

TROLLTUNE CORPORATION  
2710 Thomes Avenue  
Cheyenne, WY 82001

SUPPLEMENT NO. AFMS7001-SW-R

FAA APPROVED  
AIRPLANE FLIGHT MANUAL SUPPLEMENT  
TO THE  
AIRPLANE FLIGHT MANUAL  
FOR

CESSNA 1820 s/n 18266591 through 18267715 except s/n 18267302


STC SA03608AT Maximum Gross Takeoff Weight Increase

Registration No. \_\_\_\_\_

Serial No. \_\_\_\_\_

This supplement must be attached to the latest revision FAA Approved Airplane Flight Manual whenever this aircraft is operated at weights above 2950 lbs. in accordance with Trolltune Corporation FAA STC SA03608AT or EASA STC 10026913. The information contained in this document supplements or supersedes the basic manual only in those areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic airplane flight manual.


FAA Approved

  
Manager, Flight Test Branch, ANM-160L  
Federal Aviation Administration  
Los Angeles Aircraft Certification Office  
Transport Airplane Directorate

Date: May 13, 2011

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RECORD OF REVISIONS

Rev No.	Page No.	Date	Description	FAA Approved
I/R	All 1-23	22/08/2008	Maximum Takeoff Gross Weight Increase to 3100 lbs.  Initial Release	David Crew Manager, Flight Test Branch Federal Aviation Administration Atlanta Aircraft Certification Office  Date: <u>22-August-2008</u>
1	1	13/05/2011	Added reference to EASA STC and changed FAA approval block and approval date.	 Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification office Transport Airplane Directorate  Date: <u>5/13/2011</u>
	2	13/05/2011	Added Record of Revision page.	
	3	13/05/2011	Added performance and limitations note.	
	5	13/05/2011	Added limitation statement.	
	1-26	13/05/2011	Reformatted and incremented pages numbers.	

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SECTION 1 - GENERAL

NOTE: Changes in loadings, limitations, airspeeds, and other performance data due to the gross weight increase described in this AFMS were developed based upon the original airplane configuration as found in the basic Cessna Pilot's Operating Handbook and Airplane Flight Manual (POH/AFM). If other STCs (e.g., autopilot, aux fuel tanks, engine upgrades, etc.) have been incorporated, it is possible that their associated flight manual supplements describe different limitations or performance data from that shown here.

MAXIMUM CERTIFICATED WEIGHTS:

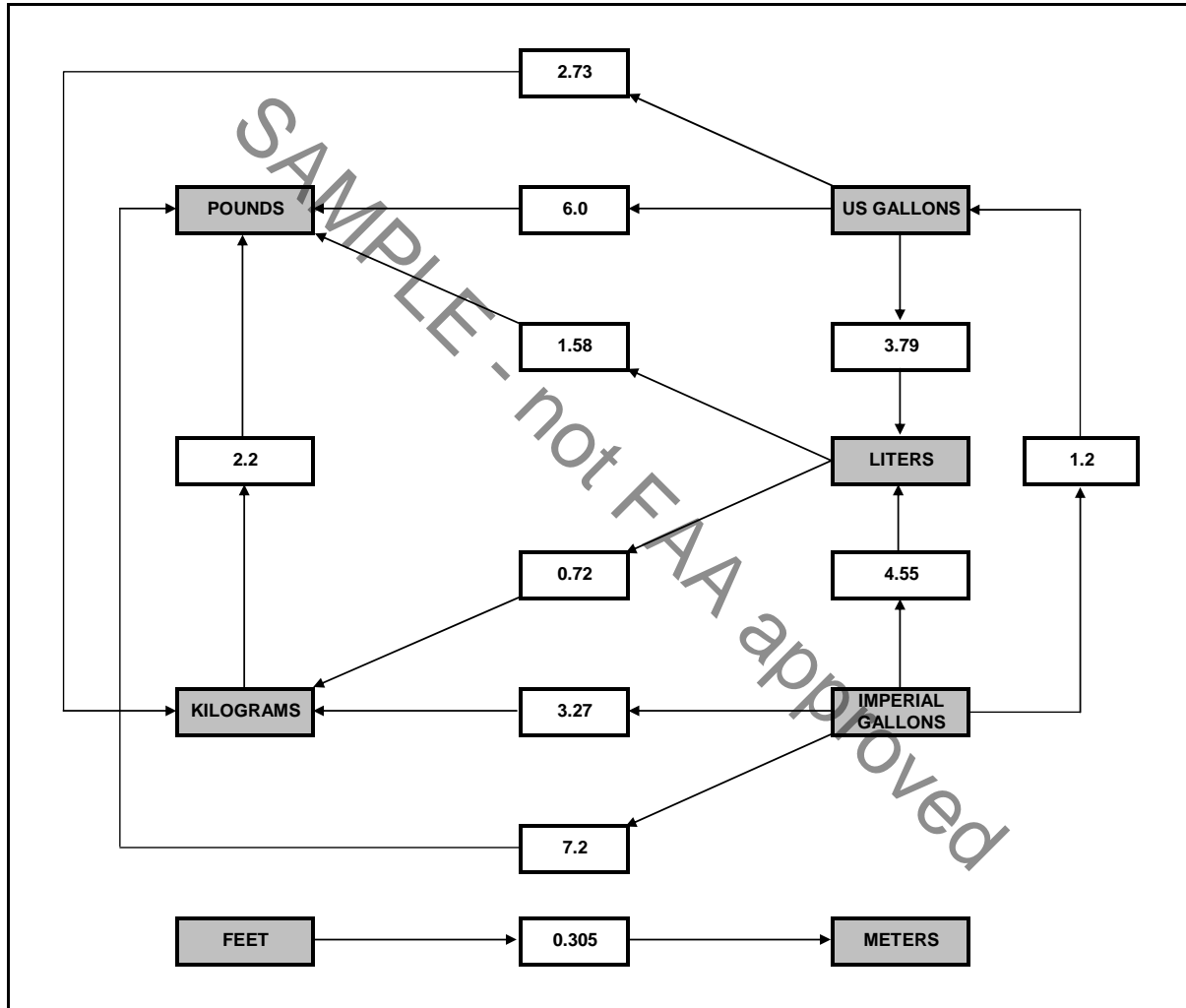
Maximum Ramp Weight: ..... 3110 lbs.  
Maximum Gross Takeoff Weight: ..... 3100 lbs.  
Maximum Landing Weight: ..... 2950 lbs.

SPECIFIC LOADINGS:

Wing Loading: ..... 17.8 lbs./sq. ft.  
Power Loading: ..... 13.5 lbs./hp.

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SECTION 1 - GENERAL (continued)



Metric / Imperial / US Units Conversion Chart

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**SECTION 2 - LIMITATIONS**

The limitations in this section may be further restricted by other installed STC(s), FAA Form 337, associated AFMS(s), or SAFM(s).

WEIGHT LIMITS:

Maximum Ramp Weight: .....3110 lbs.  
Maximum Takeoff Weight: .....3100 lbs.  
Maximum Landing Weight: .....2950 lbs.

A normal start, taxi and run-up time of ten minutes will consume approximately 10 lbs. of fuel. Normal landings must not be made at weights in excess of 2950 lbs. For a typical 3100 lbs. takeoff, climb, and cruise profile, this equates to a minimum flight duration of approximately one hour and forty-five minutes.

CENTER OF GRAVITY LIMITS:

Forward: 33.0 inches aft of datum at 2250 lbs. or less, with straight line variation to 40.9 inches aft of datum at 3100 lbs.  
Aft: 48.5 inches aft of datum at all weights except 46.0 inches aft of datum at weights above 2950 lbs. to 3100 lbs.

**SECTION 3 - EMERGENCY PROCEDURES**

AIRSPEEDS FOR EMERGENCY OPERATION:

ENGINE FAILURE AFTER TAKEOFF, 3100 lbs:

Wing Flaps Up: .....75 KIAS  
Wing Flaps Down: .....70 KIAS

MANEUVERING SPEED:

3100 lbs.: .....111 KIAS

MAXIMUM GLIDE:

3100 lbs.: .....76 KIAS

AIRSPEEDS FOR EMERGENCY OPERATION: (continued)

PRECAUTIONARY LANDING WITH ENGINE POWER:

3100 lbs .....70 KIAS

LANDING WITHOUT ENGINE POWER, 3100 LBS:

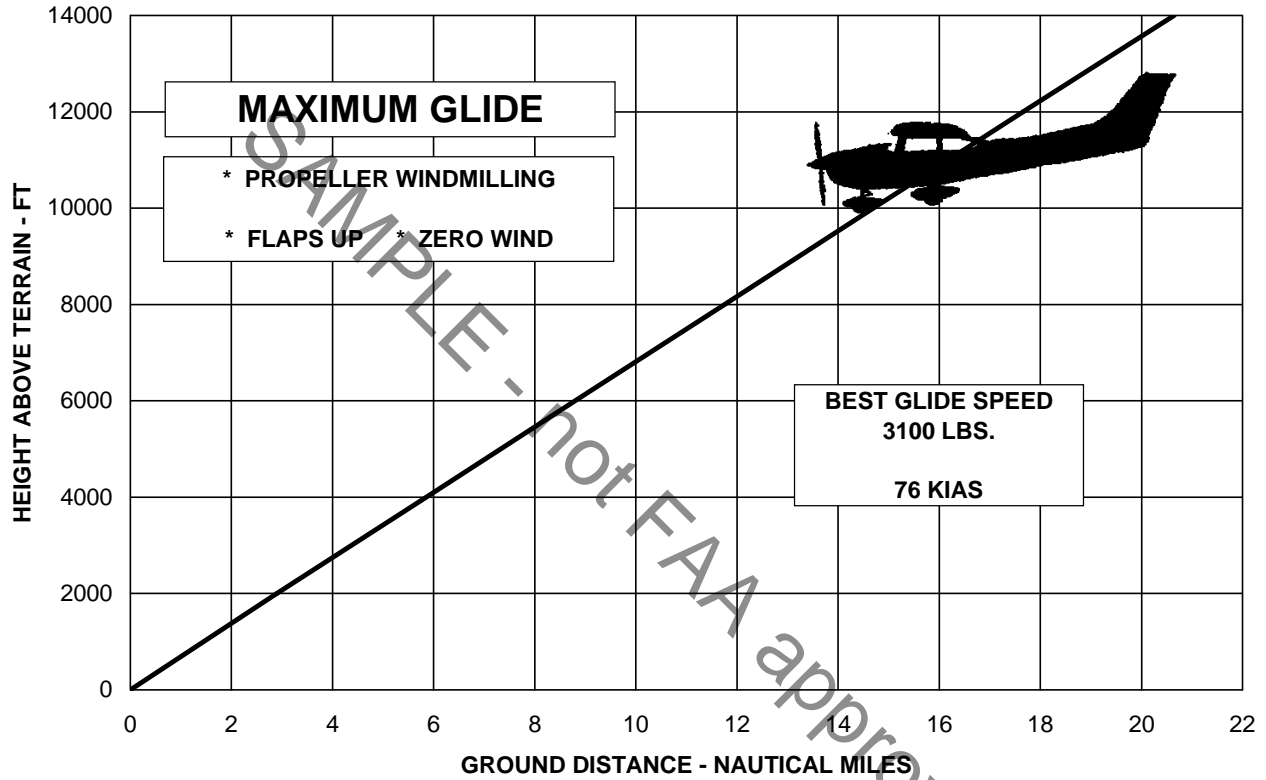
Wing Flaps Up: .....75 KIAS  
Wing Flaps Down: .....70 KIAS

DITCHING WITHOUT ENGINE POWER, 3100 lbs:

Wing Flaps Up: .....75 KIAS  
Wing Flaps 10 degrees: .....70 KIAS

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**SECTION 3 - EMERGENCY PROCEDURES (continued)**



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**SECTION 4 - NORMAL PROCEDURES**

**SPEEDS FOR NORMAL OPERATION, 3100 lbs.:**

**TAKEOFF:**

Short Field Takeoff, Flaps 20°, Speed at 50 Feet:.....59 KIAS

**ENROUTE CLIMB, FLAPS UP:**

Best Rate of Climb, Sea Level: .....81 KIAS

Best Rate of Climb, 10,000 Feet: .....75 KIAS

Best Angle of Climb, Sea Level: .....59 KIAS

Best Angle of Climb, 10,000 Feet .....66 KIAS

**MAXIMUM RECOMMENDED TURBULENT AIR PENETRATION SPEED:**

3100 lbs.: .....111 KIAS

**MAXIMUM DEMONSTRATED CROSSWIND VELOCITY:**

Takeoff or Landing .....15 KNOTS

**NOISE ABATEMENT:**

The certificated noise level for the Model 182Q at 3100 pounds maximum weight is 79.5 dB(A), determined according to Appendix G of 14 CFR Part 36 through Amendment 28. No determination has been made by the Federal Aviation Administration that the noise levels of this airplane are or should be acceptable or unacceptable for operation at, into, or out of, any airport.

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**SECTION 5 - PERFORMANCE**

Refer to the following performance charts for operations at weights above 2950 lbs. to 3100 lbs.:

**STALL SPEEDS**

CONDITIONS:  
 Power Off

- NOTES:  
 1. Maximum altitude loss during a stall recovery may be as much as 250 feet.  
 2. KIAS values are approximate

**MOST REARWARD CENTER OF GRAVITY**

WEIGHT (LBS)	FLAP DEFLECTION	ANGLE OF BANK							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
3100	UP	44	58	50	63	58	69	73	82
	20°	41	53	46	57	54	63	67	75
	40°	41	52	46	56	53	62	67	74

**MOST FORWARD CENTER OF GRAVITY**

WEIGHT (LBS)	FLAP DEFLECTION	ANGLE OF BANK							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
3100	UP	49	60	55	65	63	71	78	85
	20°	48	56	53	60	60	66	73	79
	40°	46	55	51	59	58	65	71	77



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**SECTION 5 - PERFORMANCE (continued)**

**TAKEOFF DISTANCE  
 MAXIMUM WEIGHT 3100 LBS**

**SHORT FIELD**

**CONDITIONS:**

Flaps 20°  
 2400 RPM, Full Throttle and Mixture Set Prior to  
 Brake Release  
 Cowl Flaps Open  
 Paved, Level, Dry Runway  
 Zero Wind

**NOTES:**

1. Short field technique as specified in Section 4 of the basic Airplane Flight Manual.
2. Prior to takeoff from fields above 5000 feet elevation, the mixture should be leaned to give maximum power in a full throttle, static runup.
3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.
4. Where distance value has been deleted, climb performance after lift-off is less than 150 fpm at takeoff speed.
5. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

WEIGHT LBS	TAKEOFF SPEED		PRESS ALT FT	0°C		10°C		20°C		30°C		40°C	
	KIAS			GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS
	LIFTOFF	AT 50 FT											
3100	50	59	S.L.	720	1365	775	1465	835	1570	895	1680	955	1800
			1000	785	1490	845	1600	910	1720	975	1845	1045	1980
			2000	860	1635	925	1760	995	1890	1065	2035	1140	2185
			3000	940	1800	1010	1940	1085	2090	1165	2255	1250	2430
			4000	1025	1990	1105	2150	1190	2320	1275	2510	1370	2715
			5000	1125	2210	1215	2395	1305	2595	1400	2815	1505	3060
			6000	1235	2470	1330	2685	1435	2925	1540	3190	1655	3490
			7000	1360	2780	1465	3040	1580	3330	1700	3665	---	---
			8000	1500	3170	1615	3485	1740	3855	---	---	---	---

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**SECTION 5 - PERFORMANCE (continued)**

**MAXIMUM RATE OF CLIMB**

CONDITIONS:  
 Flaps Up  
 2400 RPM  
 Full Throttle  
 Cowl Flaps Open

NOTE:  
 Mixture leaned above 5000 feet for smooth engine operation and increased power.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM			
			-20° C	0° C	20° C	40° C
3100	S.L.	81	1010	925	845	765
	2000	80	885	805	730	650
	4000	78	760	685	610	540
	6000	77	640	570	495	425
	8000	76	520	450	380	310
	10,000	75	405	335	265	-
	12,000	73	285	220	155	-
	14,000	72	170	105	-	-

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**SECTION 5 - PERFORMANCE (continued)**

**TIME, FUEL, AND DISTANCE TO CLIMB**

**MAXIMUM RATE OF CLIMB**

CONDITIONS:  
 Flaps Up  
 2400 RPM  
 Full Throttle  
 Cowl Flaps Open  
 Standard Temperature

- NOTES:
1. Add 1.7 gallons of fuel for engine start, taxi and takeoff allowance.
  2. Mixture may be leaned above 5000 feet for smooth engine operation and increased power.
  3. Increase time, fuel and distance by 10% for each 10° C above standard temperature.
  4. Distances shown are based on zero wind.

WEIGHT LBS	PRESSURE ALTITUDE FT	TEMP °C	CLIMB SPEED KIAS	RATE OF CLIMB FPM	FROM SEA LEVEL		
					TIME MIN	FUEL USED GALLONS	DISTANCE NM
3100	S.L.	15	81	865	0	0	0
	2000	11	80	760	2	0.8	3
	4000	7	78	660	5	1.7	7
	6000	3	77	555	9	2.7	12
	8000	-1	76	455	13	3.9	18
	10,000	-5	75	350	18	5.3	25
	12,000	-9	73	250	25	7.1	36
	14,000	-13	72	145	35	9.7	52

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**SECTION 5 - PERFORMANCE (continued)**

**TIME, FUEL, AND DISTANCE TO CLIMB**

**NORMAL CLIMB - 90 KIAS**

CONDITIONS:  
 Flaps Up  
 2400 RPM  
 23 Inches Hg or Full Throttle  
 Cowl Flaps Open  
 Standard Temperature

- NOTES:
1. Add 1.7 gallons of fuel for engine start, taxi and takeoff allowance.
  2. Mixture leaned above 5000 feet for smooth engine operation and increased power.
  3. Increase time, fuel and distance by 10% for each 10° C above standard temperature.
  4. Distances shown are based on zero wind.

WEIGHT LBS	PRESSURE ALTITUDE FT	TEMP °C	RATE OF CLIMB FPM	FROM SEA LEVEL		
				TIME MIN	FUEL USED GALLONS	DISTANCE NM
3100	S.L.	15	540	0	0	0
	2000	11	540	4	1.0	6
	4000	7	540	7	2.1	11
	6000	3	510	11	3.2	17
	8000	-1	395	16	4.5	25
	10,000	-5	285	22	6.1	35
	12,000	-9	150	31	8.3	54

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**SECTION 5 - PERFORMANCE (continued)**

**CRUISE PERFORMANCE  
 PRESSURE ALTITUDE 2000 FEET**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture  
 Cowl Flaps Closed

**NOTE**  
 For best fuel economy at 65% power or less, operate at the leanest mixture that results in smooth engine operation or at peak EGT if an EGT indicator is installed.

		20° C BELOW STANDARD TEMP - 9° C			STANDARD TEMPERATURE 11° C			20° C ABOVE STANDARD TEMP 31° C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2400	22	77	132	13.1	74	133	12.6	71	134	12.2
	21	72	129	12.3	69	130	11.8	67	131	11.4
	20	67	126	11.5	65	126	11.1	63	127	10.7
	19	62	122	10.7	60	122	10.3	58	122	10.0
2300	23	78	133	13.3	75	134	12.8	72	135	12.4
	22	73	130	12.5	70	131	12.0	68	131	11.6
	21	68	126	11.7	66	127	11.3	64	128	10.9
	20	64	123	10.9	62	123	10.5	60	123	10.2
2200	23	73	130	12.5	70	131	12.0	68	131	11.6
	22	69	127	11.7	66	127	11.3	64	128	10.9
	21	64	123	11.0	62	124	10.6	60	124	10.2
	20	60	119	10.2	58	120	9.9	56	120	9.6
2100	23	68	126	11.6	66	127	11.2	64	127	10.8
	22	64	123	10.9	62	123	10.5	60	124	10.2
	21	60	119	10.2	58	120	9.9	56	120	9.6
	20	56	115	9.6	54	115	9.3	52	115	9.0
	19	52	111	9.0	50	110	8.7	48	109	8.5
	18	47	106	8.4	46	105	8.1	44	103	7.9

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**SECTION 5 - PERFORMANCE (continued)**

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 4000 FEET**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture  
 Cowl Flaps Closed

**NOTE**  
 For best fuel economy at 65% power or less, operate at the leanest mixture that results in smooth engine operation or at peak EGT if an EGT indicator is installed.

		20° C BELOW STANDARD TEMP - 13° C			STANDARD TEMPERATURE 7° C			20° C ABOVE STANDARD TEMP 27° C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2400	22	-	-	-	76	137	13.0	73	138	12.5
	21	74	133	12.6	71	134	12.1	69	134	11.7
	20	69	129	11.8	66	130	11.3	64	130	11.0
	19	64	125	10.9	62	126	10.6	60	126	10.2
2300	23	-	-	-	76	138	13.4	74	139	12.6
	22	75	133	12.8	72	134	12.3	70	135	11.9
	21	70	130	12.0	68	131	11.5	65	131	11.2
	20	66	126	11.2	63	127	10.8	61	127	10.4
2200	23	75	133	12.8	72	134	12.3	70	135	11.9
	22	70	130	12.0	68	131	11.6	66	131	11.2
	21	66	127	11.3	64	127	10.9	61	127	10.5
	20	62	123	10.5	59	123	10.2	57	123	9.8
	19	57	119	9.8	55	118	9.5	53	118	9.2
2100	23	70	130	11.9	67	131	11.5	65	131	11.1
	22	66	126	11.2	63	127	10.8	61	127	10.4
	21	62	123	10.5	59	123	10.1	57	123	9.8
	20	57	119	9.8	55	119	9.5	53	118	9.3
	19	53	114	9.2	51	114	8.9	50	113	8.7
	18	49	109	8.6	47	108	8.3	46	106	8.1
	17	45	103	8.0	43	101	7.8	42	100	7.6

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**SECTION 5 - PERFORMANCE (continued)**

**CRUISE PERFORMANCE  
 PRESSURE ALTITUDE 6000 FEET**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture  
 Cowl Flaps Closed

**NOTE**  
 For best fuel economy at 65% power or less, operate at the leanest mixture that results in smooth engine operation or at peak EGT if an EGT indicator is installed.

		20° C BELOW STANDARD TEMP - 17° C			STANDARD TEMPERATURE 3° C			20° C ABOVE STANDARD TEMP 23° C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2400	22	-	-	-	77	141	13.3	75	142	12.8
	21	75	136	12.9	73	137	12.4	70	138	12.0
	20	71	133	12.1	68	133	11.6	66	134	11.2
	19	66	129	11.2	64	129	10.8	61	129	10.5
2300	22	77	137	13.1	74	138	12.6	71	139	12.2
	21	72	134	12.3	69	134	11.8	67	135	11.4
	20	67	130	11.5	65	130	11.1	63	131	10.7
	19	63	126	10.7	60	126	10.3	58	126	10.0
2200	22	72	134	12.3	69	135	11.9	67	135	11.5
	21	68	130	11.6	65	131	11.1	63	131	10.8
	20	63	126	10.8	61	127	10.4	59	127	10.1
	19	59	122	10.1	57	122	9.7	55	121	9.5
2100	22	67	130	11.5	66	131	11.1	63	131	10.7
	21	63	126	10.8	61	127	10.4	59	127	10.1
	19	55	118	9.5	53	117	9.2	51	116	8.9
	18	51	113	8.8	49	111	8.6	47	110	8.3
	17	47	107	8.2	45	105	8.0	43	103	7.8

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**SECTION 5 - PERFORMANCE (continued)**

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 8000 FEET**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture  
 Cowl Flaps Closed

**NOTE**  
 For best fuel economy at 65% power or less, operate at the leanest mixture that results in smooth engine operation or at peak EGT if an EGT indicator is installed.

		20° C BELOW STANDARD TEMP - 21° C			STANDARD TEMPERATURE - 1° C			20° C ABOVE STANDARD TEMP 19° C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2400	21	77	140	13.3	74	141	12.7	72	142	12.3
	20	72	136	12.4	70	137	11.9	67	138	11.5
	19	68	132	11.5	65	133	11.1	63	133	10.7
	18	63	128	10.7	60	128	10.3	58	128	10.0
2300	21	74	137	12.6	71	138	12.1	69	139	11.7
	20	69	134	11.8	66	134	11.3	64	134	11.0
	19	64	130	11.0	62	130	10.6	60	129	10.2
	18	60	125	10.2	58	125	9.9	56	124	9.6
2200	21	69	134	11.8	67	135	11.4	65	135	11.0
	20	65	130	11.1	63	130	10.7	60	130	10.3
	19	61	126	10.3	58	126	10.0	56	125	9.7
	18	56	121	9.7	54	120	9.3	52	119	9.1
2100	21	65	130	11.1	63	130	10.7	60	130	10.3
	20	61	126	10.4	59	126	10.0	57	125	9.7
	19	57	122	9.7	54	121	9.4	53	120	9.1
	18	52	116	9.1	50	115	8.8	49	113	8.5
	17	48	110	8.5	46	108	8.2	45	106	8.0



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**SECTION 5 - PERFORMANCE (continued)**

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 10,000 FEET**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture  
 Cowl Flaps Closed

**NOTE**  
 For best fuel economy at 65% power or less, operate at the leanest mixture that results in smooth engine operation or at peak EGT if an EGT indicator is installed.

		20° C BELOW STANDARD TEMP - 25° C			STANDARD TEMPERATURE - 5° C			20° C ABOVE STANDARD TEMP 15° C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2400	20	74	140	12.7	71	141	12.2	69	141	11.8
	19	69	136	11.8	67	137	11.4	64	137	11.0
	18	65	132	11.0	62	132	10.6	60	131	10.2
	17	60	127	10.2	57	126	9.8	55	125	9.5
2300	20	71	137	12.1	68	138	11.6	66	138	11.2
	19	66	133	11.3	64	133	10.9	61	133	10.5
	18	61	129	10.5	59	128	10.1	57	128	9.8
	17	57	123	9.7	55	122	9.4	53	121	9.1
2200	20	67	134	11.4	64	134	11.0	62	134	10.6
	19	62	129	10.6	60	129	10.2	58	129	9.9
	18	58	125	9.9	56	124	9.6	54	123	9.3
	17	53	119	9.2	51	118	8.9	50	116	8.7
2100	20	63	130	10.7	60	130	10.3	58	129	9.9
	19	58	125	10.0	56	124	9.6	54	123	9.4
	18	54	120	9.3	52	119	9.0	50	117	8.8
	17	50	114	8.7	48	112	8.4	46	110	8.2
	16	46	107	8.1	44	104	7.8	42	102	7.6

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**SECTION 5 - PERFORMANCE (continued)**

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 12,000 FEET**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture  
 Cowl Flaps Closed

**NOTE**  
 For best fuel economy at 65% power or less, operate at the leanest mixture that results in smooth engine operation or at peak EGT if an EGT indicator is installed.

		20° C BELOW STANDARD TEMP - 29° C			STANDARD TEMPERATURE -9° C			20° C ABOVE STANDARD TEMP 11° C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2400	18	66	136	11.3	64	136	10.9	61	135	10.5
	17	61	130	10.5	59	130	10.1	57	129	9.8
	16	56	124	9.7	54	123	9.4	52	122	9.1
	15	51	117	9.0	50	116	8.7	48	114	8.4
2300	18	63	132	10.8	61	132	10.4	59	131	10.0
	17	58	127	10.0	56	126	9.7	54	125	9.4
	16	54	121	9.3	52	119	9.0	50	117	8.7
	15	49	113	8.6	47	112	8.3	45	109	8.1
2200	18	59	128	10.2	57	128	9.8	55	126	9.5
	17	55	123	9.5	53	121	9.2	51	119	8.9
	16	51	116	8.8	49	114	8.5	47	112	8.3
	15	46	108	8.2	44	106	7.9	43	103	7.7
2100	18	56	124	9.6	54	122	9.3	52	120	9.0
	17	51	117	8.9	49	115	8.7	48	113	8.4
	16	47	110	8.3	45	108	8.1	44	106	7.8

SUPPLEMENT NO. AFMS7001-SW-R

**SECTION 5 - PERFORMANCE (continued)**

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 14,000 FEET**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture  
 Cowl Flaps Closed

**NOTE**  
 For best fuel economy at 65% power or less, operate at the leanest mixture that results in smooth engine operation or at peak EGT if an EGT indicator is installed.

		20° C BELOW STANDARD TEMP - 33° C			STANDARD TEMPERATURE -13° C			20° C ABOVE STANDARD TEMP 7° C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2400	16	58	128	9.9	56	127	9.6	54	125	9.3
	15	53	121	9.2	51	119	8.9	49	117	8.6
	14	48	113	8.5	46	110	8.2	45	108	8.0
2300	16	55	124	9.5	53	123	9.2	51	121	8.9
	15	51	117	8.8	49	115	8.5	47	112	8.3
	14	46	109	8.1	44	106	7.9	42	103	7.7
2200	16	52	120	9.0	50	118	8.8	48	115	8.5
	15	48	112	8.4	46	110	8.1	44	107	7.9
2100	16	49	114	8.5	47	112	8.3	45	109	8.0

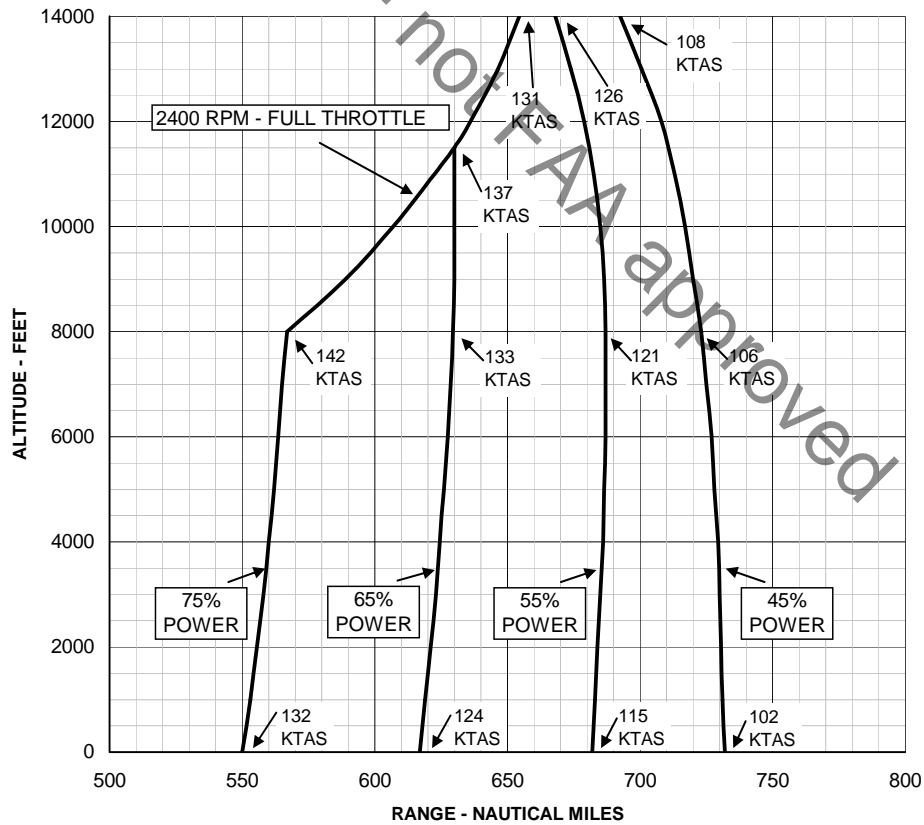
SUPPLEMENT NO. AFMS7001-SW-R

**SECTION 5 - PERFORMANCE (continued)**

**RANGE PROFILE  
45 MINUTES RESERVE  
65 GALLONS USABLE FUEL**

CONDITIONS:  
3100 Pounds  
Recommended Lean Mixture for Cruise  
Standard Temperature  
Zero Wind

NOTE:  
This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the distance during a normal climb up to 10,000 feet and a maximum climb above 10,000 feet.



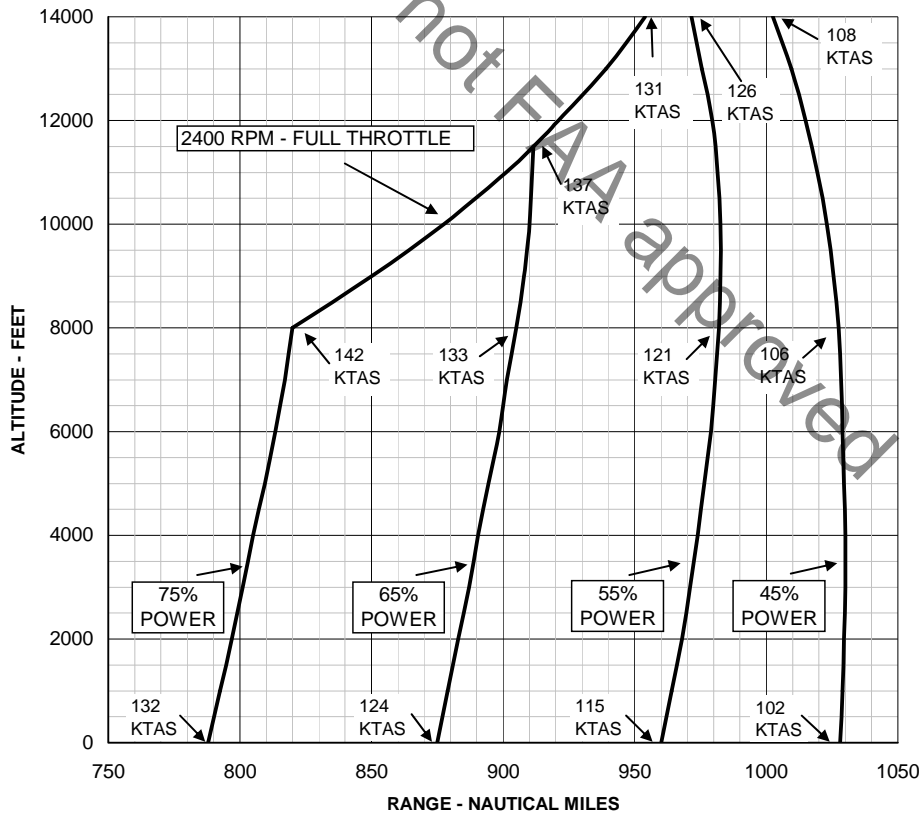
SUPPLEMENT NO. AFMS7001-SW-R

**SECTION 5 - PERFORMANCE (continued)**

**RANGE PROFILE  
 45 MINUTES RESERVE  
 88 GALLONS USABLE FUEL**

CONDITIONS:  
 3100 Pounds  
 Recommended Lean Mixture for Cruise  
 Standard Temperature  
 Zero Wind

NOTE:  
 This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the distance during a normal climb up to 10,000 feet and a maximum climb above 10,000 feet.



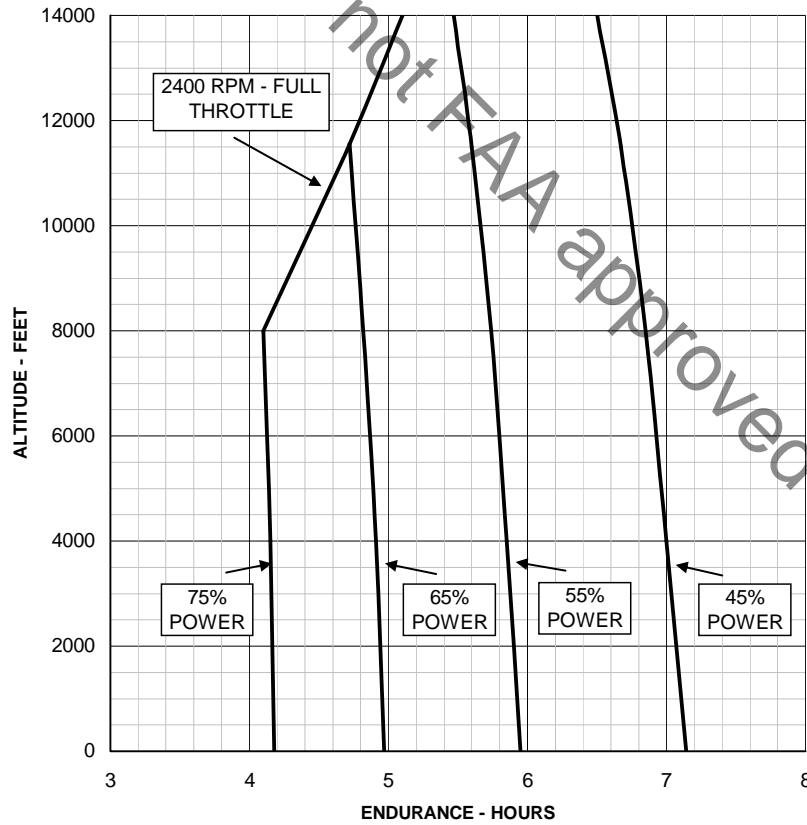
SUPPLEMENT NO. AFMS7001-SW-R

**SECTION 5 - PERFORMANCE (continued)**

**ENDURANCE PROFILE  
45 MINUTES RESERVE  
65 GALLONS USABLE FUEL**

CONDITIONS:  
3100 Pounds  
Recommended Lean Mixture for Cruise  
Standard Temperature

NOTE:  
This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the time during a normal climb up to 10,000 feet and a maximum climb above 10,000 feet.



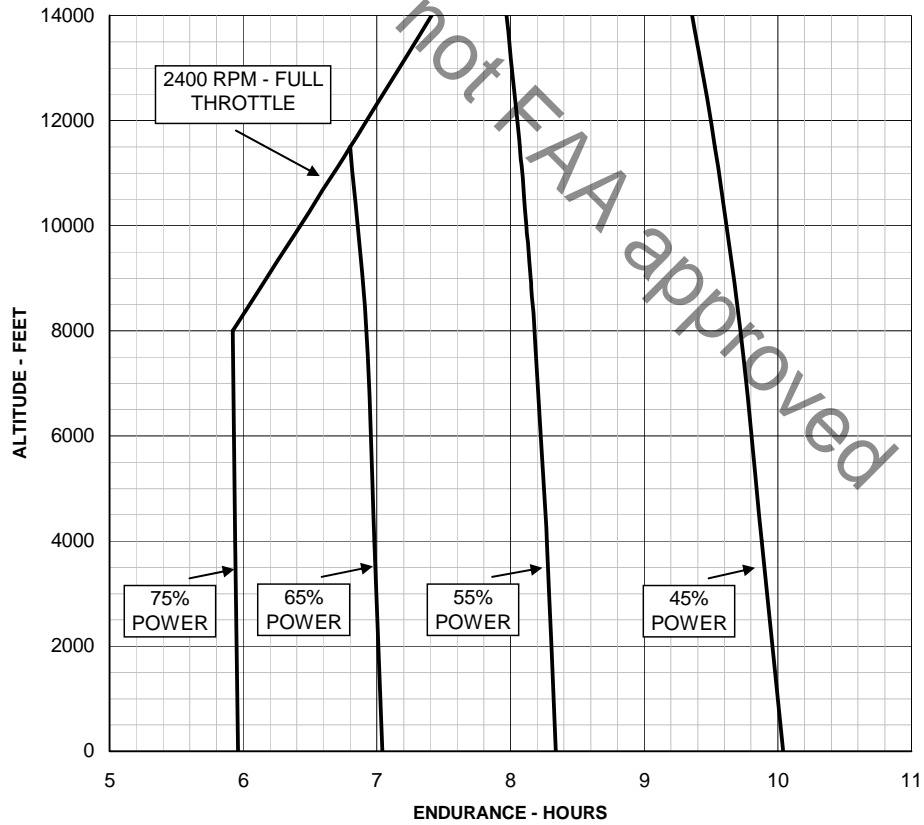
SUPPLEMENT NO. AFMS7001-SW-R

**SECTION 5 - PERFORMANCE (continued)**

**ENDURANCE PROFILE  
45 MINUTES RESERVE  
88 GALLONS USABLE FUEL**

CONDITIONS:  
3100 Pounds  
Recommended Lean Mixture for Cruise  
Standard Temperature

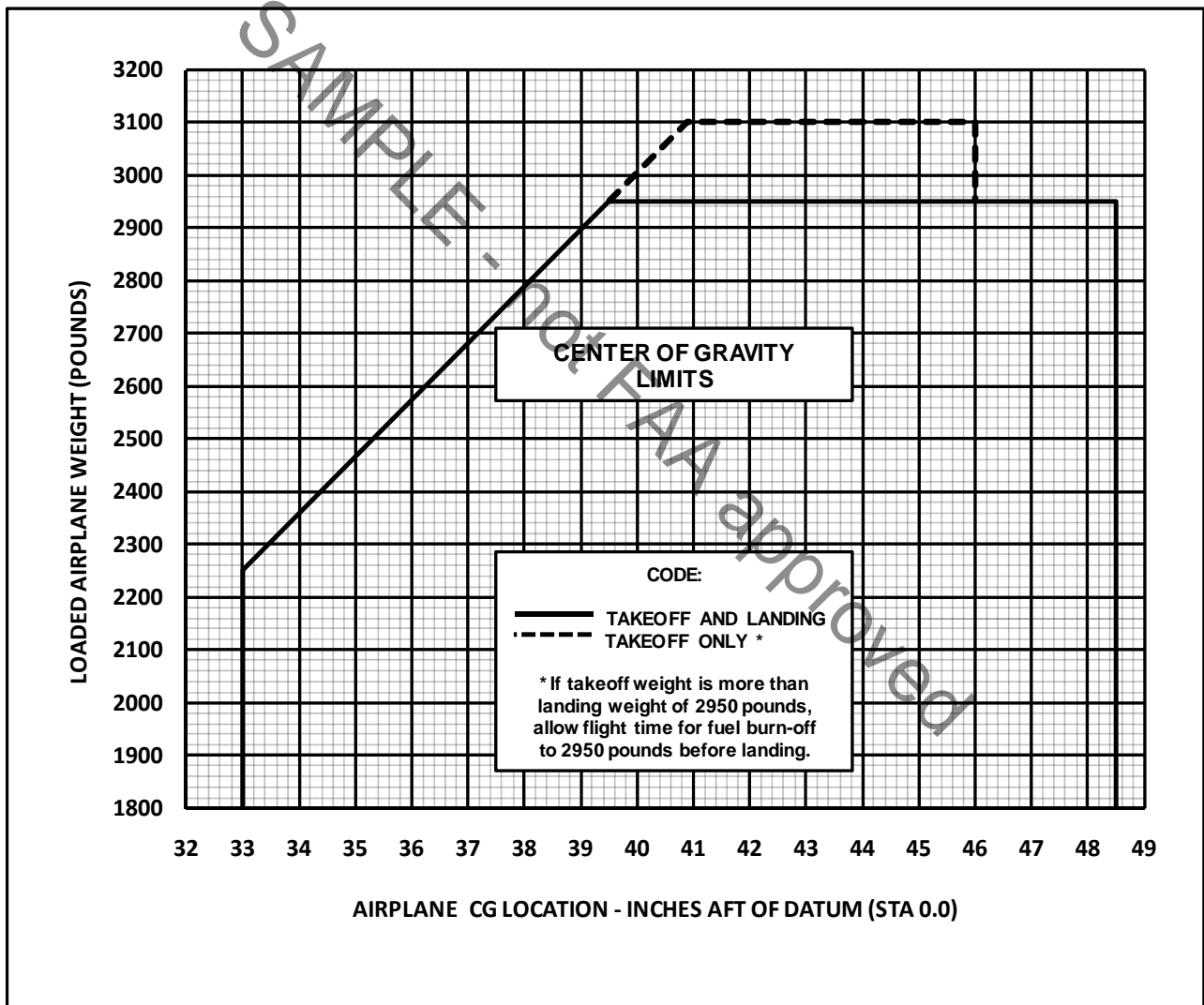
NOTE:  
This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the time during a normal climb up to 10,000 feet and a maximum climb above 10,000 feet.



SUPPLEMENT No. AFMS7001-SW-R

**SECTION 6 - WEIGHT & BALANCE / EQUIPMENT LIST**

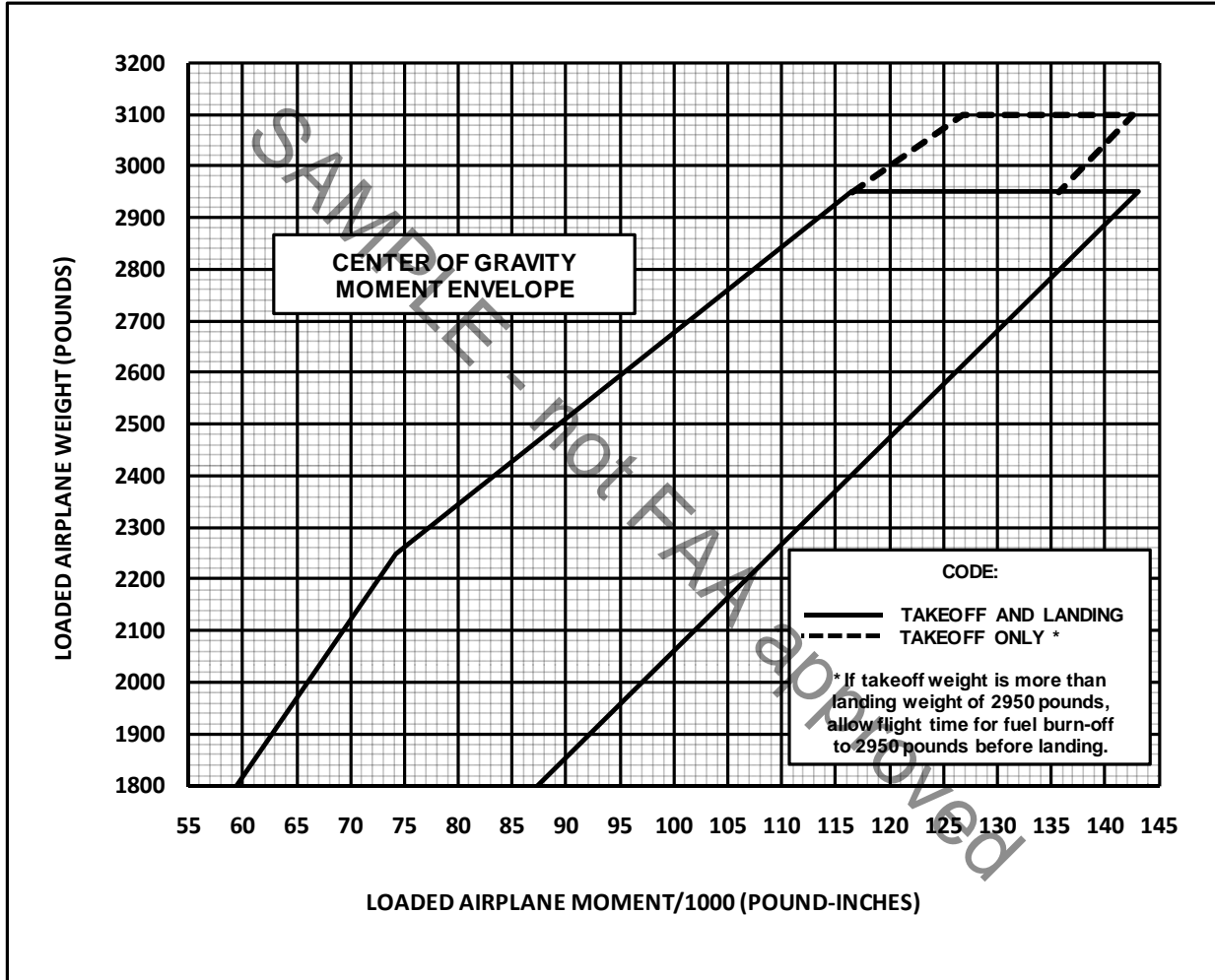
Center of gravity limitations and envelopes are changed for operation at weights above 2950 lbs. to and including 3100 lbs. Use the following limit and moment envelopes:





SUPPLEMENT NO. AFMS7001-SW-R

SECTION 6 - WEIGHT & BALANCE / EQUIPMENT LIST (continued)



TROLLTUNE CORPORATION  
2710 Thomes Avenue  
Cheyenne, WY 82001

AIRPLANE FLIGHT MANUAL SUPPLEMENT FOR  
CESSNA 182Q  
MAXIMUM GROSS WEIGHT INCREASE  
STC No. SA03608AT

SUPPLEMENT NO. AFMS7001-SW-R

**SECTION 7 - AIRPLANE SYSTEMS AND DESCRIPTIONS**

NO CHANGES

**SECTION 8 - HANDLING, SERVICE & MAINTENANCE**

NO CHANGES

**SECTION 9 - SUPPLEMENTS**

ADDED AIRPLANE FLIGHT MANUAL SUPPLEMENT AFMS7001-SW-R

SAMPLE - not FAA approved