Potential ASE Aircraft

September 25, 2019

ASE VISION
INFORM. INVOLVE. COLLABORATE.

ASPEN/PITKIN COUNTY AIRPORT

Airbus A220-100

Airbus A220-100

ADG: III

Length: 114.75 Feet

Wingspan: 115.08 Feet

Approach CAT: C

Range: 3,400 NM

MTOW: 134,000 lbs

Passengers: 109

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Airbus A220-300

Airbus A220-300

ADG: III

Length: 127.0 Feet

Wingspan: 115.08 Feet

Approach CAT: C

Range: 3,350NM

MTOW: 149,000 lbs

Passengers: 140

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Airbus A319

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Airbus A319

ADG: III

Length: 111.02 Feet

Wingspan: 117.45 Feet

Approach CAT: C

Range: 3,750NM

MTOW: 168,653 lbs

Passengers: 132

Airbus A319 NEO

Airbus A319 NEO

ADG: III

Length: 111.02 Feet

Wingspan: 117.45 Feet

Approach CAT: C

Range: NM

MTOW: 166,449 lbs

Passengers: 126

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Airbus A320

Airbus A320

ADG: III

Length: 123.27 Feet

Wingspan: 117.45 Feet

Approach CAT: C

Range: 3,300NM

MTOW: 171,961 lbs

Passengers: 157

Airbus A320 NEO

Airbus A320 NEO

ADG: III

Length: 123.27 Feet

Wingspan: 117.45 Feet

Approach CAT: C

Range: 3,500 NM

MTOW: 174,165 lbs

Passengers: 140

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Bombardier CRJ-700

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Bombardier CRJ-700

ADG: II

Length: 106.57 Feet

Wingspan: 76.27 Feet

Approach CAT: C

Range: 1,400 NM

MTOW: 77,000 lbs

Passengers: 70

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Bombardier CRJ-550

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Bombardier CRJ-550

ADG: II

Length: 106.57 Feet

Wingspan: 76.27 Feet

Approach CAT: C

Range: 1,000 NM

MTOW: 65,000 lbs

Passengers: 50

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Bombardier Dash 8 Q400

Bombardier Dash 8 Q400

ADG: III

Length: 107.75 Feet

Wingspan: 93.25 Feet

Approach CAT: C

Range: 1,100 NM

MTOW: 65,200 lbs

Passengers: 76

Boeing 737-700

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Boeing 737-700

ADG: III

Length: 110.42 Feet

Wingspan: 117.42 Feet

Approach CAT: C

Range: 4,400 NM

MTOW: 154,500 lbs

Passengers:

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Boeing 737 MAX 7

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Boeing MAX 7

ADG: III

Length: 116.67 Feet

Wingspan: 117.83 Feet

Approach CAT: D

Range: 3,850 NM

MTOW: 177,000 lbs

Passengers: 138-153

Boeing 737 MAX 8

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Boeing MAX 8

ADG: III

Length: 129.5 Feet

Wingspan: 117.83 Feet

Approach CAT: D

Range: 3,550 NM

MTOW: 181,200 lbs

Passengers: 162-178

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Embraer E175

ASPEN/PITKIN COUNTY AIRPORT
ASE VISION

Embraer E175

ADG: III

Length: 103.92 Feet

Wingspan: 93.92 Feet

Approach CAT: C

Range: 2,150 NM

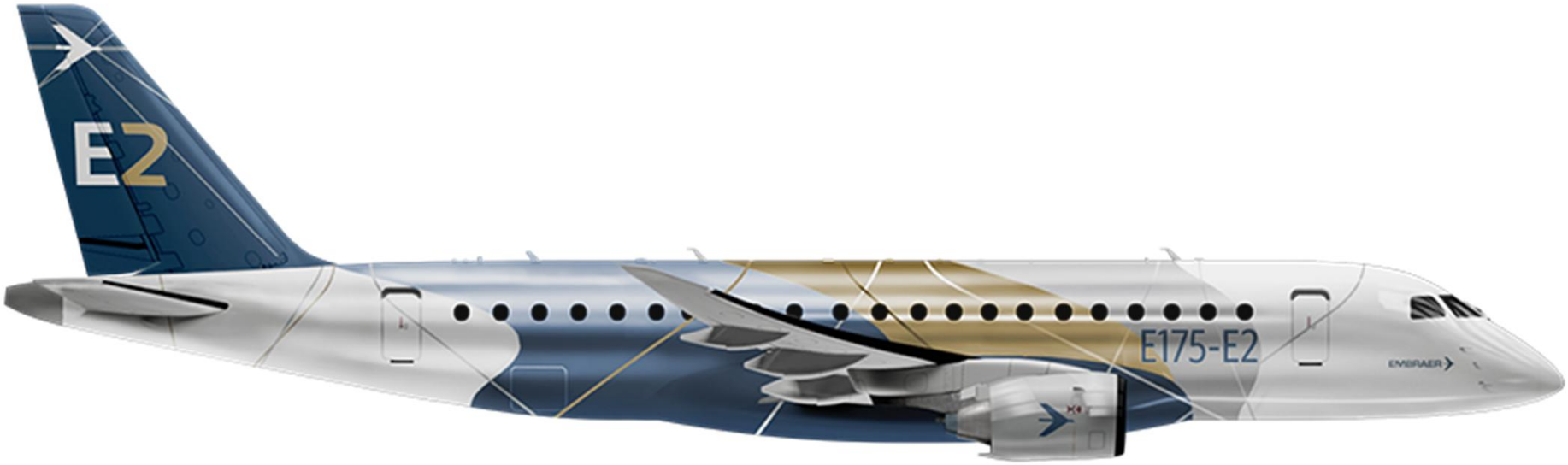
MTOW: 85,517 lbs

Passengers: 76

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Embraer E175-E2



Embraer E175-E2

ADG: III

Length: 106.3 Feet

Wingspan: 101.7 Feet

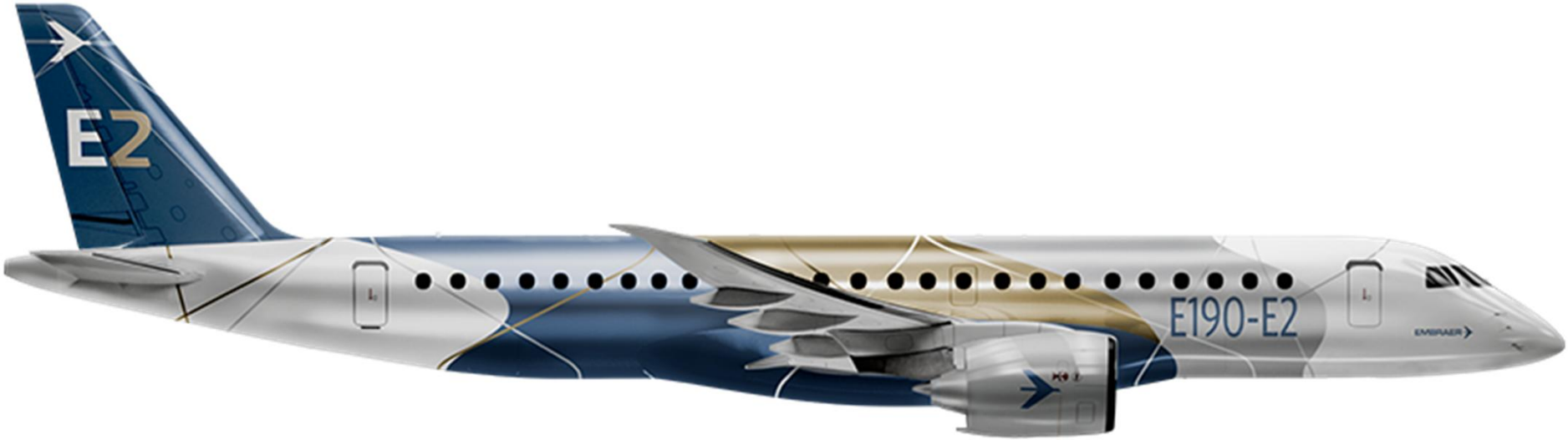
Approach CAT: C

Range: 2,000 NM

MTOW: 98,767 lbs

Passengers: 80

Embraer E190-E2



ASPEN/PITKIN COUNTY AIRPORT
ASE VISION

Embraer E190-E2

ADG: III

Length: 118.92 Feet

Wingspan: 110.7 Feet

Approach CAT: C

Range: 2,850 NM

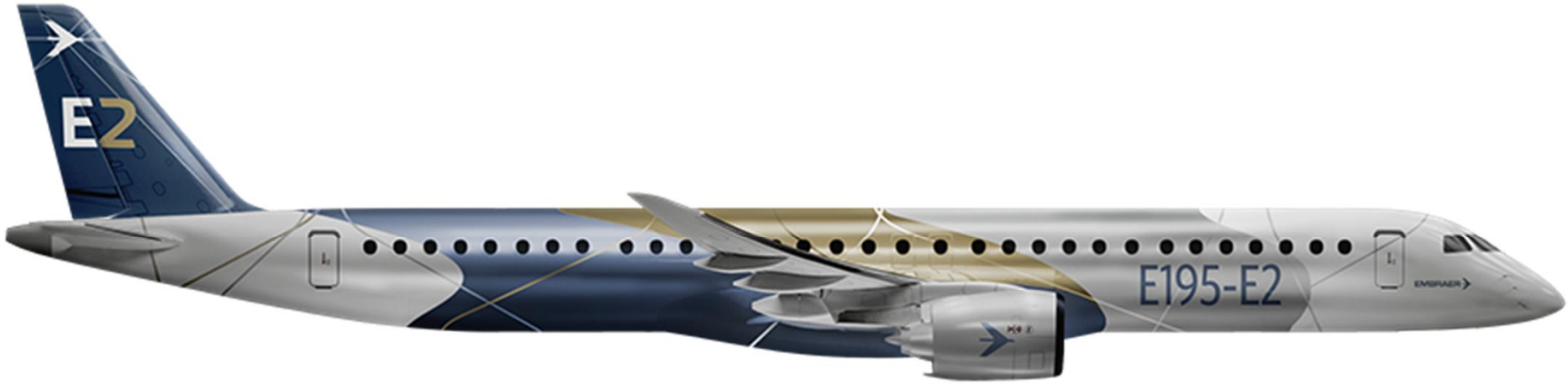
MTOW: 124,341 lbs

Passengers: 97

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Embraer E195-E2



Embraer E195-E2

ADG: III

Length: 136.2 Feet

Wingspan: 115.17 Feet

Approach CAT: C

Range: 2,600 NM

MTOW: 135,584 lbs

Passengers: 120

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Mitsubishi M100 SpaceJet

ASPEN/PITKIN COUNTY AIRPORT
ASE VISION

Mitsubishi M100 SpaceJet

ADG: III

Length: 113.2 Feet

Wingspan: 91.30 Feet

Approach CAT: Unknown

Range: 1,910 NM

MTOW: 86,000lbs

Passengers: 76

Note: Picture is M90

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Mitsubishi M90 SpaceJet

ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Mitsubishi M90 SpaceJet

ADG: III

Length: 117.42 Feet

Wingspan: 95.83 Feet

Approach CAT: C

Range: 2,040 NM

MTOW: 94,358 lbs

Passengers: 81-88

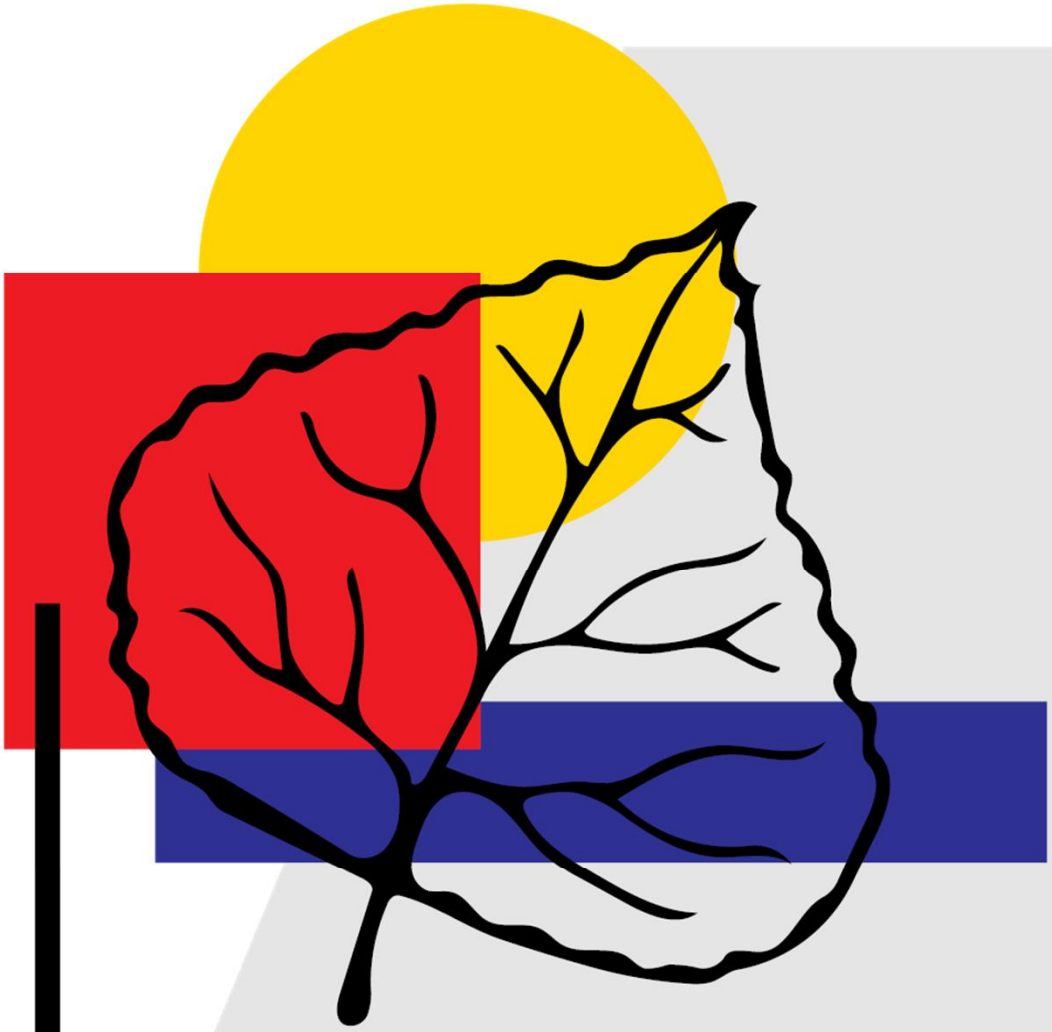
ASPEN/PITKIN COUNTY AIRPORT

ASE VISION

Side by Side A220-100 & E190-E2

Side by Side A319 NEO & A220-300

Side by Side A220-300 & A321 NEO



Data Sheets

Noise

ADG	Manufacturer	Model	Physical Class (Engine)	AAC	Approach Speed (V_{ref})	Seating	Wingspan (ft.)	Range (NM)	MTOW	ICAO Noise			Noise Score	Operations for 2018 Enplanements
										EPNLdB Noise Level Lateral/Full-Power	EPNLdB Noise Level Approach	EPNLdB Noise Level Flyover		
II	Bombardier	CRJ 100/200/440 LR (CL-600-2B19)	Jet	C	140	50	68.67	1,650	53,000	82.4	92.2	77.7		16,452
III	Bombardier	Dash 8 Q400	Turboprop	C	125	76	93.25	1,100	65,200	84.9	94.0	77.8		10,823
III	Airbus	A220-100	Jet	C	130	109	115.08	3,400	134,000	88.0	91.5	78.8		7,547
III	Airbus	A320 NEO Sharklet	Jet	C	136	157	117.45	3,500	174,165	86.4	92.4	80.5		5,876
III	Airbus	A220-300	Jet	C	135	140	115.08	3,350	149,000	87.5	92.4	80.3		5,876
III	Boeing	737-MAX 8	Jet	D	142	178****	117.83	3,550	181,200	88.2	94.0	80.9		4,621
II	Bombardier	CRJ 550 (Same airframe as CRJ-700)	Jet	C	135	50	76.27	1,000	65,000	89.5	92.6	82.4		16,452
II	Bombardier	CRJ 700/701/702 LR	Jet	C	135	70	76.27	1,400	77,000	89.5	92.6	82.4	2	11,751
III	Embraer	E 190 Standard	Jet	C	124	96**	94.25	2,450	105,359	92.2	92.3	82.9		8,569
III	Airbus	A319-100 Sharklet	Jet	C	126	132	117.45	3,750	168,653	91.4	92.9	83.3		6,426
III	Embraer	E 170 Standard	Jet	C	124	69	85.42	2,150	82,012	92.0	94.5	81.3		11,921
III	Embraer	EMB 190-E2	Jet	C	124	97	110.70	2,850	124,341	92.3	92.3	83.8		8,480
III	Airbus	A320-200 Sharklet	Jet	C	136	157	117.45	3,300	171,961	90.9	93.6	84.1		5,484
III	Embraer	EMB 195-E2	Jet	C	124	120	115.15	2,600	135,584	92.3	92.7	84.9		6,855
III	Boeing	737-700 with winglets	Jet	C	130	137	117.42	4,400	154,500	93.1	95.9	83.5		6,528
III	Embraer	EMB 175 LR, extended wingtips	Jet	C	124	76	93.92	2,150	85,517	91.8	95.1	93.0		10,823
III	Mitsubishi	M100 SpaceJet	Jet	C		76	91.30	1,910	86,000	Information not available				10,823
III	Mitsubishi	M90 SpaceJet	Jet	C		88*	95.83	2,040	94,358	Information not available				9,348
III	Embraer	EMB 175-E2	Jet	C	124	80	101.70	2,000	98,767	Information not available				10,282
III	Boeing	737-MAX 7 (same engine as MAX 8)	Jet	D	142	153***	117.83	3,850	177,000	Information not available				5,376

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3 = Worsens current condition

Notes:

Noise and Emissions Source - ICAO Certification Database, August 2019 | HMMH, August 2019; Per-passenger interpretation - Kimley-Horn August 2019.
Operations 2018 = Actual Enplanements at 70% load factor. Future = 2028 Enplanments at 0.8% Annual Growth and 70% load factor
Aircraft Load and Dimensions from FAA Aircraft Design Characteristics Database OCT 2018
ASE Operational Capability from August 2018 Aircraft Feasibilty analysis done by Alec Seybold - Flight Tech Engineering
Range is nominal stated by manufacturer

* Single-class seating as configured for ANA for use in Japan. Range is 76 to 92
** Dual-class seating per Manufacturer
*** Dual-class range 138 to 153
**** Dual-class range 162 to 178

Emissions

ADG	Manufacturer	Model	Physical Class (Engine)	AAC	Approach Speed (Vref)	Seating	Wingspan (ft.)	Range (NM)	MTOW	ICAO Emissions											Emissions Score
										Fuel per LTO Cycle (kg) per Passenger	Fuel Compared to CRJ-700	CO2 Total Mass LTO (g) per Passenger	CO2 Compared to CRJ-700	NOx Total Mass LTO (g) per Passenger	NOx Compared to CRJ-700	NOx Takeoff	NOx Climbout	NOx Approach	NOx Idle	NOx Total (All Segments)	
III	Airbus	A220-300	Jet	C	135	140	115.08	3,350	149,000	1.98	59%	14.33	40%	25.08	85%	0.24	0.19	0.10	0.06	0.58	
III	Airbus	A320 NEO Sharklet	Jet	C	136	157	117.45	3,500	174,165	1.99	60%	22.00	62%	19.13	65%	0.16	0.13	0.06	0.03	0.37	
III	Boeing	737-MAX 8	Jet	D	142	178****	117.83	3,550	181,200	1.99	60%	13.52	38%	32.01	108%	0.27	0.13	0.06	0.03	0.48	
III	Airbus	A320-200 Sharklet	Jet	C	136	157	117.45	3,300	171,961	2.57	77%	27.55	77%	31.17	106%	0.16	0.13	0.07	0.04	0.40	
III	Embraer	EMB 195-E2	Jet	C	124	120	115.15	2,600	135,584	2.63	78%	53.83	151%	26.17	89%	0.16	0.13	0.07	0.03	0.39	
III	Airbus	A220-100	Jet	C	130	109	115.08	3,400	134,000	2.71	81%	17.44	49%	36.83	125%	0.17	0.14	0.07	0.03	0.40	
III	Airbus	A319-100 Sharklet	Jet	C	126	132	117.45	3,750	168,653	2.89	86%	39.96	112%	31.07	105%	0.12	0.08	0.06	0.03	0.29	
III	Boeing	737-700 with winglets	Jet	C	130	137	117.42	4,400	154,500	2.99	89%	47.66	134%	32.15	109%	0.15	0.12	0.06	0.03	0.37	
III	Embraer	EMB 175 LR, extended wingtips	Jet	C	124	76	93.92	2,150	85,517	3.23	96%	26.96	76%	30.34	103%	0.20	0.17	0.14	0.06	0.57	
III	Embraer	EMB 190-E2	Jet	C	124	97	110.70	2,850	124,341	3.23	96%	67.14	188%	31.81	108%	0.20	0.17	0.09	0.04	0.49	
III	Embraer	E 190 Standard	Jet	C	124	96**	94.25	2,450	105,359	3.24	97%	68.39	192%	31.59	107%	0.20	0.17	0.09	0.04	0.49	
II	Bombardier	CRJ 100/200/440 LR (CL-600-2B19)	Jet	C	140	50	68.67	1,650	53,000	3.34	100%	67.00	188%	22.74	77%	0.23	0.20	0.14	0.08	0.65	
II	Bombardier	CRJ 700/701/702 LR	Jet	C	135	70	76.27	1,400	77,000	3.35	100%	35.62	100%	29.50	100%	0.20	0.18	0.15	0.06	0.60	2
III	Embraer	E 170 Standard	Jet	C	124	69	85.42	2,150	82,012	3.57	107%	29.65	83%	33.63	114%	0.22	0.19	0.16	0.07	0.63	
II	Bombardier	CRJ 550 (Same airframe as CRJ-700)	Jet	C	135	50	76.27	1,000	65,000	4.69	140%	49.87	140%	41.30	140%	0.29	0.25	0.22	0.09	0.84	
III	Mitsubishi	M100 SpaceJet	Jet	C		**76**	91.30	1,910	86,000					Information not available							
III	Mitsubishi	M90 SpaceJet	Jet	C		88*	95.83	2,040	94,358					Information not available							
III	Embraer	EMB 175-E2	Jet	C	124	80	101.70	2,000	98,767					Information not available							
III	Boeing	737-MAX 7 (same engine as MAX 8)	Jet	D	142	153***	117.83	3,850	177,000					Information not available							
III	Bombardier	Dash 8 Q400	Turboprop	C	125	76	93.25	1,100	65,200					Information not available							

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Notes:

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*** Dual-class range 138 to 153
**** Dual-class range 162 to 178

ASPEN/PITKIN COUNTY AIRPORT
ASE VISION

Ability to Safely Operate at ASE

ADG	Manufacturer	Model	Physical Class (Engine)	AAC	Approach Speed (V_{ref})	Seating	Wingspan (ft.)	Range (NM)	MTOW	ASE Operational Capability			ASE Operation Capability Score
										ASE Missed Approach Capable? Winter	ASE Missed Approach Capable? Summer	Significant Wt Penalty at ASE?	
II	Bombardier	CRJ 550 (Same airframe as CRJ-700)	Jet	C	135	50	76.27	1,000	65,000	Y	Y	N	
III	Airbus	A220-100	Jet	C	130	109	115.08	3,400	134,000	Y	Y	N	
III	Boeing	737-MAX 7 (same engine as MAX 8)	Jet	D	142	153***	117.83	3,850	177,000	Y	Y	N	
III	Airbus	A319-100 Sharklet	Jet	C	126	132	117.45	3,750	168,653	Y	Y	N	
III	Bombardier	Dash 8 Q400	Turboprop	C	125	76	93.25	1,100	65,200	Y	Y	N	
II	Bombardier	CRJ 700/701/702 LR	Jet	C	135	70	76.27	1,400	77,000	Y	Y	Y	**2**
III	Embraer	EMB 175 LR, extended wingtips	Jet	C	124	76	93.92	2,150	85,517	Y	Marginal	Y	
III	Boeing	737-700 with winglets	Jet	C	130	137	117.42	4,400	154,500	Y	Marginal	Y	
III	Boeing	737-MAX 8	Jet	D	142	178****	117.83	3,550	181,200	Y	Marginal	Y	
II	Bombardier	CRJ 100/200/440 LR (CL-600-2B19)	Jet	C	140	50	68.67	1,650	53,000	Charter	N	Y	
III	Airbus	A220-300	Jet	C	135	140	115.08	3,350	149,000	Unknown	Unknown	Unknown	
III	Mitsubishi	M100 SpaceJet	Jet	C		76	91.30	1,910	86,000	Unknown	Unknown	Unknown	
III	Mitsubishi	M90 SpaceJet	Jet	C		88*	95.83	2,040	94,358	Unknown	Unknown	Unknown	
III	Embraer	EMB 175-E2	Jet	C	124	80	101.70	2,000	98,767	Unknown	Unknown	Unknown	
III	Embraer	EMB 195-E2	Jet	C	124	120	115.15	2,600	135,584	Unknown	Unknown	Unknown	
III	Embraer	E 170 Standard	Jet	C	124	69	85.42	2,150	82,012	Unknown	Unknown	Unknown	
III	Embraer	E 190 Standard	Jet	C	124	96**	94.25	2,450	105,359	Unknown	Unknown	Unknown	
III	Embraer	EMB 190-E2	Jet	C	124	97	110.70	2,850	124,341	Unknown	Unknown	Unknown	
III	Airbus	A320 NEO Sharklet	Jet	C	136	157	117.45	3,500	174,165	Unknown	Unknown	Unknown	
III	Airbus	A320-200 Sharklet	Jet	C	136	157	117.45	3,300	171,961	Unknown	Unknown	Unknown	

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Notes:

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* Single-class seating as configured for ANA for use in Japan. Range is 76 to 92
** Dual-class seating per Manufacturer
*** Dual-class range 138 to 153
**** Dual-class range 162 to 178

Ability to Limit Operations Growth

ADG	Manufacturer	Model	Physical Class (Engine)	AAC	Approach Speed (V_{ref})	Seating	Wingspan (ft.)	Range (NM)	MTOW	Operations Data		Ability to limit Operations Score
										Annual Ops 2018	Annual Ops Future	
III	Boeing	737-MAX 8	Jet	D	142	178****	117.83	3,550	181,200	4,621	5,005	
III	Boeing	737-MAX 7 (same engine as MAX 8)	Jet	D	142	153***	117.83	3,850	177,000	5,376	5,822	
III	Airbus	A320-200 Sharklet	Jet	C	136	157	117.45	3,300	171,961	5,484	5,939	
III	Airbus	A220-300	Jet	C	135	140	115.08	3,350	149,000	5,876	6,363	
III	Airbus	A320 NEO Sharklet	Jet	C	136	157	117.45	3,500	174,165	5,876	6,363	
III	Airbus	A319-100 Sharklet	Jet	C	126	132	117.45	3,750	168,653	6,426	6,959	
III	Boeing	737-700 with winglets	Jet	C	130	137	117.42	4,400	154,500	6,528	7,070	
III	Embraer	EMB 195-E2	Jet	C	124	120	115.15	2,600	135,584	6,855	7,423	
III	Airbus	A220-100	Jet	C	130	109	115.08	3,400	134,000	7,547	8,173	
III	Embraer	EMB 190-E2	Jet	C	124	97	110.70	2,850	124,341	8,480	9,184	
III	Embraer	E 190 Standard	Jet	C	124	96**	94.25	2,450	105,359	8,569	9,279	
III	Mitsubishi	M90 SpaceJet	Jet	C		88*	95.83	2,040	94,358	9,348	10,123	
III	Embraer	EMB 175-E2	Jet	C	124	80	101.70	2,000	98,767	10,282	11,135	
III	Mitsubishi	M100 SpaceJet	Jet	C		76	91.30	1,910	86,000	10,823	11,721	
III	Embraer	EMB 175 LR, extended wingtips	Jet	C	124	76	93.92	2,150	85,517	10,823	11,721	
III	Bombardier	Dash 8 Q400	Turboprop	C	125	76	93.25	1,100	65,200	10,823	11,721	
II	Bombardier	CRJ 700/701/702 LR	Jet	C	135	70	76.27	1,400	77,000	11,751	12,726	**2**
III	Embraer	E 170 Standard	Jet	C	124	69	85.42	2,150	82,012	11,921	12,910	
II	Bombardier	CRJ 100/200/440 LR (CL-600-2B19)	Jet	C	140	50	68.67	1,650	53,000	16,452	17,816	
II	Bombardier	CRJ 550 (Same airframe as CRJ-700)	Jet	C	135	50	76.27	1,000	65,000	16,452	17,816	

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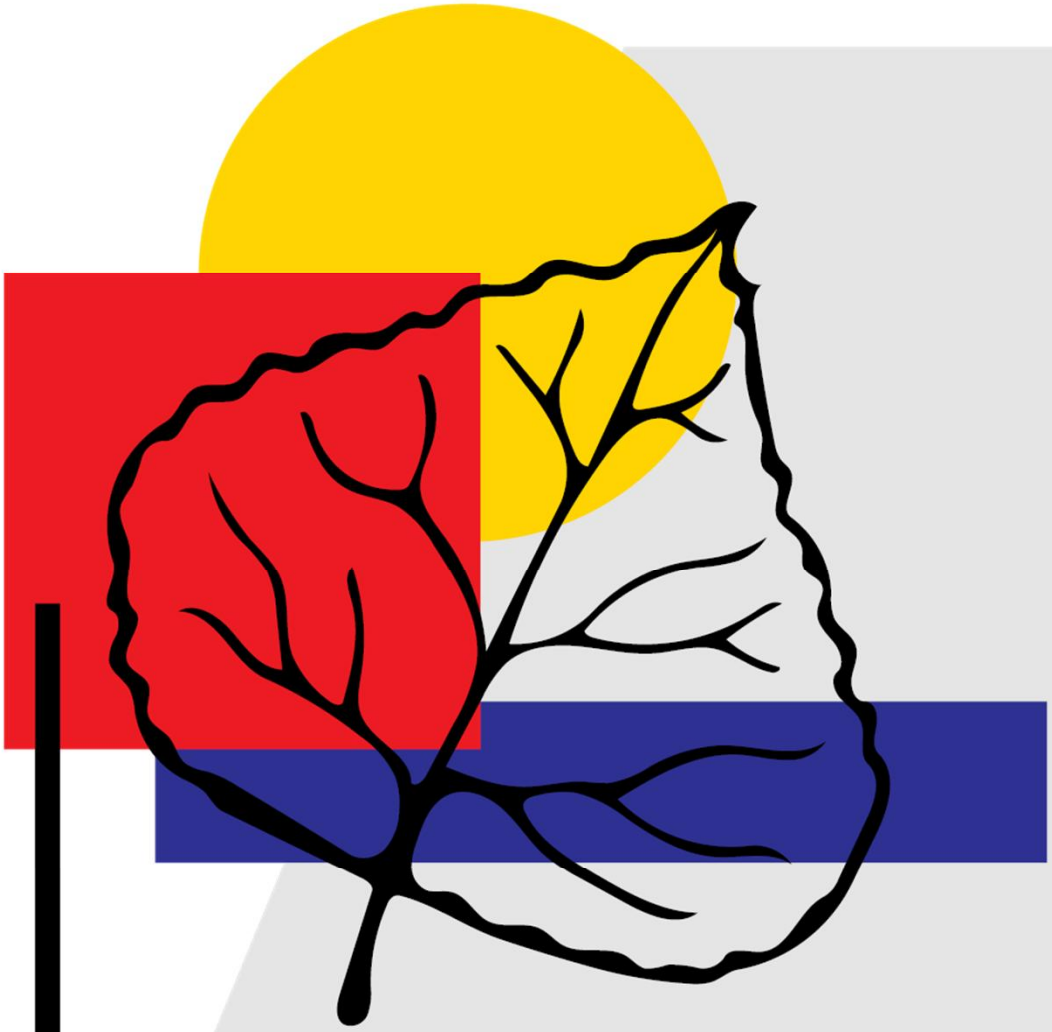

Thank You

Are we missing anything?