	Weight	Tire		ogrades	Rigid Pavement Subgrades						
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)	
Aircraft	(<i>kN</i>)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150
A300-B, B2	1353	1.16	10.2	10.2	10.1	10.0	9.6	9.9	9.9	9.7	9.4
	840		7.8	7.8	7.6	7.6		7.8	7.6	7.3	7.0
A300-B4-200	1627	1.28	11.0	11.0	10.9	10.9	10.7	10.7	10.7	10.7	10.4
	1236		9.6	9.6	9.5	9.4	9.5	9.5	9.5	9.3	9.0
A300-B4-200	1627	1.16	10.8	10.8	10.6	10.6	10.2	10.4	10.4	10.2	9.9
(Optional Bogie)	1236		9.4	9.4	9.2	9.0	9.3	9.2	9.1	8.8	8.6
A300-B4-600R	1693	1.35	11.2	11.2	11.1	11.2	11.1	11.0	11.0	11.0	10.8
	1275		9.8	9.8	9.7	9.7	9.7	9.8	9.7	9.6	9.3
A300-B4-600R	1693	1.21	11.0	11.0	10.9	10.8	10.6	10.7	10.7	10.5	10.3
(Optional Bogie)	1275		9.6	9.6	9.4	9.3	9.5	9.4	9.3	9.1	8.8
A300-C4	1627	1.24	10.9	10.9	10.8	10.7	10.5	10.6	10.6	10.5	10.2
	1216		9.4	9.4	9.3	9.1	9.4	9.3	9.2	9.0	8.7
A310-200, 200C	1509	1.46	10.4	10.4	10.4	10.4	10.3	10.4	10.4	10.3	10.1
	800		7.7	7.2	7.4	7.7		7.6	7.4	7.2	7.0
A310-300	1480	1.19	10.6	10.6	10.5	10.4	10.1	10.3	10.3	10.1	9.9
(Configuration 1)	1108		9.2	9.2	9.0	8.8	9.1	9.0	8.9	8.7	8.3
A310-300	1549	1.48	10.7	10.7	10.6	10.7	10.6	10.6	10.7	10.6	10.4
(Configuration 2)	1118		9.5	8.9	8.9	9.0	9.5	9.2	9.1	9.0	8.7
A310-300	1617	1.29	11.0	11.0	10.9	10.9	10.7	10.7	10.8	10.7	10.5
(Configuration 3)	1118		9.3	9.1	9.0	8.9	9.3	9.1	9.0	8.8	8.5
A310-322 SR, BB	1500	1.45	10.4	10.4	10.3	10.4	10.3	10.4	10.4	10.3	10.1
	1064		9.3	8.5	8.6	8.6	9.3	8.9	8.8	8.6	8.3
A310-324	1540	1.24	10.6	10.6	10.5	10.5	10.2	10.4	10.4	10.3	10.0
	800		7.6	7.2	7.2	7.6		7.5	7.3	6.9	6.7
A310-325	1608	1.38	10.8	10.8	10.7	10.7	10.6	10.7	10.7	10.6	10.4
	1100		9.3	8.8	8.7	8.7	9.3	9.0	8.9	8.7	8.4
A318-100	607	0.89	8.8	8.6	8.6	8.6		8.5	8.7	8.8	8.8
	382		7.0	6.5	6.5	7.0		6.7	6.8	6.8	6.7
A319-100	632	0.89	8.9	8.6	8.7	8.6		8.6	8.7	8.9	8.9
(Configuration 1)	382		6.9	6.4	6.5	6.9		6.7	6.7	6.6	6.6
A319-100	690	1.07	9.5	8.9	9.1	9.2	9.4	9.0	9.2	9.4	9.5
(Configuration 2)	382		7.2	6.3	6.6	7.2		6.8	6.8	6.8	6.9
A319-100	744	1.38	10.2	9.0	9.3	9.7	10.0	9.5	9.7	10.0	10.2
(Configuration 3)	382		7.6	6.3	6.9	7.6		6.9	7.0	7.1	7.2

	Weight	Tire		Flexib	le Paven	nent Sub	ogrades	Rigid	Paveme	ent Subg	rades
	Max/Min	Pressure	Max		S (kN)			k (M)	Pa/m)	
Aircraft	(k N)	(MPa)	ALR	50	<i>90</i>	<i>130</i>	180	20	40	80	150
A320-100	667	1.21	9.7	8.8	9.0	9.3	9.6	9.1	9.3	9.5	9.7
	390		7.5	6.5	7.0	7.5		7.0	7.1	7.2	7.3
A320-200	725	1.03	9.8	9.2	9.3	9.5	9.6	9.3	9.5	9.7	9.8
(Configuration 1)	402		7.3	6.6	6.9	7.3		7.0	7.1	7.1	7.1
A320-200	744	1.14	10.0	9.2	9.4	9.6	9.7	9.4	9.6	9.9	10.0
(Configuation 2)	422		7.6	6.7	7.1	7.6		7.2	7.3	7.4	7.5
A320-200	759	1.44	10.4	9.1	9.5	9.8	10.2	9.6	9.9	10.2	10.4
(Configuration 3)	441		8.9	6.9	7.4	7.9	8.9	7.6	7.7	7.8	7.9
A320-200	725	1.22	7.8	7.5	7.4	7.4		7.8	7.7	7.4	7.0
(Optional Bogie)	402		5.5	5.2	5.5			5.2	4.9	4.4	
A320-212 (Optional	764	1.22	8.0	7.8	7.7	7.5		8.0	7.9	7.6	7.3
4-Wheel Bogie)	490		6.1	5.8	5.9			6.1	5.8	5.4	5.1
A321-100	769	1.28	10.4	9.4	9.7	10.0	10.2	9.7	10.0	10.2	10.4
(Configuration 1)	461		8.1	7.2	7.6	7.9		7.8	7.9	8.0	8.1
A321-100	818	1.36	10.8	9.6	9.9	10.2	10.5	10.0	10.3	10.5	10.8
(Configuration 2)	461		8.9	7.1	7.6	8.0	8.9	7.8	8.0	8.1	8.2
A321-200	877	1.46	11.1	9.8	10.2	10.5	10.8	10.2	10.5	10.9	11.1
	461		9.0	7.1	7.7	8.1	9.0	7.8	8.0	8.1	8.2
A330-200	2137	1.34	11.0	11.0	10.9	10.8	10.9	10.9	10.8	10.7	10.6
(Configuration 1)	1650		10.2	9.7	9.5	9.3	10.2	9.7	9.6	9.5	9.5
A330-200	2264	1.42	11.3	11.3	11.1	11.1	11.1	11.2	11.1	11.0	11.0
(Configuration 2)	1650		10.3	9.6	9.4	9.3	10.3	9.8	9.7	9.6	9.6
A330-300	2088	1.31	10.9	10.9	10.8	10.7	10.8	10.8	10.7	10.6	10.5
(Configuration 1)	1638		10.2	9.7	9.4	9.2	10.2	9.7	9.6	9.5	9.5
A330-300	2137	1.33	11.0	11.0	10.8	10.8	10.8	10.8	10.7	10.6	10.6
(Configuration 2)	1657		10.2	9.7	9.5	9.3	10.2	9.7	9.6	9.5	9.5
A330-300	2264	1.42	11.3	11.3	11.2	11.2	11.1	11.2	11.1	11.1	11.0
(Configuration 3)	1697		10.4	9.8	9.7	9.6	10.4	10.0	9.8	9.8	9.8
A340-200	2559	1.32	11.0	11.0	10.8	10.7	10.8	10.8	10.7	10.6	10.6
(Configuration 1)	1657		9.7	8.7	8.5	8.9	9.7	8.9	8.8	8.7	8.7
A340-200	2706	1.42	11.3	11.3	11.1	11.1	11.1	11.2	11.1	11.0	11.0
(Configuration 2)	1697		9.9	8.8	8.7	9.1	9.9	9.1	9.0	8.9	9.0
A340-300	2559	1.32	11.0	11.0	10.8	10.7	10.8	10.8	10.7	10.6	10.5
(Configuration 1)	1706		10.0	9.2	8.9	9.1	10.0	9.3	9.1	9.0	9.1

	Weight	Tire		Flexibl	le Paven	nent Sub	ogrades	Rigid	Paveme	ent Subg	rades
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)	
Aircraft	(<i>kN</i>)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150
A340-300	2706	1.42	11.3	11.3	11.2	11.2	11.1	11.2	11.1	11.1	11.0
(Configuration 2)	1765		10.2	9.3	9.2	9.2	10.2	9.6	9.5	9.4	9.4
A340-500, 600	3590	1.42	11.8	11.8	11.6	11.6	11.4	11.6	11.5	11.4	11.4
	1750		9.6	7.9	7.9	8.7	9.6	8.4	8.3	8.2	8.3
A380-800	5514	1.47	12.2	12.2	11.5	11.0	11.0	12.0	11.7	11.3	11.1
(6 Wheel Main Gear)	2758		9.5	7.5	7.6	8.5	9.5	8.6	8.2	7.9	8.0
A380-800	5514	1.47	11.3	11.3	11.2	11.2	11.0	11.3	11.2	11.1	11.1
(4 Wheel Wing Gear)	2758		9.5	7.5	7.7	8.5	9.5	8.2	8.1	8.0	8.0
Antonov AN- 24	207	0.42	4.6	4.6				4.5	4.3		
	130		2.7	2.7							
Antonov AN-124-100	3844	1.03	12.0	12.0	11.4	10.9	9.3	11.6	11.0	10.1	9.3
	2000		8.2	8.2	7.1	7.4		7.9	7.1	6.4	6.1
Antonov AN-225	5884	1.13	12.9	12.9	12.4	12.0	11.5	12.3	11.7	11.0	10.2
	4500		11.4	11.4	10.9	10.5	9.4	10.8	10.1	9.3	8.7
ATR 42	182	0.72	4.9	4.9	4.9			4.8	4.7	4.6	
(Aerospatiale)	110		3.5	3.5							
ATR 72	211	0.79	5.6	5.5	5.6			5.4	5.4	5.3	5.4
(Aerospatiale)	125		3.9	3.9							
Aurora (CP-140)	600	1.31	9.9	8.9	9.2	9.6	9.9	9.1	9.4	9.7	9.9
(P-3 Orion)	275		6.9	6.0	6.5	6.9		6.2	6.2	6.3	6.3
B-52 (Bomber)	2170	1.65	13.3	12.0	12.2	12.4	12.5	12.7	12.8	13.1	13.3
	1500		11.5	10.2	10.4	10.7	10.9	11.2	11.3	11.4	11.5
B1-B Bomber	2123	1.65	12.4	12.2	12.2	12.3	12.4	12.0	12.1	12.2	12.3
(Rockwell)	1400		10.5	10.1	10.2	10.3	10.5	10.3	10.3	10.3	10.1
B707-120, 120B	1150	1.17	9.4	9.4	9.3	9.1	9.2	9.2	9.1	8.9	8.5
	700		7.2	6.8	6.9	7.2		7.0	6.7	6.4	6.2
B707-320, 320B,	1484	1.24	10.7	10.7	10.6	10.6	10.4	10.4	10.4	10.3	10.0
320C, 420	800		7.7	7.5	7.5	7.6		7.7	7.4	7.1	6.9
B717-100, 200, 300	543	1.10	9.4	8.7	8.9	9.2	9.4	8.7	9.0	9.2	9.4
	310		7.0	6.4	6.8	7.0		6.6	6.7	6.7	6.8
B720, 720B	1045	1.01	9.1	9.1	8.9	8.5		8.8	8.6	8.3	7.9
	700		7.0	7.0	6.8	7.0		6.9	6.6	6.2	6.0
B727-100, 100C	756	1.14	10.3	9.5	9.7	9.9	10.1	9.6	9.9	10.1	10.3
	450		7.9	7.2	7.5	7.7		7.6	7.8	7.9	7.9

	Weight	Tire		Flexibl	le Paven	ient Sub	grades	Rigid	Paveme	nt Subg	rades
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)	
Aircraft	(k N)	(MP a)	ALR	50	<i>90</i>	130	180	20	40	80	150
B727-200	770	1.15	10.4	9.6	9.8	10.0	10.2	9.7	9.9	10.2	10.4
	450		7.9	7.2	7.5	7.7		7.6	7.8	7.9	7.9
B727-200	934	1.19	11.3	10.4	10.6	10.8	11.0	10.4	10.7	11.0	11.3
(Advanced)	450		8.0	7.2	7.6	7.8		7.7	7.8	7.9	8.0
B727-200F	907	1.15	11.1	10.2	10.4	10.7	10.9	10.3	10.6	10.9	11.1
(Advanced)	450		7.9	7.2	7.5	7.7		7.6	7.8	7.9	7.9
B737-100	445	1.02	7.9	7.4	7.6	7.8		7.6	7.8	7.9	7.9
	260		5.7	5.4	5.7			5.6	5.6	5.5	5.5
B737-200, 200C,	572	1.26	9.4	8.4	8.7	9.0	9.3	8.7	9.0	9.2	9.4
Advanced	300		7.0	6.0	6.5	7.0		6.3	6.4	6.4	6.4
B737-300	623	1.40	9.9	8.7	9.1	9.4	9.8	9.1	9.4	9.7	9.9
	325		7.4	6.2	6.9	7.4		6.7	6.8	6.8	6.9
B737-400	670	1.28	10.1	9.1	9.4	9.7	10.0	9.4	9.6	9.9	10.1
	350		7.4	6.4	7.0	7.4		6.9	7.0	7.1	7.1
B737-500	596	1.34	9.6	8.5	8.9	9.3	9.6	8.9	9.2	9.4	9.6
	320		7.3	6.1	6.7	7.3		6.6	6.7	6.7	6.8
B737-600	645	1.30	9.7	8.7	9.0	9.3	9.6	9.1	9.3	9.6	9.7
	357		7.5	6.3	6.9	7.5		6.8	6.9	7.0	7.1
B737-700	690	1.39	10.1	9.0	9.3	9.6	10.0	9.4	9.7	9.9	10.1
	370		7.6	6.5	7.1	7.6		7.0	7.1	7.2	7.3
B737-800	777	1.47	10.7	9.4	9.8	10.1	10.5	9.9	10.2	10.5	10.7
	406		8.9	6.7	7.4	7.8	8.9	7.4	7.6	7.7	7.8
B737-900	777	1.47	10.7	9.4	9.8	10.1	10.5	9.9	10.2	10.5	10.7
	420		8.0	6.9	7.5	7.9		7.5	7.7	7.8	8.0
B737-BBJ	763	1.47	10.6	9.3	9.7	10.1	10.5	9.8	10.1	10.4	10.6
	421		8.0	6.9	7.5	7.9		7.5	7.7	7.9	8.0
B747-100, 100B,	3350	1.55	10.7	10.5	10.4	10.4	10.4	10.7	10.7	10.6	10.4
100SF	1700		9.0	7.0	7.3	8.0	9.0	7.7	7.5	7.3	7.2
B747-100SR	2690	1.04	9.7	9.7	9.4	8.9	9.4	9.5	9.3	9.0	8.7
	1600		7.4	6.9	6.4	7.4		7.1	6.8	6.5	6.3
B747-200B, 200C,	3720	1.38	11.2	11.2	11.0	11.0	10.8	11.0	11.0	11.0	10.8
200F, 200M	1750		7.9	7.2	7.3	7.9		7.7	7.5	7.3	7.2
B747-300, 300M,	3720	1.31	11.2	11.2	11.0	11.0	10.7	11.0	11.0	10.9	10.7
300SR	1760		7.9	7.2	7.2	7.9		7.7	7.5	7.2	7.1

	Weight	Tire		Flexibl	le Paven	nent Sub	ogrades	Rigid	Paveme	nt Subg	rades
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)	
Aircraft	(<i>kN</i>)	(MP a)	ALR	50	<i>90</i>	130	180	20	40	80	150
B747-400, 400F,	3905	1.38	11.4	11.4	11.3	11.2	11.0	11.3	11.3	11.2	11.0
400M	1800		8.9	7.3	7.3	8.0	8.9	7.8	7.6	7.4	7.3
B747-400D	2729	1.04	9.8	9.8	9.5	9.0	9.5	9.5	9.4	9.1	8.7
(Domestic)	1782		7.6	7.5	7.1	7.6		7.6	7.3	7.0	6.8
B747-SP	3127	1.26	10.5	10.5	10.3	10.1	10.0	10.4	10.3	10.2	9.9
	1500		7.5	6.6	6.6	7.5		7.1	6.8	6.5	6.4
B757-200 Series	1134	1.24	9.6	9.6	9.4	9.2	9.3	9.5	9.5	9.3	9.0
	570		6.9	6.1	6.3	6.9		6.5	6.2	5.8	5.6
B757-300	1200	1.24	9.9	9.9	9.7	9.5	9.4	9.8	9.8	9.6	9.3
	640		7.2	6.6	6.6	7.2		7.0	6.7	6.4	6.1
B767-200	1410	1.31	9.8	9.8	9.5	9.3	9.8	9.8	9.7	9.6	9.3
	800		7.6	6.7	6.8	7.6		7.3	7.0	6.8	6.7
B767-200 ER	1726	1.31	10.8	10.8	10.6	10.5	10.3	10.7	10.7	10.6	10.3
	830		7.7	6.9	6.9	7.7		7.4	7.2	7.0	6.9
B767-300	1566	1.38	10.3	10.3	10.1	9.9	10.1	10.3	10.3	10.1	9.9
	860		7.9	7.0	7.1	7.9		7.6	7.4	7.2	7.1
B767-300 ER	1784	1.38	10.9	10.9	10.8	10.7	10.1	10.9	10.9	10.8	10.6
	890		8.0	7.2	7.3	8.0		7.8	7.6	7.4	7.2
B777-200	2389	1.28	11.0	11.0	10.1	9.1	10.1	10.9	10.6	10.1	9.7
	1335		8.0	7.0	7.1	7.9		8.0	7.5	7.1	7.1
B777-200 ER	2823	1.48	11.8	11.8	11.1	10.3	10.6	11.7	11.4	11.1	10.7
	1343		9.0	6.8	7.2	8.0	9.0	8.0	7.6	7.3	7.2
B777-200 LR	3345	1.50	12.8	12.8	12.1	11.6	11.0	12.5	12.3	12.0	11.7
	1424		9.1	7.2	7.2	8.2	9.1	8.3	7.9	7.6	7.5
B777-300	2945	1.48	12.1	12.1	11.4	10.8	10.7	11.9	11.7	11.4	11.0
	1562		9.3	7.8	7.5	8.4	9.3	8.8	8.4	8.0	7.9
B777-300 ER	3345	1.50	12.8	12.8	12.1	11.6	11.0	12.5	12.3	12.0	11.6
	1646		9.4	8.0	7.6	8.5	9.4	9.0	8.7	8.3	8.1
BAC-111 Series 400	390	0.97	8.0	7.6	7.8	8.0		7.5	7.7	7.9	8.0
	220		5.8	5.4	5.8			5.4	5.4	5.4	5.4
BAC-111 Series 475	440	0.57	8.1	8.1	7.9	7.5		7.6	7.8	7.8	7.8
	230		5.4	5.4	4.9			5.2	5.2	5.0	
BAC-111 Series 500	467	1.10	9.1	8.2	8.6	8.8	9.1	8.3	8.6	8.8	9.0
	250	-	6.4	5.9	6.4			6.0	6.0	6.1	6.1

	Weight	Tire		Flexib	le Paven	nent Sub	ogrades	Rigid	Paveme	ent Subg	grades
	Max/Min	Pressure	Max		S (1	kN)			k (M)	Pa/m)	
Aircraft	(<i>kN</i>)	(MP a)	ALR	50	<i>90</i>	130	180	20	40	80	150
BAe-146-100	376	0.84	7.2	7.1	7.1	7.1		7.0	7.1	7.2	7.2
	230		5.3	5.2	5.3			5.2	5.2	5.1	5.0
BAe-146-200	416	0.97	7.9	7.5	7.6	7.7		7.5	7.7	7.8	7.9
	235		5.6	5.3	5.6			5.4	5.4	5.3	5.3
BAe-146-300	436	1.10	8.2	7.6	7.9	8.1		7.8	8.0	8.1	8.2
	245		5.9	5.5	5.9			5.6	5.6	5.6	5.6
BAe-ATP	232	0.85	5.8	5.6	5.8			5.6	5.6	5.5	5.6
	140		4.1	4.1				3.8			
Beech 1900C, 1900D	76	0.67	2.9	2.9							
	47		1.0								
Beech 2000 Starship	65	0.54	2.1	2.1							
	44		1.0								
Beech 35, 36 Series	16	0.28	1.0								
(Bonanza)	10		1.0								
Beech 55, 56,	25	0.39	1.0								
58 Series (Baron)	16		1.0								
Beech Jet 400, 400A	73	0.86	3.6	3.6							
	48		2.9	2.9							
Beech King Air 100,	56	0.73	2.4	2.4							
200 Series	36		1.0								
Beech King Air 300,	67	0.73	2.7	2.7							
300C, 350, 350C	40		1.0								
Beech King Air 90	49	0.38	1.0								
Series	27		1.0								
Beech Queen Air 65,	40	0.33	1.0								
70, 80 Series	25		1.0								
Bombardier 415	196	0.53	5.7	5.4	5.7			5.5	5.6	5.6	5.7
(Canadair CL-215, 415	5) 130		4.3	4.2				4.3	4.2		
Bombardier BD-700	437	1.15	8.6	7.9	8.2	8.5		8.0	8.2	8.5	8.6
Global Express, XRS	230		6.1	5.6	6.1			5.6	5.7	5.6	5.7
Bombardier Challenge	r 168	1.21	5.7	5.1	5.7			4.8	4.8	4.7	
300	100		4.1	4.1							
Bombardier Challenge	r 237	1.12	6.8	6.0	6.5	6.8		5.9	6.0	6.1	6.2
800	151		5.2	4.7	5.2			4.3	4.3		

	Weight	Tire		Flexib	le Paven	nent Sub	ogrades	Rigid	Paveme	nt Subg	rades
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)	
Aircraft	(k N)	(MP a)	ALR	50	<i>90</i>	130	180	20	40	80	150
Bombardier Challenger	215	1.21	6.3	5.7	6.3			5.7	5.7	5.8	5.9
CL 600, 601, 604	119		4.9	4.4	4.9						
Bombardier CRJ100,	237	1.12	6.8	6.0	6.5	6.8		5.9	6.0	6.1	6.2
CRJ200, CRJ440	136		5.0	4.6	5.0			4.0			
Bombardier CRJ700	335	1.06	7.2	6.7	7.0	7.2		6.9	7.0	7.1	7.1
Series	195		5.4	5.0	5.4			4.9	4.8	4.7	
Bombardier CRJ900	377	1.06	7.7	7.2	7.4	7.7		7.3	7.5	7.6	7.7
Series	212		5.6	5.2	5.6			5.2	5.1	5.1	5.1
Bombardier Dash 8	162	0.90	4.7	4.5	4.7			4.3	4.2		
Q100, Q200 Series	103		3.5	3.5							
Bombardier Dash 8	192	0.67	4.8	4.8				4.7	4.6	4.4	
Q300 Series	116		3.3	3.3							
Bombardier Dash 8	287	0.67	6.4	6.4	6.2			6.1	6.2	6.1	6.1
Q400	168		4.3	4.3				4.3	4.1		
Bombardier Global	391	1.15	8.1	7.4	7.8	8.1		7.6	7.8	8.0	8.1
5000	224		6.0	5.5	6.0			5.5	5.6	5.5	5.6
C-123K Provider	267	0.69	7.5	6.5	7.0	7.5		6.7	6.9	7.1	7.3
(Fairchild/Republic)	180		5.9	5.3	5.9			5.5	5.6	5.7	5.8
C-141B Starlifter	1553	1.31	11.1	11.1	11.0	11.1	10.9	10.9	11.0	10.9	10.8
(Lockheed)	600		7.1	6.4	6.6	7.1		6.7	6.4	6.1	5.9
C-17A	2736	0.95	11.9	11.9	11.4	11.2	10.5	10.8	10.5	10.3	10.4
(Globemaster III)	1255		7.8	7.8	7.0	7.3		7.1	7.0	7.0	7.1
C-5 Galaxy	3723	0.77	10.0	10.0	9.5	8.9		8.1	7.8	7.6	7.6
(Lockheed)	1665		5.7	5.7	5.4			4.8	4.6	4.5	
Canadair CL-41A	49	0.37	1.0								
(CT-114 Tutor)	24		1.0								
Cessna 114B	15	0.35	1.0								
(Commander)	10		1.0								
Cessna 152	8	0.20	1.0								
	5		1.0								
Cessna 172	11	0.19	1.0								
(Skyhawk)	7		1.0								
Cessna 180	13	0.21	1.0								
(Skywagon)	8		1.0								

	Weight	Tire		Flexib	le Paven	nent Sub	grades	Rigid	Paveme	ent Subg	rades
	Max/Min	Pressure	Max		S (kN)			k (M)	Pa/m)	
Aircraft	(kN)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150
Cessna 182	14	0.25	1.0								
(Skylane)	9		1.0								
Cessna 185	15	0.25	1.0								
(Skywagon)	8		1.0								
Cessna 208	36	0.60	1.0								
(Caravan)	18		1.0								
Cessna 210	18	0.38	1.0								
(Centurion)	11		1.0								
Cessna 310	25	0.42	1.0								
	16		1.0								
Cessna 337	21	0.38	1.0								
(Skymaster)	14		1.0								
Cessna 401	28	0.45	1.0								
	20	0.10	1.0								
Cessna 402C, 414A	31	0.48	1.0								
(Chancellor)	19	0.40	1.0								
Cessna 421	34	0.55	1.0								
(Golden Eagle)	22	0.55	1.0								
Cessna 441	44	0.66	2.3	2.3							
(Conquest II)	44 26	0.00	1.0								
Cessna 501	FC	0.60	2.0	2.0							
(Citation I - Eagle)	56 30	0.69	2.8 1.0	2.8							
0	47	0.00	0.5	0.5							
Cessna 525 (Citation Jet)	47 29	0.68	2.5 1.0	2.5 							
0 550		0.00									
Cessna 550 (Citation II)	64 35	0.69	3.0 1.0	3.0 							
Cessna 550 (Citation Bravo)	67 39	0.69	3.1 2.2	3.1 2.2							
Cessna 560 (Citation \		0.69	3.3	3.3							
Ultra, Encore)	56		2.8	2.8							
Cessna 560 XL	90	1.48	5.6	4.6	5.6			3.9			
(Citation Excel)	58		4.8	3.9	4.8						
Cessna 650	99	1.02	4.2	4.2							
(Citation III, VI)	53		3.0	3.0							

	Weight	Tire		Flexibl	e Paven	nent Sub	grades	Rigid	Paveme	ent Subg	grades
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)	
Aircraft	(<i>kN</i>)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150
Cessna 650	104	1.16	4.9	4.5	4.9						
(Citation VII)	62		3.5	3.5							
Cessna 750	160	1.16	5.9	5.3	5.9			4.9	4.9	4.9	5.1
(Citation X)	96		4.2	4.2							
Cessna Conquest	45	0.59	2.2	2.2							
	26		1.0								
Cessna T303	23	0.40	1.0								
(Crusader)	15		1.0								
CF-18	249	1.38	7.8	6.0	7.0	7.8		6.5	6.8	7.1	7.4
	110		5.5	4.5	5.5			4.0	4.0		
Convair 240	190	0.64	4.5	4.5				4.5	4.4		
	125		3.2	3.2							
Convair 340, 440, 540	222	0.47	4.8	4.8				4.7	4.6		
	140		3.0	3.0							
Convair 580	259	0.59	5.5	5.5	5.1			5.4	5.4	5.2	5.1
	150		3.6	3.6							
Convair 5800	280	0.59	5.9	5.9	5.4			5.7	5.7	5.5	5.4
	150		3.6	3.6							
Convair 600	210	0.73	5.0	5.0	4.9			4.9	4.8	4.7	
	140		3.8	3.8							
Convair 640	245	0.52	5.2	5.2				5.1	5.0	4.7	
	140		3.1	3.1							
Convair 880	860	1.03	9.1	9.1	9.0	8.9		8.7	8.7	8.5	8.1
	400		5.7	5.6	5.7			5.3	5.0	4.5	
Convair 990	1135	1.28	10.4	10.2	10.3	10.4	10.3	10.0	10.1	10.1	9.9
	600		7.5	7.1	7.3	7.5		7.2	7.0	6.7	6.4
Dassault Falcon	164	1.36	5.9	5.3	5.9			4.9	4.9	4.9	5.0
2000	93		4.2	4.2							
Dassault Falcon	189	1.51	7.0	5.7	6.5	7.0		5.4	5.5	5.5	5.7
2000EX	100		5.0	4.5	5.0						
Dassault Falcon 10	84	0.93	3.8	3.8							
	50		2.8	2.8							
Dassault Falcon 20	128	0.92	5.1	4.6	5.1			4.2	4.2		
	75		3.6	3.6							

	Weight	Tire		Flexibl	le Paven	nent Sub	ogrades	Rigid	Paveme	nt Subg	rades
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)	
Aircraft	(k N)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150
Dassault Falcon 50	173	0.93	5.4	5.1	5.4			4.8	4.8	4.8	
	90		3.6	3.6							
Dassault Falcon 900	202	1.30	6.3	5.6	6.3			5.5	5.5	5.6	5.7
	103		4.3	4.3							
DC-10-10, 10CF, 15	2037	1.34	11.0	11.0	10.8	10.7	10.7	11.0	10.9	10.8	10.7
	1035		9.2	7.3	7.3	8.3	9.2	8.0	7.8	7.6	7.7
DC-10-20, 20CF,	2485	1.14	11.4	11.4	11.1	10.9	10.7	11.1	11.1	10.9	10.7
30CF, 40CF	1640		9.7	9.3	8.9	8.9	9.7	9.3	9.1	8.9	8.8
DC-10-30, 30ER, 40	2593	1.22	11.3	11.3	11.0	10.9	10.8	11.1	11.0	10.9	10.7
	1220		8.9	7.2	7.1	8.1	8.9	7.8	7.6	7.4	7.4
DC-3	147	0.31	4.1	4.0				4.1			
	80		2.3	2.3							
DC-4	335	0.53	6.3	6.3	5.6			6.1	6.0	5.8	5.6
	200		4.2	4.1				4.2	4.0		
DC-6, 6B	480	0.73	7.6	7.6	7.4	7.0		7.4	7.5	7.5	7.4
	300		5.6	5.5	5.4			5.6	5.6	5.4	5.3
DC-7 (All Models)	640	0.89	9.4	9.1	9.2	9.2	9.0	9.0	9.2	9.4	9.4
	400		7.3	7.1	7.2	7.1		7.2	7.2	7.3	7.3
DC-8-10, 20 Series	1226	1.01	10.1	10.1	10.0	9.8	9.3	9.6	9.6	9.4	9.0
	600		6.5	6.5	6.4			6.4	6.1	5.7	5.5
DC-8-43, 55, 61, 71	1470	1.30	10.9	10.8	10.8	10.9	10.8	10.6	10.6	10.5	10.3
	800		7.9	7.8	7.9	7.9		7.9	7.7	7.4	7.2
DC-8-61F, 63F	1557	1.32	11.2	11.1	11.1	11.2	11.1	10.8	10.9	10.8	10.7
	1001		9.0	8.9	8.9	8.9	9.0	8.9	8.8	8.6	8.3
DC-8-62, 62F, 63,	1593	1.35	11.1	11.1	11.0	11.1	11.1	10.8	10.9	10.9	10.7
72, 73	800		7.8	7.6	7.7	7.8		7.8	7.6	7.4	7.1
DC-9-10, 15	404	0.93	7.8	7.5	7.7	7.7		7.5	7.6	7.7	7.8
	300		6.5	6.3	6.5			6.4	6.4	6.4	6.4
DC-9-21	445	1.02	8.4	7.9	8.1	8.3		7.9	8.1	8.3	8.4
	300		6.8	6.3	6.6	6.8		6.4	6.5	6.5	6.6
DC-9-30, 32	485	1.05	8.7	8.2	8.4	8.5		8.2	8.4	8.6	8.7
	300		6.5	6.2	6.5			6.4	6.5	6.5	6.5
DC-9-41, 50, 51	543	1.17	9.3	8.5	8.8	9.1	9.3	8.7	8.9	9.1	9.3
	300		6.8	6.1	6.6	6.8		6.4	6.5	6.5	6.6

	Weight	Flexible Pavement Subgrades					Rigid Pavement Subgrades				
	Max/Min	Pressure	Max		S (1	kN)			k (M1	Pa/m)	
Aircraft	(<i>kN</i>)	(MP a)	ALR	50	90	130	180	20	40	80	150
DHC1 Chipmunk	10	0.21	1.0								
	7		1.0								
DHC2 Beaver	25	0.17	1.0								
	14		1.0								
DHC3 Otter	36	0.20	1.0								
	20		1.0								
DHC4 Caribou	130	0.28	1.0								
	90		1.0								
DHC5 Buffalo	187	0.41	4.3	4.3				4.3	4.1		
	115		2.5	2.5							
DHC6 Twin Otter	56	0.26	1.0								
Series 300	35		1.0								
DHC7 Dash 7	209	0.74	5.4	5.4	5.4			5.2	5.2	5.2	5.2
	120		3.7	3.7							
DHS-2 Conair Firecat	116	0.62	4.1	4.1				4.1	4.1		
	80		3.3	3.3							
Dornier 228 Series	63	0.90	3.4	3.4							
	32		2.3	2.3							
Dornier 328 Jet	155	1.13	5.3	4.8	5.3			4.4	4.4		
	93		3.8	3.8							
Dornier 328-110	138	0.80	4.3	4.3				3.9			
(Turboprop)	90		3.2	3.2							
Dornier SA227 (Metro	74	0.73	3.0	3.0							
Merlin, Expediter)	43		1.0								
Douglas A-26 Invader	120	0.48	3.9	3.9				3.9			
	90		3.2	3.2							
Douglas B-26 Invader	156	0.48	4.9	4.6	4.9			4.7	4.7	4.7	
	105		3.6	3.6							
Embraer 170, 175	368	1.04	7.6	7.1	7.3	7.6		7.2	7.4	7.5	7.5
	208		5.5	5.2	5.5			5.1	5.1	5.0	5.0
Embraer 190, 195	481	1.10	8.9	8.2	8.5	8.7	8.9	8.3	8.5	8.7	8.9
	266		6.3	5.9	6.3			6.0	6.1	6.1	6.1
Embraer EMB-110	59	0.62	2.8	2.8							
(Bandeirante)	35		1.0								

	Weight	Tire		Flexib	le Paven	nent Sub	grades	Rigid	Paveme	ent Subg	rades
	Max/Min	Pressure	Max		S (kN)			k (MI	Pa/m)	
Aircraft	(<i>kN</i>)	(MP a)	ALR	50	<i>90</i>	<i>130</i>	180	20	40	80	150
Embraer EMB-120	119	0.76	3.9	3.9							
(Brasilia) Series	71		2.7	2.7							
Embraer ERJ-145	237	0.90	6.3	6.0	6.3			5.9	6.0	6.0	6.1
Series	123		4.1	4.1							
Fokker 100	452	0.94	8.4	8.0	8.2	8.3		8.0	8.1	8.3	8.4
	243		5.8	5.6	5.8			5.6	5.6	5.6	5.6
Fokker 50	205	0.59	5.2	5.2	4.8			5.0	4.9	4.8	
	125		3.5	3.5							
Fokker 60	226	0.62	5.6	5.6	5.3			5.4	5.4	5.3	5.2
	131		3.7	3.7							
Fokker 70	410	0.81	7.8	7.7	7.7	7.7		7.5	7.6	7.7	7.8
	225		5.3	5.3	5.3			5.3	5.2	5.1	5.1
Fokker F27 Friendship	205	0.57	5.2	5.2	4.7			5.0	4.9	4.8	
	120		3.3	3.3							
Fokker F28 Fellowship	325	0.53	6.8	6.8	6.3			6.4	6.4	6.3	6.2
	175		4.2	4.2				4.2			
Gulfstream G100	111	0.86	4.0	4.0							
(IAI-1125-Astra SPX)	61		2.8	2.8							
Gulfstream G159	156	0.83	4.7	4.6	4.7			4.3	4.3		
	100		3.5	3.5							
Gulfstream G200	159	0.86	5.2	4.9	5.2			4.6	4.6	4.5	
(IAI-1126-Galaxy)	88		3.5	3.5							
Gulfstream II	294	1.04	7.3	6.6	7.0	7.3		6.6	6.8	6.9	7.0
	163		5.2	4.8	5.2			4.5	4.5		
Gulfstream III	312	1.21	7.7	6.8	7.3	7.7		7.0	7.1	7.3	7.4
	170		5.6	5.1	5.6			4.7	4.7	4.7	
Gulfstream IV	334	1.21	7.9	7.0	7.5	7.9		7.2	7.4	7.6	7.7
	189		5.9	5.3	5.9			5.1	5.1	5.1	5.2
Gulfstream V	405	1.37	9.2	7.6	8.3	8.7	9.2	8.0	8.3	8.5	8.7
	215		6.9	5.7	6.4	6.9		5.6	5.7	5.8	5.9
Hawker 1000	138	0.83	4.8	4.6	4.8			4.2	4.1		
(BAe 1000A)	77		3.2	3.2							
Hawker 400 XP	73	0.86	3.6	3.6							
(Beech Jet 400A)	58		3.2	3.2							

	Weight	Tire		Flexibl	le Paven	ient Sub	grades	Rigid	Paveme	avement Subgrades				
	Max/Min	Pressure	Max	S (kN)					k (MPa/m)					
Aircraft	(k N)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150			
Hawker 800, 800XP	125	0.83	4.3	4.3				3.8						
(HS-125-800, 800XP)	74		3.1	3.1										
Hercules C-130, 082,	778	0.67	9.1	8.9	8.8	8.5		8.9	9.0	9.1	9.1			
182, 282, 382	360		6.0	5.5	5.8			6.0	5.9	5.9	5.9			
Hercules L-100	693	0.74	8.8	8.4	8.3	8.3		8.5	8.6	8.7	8.8			
(Commercial)	340		5.8	5.3	5.8			5.8	5.8	5.8	5.8			
HS/BAe 125	112	0.83	4.0	4.0										
(All Series to 600)	61		2.8	2.8										
HS/BAe 700	114	0.88	4.1	4.1										
	62		2.9	2.9										
HS/BAe 748	227	0.51	5.4	5.4	4.8			5.2	5.1	5.0				
	120		3.1	3.1										
Ilyushin IL-18	625	0.80	7.1	7.1	6.3			6.9	6.6	6.1	5.5			
	350		4.4	4.4				4.4						
llyushin IL-62, 62M	1648	1.65	11.3	10.8	10.9	11.2	11.3	10.8	10.9	10.9	10.8			
	651		7.6	6.6	7.1	7.6		6.8	6.6	6.4	6.4			
Ilyushin IL-76T	1677	0.64	9.7	9.7	9.0	7.9		8.2	8.0	8.1	8.1			
	822		5.8	5.8				5.1	5.0	4.9				
Ilyushin IL-76TD	1775	0.66	10.0	10.0	9.3	8.5		8.4	8.3	8.3	8.4			
	920		6.4	6.4	5.0			5.6	5.5	5.4	5.4			
Ilyushin IL-86	2054	0.88	9.5	9.5	8.9	8.5	9.1	9.1	8.9	8.5	8.2			
	1089		6.8	6.0	6.2	6.8		6.3	5.9	5.6	5.6			
Jetstream 31, 32	69	0.39	2.3	2.3										
(BAe)	44		1.0											
Jetstream 41 (BAe)	107	0.83	3.7	3.7										
	63		2.6	2.6										
KC-10	2593	1.22	11.3	11.3	11.0	10.9	10.8	11.1	11.0	10.9	10.7			
(McDonnell Douglas)	1800		9.8	9.4	9.0	9.1	9.8	9.5	9.4	9.2	9.0			
KC-135 Stratotanker	1342	1.38	9.8	9.8	9.7	9.7	9.6	9.8	9.7	9.5	9.3			
(Boeing)	800		7.6	7.1	7.3	7.6		7.4	7.2	7.0	6.9			
L-1011-1 Tristar	1913	1.35	10.7	10.7	10.5	10.5	10.6	10.7	10.6	10.4	10.3			
	1070		9.3	7.5	7.5	8.4	9.3	8.1	7.9	7.8	7.8			
L-1011-100, 200	2073	1.35	11.1	11.1	11.0	10.9	10.8	11.0	10.9	10.8	10.7			
Tristar	1090		9.3	7.7	7.6	8.4	9.3	8.2	8.0	7.9	7.9			

	Weight	Tire		Flexibl	le Paven	ient Sub	grades	Rigid	Paveme	ent Subg	Subgrades					
	Max/Min	Pressure	Max		S (1	kN)			k (MI	Pa/m)						
Aircraft	(<i>kN</i>)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150					
L-1011-250 Tristar	2269 1108	1.35	11.6 9.3	11.6 7.7	11.4 7.7	11.4 8.4	11.1 9.3	11.4 8.2	11.3 8.1	11.2 7.9	11.1 7.9					
L-1011-500 Tristar	2295 1070	1.35	11.6 9.3	11.6 7.5	11.5 7.5	11.4 8.4	11.2 9.3	11.4 8.1	11.4 7.9	11.3 7.8	11.2 7.8					
Learjet 24F	62	0.79	2.9	2.9												
(Bombardier)	32		1.0													
Learjet 25D, 25F (Bombardier)	69 34	0.79	3.1 1.0	3.1 												
Learjet 25G	75	0.79	3.3	3.3												
(Bombardier)	37		1.0													
Learjet 28, 29 (Long- horn) (Bombardier)	69 37	0.79	3.1 1.0	3.1 												
Learjet 31A, 35A, 36A	83	0.79	3.4	3.4												
(Bombardier)	45		2.1	2.1												
Learjet 40, 45, 45XR (Bombardier)	98 61	0.79	3.8 2.8	3.8 2.8												
Learjet 55B, 55C	97	1.24	4.9	4.4	4.9											
(Bombardier)	58		3.5	3.5												
Learjet 60	106	1.48	5.5	4.8	5.5											
(Bombardier)	63		3.9	3.9												
Lockheed 188 Electra	503 255	0.95	8.7 5.8	8.3 5.6	8.5 5.8	8.5 		8.2 5.7	8.4 5.7	8.6 5.6	8.7 5.6					
MD-11	2805 1200	1.38	11.6 9.1	11.6 7.0	11.4 7.2	11.4 8.2	11.1 9.1	11.5 7.8	11.5 7.6	11.4 7.5	11.3 7.5					
MD-81	628 350	1.14	9.8 7.3	9.1 6.6	9.3 7.0	9.5 7.3	9.8 	9.2 6.9	9.4 7.0	9.7 7.1	9.8 7.2					
MD-82	670 350	1.14	10.1 7.3	9.3 6.6	9.5 7.0	9.8 7.3	10.0 	9.4 6.9	9.6 7.0	9.9 7.1	10.1 7.1					
MD-83	716 355	1.14	10.4 7.3	9.6 6.6	9.8 7.0	10.1 7.3	10.3 	9.6 6.9	9.9 7.1	10.2 7.1	10.4 7.2					
	500		1.3	0.0	7.0	1.3		0.9	1.1	1.1	1.2					
MD-87	628 335	1.14	9.8 7.1	9.1 6.4	9.3 6.9	9.5 7.1	9.8 	9.2 6.8	9.4 6.9	9.7 6.9	9.8 7.0					
MD-88	670 350	1.14	10.1 7.3	9.3 6.6	9.6 7.0	9.8 7.3	10.0 	9.4 6.9	9.7 7.0	9.9 7.1	10.1 7.2					

	Weight	Tire	0 0							ent Subgrades		
	Max/Min	Pressure	Max		S (1	kN)			k (M)	Pa/m)		
Aircraft	(<i>kN</i>)	(MP a)	ALR	50	90	130	180	20	40	80	150	
MD-90-30	699	1.14	10.3	9.5	9.7	10.0	10.2	9.5	9.8	10.1	10.3	
	392		7.7	7.0	7.3	7.7		7.3	7.5	7.6	7.6	
MD-90-30ER	739	1.14	10.5	9.7	9.9	10.2	10.4	9.7	10.0	10.3	10.5	
	392		7.7	7.0	7.3	7.7		7.3	7.5	7.6	7.6	
MD-90-50, 55	772	1.14	10.7	9.9	10.1	10.4	10.6	9.9	10.2	10.5	10.7	
	410		7.8	7.2	7.5	7.8		7.5	7.6	7.8	7.8	
Mitsubishi MU-2 Series		0.48	2.1	2.1								
	32		1.0									
Piper Aerostar	29	0.48	1.0									
	20		1.0									
Piper Apache	21	0.29	1.0									
	13		1.0									
Piper Archer II, III	12	0.17	1.0									
	7		1.0									
Piper Arrow III, IV	14	0.21	1.0									
	8		1.0									
Piper Aztec	30	0.42	1.0									
	18		1.0									
Piper Cheyenne I, II	41	0.55	1.0									
	23		1.0									
Piper Cheyenne III	50	0.69	2.6	2.6								
	31		1.0									
Piper Commanche	21	0.29	1.0							MPa/m) 80 3 10.1 5 7.6 0 10.3 5 7.6 2 10.5 5 7.8		
	13		1.0									
Piper Cub	8	0.13	1.0									
(& Super Cub)	5		1.0									
Piper Dakota	14	0.17	1.0									
	8		1.0									
^D iper Malibu, Mirage,	21	0.35	1.0									
Meridian	14		1.0									
Piper Mojave	33	0.42	1.0									
÷	23		1.0									
Piper Navajo	29	0.42	1.0									
-	18		1.0									

	Weight	Tire Flexible Pavement Subg						grades Rigid Pavement Subgrades					
	Max/Min	Pressure	Max		S (kN)			k (M)	Pa/m)			
Aircraft	(k N)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150		
Piper Saratoga	16	0.38	1.0										
	10		1.0										
Piper Saratoga II	16	0.27	1.0										
	11		1.0										
Piper Seminole	17	0.25	1.0										
	11		1.0							Pa/m) 80 			
Piper Seneca III, V	22	0.38	1.0										
	14		1.0										
Piper Warrior II, III	11	0.17	1.0										
	7		1.0										
Saab 2000	226	0.69	5.6	5.6	5.5			5.4	5.4	5.3	5.3		
	136		3.9	3.9									
Saab 340 A, B	131	0.82	4.1	4.1				3.8					
	81		3.0	3.0									
Sepecat Jaguar	154	0.58	4.5	4.5				4.3	4.2				
(Configuration 1)	76		2.5	2.5									
Sepecat Jaguar	108	0.58	3.4	3.4									
(Configuration 2)	76		2.5	2.5									
Shorts 330	102	0.55	3.7	3.7									
	66		2.8	2.8									
Shorts 360	121	0.54	4.1	4.0				4.1	4.0				
	77		3.0	3.0									
Shorts Sherpa	114	0.54	3.9	3.9				3.9					
	80		3.1	3.1									
Shorts Skyvan	67	0.28	1.0										
	35		1.0										
Swearingen SJ30-2	60	1.07	3.2	3.2									
	36		2.2	2.2									
T-33 Trainer (CT-133)		0.42	1.0										
(Lockheed)	38		1.0										
Transall C-160	500	0.38	5.9	5.9				4.9	4.3				
	285		2.9	2.9									
Tupolev TU-134	463	0.59	6.2	6.2	4.9			5.7	5.3	4.7			
	285		3.9	3.9									

	Weight	Tire		Flexib	le Paven	nent Sub	ogrades	Rigid	Paveme	ent Subgrades				
Aircraft	Max/Min	Pressure	Max	$x \qquad S(kN)$						k (MPa/m)				
	(kN)	(MPa)	ALR	50	<i>90</i>	130	180	20	40	80	150			
Tupolev TU-154	961	0.93	8.9	8.9	8.0			8.3	8.1	7.5	6.6			
	525		5.4	5.4				5.4	4.8					
Tupolev TU-204,	1096	1.38	9.3	9.0	8.9	8.9	9.3	9.2	9.1	8.9	8.6			
214, 224, 234	560		7.1	6.0	6.3	7.1		6.2	5.9	5.6	5.5			
VC10 Series	1590	1.01	11.0	11.0	10.8	10.8	10.5	10.5	10.4	10.3	9.9			
	785		7.5	7.5	7.3	7.3		7.3	7.0	6.7	6.5			