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Canadian Airport Pavement Bearing Strengths

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Engineering Reference Document

Subject: Canadian Airport Pavement Bearing Strengths

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1. Purpose: This Engineering Reference Document (ERD) contains pavement bearing strength information for over 150 runways at 93 of Canada's major airports. Pavement strengths are reported using both Transport Canada's Pavement Load Rating (PLR) system and the ICAO Pavement Classification Number (PCN) system. Also included are Aircraft Load Ratings (ALR's) and ICAO Aircraft Classification Numbers (ACN's) which define pavement bearing strength requirements for most commercial aircraft operating in Canada. A brief description is given of the procedure for determining the structural suitability of a runway pavement to support aircraft operations.
 2. Status: This is a new Engineering Reference Document.
 3. Cancellation: This ERD replaces Transport Canada Airports Group document AK-67-09-140 versions dated July 1993 and November 1997.
 4. Explanation Of Changes: Strength information is now published only for runways, a table of Canadian airport operators is included, ALR tables have been updated and expanded, and ACN tables are included for the first time.
 5. How To Obtain This Document: Additional copies of this document may be obtained from:

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Canadian Airport Pavement Bearing Strengths

1.0 Introduction

This Engineering Reference Document (ERD) reports pavement bearing strengths for 150 runways at National Airport System (NAS) and regional/local airports in Canada. Pavement bearing strengths are reported using both the Transport Canada ALR/PLR system and the ICAO ACN/PCN system. This pavement strength information is provided by each airport operating authority in accordance with Canadian regulatory requirements. Airport and aircraft operators require strength data to make decisions on the suitability of pavements to safely support aircraft operations that will not cause structural damage to either the aircraft or the pavement.

2.0 The ALR/PLR System (Transport Canada)

The Aircraft Load Rating / Pavement Load Rating (ALR/PLR) system for reporting runway pavement bearing strengths is based on Transport Canada design procedures for airfield pavements. Details of the ALR/PLR system are contained in Reference 1.

2.1 Pavement Load Rating (PLR)

A Pavement Load Rating (PLR) is a number expressing the bearing strength of a pavement for unrestricted aircraft operations. PLR's are expressed on a scale of 1 (weakest pavements) to 12 (strongest pavements) and aircraft tire pressure restrictions where applicable are given in megapascals. PLR's for runways at NAS and regional/local airports are given in Appendix A.

2.2 Aircraft Load Rating (ALR)

An Aircraft Load Rating (ALR) is a number expressing the relative structural loading effect of an aircraft on a pavement. ALR's for flexible pavements are reported at four standard subgrade bearing strengths (50, 90, 130 and 180 kN). Similarly, ALR's for rigid pavements are reported at four standard bearing modulus values (20, 40, 80 and 150 MPa/m). A nominal (maximum) ALR is also reported for each aircraft weight so that pavement strength suitability can be assessed quickly without the need for detailed subgrade or bearing modulus strengths.

In Appendix B, ALR's have been assigned to present day aircraft at their maximum and minimum operating weights and at a specific tire pressure. ALR's at intermediate operating weights can be estimated with sufficient accuracy by linear interpolation between the ALR values given for the minimum and maximum weights, provided that the aircraft tire pressure is within $\pm 5\%$ of the specified value.

On request, ALR's for aircraft not included in Appendix B will be provided by Technical Evaluation Engineering, Aerodrome Safety, Transport Canada. Requests for ALR's should be accompanied by the following information for the aircraft:

- a) maximum operating (ramp) weight,
- b) percent of maximum operating weight distributed to each landing gear,
- c) main gear tire pressure, and
- d) the number and spacing of tires in the main gear.

3.0 The ACN/PCN System (ICAO)

The Aircraft Classification Number / Pavement Classification Number (ACN/PCN) system has been adopted by ICAO as the standard for the international reporting of airfield pavement bearing strengths. Further details on the ICAO ACN/PCN reporting system can be found in References 2 and 3.

3.1 Pavement Classification Number (PCN)

A Pavement Classification Number (PCN) is the first part of a five-part strength code (eg. 40/F/B/0.80 MPa/T) that includes the following information.

- 1) The Pavement Classification Number (PCN)

The PCN is a number that expresses the bearing strength of a pavement (the higher the number, the stronger the pavement) for unrestricted aircraft operations.

- 2) Pavement Type for PCN Determination

Rigid Pavement	- indicated by the Code Letter "R"
Flexible Pavement	- indicated by the Code Letter "F"

- 3) Subgrade Strength Category

High Strength	- indicated by the Code Letter "A"
Medium Strength	- indicated by the Code Letter "B"
Low Strength	- indicated by the Code Letter "C"
Ultra Low Strength	- indicated by the Code Letter "D"

- 4) Maximum Allowable Tire Pressure

The maximum aircraft tire pressure allowed on a pavement is stated in megapascals (MPa). Tire pressure limitations are generally only applied to flexible pavement structures. If a tire

pressure limit does not apply to a pavement, the Code Letter “W” is used.

5) Strength Evaluation Method

Technical Evaluation	- indicated by the Code Letter “T”
Using Aircraft Experience	- indicated by the Code Letter “U”

PCN’s for runways at NAS and regional/local airports in Canada are given in Appendix A.

3.2 Aircraft Classification Number (ACN)

An Aircraft Classification Number (ACN) is a number expressing the relative structural loading effect of an aircraft on a pavement. ACN’s for flexible pavements are reported at four standard subgrade CBR (California Bearing Ratio) strengths (CBR 15, 10, 6 and 3). Similarly, ACN’s for rigid pavements are reported at four standard bearing modulus values (150, 80, 40 and 20 MPa/m). ACN’s are given in Appendix C for present day aircraft at their maximum and minimum operating weights and at a specific tire pressure.

On request, ACN’s for aircraft not included in Appendix C will be provided by Technical Evaluation Engineering, Aerodrome Safety, Transport Canada. Requests for ACN’s should be accompanied by the following information for the aircraft:

- a) maximum operating (ramp) weight,
- b) percent of maximum operating weight distributed to each landing gear,
- c) main gear tire pressure, and
- d) the number and spacing of tires in the main gear.

4.0 Aircraft Operations

From a structural viewpoint, an aircraft can operate on an airport pavement provided that:

- a) the load rating of the aircraft (ALR) is equal to or less than the load rating assigned to the pavement (PLR), or similarly, the ACN of the aircraft is equal to or less than the PCN assigned to the pavement, and
- b) the tire pressure of the aircraft does not exceed the tire pressure restriction (if any) assigned to the pavement.

The PLR and PCN strength values reported for a pavement are valid on a year-round basis and take into account seasonal variations and reductions in strength which may occur as the result of the springtime weakening of subgrade soils.

Aircraft operators planning flight(s) into a particular airport should notify and obtain prior permission from the airport operating authority. Application for approval of aircraft operations that marginally exceed the reported pavement strength limit may also be made to the airport operating authority but usually require a detailed engineering analysis prior to approval.

A list of Canadian National Airports System (NAS) and regional/local airport operators and their phone numbers is given in Appendix D. A complete list of all certified and registered aerodromes in Canada including the name of the operating authority and contact information can be found in Reference 4.

5.0 References

1. "Pavement Evaluation For Aircraft Loadings" (AK-68-30-100), Transport Canada, Aerodrome Safety, Technical Evaluation Engineering, Ottawa, October, 1979.
2. "International Standards and Recommended Practices: Aerodromes - Annex 14 to the Convention on International Civil Aviation", International Civil Aviation Organization, Montreal, Canada.
3. "Aerodrome Design Manual - Part 3 - Pavements", International Civil Aviation Organization, Document 9157 - AN/901, Part 3.
4. "Canada Flight Supplement - Canada and North Atlantic Terminal and Enroute Data", NAV Canada, Aeronautical Information Services, Ottawa, Canada. Updated and published seven (7) times per year. Procurement from Canada Map Office, Natural Resources Canada, 615 Booth Street, Ottawa, Canada.

Appendix A

Airport Pavement Bearing Strengths

AIRPORT PAVEMENT BEARING STRENGTHS

<i>Location Indicator</i>	<i>Airport</i>	<i>Runway</i>	<i>Runway Length x Width (m)</i>	<i>Pavement Load Rating (PLR)</i>	<i>Tire Pressure Limit (MPa)</i>	<i>ICAO Classification Code (PCN)</i>
CYXX	Abbotsford, BC	07-25	2438 x 61	12	No Limit	67/F/A/W/T
		01-19	1607 x 61	10	No Limit	48/R/B/W/T
		01N-19N	457 x 30	-----	Turf / Not Rated	-----
CYTF	Alma, QC	13-31	1311 x 30	10	No Limit	54/F/C/W/T
CYBC	Baie Comeau, QC	10-28	1829 X 46	11	No Limit	70/F/C/W/T
CYBR	Brandon Municipal, MB	08-26	1981 x 46	9	No Limit	51/F/D/W/T
CYYC	Calgary Intl., AB	16-34	3863 x 61	12	No Limit	111/F/D/W/T
		10-28	2438 x 61	11	No Limit	87/F/D/W/T
		07-25	1890 x 46	11	No Limit	87/F/D/W/T
CYBL	Campbell River, BC	11-29	1524 x 46	12	No Limit	67/F/A/W/T
CYCG	Castlegar, BC	15-33	1615 x 46	12	No Limit	67/F/A/W/T
CYCL	Charlo, NB	13-31	1829 x 46	9	No Limit	35/F/B/W/T
CYYG	Charlottetown, PE	03-21	2134 x 46	12	No Limit	76/F/B/W/T
		10-28	1524 x 61	12	No Limit	76/F/B/W/T
CZUM	Churchill Falls, NF	13-31	1676 x 46	11	No Limit	70/F/C/W/T
CYXC	Cranbrook, BC	16-34	1829 x 46	11	No Limit	54/F/A/W/T
CYDN	Dauphin, MB	14-32	1524 x 46	7	0.5	10/F/D/0.5MPa/T
		08-26	823 x 24	4	0.5	10/F/D/0.5MPa/T
		02-20	610 x 18	-----	Gravel / Not Rated	-----
CYDQ	Dawson Creek, BC	06-24	1524 x 46	9	No Limit	41/F/C/W/T
CYDF	Deer Lake, NF	07-25	1829 x 46	11	No Limit	54/F/A/W/T
CYHD	Dryden Regional, ON	11-29	1829 x 46	12	1.0	67/F/A/1.0MPa/T
		05-23	610 x 23	-----	Sand / Not Rated	-----
CYXR	Earlton, ON	08-26	1829 x 46	8	No Limit	38/F/D/W/T
		16-34	920 x 46*	3	0.5	7/F/D/0.5MPa/U
CYEG	Edmonton Intl., AB	02-20	3353 x 61	12	No Limit	93/R/C/W/T
		12-30	3109 x 61	12	No Limit	93/R/C/W/T
CYFO	Flin Flon, MB	18-36	1524 x 46	12	No Limit	76/F/B/W/T
CYAG	Fort Frances Municipal, ON	12-30	1372 x 30	8	0.4	31/F/C/0.4MPa/T
		03-21	792 x 23	-----	Not Rated	-----

AIRPORT PAVEMENT BEARING STRENGTHS

<i>Location Indicator</i>	<i>Airport</i>	<i>Runway</i>	<i>Runway Length x Width (m)</i>	<i>Pavement Load Rating (PLR)</i>	<i>Tire Pressure Limit (MPa)</i>	<i>ICAO Classification Code (PCN)</i>
CYMM	Fort McMurray, AB	07-25	1829 x 46	12	No Limit	67/F/A/W/T
CYYE	Fort Nelson, BC	03-21 07-25	1951 x 61 762 x 23	11 6	No Limit 1.0	61/F/B/W/T 16/F/C/1.0MPa/T
CYXJ	Fort St. John, BC	11-29 02-20	2103 x 61 2042 x 61	10 10	1.0 1.0	67/F/D/1.0MPa/T 67/F/D/1.0MPa/T
CYFC	Fredericton, NB	15-33 09-27	1829 X 61 1554 x 61	11 11	No Limit No Limit	61/F/B/W/T 61/F/B/W/T
CYQX	Gander Intl., NF	04-22 13-31 09-27	3200 x 61 2713 x 61 572 x 15	12 12	No Limit No Limit ----- Not Rated -----	67/F/A/W/T 67/F/A/W/T
CYGP	Gaspé, QC	11-29	1219 x 46	11	No Limit	70/F/C/W/T
CYGX	Gillam, MB	05-23	1524 x 46*	7	1.0	28/F/D/1.0MPa/T
CYZE	Gore Bay - Manitoulin, ON	11-29	1494 x 30	5	0.7	8/F/B/0.7MPa/T
CYQU	Grande Prairie, AB	11-29 07-25	1981 x 61 1890 x 61	10 10	No Limit No Limit	54/F/C/W/T 54/F/C/W/T
CYHZ	Halifax Intl., NS	06-24 15-33	2682 x 61 2347 x 61	12 12	No Limit No Limit	76/F/B/W/T 76/F/B/W/T
CYHM	Hamilton, ON	06-24 12L-30R 12R-30L	1829 x 46 3048 x 61 1070 x 46	8 11 8	1.4 1.4 1.4	38/F/D/1.4MPa/T 70/F/C/1.4MPa/T 38/F/D/1.4MPa/T
CYGV	Havre St-Pierre, QC	09-27	1372 x 30	12	No Limit	76/F/B/W/T
CYKA	Kamloops, BC	08-26 04-22	1829 x 45 632 x 15	10 5	No Limit 0.5	54/F/C/W/T 14/F/D/0.5MPa/T
CYYU	Kapuskasing, ON	17-35 10-28	1676 x 30 1140 x 23	5	1.0 ----- Not Rated -----	14/F/D/1.0MPa/T
CYLW	Kelowna, BC	15-33	2225 x 61	10	No Limit	54/F/C/W/T
CYQK	Kenora, ON	07-25	1768 x 46	10	1.0	41/F/A/1.0MPa/T
CYVC	La Ronge, SK	18-36 10-28	1524 x 46 716 x 15**	10 7	No Limit 0.5	54/F/C/W/T 23/F/C/0.5MPa/T
CYQL	Lethbridge, AB	05-23 12-30	1981 x 61 1676 x 61	10 10	No Limit No Limit	54/F/C/W/T 54/F/C/W/T

AIRPORT PAVEMENT BEARING STRENGTHS

<i>Location Indicator</i>	<i>Airport</i>	<i>Runway</i>	<i>Runway Length x Width (m)</i>	<i>Pavement Load Rating (PLR)</i>	<i>Tire Pressure Limit (MPa)</i>	<i>ICAO Classification Code (PCN)</i>
CYXU	London, ON	15-33	2682 x 61	11	No Limit	70/F/C/W/T
		09-27	1920 x 61	9	No Limit	41/F/C/W/T
CYYL	Lynn Lake, MB	17-35	1524 x 46	12	No Limit	67/F/A/W/T
		08-26	747 x 24	-----	Gravel / Not Rated	-----
CYCH	Miramichi, NB	09-27	1798 x 46	10	1.5	54/F/B/1.5MPa/T
CYQM	Moncton, NB	11-29	2438 x 61	11	No Limit	70/F/C/W/T
		06-24	1875 x 61	11	No Limit	71/F/C/W/T
CYYY	Mont-Joli, QC	06-24	1829 x 46	10	No Limit	41/F/A/W/T
		15-33	1219 x 46	9	No Limit	41/F/C/W/T
CYUL	Montréal Intl. (Dorval), QC	06L-24R	3353 x 61	12	No Limit	75/F/B/W/T
		06R-24L	2926 x 61	11	No Limit	64/R/B/W/T
		10-28	2134 x 61	12	No Limit	75/F/B/W/T
CYMX	Montréal Intl. (Mirabel), QC	06-24	3658 x 61	12	No Limit	68/R/A/W/T
		11-29	3658 x 61	12	No Limit	68/R/A/W/T
CYCD	Nanaimo, BC	16-34	1524 x 61	10	No Limit	47/F/B/W/T
CYYB	North Bay, ON	08-26	3048 x 61	11	No Limit	61/F/B/W/T
		18-36	1364 x 46	10	1.0	54/F/C/1.0MPa/T
		13-31	762 x 23	-----	Turf / Not Rated	-----
CYNE	Norway House, MB	05-23	1195 X 30*	8	1.0	31/F/C/1.0MPa/U
CYOW*	Ottawa/MacDonald- Cartier Intl., ON	14-32	2942 x 61	12	No Limit	67/F/A/W/T
		07-25	2438 x 61	12	No Limit	67/F/A/W/T
		04-22	1006 x 23	7	0.5	10/F/A/0.5MPa/T
CYPE	Peace River, AB	04-22	1524 x 46	10	No Limit	54/F/C/W/T
		08-26	579 x 46	-----	Turf / Not Rated	-----
CYTA	Pembroke, ON	17-35	1524 x 30	9	0.7	28/F/A/0.7MPa/T
CYYF	Penticton, BC	16-34	1829 x 45	11	No Limit	70/F/C/W/T
CZYT	Port Hardy, BC	11-29	1524 x 46	12	No Limit	67/F/A/W/T
		07-25	1219 x 46	11	1.0	61/F/B/1.0MPa/T
		16-34	1219 x 46	10	1.0	47/F/B/1.0MPa/T
CYPW	Powell River, BC	09-27	1106 x 46	8	0.5	25/F/B/0.5MPa/T
CYPA	Prince Albert, SK	08-26	1524 x 46	9	1.0	41/F/C/1.0MPa/T
		16-34	762 x 30	-----	Turf / Not Rated	-----

AIRPORT PAVEMENT BEARING STRENGTHS

<i>Location Indicator</i>	<i>Airport</i>	<i>Runway</i>	<i>Runway Length x Width (m)</i>	<i>Pavement Load Rating (PLR)</i>	<i>Tire Pressure Limit (MPa)</i>	<i>ICAO Classification Code (PCN)</i>
CYXS	Prince George, BC	15-33	2256 x 46	10	No Limit	67/F/D/W/T
		06-24	1715 x 46	10	No Limit	67/F/D/W/T
		01-19	1353 x 23	10	No Limit	67/F/D/W/T
CYPR	Prince Rupert, BC	13-31	1829 x 61	12	No Limit	67/F/A/W/T
CYQB	Québec/Jean Lesage International, QC	06-24	2743 x 46	11	No Limit	71/R/C/W/T
		12-30	1737 x 46	11	No Limit	70/F/C/W/T
CYQZ	Quesnel, BC	13-31	1676 x 61	10	No Limit	41/F/A/W/T
CYOP	Rainbow Lake, AB	09-27	1383 x 30	9	0.5	51/F/D/0.5MPa/T
CYRL	Red Lake, ON	08-26	1524 x 46	7	0.4	28/F/D/0.4MPa/T
CYQR	Regina, SK	13-31	2408 x 46	11	No Limit	87/F/D/W/T
		08-26	1890 x 46	9	1.0	40/R/C/1.0MPa/T
CYXK	Rimouski, QC	07-25	1402 x 46	11	1.0	70/F/C/1.0MPa/T
CYUY	Rouyn-Noranda, QC	08-26	1981 x 46	11	No Limit	87/F/D/W/T
CYSJ	Saint John, NB	05-23	2134 x 61	12	No Limit	67/F/A/W/T
		14-32	1554 x 61	12	No Limit	67/F/A/W/T
CYAY	St. Anthony, NF	11-29	1219 x 30	12	No Limit	67/F/A/W/T
CYYT	St. John's Intl., NF	11-29	2591 x 61	12	No Limit	67/F/A/W/T
		16-34	2134 x 61	12	No Limit	67/F/A/W/T
		02-20	1532 x 30	11	No Limit	54/F/A/W/T
CYSL	St. Leonard, NB	18-36	1219 x 30	12	1.0	76/F/B/1.0MPa/T
CYZR	Sarnia, ON	14-32	1554 x 30	6	1.4	20/F/D/1.4MPa/T
		05-23	911 x 23	5	0.7	14/F/D/0.7MPa/T
CYXE	Saskatoon/John G. Diefenbaker, SK	09-27	2530 x 61	11	No Limit	70/F/C/W/T
		15-33	1890 x 46	11	No Limit	70/F/C/W/T
CYAM	Sault Ste. Marie, ON	04-22	1829 x 61	10	No Limit	41/F/A/W/T
		12-30	1829 x 61	10	No Limit	41/F/A/W/T
CYZV	Sept-Iles, QC	09-27	2003 x 46	12	No Limit	67/F/A/W/T
		13-31	1840 x 61	12	No Limit	67/F/A/W/T
CYYD	Smithers, BC	15-33	1524 x 46	11	1.0	70/F/C/1.0MPa/T

AIRPORT PAVEMENT BEARING STRENGTHS

<i>Location Indicator</i>	<i>Airport</i>	<i>Runway</i>	<i>Runway Length x Width (m)</i>	<i>Pavement Load Rating (PLR)</i>	<i>Tire Pressure Limit (MPa)</i>	<i>ICAO Classification Code (PCN)</i>
CYJT	Stephenville, NF	09-27	3048 x 61	12	No Limit	67/F/A/W/T
		02-20	1189 x 46	8	No Limit	25/R/A/W/T
CYSB	Sudbury, ON	04-22	2012 x 61	9	No Limit	28/F/A/W/T
		12-30	1524 x 61	9	1.0	28/F/A/1.0MPa/T
CYQY	Sydney, NS	07-25	2155 x 61	11	No Limit	61/F/B/W/T
		01-19	1829 x 46	10	No Limit	47/F/B/W/T
CYXT	Terrace, BC	15-33	1829 x 46	12	No Limit	67/F/A/W/T
		03-21	1638 x 46	12	0.5	67/F/A/0.5MPa/T
CYQD	The Pas, MB	12-30	1928 x 46	10	No Limit	54/F/C/W/T
CYTH	Thompson, MB	05-23	1768 x 46	9	No Limit	51/F/D/W/T
		14-32	762 x 30*	3	0.5	7/F/D/0.5MPa/T
CYQT	Thunder Bay, ON	07-25	1890 x 61	12	No Limit	89/F/C/W/T
		12-30	1615 x 61	12	No Limit	89/F/C/W/T
CYTS	Timmins, ON	03-21	1829 x 46	9	No Limit	28/F/A/W/T
		10-28	1494 x 46	9	No Limit	28/F/A/W/T
CYTZ	Toronto/City Centre, ON	08-26	1219 x 46	6	1.0	11/F/B/1.0MPa/T
		06-24	914 x 46	6	0.5	11/F/B/0.5MPa/T
		15-33	847 x 46	6	0.5	11/F/B/0.5MPa/T
CYYZ	Toronto/Lester B. Pearson Intl., ON	05-23	3389 x 61	12	No Limit	79/R/B/W/T
		06L-24R	2896 x 61	12	No Limit	79/R/B/W/T
		15L-33R	3368 x 61	12	No Limit	79/R/B/W/T
		15R-33L	2770 x 61	12	No Limit	79/R/B/W/T
CYBE	Uranium City, SK	05-23	1198 x 30**	9	1.0	35/F/B/1.0MPa/T
CYVO	Val-D'Or, QC	18-36	3048 x 61	11	No Limit	70/F/C/W/T
CYVR	Vancouver Intl., BC	08R-26L	3353 x 61	12	No Limit	93/R/C/W/T
		08L-26R	3030 x 61	12	No Limit	79/R/B/W/T
		12-30	2225 x 61	12	No Limit	93/R/C/W/T
CYYJ	Victoria Intl., BC	09-27	2135 x 61	11	No Limit	61/F/B/W/T
		02-20	1532 x 61	8	1.0	31/F/C/1.0MPa/T
		13-31	1525 x 61	9	No Limit	41/F/C/W/T
CYWK	Wabush, NF	01-19	1829 x 46	10	No Limit	47/F/B/W/T
CYXY	Whitehorse Intl., YT	13R-31L	2896 x 46	11	No Limit	54/R/A/W/T
		13L-31R	1219 x 30	7	0.5	10/F/A/0.5MPa/T
		01-19	549 x 23		----- Not Rated -----	

AIRPORT PAVEMENT BEARING STRENGTHS

<i>Location Indicator</i>	<i>Airport</i>	<i>Runway</i>	<i>Runway Length x Width (m)</i>	<i>Pavement Load Rating (PLR)</i>	<i>Tire Pressure Limit (MPa)</i>	<i>ICAO Classification Code (PCN)</i>
CYWL	Williams Lake, BC	11-29	2134 x 46	11	No Limit	70/F/C/W/T
CYQG	Windsor, ON	07-25	2393 x 61	10	No Limit	54/F/C/W/T
		12-30	1570 x 46	10	No Limit	54/F/C/W/T
CYWG	Winnipeg Intl., MB	18-36	3353 x 61	12	No Limit	89/F/C/W/T
		13-31	2652 x 61	12	No Limit	89/F/C/W/T
		07-25	2134 x 61	8	No Limit	28/R/B/W/T
CYQI	Yarmouth, NS	06-24	1829 x 46	12	No Limit	67/F/A/W/T
		15-33	1524 x 46	8	1.0	25/F/B/1.0MPa/T
CYZF	Yellowknife, NT	09-27	1524 x 46	12	1.0	67/F/A/1.0MPa/T
		15-33	2286 x 46	12	1.0	67/F/A/1.0MPa/T

* Gravel

** Treated Gravel

Appendix B

Aircraft Load Ratings
For
Selected Aircraft

Aircraft Load Ratings

An Aircraft Load Rating (ALR) is a number that expresses the relative structural loading effect of an aircraft on a pavement. ALR's for flexible pavements are reported at four standard subgrade bearing strengths (50, 90, 130 and 180 kN). Similarly, ALR's for rigid pavements are reported at four standard bearing modulus values (20, 40, 80 and 150 MPa/m). A nominal (maximum) ALR is also reported for each aircraft weight so that operators can determine pavement strength suitability without the need for detailed subgrade or bearing modulus strength values.

In Appendix B, ALR's have been assigned to present day aircraft at their maximum and minimum operating weights and at a specific tire pressure. ALR's at intermediate operating weights can be estimated with sufficient accuracy by linear interpolation between the ALR values given for the minimum and maximum weights, provided that the aircraft tire pressure is within $\pm 5\%$ of the specified value.

Example of ALR Interpolation

<u>Aircraft Name/Model</u>	<u>Operating Weight Max./Min. (kN)</u>	<u>ALR For Flexible Pavement (S = 90 kN)</u>
B737-300	623 (A) 325 (B)	9.0 (C) 6.9 (D)

The ALR for a B737-300 aircraft at an operating weight of 500 kN (E) can be determined by linear interpolation from the following equation:

$$\begin{aligned}
 \text{ALR} &= (C) - (C - D) \times (A - E)/(A - B) \\
 &= 9.0 - (9.0 - 6.9) \times (623 - 500)/(623 - 325) \\
 &= 9.0 - (2.1) \times (123)/(298) \\
 &= 8.1
 \end{aligned}$$

Unit Conversion Factors

Operating "Weight": lbs x 0.004448 = kN	Tire Pressure: psi x 0.006895 = MPa
lbs x 0.4536 = kg	MPa x 145.0 = psi
kN x 224.8 = lbs	
kN x 101.9716 = kg	
kg x 2.205 = lbs	
kg x 0.0098066 = kN	

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
A300B, B2	1353	1.16	10.2	10.2	10.0	9.9	9.6	10.1	9.9	9.7	9.4
	840		7.9	7.8	7.6	7.7	----	7.9	7.6	7.2	7.0
A300B4-200	1627	1.28	11.0	11.0	10.8	10.7	10.6	10.7	10.7	10.7	10.5
	1236		9.7	9.6	9.5	9.4	9.5	9.7	9.5	9.2	9.0
A300B4-200 (Optional Bogie)	1627	1.16	10.8	10.8	10.6	10.4	10.2	10.5	10.4	10.2	10.0
	1236		9.4	9.4	9.2	9.0	9.4	9.4	9.1	8.8	8.5
A300B4-600R	1693	1.35	11.2	11.2	11.1	11.0	11.0	10.9	11.0	11.0	10.8
	1275		9.9	9.8	9.6	9.6	9.7	9.9	9.7	9.5	9.3
A300B4-600R (Optional Bogie)	1693	1.21	11.0	11.0	10.8	10.7	10.5	10.7	10.7	10.5	10.3
	1275		9.6	9.6	9.4	9.3	9.5	9.6	9.3	9.0	8.8
A300C4	1627	1.24	10.9	10.9	10.7	10.6	10.5	10.6	10.6	10.5	10.3
	1216		9.5	9.4	9.2	9.1	9.4	9.5	9.2	9.0	8.7
A310-200, 200C	1509	1.46	10.5	10.4	10.3	10.3	10.3	10.5	10.4	10.3	10.2
	800		7.7	7.2	7.4	7.7	----	7.7	7.4	7.1	6.9
A310-300	1480	1.19	10.6	10.6	10.4	10.3	10.1	10.4	10.3	10.1	9.9
	1108		9.2	9.2	8.9	8.8	----	9.2	8.9	8.6	8.3
A310-300	1549	1.48	10.7	10.7	10.6	10.5	10.6	10.6	10.7	10.6	10.5
	1118		9.5	8.9	8.9	9.0	9.5	9.4	9.1	8.9	8.7
A310-300	1617	1.29	11.0	11.0	10.8	10.7	10.7	10.7	10.8	10.7	10.5
	1118		9.3	9.1	9.0	8.9	----	9.3	9.3	8.7	8.5
A310-322 SR, BB	1500	1.45	10.4	10.4	10.3	10.2	10.3	10.4	10.4	10.3	10.1
	1064		9.3	8.5	8.6	8.7	9.3	9.0	8.8	8.5	8.3
A310-324	1540	1.24	10.7	10.7	10.4	10.3	10.2	10.5	10.4	10.2	10.0
	800		7.6	7.2	7.3	7.6	----	7.6	7.2	6.9	6.7
A310-325	1608	1.38	10.8	10.8	10.6	10.6	10.5	10.7	10.7	10.6	10.4
	1100		9.3	8.8	8.7	8.8	9.3	9.1	8.9	8.6	8.4
A318-100	607	0.89	8.8	8.5	8.6	8.6	8.8	8.7	8.7	8.7	8.8
	382		6.8	6.5	6.6	----	----	6.8	6.8	6.7	6.7
A319-100	632	0.89	8.9	8.6	8.6	8.6	----	8.7	8.7	8.8	8.9
	382		6.7	6.4	6.5	----	----	6.7	6.7	6.6	6.6
A319-100	690	1.07	9.5	8.9	9.0	9.2	9.5	9.2	9.2	9.4	9.5
	382		7.3	6.3	6.7	7.3	----	6.8	6.8	6.8	6.8
A319-100	744	1.38	10.2	9.0	9.2	9.6	10.0	9.6	9.7	9.9	10.2
	382		7.7	6.3	7.0	7.7	----	7.0	7.0	7.0	7.1

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
A320-100	667	1.21	9.7	8.8	9.0	9.3	9.6	9.2	9.3	9.5	9.7
	390		7.6	6.5	7.0	7.6	----	7.1	7.1	7.2	7.2
A320-200	725	1.03	9.8	9.2	9.3	9.4	9.6	9.4	9.5	9.6	9.8
	402		7.4	6.6	6.9	7.4	----	7.1	7.1	7.1	7.1
A320-200	744	1.14	10.0	9.2	9.4	9.6	9.7	9.6	9.6	9.8	10.0
	422		7.6	6.8	7.2	7.6	----	7.3	7.3	7.4	7.4
A320-200	759	1.44	10.4	9.1	9.4	9.8	10.2	9.8	9.9	10.1	10.4
	441		8.0	6.9	7.5	8.0	----	7.7	7.7	7.8	7.9
A320-200 (Optional Bogie)	725	1.22	7.9	7.5	7.4	7.4	----	7.9	7.6	7.3	7.0
	402		5.5	5.2	5.5	----	----	5.2	4.9	4.6	----
A320-212 (Optional 4-Wheel Bogie)	764	1.22	8.2	7.8	7.7	7.6	----	8.2	7.9	7.6	7.2
	490		6.1	5.9	6.0	----	----	6.1	5.8	5.4	5.1
A321-100	769	1.28	10.5	9.4	9.6	9.9	10.2	9.8	10.0	10.2	10.5
	461		8.1	7.2	7.6	8.0	----	7.9	7.9	8.0	8.1
A321-100	818	1.36	10.8	9.6	9.8	10.1	10.5	10.1	10.3	10.5	10.8
	461		8.2	7.2	7.7	8.1	----	7.9	7.9	8.0	8.2
A321-200	877	1.46	11.2	9.8	10.1	10.4	10.8	10.3	10.5	10.8	11.2
	461		8.2	7.1	7.7	8.2	----	7.9	8.0	8.1	8.2
A330-200	2137	1.34	11.0	11.0	10.8	10.6	10.8	10.8	10.8	10.7	10.7
	1650		10.2	9.7	9.4	9.3	10.2	9.9	9.6	9.5	9.5
A330-200	2264	1.42	11.3	11.3	11.1	11.0	11.1	11.0	11.1	11.0	11.0
	1650		10.3	9.6	9.4	9.3	10.3	9.9	9.7	9.6	9.6
A330-300	2088	1.31	10.9	10.9	10.7	10.5	10.7	10.8	10.7	10.5	10.5
	1638		10.2	9.7	9.4	9.2	10.2	9.8	9.6	9.4	9.5
A330-300	2137	1.33	11.0	11.0	10.8	10.6	10.8	10.8	10.7	10.6	10.6
	1657		10.2	9.7	9.4	9.2	10.2	9.9	9.6	9.4	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
	1697		10.4	9.8	9.7	9.6	10.4	10.0	9.9	9.8	9.8
A340-200	2559	1.32	11.0	11.0	10.8	10.6	10.8	10.8	10.7	10.6	10.6
	1657		9.7	8.7	8.5	8.9	9.7	9.1	8.7	8.6	8.7
A340-200	2706	1.42	11.3	11.3	11.1	11.0	11.0	11.1	11.1	11.0	11.0
	1697		9.9	8.8	8.7	9.1	9.9	9.3	9.0	8.9	9.0
A340-300	2559	1.32	11.0	11.0	10.7	10.6	10.7	10.8	10.7	10.6	10.6
	1706		10.0	9.2	8.9	9.1	10.0	9.4	9.1	9.0	9.0

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min (kN)	Pressure (MPa)		S (kN)				k (MPa/m)			
			ALR	50	90	130	180	20	40	80	150
A340-300	2706	1.42	11.3	11.3	11.1	11.0	11.0	11.1	11.1	11.0	11.1
	1765		10.2	9.3	9.1	9.1	10.2	9.7	9.4	9.3	9.4
A340-500, 600	3590	1.42	11.8	11.8	11.6	11.6	11.4	11.6	11.5	11.5	11.4
	1750		9.6	7.9	7.9	8.7	9.6	8.4	8.3	8.3	8.3
A380-800 (6 Wheel Main Gear)	5514	1.47	12.2	12.2	11.5	11.0	11.0	12.0	11.7	11.3	11.1
	2758		9.5	7.6	7.6	8.5	9.5	8.6	8.2	7.9	8.0
A380-800 (4 Wheel Wing Gear)	5514	1.47	11.3	11.3	11.1	11.0	10.9	11.1	11.2	11.1	11.1
	2758		9.5	7.5	7.7	8.5	9.5	8.4	8.1	7.9	8.0
Antonov AN- 24	207	0.42	4.6	4.6	3.5	----	----	4.5	4.4	----	----
	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	10.2	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	12.6	12.1	11.4	11.6	11.7	10.9	10.2
	4500		11.4	11.4	10.8	10.3	9.4	10.8	10.1	9.3	8.7
ATR 42 (Aerospatiale)	182	0.72	4.9	4.9	----	----	----	4.8	4.8	4.7	----
	110		3.5	3.5	----	----	----	----	----	----	----
ATR 72 (Aerospatiale)	211	0.79	5.7	5.5	5.7	----	----	5.4	5.4	5.4	5.4
	125		3.9	3.9	----	----	----	----	----	----	----
Aurora (CP-140) (P-3 Orion)	600	1.31	9.9	8.9	9.2	9.5	9.9	9.3	9.4	9.6	9.9
	275		6.5	6.0	6.5	----	----	6.2	6.2	6.3	6.3
B-52 (Bomber)	2170	1.65	13.3	12.1	12.2	12.4	12.5	12.7	12.8	13.1	13.3
	1500		11.6	10.3	10.4	10.7	10.9	11.2	11.3	11.4	11.6
B1-B Bomber (Rockwell)	2123	1.65	12.4	12.2	12.2	12.3	12.4	12.0	12.1	12.2	12.3
	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	9.2	9.1	----	9.3	9.1	8.8	8.5
	700		7.3	6.8	6.9	7.3	----	7.1	6.7	6.3	6.1
B707-320, 320B, 320C, 420	1484	1.24	10.7	10.7	10.5	10.4	10.4	10.5	10.4	10.3	10.1
	800		7.8	7.5	7.5	7.7	----	7.8	7.4	7.1	6.9
B717-100, 200, 300	543	1.10	9.4	8.7	8.9	9.2	9.4	8.9	8.9	9.1	9.4
	310		6.8	6.4	6.8	----	----	6.6	6.7	6.7	6.8
B720, 720B	1045	1.01	9.1	9.1	8.8	8.5	----	8.9	8.6	8.2	7.8
	700		7.0	7.0	6.8	----	----	7.0	6.6	6.2	6.0
B727-100, 100C	756	1.14	10.3	9.5	9.7	9.8	10.1	9.7	9.9	10.1	10.3
	450		7.9	7.2	7.6	7.8	----	7.8	7.8	7.8	7.9

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
B727-200	770	1.15	10.4	9.6	9.7	9.9	10.2	9.8	9.9	10.2	10.4
	450		7.9	7.2	7.6	7.8	----	7.8	7.8	7.8	7.9
B727-200 (Advanced)	934	1.19	11.3	10.4	10.5	10.7	10.9	10.5	10.7	11.0	11.3
	450		8.0	7.2	7.6	7.8	----	7.8	7.8	7.9	8.0
B727-200F (Advanced)	907	1.15	11.2	10.2	10.4	10.5	10.8	10.4	10.6	10.9	11.2
	450		7.9	7.2	7.6	7.8	----	7.8	7.8	7.8	7.9
B737-100	445	1.02	7.9	7.4	7.7	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, Advanced	572	1.26	9.4	8.4	8.7	9.0	9.3	8.7	9.0	9.2	9.4
	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	9.0	9.4	9.8	9.3	9.4	9.6	9.9
	325		7.4	6.2	6.9	7.4	----	6.7	6.7	6.8	6.9
B737-400	670	1.28	10.1	9.1	9.3	9.6	10.0	9.5	9.6	9.9	10.1
	350		7.4	6.5	7.0	7.4	----	7.0	7.0	7.0	7.1
B737-500	596	1.34	9.6	8.5	8.9	9.2	9.6	9.1	9.2	9.4	9.6
	320		7.3	6.2	6.8	7.3	----	6.6	6.7	6.7	6.7
B737-600	645	1.30	9.8	8.7	9.0	9.3	9.7	9.2	9.3	9.5	9.8
	357		7.5	6.3	6.9	7.5	----	6.9	6.9	7.0	7.0
B737-700	690	1.39	10.2	9.0	9.3	9.6	10.0	9.5	9.7	9.9	10.2
	370		7.7	6.5	7.1	7.7	----	7.1	7.1	7.2	7.3
B737-800	777	1.47	10.8	9.4	9.7	10.0	10.5	10.0	10.2	10.5	10.8
	406		7.8	6.7	7.4	7.8	----	7.5	7.5	7.6	7.8
B737-900	777	1.47	10.8	9.4	9.7	10.0	10.5	10.0	10.2	10.5	10.8
	420		8.0	6.9	7.5	8.0	----	7.7	7.7	7.8	7.9
B737-BBJ	763	1.47	10.7	9.3	9.6	10.0	10.4	9.9	10.1	10.4	10.7
	421		8.0	6.9	7.5	8.0	----	7.7	7.7	7.8	7.9
B747-100, 100B, 100SF	3350	1.55	10.7	10.5	10.4	10.3	10.4	10.7	10.7	10.6	10.5
	1700		8.1	7.0	7.3	8.1	----	7.8	7.5	7.2	7.2
B747-100SR	2690	1.04	9.7	9.7	9.3	8.9	9.4	9.6	9.3	8.9	8.6
	1600		7.4	6.9	6.5	7.4	----	7.2	6.8	6.4	6.3
B747-200B, 200C 200F, 200M	3720	1.38	11.2	11.2	11.0	10.8	10.7	11.0	11.0	11.0	10.8
	1750		8.0	7.2	7.3	8.0	----	7.8	7.5	7.2	7.1
B747-300, 300M, 300SR	3720	1.31	11.2	11.2	11.0	10.8	10.6	11.0	11.0	10.9	10.7
	1760		7.9	7.2	7.3	7.9	----	7.8	7.5	7.2	7.1

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
B747-400, 400F, 400M	3905	1.38	11.4	11.4	11.3	11.2	11.0	11.3	11.3	11.2	11.0
	1800		8.9	7.3	7.3	8.0	8.9	7.8	7.6	7.4	7.3
B747-400D (Domestic)	2729	1.04	9.8	9.8	9.4	9.0	9.5	9.7	9.4	9.0	8.7
	1782		7.7	7.5	7.1	7.7	----	7.7	7.3	6.9	6.7
B747-SP	3127	1.26	10.5	10.5	10.2	10.0	10.0	10.4	10.3	10.1	9.9
	1500		7.6	6.6	6.6	7.6	----	7.2	6.8	6.5	6.4
B757-200 Series	1134	1.24	9.7	9.6	9.4	9.2	----	9.7	9.5	9.3	9.0
	570		6.5	6.1	6.3	----	----	6.5	6.2	5.8	5.6
B757-300	1200	1.24	9.9	9.9	9.7	9.5	9.4	9.9	9.8	9.6	9.3
	640		7.1	6.6	6.7	----	----	7.1	6.7	6.3	6.1
B767-200	1410	1.31	9.9	9.8	9.4	9.3	9.8	9.9	9.7	9.5	9.3
	800		7.7	6.7	6.8	7.7	----	7.4	7.0	6.7	6.7
B767-200 ER	1726	1.31	10.8	10.8	10.5	10.4	10.3	10.7	10.7	10.5	10.4
	830		7.8	6.9	7.0	7.8	----	7.6	7.2	6.9	6.8
B767-300	1566	1.38	10.4	10.3	10.0	9.8	10.1	10.4	10.3	10.1	9.9
	860		7.9	7.0	7.2	7.9	----	7.8	7.4	7.1	7.1
B767-300 ER	1784	1.38	10.9	10.9	10.7	10.5	10.1	10.8	10.9	10.8	10.6
	890		8.0	7.2	7.3	8.0	----	7.9	7.6	7.3	7.2
B777-200	2433	1.38	11.0	11.0	10.2	9.2	10.2	11.0	10.7	10.3	9.9
	1400		9.0	7.2	7.2	8.1	9.0	8.3	7.8	7.4	7.4
B777-200 ER	2822	1.38	11.9	11.9	11.2	10.4	10.5	11.7	11.5	11.1	10.7
	1425		9.0	7.3	7.3	8.1	9.0	8.3	7.9	7.5	7.4
B777-200 X	3278	1.38	12.9	12.9	12.1	11.6	11.0	12.4	12.2	11.9	11.5
	1600		9.3	8.1	7.5	8.4	9.3	8.9	8.5	8.1	7.9
B777-300	2945	1.48	12.1	12.1	11.4	10.8	10.7	11.9	11.7	11.4	11.0
	1600		9.4	8.0	7.5	8.4	9.4	9.0	8.6	8.2	8.0
B777-300 X	3190	1.48	12.6	12.6	11.9	11.4	10.9	12.3	12.1	11.8	11.4
	1600		9.4	8.0	7.5	8.4	9.4	9.0	8.6	8.2	8.0
BAC-111 Series 400	390	0.97	8.0	7.6	7.8	8.0	----	7.7	7.7	7.8	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	7.6	----	7.8	7.8	7.8	7.8
	230		5.4	5.4	----	----	----	5.3	5.2	5.1	----
BAC-111 Series 500	467	1.10	9.0	8.2	8.6	8.9	----	8.4	8.5	8.7	9.0
	250		6.4	5.9	6.4	----	----	6.0	6.0	6.1	6.1

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
BAe-146-100	376	0.84	7.2	7.1	7.2	----	----	7.1	7.1	7.1	7.1
	230		5.3	5.2	5.3	----	----	5.2	5.2	5.1	5.1
BAe-146-200	416	0.97	7.8	7.5	7.7	7.8	----	7.6	7.7	7.7	7.8
	235		5.7	5.3	5.7	----	----	5.4	5.4	5.4	5.3
BAe-146-300	436	1.10	8.2	7.6	7.9	8.2	----	7.9	8.0	8.1	8.2
	245		6.0	5.5	6.0	----	----	5.7	5.7	5.6	5.6
BAe-ATP	232	0.85	5.8	5.6	5.8	----	----	5.6	5.6	5.6	5.6
	140		4.1	4.1	----	----	3.8	----	----	----	
Beech 1900C, 1900D	76	0.67	2.9	2.9	----	----	----	----	----	----	----
	47		1.7	1.7	----	----	----	----	----	----	----
Beech 2000 Starship	65	0.54	2.1	2.1	----	----	----	----	----	----	----
	44		1.0	1.0	----	----	----	----	----	----	----
Beech 35, 36 Series (Bonanza)	16	0.28	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	10		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Beech 55, 56, 58 Series (Baron)	25	0.39	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	16		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Beech Jet 400, 400A	73	0.86	3.6	3.6	----	----	----	----	----	----	----
	48		2.9	2.9	----	----	----	----	----	----	----
Beech King Air 100, 200 Series	56	0.73	2.4	2.4	----	----	----	----	----	----	----
	36		1.2	1.2	----	----	----	----	----	----	----
Beech King Air 300, 300C, 350, 350C	67	0.73	2.7	2.7	----	----	----	----	----	----	----
	40		1.4	1.4	----	----	----	----	----	----	----
Beech King Air 90 Series	49	0.38	1.6	1.6	----	----	----	----	----	----	----
	27		1.0	1.0	----	----	----	----	----	----	----
Beech Queen Air 65, 70, 80 Series	40	0.33	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	25		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bombardier BD-700 (Global Express)	432	1.21	8.6	7.8	8.2	8.5	----	8.1	8.2	8.4	8.6
	220		6.1	5.5	6.1	----	----	5.5	5.5	5.5	5.6
C-141B Starlifter (Lockheed)	1553	1.31	11.1	11.1	11.0	10.9	10.8	10.8	10.9	10.9	10.8
	600		6.8	6.4	6.6	----	----	6.8	6.4	6.1	5.9
C-17A (Globemaster III)	2602	0.95	11.7	11.7	11.2	10.7	10.1	10.6	10.3	10.1	10.3
	2000		10.4	10.4	9.8	9.2	----	9.4	9.0	8.9	9.1
C-5A Galaxy (Lockheed)	3421	0.73	9.6	9.6	9.0	8.2	----	7.8	7.3	7.1	7.2
	1500		5.2	5.2	----	----	----	4.4	4.3	----	----

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
C123K Provider (Fairchild/Republic)	267	0.69	7.5	6.5	7.1	7.5	----	6.8	6.9	7.1	7.3
	180		5.9	5.3	5.9	----	----	5.5	5.6	5.7	5.8
Canadair CL-215, 415	196	0.55	5.8	5.4	5.8	----	----	5.6	5.6	5.7	5.8
	130		4.3	4.3	----	----	----	4.3	4.3	----	----
Canadair CL-41A (CT-114 Tutor)	49	0.37	1.6	1.6	----	----	----	----	----	----	----
	24		1.0	1.0	----	----	----	----	----	----	----
Canadair Regional Jet - 100, 200 Srs	236	1.12	6.5	5.9	6.5	----	----	6.0	6.0	6.0	6.1
	135		4.5	4.5	----	----	----	3.9	----	----	----
Canadair Regional Jet - 700 Series	335	1.24	7.6	6.7	7.2	7.6	----	7.0	7.1	7.2	7.3
	195		5.7	5.1	5.7	----	----	5.0	5.0	5.0	5.0
Canadair Regional Jet - 900, ER Srs	367	1.24	7.9	7.0	7.5	7.9	----	7.4	7.4	7.5	7.7
	215		5.9	5.4	5.9	----	----	5.3	5.3	5.3	5.4
Cessna 114B (Commander)	15	0.35	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	10		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 152	8	0.20	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	5		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 172 (Skyhawk)	11	0.19	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	7		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 180 (Skywagon)	13	0.21	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 182 (Skylane)	14	0.25	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	9		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 185 (Skywagon)	15	0.25	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 208 (Caravan)	36	0.60	1.9	1.9	----	----	----	----	----	----	----
	18		1.0	1.0	----	----	----	----	----	----	----
Cessna 210 (Centurion)	18	0.38	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	11		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 310	25	0.42	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	16		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 337 (Skymaster)	21	0.38	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	14		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cessna 401	28	0.45	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	20		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
Cessna 402C, 414A (Chancellor)	31	0.48	1.2	1.2	----	----	----	1.0	1.0	1.0	1.0
	19		1.0	1.0	----	----	----	1.0	1.0	1.0	1.0
Cessna 421 (Golden Eagle)	34	0.55	1.7	1.7	----	----	----	1.0	1.0	1.0	1.0
	22		1.0	1.0	----	----	----	1.0	1.0	1.0	1.0
Cessna 441 (Conquest II)	44	0.66	2.3	2.3	----	----	----	----	----	----	----
	26		1.5	1.5	----	----	----	----	----	----	----
Cessna 501 (Citation I - Eagle)	56	0.69	2.8	2.8	----	----	----	----	----	----	----
	30		1.9	1.9	----	----	----	----	----	----	----
Cessna 525 (Citation Jet)	47	0.68	2.5	2.5	----	----	----	----	----	----	----
	29		1.8	1.8	----	----	----	----	----	----	----
Cessna 550 (Citation II)	64	0.69	3.0	3.0	----	----	----	----	----	----	----
	35		2.0	2.0	----	----	----	----	----	----	----
Cessna 550 (Citation Bravo)	67	0.69	3.1	3.1	----	----	----	----	----	----	----
	39		2.2	2.2	----	----	----	----	----	----	----
Cessna 560 (Citation V)	72	0.69	3.2	3.2	----	----	----	----	----	----	----
	40		2.2	2.2	----	----	----	----	----	----	----
Cessna 561 XL (Citation Excel)	90	1.05	4.2	4.2	----	----	----	----	----	----	----
	51		3.3	3.3	----	----	----	----	----	----	----
Cessna 650 (Citation III, VI)	99	1.02	4.2	4.2	----	----	----	----	----	----	----
	53		3.0	3.0	----	----	----	----	----	----	----
Cessna 650 (Citation VII)	104	1.16	4.5	4.5	----	----	----	----	----	----	----
	62		3.5	3.5	----	----	----	----	----	----	----
Cessna 750 (Citation X)	160	1.16	5.3	5.3	----	----	----	4.9	5.0	5.0	5.1
	96		4.2	4.2	----	----	----	----	----	----	----
Cessna Conquest	45	0.59	2.2	2.2	----	----	----	----	----	----	----
	26		1.3	1.3	----	----	----	----	----	----	----
Cessna T303 (Crusader)	23	0.40	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	15		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CF-18	249	1.38	7.9	6.0	7.0	7.9	----	6.6	6.8	7.0	7.3
	110		5.6	4.5	5.6	----	----	4.0	4.1	----	----
Challenger CL 600, 601	192	0.90	5.6	5.3	5.6	----	----	5.1	5.1	5.1	5.2
	131		4.3	4.3	----	----	----	3.8	----	----	----
Challenger CL 600, 601	192	1.50	6.4	5.6	6.4	----	----	5.4	5.4	5.5	5.6
	131		5.6	4.9	5.6	----	----	4.0	----	----	----

AIRCRAFT LOAD RATINGS (ALR's)

<i>Aircraft</i>	<i>Weight</i>	<i>Tire</i>	<i>Flexible Pavement Subgrades</i>					<i>Rigid Pavement Subgrades</i>			
	<i>Max/Min</i>	<i>Pressure</i>	<i>Nominal</i>	<i>S (kN)</i>				<i>k (MPa/m)</i>			
	<i>(kN)</i>	<i>(MPa)</i>	<i>ALR</i>	<i>50</i>	<i>90</i>	<i>130</i>	<i>180</i>	<i>20</i>	<i>40</i>	<i>80</i>	<i>150</i>
Challenger CL 601-3R	201	1.42	6.9	5.7	6.5	----	----	5.5	5.6	5.7	5.8
	131		5.5	4.8	5.5	----	----	4.0	----	----	----
Challenger CL 604	212	1.42	6.5	5.8	6.5	----	----	5.7	5.8	5.9	6.0
	140		5.6	5.0	5.6	----	----	4.2	4.3	----	----
Concorde	1824	1.29	12.0	11.7	11.8	11.9	12.0	11.2	11.4	11.4	11.4
	1000		9.1	8.9	9.0	9.1	----	8.9	8.6	8.4	8.3
Convair 240	190	0.64	4.5	4.5	----	----	----	4.5	4.4	----	----
	125		3.3	3.3	----	----	----	----	----	----	----
Convair 340, 440, 540	222	0.47	4.8	4.8	----	----	----	4.7	4.6	----	----
	140		3.0	3.0	----	----	----	----	----	----	----
Convair 580	280	0.59	5.9	5.9	5.5	----	----	5.8	5.7	5.6	5.4
	150		3.6	3.6	----	----	----	----	----	----	----
Convair 600	210	0.73	5.0	5.0	----	----	----	4.9	4.9	4.9	----
	140		3.8	3.8	----	----	----	----	----	----	----
Convair 640	245	0.52	5.2	5.2	----	----	----	5.1	5.0	4.8	----
	140		3.1	3.1	----	----	----	----	----	----	----
Convair 880	860	1.03	9.1	9.1	8.9	8.9	----	8.8	8.6	8.4	8.1
	400		5.5	5.5	----	----	----	5.3	5.0	4.6	----
Convair 990	1135	1.28	10.3	10.2	10.2	10.2	10.3	10.1	10.1	10.0	9.9
	600		7.5	7.1	7.4	7.5	----	7.3	7.0	6.7	6.4
Dassault Falcon 10	84	0.93	3.8	3.8	----	----	----	----	----	----	----
	50		2.8	2.8	----	----	----	----	----	----	----
Dassault Falcon 20	128	0.92	4.6	4.6	----	----	----	4.2	4.3	----	----
	75		3.6	3.6	----	----	----	----	----	----	----
Dassault Falcon 2000	163	1.43	6.1	5.3	6.1	----	----	4.9	4.9	5.0	5.1
	92		4.3	4.3	----	----	----	----	----	----	----
Dassault Falcon 50	173	0.93	5.5	5.1	5.5	----	----	4.8	4.9	4.9	----
	90		3.6	3.6	----	----	----	----	----	----	----
Dassault Falcon 900	202	1.30	6.7	5.6	6.3	6.7	----	5.5	5.6	5.6	5.7
	103		4.7	4.3	4.7	----	----	----	----	----	----
DC-10-10, 10CF, 15	2037	1.34	11.0	11.0	10.8	10.5	10.7	10.9	10.9	10.8	10.7
	1035		8.3	7.3	7.4	8.3	----	8.1	7.8	7.6	7.6
DC-10-20, 20CF, 30CF, 40CF	2485	1.14	11.5	11.5	11.1	10.8	10.7	11.0	11.1	10.9	10.7
	1640		9.7	9.3	8.8	8.9	9.7	9.5	9.1	8.8	8.7

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
DC-10-30, 30 ER, 40	2593	1.22	11.3	11.3	11.1	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	4.0	4.0	----	----	----	4.0	4.0	----	----
	80		2.3	2.3	----	----	----	----	----	----	----
DC-4	335	0.53	6.3	6.3	5.7	----	----	6.1	6.0	5.9	5.7
	200		4.2	4.1	----	----	----	4.2	4.1	----	----
DC-6, 6B	480	0.73	7.6	7.6	7.4	7.1	----	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	7.3	7.3	7.3
DC-8-10, 20 Series	1226	1.01	10.1	10.1	9.9	9.7	----	9.8	9.6	9.3	9.0
	600		6.5	6.5	6.5	----	----	6.5	6.1	5.7	5.5
DC-8-43, 55, 61, 71	1470	1.30	10.8	10.8	10.7	10.7	10.7	10.6	10.6	10.5	10.4
	800		8.0	7.8	7.9	8.0	----	8.0	7.7	7.4	7.1
DC-8-61F, 63F	1557	1.32	11.1	11.1	11.0	11.0	11.0	10.8	10.9	10.8	10.7
	1001		9.0	8.9	8.9	8.9	----	9.0	8.8	8.5	8.3
DC-8-62, 62F, 63, 72, 73	1593	1.35	11.1	11.1	11.0	11.0	11.0	10.8	10.9	10.8	10.7
	800		7.9	7.6	7.7	7.9	----	7.9	7.6	7.3	7.1
DC-9-10, 15	404	0.93	7.8	7.5	7.7	7.8	----	7.6	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	8.3	7.9	8.1	8.3	----	8.0	8.1	8.2	8.3
	300		6.6	6.3	6.6	----	----	6.5	6.5	6.5	6.5
DC-9-30, 32	485	1.05	8.7	8.2	8.4	8.6	----	8.3	8.4	8.5	8.7
	300		6.6	6.2	6.6	----	----	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	8.8	8.9	9.1	9.3
	300		6.6	6.1	6.6	----	----	6.5	6.5	6.5	6.6
DHC1 Chipmunk	10	0.21	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	7		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DHC2 Beaver	24	0.17	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	14		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DHC3 Otter	36	0.20	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	20		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DHC4 Caribou	130	0.28	1.6	1.6	----	----	----	----	----	----	----
	90		1.0	1.0	----	----	----	----	----	----	----

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
DHC5 Buffalo	187	0.41	4.3	4.3	----	----	----	4.3	4.2	----	----
	115		2.5	2.5	----	----	----	----	----	----	
DHC6 Twin Otter Series 300	56	0.26	1.1	1.1	----	----	----	----	----	----	----
	35		1.0	1.0	----	----	----	----	----	----	
DHC7 Dash 7	209	0.74	5.5	5.4	5.5	----	----	5.2	5.2	5.2	5.2
	120		3.8	3.8	----	----	----	----	----	----	
DHC8 Dash 8	147	0.44	3.5	3.5	----	----	----	----	----	----	----
	90		1.9	1.9	----	----	----	----	----	----	
DHC8 Dash 8 Series 100	154	0.90	4.6	4.6	----	----	----	4.3	4.3	----	----
	98		3.6	3.6	----	----	----	----	----	----	
DHC8 Dash 8 Series 300	183	0.80	4.8	4.8	----	----	----	4.7	4.7	4.6	----
	110		3.5	3.5	----	----	----	----	----	----	
DHC8 Dash 8 Series 400	279	0.90	6.6	6.3	6.6	----	----	6.3	6.3	6.4	6.4
	150		4.4	4.4	----	----	----	4.1	----	----	
DHC8 Dash 8 Series 400	279	1.42	7.5	6.2	7.0	7.5	----	6.5	6.6	6.7	6.8
	150		5.5	4.8	5.5	----	----	4.2	4.3	----	----
DHS-2 Conair Firecat	116	0.62	4.2	4.1	----	----	----	4.1	4.2	----	----
	80		3.4	3.4	----	----	----	----	----	----	
Dornier 228 Series	63	0.90	3.4	3.4	----	----	----	----	----	----	----
	32		2.3	2.3	----	----	----	----	----	----	
Dornier 328 Jet	155	1.13	5.4	4.8	5.4	----	----	4.4	4.4	4.3	----
	93		3.9	3.9	----	----	----	----	----	----	
Dornier 328-110 (Turboprop)	138	0.80	4.3	4.3	----	----	----	3.9	----	----	----
	90		3.2	3.2	----	----	----	----	----	----	
Dornier SA227, Metro Merlin, Expediter	74	0.73	3.0	3.0	----	----	----	----	----	----	----
	43		1.8	1.8	----	----	----	----	----	----	
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	4.8	4.6	----	----	----	4.7	4.8	4.8	----
	105		3.6	3.6	----	----	----	----	----	----	
Embraer EMB-110 (Bandeirante)	59	0.62	2.8	2.8	----	----	----	----	----	----	----
	35		1.9	1.9	----	----	----	----	----	----	
Embraer EMB-120 (Brasilia)	119	0.76	3.9	3.9	----	----	----	----	----	----	----
	71		2.7	2.7	----	----	----	----	----	----	

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
Embraer ERJ-145	217	0.90	6.0	5.7	6.0	----	----	5.6	5.6	5.7	5.7
	110		3.9	3.9	----	----	----	----	----	----	----
Fokker 100	452	0.94	8.4	8.0	8.2	8.4	----	8.1	8.1	8.2	8.4
	243		5.9	5.6	5.9	----	----	5.7	5.7	5.6	5.6
Fokker 50	205	0.59	5.2	5.2	----	----	----	5.0	5.0	4.9	----
	125		3.5	3.5	----	----	----	----	----	----	----
Fokker 60	226	0.62	5.6	5.6	5.4	----	----	5.4	5.4	5.3	5.3
	131		3.7	3.7	----	----	----	----	----	----	----
Fokker 70	410	0.81	7.7	7.7	7.7	7.7	----	7.6	7.6	7.7	7.7
	225		5.4	5.3	5.4	----	----	5.3	5.2	5.2	5.1
Fokker F27	205	0.57	5.2	5.2	----	----	----	5.0	5.0	4.9	----
Friendship	120		3.3	3.3	----	----	----	----	----	----	----
Fokker F28	325	0.53	6.8	6.8	6.3	----	----	6.4	6.4	6.3	6.2
Fellowship	175		4.2	4.2	----	----	----	4.2	----	----	----
Gulfstream G159	156	0.83	4.6	4.6	----	----	----	4.3	4.3	----	----
	100		3.5	3.5	----	----	----	----	----	----	----
Gulfstream II	294	1.04	7.3	6.6	7.0	7.3	----	6.7	6.8	6.8	6.9
	163		4.8	4.8	----	----	----	4.5	4.5	----	----
Gulfstream III	312	1.21	7.8	6.8	7.3	7.8	----	7.0	7.1	7.2	7.4
	170		5.7	5.1	5.7	----	----	4.7	4.8	4.8	----
Gulfstream IV	334	1.21	8.0	7.0	7.5	8.0	----	7.3	7.4	7.5	7.7
	189		5.9	5.3	5.9	----	----	5.1	5.2	5.2	5.2
Gulfstream V	405	1.37	9.2	7.7	8.3	8.7	9.2	8.0	8.3	8.5	8.8
	215		6.9	5.7	6.4	6.9	----	5.6	5.7	5.8	5.9
Hawker 1000 (Bae 1000A)	138	0.83	4.6	4.6	----	----	----	4.2	4.2	----	----
	77		3.2	3.2	----	----	----	----	----	----	----
Hawker 800, 800XP (HS-125-800, 800XP)	125	0.83	4.3	4.3	----	----	----	3.8	----	----	----
	74		3.1	3.1	----	----	----	----	----	----	----
Hercules C-130, 082, 182, 282, 382	778	0.67	9.1	8.9	8.7	8.6	----	9.0	9.0	9.0	9.1
	360		6.0	5.5	5.9	----	----	6.0	5.9	5.9	5.9
Hercules L-100 (Commercial)	693	0.74	8.8	8.4	8.3	8.4	----	8.7	8.6	8.7	8.8
	340		5.9	5.3	5.8	----	----	5.9	5.8	5.8	5.8
HS/BAe 125 (All Series to 600)	112	0.83	4.0	4.0	----	----	----	----	----	----	----
	61		2.8	2.8	----	----	----	----	----	----	----

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
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	----	----	----	5.2	5.2	5.0	----
	120		3.1	3.1	----	----	----	----	----	----	
IAI-1125-Astra SPX	110	0.83	3.9	3.9	----	----	----	----	----	----	----
	61		2.7	2.7	----	----	----	----	----	----	
IAI-1126-Galaxy	156	0.83	4.8	4.8	----	----	----	4.5	4.6	4.5	----
	86		3.4	3.4	----	----	----	----	----	----	
Ilyushin IL-18	625	0.80	7.1	7.1	6.4	----	----	7.0	6.6	6.1	5.6
	350		4.5	4.4	4.5	----	----	4.4	----	----	
Ilyushin IL-62, 62M	1648	1.65	11.2	10.8	10.9	11.0	11.2	10.8	10.9	10.9	10.8
	651		7.7	6.6	7.2	7.7	----	6.8	6.6	6.4	6.4
Ilyushin IL-76T	1677	0.64	9.7	9.7	9.0	8.0	----	8.3	8.0	8.0	8.1
	822		5.8	5.8	----	----	----	5.2	5.1	5.0	----
Ilyushin IL-76TD	1775	0.66	10.0	10.0	9.3	8.5	----	8.6	8.3	8.3	8.4
	920		6.5	6.5	----	----	----	5.6	5.5	5.5	5.4
Ilyushin IL-86	2054	0.88	9.5	9.5	8.9	8.5	----	9.3	8.9	8.4	8.1
	1089		6.3	6.0	6.2	----	----	6.3	5.9	5.6	5.6
Jetstream 31, 32 (BAe)	69	0.39	2.3	2.3	----	----	----	----	----	----	----
	44		1.5	1.5	----	----	----	----	----	----	
Jetstream 41 (BAe)	107	0.83	3.7	3.7	----	----	----	----	----	----	----
	63		2.6	2.6	----	----	----	----	----	----	
KC-10 (McDonnell Douglas)	2593	1.22	11.3	11.3	11.0	10.7	10.7	11.0	11.0	10.8	10.8
	1800		9.8	9.4	9.0	9.1	9.8	9.7	9.4	9.1	9.0
KC-135 Stratotanker (Boeing)	1342	1.38	9.9	9.8	9.7	9.6	9.6	9.9	9.7	9.5	9.3
	800		7.7	7.1	7.3	7.7	----	7.6	7.2	6.9	6.8
L-1011-1 Tristar	1913	1.35	10.7	10.7	10.5	10.3	10.5	10.7	10.6	10.4	10.4
	1070		8.4	7.6	7.5	8.4	----	8.2	7.9	7.7	7.8
L-1011-100, 200 Tristar	2073	1.35	11.1	11.1	10.9	10.7	10.7	10.9	10.9	10.8	10.7
	1090		9.3	7.7	7.6	8.4	9.3	8.3	8.0	7.8	7.8
L-1011-250 Tristar	2269	1.35	11.6	11.6	11.4	11.2	11.1	11.2	11.3	11.2	11.2
	1108		9.4	7.7	7.7	8.5	9.4	8.4	8.0	7.9	7.9
L-1011-500 Tristar	2295	1.35	11.7	11.7	11.5	11.3	11.1	11.2	11.4	11.3	11.2
	1070		8.4	7.6	7.5	8.4	----	8.2	7.9	7.7	7.8

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
Learjet 24F	62	0.79	2.9	2.9	----	----	----	----	----	----	----
	32		1.3	1.3	----	----	----	----	----	----	
Learjet 25D, 25F	69	0.79	3.1	3.1	----	----	----	----	----	----	----
	34		1.5	1.5	----	----	----	----	----	----	
Learjet 25G	75	0.79	3.3	3.3	----	----	----	----	----	----	----
	37		1.8	1.8	----	----	----	----	----	----	
Learjet 28, 29 (Longhorn)	69	0.79	3.1	3.1	2.4	----	----	----	----	----	----
	37		1.8	1.8	----	----	----	----	----	----	
Learjet 31A, 35A, 36A	83	0.79	3.4	3.4	----	----	----	----	----	----	----
	45		2.1	2.1	----	----	----	----	----	----	
Learjet 45	91	0.79	3.6	3.6	----	----	----	----	----	----	----
	59		2.7	2.7	----	----	----	----	----	----	
Learjet 55B, 55C	97	1.24	4.4	4.4	----	----	----	----	----	----	----
	58		3.5	3.5	----	----	----	----	----	----	
Learjet 60	106	1.24	4.6	4.6	----	----	----	----	----	----	----
	62		3.6	3.6	----	----	----	----	----	----	
Lockheed 188 Electra	503	0.95	8.7	8.3	8.4	8.6	----	8.4	8.4	8.5	8.7
	255		5.8	5.6	5.8	----	----	5.7	5.7	5.7	5.6
MD-11	2805	1.38	11.6	11.6	11.4	11.4	11.1	11.5	11.5	11.4	11.3
	1200		9.1	7.1	7.2	8.2	9.1	7.8	7.6	7.5	7.5
MD-81	628	1.14	9.9	9.1	9.3	9.5	9.8	9.3	9.4	9.6	9.9
	350		7.3	6.6	7.0	7.3	----	7.0	7.0	7.1	7.1
MD-82	670	1.14	10.1	9.3	9.5	9.7	10.0	9.5	9.6	9.9	10.1
	350		7.3	6.6	7.0	7.3	----	7.0	7.0	7.0	7.1
MD-83	716	1.14	10.4	9.6	9.8	10.0	10.3	9.7	9.9	10.2	10.4
	355		7.3	6.6	7.1	7.3	----	7.0	7.0	7.1	7.1
MD-87	628	1.14	9.9	9.1	9.3	9.5	9.8	9.3	9.4	9.6	9.9
	335		6.9	6.5	6.9	----	----	6.8	6.8	6.9	6.9
MD-88	670	1.14	10.2	9.3	9.5	9.8	10.0	9.5	9.7	9.9	10.2
	350		7.3	6.6	7.0	7.3	----	7.0	7.0	7.1	7.1
MD-90-30	699	1.14	10.3	9.5	9.7	9.9	10.2	9.7	9.8	10.1	10.3
	392		7.7	7.0	7.4	7.7	----	7.4	7.4	7.5	7.6
MD-90-30ER	739	1.14	10.6	9.7	9.9	10.1	10.4	9.9	10.0	10.3	10.6
	392		7.7	7.0	7.4	7.7	----	7.4	7.4	7.5	7.6

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
MD-90-50, 55	772	1.14	10.8	9.9	10.0	10.2	10.5	10.0	10.2	10.5	10.8
	410		7.8	7.2	7.5	7.8	----	7.6	7.6	7.7	7.8
Mitsubishi MU-2 Srs	52	0.48	2.1	2.1	----	----	----	----	----	----	----
	32		1.3	1.3	----	----	----	----	----	----	----
Piper Aerostar	29	0.48	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	20		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Apache	21	0.29	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	13		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Archer II, III	12	0.17	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	7		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Arrow III, IV	14	0.21	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Aztec	30	0.42	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	18		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Cheyenne I, II	41	0.55	2.0	2.0	----	----	----	----	----	----	----
	23		1.0	1.0	----	----	----	----	----	----	----
Piper Cheyenne III	50	0.69	2.6	2.6	----	----	----	----	----	----	----
	31		1.9	1.9	----	----	----	----	----	----	----
Piper Commanche	21	0.29	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	13		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Cub (& Super Cub)	8	0.13	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	5		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Dakota	14	0.17	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	8		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Malibu, Mirage, Meridian	21	0.35	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	14		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Mojave	33	0.42	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	23		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Navajo	29	0.42	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	18		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Saratoga	16	0.38	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	10		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Saratoga II	16	0.27	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	11		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

AIRCRAFT LOAD RATINGS (ALR's)

Aircraft	Weight	Tire	Nominal	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
	Max/Min	Pressure		S (kN)				k (MPa/m)			
	(kN)	(MPa)	ALR	50	90	130	180	20	40	80	150
Piper Seminole	17	0.25	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	11		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Seneca III, V	22	0.38	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	14		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Piper Warrior II,III	11	0.17	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	7		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Saab 2000	226	0.69	5.6	5.6	5.5	----	----	5.4	5.4	5.4	5.3
	136		3.9	3.9	----	----	----	3.7	----	----	----
Saab 340 A, B	131	0.82	4.1	4.1	----	----	----	3.7	----	----	----
	81		3.0	3.0	----	----	----	----	----	----	----
Sepecat Jaguar	154	0.58	4.5	4.5	----	----	----	4.3	4.3	----	----
	108		3.4	3.4	----	----	----	----	----	----	----
Shorts 330	102	0.55	3.7	3.7	----	----	----	----	----	----	----
	66		2.8	2.8	----	----	----	----	----	----	----
Shorts 360	121	0.54	4.5	4.0	4.5	----	----	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	1.7	1.7	----	----	----	----	----	----	----
	35		1.0	1.0	----	----	----	----	----	----	----
Swearingen SJ30-2	60	1.07	3.2	3.2	----	----	----	----	----	----	----
	36		2.2	2.2	----	----	----	----	----	----	----
T-33 Trainer (CT-133) (Lockheed)	54	0.42	2.0	2.0	----	----	----	----	----	----	----
	38		1.3	1.3	----	----	----	----	----	----	----
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	----	----	----	5.8	5.3	4.8	----
	285		3.9	3.9	----	----	----	----	----	----	----
Tupolev TU-154	961	0.93	8.9	8.9	8.0	----	----	8.5	8.0	7.4	6.6
	525		5.4	5.4	----	----	----	5.4	4.8	----	----
Tupolev TU-204, 214, 224, 234	1096	1.38	9.4	9.0	8.9	8.9	9.4	9.3	9.1	8.8	8.6
	560		6.3	6.0	6.3	----	----	6.2	5.9	5.6	5.5
VC10 Series	1590	1.01	11.0	11.0	10.8	10.6	10.4	10.5	10.4	10.2	9.9
	785		7.5	7.5	7.3	7.3	----	7.4	7.0	6.6	6.4

Appendix C

**Aircraft Classification Numbers
For
Selected Aircraft**

Aircraft Classification Numbers

An Aircraft Classification Number (ACN) is a number expressing the relative structural loading effect of an aircraft on a pavement. ACN's for flexible pavements are reported at four standard subgrade CBR (California Bearing Ratio) strengths (CBR 15, 10, 6 and 3). Similarly, ACN's for rigid pavements are reported at four standard bearing modulus values (150, 80, 40 and 20 MPa/m).

In Appendix C, ACN's are given for present day aircraft at their maximum and minimum operating weights and at a specific tire pressure. ACN's at intermediate operating weights can be estimated with sufficient accuracy by linear interpolation between the ACN values given for minimum and maximum weights, provided that the aircraft tire pressure is within $\pm 5\%$ of the specified value.

Example of ACN Interpolation

<u>Aircraft Name/Model</u>	<u>Operating Weight Max./Min. (kN)</u>	<u>ACN For Flexible Pavement (CBR = 15)</u>
B737-300	623 (A) 325 (B)	35 (C) 16 (D)

The ACN for a B737-300 aircraft at an operating weight of 500 kN (E) can be determined by linear interpolation from the following equation:

$$\begin{aligned}
 \text{ACN} &= C - (C - D) \times (A - E)/(A - B) \\
 &= 35 - (35 - 16) \times (623 - 500)/(623 - 325) \\
 &= 35 - (19) \times (123)/(298) \\
 &= 27
 \end{aligned}$$

Unit Conversion Factors

Operating "Weight": lbs x 0.004448 = kN	Tire Pressure: psi x 0.006895 = MPa
lbs x 0.4536 = kg	MPa x 145.0 = psi
kN x 224.8 = lbs	
kN x 101.9716 = kg	
kg x 2.205 = lbs	
kg x 0.0098066 = kN	

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

<i>Aircraft</i>	<i>Weight Max/Min (kN)</i>	<i>Tire Pressure (MPa)</i>	<i>Flexible Pavement Subgrades</i>				<i>Rigid Pavement Subgrades</i>			
			<i>CBR</i>				<i>k (MPa/m)</i>			
			<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Vr Low</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Ult Low</i>
			<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
			<i>15</i>	<i>10</i>	<i>6</i>	<i>3</i>	<i>150</i>	<i>80</i>	<i>40</i>	<i>20</i>
A300B, B2	1353	1.16	39	44	54	69	35	43	51	58
	840		21	23	27	36	19	22	26	31
A300B4-200	1627	1.28	50	57	69	86	46	56	66	75
	1236		35	38	46	60	32	38	45	51
A300B4-200 (Optional Bogie)	1627	1.16	47	52	64	82	41	49	59	68
	1236		33	36	42	56	28	33	40	47
A300B4-600R	1693	1.35	54	61	74	92	51	61	71	80
	1275		37	41	49	64	34	41	48	55
A300B4-600R (Optional Bogie)	1693	1.21	50	56	69	88	44	54	64	74
	1275		35	38	45	60	30	36	43	50
A300C4	1627	1.24	48	55	67	85	44	53	63	72
	1216		33	36	43	57	30	35	42	48
A310-200, 200C	1509	1.46	45	50	61	77	43	51	59	67
	800		20	21	24	32	19	21	25	29
A310-300	1480	1.19	44	50	61	77	40	48	57	65
	1108		30	33	39	52	27	32	38	44
A310-300	1549	1.48	48	54	65	82	46	55	64	72
	1118		31	34	40	53	30	35	41	47
A310-300	1617	1.29	50	57	69	86	47	56	66	75
	1118		31	34	40	53	28	33	39	45
A310-322 SR, BB	1500	1.45	44	49	60	77	42	50	59	67
	1064		29	31	36	48	27	31	37	42
A310-324	1540	1.24	44	49	60	77	41	50	59	67
	800		19	20	23	31	18	20	24	28
A310-325	1608	1.38	48	54	66	84	46	55	64	73
	1100		30	32	38	50	27	32	38	44
A318-100	607	0.89	29	31	35	41	31	34	36	38
	382		17	18	20	23	18	19	21	22
A319-100	632	0.89	30	32	36	42	31	34	37	39
	382		17	18	19	23	17	19	20	22
A319-100	690	1.07	35	36	40	46	37	40	42	45
	382		18	18	20	23	18	20	21	23

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

<i>Aircraft</i>	<i>Weight Max/Min (kN)</i>	<i>Tire Pressure (MPa)</i>	<i>Flexible Pavement Subgrades</i>				<i>Rigid Pavement Subgrades</i>			
			<i>CBR</i>				<i>k (MPa/m)</i>			
			<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Vr Low</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Ult Low</i>
			<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
			<i>15</i>	<i>10</i>	<i>6</i>	<i>3</i>	<i>150</i>	<i>80</i>	<i>40</i>	<i>20</i>
A319-100	744	1.38	39	40	45	50	44	46	49	51
	382		18	18	20	23	20	21	22	24
A320-100	667	1.21	35	36	40	46	38	41	43	45
	390		19	19	21	24	30	22	23	25
A320-200	725	1.03	37	39	44	50	40	43	45	48
	402		19	19	21	25	20	21	23	24
A320-200	744	1.14	39	40	45	51	42	45	48	50
	422		20	21	22	26	22	23	25	26
A320-200	759	1.44	41	42	47	53	46	49	51	53
	441		22	22	24	28	24	26	27	29
A320-200 (Optional Bogie)	725	1.22	20	22	26	35	19	23	27	31
	402		10	10	11	15	9	10	12	14
A320-212 (Optional 4-Wheel Bogie)	764	1.22	21	23	28	38	21	24	29	33
	490		12	13	15	20	11	13	16	18
A321-100	769	1.28	42	44	49	55	47	50	52	54
	461		23	24	26	30	26	27	29	30
A321-100	818	1.36	45	48	53	59	51	54	57	59
	461		23	24	26	30	26	28	29	31
A321-200	877	1.46	49	52	58	63	56	59	62	64
	461		23	24	26	30	26	28	29	31
A330-200	2137	1.34	57	62	72	98	48	56	66	78
	1650		42	44	50	67	37	40	47	55
A330-200	2264	1.42	62	67	78	106	53	61	73	85
	1650		42	45	50	67	37	41	48	55
A330-300	2088	1.31	55	60	70	94	46	54	64	75
	1638		41	44	50	66	36	39	46	54
A330-300	2137	1.33	57	61	71	96	47	55	65	77
	1657		41	44	50	66	37	40	46	54
A330-300	2264	1.42	62	68	79	107	54	62	74	86
	1697		44	47	53	70	39	43	50	58
A340-200	2559	1.32	56	61	71	96	47	55	65	76
	1657		33	35	39	50	31	32	36	42

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
A340-200	2706	1.42	62	67	78	106	53	62	73	85
	1697		35	37	41	53	33	34	39	45
A340-300	2559	1.32	56	61	70	96	47	54	65	76
	1706		37	39	44	57	33	35	41	47
A340-300	2706	1.42	62	68	79	107	54	62	74	86
	1765		40	42	47	62	36	39	44	52
A340-500, 600	3590	1.42	70	76	90	121	60	70	83	97
	1750		29	31	34	42	29	28	32	37
A380-800 (6 Wheel Main Gear)	5514	1.47	56	62	75	106	55	68	88	110
	2758		23	25	28	36	26	27	31	38
A380-800 (4 Wheel Wing Gear)	5514	1.47	62	68	80	108	55	64	76	88
	2758		27	28	31	39	25	26	30	35
Antonov AN- 24	207	0.42	6	8	11	13	8	9	11	11
	130		4	5	6	7	5	5	6	7
Antonov AN-124-100	3844	1.03	51	60	77	107	35	48	73	100
	2000		20	23	27	40	17	18	23	32
Antonov AN-225	5884	1.13	63	75	95	132	45	61	89	125
	4500		41	48	62	88	30	39	55	75
ATR 42 (Aerospatiale)	182	0.72	9	10	11	13	10	11	12	12
	110		5	5	6	7	6	6	7	7
ATR 72 (Aerospatiale)	211	0.79	11	12	14	15	13	14	14	15
	125		6	6	7	8	7	7	8	8
Aurora (CP-140) (P-3 Orion)	600	1.31	35	38	42	45	41	43	45	46
	275		14	14	16	18	16	17	18	19
B-52 (Bomber)	2170	1.65	80	86	97	116	103	114	126	136
	1500		49	53	60	72	62	70	77	85
B1-B Bomber (Rockwell)	2123	1.65	77	87	102	121	77	90	102	113
	1400		43	47	57	72	43	50	58	65
B707-120, 120B	1150	1.17	32	35	42	55	28	34	40	47
	700		17	18	21	27	16	17	20	24
B707-320, 320B, 320C, 420	1484	1.24	45	51	62	78	42	50	59	67
	800		20	22	25	33	19	21	25	29

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
B717-100, 200, 300	543	1.10	32	34	38	40	36	38	40	41
	310		16	17	19	22	18	20	21	21
B720, 720B	1045	1.01	28	30	37	49	24	29	35	41
	700		17	18	21	28	15	17	20	24
B727-100, 100C	756	1.14	41	43	49	54	45	48	51	53
	450		23	23	25	30	24	26	28	29
B727-200	770	1.15	42	44	50	55	47	50	52	54
	450		23	23	25	30	25	26	28	29
B727-200 (Advanced)	934	1.19	53	57	64	69	60	63	66	69
	450		23	23	26	30	25	26	28	30
B727-200F (Advanced)	907	1.15	52	54	61	66	57	60	63	66
	450		23	23	25	30	25	26	28	29
B737-100	445	1.02	23	23	26	30	25	26	28	29
	260		12	12	14	16	13	14	15	16
B737-200, 200C, Advanced	572	1.26	31	32	37	41	35	37	39	41
	300		15	15	16	19	17	18	19	20
B737-300	623	1.40	35	37	41	45	40	42	44	46
	325		16	17	18	21	19	20	21	22
B737-400	670	1.28	38	40	45	49	43	45	47	49
	350		18	18	20	23	20	21	22	23
B737-500	596	1.34	33	35	39	43	38	40	42	43
	320		16	16	18	21	18	19	20	21
B737-600	645	1.30	35	36	40	45	39	41	44	45
	357		18	18	19	22	20	21	22	23
B737-700	690	1.39	38	40	44	49	43	46	48	50
	370		18	19	20	23	21	22	23	24
B737-800	777	1.47	44	46	51	56	51	53	56	57
	406		21	21	23	26	24	25	26	27
B737-900	777	1.47	44	46	51	56	51	53	56	57
	420		21	22	24	28	24	26	27	28
B737-BBJ	763	1.47	43	45	50	55	50	52	54	56
	421		21	22	24	28	25	26	27	28

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
B747-100, 100B, 100SF	3350	1.55	49	54	65	86	46	54	64	73
	1700		21	22	25	32	20	22	25	29
B747-100SR	2690	1.04	36	38	46	64	29	35	43	50
	1600		19	20	22	29	16	18	21	25
B747-200B, 200C 200F, 200M	3720	1.38	55	62	76	98	51	61	72	82
	1750		22	23	26	34	20	22	26	30
B747-300, 300M, 300SR	3720	1.31	55	62	76	98	50	60	71	82
	1760		22	23	26	34	19	22	25	30
B747-400, 400F, 400M	3905	1.38	59	66	82	105	54	65	77	88
	1800		23	24	27	35	20	23	27	31
B747-400D (Domestic)	2729	1.04	36	39	47	65	30	36	43	51
	1782		22	23	26	34	18	20	24	29
B747-SP	3127	1.26	45	50	61	81	40	48	58	67
	1500		18	19	21	28	16	18	21	25
B757-200 Series	1134	1.24	34	38	47	60	32	39	45	52
	570		14	15	17	23	13	15	18	20
B757-300	1200	1.24	36	41	51	64	35	42	49	56
	640		16	17	20	27	15	17	21	24
B767-200	1410	1.31	39	42	50	68	34	41	48	56
	800		19	20	23	29	18	19	22	26
B767-200 ER	1726	1.31	50	56	68	90	45	54	64	74
	830		20	21	24	31	18	20	24	27
B767-300	1566	1.38	44	49	59	79	40	48	57	65
	860		21	22	25	33	19	22	25	29
B767-300 ER	1784	1.38	53	59	72	94	48	57	68	78
	890		22	23	26	35	20	23	26	31
B777-200	2433	1.38	40	45	54	76	40	50	65	81
	1400		20	21	24	32	23	23	28	35
B777-200 ER	2822	1.38	49	55	68	95	49	63	82	101
	1425		20	22	25	33	23	23	29	36
B777-200 X	3278	1.38	61	69	86	117	61	80	104	126
	1600		24	25	29	40	27	27	34	43

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
B777-300	2945	1.48	53	59	73	101	54	69	89	109
	1600		24	25	29	40	27	28	35	43
B777-300 X	3190	1.48	59	66	83	112	61	79	101	122
	1600		24	25	29	40	27	28	35	43
BAC-111 Series 400	390	0.97	23	24	27	29	26	27	28	29
	220		11	12	13	15	13	14	14	15
BAC-111 Series 475	440	0.57	23	28	29	32	26	28	29	31
	230		9	11	13	16	11	13	14	14
BAC-111 Series 500	467	1.10	29	31	33	35	33	34	35	36
	250		13	14	16	18	15	16	17	18
BAe-146-100	376	0.84	18	20	23	26	21	22	24	25
	230		10	11	12	15	11	12	13	14
BAe-146-200	416	0.97	22	23	26	29	24	26	27	29
	235		11	12	13	15	12	13	14	15
BAe-146-300	436	1.10	24	25	28	31	27	28	30	31
	245		12	12	14	16	13	14	15	16
BAe-ATP	232	0.85	12	13	14	16	13	14	15	16
	140		6	7	8	9	7	8	8	9
Beech 1900C, 1900D	76	0.67	3	4	4	5	4	5	5	5
	56		2	3	3	4	3	3	3	4
Beech 2000 Starship	65	0.54	2	3	4	4	3	4	4	4
	56		2	2	3	4	3	3	3	3
Beech 35, 36 Series (Bonanza)	16	0.28	----	----	----	----	----	----	----	----
	10		----	----	----	----	----	----	----	----
Beech 55, 56, 58 Series (Baron)	25	0.39	----	----	----	----	----	----	----	----
	16		----	----	----	----	----	----	----	----
Beech Jet 400, 400A	73	0.86	6	7	7	7	6	6	6	7
	56		5	5	5	5	5	5	5	5
Beech King Air 100, 200 Series	56	0.73	2	3	3	4	3	3	4	4
	56		2	3	3	4	3	3	4	4
Beech King Air 300, 300C, 350, 350C	67	0.73	3	3	4	4	4	4	4	4
	56		2	3	3	4	3	3	3	4

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
Beech King Air 90 Series	49 27	0.38	----	----	----	----	----	----	----	----
Beech Queen Air 65, 70, 80 Series	40 25	0.33	----	----	----	----	----	----	----	----
Bombardier BD-700 (Global Express)	432 220	1.21	26 11	28 12	30 13	32 15	30 13	31 14	32 15	33 15
C-141B Starlifter (Lockheed)	1553 600	1.31	52 15	60 16	73 18	88 24	51 14	61 16	70 19	78 22
C-17A (Globemaster III)	2602 2000	0.95	54 38	61 42	73 50	94 65	54 41	49 38	57 40	71 48
C-5A Galaxy (Lockheed)	3421 1500	0.73	27 10	30 11	35 12	46 15	25 10	28 11	33 12	39 13
C123K Provider (Fairchild/Republic)	267 180	0.69	20 13	22 15	24 16	25 17	21 14	21 14	22 15	22 15
Canadair CL-215, 415	196 130	0.55	12 8	15 10	17 11	18 12	14 9	14 10	15 10	15 10
Canadair CL-41A (CT-114 Tutor)	49 24	0.37	----	----	----	----	----	----	----	----
Canadair Regional Jet - 100, 200 Srs	236 135	1.12	13 7	14 7	16 8	17 9	16 8	16 9	17 9	18 9
Canadair Regional Jet - 700 Series	335 195	1.24	18 10	19 10	21 11	24 13	21 11	22 12	23 12	24 13
Canadair Regional Jet - 900, ER Srs	367 215	1.24	20 11	21 11	24 12	26 14	23 12	25 13	26 14	27 14
Cessna 114B (Commander)	15 10	0.35	----	----	----	----	----	----	----	----
Cessna 152	8 5	0.20	----	----	----	----	----	----	----	----
Cessna 172 (Skyhawk)	11 7	0.19	----	----	----	----	----	----	----	----
Cessna 180 (Skywagon)	13 8	0.21	----	----	----	----	----	----	----	----

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
Cessna 182 (Skylane)	14 9	0.25	----	----	----	----	----	----	----	----
Cessna 185 (Skywagon)	15 8	0.25	----	----	----	----	----	----	----	----
Cessna 208 (Caravan)	36 18	0.60	----	----	----	----	----	----	----	----
Cessna 210 (Centurion)	18 11	0.38	----	----	----	----	----	----	----	----
Cessna 310	25 16	0.42	----	----	----	----	----	----	----	----
Cessna 337 (Skymaster)	21 14	0.38	----	----	----	----	----	----	----	----
Cessna 401	28 20	0.45	----	----	----	----	----	----	----	----
Cessna 402C, 414A (Chancellor)	31 19	0.48	----	----	----	----	----	----	----	----
Cessna 421 (Golden Eagle)	34 22	0.55	----	----	----	----	----	----	----	----
Cessna 441 (Conquest II)	44 26	0.66	----	----	----	----	----	----	----	----
Cessna 501 (Citation I - Eagle)	56 56	0.69	4	5	5	5	5	5	5	5
Cessna 525 (Citation Jet)	47 29	0.68	----	----	----	----	----	----	----	----
Cessna 550 (Citation II)	64 56	0.69	5	5	6	6	5	5	5	5
Cessna 550 (Citation Bravo)	67 56	0.69	5	6	6	6	5	6	6	6
Cessna 560 (Citation V)	72 56	0.69	5	6	6	7	6	6	6	6
Cessna 561 XL (Citation Excel)	90 56	1.05	8	8	8	9	8	8	8	8

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
Cessna 650 (Citation III, VI)	99	1.02	6	6	7	7	7	7	7	7
	56		3	3	3	4	3	4	4	4
Cessna 650 (Citation VII)	104	1.16	6	7	7	8	7	8	8	8
	62		3	3	4	4	4	4	4	5
Cessna 750 (Citation X)	160	1.16	10	11	12	12	12	12	13	13
	96		5	6	6	7	6	7	7	7
Cessna Conquest	45	0.59	----	----	----	----	----	----	----	----
	26		----	----	----	----	----	----	----	----
Cessna T303 (Crusader)	23	0.40	----	----	----	----	----	----	----	----
	15		----	----	----	----	----	----	----	----
CF-18	249	1.38	21	20	20	20	21	21	21	21
	110		9	9	9	9	9	9	9	9
Challenger CL 600, 601	192	0.90	10	11	13	14	12	13	13	14
	131		6	7	8	9	8	8	8	9
Challenger CL 600, 601	192	1.50	11	12	13	14	14	14	14	15
	131		7	7	8	9	9	9	9	10
Challenger CL 601-3R	201	1.42	12	12	14	14	14	15	15	15
	131		7	7	8	9	9	9	9	9
Challenger CL 604	212	1.42	12	13	14	15	15	15	16	16
	140		7	8	9	10	9	10	10	10
Concorde	1824	1.29	65	72	81	97	60	71	81	91
	1000		28	31	37	44	27	30	35	41
Convair 240	190	0.64	7	9	10	12	9	10	10	11
	125		5	5	6	7	5	6	6	7
Convair 340, 440, 540	222	0.47	7	9	11	14	9	10	11	12
	140		4	5	6	8	5	6	7	7
Convair 580	280	0.59	11	13	15	19	13	14	16	17
	150		5	6	7	9	6	7	8	8
Convair 600	210	0.73	9	10	11	14	10	11	12	13
	140		5	6	7	8	6	7	8	8
Convair 640	245	0.52	8	11	12	15	10	12	13	14
	140		4	5	6	8	5	6	7	7

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

<i>Aircraft</i>	<i>Weight Max/Min (kN)</i>	<i>Tire Pressure (MPa)</i>	<i>Flexible Pavement Subgrades</i>				<i>Rigid Pavement Subgrades</i>			
			<i>CBR</i>				<i>k (MPa/m)</i>			
			<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Vr Low</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Ult Low</i>
			<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
			<i>15</i>	<i>10</i>	<i>6</i>	<i>3</i>	<i>150</i>	<i>80</i>	<i>40</i>	<i>20</i>
Convair 880	860	1.03	27	31	36	44	26	31	36	40
	400		10	10	12	16	9	11	13	14
Convair 990	1135	1.28	40	46	53	64	41	47	54	60
	600		17	18	22	28	17	19	23	26
Dassault Falcon 10	84	0.93	5	5	6	6	6	6	6	6
	56		3	3	4	4	4	4	4	4
Dassault Falcon 20	128	0.92	8	9	9	10	10	10	10	10
	75		4	4	5	5	5	5	6	6
Dassault Falcon 2000	163	1.43	9	10	11	12	11	12	12	13
	92		5	5	5	6	6	6	6	7
Dassault Falcon 50	173	0.93	9	10	12	13	11	12	12	13
	90		4	5	5	6	5	5	6	6
Dassault Falcon 900	202	1.30	11	12	14	15	14	14	15	15
	103		5	5	6	7	6	7	7	7
DC-10-10, 10CF, 15	2037	1.34	57	62	74	101	49	58	69	81
	1035		25	26	29	37	23	24	28	32
DC-10-20, 20CF, 30CF, 40CF	2485	1.14	60	67	81	110	49	59	72	85
	1640		36	38	44	61	30	34	41	48
DC-10-30, 30 ER, 40	2593	1.22	59	65	79	107	50	59	72	84
	1220		24	25	27	35	21	23	26	30
DC-3	147	0.31	7	7	10	12	8	8	9	9
	80		4	4	5	7	4	5	5	5
DC-4	335	0.53	12	15	17	21	14	16	17	19
	200		6	8	9	11	7	8	9	10
DC-6, 6B	480	0.73	20	23	25	30	22	24	26	28
	300		11	13	14	17	12	14	15	16
DC-7 (All Models)	640	0.89	34	36	42	46	37	40	42	44
	400		19	20	23	27	21	23	24	26
DC-8-10, 20 Series	1226	1.01	36	41	49	62	32	39	46	53
	600		15	15	18	23	14	15	17	20
DC-8-43, 55, 61, 71	1470	1.30	47	54	64	79	45	54	63	71
	800		21	23	27	35	20	23	27	31

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
DC-8-61F, 63F	1557	1.32	51	59	69	85	50	59	68	77
	1001		28	31	37	47	27	31	37	42
DC-8-62, 62F, 63, 72, 73	1593	1.35	52	59	70	87	50	59	69	77
	800		21	23	26	34	20	23	27	31
DC-9-10, 15	404	0.93	22	23	26	29	24	26	27	28
	300		15	16	18	21	17	18	19	20
DC-9-21	445	1.02	25	26	30	32	28	29	31	32
	300		15	16	18	21	17	18	20	20
DC-9-30, 32	485	1.05	27	29	33	35	31	32	34	35
	300		15	16	18	21	17	18	19	20
DC-9-41, 50, 51	543	1.17	31	33	37	40	35	37	39	40
	300		15	16	18	20	17	18	19	20
DHC1 Chipmunk	10	0.21	----	----	----	----	----	----	----	----
	7		----	----	----	----	----	----	----	----
DHC2 Beaver	24	0.17	----	----	----	----	----	----	----	----
	14		----	----	----	----	----	----	----	----
DHC3 Otter	36	0.20	----	----	----	----	----	----	----	----
	20		----	----	----	----	----	----	----	----
DHC4 Caribou	130	0.28	3	3	5	7	4	4	5	6
	90		2	2	3	4	2	3	3	4
DHC5 Buffalo	187	0.41	6	8	10	12	8	9	10	11
	115		3	4	5	7	4	5	6	6
DHC6 Twin Otter Series 300	56	0.26	3	3	3	5	3	3	3	4
	56		3	3	3	5	3	3	3	4
DHC7 Dash 7	209	0.74	10	12	13	15	12	13	14	14
	120		5	6	7	8	6	7	7	8
DHC8 Dash 8	147	0.44	5	6	8	9	6	7	8	8
	90		3	3	4	5	3	4	4	5
DHC8 Dash 8 Series 100	154	0.90	8	8	9	11	9	10	10	11
	98		5	5	5	6	5	6	6	6
DHC8 Dash 8 Series 300	183	0.80	9	9	11	12	10	11	11	12
	110		5	5	6	7	5	6	6	7

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
DHC8 Dash 8	279	0.90	15	16	18	20	17	18	19	20
Series 400	150		7	8	8	10	8	9	9	10
DHC8 Dash 8	279	1.42	15	16	18	20	18	19	20	21
Series 400	150		8	8	8	10	9	9	10	10
DHS-2 Conair Firecat	116	0.62	8	10	10	11	9	9	10	10
	80		6	7	7	8	6	6	7	7
Dornier 228 Series	63	0.90	5	6	6	6	6	6	6	6
	56		5	5	5	5	5	5	5	5
Dornier 328 Jet	155	1.13	8	8	10	11	10	10	11	11
	93		4	5	5	6	5	6	6	6
Dornier 328-110 (Turboprop)	138	0.80	7	7	8	10	8	8	9	9
	90		4	4	5	6	5	5	5	6
Dornier SA227, Metro Merlin, Expediter	74	0.73	3	4	4	5	4	5	5	5
	56		2	3	3	4	3	3	4	4
Douglas A-26 Invader	120	0.48	7	8	10	11	8	9	9	9
	90		5	6	7	8	6	6	7	7
Douglas B-26 Invader	156	0.48	9	11	13	14	10	11	11	12
	105		6	7	9	9	7	7	8	8
Embraer EMB-110 (Bandeirante)	59	0.62	4	5	5	5	5	5	5	5
	56		4	5	5	5	4	4	5	5
Embraer EMB-120 (Brasilia)	119	0.76	5	6	7	8	7	7	7	8
	71		3	3	4	4	4	4	4	4
Embraer ERJ-145	217	0.90	12	13	15	16	14	15	15	16
	110		5	6	6	7	6	7	7	7
Fokker 100	452	0.94	25	27	31	33	28	30	32	33
	243		12	13	14	16	13	14	15	16
Fokker 50	205	0.59	9	11	13	14	11	12	13	13
	125		5	6	7	8	6	7	7	8
Fokker 60	226	0.62	10	13	14	16	13	14	14	15
	131		5	6	7	9	6	7	8	8
Fokker 70	410	0.81	22	24	27	30	24	26	27	29
	225		10	11	13	15	12	13	13	14

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

<i>Aircraft</i>	<i>Weight Max/Min (kN)</i>	<i>Tire Pressure (MPa)</i>	<i>Flexible Pavement Subgrades</i>				<i>Rigid Pavement Subgrades</i>			
			<i>CBR</i>				<i>k (MPa/m)</i>			
			<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Vr Low</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Ult Low</i>
			<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
			<i>15</i>	<i>10</i>	<i>6</i>	<i>3</i>	<i>150</i>	<i>80</i>	<i>40</i>	<i>20</i>
Fokker F27	205	0.57	9	11	13	14	11	12	13	13
Friendship	120		5	5	6	8	6	6	7	7
Fokker F28	325	0.53	14	17	20	23	17	18	20	21
Fellowship	175		6	8	9	11	8	9	9	10
Gulfstream G159	156	0.83	8	8	10	11	9	10	10	11
	100		4	5	5	6	5	6	6	6
Gulfstream II	294	1.04	17	18	20	22	20	21	21	22
	163		8	9	10	11	10	10	11	11
Gulfstream III	312	1.21	19	20	22	23	22	23	24	24
	170		9	9	10	12	11	11	12	12
Gulfstream IV	334	1.21	20	22	24	25	24	25	25	26
	189		10	11	12	13	12	13	13	14
Gulfstream V	405	1.37	26	28	30	31	31	32	33	33
	215		12	13	14	15	14	15	16	16
Hawker 1000	138	0.83	8	8	9	10	9	9	10	10
(Bae 1000A)	77		4	4	5	5	4	5	5	5
Hawker 800, 800XP	125	0.83	7	7	8	9	8	8	9	9
(HS-125-800, 800XP)	74		3	4	4	5	4	5	5	5
Hercules C-130, 082,	778	0.67	29	34	37	43	33	36	39	42
182, 282, 382	360		12	14	16	17	14	15	16	18
Hercules L-100	693	0.74	27	30	33	38	30	33	35	38
(Commercial)	340		12	14	15	16	14	15	16	17
HS/BAe 125	112	0.83	6	6	7	8	7	7	8	8
(All Series to 600)	61		3	3	3	4	3	4	4	4
HS/BAe 700	114	0.88	6	7	7	8	7	8	8	8
	62		3	3	3	4	4	4	4	4
HS/BAe 748	227	0.51	9	11	14	16	11	13	14	14
	120		4	5	6	7	5	6	6	7
IAI-1125-Astra SPX	110	0.83	5	6	7	8	7	7	7	8
	61		3	3	3	4	3	4	4	4
IAI-1126-Galaxy	156	0.83	9	9	11	11	10	11	11	11
	86		4	4	5	6	5	5	6	6

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
Ilyushin IL-18	625 350	0.80	16 7	17 8	21 9	29 12	13 6	16 7	20 9	23 11
Ilyushin IL-62, 62M	1648 651	1.65	52 16	58 17	68 19	83 24	51 18	59 18	68 20	77 22
Ilyushin IL-76T	1677 822	0.64	24 9	27 10	34 12	45 16	29 11	33 13	30 15	34 14
Ilyushin IL-76TD	1775 920	0.66	27 11	30 12	37 14	49 19	32 13	35 15	32 18	37 16
Ilyushin IL-86	2054 1089	0.88	34 15	36 16	43 18	61 23	26 13	31 14	38 16	46 19
Jetstream 31, 32 (BAe)	69 56	0.39	3 3	4 3	5 4	6 5	4 4	5 4	5 4	5 4
Jetstream 41 (BAe)	107 63	0.83	5 3	5 3	6 3	7 4	6 3	6 3	7 4	7 4
KC-10 (McDonnell Douglas)	2593 1800	1.22	59 38	65 40	79 46	107 64	50 32	59 36	72 43	84 51
KC-135 Stratotanker (Boeing)	1342 800	1.38	38 20	41 21	49 24	64 31	35 19	41 21	48 24	55 28
L-1011-1 Tristar	1913 1070	1.35	52 26	56 27	66 30	90 38	45 24	52 25	62 29	72 33
L-1011-100, 200 Tristar	2073 1090	1.35	57 26	63 28	75 31	101 39	49 24	58 26	69 29	81 34
L-1011-250 Tristar	2269 1108	1.35	64 27	71 28	86 31	114 40	56 25	66 26	79 30	91 35
L-1011-500 Tristar	2295 1070	1.35	65 26	72 27	87 30	116 38	56 24	67 25	80 29	93 33
Learjet 24F	62 56	0.79	3 3	3 3	4 4	4 4	4 3	4 4	4 4	4 4
Learjet 25D, 25F	69 56	0.79	3 3	4 3	4 3	5 4	4 3	5 4	5 4	5 4
Learjet 25G	75 56	0.79	4 3	4 3	5 3	5 4	5 3	5 4	5 4	5 4

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
Learjet 28, 29 (Longhorn)	69	0.79	3	4	4	5	4	5	5	5
	56		3	3	3	4	3	4	4	4
Learjet 31A, 35A, 36A	83	0.79	4	5	5	6	5	5	6	6
	56		3	3	3	4	3	3	4	4
Learjet 45	91	0.79	5	5	6	7	6	6	6	7
	59		3	3	3	4	3	4	4	4
Learjet 55B, 55C	97	1.24	6	6	7	7	7	7	7	8
	58		3	3	3	4	4	4	4	4
Learjet 60	106	1.24	6	7	7	8	8	8	8	8
	62		3	3	4	4	4	4	4	5
Lockheed 188 Electra	503	0.95	27	29	33	36	30	32	34	36
	255		12	13	14	17	13	14	15	16
MD-11	2805	1.38	67	74	90	119	58	69	83	96
	1200		24	25	27	34	22	23	26	30
MD-81	628	1.14	36	38	43	46	41	43	45	47
	350		18	19	21	24	20	21	23	24
MD-82	670	1.14	39	41	46	49	43	46	48	50
	350		18	18	20	24	20	21	22	24
MD-83	716	1.14	42	45	50	53	47	50	52	54
	355		18	19	21	24	20	22	23	24
MD-87	628	1.14	36	38	43	46	41	43	45	47
	335		17	18	20	23	19	20	22	23
MD-88	670	1.14	39	41	46	50	44	46	48	50
	350		18	19	21	24	20	21	23	24
MD-90-30	699	1.14	41	43	48	52	46	48	50	52
	392		20	21	24	27	23	24	26	27
MD-90-30ER	739	1.14	44	47	52	55	49	52	54	56
	392		20	21	24	27	23	24	26	27
MD-90-50, 55	772	1.14	46	50	54	57	52	54	57	58
	410		22	22	25	29	24	26	27	28
Mitsubishi MU-2 Srs	52	0.48	----	----	----	----	----	----	----	----
	32		----	----	----	----	----	----	----	----

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
Piper Aerostar	29 20	0.48	----	----	----	----	----	----	----	----
Piper Apache	21 13	0.29	----	----	----	----	----	----	----	----
Piper Archer II, III	12 7	0.17	----	----	----	----	----	----	----	----
Piper Arrow III, IV	14 8	0.21	----	----	----	----	----	----	----	----
Piper Aztec	30 18	0.42	----	----	----	----	----	----	----	----
Piper Cheyenne I, II	41 23	0.55	----	----	----	----	----	----	----	----
Piper Cheyenne III	50 31	0.69	----	----	----	----	----	----	----	----
Piper Commanche	21 13	0.29	----	----	----	----	----	----	----	----
Piper Cub (& Super Cub)	8 5	0.13	----	----	----	----	----	----	----	----
Piper Dakota	14 8	0.17	----	----	----	----	----	----	----	----
Piper Malibu, Mirage, Meridian	21 14	0.35	----	----	----	----	----	----	----	----
Piper Mojave	33 23	0.42	----	----	----	----	----	----	----	----
Piper Navajo	29 18	0.42	----	----	----	----	----	----	----	----
Piper Saratoga	16 10	0.38	----	----	----	----	----	----	----	----
Piper Saratoga II	16 11	0.27	----	----	----	----	----	----	----	----
Piper Seminole	17 11	0.25	----	----	----	----	----	----	----	----

AIRCRAFT CLASSIFICATION NUMBERS (ACN's)

Aircraft	Weight Max/Min (kN)	Tire Pressure (MPa)	Flexible Pavement Subgrades				Rigid Pavement Subgrades			
			CBR				k (MPa/m)			
			High	Medium	Low	Vr Low	High	Medium	Low	Ult Low
			A 15	B 10	C 6	D 3	A 150	B 80	C 40	D 20
Piper Seneca III, V	22 14	0.38	----	----	----	----	----	----	----	----
Piper Warrior II, III	11 7	0.17	----	----	----	----	----	----	----	----
Saab 2000	226 136	0.69	11 6	13 7	14 7	16 9	13 7	14 8	15 8	15 9
Saab 340 A, B	131 81	0.82	6 4	7 4	8 4	9 5	7 4	8 5	8 5	9 5
Sepecat Jaguar	154 108	0.58	7 4	9 5	10 6	11 7	9 6	10 6	10 7	11 7
Shorts 330	102 66	0.55	6 4	8 5	9 6	9 6	7 5	8 5	8 5	8 5
Shorts 360	121 77	0.54	7 5	9 6	10 7	11 7	9 6	9 6	9 6	9 6
Shorts Sherpa	114 80	0.54	7 5	8 6	10 7	10 7	8 6	8 6	9 6	9 6
Shorts Skyvan	67 56	0.28	3 3	3 3	4 4	6 5	4 3	4 3	4 4	4 4
Swearingen SJ30-2	60 56	1.07	3 3	3 3	3 3	4 4	4 3	4 4	4 4	4 4
T-33 Trainer (CT-133) (Lockheed)	54 38	0.42	----	----	----	----	----	----	----	----
Transall C-160	500 285	0.38	8 4	10 5	13 6	18 8	10 5	10 6	10 6	13 6
Tupolev TU-134	463 285	0.59	10 5	12 6	15 7	20 10	9 5	11 6	14 7	17 8
Tupolev TU-154	961 525	0.93	19 9	22 9	28 11	37 16	18 7	24 9	30 12	36 15
Tupolev TU-204, 214, 224, 234	1096 560	1.38	31 14	33 14	40 16	53 20	29 13	34 14	40 16	46 19
VC10 Series	1590 785	1.01	48 19	54 21	66 24	83 31	41 18	50 19	60 22	69 26

Appendix D

List of Canadian Airport Operators

List of Canadian Airport Operators

<u>Location Indicator</u>	<u>Airport</u>	<u>Operator</u>	<u>Phone Number</u>
CYXX	Abbotsford, BC	City	604-855-1001
CYTF	Alma, QC	ADA Inc.	418-669-5104
CYBC	Baie-Comeau, QC	MRC Manicouagan	418-589-8285
CYBR	Brandon Municipal, MB	Municipality	204-729-2166
CYYC	Calgary Intl., AB	The Calgary Airport Authority	403-735-1300
CYBL	Campbell River, BC	District of Campbell River	250-923-5012
CYCG	Castlegar, BC	City	250-365-7227
CYCL	Charlo, NB	Charlo Airport Commission Inc.	506-684-5508
CYYG	Charlottetown, PE	Charlottetown Airport Authority Inc.	902-566-7997
CZUM	Churchill Falls, NL	Churchill Falls (Labrador) Corp.	709-925-3405
CYXC	Cranbrook, BC	City	250-426-7913
CYDN	Dauphin, MB	Dauphin Regional Airport Authority	204-622-3280
CYDQ	Dawson Creek, BC	City	250-782-3142
CYDF	Deer Lake, NL	Deer Lake Regional Airport Authority	709-635-3601
CYHD	Dryden Regional, ON	City	807-937-4959
CYXR	Earlton, ON	Township of Armstrong	705-563-2215
CYEG	Edmonton Intl., AB	Edmonton Regional Airports Authority	780-890-8327
CYFO	Flin Flon, MB	City	204-687-7447

List of Canadian Airport Operators

<u>Location Indicator</u>	<u>Airport</u>	<u>Operator</u>	<u>Phone Number</u>
CYAG	Fort Frances Mun., ON	Town	807-274-3930
CYMM	Fort McMurray, AB	Regional Municipality of Wood Buffalo	780-790-3900
CYYE	Fort Nelson, BC	Northern Rockies Regional District	250-774-6454
CYXJ	Fort St. John, BC	North Peace Airport Services Ltd.	250-787-0426
CYFC	Fredericton, NB	Greater Fredericton Airport Authority	506-460-0920
CYQX	Gander Intl., NL	Transport Canada	709-256-6666
CYGP	Gaspé, QC	Municipalité	418-368-2104 418-368-0200
CYGX	Gillam, MB	Town of Gillam	204-652-2020
CYZE	Gore Bay-Manitoulin, ON	Gore Bay-Manitoulin Airport Comsn	705-282-2101 705-282-8946
CYQU	Grande Prairie, AB	Grande Prairie Airport Commission	780-539-5270
CYHZ	Halifax Intl., NS	Halifax Intl. Airport Authority	902-873-1234
CYHM	Hamilton, ON	Tradeport International Corp.	905-679-2248
CYGV	Havre St-Pierre, QC	Corp. Municipal de Havre St-Pierre	418-538-2717
CYKA	Kamloops, BC	Kamloops Airport Ltd	250-376-3613
CYYU	Kapuskasing, ON	Corp. of the Town of Kapuskasing	705-335-2611 705-335-2341
CYLW	Kelowna, BC	City	250-765-5125

List of Canadian Airport Operators

<u>Location Indicator</u>	<u>Airport</u>	<u>Operator</u>	<u>Phone Number</u>
CYQK	Kenora, ON	Kenora Airport Authority Inc.	807-548-5377
CYVC	La Ronge, SK	Town of La Ronge	306-425-2066
CYQL	Lethbridge, AB	County of Lethbridge	403-329-4474
CYXU	London, ON	Greater London Intl. Airport Authority	519-452-4015
CYYL	Lynn Lake, MB	District of Lynn Lake	204-356-2418
CYCH	Miramichi, NB	Miramichi Airport Commission	506-778-1031 506-778-9189
CYQM	Moncton/Greater Moncton Int'l, NB	Greater Moncton Int'l Airport Authority	506-856-5444
CYYY	Mont-Joli, QC	Transports Canada	418-775-3347
CYUL	Montréal Intl. (Dorval), QC	Aéroports de Montréal	514-633-3223
CYMX	Montréal Intl. (Mirabel), QC	Aéroports de Montréal	450-476-5300
CYCD	Nanaimo, BC	Commission	250-245-2157
CYYB	North Bay, ON	City of North Bay/ATCO Airports Ltd	705-474-3020
CYNE	Norway House, MB	Government of Manitoba	204-677-6722
CYOW	Ottawa / MacDonald- Cartier Intl., ON	Ottawa MacDonald-Cartier Intl. Airport Authority	613-248-2013
CYPE	Peace River, AB	Town	780-624-2867

List of Canadian Airport Operators

<u>Location Indicator</u>	<u>Airport</u>	<u>Operator</u>	<u>Phone Number</u>
CYTA	Pembroke, ON	Pembroke & Area Airport Comsn	613-687-5300 613-687-4910
CYYF	Penticton, BC	Transport Canada	250-492-6042
CYZT	Port Hardy, BC	Transport Canada	250-949-6424
CYPW	Powell River, BC	District of Powell River	604-485-6291
CYPA	Prince Albert, SK	City	306-953-4900
CYXS	Prince George, BC	Transport Canada	250-963-2400
CYPR	Prince Rupert, BC	Prince Rupert Airport Society	250-624-6274
CYQB	Québec/Jean Lesage Intl., QC	Aéroport de Québec Inc.	418-640-2663
CYQZ	Quesnel, BC	City	250-992-2208
CYOP	Rainbow Lake, AB	Town	780-956-3878 780-956-3934
CYRL	Red Lake, ON	Municipality of Red Lake/ Thunder Bay Airport Services Inc.	807-662-2581
CYQR	Regina Int'l, SK	Regina Airport Authority	306-761-7550
CYXK	Rimouski, QC	Municipalité	418-724-3173
CYUY	Rouyn-Noranda, QC	Municipalité	819-762-8171
CYSJ	Saint John, NB	Saint John Airport Inc.	506-638-5555

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CYAY	St. Anthony, NL	Transport Canada	709-454-3632 709-454-2164 709-454-2397
CYYT	St. John's Intl., NL	St. John's Int'l Airport Authority Inc.	709-758-8500
CYSL	St. Leonard, NB	St. Leonard Airport Inc.	506-423-7571 506-423-8165
CYZR	Sarnia (C. Hadfield), ON	City	519-542-7767
CYXE	Saskatoon/John G. Diefenbaker Int'l, SK	Saskatoon Airport Authority	306-975-4274
CYAM	Sault Ste. Marie, ON	Sault Ste. Marie Airport Dev. Corp.	705-779-3031
CYZV	Sept-Iles, QC	Transports Canada	418-962-8211
CYYD	Smithers, BC	Town of Smithers	250-847-3664
CYJT	Stephenville, NL	Stephenville Airport Corporation	709-643-8443
CYSB	Sudbury, ON	Municipality	705-693-2514
CYQY	Sydney, NS	Sydney Airport Authority	902-564-7720
CYXT	Terrace, BC	Terrace-Kitimat Airport Society	250-635-2659
CYQD	The Pas, MB	Town of The Pas	204-624-5233
CYTH	Thompson, MB	Local Govt District of Mystery Lake	204-778-5212
CYQT	Thunder Bay, ON	Thunder Bay Intl. Airports Authority Inc.	807-473-2600
CYTS	Timmins, ON	City of Timmins	705-264-5805

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<u>Location Indicator</u>	<u>Airport</u>	<u>Operator</u>	<u>Phone Number</u>
CYTZ	Toronto/City Centre, ON	Toronto Port Authority	416-203-6942
CYYZ	Toronto/Lester B. Pearson Intl., ON	Greater Toronto Airports Authority	905-676-3030
CYBE	Uranium City, SK	Saskatchewan Hwys &Transportation	306-953-3263
CYVO	Val-D'Or, QC	Aéroport régional de Val-d'Or	819-825-6963
CYVR	Vancouver Intl., BC	Vancouver Intl. Airport Authority	604-207-7022
CYYJ	Victoria Intl., BC	Victoria Intl. Airport Authority	250-953-7500
CYWK	Wabush, NL	Transport Canada	709-282-5412
CYXY	Whitehorse Intl., YT	Government of Yukon	867-667-8440
CYWL	Williams Lake, BC	City	250-989-4713
CYQG	Windsor, ON	Serco Aviation Services Inc.	519-969-2430
CYWG	Winnipeg Intl., MB	Winnipeg Airports Authority	204-987-7834
CYQI	Yarmouth, NS	Yarmouth Airport Commission	902-742-6484
CYZF	Yellowknife, NT	Government of Northwest Territories	867-873-4680