	3	5	5	3	2	2	1	1
	Max	4	3	8	8	12	11	19	32	33	23	19	18	21	18	16	19	11	12	12	13	10	6	6	4	4	4
Wednesday	Average	1	1	2	3	5	6	6	9	10	9	8	8	9	11	8	5	4	3	5	5	3	3	1	1	4	2
	Max	5	4	6	7	12	17	17	23	19	17	20	15	16	20	19	12	16	7	9	10	6	8	8	7	7	5
Thursday	Average	1	1	2	2	5	4	6	6	9	10	11	10	8	8	10	9	6	5	3	5	5	4	2	1	2	1
	Max	6	4	7	12	11	13	15	24	23	28	26	20	15	23	28	17	14	12	12	13	12	11	6	7	7	7
Friday	Average	1	1	2	5	3	5	5	8	9	10	8	8	8	11	9	6	4	3	3	5	5	4	2	1	2	1
	Max	6	4	7	9	9	11	12	18	19	24	20	21	17	23	18	19	16	9	9	10	16	9	9	5	9	6
Saturday	Average	1	1	2	4	5	7	8	12	14	13	12	12	11	14	12	8	4	3	5	5	4	2	2	1	1	1
	Max	6	3	8	11	9	27	25	27	31	24	22	27	26	30	32	29	13	7	9	11	12	7	4	4	4	4

Top 10 and *Bottom 10* values highlighted to identify most optimal/sub-optimal launch times

2025 Launches: 110

2025 Launches During:

Low-Traffic Hours: 12 (10.9%)

High-Traffic Hours: 3 (2.7%)

CCSFS AHA-B

Sample Busy Hour Throughput

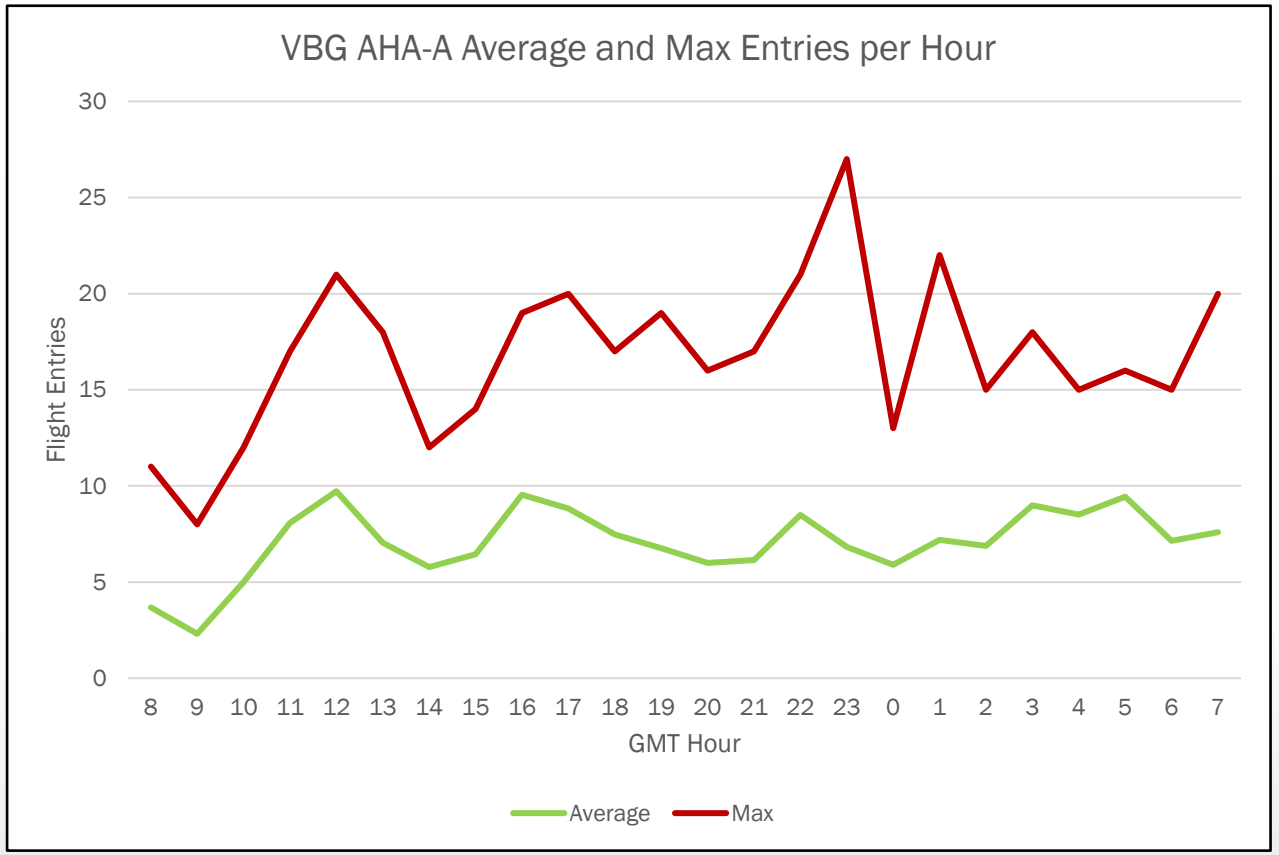
Time Range Shown: 03/16/2025 1700Z - 1800Z

VBG AHA-A

Weekday Averages

VBG AHA-A

	Hour (Z)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Total Entries	Average	178	165	163	167	169	171	175
	Max	232	208	215	212	233	224	225
Peak Load	Average	4	4	4	4	4	4	4
	Max	6	6	9	7	7	7	6



Hourly Averages

VBG AHA-A

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Total Entries	Average	4	2	5	8	10	7	6	6	10	9	7	7	6	6	8	7	6	7	7	9	9	9	7	8
	Max	11	8	12	17	21	18	12	14	19	20	17	19	16	17	21	27	13	22	15	18	15	16	15	20
Peak Load	Average	1	1	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2
	Max	4	3	3	4	4	4	7	5	6	5	7	6	7	8	9	6	6	7	6	6	6	6	5	5

VBG AHA-A

Weekday Hourly Averages

VBG AHA-A Hourly Entries by Weekday

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Sunday	Average	4	2	4	8	11	8	6	7	10	10	8	8	7	6	8	7	7	8	7	10	9	9	8	8
	Max	11	5	10	16	21	16	11	13	18	19	17	18	14	12	17	13	13	22	15	14	15	13	15	15
Monday	Average	4	3	5	7	9	6	5	7	10	9	8	7	6	6	9	6	6	8	7	9	10	10	7	8
	Max	11	6	10	14	16	16	12	14	19	18	15	13	13	10	16	14	11	14	12	14	14	16	15	13
Tuesday	Average	4	2	5	8	9	7	6	6	10	8	6	6	6	7	8	7	5	7	7	8	9	9	7	7
	Max	9	7	11	17	16	15	11	11	17	20	15	12	15	15	15	15	10	14	12	13	13	14	13	16
Wednesday	Average	3	2	5	8	9	7	6	6	8	8	7	6	6	7	9	7	6	6	6	9	7	10	7	8
	Max	8	7	12	16	14	18	11	12	17	16	16	15	14	13	16	18	12	12	12	13	11	14	12	16
Thursday	Average	3	2	5	9	10	7	6	6	10	8	7	6	5	6	9	7	6	7	7	9	9	10	7	7
	Max	8	6	11	16	17	16	9	14	17	17	16	16	16	17	21	27	10	13	12	15	14	16	13	16
Friday	Average	4	2	5	8	10	7	6	6	8	8	7	7	6	7	9	7	6	7	7	9	8	9	7	7
	Max	10	6	11	17	17	16	12	10	18	18	15	19	14	16	17	18	13	14	12	18	13	15	15	16
Saturday	Average	4	3	5	8	10	7	5	7	10	9	9	7	7	5	8	6	6	7	6	9	9	9	8	8
	Max	11	8	10	15	16	15	10	13	18	18	17	19	14	10	14	12	12	12	13	14	14	16	13	20

Top 10 and *Bottom 10* values highlighted to identify most optimal/sub-optimal launch times

2025 Launches: 69

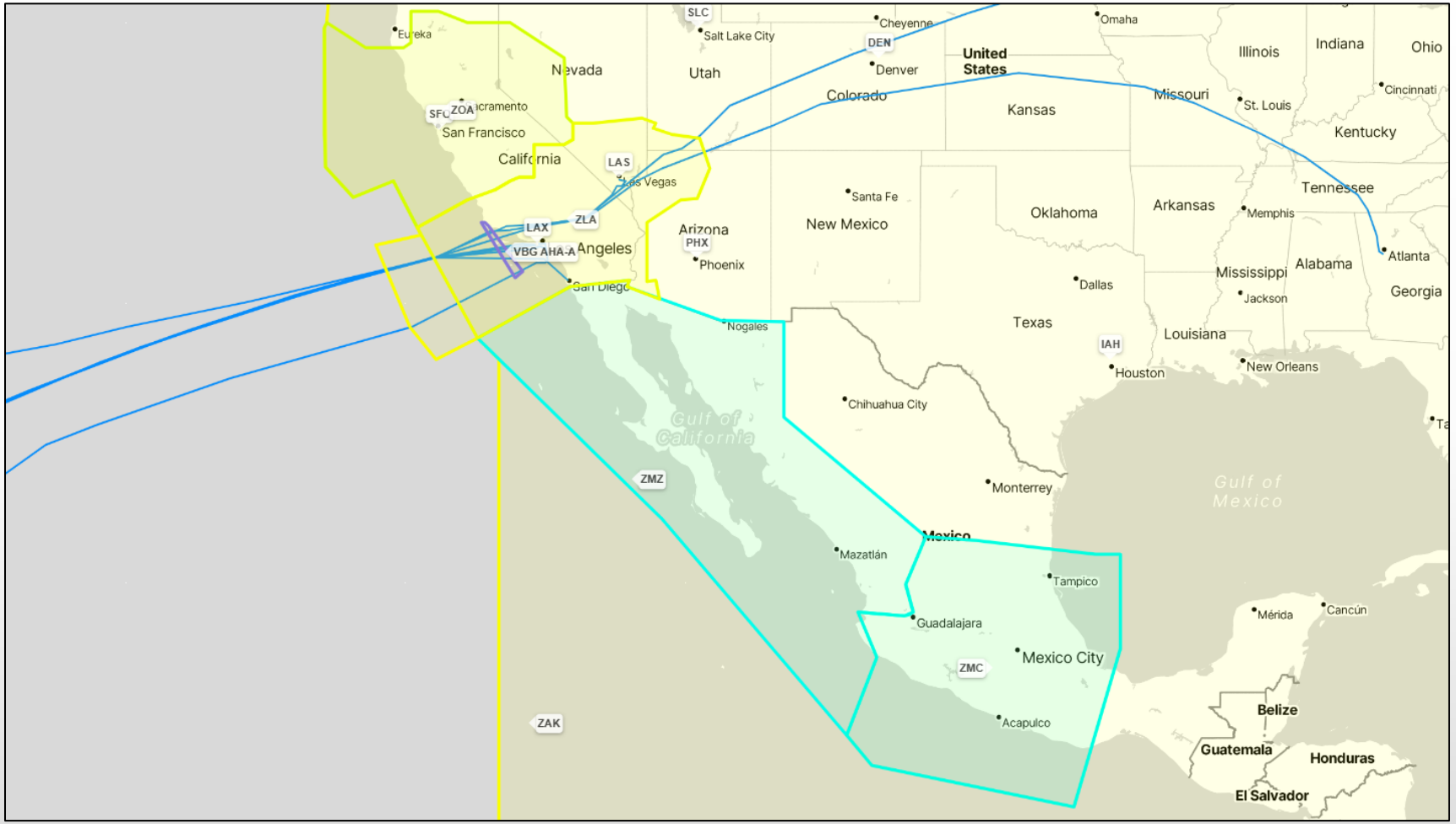
2025 Launches During:

Low-Traffic Hours: 2 (2.9%)

High-Traffic Hours: 5 (7.2%)

VBG AHA-A

Sample Busy Hour Throughput



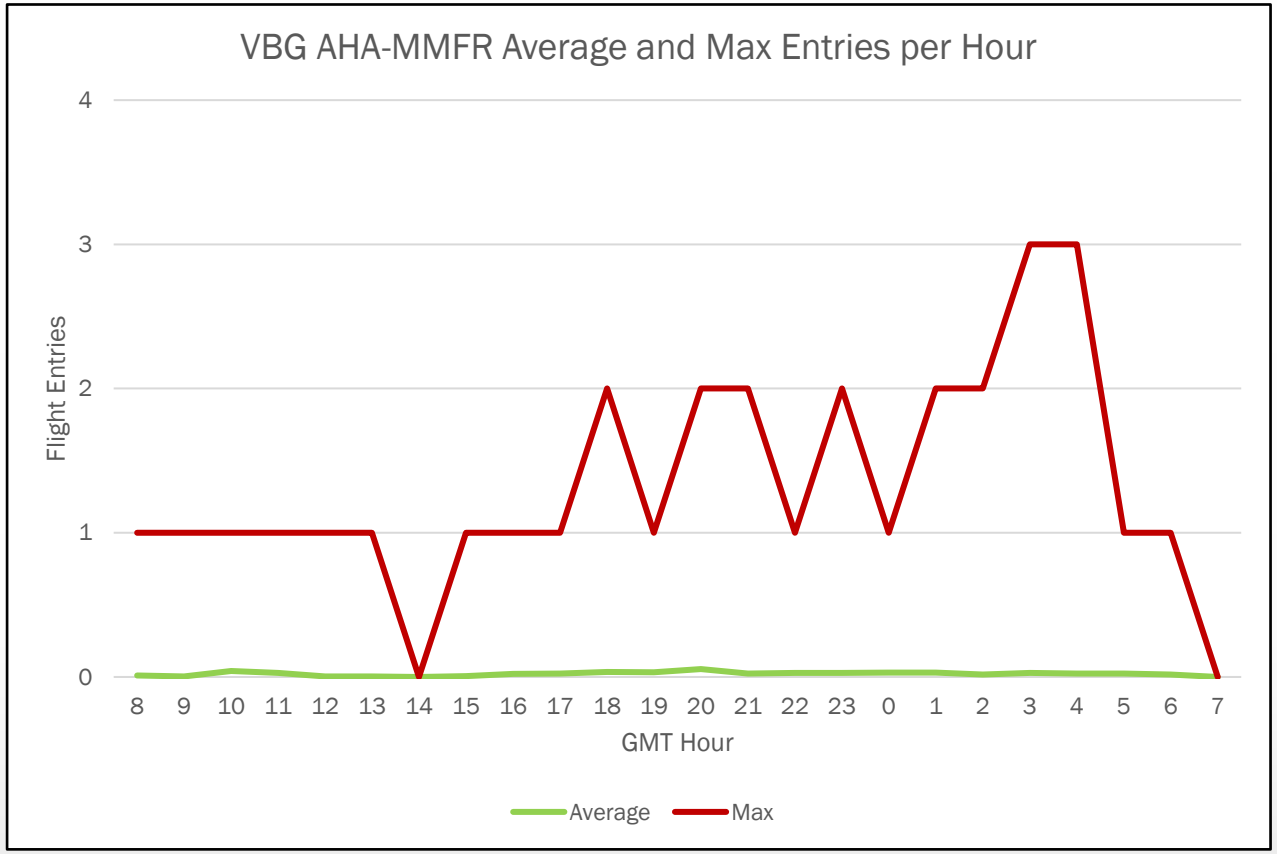
Time Range Shown: 01/09/2025 1900Z - 2000Z

VBG AHA-MMFR

Weekday Averages

VBG AHA-MMFR

	Hour (Z)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Total Entries	Average	0	1	1	1	0	1	0
	Max	2	2	7	4	3	5	3
Peak Load	Average	0	0	0	1	0	1	0
	Max	2	2	2	3	2	2	1



Hourly Averages

VBG AHA-MMFR

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Total Entries	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	1	1	1	0	1	1	1	2	1	2	2	1	2	1	2	2	3	3	1	1	0
Peak Load	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	1	1	1	0	1	1	2	2	1	2	2	2	2	1	2	3	2	2	1	1	1

VBG AHA-MMFR

Weekday Hourly Averages

VBG AHA-MMFR Hourly Entries by Weekday

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Sunday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0
Monday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	0	1	1	0	1	0	0	1	1	2	1	2	1	1	0	1	0	0	0	0	0	1	0
Tuesday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	1	1	0	0	0	1	1	1	2	1	1	2	1	1	0	2	0	3	3	1	1	0
Wednesday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	1	1	0	0	0	0	1	1	1	1	1	1	1	2	1	1	2	1	2	0	0	0
Thursday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	1	0	0	0	0	1	1	2	0	2	1	0	1	1	2	1	0	0	1	1	0
Friday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	0	1	1	0	0	0	1	1	1	1	1	2	2	1	1	1	1	1	2	2	0	1	0
Saturday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	1	1	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	1	1	0

Top 10 and *Bottom 10* values highlighted to identify most optimal/sub-optimal launch times

2025 Launches: 69

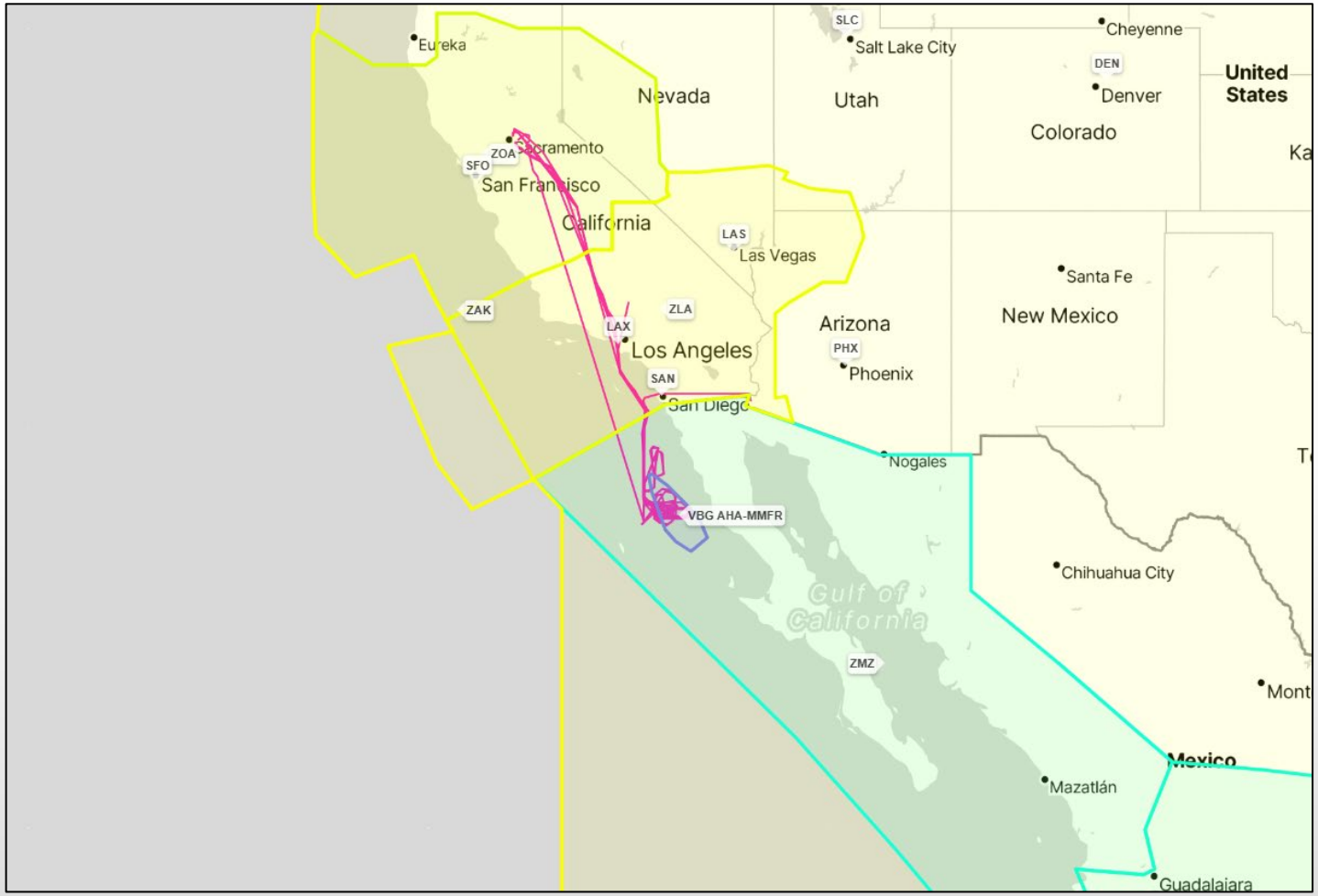
2025 Launches During:

Low-Traffic Hours: 26 (37.7%)

High-Traffic Hours: 5 (7.2%)

VBG AHA-MMFR

Sample Busy Day* Throughput



Time Range Shown: 02/11/2025 0800Z – 02/12/2025 0759Z

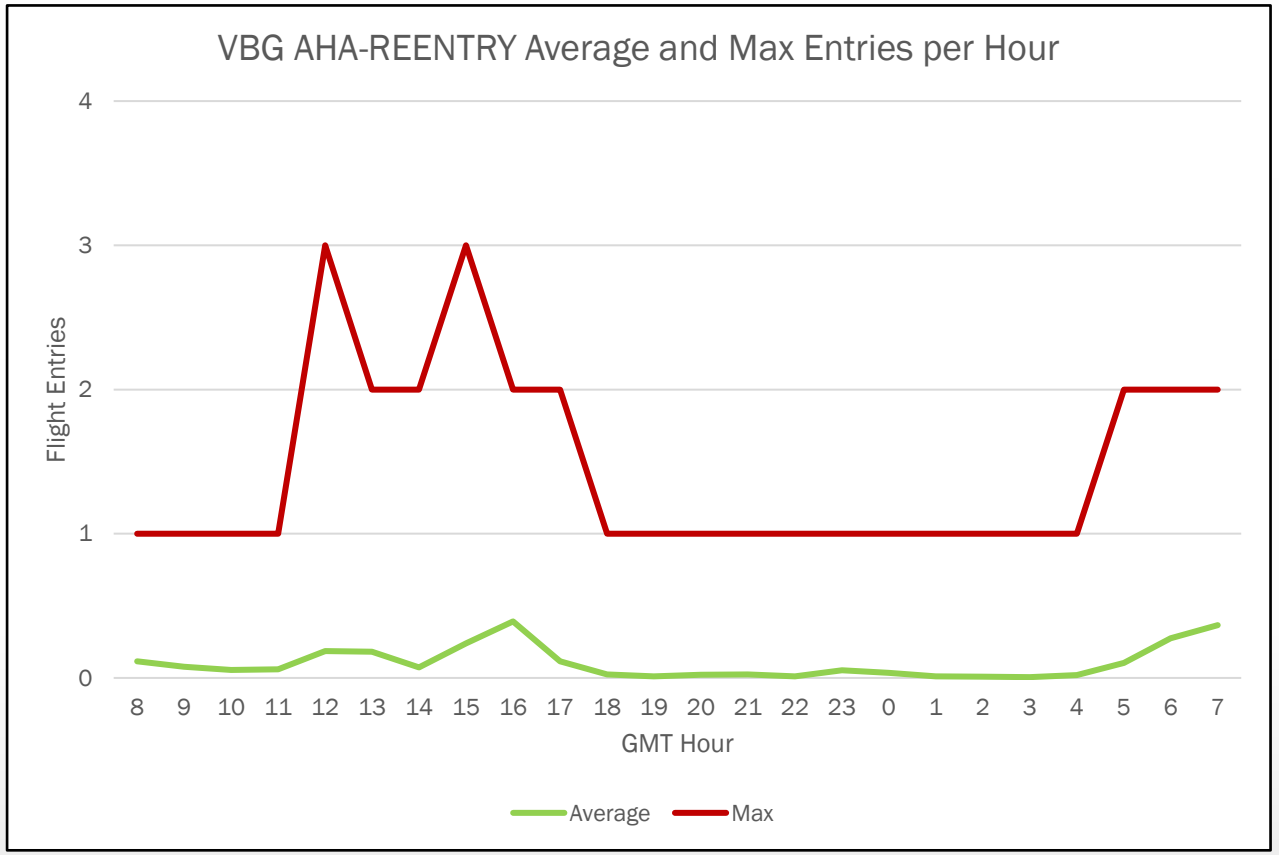
*All flights entering AHA were military flights

VBG AHA-REENTRY

Weekday Averages

VBG AHA-REENTRY

	Hour (Z)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Total Entries	Average	2	3	2	3	3	3	2
	Max	6	8	6	8	9	8	7
Peak Load	Average	1	1	1	1	1	1	1
	Max	2	2	2	2	2	2	2



Hourly Averages

VBG AHA-REENTRY

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Total Entries	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	1	3	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2
Peak Load	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	2	1	1	1	2	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2

VBG AHA-REENTRY

Weekday Hourly Averages

VBG AHA-REENTRY Hourly Entries by Weekday

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Sunday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	0	2	2	2	1	2	1	1	0	0	0	0	1	0	0	0	0	1	1	2	2
Monday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	1	2	1	1	2	2	1	1	0	1	1	0	1	0	0	0	1	0	2	2	2
Tuesday	Average	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	1	1	1	2	1	2	1	1	1	1	0	1	1	1	1	0	1	0	2	1	2
Wednesday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	0	1	1	1	1	1	3	2	1	1	1	1	1	0	0	1	0	0	0	1	2	1	2
Thursday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Max	1	0	1	1	2	1	1	2	2	2	1	1	1	1	1	1	0	1	0	0	1	2	2	2
Friday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	1	3	2	1	2	2	1	0	1	1	0	0	1	1	1	1	0	1	1	1	1
Saturday	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	1	1	1	1	2	1	1	2	2	1	0	0	1	1	0	0	1	0	1	0	0	2	2	2

Top 10 and *Bottom 10* values highlighted to identify most optimal/sub-optimal launch times

2025 Launches: 69

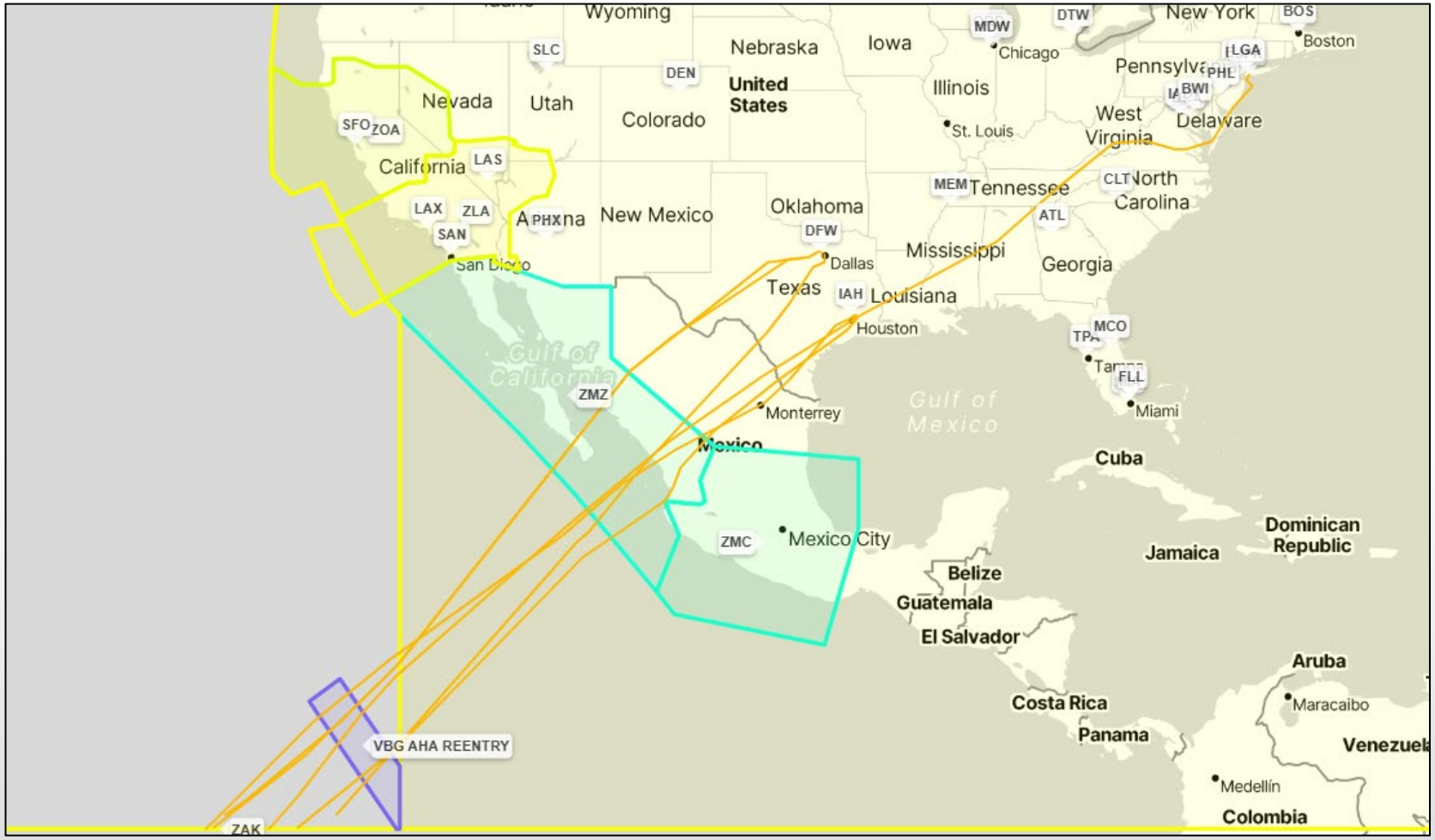
2025 Launches During:

Low-Traffic Hours: 20 (29.0%)

High-Traffic Hours: 4 (5.8%)

VBG AHA-REENTRY

Sample Busy Day Throughput



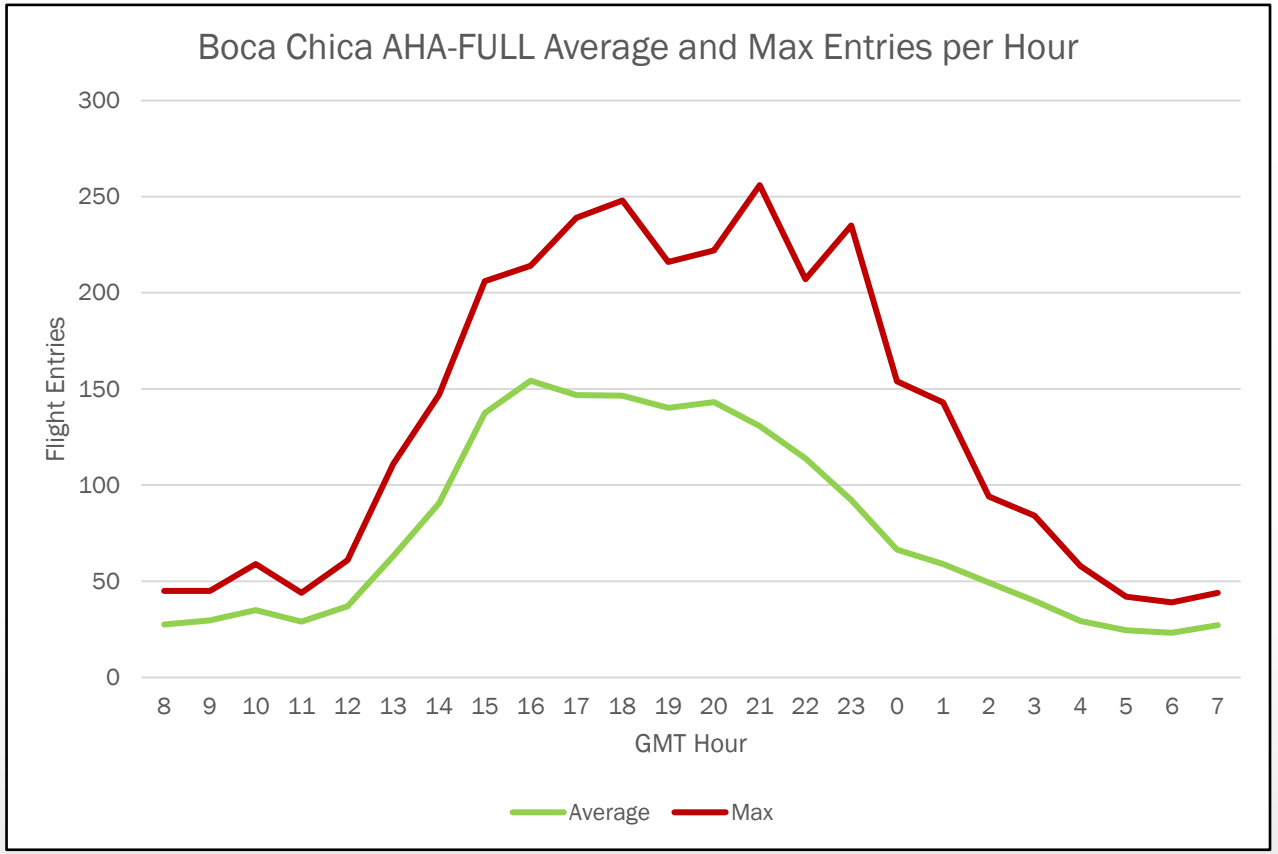
Time Range Shown: 05/11/2025 0800Z – 05/12/2025 0759Z

Boca Chica AHA-FULL

Weekday Averages

BOCA CHICA AHA-FULL

	Hour (Z)	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Total Entries	Average	1859	1790	1689	1731	1834	1873	2079
	Max	2586	2451	2450	2225	2371	2533	2921
Peak Load	Average	32	32	30	31	33	32	35
	Max	41	41	40	42	40	46	45



Hourly Averages

BOCA CHICA AHA-FULL

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Total Entries	Average	27	30	35	29	37	63	91	138	154	147	147	140	143	131	114	92	66	59	49	40	29	24	23	27
	Max	45	45	59	44	61	111	147	206	214	239	248	216	222	256	207	235	154	143	94	84	58	42	39	44
Peak Load	Average	7	8	8	8	10	15	20	27	29	28	28	27	28	26	23	19	15	12	11	9	7	7	6	7
	Max	14	14	14	14	18	30	32	42	43	45	40	46	41	42	45	41	31	27	26	23	23	16	13	13

Boca Chica AHA-FULL

Weekday Hourly Averages

BOCA CHICA AHA-FULL Hourly Entries by Weekday

	Hour (Z)	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Sunday	Average	28	29	33	29	37	61	93	141	159	152	148	143	146	132	116	94	75	66	52	43	31	25	23	26
	Max	43	43	52	42	54	99	134	183	214	200	215	210	197	203	192	159	154	143	94	84	58	42	35	41
Monday	Average	26	30	36	29	36	63	89	134	153	142	145	138	137	127	111	86	65	58	49	39	30	26	22	28
	Max	45	40	59	39	53	86	130	161	201	198	188	213	177	207	181	163	108	108	81	60	52	41	32	44
Tuesday	Average	27	32	35	28	34	60	83	125	136	129	135	126	133	117	99	84	63	57	47	41	27	23	23	28
	Max	41	45	58	40	53	92	122	165	187	190	205	190	187	193	171	147	115	102	85	60	46	40	36	42
Wednesday	Average	29	30	34	27	34	59	82	130	144	137	138	131	137	122	107	88	64	55	48	37	28	23	23	27
	Max	44	41	50	41	49	101	112	174	195	191	200	181	173	180	155	126	112	89	77	78	46	37	34	41
Thursday	Average	27	29	35	29	39	65	91	136	153	145	146	140	143	129	111	90	65	54	46	38	27	23	23	26
	Max	40	41	52	37	55	104	121	173	206	201	185	194	185	194	178	149	97	77	68	51	42	34	34	40
Friday	Average	28	29	36	31	39	64	92	142	157	150	147	142	143	132	117	95	67	61	52	40	31	26	24	27
	Max	44	42	50	39	53	97	126	179	201	210	209	203	185	205	193	172	106	95	91	62	51	36	39	39
Saturday	Average	27	29	36	32	40	70	106	155	178	173	169	160	164	156	136	108	67	62	50	40	31	25	23	27
	Max	40	43	52	44	61	111	147	206	214	239	248	216	222	256	207	235	109	104	89	60	51	37	36	39

Top 10 and Bottom 10 values highlighted to identify most optimal/sub-optimal launch times

2025 Launches: 5

2025 Launches During:

Low-Traffic Hours: 0 (0.0%)

High-Traffic Hours: 0 (0.0%)

Boca Chica AHA-FULL

Sample Busy Hour Throughput

Time Range Shown: 01/04/2025 1500Z - 1600Z

Operational Statistics

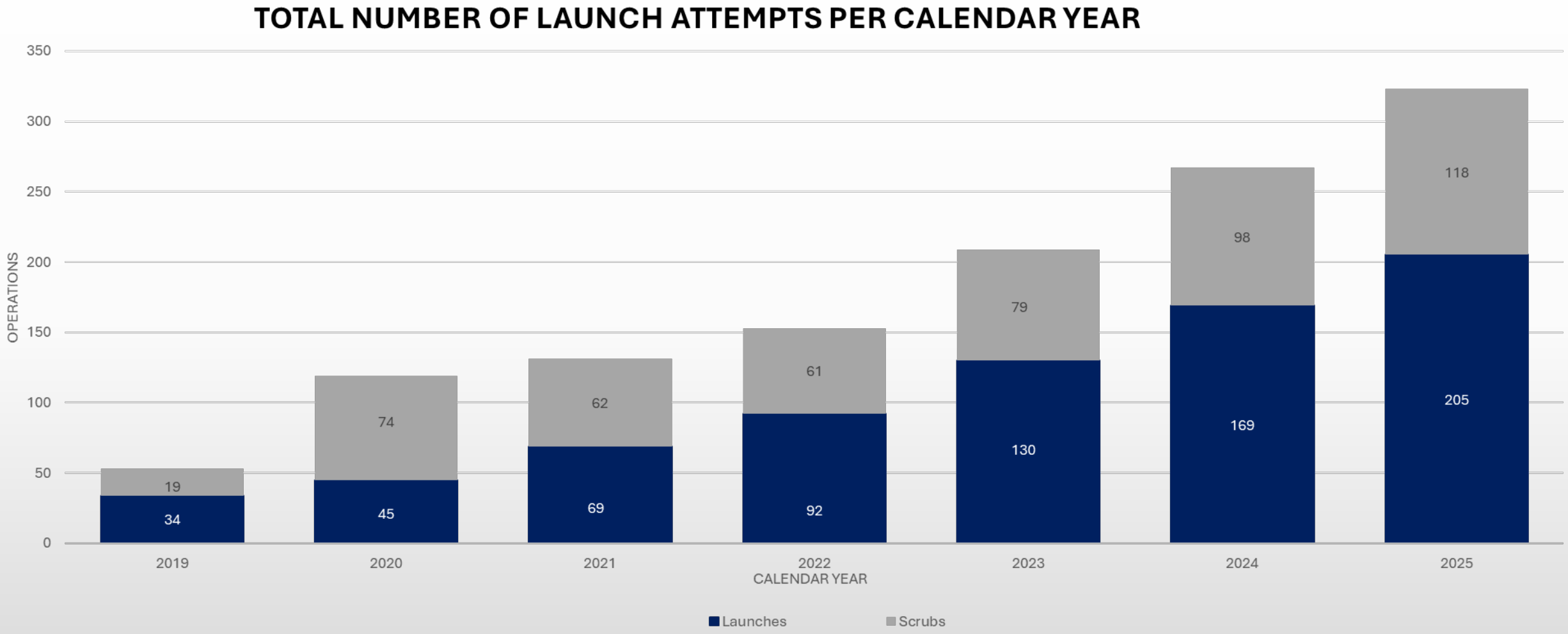
2025 Year in Review

- 205 launches in calendar year (CY) 2025 and 323 total launch attempts.
  - 65 VBG launches (31.40%)
  - 112 CCSFS/KSC launches (54.11%)
  - Boca Chica, re-entries, and other (14.49 %)

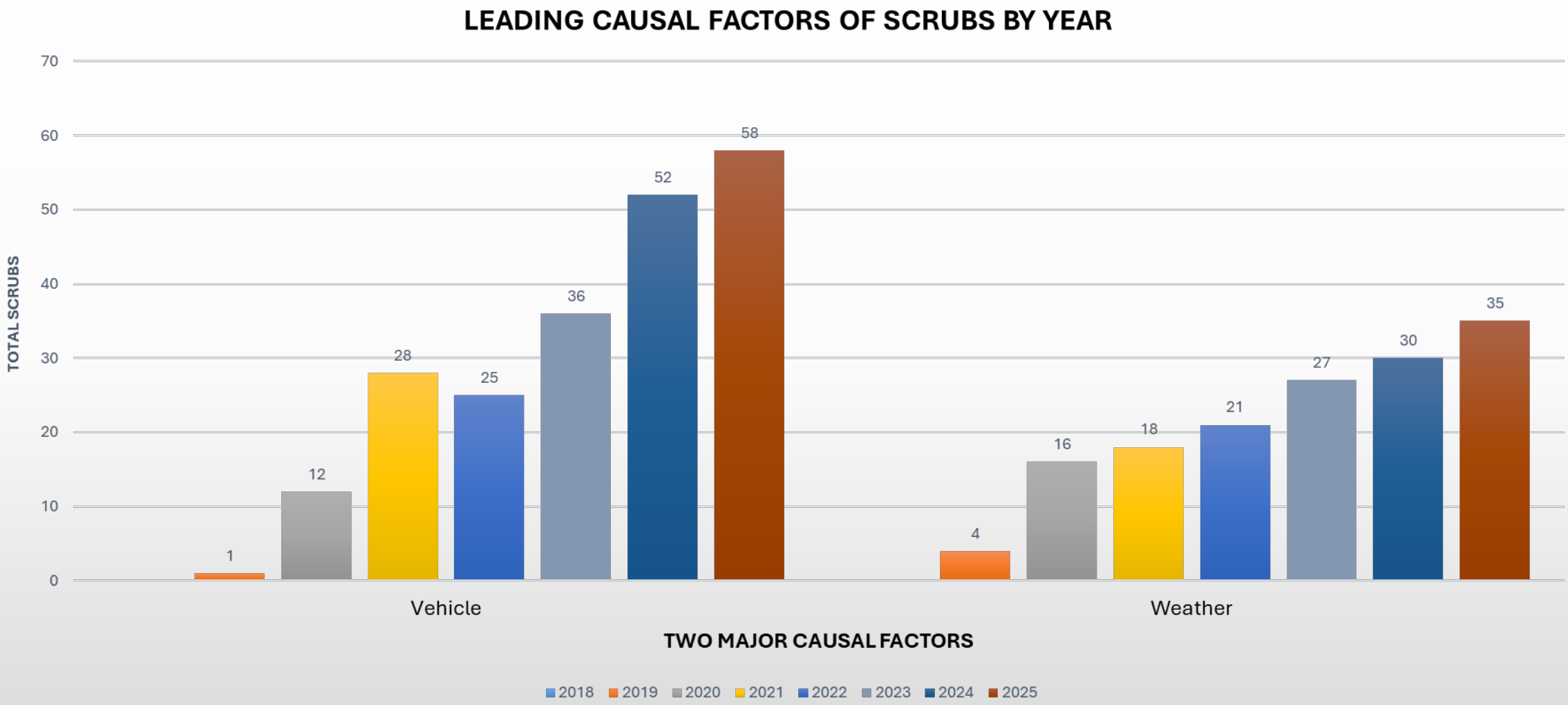
- Of 118 scrubs in CY 2025:
  - 58 due to vehicle issues (49.15%)
  - 35 due to weather (29.66%)
  - Other scrub reasons: scheduling, pad, mechanical, payload, and mission assurance. (21.19%)

- In CY 2025, there were 188 licensed operations and 17 non-licensed operations. (103 CCSFS/KSC and 59 VBG)

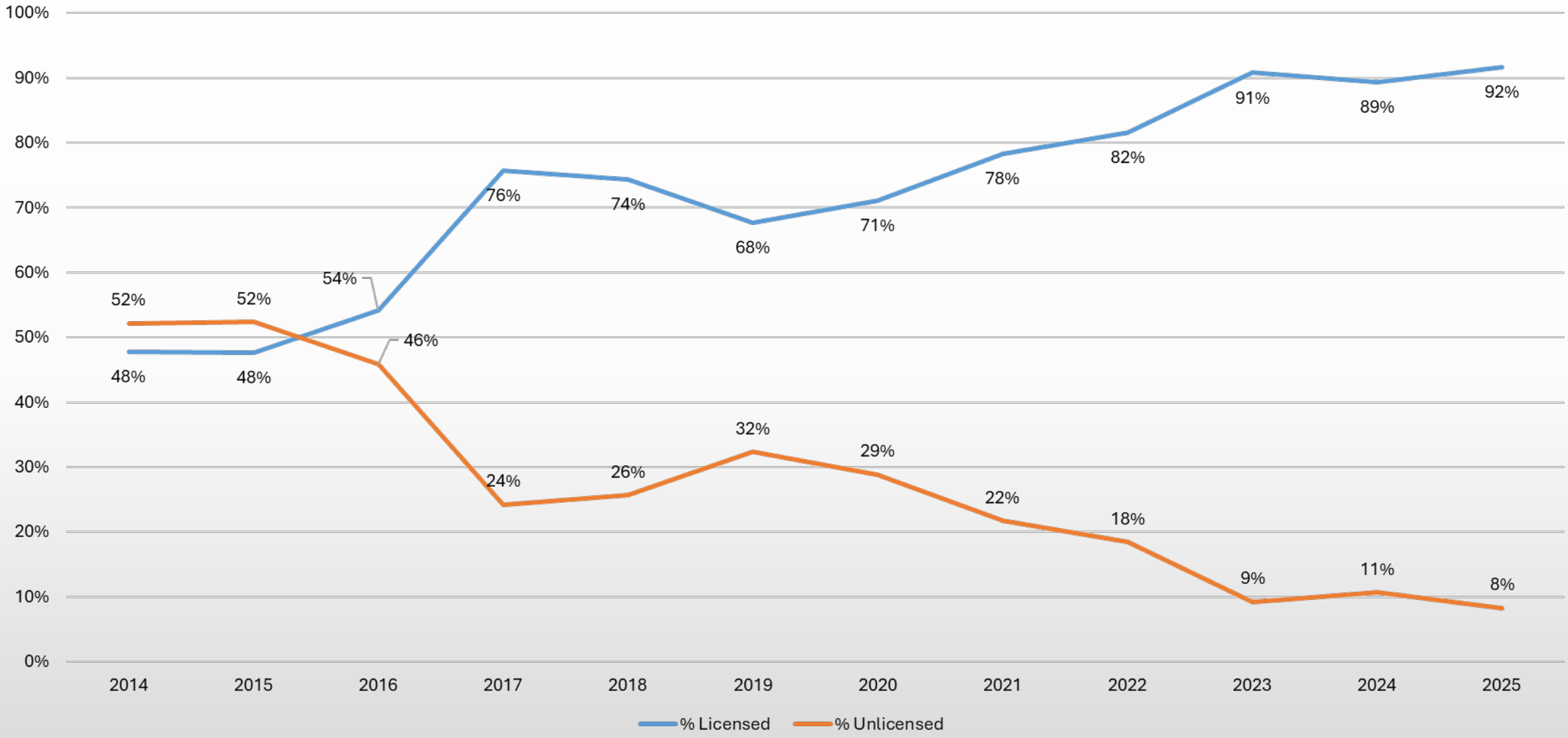
Launches Vs. Attempts



Scrub Categories

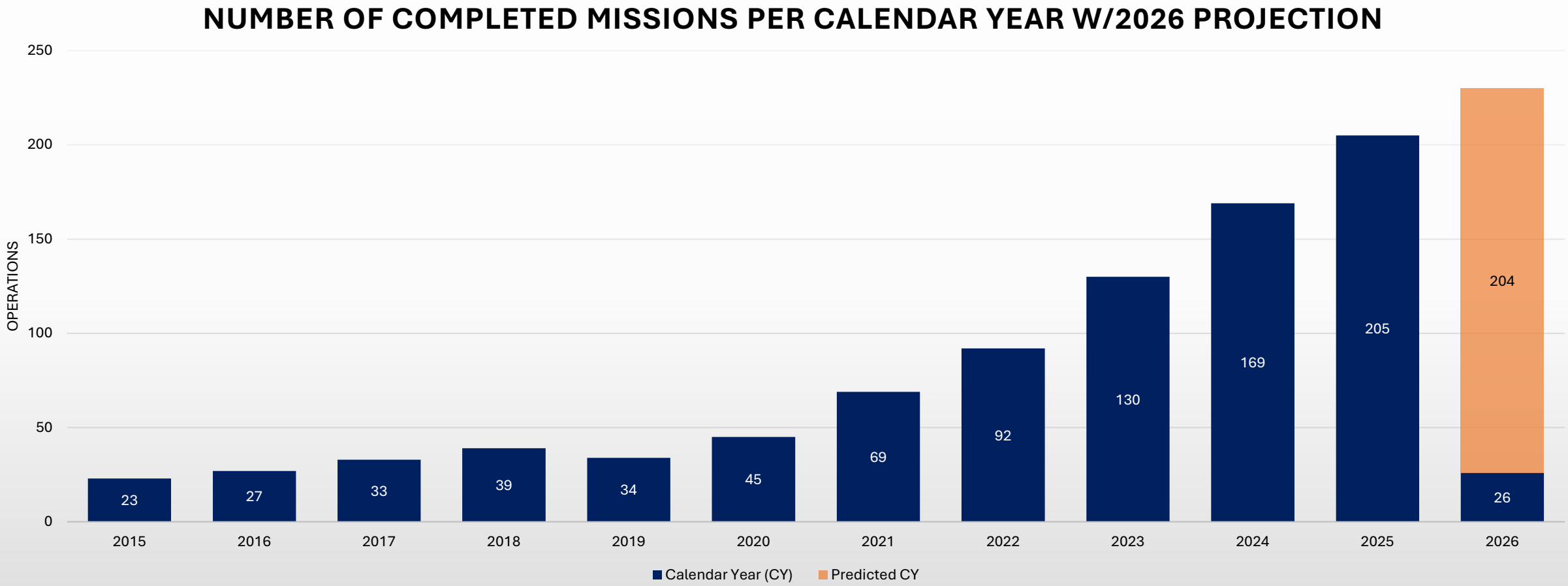


Licensed vs. Non-licensed Operations



2026 Space Launch and Reentry Projection*

As of February 24, 2026



*Includes FAA-licensed and non-FAA-licensed space launch and reentry operations

Brand New Air Traffic Control System (BNATCS)

By the Numbers

- 5,170 new high speed network connections on fiber, satellite, and wireless
- 27,625 new radios
- 462 new digital voice switches
- 612 state of the art radars
- 44 airports will have new replacement surface radars
- 200 airports will have Surface Awareness Initiative surveillance technology
- 89 airports will have new Terminal Flight Data Manager tools
- 435 air traffic control towers will have new Enterprise Information Display Systems
- 113 air traffic control towers will have new Tower Simulation Systems
- 1 new consolidated Air Route Traffic Control Center (first new one since the 1960s)
- 110 additional weather stations in Alaska
- 64 more weather camera sites in Alaska
- 1 new consolidated Terminal Radar Approach Control

Primary Workstreams/Domains

- Communications
- Surveillance
- Automation
- Alaska
- Facilities/Other

Peraton

Peraton is a FULL partner in BNATCS

1. Orchestrator – Scheduling multiple, parallel programs to prevent fragmentation. (Big picture)
2. Force Multiplier – “Badgeless” capacity will directly help FAA teams to meet the 3-year deadline.

- Complete by end of Calendar Year 2028
- No unmanaged disruptions
- Must be better than current system

BNATCS Lifecycle

Step 1: Procurement of Integrator	…Done
Step 2: NEEDS Package Definitization	…Almost done
Step 3: Implementation	…Started
Step 4: Operations and Maintenance	

No
Excuses
Exceptional
Delivery
Standard

BNATCS Implementation Team (ATO)

- At least one member from each Service Unit
- Identify roadblocks and mitigate them
- As always, **safety first**

ATO System Operations Services Goals

- Provide timely information on upcoming installations
- Provide regular updates on progress
- Remain available to NAS stakeholders for quick answers

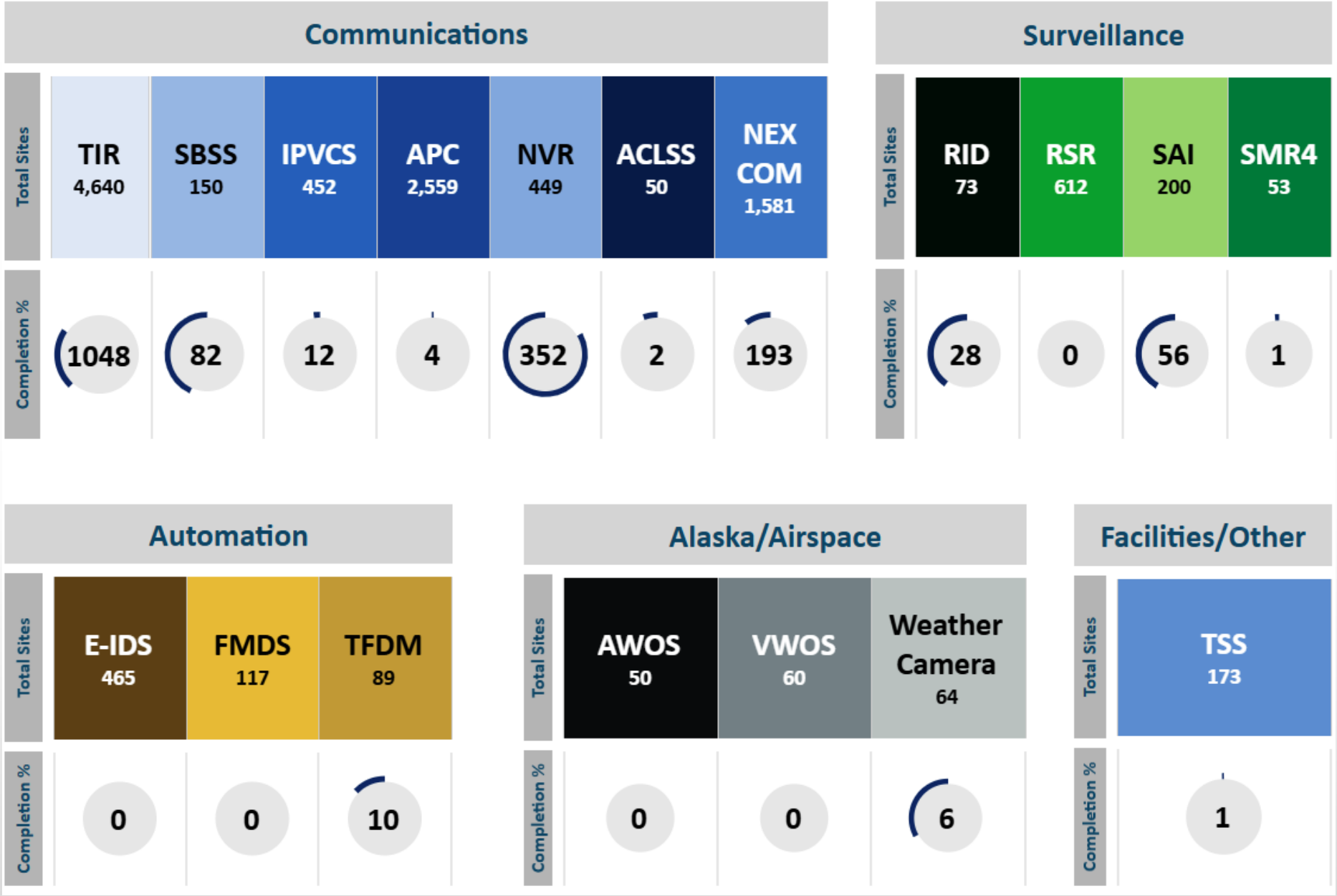
BNATCS Implementation Team Members

Service Unit	POC(s)
AJI	Timothy Evans
AJV/G	Stephanie Crocker
AJM	Allan Schock
AJW	Thomas Waldron – Team Lead
AJR	Felicia McIntyre Richard Ditto
AJT	Miles Magnuson Mike Schmidt Stephany Butler
AJF	Sean Dudgeon
NATCA	Daniel Hamilton
Airports	Kimberly Noonan
RA	Shawn Kozica
AOC	Lindsay Aaronson

Implementation Team Role

The BNATCS Implementation Team is comprised of subject matter experts whose primary role is to support ATC modernization programs, ensuring service unit priorities and policies are considered. The Implementation Team is expected to:

- Serve as a liaison between the Integrator, program implementation teams, and service unit leadership
- Ensure program activities align with ATO strategy
- Ensure continuity of operations during implementation
- Assist Integrator with risk management
- Assist with coordination across multiple teams and stakeholders
- Monitor and report progress, ensure compliance with policies and standards
- Track dependencies and remove barriers


Communications
Total Sites
TIR 4,640
SBSS 150
IPVCS 452
APC 2,559
NVR 449
ACLSS 50
NEX COM 1,581
Completion %
1048
82
12
4
352
2
193
Surveillance
Total Sites
RID 73
RSR 612
SAI 200
SMR4 53
Completion %
28
0
56
1
Automation
Total Sites
E-IDS 465
FMDS 117
TFDM 89
Completion %
0
0
10
Alaska/Airspace
Total Sites
AWOS 50
VWOS 60
Weather Camera 64
Completion %
0
0
6
Facilities/Other
Total Sites
TSS 173
Completion %
1

Joint Space Operations Weather Resources Sub-team Update

Purpose of the Joint Weather Sub-Team

- During SpOC XI (May 7, 2025), members of the forum expressed interest in forming a joint space-aviation sub-team to explore possible meteorology resources for space transport operators (STO).
- The sub-team began in June of 2025.
- Task: Determine if weather forecasting techniques can be better utilized in space transport operations to increase efficiency of the NAS.

Key Sub-team Considerations

- What specific weather criteria are critical to an STO and how accurately can they be forecasted?
- Is there weather criteria that is specific to launch site or mission type?
- Is the rocket's capabilities a factor in determining which weather criteria is relevant?

FAA/Industry Activities for Weather Sub-Team

- Explored avenues for possible real-time efficiency utilization and pre-mission analysis.
- Investigated ways to reduce airspace delays with better foresight of aborted missions.
- Discussed limitations of several factors for on-orbit, launches, and reentries, including but not limited to:
  - Rocket capabilities
  - Current regulatory requirements
  - Physical limitations

Weather Sub-Team Recommendations

- Possibility to establish a common workspace for weather information sharing between meteorologists, STO planners, and FAA air traffic managers.
- Further disseminate Launch Lightening Commit Criteria (LLCC) to relevant stakeholders.
- Develop an analysis of applicable weather criteria that covers all phases of operations to assess availability that supports effective mission planning.

Joint Airspace Optimization Sub-team

Joint Airspace Optimization Sub-team

- Continued growth of aviation and space transport operations (STO) requires integration using modern tools, processes, and data sharing.

- Sub-team will evaluate opportunities to improve NAS integration for both space and aviation operators, including data sharing, aircraft routes, space vehicle trajectories, mission timing, and window duration.

The task will:

- Identify operational, scheduling, and coordination factors that influence launch and aircraft scheduling, including primary and back-up dates.
- Incorporate relevant results of the Joint Weather Sub-team recommendations.
- Identify areas to increase information sharing related to aviation and STO scheduling.
- Consider how opportunities, including but not limited to modifying air routes or establishing space transportation corridors, could reduce disruption to all NAS users by deconflicting operations.
- Consider regional analysis of airspace constraints.

Realtime Information Sharing: ATO Space Operations Hotline

Our Mission

Ensure space launch and reentry operations are safely and efficiently integrated into the National Airspace System.

- Notification
- Evaluation
- Decision
- Develop an Airspace Management Plan

- Monitor and support launch and reentry operations

- Post operation analysis
- Hotwash
- Exec Summery

Day of Operation

ATO Space Ops stands up the Challenger Room up to 2 hours before space operation

Establish and manage the L/R operation via a hotline.

Ensure appropriate traffic management initiatives are in place.

Utilize Space Data Integrator(SDI) for the receipt of STO telemetry.

Monitor air traffic in the vicinity of the L/R operation.

Keep the ATCSCC and air traffic facilities apprised of the status of AHA airspace.

Prepare a direct response to **off** nominal events.

FAA ATO Space Operations

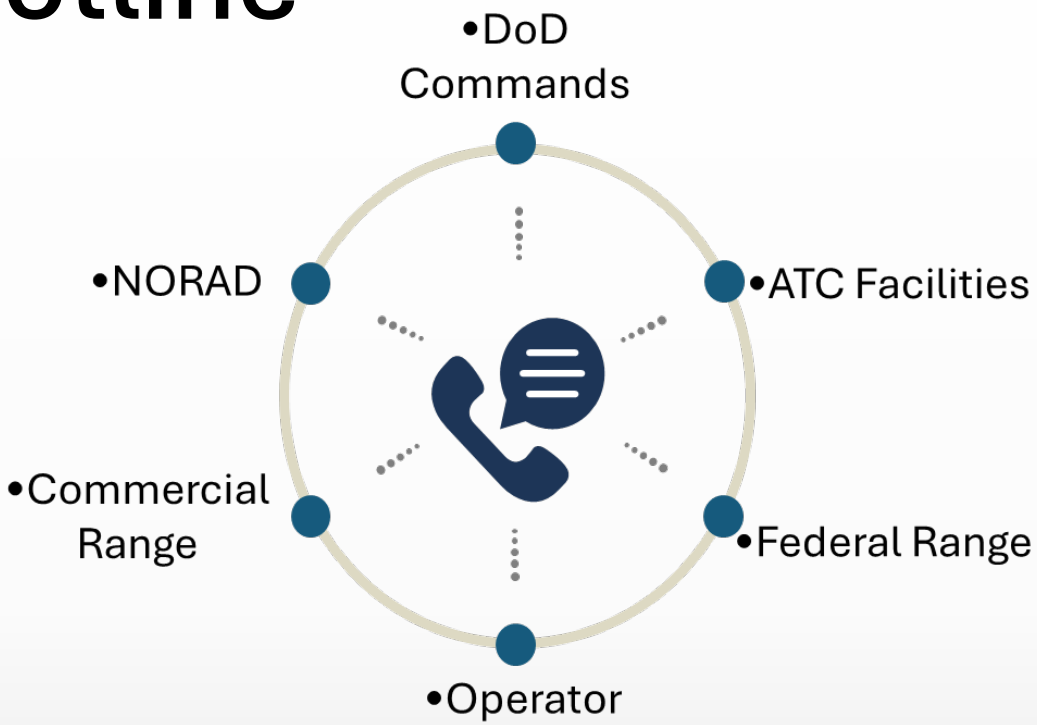
The FAA ATO Space Operations team coordinates launch and reentry operations from the Challenger Room at the Air Traffic Control System Command Center in Warrenton, Virginia.

Ensures space launch and reentry operations are safely and efficiently integrated into the National Airspace System.

Interfaces with the FAA's Office of Commercial Space Transportation (AST), Air Traffic Control facility traffic managers, launch/reentry operators, and launch ranges.

ATO Space Operations Hotline

- The hotline is key to real-time shared situational awareness
- Operator calls out key mission events.
- Airspace is tactically managed and deactivated.
- NOTAMs and traffic management initiatives are cancelled.
- In the event of a launch malfunction, Debris Response Areas (DRA) are activated and canceled.



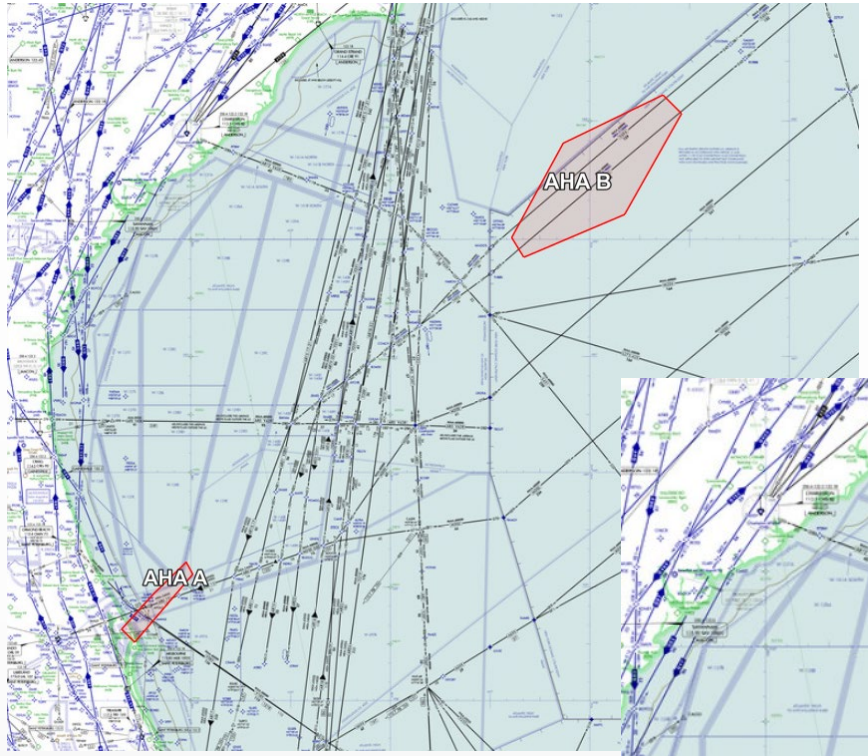
Safety Data

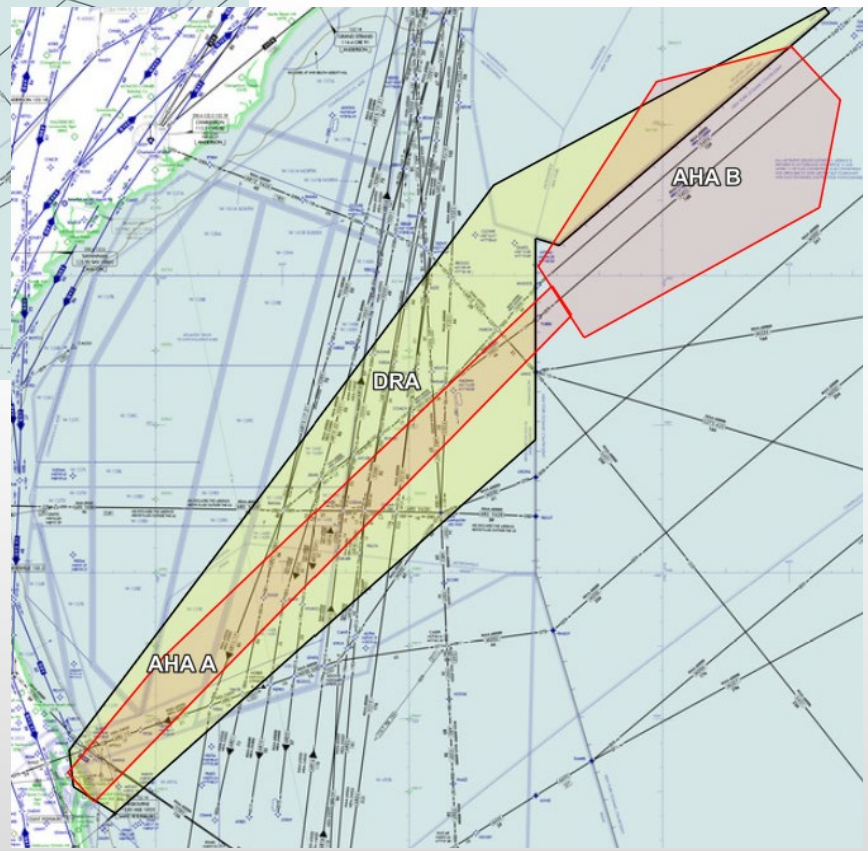
Aircraft Hazard Area (AHA)

- Used by Air Traffic Control (ATC) to segregate air traffic from launch vehicles, amateur rockets, jettisoned stages, hardware, or falling debris via a Notice to Air Mission (NOTAM) as either a Temporary Flight Restriction (TFR) or stationary Altitude Reservation (ALTRV).

Debris Response Area (DRA)

- Pre-determined volumes of airspace that may be activated in response to off-nominal debris-generating events in the NAS.





Phraseology

- “Nominal.”
- “Anomaly has occurred.”
- “Lost comms with the vehicle and cannot confirm vehicle health.”

Upcoming Space CDM Meetings

Meeting	Date	Location
ESC Meeting	March 13	Virtual
ESC Meeting	June 2	Virtual
SpOC XIV	June 3	In person – MITRE TBD
ESC Meeting	September 15	In person – ATCSCC
Joint Space – Aviation CDM	September 15	In person – ATCSCC
SpOC XV	September 15	In person – ATCSCC
ESC Meeting	December 8	Virtual
SpOC XV	December 10	Virtual