Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IGSO-480-A1E6)

No. of Engines 2 Engine Rating 340 HP

Min. T/O Wt. 5.39 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 7.7 k-lb Max. T/O Wt. War-Time 7.7 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,180 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 6.38 k-lb Max. Ldg. Wt. 7.35 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,280 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7,700 lb/47 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-222. Beechcraft A-65, Queen Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Lycoming (IGSO-540-A1A)

No. of Engines 2 Engine Rating 380 HP

Min. T/O Wt. 5.74 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 8.8 k-lb Max. T/O Wt. War-Time 8.8 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,370 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.64 k-lb Max. Ldg. Wt. 8.8 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,340 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,800 lb/48 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-223. Beechcraft B-80, Queen Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Pratt and Whitney (UACL) (PT6A-20)

No. of Engines 2 Engine Rating 550 SHP

Min. T/O Wt. 6.32 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 9.65 k-lb Max. T/O Wt. War-Time 9.65 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,700 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.13 k-lb Max. Ldg. Wt. 9.17 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,280 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9,650 lb/55 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-224. Beechcraft A-90, King Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Pratt and Whitney (UACL) (PT6A-28)

No. of Engines 2 Engine Rating 680 SHP

Min. T/O Wt. 7.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.5 k-lb Max. T/O Wt. War-Time 11.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,060 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.7 k-lb Max. Ldg. Wt. 11.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,302 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,500 lb/105 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-225. Beechcraft A-l00, King Air

Aircraft Manufacturer Beech Aircraft Corp.

Aircraft Engine Manufacturer Pratt and Whitney (UACL) (PT6A-27)

No. of Engines 2 Engine Rating 680 SHP

Min. T/O Wt. 6.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 10.4 k-lb Max. T/O Wt. War-Time 10.4 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,730 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.4 k-lb Max. Ldg. Wt. 10.4 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,220 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10,400 lb/87 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-226. Beechcraft 99A

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer Garrett AiResearch (TPE 331-1-151G)

No. of Engines 2 Engine Rating 665 SHP

Min. T/O Wt. 7.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 10.0 k-lb Max. T/O Wt. War-Time 10.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,600 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.5 k-lb Max. Ldg. Wt. 9.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,220 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10,000 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-227. Swearingen Merlin IIB

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer AiResearch (TPE 331-3U-303G)

No. of Engines 2 Engine Rating 840 SHP

Min. T/O Wt. 8.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,300 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.9 k-lb Max. Ldg. Wt. 11.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,870 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
10	4	4	4	4	4	4	4	4
12	4	4	4	4	5	5	5	5
13	5	5	5	5	5	5	5	5

Figure A-228. Swearingen Merlin III

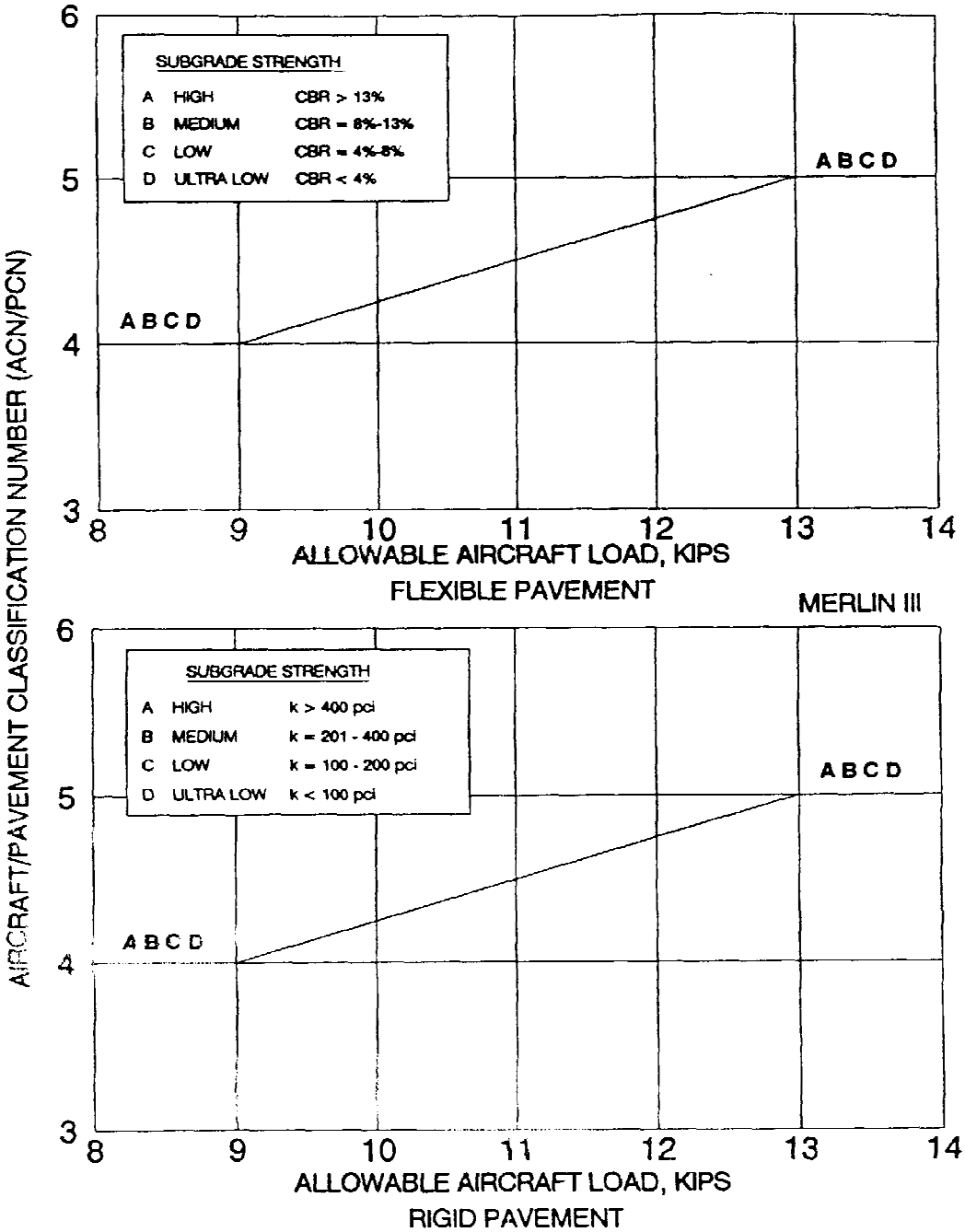

Figure A-229. Swearingen Merlin III, ACN/PCN Curves

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer AiResearch (TPE 331-3U-303G)

No. of Engines 2 Engine Rating 940 SHP

Min. T/O Wt. 9.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,385 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.7 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,430 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-230. Swearingen Merlin IV

Aircraft Manufacturer Swearingen Aircraft

Aircraft Engine Manufacturer AiResearch (TPE 331-3UW-303G)

No. of Engines 2 Engine Rating 940 SHP

Min. T/O Wt. 8.9 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,620 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 8.9 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,430 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-231. Swearingen SA-226TC, Metro

Aircraft Manufacturer De Havilland Canada

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-27)

No. of Engines 2 Engine Rating 620 SHP

Min. T/O Wt. 7.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 650 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.0 k-lb Max. Ldg. Wt. 12.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 850 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,050 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	2	2	2	2	3	3	3	3
12	3	3	3	3	3	3	3	4
13	4	4	4	4	3	3	3	5

Figure A-232. De Havilland DHC-6, Twin Otter

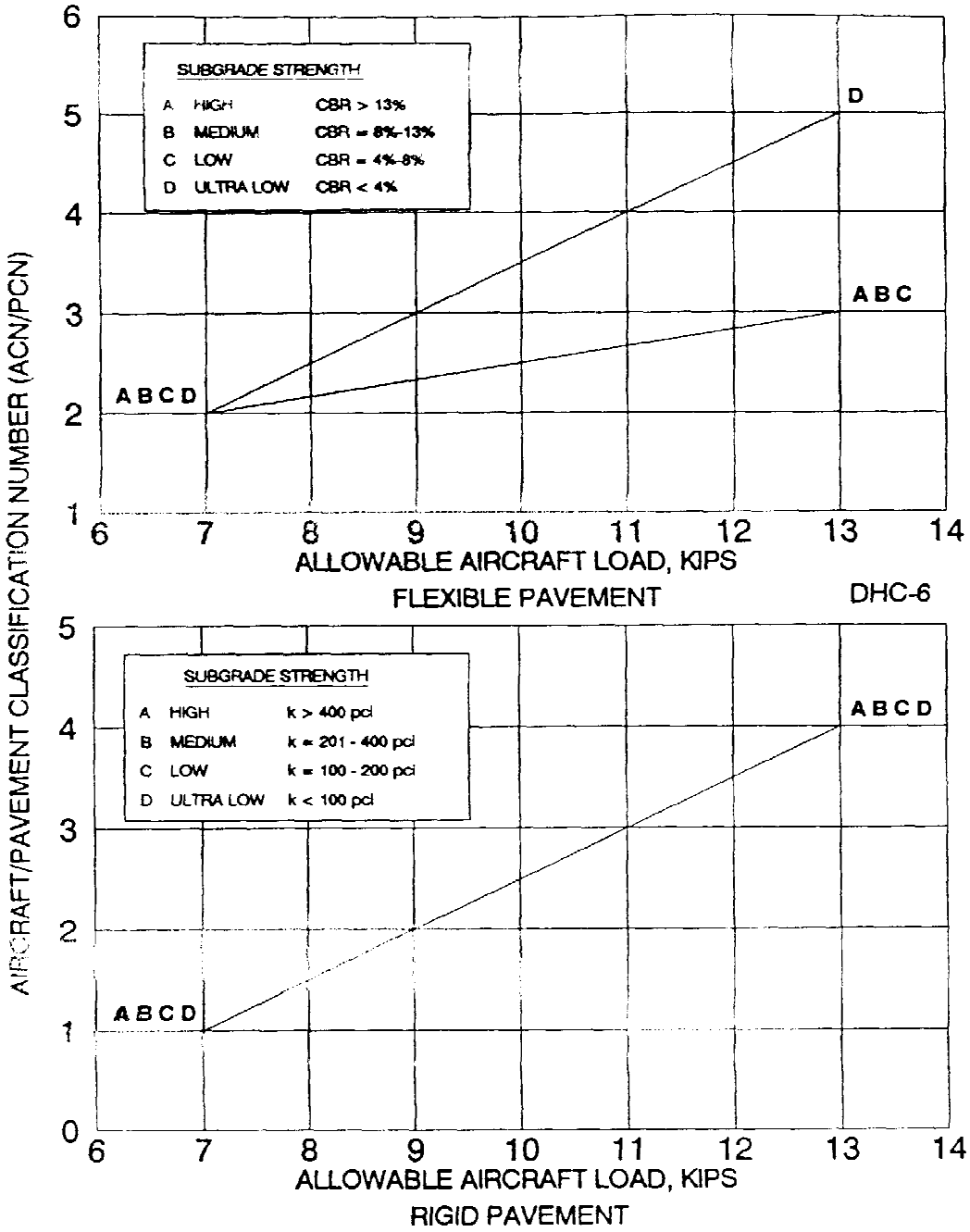

Figure A-233. De Havilland DHC-6, ACN/PCN Curves

Aircraft Manufacturer Hawker Siddeley

Aircraft Engine Manufacturer Bristol Siddeley (Gipsy Queen 70 MK 3)

No. of Engines 2 Engine Rating 400 HP

Min. T/O Wt. 7.04 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 8.95 k-lb Max. T/O Wt. War-Time 8.95 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,320 ft (To 50 ft)

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.41 k-lb Max. Ldg. Wt. 8.50 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,910 ft (From 50 ft)

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
8,950 lb/†**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-234. Hawker Siddeley Dove

Aircraft Manufacturer Mitsubishi

Aircraft Engine Manufacturer AiResearch (TPE 331-10-501M)

No. of Engines 2 Engine Rating 715 SHP

Min. T/O Wt. 8.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.6 k-lb Max. T/O Wt. War-Time 11.6 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,825 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 10.7 k-lb Max. Ldg. Wt. 11.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,320 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11,600 lb/63 psi**								

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-235. Mitsubishi MU-2 (MU-2B-60)

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Garrett (TPE 331-201)

No. of Engines 2 Engine Rating 715 SHP

Min. T/O Wt. 7.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 960 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,295 ft

Max. T/O Wt. Peace-Time 7.3 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,635 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 2,200 ft

Min. Ldg. Wt. 7.2 k-lb Max. Ldg. Wt. 12.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,060 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,480 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7	2	2	2	2	2	2	2	2
12	3	3	3	3	4	4	4	4
13	4	4	4	4	4	4	4	4

Figure A-236. Short Brothers SC.7

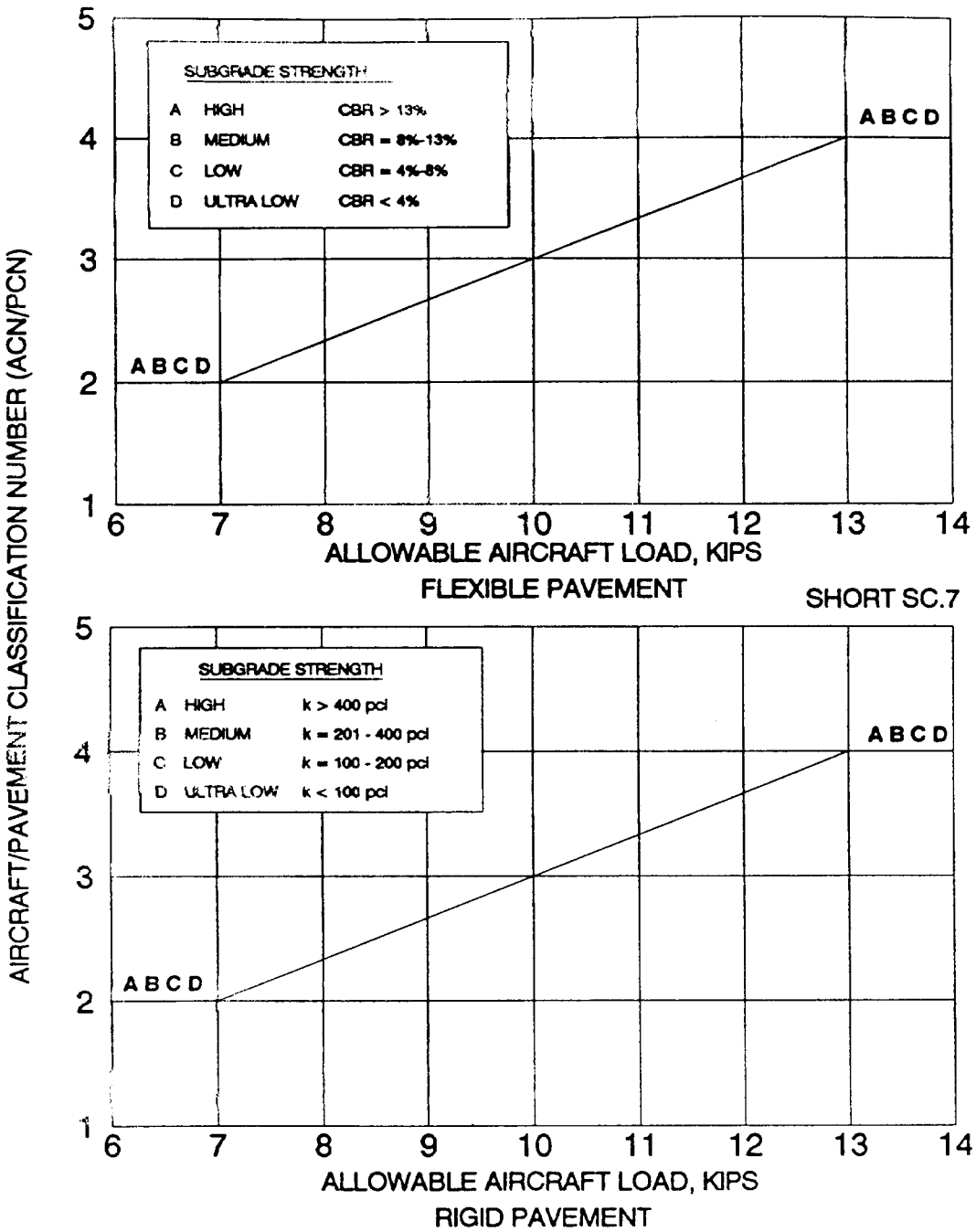

Figure A-237. Short Brothers SC.7, ACN/PCN Curves

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Garrett (TPE 331-201)

No. of Engines 2 Engine Rating 715 SHP

Min. T/O Wt. 7.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 800 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 13.7 k-lb Max. T/O Wt. War-Time 14.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,290 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.2 k-lb Max. Ldg. Wt. 13.5 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,005 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,395 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
7	2	2	2	2	2	2	2	2
13	4	4	4	4	4	4	4	4
14	4	4	4	4	4	4	4	5
15	4	4	4	4	4	4	4	5

Figure A-238. Short Brothers SC.7-3M

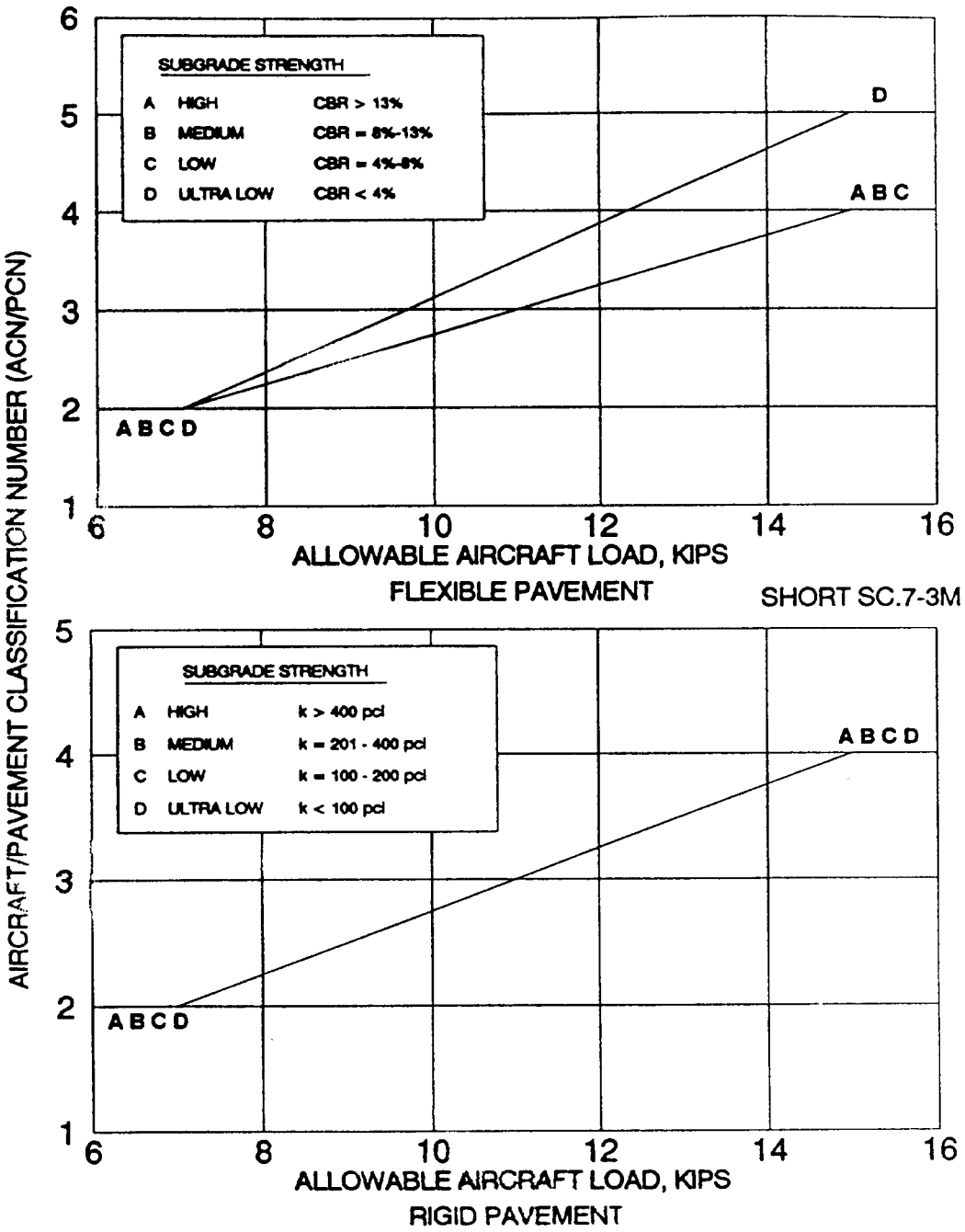

Figure A-239. Short Brothers SC.7-3M, ACN/PCN Curves

Aircraft Manufacturer Short Brothers

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6A-45R)

No. of Engines 2 Engine Rating 1,180 SHP

Min. T/O Wt. 14.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,600 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,810 ft

Max. T/O Wt. Peace-Time 14.7 k-lb Max. T/O Wt. War-Time 22.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 3,280 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 14.2 k-lb Max. Ldg. Wt. 22.6 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,980 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,410 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
Weight	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
14	5	5	5	5	4	4	4	5
15	5	5	5	5	5	5	5	6
23	7	7	8	8	8	8	8	9

Figure A-240. Short Brothers 330

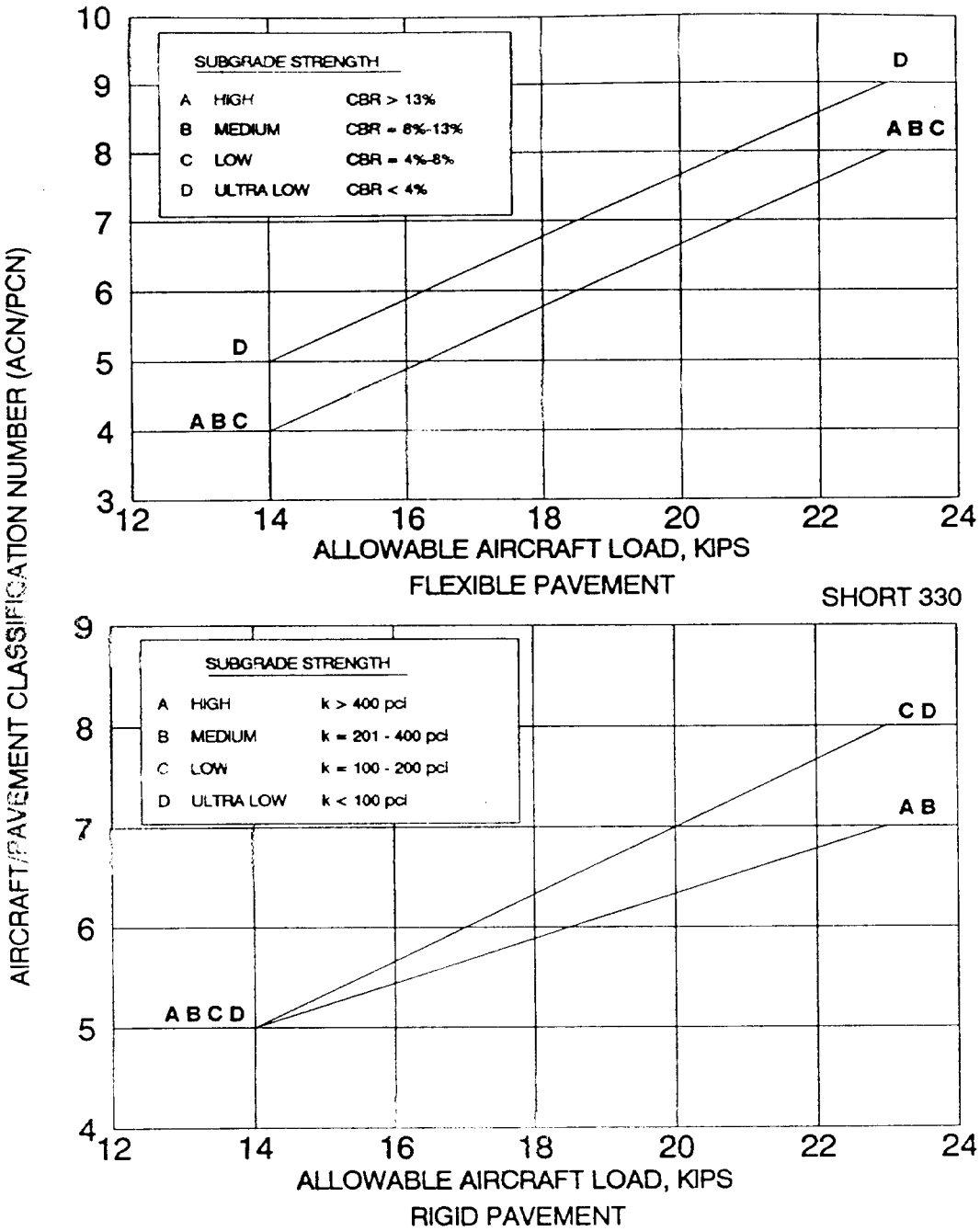

Figure A-241. Short Brothers 330, ACN/PCN Curves