

Factual Report – Attachment 8
YIP Runway 23L Performance Analysis

OPERATIONAL FACTORS

DCA17FA076

MD-83
JT8D-219

AMERISTAR
TAKEOFF PERFORMANCE
(1000'S LBS.)

KYIP 23L
DETROIT, MI
WILLOW RUN

A/C = ON

225 MPH TIRES LENGTH = 7543 FT CLEARWAY = 0 FT ELEVATION = 716 FT
HEAVY DUTY BRAKES SLOPE = 0.16 % STOPWAY = 0 FT

		ICE PROTECTION OFF				
TEMP	EPR	-10	-5	0	10	20
DEG.F	NORM MAX					
DEG.C	(MAX AMB)	KNOTS	KNOTS	KNOTS	KNOTS	KNOTS
-10 F	2.01 2.05	149.8(13.0) R	154.4(12.5) R	158.4(10.9) R	160.9(10.0) R	163.0(9.2) R
-23 C	(N/A)	141/146/154	145/149/157	149/153/161	152/155/163	154/158/165
		159/202/251	162/205/255	166/207/258	168/209/260	170/210/260
0 F	2.01 2.05	148.7(16.2) R	153.1(13.0) R	157.4(11.5) R	159.7(10.6) R	161.8(9.8) R
-18 C	(N/A)	139/143/151	143/148/155	148/152/159	150/154/162	153/156/164
		166/201/250	160/204/254	164/207/257	167/208/260	169/210/260
10 F	2.01 2.05	147.8(16.5) R	152.0(13.0) R	156.6(12.0) R	158.8(11.1) R	161.0(10.3) R
-12 C	(N/A)	138/142/150	143/147/155	147/151/158	149/153/161	152/155/163
		165/200/249	160/203/253	163/206/257	166/208/259	168/209/260
20 F	2.01 2.05	147.1(16.9) R	150.8(16.0) R	155.5(12.6) R	157.8(11.7) R	159.9(10.8) R
-7 C	(N/A)	136/141/149	141/145/153	145/150/157	148/152/159	151/154/161
		164/200/248	168/202/252	162/206/256	164/207/258	166/208/260
30 F	2.01 2.05	146.1(17.2) R	149.9(16.3) R	154.4(13.0) R	156.8(12.2) R	158.9(11.4) R
-1 C	(N/A)	135/140/148	140/144/152	144/149/156	147/151/158	149/153/160
		163/199/248	167/202/251	161/205/255	163/206/257	165/208/259
40 F	2.01 2.05	145.1(17.6) R	149.1(16.6) R	153.0(13.0) R	155.8(12.7) R	157.3(15.1) O
4 C	(N/A)	134/139/147	138/143/151	143/148/155	146/150/157	148/150/157
		162/198/247	166/201/250	160/204/254	162/206/256	172/207/257
50 F	2.01 2.05	144.1(18.0) R	148.2(16.9) R	151.7(16.1) R	154.7(13.0) R	156.9(15.0) R
10 C	(N/A)	132/138/146	137/142/150	141/145/153	145/149/156	148/150/157
		161/198/246	165/200/249	168/203/253	161/205/255	172/206/257
60 F	2.01 2.05	143.2(18.5) R	147.4(17.3) R	150.9(16.4) R	153.3(13.0) R	155.9(15.3) R
16 C	(N/A)	131/137/145	136/140/149	140/144/152	144/148/155	146/149/156
		160/197/245	164/200/249	167/202/252	160/204/254	171/206/256
70 F	2.01 2.05	142.2(18.9) R	146.4(17.7) R	150.0(16.7) R	152.3(16.1) R	154.7(13.0) R
21 C	(N/A)	130/136/144	135/139/148	139/143/151	142/145/153	145/149/156
		159/196/245	163/199/248	166/202/251	168/203/253	161/205/255
80 F	2.01 2.04	141.1(19.4) R	145.4(18.1) R	149.1(17.0) R	151.4(16.4) R	153.1(13.0) R
27 C	(N/A)	129/134/142	133/138/146	138/142/150	141/144/152	144/148/155
		157/196/244	161/199/247	165/201/250	167/203/252	160/204/254
82 F	2.00 2.04	140.4(19.4) R	144.5(18.1) R	148.3(17.0) R	150.5(16.4) R	152.5(13.0) R
28 C	(N/A)	129/134/142	133/138/146	138/141/150	140/144/152	144/148/155
		157/195/243	161/198/246	165/201/249	167/202/252	160/204/253
84 F	1.99 2.03	139.5(19.4) R	143.6(18.2) R	147.5(17.1) R	149.8(16.5) R	151.7(13.0) R
29 C	(N/A)	129/134/142	133/137/146	137/141/149	140/143/151	144/147/155
		157/195/242	161/197/246	164/200/249	166/202/251	160/203/253
86 F	1.98 2.02	138.5(19.5) R	142.6(18.1) R	146.4(17.0) R	148.6(16.4) R	150.6(13.0) R
30 C	(N/A)	128/133/141	132/137/145	137/141/149	140/143/151	143/147/154
		156/194/242	160/197/245	164/199/248	166/201/250	159/202/252
88 F	1.97 2.01	137.6(19.5) R	141.6(18.0) R	145.4(17.0) R	147.6(16.4) R	149.4(13.0) R
31 C	(N/A)	128/133/140	132/137/145	136/140/148	139/143/150	143/146/153
		155/193/241	160/196/244	163/199/247	165/200/249	158/202/250
90 F	1.96 2.00	136.6(19.5) R	140.6(17.9) R	144.2(16.9) R	146.6(16.4) R	148.4(13.0) R
32 C	(N/A)	127/132/140	132/136/145	136/140/148	139/142/150	142/146/153
		155/193/240	160/195/243	163/198/246	165/199/248	158/201/249
92 F	1.95 2.00	135.6(19.4) R	139.5(17.8) R	143.3(16.9) R	145.5(16.3) R	147.3(13.0) R
33 C	(28C)	127/132/140	131/136/144	136/139/147	138/142/149	142/145/152
		155/192/239	159/195/243	162/197/245	164/199/247	157/200/249

1. OBSTACLE CLEARANCE HT (OCH) = 1516 FTMSL
2. ANTI-SKID INOP = -29235 LBS
3. BARO PRESS - FOR EACH .1 IN HG BELOW 29.70
USE 1 DEG F HOTTER TEMPERATURE



DATE 01/11/2016

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TEMP DEG.F DEG.C	EPR		ICE PROTECTION OFF				
	NORM	MAX	-10 KNOTS	-5 KNOTS	0 KNOTS	10 KNOTS	20 KNOTS
94 34	1.94 (29C)	1.99	134.7(19.4) R 127/131/139 154/191/238	138.6(17.9) R 131/135/143 158/194/242	142.2(16.8) R 135/139/147 162/196/245	144.5(16.3) R 138/141/149 164/198/246	146.3(13.0) R 141/145/152 157/199/248
96 36	1.93 (30C)	1.98	133.8(19.3) R 127/131/139 154/191/237	137.6(17.8) R 131/135/143 158/193/241	141.1(16.7) R 135/139/147 162/196/244	143.4(16.2) R 138/141/149 164/197/246	145.3(13.0) R 141/144/151 156/199/247
98 37	1.91 (31C)	1.97	132.9(19.2) R 126/131/139 154/190/237	136.7(17.8) R 130/135/143 158/193/240	140.1(16.6) R 135/138/146 161/195/243	142.3(16.1) R 138/141/148 163/197/245	144.3(13.0) R 141/144/151 156/198/246
100 38	1.90 (31C)	1.96	132.1(19.1) R 126/131/138 153/189/236	135.7(17.7) R 130/134/142 157/192/239	139.2(16.6) R 135/138/146 161/194/242	141.3(16.0) R 137/140/148 163/196/244	143.3(13.0) R 140/143/150 155/197/245
102 39	1.89 (32C)	1.95	131.1(18.9) R 126/130/138 153/189/235	134.8(17.7) R 130/134/142 157/191/238	138.2(16.6) R 134/138/145 160/194/241	140.3(15.9) R 137/140/147 162/195/243	142.3(13.0) R 140/143/149 154/197/245
104 40	1.88 (33C)	1.94	130.2(18.9) R 125/130/138 153/188/234	133.7(17.6) R 130/134/141 156/190/237	137.2(16.6) R 134/137/145 160/193/240	139.2(15.9) R 137/140/147 162/194/242	141.3(15.4) R 139/142/149 164/196/244
106 41	1.87 (34C)	1.93	129.2(18.8) R 125/130/137 152/187/233	132.8(17.6) R 129/133/141 156/190/237	136.1(16.6) R 133/137/144 159/192/239	137.7(13.0) R 137/141/147 152/193/241	140.1(15.3) R 139/141/148 163/195/243
108 42	1.86 (36C)	1.92	128.2(18.7) R 125/129/137 152/186/232	131.7(17.5) R 129/133/140 155/189/236	135.0(16.5) R 133/136/144 159/191/238	136.7(13.0) R 136/140/146 151/193/240	139.1(15.3) R 138/141/148 163/194/242
110 43	1.85 (37C)	1.91	127.3(18.6) R 124/129/136 151/186/231	130.7(17.4) R 128/132/140 155/188/235	134.0(16.5) R 133/136/143 158/191/238	135.7(13.0) R 136/140/146 151/192/239	138.0(15.3) R 138/140/147 162/194/241
120 49	1.80 (41C)	1.87	123.1(18.1) R 123/127/135 150/183/227	126.2(16.9) R 127/131/138 153/185/230	129.1(16.1) R 131/134/141 156/187/233	131.0(15.5) R 134/136/143 158/188/235	133.0(15.0) R 136/139/145 160/190/237
122 50	1.79 (42C)	1.86	122.2(17.9) R 123/127/135 150/182/227	125.3(16.8) R 127/130/138 153/184/229	128.2(16.0) R 131/134/141 156/186/232	130.1(15.4) R 133/136/143 158/188/234	131.4(15.2) O 135/137/144 159/189/235
122 50	1.79 (42C)	1.86	120.0(17.9) 121/126/133 148/181/225	120.0(16.8) 123/128/135 150/181/225	120.0(16.0) 125/129/136 151/181/225	130.0(15.4) 133/136/143 158/188/234	130.0(15.2) 134/136/143 158/188/234
122 50	1.79 (42C)	1.86	110.0(17.9) + 114/120/128 143/173/215	110.0(16.8) + 116/121/129 144/173/215	110.0(16.0) 118/123/130 145/173/215	120.0(15.4) 126/130/137 152/181/225	120.0(15.2) 127/131/137 152/181/225
122 50	1.79 (42C)	1.86	100.0(17.9) + 107/114/122 137/165/205	100.0(16.8) + 108/115/123 138/165/205	100.0(16.0) + 110/116/124 139/165/205	110.0(15.4) 119/124/131 146/173/215	110.0(15.2) 120/124/131 146/173/215
122 50	1.79 (42C)	1.86	90.0(17.9) + 107/117/118 133/156/195	90.0(16.8) + 107/118/118 133/156/195	90.0(16.0) + 107/118/118 133/156/195	100.0(15.4) + 111/117/124 139/165/205	100.0(15.2) + 112/117/125 140/165/205
122 50	1.79 (42C)	1.86	80.0(17.9) + 107/117/119 134/147/184	80.0(16.8) + 107/118/119 134/147/184	80.0(16.0) + 107/118/120 135/147/184	90.0(15.4) + 107/118/119 134/156/195	90.0(15.2) + 107/118/119 134/156/195

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2. ANTI-SKID INOP = -29235 LBS
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