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## TAKEOFF PERFORMANCE SIMPLIFIED CRITERIA

A simplified criteria is provided which is intended to cover the majority of situations where runway length is appreciably longer than required for this airplane. The other tabulated data gives more exact performance criteria through a range of conditions which include all but the most extreme cases.

The majority of takeoff situations results in field length margins that permit using a single set of values for speeds and power settings for takeoff. If the following conditions are met, the simplified procedures may be used.

1. No obstacle in flight path.
2. Anti-ice systems off.
3. Takeoff and approach flaps (15°).
4. Takeoff field length available = 5000 feet or longer.
5. No tail wind.
6. No runway gradient.
7. Dry paved runway.

The values to be used are as follows:

WEIGHT RANGE - POUNDS	12,375 POUNDS TO 11,801 POUNDS	11,800 POUNDS TO 11,001 POUNDS	11,000 POUNDS TO 9,500 POUNDS
ALTITUDE OF AIRPORT	2000 FEET OR BELOW	4000 FEET OR BELOW	6,000 FEET TO 2001 FEET
AMBIENT TEMPERATURE BETWEEN	11°C - 35°C	11°C - 34°C	5°C - 30°C
V <sub>1</sub>	109 KIAS	107 KIAS	102 KIAS
V <sub>R</sub>	109 KIAS	107 KIAS	103 KIAS
V <sub>2</sub>	115 KIAS	112 KIAS	108 KIAS
SINGLE-ENGINE CLIMB SPEED	138 KIAS	135 KIAS	130 KIAS
TAKEOFF N <sub>1</sub>	101.0%	101.0%	101.7%
SINGLE-ENGINE CLIMB N <sub>1</sub>	95.8%	96.0%	96.9%

When conditions are other than those specified in the simplified criteria, the appropriate tabulated data must be referred to.



## TEMPORARY FAA APPROVED AIRPLANE FLIGHT MANUAL CHANGE

Publication Affected: Model 525A Citation CJ2 (525A-0001 thru -0299) basic FAA Approved Airplane Flight Manual, Revision 6, dated 15 April 2005.

Airplane Serial Numbers Affected: Airplanes 525A-0001 thru -0299.

Description of Change: Section IV, Performance, Procedures for Use of Takeoff Performance Tables, add a note.

Filing Instructions: Insert this temporary change in the Model 525A Citation CJ2 (525A-0001 thru -0299) basic FAA Approved Airplane Flight Manual adjacent to page 4-33.

Removal Instructions: This temporary change must be removed and discarded when Revision 7 has been collated into the basic FAA Approved Airplane Flight Manual.

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In Section IV, Performance, page 4-33, PROCEDURES FOR USE OF TAKEOFF PERFORMANCE TABLES, add a note as shown below after item 6:

### PROCEDURES FOR USE OF TAKEOFF PERFORMANCE TABLES

#### NOTE

For takeoffs with anti-ice fluid on the airplane, refer to Section VII. Takeoff with Type II, Type III, or Type IV anti-ice fluid on the airplane is limited to the Flaps UP (0°) position.

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Cessna Aircraft Company  
Organization Designation Authorization ODA-100129-CE  
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DATE OF APPROVAL 20 AUGUST 2010

**PROCEDURES FOR USE OF TAKEOFF PERFORMANCE TABLES**

1. Determine gross weight of airplane for type of loading desired.
2. Obtain airport information; i.e., active runway, available runway length, temperature, altitude, wind, icing conditions, and runway gradient (if applicable) and obstacles in the takeoff flight path. Determine that the temperature is within the ambient temperature limits found in Section II, Limitations.
3. Determine wind component parallel to active runway from the crosswind component chart (Figure 4-13).
4. Check the maximum takeoff weight permitted by climb requirements (Figure 4-14 or Figure 4-16). If takeoff is to be made with anti-ice on, refer to Figure 4-15 or Figure 4-17. If this limitation restricts the gross weight, the pilot must off load weight until the requirement is met.
5. Using the takeoff weight determined in step 4, determine takeoff field length, PFD  $V_1$ , PFD  $V_R$ ,  $V_2$ ,  $V_{ENR}$  from Figure 4-19 (Flaps 0°, anti-ice off), Figure 4-21 (Flaps 0°, anti-ice on), Figure 4-23 (Flaps 15°, anti-ice off), or Figure 4-25 (Flaps 15°, anti-ice on). Add 4 knots to determine copilot pneumatic dial  $V_1$  and  $V_R$ .

**NOTE**

If PFD installed on copilot's side, no correction required.

6. For runway gradients,  $V_1$  and takeoff field length must be adjusted using the table in Figure 4-18 (Flaps 0°, anti-ice off), Figure 4-20 (Flaps 0°, anti-ice on), Figure 4-22 (Flaps 15°, anti-ice off), or Figure 4-24 (Flaps 15°, anti-ice on).
7. If the available runway length is less than the required field length, the airplane weight must be reduced until this requirement can be met.
8. Determine level off altitude. Level off altitude is airport barometric altitude plus takeoff climb increment (Figure 4-28, 4-29, 4-32, or 4-33) required for obstacle clearance.
9. If the obstacle clearance is a factor, the single-engine takeoff flight path charts (Figures 4-26, 4-28, or 4-29, and 4-30, 4-32, or 4-33) must be used to determine if the net takeoff flight path provides the required obstacle clearance. If the required obstacle clearance is not achieved, the gross weight must be adjusted until the net takeoff flight path assures the required obstacle clearance.

**NOTE**

If the takeoff flight path has not been completed within ten (10) minutes, reduce power to maximum continuous single engine thrust and continue with the takeoff flight path.

10. For second segment (Figure 4-38, 4-39, 4-40, or 4-41) and enroute (Figure 4-42 or 4-43) turning climb, up to and including a 15° bank angle, reduce the net climb gradient by 1.1.
11. Determine thrust settings for takeoff (Figure 4-8) and enroute climb (single engine) (Figures 4-9 and 4-10).
12. The first segment takeoff net climb gradient tables are presented in Figures 4-34, 4-35, 4-36, and 4-37.

**NOTE**

- For inoperative antiskid system, multiply the Flaps 15° takeoff field lengths obtained from Figures 4-23 and 4-25 by 1.6. Flaps 0° takeoff with inoperative antiskid system is prohibited.
- For attenuators stowed, multiply the takeoff field lengths obtained from Figures 4-19, 4-21, 4-23, and 4-25 by 1.05.



**MAXIMUM TAKEOFF WEIGHT - POUNDS  
PERMITTED BY CLIMB REQUIREMENTS  
FLAPS - UP  
ANTI-ICE - OFF**

ALTITUDE=0		ALTITUDE=1000		ALTITUDE=2000		ALTITUDE=3000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO		-54 TO	
53	12375	50	12375	46	12375	43	12375
55	12100	52	11940	50	11890	45	12190
						48	11630

ALTITUDE=4000		ALTITUDE=5000		ALTITUDE=6000		ALTITUDE=7000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO		-54 TO	
40	12375	37	12375	33	12375	30	12375
45	11700	40	11960	35	12200	35	11710
46	11480	44	11330	40	11480	40	11000
				42	11160		

ALTITUDE=8000		ALTITUDE=9000		ALTITUDE=10000		ALTITUDE=11000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO		-54 TO	
26	12375	21	12375	16	12375	11	12375
30	11900	25	12010	20	12060	15	12050
35	11230	30	11450	25	11550	20	11590
37	10820	35	10760	30	10980	25	11120
				33	10470	30	10500
						31	10290

ALTITUDE=12000		ALTITUDE=13000		ALTITUDE=14000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	SETTING DEG. C	MAXIMUM TAKEOFF WEIGHT	FLAP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO	
5	12375	-1	12375	-7	12375
10	11990	0	12300	-5	12220
15	11570	5	11910	0	11820
20	11150	10	11520	5	11440
25	10700	15	11130	10	11080
29	10110	20	10750	15	10720
		25	10220	20	10370
		27	9920	25	9750

WHERE CONDITIONS ALLOW FOR 0° OR 15° FLAP SETTING, IT IS DESIRED TO SELECT THE FLAP SETTING WHICH GIVES THE SHORTER TAKEOFF FIELD LENGTH.

 Figure 4-14

**MAXIMUM TAKEOFF WEIGHT - POUNDS  
PERMITTED BY CLIMB REQUIREMENTS  
FLAPS - UP  
ANTI-ICE - ON**

ALTITUDE=0		ALTITUDE=1000		ALTITUDE=2000		ALTITUDE=3000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO 10	12375	-54 TO 10	12375	-54 TO 10	12375	-54 TO 10	12375

ALTITUDE=4000		ALTITUDE=5000		ALTITUDE=6000		ALTITUDE=7000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO 10	12375	-54 TO 10	12375	-54 TO 10	12375	-54 TO 7	12375
						-10 TO 10	12000

ALTITUDE=8000		ALTITUDE=9000		ALTITUDE=10000		ALTITUDE=11000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO 4	12375	-54 TO -2	12375	-54 TO -8	12375	-54 TO -10	12375
5	12300	0	12110	-5	11930	-5	11510
10	11530	5	11330	0	11160	0	10740
		10	10630	5	10450	5	10070
				10	9830	10	9450

ALTITUDE=12000		ALTITUDE=13000		ALTITUDE=14000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	SETTING DEG. C	MAXIMUM TAKEOFF WEIGHT	FLAP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO -13	12375	-54 TO -15	12375	-54 TO -18	12375
-10	11940	-10	11470	-15	11930
-5	11070	-5	10630	-10	11020
0	10340	0	9930	-5	10220
5	9700	5	9320	0	9560
10	9080	10	8720	5	8940
				10	8390

WHERE CONDITIONS ALLOW FOR 0° OR 15° FLAP SETTING, IT IS DESIRED TO SELECT THE FLAP SETTING WHICH GIVES THE SHORTER TAKEOFF FIELD LENGTH.



Figure 4-15



**MAXIMUM TAKEOFF WEIGHT - POUNDS  
PERMITTED BY CLIMB REQUIREMENTS**

**FLAPS - 15°  
ANTI-ICE - OFF**

ALTITUDE=0		ALTITUDE=1000		ALTITUDE=2000		ALTITUDE=3000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO		-54 TO	
44	12375	41	12375	38	12375	35	12375
45	12320	45	11830	40	12130	40	11640
50	11550	50	11100	45	11360	45	10920
55	10850	52	10710	50	10660	48	10420

ALTITUDE=4000		ALTITUDE=5000		ALTITUDE=6000		ALTITUDE=7000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO		-54 TO	
32	12375	28	12375	24	12375	19	12375
35	11920	30	12180	25	12330	20	12350
40	11160	35	11440	30	11640	25	11770
45	10480	40	10720	35	10950	30	11140
46	10280	44	10140	40	10290	35	10510
				42	10000	40	9860

ALTITUDE=8000		ALTITUDE=9000		ALTITUDE=10000		ALTITUDE=11000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO		-54 TO	
13	12375	7	12375	1	12375	-5	12375
15	12260	10	12170	5	12080	0	12010
20	11840	15	11800	10	11710	5	11630
25	11270	20	11330	15	11340	10	11270
30	10690	25	10810	20	10870	15	10880
35	10080	30	10290	25	10400	20	10450
37	9700	35	9660	30	9870	25	10010
				33	9400	30	9430
						31	9240

ALTITUDE=12000		ALTITUDE=13000		ALTITUDE=14000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	SETTING DEG. C	MAXIMUM TAKEOFF WEIGHT	FLAP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO		-54 TO		-54 TO	
-11	12375	-17	12375	-24	12375
-10	12360	-15	12270	-20	12140
-5	11950	-10	11890	-15	11790
0	11550	-5	11480	-10	11420
5	11190	0	11100	-5	11030
10	10820	5	10750	0	10670
15	10450	10	10400	5	10330
20	10050	15	10050	10	10000
25	9630	20	9690	15	9680
29	9080	25	9200	20	9360
		27	8920	25	8770

WHERE CONDITIONS ALLOW FOR 0° OR 15° FLAP SETTING, IT IS DESIRED TO SELECT THE FLAP SETTING WHICH GIVES THE SHORTER TAKEOFF FIELD LENGTH.

 Figure 4-16

TEMPORARY FAA APPROVED AIRPLANE FLIGHT MANUAL CHANGE

**MAXIMUM TAKEOFF WEIGHT - POUNDS  
PERMITTED BY CLIMB REQUIREMENTS**

**FLAPS - 15°  
ANTI-ICE ON**

ALTITUDE = 0		ALTITUDE = 1000		ALTITUDE = 2000		ALTITUDE = 3000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO 10	12375	-54 TO 10	12375	-54 TO 10	12375	-54 TO 10	12375

ALTITUDE = 4000		ALTITUDE = 5000		ALTITUDE = 6000		ALTITUDE = 7000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO 10	12375 12040	-54 TO 10	12375 11610	-54 TO 10	12375 11970 11200	-54 TO 10	12375 11540 10790

ALTITUDE = 8000		ALTITUDE = 9000		ALTITUDE = 10000		ALTITUDE = 11000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO -3	12375	-54 TO -9	12375	-54 TO -14	12375	-54 TO -17	12375
0	11910	-5	11760	-10	11640	-15	12130
5	11080	0	10920	-5	10760	-10	11220
10	10370	5	10200	0	10050	-5	10390
		10	9560	5	9400	0	9680
				10	8820	5	9060
						10	8480

ALTITUDE = 12000		ALTITUDE = 13000		ALTITUDE = 14000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO -20	12375	-54 TO -24	12375	-54 TO -31	12375
-15	11660	-20	12000	-30	12370
-10	10790	-15	11220	-25	12020
-5	9990	-10	10370	-20	11520
0	9310	-5	9600	-15	10770
5	8720	0	8950	-10	9960
10	8140	5	8370	-5	9230
		10	7800	0	8600
				5	8020
				10	7490

525AFM TC-R06-24-01

Figure 4-17



## TEMPORARY FAA APPROVED AIRPLANE FLIGHT MANUAL CHANGE

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Airplane Serial Numbers Affected: Airplanes 525A-0001 thru -0299.

Description of Change: Section IV, Performance, Takeoff, Maximum Takeoff Weight - Flaps 15° (Anti-Ice ON), replace a chart.

Filing Instructions: Insert this temporary change in the Model 525A (525A-0001 thru -0299) basic FAA Approved Airplane Flight Manual adjacent to page 4-37/4-38.

Removal Instructions: This temporary change must be removed and discarded when Revision 7 has been collated into the basic FAA Approved Airplane Flight Manual.

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Section IV, Performance, Takeoff, Maximum Takeoff Weight - Flaps 15° (Anti-Ice ON), page 4-37/4-38, replace the chart with the chart on the opposite page:

APPROVED BY

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*for*

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Cessna Aircraft Company  
Organization Delegation Authorization ODA-100129-CE  
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**MAXIMUM TAKEOFF WEIGHT - POUNDS  
PERMITTED BY CLIMB REQUIREMENTS**

**FLAPS - 15°  
ANTI-ICE - ON**

ALTITUDE=0		ALTITUDE=1000		ALTITUDE=2000		ALTITUDE=3000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO 10	12375	-54 TO 10	12375	-54 TO 10	12375	-54 TO 10	12375

ALTITUDE=4000		ALTITUDE=5000		ALTITUDE=6000		ALTITUDE=7000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO 8	12375	-54 TO 5	12375	-54 TO 2	12375	-54 TO 0	12375
10	12070	10	11630	5	11990	5	11550
				10	11220	10	10810

ALTITUDE=8000		ALTITUDE=9000		ALTITUDE=10000		ALTITUDE=11000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO -3	12375	-54 TO -9	12375	-54 TO -14	12375	-54 TO -17	12375
0	11920	-5	11770	-10	11660	-15	12130
5	11090	0	10940	-5	10780	-10	11230
10	10390	5	10220	0	10070	-5	10410
		10	9580	5	9420	0	9700
				10	8850	5	9080
						10	8510

ALTITUDE=12000		ALTITUDE=13000		ALTITUDE=14000	
TEMP DEG. C	MAXIMUM TAKEOFF WEIGHT	SETTING DEG. C	MAXIMUM TAKEOFF WEIGHT	FLAP DEG. C	MAXIMUM TAKEOFF WEIGHT
-54 TO -20	12375	-54 TO -24	12375	-54 TO -31	12375
-15	11660	-20	12000	-30	12370
-10	10800	-15	11220	-25	12020
-5	10010	-10	10380	-20	11520
0	9330	-5	9610	-15	10780
5	8740	0	8970	-10	9970
10	8160	5	8400	-5	9250
		10	7830	0	8620
				5	8040
				10	7520

 Figure 4-17





**TAKEOFF FIELD LENGTH - FEET, FLAPS UP  
(DRY RUNWAY OVER A 35 FOOT SCREEN HEIGHT)  
(ANTI-ICE OFF)**


Determine takeoff field length,  $V_1$ ,  $V_R$ ,  $V_2$  and  $V_{ENR}$  from Figure 4-19. If the runway has a gradient, adjust  $V_1$  and takeoff field length using figure 4-18.

If the required distance is greater than the available distance, the airplane weight must be reduced until distance required is less than or equal to distance available.

**TAKEOFF FIELD LENGTH WITH RUNWAY GRADIENT  
FLAPS UP, ANTI-ICE OFF**

ZERO RUNWAY GRADIENT	UPHILL GRADIENT				DOWNHILL GRADIENT			
	SHADED AND NON-SHADED				SHADED		NON-SHADED	
	2%	1.5%	1%	0.5%	-1%	-2%	-1%	-2%
	$V_1 + 4^*$ Knot	$V_1 + 3^*$ Knot	$V_1 + 3^*$ Knot	$V_1 + 2^*$ Knot	$V_1 - 3$ Knots	$V_1 - 5$ Knots	$V_1 + 1^*$ Knot	$V_1 + 1^*$ Knot
1800	2000	1950	1950	1950	1800	1800	1900	1950
2000	2200	2200	2200	2150	2000	2000	2100	2150
2200	2450	2400	2400	2350	2250	2200	2350	2350
2400	2700	2650	2650	2550	2450	2400	2550	2550
2600	2950	2850	2850	2800	2600	2600	2750	2750
2800	3150	3050	3050	3000	2800	2800	2950	2950
3000	3350	3300	3300	3200	3000	3000	3150	3150
3200	3600	3500	3500	3400	3200	3150	3350	3350
3400	3850	3700	3700	3600	3400	3400	3550	3600
3600	4050	3950	3900	3850	3600	3550	3750	3750
3800	4350	4150	4150	4050	3800	3750	3950	4000
4000	4650	4400	4350	4250	4000	3950	4150	4200
4200	4950	4700	4550	4450	4200	4150	4350	4400
4400	5250	4950	4750	4650	4400	4300	4550	4600
4600	5550	5150	4950	4850	4600	4450	4750	4800
4800	5850	5450	5150	5050	4800	4650	4950	4950
5000	6200	5700	5400	5250	5000	4800	5150	5150
5200	6650	6050	5600	5450	5200	4950	5350	5400
5400	7150	6350	5800	5650	5400	5150	5550	5550
5600	7700	6700	6050	5900	5600	5300	5700	5750
5800	8100	7000	6300	6100	5750	5500	5950	5950
6000	8450	7250	6600	6300	5950	5700	6100	6100
6200	8750	7500	6900	6500	6100	5900	6300	6300
6400	9150	7800	7150	6700	6300	6050	6450	6500
6600	9500	8200	7450	6950	6500	6250	6600	6650
6800	9900	8600	7800	7200	6650	6400	6800	6800
7000	10250	8950	8100	7450	6850	6600	6950	7000
7200	10600	9250	8350	7650	7050	6750	7150	7150
7400	10950	9550	8550	7850	7250	6900	7250	7250
7600	11400	9850	8800	8050	7450	7100	7450	7400
7800	11750	10100	9050	8250	7600	7300	7600	7600
8000	11950	10350	9250	8500	7750	7450	7800	7700
8200	12200	10650	9500	8700	7950	7650	7950	7850
8400	12500	10900	9700	8900	8100	7800	8150	8050
8600	12800	11150	9950	9100	8300	7950	8300	8150
8800	13100	11400	10150	9350	8500	8150	8500	8300
9000	13450	11700	10450	9550	8650	8300	8650	8450
9500	14800	12600	11050	10100	9100	8700	9100	8850
10000	15700	13550	11750	10650	9550	9050	9550	9250
10500		14800	12600	11250	9950	9400	9900	9600
11000		16000	13250	11950	10350	9750	10200	9950
12000			14500	13000	11200	10350	10850	10600

\*If the adjusted  $V_1$  is greater than  $V_R$ , the value of  $V_R$  must be used for  $V_1$ .

 Figure 4-18



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
SEA LEVEL

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	
-25	115 4400	112 3470	112 3260	113 3050	113 2850	118 125	-25	114 4300	111 3380	111 3170	112 2970	112 2780	117 124						
-20	115 4470	112 3530	112 3320	113 3110	113 2910	118 125	-20	114 4360	111 3440	111 3230	111 3030	112 2830	117 124						
-15	115 4540	112 3590	112 3370	113 3160	113 2960	118 125	-15	114 4430	111 3500	111 3290	111 3080	112 2880	117 124						
-10	115 4600	112 3650	112 3430	113 3220	113 3020	118 125	-10	114 4490	111 3550	111 3340	111 3130	112 2930	117 124						
-5	115 4670	112 3700	112 3490	112 3270	113 3070	118 125	-5	114 4550	111 3610	111 3400	111 3190	112 2990	117 124						
0	115 4730	112 3760	112 3540	112 3330	113 3120	118 125	0	113 4610	111 3670	111 3450	111 3240	112 3040	117 124						
5	115 4790	112 3820	112 3600	112 3380	113 3170	118 125	5	113 4680	111 3720	111 3500	111 3290	111 3090	117 124						
10	115 4850	112 3870	112 3650	112 3440	113 3230	118 125	10	113 4740	111 3780	111 3560	111 3350	111 3140	117 124						
15	114 4920	112 3930	112 3710	112 3490	112 3280	118 125	15	113 4800	110 3840	111 3620	111 3400	111 3190	117 124						
20	114 4980	112 3990	112 3760	112 3540	112 3330	117 125	20	113 4860	110 3890	111 3670	111 3450	111 3240	117 124						
25	115 5140	112 4120	112 3890	113 3670	113 3450	118 125	25	114 5020	111 4020	111 3790	111 3570	112 3360	117 124						
30	115 5650	114 4410	114 4160	114 3920	114 3690	119 125	30	115 5350	112 4290	113 4050	113 3820	113 3590	118 124						
35	114 6320	115 4770	115 4510	116 4260	116 4010	119 125	35	115 5950	114 4640	114 4380	114 4130	115 3890	118 124						
40	114 7170	117 5230	117 4950	117 4670	117 4410	120 125	40	114 6730	116 5080	116 4800	116 4530	116 4270	119 124						
45	113 8250	118 5770	119 5460	119 5160	119 4870	121 125	45	114 7730	117 5600	117 5300	116 5000	118 4720	120 124						
50	112 9630	120 6390	120 6050	120 5720	121 5400	122 125	50	113 9000	119 6200	119 5870	119 5540	119 5230	121 124						
53	112 10620	121 6790	121 6440	121 6090	121 5750	122 125	54	113 10250	120 6720	120 6370	120 6020	121 5680	121 124						
54	112 11000	121 6940	121 6570	122 6220	122 5870	122 125	55	113 10590	120 6860	121 6500	121 6140	121 5800	121 124						

WEIGHT = 12000 LBS										WEIGHT = 11800 LBS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	
-25	113 4190	110 3300	110 3090	110 2900	111 2710	116 123	-25	112 4090	109 3210	109 3010	109 2820	110 2630	115 122						
-20	113 4250	110 3350	110 3150	110 2950	111 2760	116 123	-20	111 4150	109 3260	109 3060	109 2870	110 2680	115 122						
-15	113 4320	110 3410	110 3200	110 3000	111 2810	116 123	-15	111 4210	109 3320	109 3120	109 2920	109 2730	115 122						
-10	113 4380	110 3460	110 3260	110 3050	111 2860	116 123	-10	111 4270	108 3370	109 3170	109 2970	109 2780	115 122						
-5	112 4440	110 3520	110 3310	110 3110	111 2910	116 123	-5	111 4330	108 3430	109 3220	109 3020	109 2830	115 122						
0	112 4500	109 3570	110 3360	110 3160	110 2960	116 123	0	111 4390	108 3480	109 3270	109 3070	109 2880	115 122						
5	112 4560	109 3630	110 3410	110 3210	110 3010	116 123	5	111 4450	108 3530	109 3330	109 3120	109 2930	115 122						
10	112 4620	109 3680	110 3470	110 3260	110 3060	116 123	10	111 4500	108 3590	109 3380	109 3170	109 2980	115 122						
15	112 4680	109 3740	110 3520	110 3310	110 3110	116 123	15	111 4560	108 3640	109 3430	109 3230	109 3030	115 122						
20	112 4740	109 3790	110 3570	110 3360	110 3160	116 123	20	111 4620	108 3690	108 3480	109 3280	109 3070	115 122						
25	112 4800	110 3900	110 3680	110 3460	110 3250	116 123	25	111 4750	108 3800	109 3580	109 3370	109 3160	115 122						
30	114 5200	111 4160	111 3930	112 3700	112 3480	116 123	30	113 5080	110 4040	110 3810	110 3580	111 3370	115 122						
35	115 5570	113 4480	113 4230	113 3990	113 3760	117 123	35	114 5400	111 4330	112 4090	112 3850	112 3630	116 122						
40	115 6240	114 4910	114 4640	115 4380	115 4120	118 123	40	116 5880	113 4740	113 4480	113 4220	114 3970	117 122						
45	115 7170	116 5410	116 5110	116 4830	116 4550	119 123	45	116 6590	115 5220	115 4930	115 4650	115 4380	118 122						
50	114 8310	118 5980	118 5660	118 5350	118 5040	120 123	50	115 7650	116 5770	116 5460	117 5150	117 4860	118 122						
55	114 9740	119 6620	119 6260	119 5920	120 5590	120 123	55	115 8940	118 6380	118 6040	118 5700	118 5380	119 122						

WEIGHT = 11600 LBS										WEIGHT = 11400 LBS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	
-25	110 3980	107 3120	108 2930	108 2740	108 2560	114 121	-25	109 3890	106 3050	107 2860	107 2670	107 2490	113 121						
-20	110 4040	107 3180	108 2980	108 2790	108 2610	114 121	-20	109 3950	106 3100	107 2910	107 2720	107 2540	113 121						
-15	110 4100	107 3230	108 3030	108 2840	108 2650	114 121	-15	109 4010	106 3150	107 2960	107 2770	107 2590	113 121						
-10	110 4160	107 3280	108 3080	108 2890	108 2700	114 121	-10	109 4070	106 3210	107 3010	107 2820	107 2640	113 121						
-5	110 4220	107 3340	108 3140	108 2940	108 2750	114 121	-5	109 4130	106 3260	107 3060	107 2870	107 2680	113 121						
0	110 4280	107 3390	107 3190	108 2990	108 2800	114 121	0	109 4180	106 3310	107 3110	107 2920	107 2730	113 121						
5	110 4340	107 3440	107 3240	108 3040	108 2850	114 122	5	109 4240	106 3360	106 3160	107 2970	107 2780	113 121						
10	110 4390	107 3490	107 3290	108 3090	108 2890	114 122	10	109 4300	106 3420	106 3210	107 3020	107 2830	113 121						
15	110 4450	107 3540	107 3340	108 3140	108 2940	114 122	15	109 4360	106 3470	106 3270	107 3070	107 2880	113 121						
20	110 4510	107 3600	107 3390	108 3190	108 2990	114 122	20	109 4420	106 3520	106 3320	107 3120	107 2920	113 121						
25	110 4630	107 3700	108 3490	108 3280	108 3080	114 121	25	109 4520	106 3600	106 3390	107 3190	107 2990	113 121						
30	111 4900	108 3910	109 3690	109 3470	109 3260	114 121	30	110 4760	107 3790	107 3570	108 3360	108 3150	113 120						
35	113 5240	110 4190	110 3950	110 3720	111 3500	115 121	35	111 5080	109 4060	109 3830	109 3600	109 3380	114 120						
40	115 5680	112 4570	112 4320	112 4070	112 3830	116 121	40	113 5490	110 4410	110 4170	111 3920	111 3690	114 120						
45	116 6250	113 5040	113 4760	114 4490	114 4220	116 121	45	115 6030	112 4860	112 4590	112 4320	112 4070	115 120						
50	116 6970	115 5570	115 5260	115 4970	115 4680	117 121	50	116 6660	114 5360	114 5070	114 4780	114 4500	116 120						
55	116 8160	117 6150	117 5820	117 5490	117 5180	118 121	55	117 7350	115 5920	115 5600	115 5290	116 4980	117 120						

Figure 4-19 (Sheet 1 of 30)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
SEA LEVEL

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS											
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS
				V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-25	107 3730	104 2920	105 2730	105 2560	106 2380	112 120	-25	105 3530	102 2760	102 2590	103 2420	103 2250	110 119								
-20	107 3790	104 2970	105 2780	105 2600	106 2430	112 120	-20	105 3590	102 2810	102 2630	103 2460	103 2290	110 119								
-15	107 3840	104 3020	105 2830	105 2650	105 2480	112 120	-15	105 3640	102 2860	102 2680	103 2510	103 2340	110 119								
-10	107 3900	104 3070	105 2880	105 2700	105 2520	112 120	-10	105 3690	102 2900	102 2720	103 2550	103 2380	110 119								
-5	107 3950	104 3120	105 2930	105 2750	105 2570	112 120	-5	105 3750	102 2950	102 2770	103 2590	103 2420	110 119								
0	107 4010	104 3170	105 2980	105 2790	105 2610	112 120	0	104 3800	102 3000	102 2820	103 2640	103 2470	110 119								
5	107 4070	104 3220	105 3030	105 2840	105 2660	112 120	5	104 3850	102 3050	102 2860	103 2680	103 2510	110 119								
10	107 4120	104 3270	105 3080	105 2890	105 2700	112 120	10	104 3900	102 3090	102 2910	103 2730	103 2550	110 119								
15	107 4180	104 3320	105 3120	105 2930	105 2750	112 120	15	104 3960	102 3140	102 2950	103 2770	103 2600	110 119								
20	107 4230	104 3370	105 3170	105 2980	105 2800	112 120	20	104 4010	102 3190	102 3000	103 2820	103 2640	110 119								
25	107 4320	104 3440	105 3240	105 3050	105 2860	111 120	25	104 4090	102 3260	102 3070	103 2880	103 2700	110 119								
30	107 4500	105 3590	105 3380	105 3170	105 2980	111 118	30	104 4240	102 3370	102 3170	103 2970	103 2790	109 117								
35	108 4770	106 3800	106 3580	106 3360	106 3160	111 118	35	105 4430	102 3520	103 3310	103 3110	103 2910	108 116								
40	110 5130	107 4100	108 3870	108 3640	108 3420	112 118	40	106 4730	104 3750	104 3530	104 3320	105 3110	109 115								
45	112 5620	109 4510	109 4250	110 4010	110 3760	113 118	45	108 5120	105 4100	106 3860	106 3630	106 3410	110 115								
50	114 6200	111 4980	111 4700	111 4430	111 4160	114 118	50	110 5640	107 4520	107 4260	108 4010	108 3760	111 115								
55	114 6830	112 5490	113 5180	113 4890	113 4600	114 118	55	111 6210	109 4970	109 4690	109 4420	109 4150	111 115								

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS											
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS
				V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-25	102 3340	100 2610	100 2440	100 2280	101 2120	108 118	-25	99 3160	97 2460	97 2300	98 2150	98 2000	106 117								
-20	102 3390	100 2650	100 2490	100 2320	101 2160	108 118	-20	99 3210	97 2510	97 2340	98 2190	98 2040	107 117								
-15	102 3440	100 2700	100 2530	100 2360	101 2200	108 118	-15	99 3250	97 2550	97 2390	98 2230	98 2080	107 117								
-10	102 3490	100 2740	100 2570	100 2410	101 2250	108 118	-10	99 3300	97 2590	97 2430	98 2270	98 2110	107 117								
-5	102 3540	100 2790	100 2620	100 2450	101 2290	108 118	-5	99 3350	97 2630	97 2470	98 2310	98 2150	107 117								
0	102 3590	100 2830	100 2660	100 2490	101 2330	108 118	0	99 3400	97 2670	97 2510	98 2350	98 2190	107 117								
5	102 3640	100 2880	100 2700	100 2530	101 2370	108 118	5	99 3440	97 2720	97 2550	98 2390	98 2230	107 117								
10	102 3690	100 2920	100 2750	100 2580	101 2410	108 118	10	99 3490	97 2760	97 2590	98 2430	98 2270	107 117								
15	102 3740	100 2970	100 2790	100 2620	101 2450	108 118	15	99 3540	97 2800	97 2630	98 2470	98 2310	107 117								
20	102 3790	99 3010	100 2830	100 2660	101 2490	108 118	20	99 3580	97 2840	97 2670	98 2510	98 2350	107 117								
25	102 3870	100 3080	100 2890	100 2720	101 2540	108 118	25	99 3650	97 2900	97 2730	98 2560	98 2390	106 117								
30	102 4000	100 3170	100 2980	100 2800	101 2620	107 116	30	99 3770	97 2990	97 2810	98 2630	98 2460	105 115								
35	102 4150	100 3280	100 3080	100 2890	100 2710	106 114	35	99 3900	97 3080	97 2900	98 2720	98 2540	104 113								
40	103 4360	100 3440	101 3240	101 3040	101 2850	106 113	40	100 4050	97 3190	97 3000	98 2810	98 2630	103 111								
45	105 4680	102 3710	102 3490	102 3280	103 3070	106 113	45	101 4280	98 3370	98 3170	98 2970	99 2770	103 110								
50	106 5120	104 4080	104 3840	104 3610	104 3390	107 113	50	102 4630	100 3680	100 3460	100 3240	100 3040	104 110								
55	108 5630	105 4490	105 4230	106 3980	106 3730	108 113	55	104 5090	101 4040	102 3800	102 3570	102 3340	105 110								

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS											
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS
				V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-25	96 2980	94 2320	95 2170	95 2020	96 1880	105 116	-25	94 2850	94 2310	94 2140	94 1980	94 1820	103 115								
-20	96 3020	94 2360	95 2210	95 2060	96 1920	105 116	-20	94 2900	94 2350	94 2180	94 2020	94 1860	103 115								
-15	96 3070	94 2400	95 2250	95 2100	96 1950	105 116	-15	94 2940	94 2390	94 2220	94 2050	94 1890	103 115								
-10	96 3110	94 2440	95 2280	95 2140	96 1990	105 116	-10	94 2980	94 2430	94 2250	94 2090	94 1930	103 115								
-5	96 3160	94 2480	95 2320	95 2170	96 2030	105 116	-5	94 3020	94 2470	94 2290	94 2120	94 1960	103 115								
0	96 3200	94 2520	95 2360	95 2210	96 2060	105 116	0	94 3070	94 2500	94 2330	94 2160	94 2000	103 115								
5	96 3250	94 2560	95 2400	95 2250	96 2100	105 116	5	94 3110	94 2540	94 2370	94 2200	94 2030	103 115								
10	96 3290	94 2600	95 2440	95 2280	96 2130	105 116	10	94 3150	94 2580	94 2400	94 2230	94 2070	103 115								
15	96 3330	94 2640	95 2480	95 2320	96 2170	105 116	15	94 3200	94 2620	94 2440	94 2270	94 2100	103 115								
20	96 3380	94 2680	95 2520	95 2360	96 2210	105 116	20	94 3240	94 2660	94 2480	94 2310	94 2140	103 115								
25	96 3440	94 2730	95 2570	95 2400	96 2250	105 116	25	93 3240	93 2660	93 2480	93 2300	93 2130	103 115								
30	96 3550	94 2810	95 2630	95 2470	96 2310	103 114	30	93 3330	91 2630	92 2470	92 2310	93 2160	102 113								
35	97 3660	94 2890	95 2710	95 2540	96 2380	102 112	35	94 3430	92 2700	92 2530	92 2370	93 2220	100 111								
40	97 3800	95 2990	95 2800	95 2630	96 2450	101 110	40	94 3550	92 2790	92 2610	92 2450	93 2280	99 108								
45	97 3950	95 3100	95 2910	95 2720	96 2540	100 108	45	94 3680	92 2890	92 2700	92 2530	93 2360	98 106								
50	98 4190	96 3290	96 3090	96 2890	96 2700	100 107	50	94 3840	92 3000	92 2810	93 2630	93 2450	97 104								
55	100 4570	97 3610	98 3390	98 3180	98 2970	101 107	55	96 4080	93 3210	93 3010	94 2810	94 2630	98 104								

Figure 4-19 (Sheet 2)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
1000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE HEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR KIAS	V2 KIAS						
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS				20 KTS	30 KTS													
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS				FT	KIAS	FT	KIAS	FT	KIAS	FT			KIAS	FT				
-25	115	4560	112	3610	113	3390	113	3180	113	2980	118	125	-25	114	4450	111	3520	111	3300	112	3100	112	2900	117	124
-20	115	4630	112	3670	113	3450	113	3240	113	3040	118	125	-20	114	4520	111	3580	111	3360	112	3160	112	2950	117	124
-15	115	4700	112	3730	112	3510	113	3300	113	3090	118	125	-15	114	4590	111	3640	111	3420	112	3210	112	3010	117	124
-10	115	4770	112	3790	112	3570	113	3360	113	3150	118	125	-10	114	4650	111	3690	111	3480	111	3270	112	3060	117	124
-5	115	4840	112	3850	112	3630	113	3410	113	3200	118	125	-5	114	4720	111	3750	111	3530	111	3320	112	3120	117	124
0	115	4900	112	3910	112	3690	113	3470	113	3260	118	125	0	114	4780	111	3810	111	3590	111	3380	112	3170	117	124
5	115	4970	112	3970	112	3740	112	3520	113	3310	118	125	5	114	4840	111	3870	111	3650	111	3430	112	3220	117	124
10	115	5040	112	4030	112	3810	112	3580	113	3370	118	125	10	113	4910	111	3930	111	3710	111	3490	112	3280	117	124
15	115	5150	112	4130	112	3890	113	3670	113	3450	118	125	15	114	5020	111	4020	111	3790	111	3570	112	3360	117	124
20	115	5370	112	4260	113	4020	113	3790	113	3560	118	125	20	114	5170	111	4150	112	3910	112	3690	112	3470	117	124
25	114	5770	113	4450	114	4200	114	3960	114	3730	118	125	25	115	5430	112	4330	112	4090	113	3860	113	3630	117	124
30	113	6380	115	4770	115	4510	115	4260	115	4020	119	125	30	114	6010	114	4630	114	4380	114	4140	114	3900	118	124
35	112	7140	116	5180	116	4910	117	4630	117	4370	120	125	35	113	6720	115	5030	115	4760	115	4500	116	4240	119	124
40	112	8150	118	5700	118	5390	118	5100	118	4810	121	125	40	113	7660	117	5530	117	5230	117	4950	117	4670	120	124
45	111	9470	119	6310	120	5970	120	5650	120	5340	121	125	45	112	8870	118	6120	118	5790	119	5480	119	5170	120	124
50	110	11150	121	6990	121	6630	121	6270	121	5930	122	125	50	111	10410	120	6780	120	6420	120	6080	120	5740	121	124
51	110	11540	121	7140	121	6770	122	6410	122	6050	122	125	51	111	10780	120	6920	120	6560	120	6210	121	5860	121	124
													52	111	11160	120	7070	121	6700	121	6340	121	5990	121	124

WEIGHT = 12000 LBS								WEIGHT = 11800 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR KIAS	V2 KIAS						
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS				20 KTS	30 KTS													
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS				FT	KIAS	FT	KIAS	FT	KIAS	FT			KIAS	FT				
-25	113	4330	110	3420	110	3210	110	3010	111	2810	116	123	-25	112	4230	109	3330	109	3130	109	2930	110	2740	115	122
-20	113	4400	110	3480	110	3270	110	3070	111	2870	116	123	-20	111	4290	109	3390	109	3180	109	2990	110	2790	115	122
-15	113	4460	110	3530	110	3320	110	3120	111	2920	116	123	-15	111	4360	109	3450	109	3240	109	3040	110	2840	115	122
-10	112	4530	110	3590	110	3380	110	3170	111	2970	116	123	-10	111	4420	109	3500	109	3290	109	3090	109	2900	115	122
-5	112	4590	110	3650	110	3440	110	3230	110	3030	116	123	-5	111	4480	109	3560	109	3350	109	3140	109	2950	115	122
0	112	4660	110	3710	110	3490	110	3280	110	3080	116	123	0	111	4540	108	3610	109	3400	109	3200	109	3000	115	122
5	112	4720	109	3760	110	3550	110	3330	110	3130	116	123	5	111	4600	108	3670	109	3460	109	3250	109	3050	115	122
10	112	4790	109	3820	110	3600	110	3390	110	3190	116	123	10	111	4670	108	3730	109	3510	109	3300	109	3100	115	122
15	112	4880	110	3910	110	3680	110	3470	110	3260	116	123	15	111	4760	108	3800	109	3580	109	3370	109	3170	115	122
20	113	5020	110	4020	110	3800	110	3570	111	3360	116	123	20	111	4880	109	3910	109	3680	109	3470	110	3260	115	122
25	114	5240	111	4200	111	3970	111	3740	112	3520	116	123	25	112	5090	109	4070	110	3840	110	3620	110	3400	115	122
30	115	5590	112	4480	112	4230	113	3990	113	3760	117	123	30	114	5400	111	4330	111	4090	111	3860	112	3630	116	122
35	114	6260	114	4860	114	4600	114	4340	114	4090	118	123	35	115	5810	112	4700	112	4440	113	4190	113	3950	117	122
40	113	7120	115	5340	115	5050	116	4770	116	4500	118	123	40	115	6530	114	5160	114	4880	114	4600	114	4340	117	122
45	113	8220	117	5910	117	5590	117	5280	117	4980	119	123	45	114	7600	116	5700	116	5390	116	5090	116	4800	118	122
50	112	9620	119	6540	119	6190	119	5860	119	5530	120	123	50	113	8840	117	6310	117	5970	117	5640	118	5330	119	122
52	112	10290	119	6820	119	6460	119	6110	120	5770	120	123	52	113	9440	118	6580	118	6230	118	5890	118	5560	119	122

WEIGHT = 11600 LBS								WEIGHT = 11400 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR KIAS	V2 KIAS						
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS				20 KTS	30 KTS													
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS				FT	KIAS	FT	KIAS	FT	KIAS	FT			KIAS	FT				
-25	110	4120	107	3240	108	3040	108	2850	108	2660	114	121	-25	109	4010	106	3160	107	2960	107	2770	107	2590	113	121
-20	110	4180	107	3300	108	3100	108	2900	108	2710	114	121	-20	109	4080	106	3210	107	3010	107	2820	107	2640	113	121
-15	110	4240	107	3350	108	3150	108	2950	108	2760	114	121	-15	109	4140	106	3270	107	3070	107	2880	107	2690	113	121
-10	110	4310	107	3410	108	3200	108	3010	108	2810	114	121	-10	109	4200	106	3320	107	3120	107	2930	107	2740	113	121
-5	110	4370	107	3460	108	3260	108	3060	108	2860	114	121	-5	109	4260	106	3370	106	3170	107	2980	107	2790	113	121
0	110	4430	107	3520	108	3310	108	3110	108	2910	114	121	0	109	4320	106	3430	106	3230	107	3030	107	2840	113	121
5	110	4490	107	3570	108	3360	108	3160	108	2960	114	121	5	109	4380	106	3480	106	3280	107	3080	107	2890	113	121
10	110	4550	107	3630	107	3420	108	3210	108	3020	114	121	10	109	4440	106	3540	106	3330	107	3130	107	2940	113	121
15	110	4630	107	3710	108	3490	108	3290	108	3080	114	121	15	109	4520	106	3600	106	3400	107	3190	107	3000	113	121
20	110	4760	107	3800	108	3580	108	3370	108	3170	114	121	20	109	4630	106	3700	107	3490	107	3280	107	3080	113	120
25	111	4940	108	3950	108	3720	109	3510	109	3290	114	121	25	109	4800	107	3830	107	3620	107	3400	108	3200	113	120
30	112	5240	109	4200	110	3960	110	3730	110	3510	115	121	30	111	5090	108	4070	108	3840	109	3610	109	3390	113	120
35	114	5620	111																						



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
1000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS								WEIGHT = 10500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS						
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS									
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT									
-25	107	3850	104	3020	105	2830	105	2650	111	120	-25	105	3640	102	2860	102	2680	103	2500	103	2340	110	119
-20	107	3910	104	3070	105	2880	105	2700	111	120	-20	105	3700	102	2910	102	2730	103	2550	103	2380	110	119
-15	107	3960	104	3130	105	2940	105	2750	111	120	-15	105	3750	102	2960	102	2770	103	2600	103	2430	110	119
-10	107	4020	104	3180	105	2990	105	2800	111	120	-10	104	3810	102	3010	102	2820	103	2640	103	2470	110	119
-5	107	4080	104	3230	105	3040	105	2850	111	120	-5	104	3870	102	3060	102	2870	103	2690	103	2520	110	119
0	107	4140	104	3280	105	3090	105	2900	111	120	0	104	3920	102	3100	102	2920	103	2740	103	2560	110	119
5	107	4200	104	3330	105	3140	105	2950	111	120	5	104	3970	102	3150	102	2970	103	2780	103	2610	110	119
10	107	4260	104	3390	105	3190	105	3000	111	120	10	104	4030	102	3200	102	3010	103	2830	103	2650	110	119
15	107	4330	104	3450	105	3250	105	3050	111	120	15	104	4100	102	3260	102	3070	103	2880	103	2700	110	119
20	107	4420	104	3520	105	3320	105	3120	111	119	20	104	4180	102	3330	102	3140	103	2950	103	2760	109	118
25	107	4540	104	3630	105	3420	105	3210	111	118	25	104	4290	102	3420	102	3220	103	3020	103	2830	109	117
30	108	4780	105	3810	105	3590	106	3380	111	118	30	105	4450	102	3540	102	3330	103	3130	103	2940	108	116
35	109	5100	107	4070	107	3840	107	3610	112	118	35	106	4700	103	3740	103	3520	104	3310	104	3100	108	115
40	111	5540	108	4460	109	4210	109	3970	112	118	40	108	5060	105	4050	105	3820	105	3600	105	3380	109	115
45	113	6110	110	4920	110	4640	110	4380	111	118	45	109	5570	107	4460	107	4210	107	3960	107	3730	110	115
50	114	6740	112	5430	112	5130	112	4840	112	118	50	111	6130	108	4920	108	4650	109	4380	109	4110	111	115
52	114	7020	112	5660	113	5350	113	5040	113	118	52	111	6380	109	5120	109	4840	109	4560	109	4290	111	115

WEIGHT = 10000 LBS								WEIGHT = 9500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS											
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT											
-25	102	3450	100	2700	100	2530	100	2360	101	2200	108	118	-25	99	3260	97	2550	97	2380	98	2230	98	2070	106	117
-20	102	3500	100	2750	100	2570	100	2410	101	2250	108	118	-20	99	3310	97	2590	97	2430	98	2270	98	2110	106	117
-15	102	3550	100	2790	100	2620	100	2450	101	2290	108	118	-15	99	3350	97	2640	97	2470	98	2310	98	2150	106	117
-10	102	3600	100	2840	100	2660	100	2490	101	2330	108	118	-10	99	3400	97	2680	97	2510	98	2350	98	2190	106	117
-5	102	3660	100	2890	100	2710	100	2540	101	2370	108	118	-5	99	3450	97	2720	97	2550	98	2390	98	2230	106	117
0	102	3710	100	2930	100	2750	100	2580	101	2410	108	118	0	99	3500	97	2770	97	2600	98	2430	98	2270	106	117
5	102	3760	100	2980	100	2800	100	2630	101	2460	108	118	5	99	3550	97	2810	97	2640	98	2470	98	2310	106	117
10	102	3810	99	3030	100	2850	100	2670	101	2500	108	118	10	99	3600	97	2850	97	2680	98	2520	98	2350	106	117
15	102	3880	99	3080	100	2900	100	2720	101	2550	108	118	15	99	3650	97	2900	97	2730	98	2560	98	2400	106	117
20	102	3950	100	3140	100	2960	100	2780	101	2600	108	117	20	99	3730	97	2960	97	2790	98	2610	98	2450	106	116
25	102	4050	100	3220	100	3030	100	2850	101	2670	107	116	25	99	3820	97	3030	97	2850	98	2680	98	2510	105	115
30	102	4180	100	3320	100	3130	100	2930	100	2750	106	114	30	99	3940	97	3120	97	2940	98	2750	98	2580	105	113
35	102	4360	100	3460	100	3250	100	3050	101	2860	106	113	35	100	4080	97	3230	97	3030	98	2840	98	2660	104	112
40	104	4640	101	3680	101	3460	102	3250	102	3050	106	113	40	100	4280	98	3380	98	3180	98	2980	98	2790	103	110
45	106	5060	103	4040	103	3800	103	3580	103	3360	107	113	45	102	4580	99	3640	99	3420	99	3210	100	3010	104	110
50	107	5560	104	4450	105	4190	105	3940	105	3700	108	113	50	103	5030	101	4000	101	3770	101	3540	101	3310	104	110
52	108	5790	105	4630	105	4360	106	4100	106	3850	108	113	52	104	5230	101	4160	102	3920	102	3680	102	3450	105	110

WEIGHT = 9000 LBS								WEIGHT = 8500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS											
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT											
-25	96	3070	94	2400	95	2240	95	2100	95	1950	105	116	-25	94	2910	94	2360	94	2190	94	2030	94	1870	103	115
-20	96	3120	94	2440	95	2290	95	2130	95	1990	105	116	-20	94	2960	94	2400	94	2230	94	2060	94	1900	103	115
-15	96	3160	94	2480	95	2330	95	2170	95	2030	105	116	-15	94	3000	94	2440	94	2270	94	2100	94	1940	103	115
-10	96	3210	94	2520	95	2370	95	2210	95	2060	105	116	-10	94	3040	94	2480	94	2310	94	2140	94	1970	103	115
-5	96	3250	94	2560	95	2410	95	2250	95	2100	105	116	-5	94	3090	94	2520	94	2350	94	2180	94	2010	103	115
0	96	3300	94	2610	95	2450	95	2290	95	2140	105	116	0	94	3130	94	2560	94	2380	94	2210	94	2050	103	115
5	96	3350	94	2650	95	2490	95	2330	95	2180	105	116	5	94	3180	94	2600	94	2420	94	2250	94	2080	103	115
10	96	3390	94	2690	95	2530	95	2370	95	2210	105	116	10	94	3220	94	2640	94	2460	94	2290	94	2120	103	115
15	96	3450	94	2740	95	2570	95	2410	95	2250	105	116	15	93	3240	93	2660	93	2480	93	2310	93	2140	103	115
20	96	3510	94	2790	95	2620	95	2460	95	2300	104	115	20	93	3300	92	2670	92	2490	92	2310	93	2150	102	114
25	96	3590	94	2850	95	2680	95	2510	95	2350	104	114	25	93	3370	91	2670	92	2510	92	2350	93	2200	102	113
30	97	3700	94	2930	95	2750	95	2580	95	2410	103	112	30	94	3470	92	2740	92	2570	92	2410	93	2250	101	111
35	97	3820	94	3020	95	2840	95	2660	95	2490	102	110	35	94	3580	92	2820	92	2650	92	2480	93	2320	100	109
40	97	3970	95	3130	95	2940	95	2750	95	2570	101	108	40	94	3710	92	2910	92	2730	92	2560	93	2390	99	107
45	98	4180	95	3290	95	3090	95	2900	96	2710	100	107	45	94	3860	92	3020	92	2840	92	2650	93	2480	98	105
50	99	4520	97	3580	97	3360	97	3150	97	2950	101	107	50	95	4070	93	319								



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
2000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		
			10 KTS	20 KTS	30 KTS					10 KTS	20 KTS	30 KTS			
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-25	115 4720	112 3740	113 3520	113 3310	113 3100	118 125	-25	114 4600	111 3650	111 3430	112 3220	112 3020	117 124		
-20	115 4790	112 3810	113 3590	113 3370	113 3160	118 125	-20	114 4670	111 3710	111 3490	112 3280	112 3070	117 124		
-15	115 4860	112 3870	112 3650	113 3430	113 3220	118 125	-15	114 4740	111 3770	111 3550	112 3340	112 3130	117 124		
-10	115 4930	112 3930	112 3710	113 3490	113 3270	118 125	-10	114 4810	111 3830	111 3610	112 3400	112 3190	117 124		
-5	115 5000	112 4000	112 3770	113 3550	113 3330	118 125	-5	114 4880	111 3890	111 3670	111 3450	112 3240	117 124		
0	115 5070	112 4060	112 3830	113 3600	113 3390	118 125	0	114 4940	111 3950	111 3730	111 3510	112 3300	117 124		
5	115 5130	112 4120	112 3890	112 3660	113 3440	118 125	5	114 5010	111 4010	111 3790	111 3570	112 3350	117 124		
10	114 5230	112 4180	112 3950	112 3720	113 3500	118 125	10	113 5080	111 4070	111 3840	111 3620	112 3410	117 124		
15	113 5550	112 4330	113 4090	113 3860	113 3630	118 125	15	114 5200	111 4220	112 3990	112 3760	112 3540	117 124		
20	113 5960	113 4530	114 4280	114 4040	114 3810	118 125	20	113 5630	112 4410	112 4170	113 3930	113 3700	117 124		
25	112 6500	114 4820	115 4560	115 4300	115 4060	119 125	25	113 6140	113 4680	113 4420	114 4180	114 3940	118 124		
30	111 7160	116 5170	116 4890	116 4620	116 4360	120 125	30	112 6750	114 5020	115 4750	115 4490	115 4230	119 124		
35	110 8090	117 5640	117 5340	117 5050	118 4770	120 125	35	111 7610	116 5470	116 5180	116 4900	116 4630	119 124		
40	110 9310	119 6220	119 5890	119 5580	119 5270	121 125	40	111 8760	118 6030	118 5720	118 5410	118 5110	120 124		
45	109 10930	120 6900	120 6550	121 6200	121 5860	122 125	45	110 10240	119 6590	119 6350	119 6010	120 5680	121 124		
46	108 11290	120 7040	121 6680	121 6330	121 5980	122 125	46	110 11290	120 7120	120 6750	120 6390	121 6040	121 124		
48		120 7340	121 6970	122 6600	122 6240	122 125	48	110 11700	120 7270	121 6900	121 6530	121 6170	122 124		

WEIGHT = 12000 LBS								WEIGHT = 11800 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		
			10 KTS	20 KTS	30 KTS					10 KTS	20 KTS	30 KTS			
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-25	113 4470	110 3540	110 3330	110 3120	111 2920	116 123	-25	112 4370	109 3450	109 3240	109 3040	110 2850	115 122		
-20	113 4540	110 3600	110 3390	110 3180	111 2980	116 123	-20	111 4400	109 3510	109 3300	109 3100	110 2900	115 122		
-15	113 4610	110 3660	110 3450	110 3240	111 3040	116 123	-15	111 4490	109 3570	109 3360	109 3160	110 2960	115 122		
-10	112 4680	110 3720	110 3510	110 3300	111 3090	116 123	-10	111 4560	108 3620	109 3410	109 3210	109 3010	115 122		
-5	112 4740	110 3780	110 3560	110 3350	111 3150	116 123	-5	111 4620	108 3680	109 3470	109 3260	109 3060	115 122		
0	112 4810	110 3840	110 3620	110 3410	110 3200	116 123	0	111 4690	108 3740	109 3520	109 3310	109 3110	115 122		
5	112 4870	110 3900	110 3680	110 3460	110 3250	116 123	5	111 4750	108 3800	109 3580	109 3370	109 3160	115 122		
10	112 4940	109 3960	110 3740	110 3520	110 3310	116 123	10	111 4820	108 3860	109 3640	109 3420	109 3220	115 122		
15	113 5100	110 4090	110 3870	110 3640	111 3430	116 123	15	111 4960	109 3980	109 3750	109 3530	109 3320	115 122		
20	114 5320	111 4280	111 4040	111 3810	112 3590	116 123	20	112 5170	109 4150	110 3920	110 3690	110 3470	115 122		
25	114 5720	112 4520	112 4280	112 4040	113 3800	117 123	25	113 5450	111 4380	111 4140	111 3900	111 3670	116 122		
30	113 6300	113 4850	113 4590	114 4330	114 4080	117 123	30	114 5840	112 4680	112 4430	112 4180	112 3940	116 122		
35	112 7090	115 5290	115 5010	115 4730	115 4460	118 123	35	113 6580	113 5110	113 4830	114 4560	114 4300	117 122		
40	112 8130	116 5830	116 5520	117 5220	117 4930	119 123	40	113 7540	115 5620	115 5320	115 5030	115 4750	118 122		
45	111 9490	118 6460	118 6120	118 5790	118 5470	120 123	45	112 8760	117 6230	117 5900	117 5580	117 5270	119 122		
49	110 10800	119 7010	119 6650	119 6290	120 5950	120 123	49	111 10310	118 6910	118 6550	118 6190	119 5850	119 122		
50	110 11190	119 7170	120 6790	120 6430	120 6080	121 123									

WEIGHT = 11600 LBS								WEIGHT = 11400 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		
			10 KTS	20 KTS	30 KTS					10 KTS	20 KTS	30 KTS			
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-25	110 4250	108 3360	108 3160	108 2960	108 2770	114 121	-25	109 4140	106 3270	107 3070	107 2880	107 2690	113 120		
-20	110 4320	107 3420	108 3210	108 3010	108 2820	114 121	-20	109 4210	106 3330	107 3120	107 2930	107 2740	113 121		
-15	110 4380	107 3480	108 3270	108 3070	108 2870	114 121	-15	109 4270	106 3380	107 3180	107 2980	107 2790	113 121		
-10	110 4450	107 3530	108 3320	108 3120	108 2930	114 121	-10	109 4330	106 3440	106 3230	107 3030	107 2840	113 121		
-5	110 4500	107 3590	108 3380	108 3180	108 2980	114 121	-5	109 4390	106 3490	106 3290	107 3090	107 2890	113 121		
0	110 4570	107 3640	108 3430	108 3230	108 3030	114 121	0	109 4460	106 3550	106 3340	107 3140	107 2950	113 121		
5	110 4630	107 3700	108 3490	108 3280	108 3080	114 121	5	109 4520	106 3600	106 3400	107 3190	107 3000	113 121		
10	110 4690	107 3760	107 3540	108 3330	108 3130	114 121	10	109 4580	106 3660	106 3450	107 3250	107 3050	113 121		
15	110 4830	107 3870	108 3650	108 3440	108 3230	114 121	15	109 4710	106 3770	107 3550	107 3350	107 3140	113 120		
20	111 5020	108 4020	108 3790	109 3570	109 3360	114 121	20	109 4880	107 3910	107 3680	107 3470	108 3260	113 120		
25	112 5290	109 4240	109 4010	110 3780	110 3550	114 121	25	110 5130	108 4110	108 3880	108 3650	109 3430	113 120		
30	113 5800	110 4520	111 4270	111 4030	111 3800	115 121	30	112 5430	109 4360	109 4120	109 3890	110 3660	114 120		
35	114 6090	112 4930	112 4660	112 4400	113 4150	116 121	35	113 5880	111 4760	111 4500	111 4240	111 4000	115 120		
40	114 6960	114 5430	114 5130	114 4850	114 4570	117 121	40	115 6470	112 5230	112 4950	113 4670	113 4400	115 120		
45	113 8070	115 6010	115 5690	116 5380	116 5070	117 121	45	114 7390	114 5790	114 5480	114 5180	114 4880	116 120		
50	112 9440	117 6660	117 6310	117 5960	117 5630	118 121	50	113 8630	115 6410	116 6070	116 5740	116 5420	117 120		

Figure 4-19 (Sheet 5)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
2000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS								WEIGHT = 10500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		H E A D W I N D S			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		H E A D W I N D S			VR V2 KIAS								
	10 KTS				10 KTS	20 KTS	30 KTS			10 KTS				10 KTS	20 KTS	30 KTS									
	V1	DIST	V1	DIST	V1	DIST	V1			DIST	V1	DIST	V1	DIST	V1	DIST		V1	DIST						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT								
-25	107	3970	104	3120	105	2930	105	2750	105	2570	111	120	-25	105	3760	102	2950	102	2770	103	2590	103	2420	110	119
-20	107	4030	104	3180	105	2990	105	2800	105	2620	111	120	-20	105	3810	102	3010	102	2820	103	2640	103	2470	110	119
-15	107	4090	104	3230	105	3040	105	2850	105	2670	111	120	-15	104	3870	102	3060	102	2870	103	2690	103	2520	110	119
-10	107	4150	104	3290	105	3090	105	2900	105	2720	111	120	-10	104	3930	102	3110	102	2920	103	2740	103	2560	110	119
-5	107	4210	104	3340	105	3140	105	2950	105	2770	111	120	-5	104	3980	102	3160	102	2970	103	2790	103	2610	110	119
0	107	4270	104	3400	105	3200	105	3000	105	2810	111	120	0	104	4040	102	3210	102	3020	103	2840	103	2660	110	119
5	107	4330	104	3450	105	3250	105	3050	105	2860	111	120	5	104	4100	102	3260	102	3070	103	2880	103	2700	110	119
10	107	4390	104	3500	105	3300	105	3100	105	2910	111	120	10	104	4150	102	3310	102	3120	103	2930	103	2750	110	119
15	107	4450	104	3550	105	3350	105	3150	105	2980	111	119	15	104	4250	102	3390	102	3190	103	3000	103	2810	109	118
20	107	4620	104	3690	105	3480	105	3280	105	3080	111	118	20	104	4360	102	3480	102	3280	103	3080	103	2890	109	117
25	108	4820	105	3860	105	3640	106	3420	106	3210	111	118	25	104	4500	102	3590	102	3380	103	3170	103	2980	108	116
30	109	5090	106	4070	106	3840	107	3620	107	3400	111	118	30	105	4700	103	3750	103	3530	103	3320	103	3120	108	115
35	111	5480	108	4420	108	4170	108	3930	108	3700	112	118	35	107	5030	104	4020	104	3790	105	3570	105	3350	109	115
40	112	6020	109	4860	110	4590	110	4330	110	4080	113	118	40	109	5490	106	4410	106	4160	106	3920	106	3690	110	115
45	114	6650	111	5370	111	5080	111	4790	112	4510	114	118	45	110	6060	108	4870	108	4600	108	4340	108	4080	111	115
50	115	7350	113	5940	113	5620	113	5300	113	5000	115	118	50	112	6680	109	5380	109	5080	109	4790	110	4510	112	115

WEIGHT = 10000 LBS								WEIGHT = 9500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		H E A D W I N D S			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		H E A D W I N D S			VR V2 KIAS								
	10 KTS				10 KTS	20 KTS	30 KTS			10 KTS				10 KTS	20 KTS	30 KTS									
	V1	DIST	V1	DIST	V1	DIST	V1			DIST	V1	DIST	V1	DIST	V1	DIST		V1	DIST						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT								
-25	102	3550	100	2790	100	2620	100	2450	101	2280	108	118	-25	99	3350	97	2630	97	2470	98	2310	98	2150	106	117
-20	102	3610	100	2840	100	2660	100	2490	101	2330	108	118	-20	99	3410	97	2680	97	2510	98	2350	98	2190	106	117
-15	102	3660	100	2890	100	2710	100	2540	101	2370	108	118	-15	99	3460	97	2720	97	2560	98	2390	98	2230	106	117
-10	102	3710	100	2940	100	2760	100	2580	101	2420	108	118	-10	99	3510	97	2770	97	2600	98	2430	98	2270	106	117
-5	102	3770	100	2980	100	2800	100	2630	101	2460	108	118	-5	99	3560	97	2820	97	2640	98	2480	98	2320	106	117
0	102	3820	100	3030	100	2850	100	2680	101	2500	108	118	0	99	3610	97	2860	97	2690	98	2520	98	2360	106	117
5	102	3870	99	3080	100	2900	100	2720	101	2550	108	118	5	99	3660	97	2910	97	2730	98	2560	98	2400	106	117
10	102	3930	99	3130	100	2940	100	2770	101	2590	108	118	10	99	3710	97	2950	97	2780	98	2610	98	2440	106	117
15	102	4010	99	3200	100	3010	100	2830	101	2650	108	117	15	99	3790	97	3010	97	2840	98	2660	98	2490	106	116
20	102	4120	100	3280	100	3090	100	2900	101	2720	107	116	20	99	3880	97	3090	97	2900	98	2730	98	2560	105	115
25	102	4240	100	3370	100	3180	100	2980	100	2800	106	115	25	99	3990	97	3170	97	2980	98	2800	98	2620	105	114
30	102	4380	100	3480	100	3270	100	3070	100	2880	106	113	30	99	4110	97	3270	97	3070	98	2880	98	2700	104	112
35	103	4620	100	3670	101	3450	101	3250	101	3040	106	113	35	100	4270	97	3390	97	3180	98	2990	98	2800	103	110
40	105	4990	102	3990	102	3760	103	3540	103	3320	107	113	40	101	4550	98	3600	98	3390	99	3180	99	2980	103	110
45	107	5500	104	4400	104	4150	104	3910	104	3670	108	113	45	103	4970	100	3960	100	3730	100	3510	101	3290	104	110
50	108	6050	105	4850	106	4580	106	4310	106	4050	108	113	50	105	5460	102	4360	102	4110	102	3860	102	3630	105	110

WEIGHT = 9000 LBS								WEIGHT = 8500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		H E A D W I N D S			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		H E A D W I N D S			VR V2 KIAS								
	10 KTS				10 KTS	20 KTS	30 KTS			10 KTS				10 KTS	20 KTS	30 KTS									
	V1	DIST	V1	DIST	V1	DIST	V1			DIST	V1	DIST	V1	DIST	V1	DIST		V1	DIST						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT								
-25	96	3160	94	2480	95	2320	95	2170	95	2020	104	116	-25	93	2980	93	2430	93	2250	93	2080	93	1920	103	114
-20	96	3210	94	2520	95	2360	95	2210	95	2060	104	116	-20	93	3030	93	2470	93	2290	93	2120	93	1960	103	114
-15	96	3260	94	2570	95	2410	95	2250	96	2100	105	116	-15	93	3070	93	2510	93	2330	93	2160	93	2000	103	115
-10	96	3310	94	2610	95	2450	95	2290	96	2140	105	116	-10	93	3120	93	2550	93	2370	93	2200	93	2030	103	115
-5	96	3350	94	2650	95	2490	95	2330	95	2180	105	116	-5	93	3160	93	2590	93	2410	93	2240	93	2070	103	115
0	96	3400	94	2690	95	2530	95	2370	95	2210	105	116	0	93	3210	93	2630	93	2450	93	2280	93	2110	103	115
5	96	3450	94	2740	95	2570	95	2410	95	2250	105	116	5	93	3250	93	2670	93	2490	93	2310	93	2140	103	115
10	96	3490	94	2780	95	2610	95	2450	95	2290	105	116	10	93	3300	93	2710	93	2530	93	2350	93	2180	103	115
15	96	3570	94	2830	95	2660	95	2500	95	2340	104	115	15	93	3350	92	2710	92	2520	92	2350	93	2190	102	114
20	96	3650	94	2900	95	2730	95	2560	95	2400	104	114	20	93	3420	91	2720	92	2550	92	2400	93	2240	102	113
25	97	3750	94	2980	95	2800	95	2620	95	2460	103	113	25	94	3510	92	2780	92	2620	92	2450	93	2290	101	111
30	97	3860	94	3060	95	2880	95	2700	95	2520	102	111	30	94	3610	92	2860	92	2680	92	2520	93	2350	100	110
35	97	4000	94	3160	95	2970	95	2790	95	2610	101	109	35	94	3730	92	2950	92	2770	92	2590	93	2420	99	108
40	97	4180	95	3300	95	3100	95	2900	96	2710	100	107	40	94	3880	92	3050	92	2860	92	2680	93	2510	98	106
45	99	4470	96	3550	96	3330	96	3130	97	2930	101	107	45	95	4070	92	3190	92							



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
3000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

SPEED BRAKES - RETRACT

LANDING GEAR - DOWN

INOPERATIVE ENGINE - WINDMILLING AFTER V1

THRUST ATTENUATORS - AUTO

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT					V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	
-30	115 4770	112 3790	113 3570	113 3350	113 3140	118 125	-30	114 4650	111 3690	111 3470	112 3260	112 3060	117 124						
-25	115 4850	112 3860	112 3630	113 3420	113 3210	118 125	-25	114 4730	111 3760	111 3540	112 3330	112 3120	117 124						
-20	115 4920	112 3930	112 3700	113 3480	113 3270	118 125	-20	114 4800	111 3820	111 3600	112 3390	112 3180	117 124						
-15	115 4990	112 3990	112 3760	113 3540	113 3330	118 125	-15	114 4870	111 3890	111 3670	111 3450	112 3240	117 124						
-10	115 5070	112 4060	112 3830	113 3600	113 3390	118 125	-10	114 4940	111 3950	111 3730	111 3510	112 3300	117 124						
-5	115 5140	112 4120	112 3890	112 3670	113 3450	118 125	-5	114 5010	111 4020	111 3790	111 3570	112 3350	117 124						
0	114 5250	112 4190	112 3960	112 3730	113 3510	118 125	0	114 5090	111 4090	111 3860	111 3630	112 3420	117 124						
5	113 5510	112 4310	113 4070	113 3840	113 3610	118 125	5	114 5220	111 4200	111 3960	112 3740	112 3520	117 124						
10	112 5810	113 4450	113 4210	113 3970	113 3740	118 125	10	113 5500	112 4340	112 4100	112 3870	112 3640	117 124						
15	112 6200	113 4640	114 4380	114 4140	114 3910	119 125	15	112 5880	112 4520	113 4270	113 4030	113 3800	118 124						
20	111 6710	114 4900	115 4640	115 4390	115 4140	119 125	20	112 6330	113 4760	113 4510	114 4260	114 4020	118 124						
25	110 7300	115 5220	116 4940	116 4670	116 4410	120 125	25	111 6890	114 5070	114 4800	115 4540	115 4280	119 124						
30	109 8040	116 5590	117 5300	117 5010	117 4740	120 125	30	110 7580	115 5430	115 5140	116 4860	116 4590	119 124						
35	109 9190	118 6150	118 5830	118 5520	118 5220	121 125	35	109 8650	117 5970	117 5650	117 5350	117 5060	120 124						
40	108 10690	119 6810	120 6460	120 6120	120 5790	122 125	40	109 10040	119 6600	119 6260	119 5930	119 5610	121 124						
43	108 11810	118 7250	121 6890	121 6520	121 6170	122 125	44	108 11450	119 7180	120 6810	120 6450	120 6100	121 124						
44		118 7450	121 7030	121 6660	121 6300	122 125	45	108 11840	119 7330	120 6950	120 6590	120 6230	121 124						
							46		119 7480	121 7100	121 6730	121 6370	122 124						

WEIGHT = 12000 LBS								WEIGHT = 11800 LBS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT					V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	
-30	113 4530	110 3590	110 3370	110 3170	111 2970	116 123	-30	111 4420	109 3500	109 3290	109 3090	110 2890	115 122						
-25	113 4600	110 3650	110 3440	110 3230	111 3030	116 123	-25	111 4480	109 3560	109 3350	109 3150	110 2950	115 122						
-20	112 4670	110 3720	110 3500	110 3290	111 3080	116 123	-20	111 4550	108 3620	109 3410	109 3200	109 3000	115 122						
-15	112 4740	110 3780	110 3560	110 3350	110 3140	116 123	-15	111 4620	108 3680	109 3460	109 3260	109 3060	115 122						
-10	112 4810	110 3840	110 3620	110 3410	110 3200	116 123	-10	111 4690	108 3740	109 3520	109 3310	109 3110	115 122						
-5	112 4880	110 3900	110 3680	110 3470	110 3260	116 123	-5	111 4750	108 3800	109 3580	109 3370	109 3170	115 122						
0	112 4950	110 3970	110 3750	110 3530	110 3320	116 123	0	111 4830	108 3870	109 3650	109 3430	109 3230	115 122						
5	112 5070	110 4070	110 3840	110 3620	111 3410	116 123	5	111 4940	109 3960	109 3740	109 3520	109 3310	115 122						
10	113 5240	110 4210	110 3980	111 3750	111 3530	116 123	10	112 5080	109 4080	109 3850	109 3630	110 3420	115 122						
15	113 5480	111 4380	111 4140	111 3900	112 3680	116 123	15	112 5280	110 4250	110 4010	110 3780	110 3560	115 122						
20	113 5920	112 4600	112 4350	112 4110	113 3880	117 123	20	113 5530	110 4450	111 4210	111 3970	111 3740	116 122						
25	112 6440	113 4900	113 4630	113 4380	113 4130	117 123	25	113 6000	111 4730	112 4480	112 4230	112 3990	116 122						
30	111 7070	114 5250	114 4970	114 4700	115 4430	118 123	30	112 6590	113 5070	113 4800	113 4530	113 4270	117 122						
35	110 8070	116 5760	116 5460	116 5160	116 4880	119 123	35	111 7500	114 5560	114 5270	115 4980	115 4700	118 122						
40	110 9390	117 6370	117 6040	118 5720	118 5400	119 123	40	111 8650	116 6150	116 5830	116 5510	116 5210	118 122						
45	109 10950	119 7070	119 6710	119 6350	119 6010	120 123	45	110 10130	117 6820	118 6460	118 6120	118 5780	119 122						
46	109 11340	119 7220	119 6850	119 6490	119 6130	120 123	47	110 10830	118 7110	118 6740	118 6380	118 6030	119 122						
47	109 11750	119 7370	120 6990	120 6630	120 6270	121 123	48	110 11210	118 7260	119 6890	119 6520	119 6170	120 122						

WEIGHT = 11600 LBS								WEIGHT = 11400 LBS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT					V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	
-30	110 4300	107 3400	108 3200	108 3000	108 2810	114 121	-30	109 4190	106 3310	107 3110	107 2920	107 2730	113 121						
-25	110 4370	107 3470	108 3260	108 3060	108 2860	114 121	-25	109 4260	106 3370	107 3170	107 2970	107 2780	113 121						
-20	110 4440	107 3530	108 3320	108 3120	108 2920	114 121	-20	109 4320	106 3430	106 3230	107 3030	107 2840	113 121						
-15	110 4500	107 3590	108 3380	108 3170	108 2970	114 121	-15	109 4390	106 3490	106 3280	107 3080	107 2890	113 121						
-10	110 4570	107 3640	108 3430	108 3230	108 3030	114 121	-10	109 4450	106 3550	106 3340	107 3140	107 2940	113 121						
-5	110 4630	107 3700	108 3490	108 3280	108 3080	114 121	-5	109 4520	106 3610	106 3400	107 3190	107 3000	113 121						
0	110 4700	107 3770	108 3550	108 3340	108 3140	114 121	0	109 4580	106 3670	106 3460	107 3250	107 3050	113 121						
5	110 4810	107 3850	108 3640	108 3420	108 3220	114 121	5	109 4690	106 3750	107 3540	107 3330	107 3130	113 120						
10	110 4950	108 3970	108 3740	108 3530	108 3320	114 121	10	109 4820	106 3860	107 3640	107 3430	107 3220	113 120						
15	111 5130	108 4120	108 3890	109 3660	109 3450	114 121	15	109 4980	107 3990	107 3770	107 3550	108 3340	113 120						
20	112 5370	109 4320	109 4080	110 3840	110 3620	114 121	20	110 5210	108 4180	108 3950	108 3720	108 3500	113 120						
25	113 5650	110 4570	110 4320	111 4080	111 3840	115 121	25	112 5470	109 4410	109 4170	109 3930	109 3700	114 120						
30	113 6110	111 4890	111 4630	112 4370	112 4120	116 121	30	113 5820	110 4720	110 4460	110 4210	111 3970	114 120						
35	112 6940	113 5370	113 5080	113 4800	113 4530	116 121	35	113 6400	112 5180	112 4900	112 4630	112 4360	115 120						
40	112 7990	115 5930	115 5620	115 5310	115 5010	117 121	40	113 7360	113 5720	113 5410	114 5120	114 4830	116 120						
45	111 9320	116 6570	116 6230	116 5890	117 5570	118 121	45	112 8560	115 6330	115 6000	115 5670	115 5350	117 120						
48	111 10300	117 7000	117 6630	117 6280	117 5930	118 121	48	112 9430	116 6740	116 6380	116 6040	116 5700	117 120						

Figure 4-19 (Sheet 7)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
3000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS									WEIGHT = 10500 LBS												
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS
				V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-30	107 4010	104 3170	105 2980	105 2980	105 2790	105 2610	111 120	-30	105 3800	102 3000	102 2810	103 2630	103 2460	110 119							
-25	107 4080	104 3230	105 3030	105 2840	105 2660	111 120	-25	104 3860	102 3050	102 2860	103 2680	103 2510	110 119								
-20	107 4140	104 3280	105 3090	105 2900	105 2720	111 120	-20	104 3920	102 3100	102 2920	103 2730	103 2560	110 119								
-15	107 4210	104 3340	105 3140	105 2950	105 2760	111 120	-15	104 3980	102 3160	102 2970	103 2790	103 2610	110 119								
-10	107 4270	104 3400	105 3200	105 3000	105 2810	111 120	-10	104 4040	102 3210	102 3020	103 2840	103 2660	110 119								
-5	107 4330	104 3450	105 3250	105 3050	105 2860	111 120	-5	104 4100	102 3260	102 3070	103 2890	103 2700	110 119								
0	107 4400	104 3510	105 3310	105 3110	105 2920	111 120	0	104 4160	102 3320	102 3120	103 2940	103 2750	110 119								
5	107 4480	104 3580	105 3370	105 3170	105 2980	111 119	5	104 4240	102 3380	102 3180	103 3000	103 2810	110 118								
10	107 4580	104 3660	105 3450	105 3250	105 3050	111 119	10	104 4330	102 3460	102 3260	103 3070	103 2880	109 118								
15	107 4710	104 3780	105 3560	105 3350	105 3150	111 118	15	104 4440	102 3550	102 3340	103 3140	103 2950	109 117								
20	108 4900	105 3920	105 3700	106 3480	106 3270	111 118	20	104 4560	102 3650	102 3440	103 3230	103 3040	108 116								
25	109 5140	106 4120	106 3890	106 3660	107 3440	111 118	25	105 4760	102 3800	103 3580	103 3370	103 3160	108 115								
30	110 5430	107 4390	107 4140	108 3910	108 3680	112 118	30	106 5000	103 4000	104 3770	104 3550	104 3340	109 115								
35	112 5950	109 4810	109 4540	109 4290	109 4040	113 118	35	108 5420	105 4370	105 4120	106 3890	106 3660	110 115								
40	113 6550	110 5300	111 5020	111 4740	111 4460	114 118	40	110 5970	107 4810	107 4550	107 4290	107 4040	110 115								
45	114 7250	112 5870	112 5550	112 5250	112 4950	114 118	45	111 6590	108 5320	109 5030	109 4740	109 4470	111 115								
48	114 7750	113 6240	113 5910	113 5580	113 5270	115 118	48	112 7000	109 5650	110 5340	110 5040	110 4750	112 115								

WEIGHT = 10000 LBS									WEIGHT = 9500 LBS												
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS
				V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-30	102 3600	100 2830	100 2650	100 2480	101 2320	108 118	-30	99 3400	97 2670	97 2500	98 2340	98 2180	106 117								
-25	102 3650	100 2880	100 2700	100 2530	101 2370	108 118	-25	99 3450	97 2720	97 2550	98 2390	98 2230	106 117								
-20	102 3710	100 2930	100 2750	100 2580	101 2410	108 118	-20	99 3500	97 2770	97 2600	98 2430	98 2270	106 117								
-15	102 3760	100 2980	100 2800	100 2630	101 2460	108 118	-15	99 3560	97 2810	97 2640	98 2470	98 2310	106 117								
-10	102 3820	100 3030	100 2850	100 2670	101 2500	108 118	-10	99 3610	97 2860	97 2690	98 2520	98 2360	106 117								
-5	102 3880	99 3080	100 2900	100 2720	101 2550	108 118	-5	99 3660	97 2910	97 2730	98 2560	98 2400	106 117								
0	102 3930	99 3130	100 2950	100 2770	101 2600	108 118	0	99 3710	97 2960	97 2780	98 2610	98 2440	106 117								
5	102 4010	99 3190	100 3010	100 2830	101 2650	108 117	5	99 3780	97 3010	97 2830	98 2660	98 2490	106 116								
10	102 4090	99 3260	100 3070	100 2890	101 2710	108 117	10	99 3860	97 3080	97 2890	98 2720	98 2550	106 116								
15	102 4190	100 3340	100 3150	100 2960	100 2780	107 116	15	99 3950	97 3150	97 2960	98 2780	98 2610	105 115								
20	102 4310	100 3430	100 3230	100 3040	100 2850	106 115	20	99 4050	97 3230	97 3040	98 2850	98 2680	105 114								
25	102 4430	100 3530	100 3330	100 3130	100 2930	106 114	25	99 4170	97 3320	97 3120	98 2930	98 2750	104 112								
30	103 4620	100 3680	100 3460	101 3260	101 3060	106 113	30	99 4300	97 3420	97 3220	98 3020	98 2830	103 111								
35	104 4940	101 3960	102 3730	102 3510	102 3300	106 113	35	100 4530	98 3600	98 3380	98 3180	98 2980	103 110								
40	106 5420	103 4350	103 4110	104 3870	104 3630	107 113	40	102 4900	99 3920	100 3690	100 3470	100 3260	104 110								
45	108 5970	105 4800	105 4530	105 4270	105 4010	108 113	45	104 5390	101 4320	101 4070	101 3830	102 3590	105 110								
48	109 6340	106 5100	106 4810	106 4540	106 4270	109 113	48	105 5720	102 4580	102 4320	102 4060	103 3810	105 110								

WEIGHT = 9000 LBS									WEIGHT = 8500 LBS												
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS		20 KTS		30 KTS		VR V2 KIAS
				V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT			
-30	96 3200	94 2510	95 2360	95 2200	95 2060	105 116	-30	93 3020	93 2460	93 2290	93 2120	93 1950	103 115								
-25	96 3250	94 2560	95 2400	95 2250	96 2090	105 116	-25	93 3070	93 2500	93 2330	93 2150	93 1990	103 115								
-20	96 3300	94 2600	95 2440	95 2290	96 2130	105 116	-20	93 3110	93 2540	93 2370	93 2190	93 2030	103 115								
-15	96 3350	94 2650	95 2490	95 2330	96 2170	105 116	-15	93 3160	93 2580	93 2410	93 2230	93 2070	103 115								
-10	96 3400	94 2690	95 2530	95 2370	95 2210	105 116	-10	93 3200	93 2630	93 2450	93 2270	93 2100	103 115								
-5	96 3450	94 2740	95 2570	95 2410	95 2250	105 116	-5	93 3250	93 2670	93 2490	93 2310	93 2140	103 115								
0	96 3500	94 2780	95 2620	95 2450	95 2300	105 116	0	93 3290	93 2710	93 2530	93 2350	93 2180	103 115								
5	96 3560	94 2830	95 2660	95 2500	95 2340	104 115	5	93 3350	93 2730	93 2540	93 2360	93 2190	102 114								
10	96 3630	94 2890	95 2720	95 2550	95 2390	104 115	10	93 3410	92 2730	92 2550	92 2390	93 2240	102 114								
15	96 3710	94 2960	95 2780	95 2610	95 2440	104 114	15	93 3480	91 2770	92 2600	92 2440	93 2280	102 113								
20	96 3810	94 3030	95 2850	95 2670	95 2500	103 113	20	93 3570	92 2830	92 2660	92 2500	93 2340	101 111								
25	97 3910	94 3110	95 2920	95 2740	95 2570	102 111	25	94 3660	92 2900	92 2730	92 2560	93 2400	100 110								
30	97 4030	94 3200	95 3010	95 2820	95 2640	101 110	30	94 3760	92 2980	92 2800	92 2630	93 2460	100 109								
35	97 4190	94 3310	95 3120	95 2920	95 2740	100 108	35	94 3900	92 3080	92 2900	92 2720	93 2540	98 107								
40	98 4430	95 3510	96 3300	96 3100	96 2900	100 107	40	94 4060	92 3200	92 3010	92 2820	93 2630	97 105								
45	100 4850	97 3860	97 3630	97 3410	98 3200	101 107	45	95 4330	93 3430	93 3220	93 3020	94 2830	98 104								
48	101 5130	98 4090	98 3850	98 3620	99 3390	102 107	48	96 4580	94 3630	94 3410	94 3200	95 3000	98 104								

Figure 4-19 (Sheet 8)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
4000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE HEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS									
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT						
-30	115	4900	112	3910	112	3680	113	3470	113	3250	118	125	-30	114	4780	111	3810	111	3590	111	3370	112	3170	117	124
-25	115	4980	112	3980	112	3750	113	3530	113	3320	118	125	-25	114	4860	111	3880	111	3660	111	3440	112	3230	117	124
-20	115	5060	112	4050	112	3820	113	3600	113	3380	118	125	-20	114	4940	111	3950	111	3720	111	3500	112	3290	117	124
-15	115	5140	112	4120	112	3890	113	3660	113	3450	118	125	-15	114	5010	111	4010	111	3790	111	3570	112	3350	117	124
-10	114	5240	112	4190	112	3950	112	3730	113	3510	118	125	-10	113	5090	111	4080	111	3850	111	3630	112	3410	117	124
-5	113	5400	112	4250	112	4020	112	3790	113	3570	118	125	-5	113	5160	111	4150	111	3910	111	3690	111	3470	117	124
0	112	5600	112	4340	112	4100	112	3870	113	3650	118	125	0	113	5290	111	4230	111	4000	111	3770	112	3550	117	124
5	111	5950	113	4510	113	4270	113	4030	113	3800	118	125	5	112	5630	111	4390	112	4150	112	3920	112	3690	117	124
10	110	6440	114	4750	114	4490	114	4250	114	4010	119	125	10	111	6090	112	4610	113	4370	113	4120	113	3890	118	124
15	110	6970	114	5020	115	4760	115	4500	115	4250	119	125	15	110	6580	113	4880	113	4620	114	4370	114	4120	118	124
20	109	7530	115	5290	115	5040	116	4770	116	4510	120	125	20	110	7110	114	5170	114	4890	115	4630	115	4370	119	124
25	108	8170	116	5640	116	5350	117	5060	117	4780	120	125	25	109	7710	115	5470	115	5190	115	4910	116	4640	119	124
30	107	9120	117	6100	118	5790	118	5480	118	5180	121	125	30	108	8600	116	5920	116	5610	117	5320	117	5020	120	124
35	107	10820	118	6730	119	6380	119	6050	119	5730	121	125	35	108	9900	118	6530	118	6190	118	5870	118	5550	120	124
40			117	7730	121	7100	121	6730	121	6370	122	125	40	107	11620	118	7250	120	6880	120	6520	120	6170	121	124
41			117	7990	120	7250	121	6880	121	6510	122	125	41			118	7400	120	7030	120	6660	120	6310	121	124
													43			117	7850	121	7320	121	6940	121	6580	122	124

WEIGHT = 12000 LBS								WEIGHT = 11800 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS									
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT						
-30	112	4650	110	3700	110	3490	110	3280	111	3070	116	123	-30	111	4540	109	3610	109	3400	109	3190	109	2990	115	122
-25	112	4730	110	3770	110	3550	110	3340	110	3130	116	123	-25	111	4610	108	3670	109	3460	109	3250	109	3050	115	122
-20	112	4800	110	3840	110	3620	110	3400	110	3190	116	123	-20	111	4680	108	3730	109	3520	109	3310	109	3110	115	122
-15	112	4880	110	3900	110	3680	110	3460	110	3250	116	123	-15	111	4750	108	3800	109	3580	109	3370	109	3160	115	122
-10	112	4950	109	3970	110	3740	110	3520	110	3310	116	123	-10	111	4820	108	3860	109	3640	109	3430	109	3220	115	122
-5	112	5020	109	4030	110	3810	110	3590	110	3370	116	123	-5	111	4890	108	3920	109	3700	109	3490	109	3280	115	122
0	112	5110	109	4110	110	3880	110	3660	110	3440	116	123	0	111	4980	108	4000	109	3780	109	3560	109	3350	115	122
5	113	5290	110	4260	110	4030	111	3800	111	3580	116	123	5	111	5140	109	4130	109	3900	109	3680	109	3460	115	122
10	112	5690	111	4480	111	4230	112	3990	112	3760	116	123	10	112	5390	110	4340	110	4100	110	3870	110	3640	115	122
15	111	6160	112	4720	112	4470	112	4220	113	3980	117	123	15	112	5740	111	4560	111	4310	111	4070	111	3840	116	122
20	111	6650	113	4990	113	4730	113	4470	113	4220	117	123	20	112	6210	111	4820	112	4570	112	4310	112	4070	116	122
25	110	7210	114	5290	114	5010	114	4740	114	4480	118	123	25	111	6720	112	5110	113	4840	113	4570	113	4320	117	122
30	109	8040	115	5720	115	5420	115	5130	115	4850	118	123	30	110	7490	114	5520	114	5230	114	4950	114	4670	117	122
35	108	9220	117	6300	117	5980	117	5660	117	5350	119	123	35	109	8570	115	6080	115	5760	116	5460	116	5160	118	122
40	108	10790	118	6990	118	6640	118	6290	119	5950	120	123	40	109	10000	117	6740	117	6400	117	6060	117	5730	119	122
43	108	11900	118	7440	119	7060	119	6690	119	6330	120	123	44	108	11390	118	7320	118	6950	118	6580	118	6230	119	122
44			118	7590	120	7210	120	6840	120	6470	121	123	45	108	11780	118	7480	119	7100	119	6730	119	6360	120	122

WEIGHT = 11600 LBS								WEIGHT = 11400 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS									
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT						
-30	110	4420	107	3510	108	3310	108	3100	108	2910	114	121	-30	109	4310	106	3420	106	3220	107	3020	107	2830	113	121
-25	110	4490	107	3580	108	3370	108	3160	108	2970	114	121	-25	109	4380	106	3480	106	3280	107	3080	107	2880	113	121
-20	110	4560	107	3640	108	3430	108	3220	108	3020	114	121	-20	109	4450	106	3540	106	3340	107	3140	107	2940	113	121
-15	110	4630	107	3700	108	3490	108	3280	108	3080	114	121	-15	109	4520	106	3600	106	3400	107	3190	107	3000	113	121
-10	110	4700	107	3760	108	3550	108	3340	108	3140	114	121	-10	109	4580	106	3670	106	3460	107	3250	107	3050	113	121
-5	110	4770	107	3820	107	3610	108	3400	108	3190	114	121	-5	109	4650	106	3730	106	3510	107	3310	107	3110	113	121
0	110	4850	107	3900	107	3680	108	3470	108	3260	114	121	0	108	4730	106	3790	106	3580	107	3370	107	3170	113	121
5	110	5010	108	4020	108	3800	108	3580	108	3370	114	121	5	109	4870	106	3910	107	3690	107	3480	107	3270	113	120
10	111	5230	108	4210	109	3970	109	3750	109	3530	114	121	10	110	5070	107	4070	107	3850	107	3630	108	3410	113	120
15	112	5480	109	4410	109	4170	110	3930	110	3710	114	121	15	110	5310	108	4270	108	4040	108	3810	109	3580	113	120
20	113	5770	110	4660	110	4410	111	4160	111	3920	115	121	20	111	5560	109	4490	109	4250	109	4010	109	3780	114	120
25	112	6250	111	4930	111	4670	111	4410	112	4160	115	121	25	112	5860	110	4760	110	4500	110	4250	110	4010	114	120
30	111	6950	112	5330	112	5050	113	4770	113	4500	116	121	30	112	6390	111	5140	111	4870	111	4600	111	4340	115	120
35	110	7950	11																						



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
4000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS								WEIGHT = 10500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS						
	10 KTS	V1 DIST	V1 DIST		10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST		10 KTS	20 KTS	30 KTS							
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT				
-30	107	4130	104	3270	105	3080	105	2700	111	120	-30	104	3910	102	3090	102	2910	103	2730	103	2550	110	119
-25	107	4200	104	3330	105	3130	105	2760	111	120	-25	104	3970	102	3150	102	2960	103	2780	103	2600	110	119
-20	107	4260	104	3390	105	3190	105	2810	111	120	-20	104	4040	102	3210	102	3020	103	2830	103	2650	110	119
-15	107	4330	104	3450	105	3250	105	2860	111	120	-15	104	4100	102	3260	102	3070	103	2880	103	2700	110	119
-10	107	4390	104	3510	105	3310	105	2920	111	120	-10	104	4160	102	3320	102	3120	103	2940	103	2750	110	119
-5	107	4460	104	3570	105	3360	105	2970	111	120	-5	104	4220	102	3370	102	3180	103	2990	103	2800	110	119
0	107	4530	104	3630	105	3420	105	3030	111	120	0	104	4290	102	3430	102	3240	103	3040	103	2860	110	119
5	107	4640	104	3720	105	3510	105	3100	111	119	5	104	4390	102	3510	102	3310	103	3120	103	2930	109	118
10	107	4800	105	3850	105	3630	105	3210	111	118	10	104	4520	102	3610	102	3410	102	3210	103	3010	109	117
15	108	4990	105	4010	105	3780	106	3350	111	118	15	104	4650	102	3720	102	3510	103	3300	103	3100	108	116
20	109	5220	106	4190	106	3960	106	3510	111	118	20	105	4830	102	3870	103	3650	103	3430	103	3230	108	115
25	110	5470	107	4420	107	4180	107	3720	112	118	25	106	5040	103	4040	103	3810	104	3590	104	3370	109	115
30	111	5890	108	4780	108	4520	109	4260	112	118	30	107	5380	105	4340	105	4100	105	3870	105	3640	109	115
35	113	6470	110	5250	110	4970	110	4690	113	118	35	109	5900	106	4770	106	4500	107	4250	107	4000	110	115
40	113	7160	111	5810	112	5500	112	5200	114	118	40	111	6520	108	5270	108	4980	108	4700	108	4430	111	115
45	112	8280	113	6420	113	6090	113	5760	115	118	45	112	7190	109	5820	110	5500	110	5200	110	4900	112	115
46	112	8570	113	6560	113	6210	114	5880	115	118	46	112	7340	110	5940	110	5620	110	5310	110	5010	112	115

WEIGHT = 10000 LBS								WEIGHT = 9500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS						
	10 KTS	V1 DIST	V1 DIST		10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST		10 KTS	20 KTS	30 KTS							
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT				
-30	102	3700	100	2920	100	2740	101	2400	108	118	-30	99	3490	97	2760	97	2590	98	2420	98	2260	106	117
-25	102	3760	100	2980	100	2800	101	2450	108	118	-25	99	3550	97	2810	97	2640	98	2470	98	2310	106	117
-20	102	3820	100	3030	100	2850	101	2500	108	118	-20	99	3600	97	2860	97	2680	98	2520	98	2350	106	117
-15	102	3880	100	3080	100	2900	101	2550	108	118	-15	99	3660	97	2910	97	2730	98	2560	98	2400	106	117
-10	102	3930	99	3130	100	2950	101	2600	108	118	-10	99	3710	97	2950	97	2780	98	2610	98	2440	106	117
-5	102	3990	99	3180	100	3000	101	2640	108	118	-5	99	3770	97	3000	97	2830	98	2650	98	2490	106	117
0	102	4060	99	3240	100	3050	101	2690	108	118	0	99	3830	97	3060	97	2880	98	2700	98	2540	106	117
5	102	4150	99	3320	100	3120	100	2760	108	117	5	99	3910	97	3120	97	2940	98	2770	98	2590	106	116
10	102	4260	99	3410	100	3210	100	2830	107	116	10	99	4020	97	3210	97	3020	98	2840	98	2660	105	115
15	102	4380	99	3500	100	3300	100	2910	106	115	15	99	4130	97	3290	97	3100	98	2910	98	2730	105	114
20	102	4510	99	3600	100	3390	100	2990	106	114	20	99	4240	97	3380	97	3180	98	2990	98	2800	104	112
25	102	4660	100	3720	100	3510	101	3100	106	113	25	99	4360	97	3470	97	3270	98	3070	98	2880	104	111
30	103	4920	101	3930	101	3710	101	3490	102	3280	30	100	4530	97	3610	98	3400	98	3200	98	3000	103	110
35	105	5360	102	4310	103	4070	103	3830	103	3600	35	101	4840	99	3880	99	3660	99	3440	99	3230	104	110
40	107	5910	104	4760	104	4490	105	4240	105	3990	40	103	5340	100	4280	101	4040	101	3800	101	3570	104	110
45	109	6510	106	5250	106	4960	106	4680	106	4400	45	105	5870	102	4710	102	4450	102	4190	103	3940	105	110
46	109	6640	106	5350	106	5060	106	4770	107	4490	46	105	5990	102	4810	102	4540	103	4270	103	4020	105	110

WEIGHT = 9000 LBS								WEIGHT = 8500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS						
	10 KTS	V1 DIST	V1 DIST		10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST		10 KTS	20 KTS	30 KTS							
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT				
-30	96	3290	94	2600	95	2440	95	2130	105	116	-30	93	3110	93	2540	93	2360	93	2190	93	2020	103	115
-25	96	3340	94	2640	95	2480	95	2170	105	116	-25	93	3150	93	2580	93	2400	93	2230	93	2060	103	115
-20	96	3400	94	2690	95	2530	95	2210	105	116	-20	93	3200	93	2620	93	2440	93	2270	93	2100	103	115
-15	96	3450	94	2740	95	2570	95	2250	105	116	-15	93	3250	93	2670	93	2480	93	2310	93	2140	103	115
-10	96	3500	94	2780	95	2620	95	2290	105	116	-10	93	3290	93	2710	93	2530	93	2350	93	2180	103	115
-5	96	3550	94	2830	95	2660	95	2340	105	116	-5	93	3340	93	2750	93	2570	93	2390	93	2220	103	115
0	96	3610	94	2880	95	2710	95	2380	105	116	0	93	3390	93	2790	93	2600	93	2420	93	2250	103	115
5	96	3680	94	2940	95	2760	95	2430	104	115	5	93	3460	92	2780	92	2590	92	2430	93	2280	102	114
10	96	3780	94	3010	95	2830	95	2490	103	114	10	93	3540	91	2820	92	2650	92	2490	93	2330	102	112
15	96	3870	94	3090	95	2900	95	2560	103	112	15	93	3630	92	2890	92	2710	92	2550	93	2390	101	111
20	97	3980	94	3160	95	2980	95	2620	102	111	20	94	3720	92	2960	92	2780	92	2610	93	2440	100	110
25	97	4080	94	3250	95	3060	95	2690	102	110	25	94	3810	92	3030	92	2850	92	2670	93	2500	100	109
30	97	4220	94	3350	95	3150	95	2770	101	109	30	94	3940	92	3120	92	2930	92	2750	93	2580	99	107
35	97	4430	95	3520	95	3310	95	2910	100	107	35	94	4090	92	3230	92	3040	92	2850	93	2670	98	105
40	99	4800	96	3830	97	3610	97	3180	101	107	40	95	4310	92	3420	93	3210	93	3010	93	2820	97	104
45	101	5270	98	4210	98	3970	98	3730	99	3500	45	96	4700	94	3740	94	3520	94	3300	95	3090	98	104
46	101	5370	98	4290	99	4050	99	3800	99	3570	46	97	4790	94	3810	94	3590	95	3370	95	3150	98	104

Figure 4-19 (Sheet 10)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
5000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				
-35	115	4960	112	3960	112	3730	113	3510	113	3300	118	125	-35	114	4840	111	3860	111	3630	111	3420	112	3210	117	124
-30	115	5040	112	4030	112	3810	113	3580	113	3370	118	125	-30	114	4920	111	3930	111	3710	111	3490	112	3280	117	124
-25	115	5130	112	4110	112	3880	112	3650	113	3430	118	125	-25	114	5000	111	4000	111	3780	111	3560	112	3340	117	124
-20	115	5220	112	4180	112	3950	112	3720	113	3500	118	125	-20	113	5080	111	4070	111	3840	111	3620	112	3410	117	124
-15	113	5400	112	4250	112	4020	112	3790	113	3570	118	125	-15	113	5160	111	4140	111	3910	111	3690	111	3470	117	124
-10	112	5630	112	4360	112	4120	113	3890	113	3660	118	125	-10	113	5320	111	4250	111	4010	111	3790	112	3560	117	124
-5	111	5880	112	4470	113	4230	113	3990	113	3760	118	125	-5	112	5560	111	4350	111	4120	112	3880	112	3660	117	124
0	110	6200	113	4620	113	4370	113	4130	113	3890	118	125	0	111	5870	112	4500	112	4260	112	4020	112	3790	117	124
5	109	6680	114	4860	114	4600	114	4350	114	4110	119	125	5	110	6320	112	4720	113	4470	113	4220	113	3990	118	124
10	109	7230	115	5150	115	4880	115	4620	115	4360	119	125	10	109	6840	113	5000	114	4740	114	4480	114	4230	118	124
15	108	7830	115	5480	116	5180	116	4900	116	4630	120	125	15	109	7400	114	5300	114	5020	115	4750	115	4490	119	124
20	107	8430	116	5750	116	5460	117	5170	117	4890	120	125	20	108	7970	115	5590	115	5300	115	5020	116	4740	119	124
25	106	9100	117	6070	117	5760	117	5460	117	5170	120	125	25	107	8590	116	5890	116	5590	116	5300	116	5010	119	124
30	105	10400	116	6670	119	6330	119	6000	119	5680	121	125	30	106	9810	117	6470	117	6140	118	5820	118	5510	120	124
35			116	7750	119	7010	120	6650	120	6300	122	125	35	106	11400	116	7170	119	6800	119	6440	119	6100	121	124
37			115	8270	119	7320	121	6940	121	6580	122	125	38			116	7900	120	7250	120	6880	120	6510	121	124
38			115	8550	119	7480	121	7100	121	6730	122	125	39			116	8160	119	7400	120	7020	120	6660	121	124

WEIGHT = 12000 LBS										WEIGHT = 11800 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				
-35	112	4710	110	3750	110	3530	110	3320	110	3120	116	123	-35	111	4590	108	3660	109	3440	109	3240	109	3040	115	122
-30	112	4790	110	3820	110	3600	110	3390	110	3180	116	123	-30	111	4670	108	3720	109	3510	109	3300	109	3100	115	122
-25	112	4870	110	3890	110	3670	110	3450	110	3240	116	123	-25	111	4740	108	3790	109	3570	109	3360	109	3160	115	122
-20	112	4940	109	3960	110	3740	110	3520	110	3310	116	123	-20	111	4820	108	3860	109	3640	109	3420	109	3220	115	122
-15	112	5020	109	4030	110	3800	110	3600	110	3370	116	123	-15	111	4890	108	3920	109	3700	109	3490	109	3280	115	122
-10	112	5130	110	4120	110	3890	110	3670	110	3450	116	123	-10	111	5000	108	4010	109	3790	109	3570	109	3360	115	122
-5	112	5250	110	4220	110	3990	110	3770	111	3550	116	123	-5	111	5110	109	4110	109	3880	109	3660	109	3440	115	122
0	112	5490	110	4370	110	4130	111	3900	111	3670	116	123	0	112	5260	109	4230	109	4000	109	3770	110	3550	115	122
5	111	5920	111	4570	111	4330	112	4090	112	3850	116	123	5	112	5520	110	4430	110	4190	110	3960	110	3730	115	122
10	110	6400	112	4840	112	4580	112	4330	113	4090	117	123	10	111	5980	111	4670	111	4420	111	4180	111	3940	116	122
15	109	6930	113	5120	113	4850	113	4590	114	4330	117	123	15	110	6470	112	4950	112	4690	112	4430	112	4180	116	122
20	109	7460	114	5400	114	5120	114	4840	114	4570	118	123	20	110	6960	112	5210	113	4940	113	4670	113	4410	117	122
25	108	8040	114	5690	115	5400	115	5110	115	4830	118	123	25	109	7500	113	5500	113	5210	113	4930	114	4660	117	122
30	107	9160	116	6250	116	5930	116	5620	116	5310	119	123	30	108	8530	115	6030	115	5720	115	5420	115	5120	118	122
35	107	10610	117	6900	118	6560	118	6210	118	5880	120	123	35	108	9860	116	6660	116	6320	116	5990	117	5670	119	122
39			117	7520	119	7140	119	6770	119	6410	120	123	40	107	11590	118	7390	118	7020	118	6660	118	6300	119	122
40			117	7670	119	7290	119	6910	119	6550	120	123	41			117	7550	118	7170	118	6800	118	6440	119	122
41			116	7920	120	7440	120	7060	120	6690	121	123	42			117	7710	119	7320	119	6940	119	6570	120	122

WEIGHT = 11600 LBS										WEIGHT = 11400 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				
-35	110	4480	107	3560	108	3350	108	3150	108	2950	114	121	-35	109	4360	106	3470	106	3260	107	3060	107	2870	113	121
-30	110	4550	107	3630	108	3420	108	3210	108	3010	114	121	-30	109	4440	106	3530	106	3330	107	3130	107	2930	113	121
-25	110	4620	107	3690	108	3480	108	3270	108	3070	114	121	-25	109	4510	106	3600	106	3390	107	3190	107	2990	113	121
-20	110	4690	107	3760	107	3540	108	3330	108	3130	114	121	-20	109	4580	106	3660	106	3450	107	3250	107	3050	113	121
-15	110	4760	107	3820	107	3610	108	3400	108	3190	114	121	-15	109	4650	106	3720	106	3510	107	3310	107	3110	113	121
-10	110	4870	107	3910	108	3690	108	3470	108	3260	114	121	-10	109	4740	106	3800	106	3590	107	3380	107	3180	113	121
-5	110	4970	107	4000	108	3770	108	3560	108	3350	114	121	-5	109	4840	106	3890	106	3670	107	3460	107	3260	113	120
0	110	5110	108	4110	108	3890	108	3660	108	3450	114	121	0	109	4980	106	4000	107	3780	107	3560	107	3350	113	120
5	111	5330	108	4300	109	4060	109	3830	109	3610	114	121	5	110	5170	107	4160	107	3930	107	3710	108	3490	113	120
10	112	5590	109	4510	110	4270	110	4030	110	3800	115	121	10	111	5420	108	4370	108	4130	108	3900	109	3670	113	120
15	112	6020	110	4780	110	4520	111	4270	111	4030	115	121	15	112	5680	109	4610	109	4360	109	4120	109	3890	114	120
20	111	6480	1																						



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
5000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS		
	10 KTS	V1 DIST	V1	DIST	10 KTS	20 KTS	30 KTS	VR V2 KIAS	10 KTS	V1 DIST			V1	DIST	10 KTS	20 KTS	30 KTS	VR V2 KIAS							
	KIAS	FT	KIAS	FT	V1 DIST	V1 DIST	KIAS FT		KIAS FT	KIAS FT			KIAS FT	KIAS FT	KIAS FT	KIAS FT	KIAS FT		KIAS FT						
-35	107	4180	104	3320	105	3120	105	2930	105	2740	111	120	-35	104	3960	102	3140	102	2950	103	2770	103	2590	110	119
-30	107	4250	104	3380	105	3180	105	2990	105	2800	111	120	-30	104	4030	102	3200	102	3010	103	2820	103	2640	110	119
-25	107	4320	104	3440	105	3240	105	3050	105	2860	111	120	-25	104	4090	102	3260	102	3060	103	2880	103	2700	110	119
-20	107	4390	104	3500	105	3300	105	3100	105	2910	111	120	-20	104	4160	102	3310	102	3120	103	2930	103	2750	110	119
-15	107	4460	104	3560	105	3360	105	3160	105	2970	111	120	-15	104	4220	102	3370	102	3180	103	2990	103	2800	110	119
-10	107	4540	104	3640	105	3430	105	3230	105	3030	111	120	-10	104	4300	102	3440	102	3240	103	3050	103	2860	110	119
-5	107	4630	104	3710	105	3500	105	3300	105	3100	111	119	-5	104	4380	102	3510	102	3310	103	3110	103	2920	110	118
0	107	4720	104	3800	104	3580	105	3370	105	3170	111	119	0	104	4470	102	3580	102	3380	103	3180	103	2990	110	118
5	107	4890	105	3930	105	3710	105	3490	105	3290	111	118	5	104	4600	102	3680	102	3470	102	3270	103	3070	109	117
10	108	5090	105	4090	105	3860	106	3640	106	3430	111	118	10	104	4740	102	3800	102	3590	103	3380	103	3170	108	116
15	109	5330	106	4290	106	4050	106	3820	107	3600	111	118	15	105	4930	103	3950	103	3730	103	3510	103	3300	108	115
20	109	5570	107	4510	107	4270	107	4030	107	3800	112	118	20	106	5130	103	4110	103	3890	104	3660	104	3440	109	115
25	110	5860	108	4760	108	4500	108	4250	108	4010	112	118	25	107	5350	104	4330	104	4090	104	3860	105	3630	109	115
30	112	6410	109	5210	109	4930	110	4660	110	4400	113	118	30	108	5840	106	4730	106	4470	106	4220	106	3980	110	115
35	112	7130	111	5740	111	5440	111	5140	111	4860	114	118	35	110	6430	107	5210	107	4930	108	4650	108	4390	111	115
40	111	8280	112	6360	112	6030	113	5700	113	5390	115	118	40	111	7100	109	5760	109	5450	109	5150	109	4860	111	115
44	110	9390	114	6900	114	6550	114	6200	114	5860	115	118	44	112	7700	110	6250	110	5920	110	5590	110	5280	112	115

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS		
	10 KTS	V1 DIST	V1	DIST	10 KTS	20 KTS	30 KTS	VR V2 KIAS	10 KTS	V1 DIST			V1	DIST	10 KTS	20 KTS	30 KTS	VR V2 KIAS							
	KIAS	FT	KIAS	FT	V1 DIST	V1 DIST	KIAS FT		KIAS FT	KIAS FT			KIAS FT	KIAS FT	KIAS FT	KIAS FT	KIAS FT		KIAS FT						
-35	102	3740	100	2960	100	2790	100	2610	101	2440	108	118	-35	99	3540	97	2800	97	2630	98	2460	98	2300	106	117
-30	102	3810	100	3020	100	2840	100	2660	101	2490	108	118	-30	99	3600	97	2850	97	2680	98	2510	98	2350	106	117
-25	102	3870	100	3070	100	2890	100	2710	101	2540	108	118	-25	99	3650	97	2900	97	2730	98	2560	98	2390	106	117
-20	102	3930	100	3130	100	2940	100	2770	101	2590	108	118	-20	99	3710	97	2950	97	2780	98	2610	98	2440	106	117
-15	102	3990	99	3180	100	3000	100	2820	101	2640	108	118	-15	99	3770	97	3000	97	2830	98	2650	98	2490	106	117
-10	102	4060	99	3250	100	3060	100	2870	101	2700	108	118	-10	99	3840	97	3060	97	2880	98	2710	98	2540	106	117
-5	102	4140	99	3310	100	3120	100	2930	101	2750	108	117	-5	99	3900	97	3120	97	2940	98	2760	98	2590	106	116
0	102	4220	99	3380	100	3190	100	3000	100	2820	108	117	0	99	3980	97	3190	97	3000	98	2820	98	2650	106	116
5	102	4340	99	3470	100	3270	100	3080	100	2890	107	116	5	99	4090	97	3270	97	3080	98	2890	98	2720	105	115
10	102	4460	99	3570	100	3360	100	3160	100	2970	106	114	10	99	4200	97	3350	97	3160	98	2970	98	2790	105	113
15	102	4580	99	3670	100	3460	100	3250	100	3060	106	113	15	99	4320	97	3440	97	3250	98	3050	98	2860	104	112
20	102	4740	100	3790	100	3580	100	3370	101	3160	106	113	20	99	4430	97	3530	97	3330	98	3130	98	2940	104	111
25	103	4920	100	3930	101	3710	101	3490	101	3280	106	113	25	99	4540	97	3630	97	3420	98	3220	98	3020	103	110
30	104	5310	102	4280	102	4040	102	3810	103	3590	107	113	30	101	4820	98	3860	98	3640	99	3420	99	3220	103	110
35	106	5830	104	4710	104	4450	104	4200	104	3950	107	113	35	102	5270	100	4240	100	4000	100	3770	100	3540	104	110
40	108	6440	105	5200	105	4920	106	4640	106	4370	108	113	40	104	5810	101	4670	102	4410	102	4160	102	3910	105	110
44	109	6970	106	5630	107	5330	107	5030	107	4740	109	113	44	105	6280	103	5050	103	4770	103	4500	103	4240	106	110

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS		
	10 KTS	V1 DIST	V1	DIST	10 KTS	20 KTS	30 KTS	VR V2 KIAS	10 KTS	V1 DIST			V1	DIST	10 KTS	20 KTS	30 KTS	VR V2 KIAS							
	KIAS	FT	KIAS	FT	V1 DIST	V1 DIST	KIAS FT		KIAS FT	KIAS FT			KIAS FT	KIAS FT	KIAS FT	KIAS FT	KIAS FT		KIAS FT						
-35	96	3330	94	2630	95	2470	95	2320	96	2160	105	116	-35	93	3150	93	2580	93	2400	93	2220	93	2060	103	115
-30	96	3390	94	2680	95	2520	95	2360	96	2200	105	116	-30	93	3190	93	2620	93	2440	93	2260	93	2100	103	115
-25	96	3440	94	2730	95	2570	95	2400	96	2250	105	116	-25	93	3240	93	2660	93	2480	93	2300	93	2130	103	115
-20	96	3500	94	2780	95	2610	95	2450	96	2290	105	116	-20	93	3290	93	2710	93	2520	93	2350	93	2170	103	115
-15	96	3550	94	2830	95	2660	95	2490	96	2340	105	116	-15	93	3340	93	2750	93	2570	93	2390	93	2220	103	115
-10	96	3610	94	2880	95	2710	95	2540	96	2380	105	116	-10	93	3390	93	2780	93	2590	93	2410	93	2240	103	114
-5	96	3680	94	2930	95	2760	95	2590	96	2430	104	115	-5	93	3450	92	2800	92	2610	92	2430	93	2280	102	114
0	96	3750	94	2990	95	2820	95	2650	96	2480	104	115	0	93	3520	91	2810	92	2640	92	2460	93	2330	102	113
5	96	3840	94	3070	95	2890	95	2710	96	2540	103	113	5	93	3600	91	2870	92	2700	92	2540	93	2380	101	112
10	96	3940	94	3140	95	2960	95	2780	96	2610	103	112	10	93	3690	92	2940	92	2770	92	2600	93	2430	101	111
15	97	4050	94	3230	95	3040	95	2850	96	2680	102	111	15	94	3790	92	3010	92	2840	92	2660	93	2490	100	110
20	97	4150	94	3310	95	3110	95	2930	96	2740	102	110	20	94	3880	92	3090	92	2900	92	2730	93	2550	100	109
25	97	4260	94	3390	95	3190	95	3000	96	2810	101	109	25	94	3970	92	3160	92	2970	92	2790	93	2620	99	108
30	97	4430	95	3530																					



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
6000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS									
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS					
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR	V2 KIAS				
-35	115 5100	112 4090	112 3860	112 3630	113 3410	118	125	-35	113 4980	111 3980	111 3760	111 3540	112 3320	117	124				
-30	115 5190	112 4170	112 3930	112 3710	113 3490	118	125	-30	113 5060	111 4060	111 3830	111 3610	112 3390	117	124				
-25	113 5370	112 4240	112 4010	112 3780	113 3560	118	125	-25	113 5140	111 4130	111 3900	111 3680	111 3460	117	124				
-20	112 5540	112 4320	112 4080	112 3850	113 3630	118	125	-20	113 5240	111 4210	111 3970	111 3750	111 3530	117	124				
-15	111 5750	112 4410	112 4170	112 3940	113 3710	118	125	-15	112 5440	111 4300	111 4060	111 3830	111 3610	117	124				
-10	110 6020	112 4530	112 4290	113 4050	113 3820	118	125	-10	111 5700	111 4410	111 4180	112 3940	112 3720	117	124				
-5	109 6390	113 4700	113 4450	113 4200	113 3970	118	125	-5	110 6040	112 4580	112 4330	112 4090	112 3860	117	124				
0	108 6920	114 4970	114 4710	114 4460	114 4210	119	125	0	109 6650	113 4830	113 4570	113 4330	113 4090	118	124				
5	108 7510	115 5280	115 5000	115 4740	115 4480	119	125	5	108 7110	113 5130	113 4860	114 4600	114 4340	118	124				
10	107 8140	116 5600	116 5310	116 5030	116 4760	120	125	10	108 7700	114 5430	115 5150	115 4880	115 4610	119	124				
15	106 8810	116 5930	117 5620	117 5330	117 5040	120	125	15	107 8330	115 5750	115 5460	116 5170	116 4890	119	124				
20	105 9520	116 6260	117 5950	117 5640	118 5340	120	125	20	106 9000	116 6080	116 5770	116 5470	116 5170	119	124				
25	104 10500	116 6660	118 6370	118 6040	119 5720	121	125	25	105 9910	116 6510	117 6180	117 5860	117 5550	120	124				
30		114 7860	118 6990	120 6640	120 6290	122	125	30	104 11360	116 7300	119 6780	119 6430	119 6100	121	124				
33		114 8600	117 7570	121 7050	121 6680	122	125	35		114 8490	118 7490	120 7110	120 6740	121	124				
35		114 9160	117 8070	121 7340	121 6960	122	125	36		114 8760	118 7670	120 7260	121 6890	122	124				

WEIGHT = 12000 LBS										WEIGHT = 11800 LBS									
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS					
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR	V2 KIAS				
-35	112 4850	109 3870	110 3650	110 3440	110 3230	116	123	-35	111 4720	108 3770	109 3560	109 3340	109 3150	115	122				
-30	112 4930	109 3950	110 3720	110 3510	110 3300	116	123	-30	111 4800	108 3840	109 3630	109 3410	109 3210	115	122				
-25	112 5010	109 4020	110 3790	110 3580	110 3360	116	123	-25	111 4880	108 3910	109 3690	109 3480	109 3270	115	122				
-20	112 5090	109 4090	110 3860	110 3640	110 3430	116	123	-20	111 4960	108 3980	109 3760	109 3540	109 3330	115	122				
-15	112 5180	109 4180	110 3950	110 3720	110 3500	116	123	-15	111 5050	108 4070	109 3840	109 3620	109 3410	115	122				
-10	112 5330	110 4280	110 4050	110 3820	110 3600	116	123	-10	111 5170	108 4170	109 3940	109 3710	109 3500	115	122				
-5	111 5660	110 4440	110 4200	111 3960	111 3740	116	123	-5	111 5340	109 4300	109 4070	109 3840	110 3620	115	122				
0	110 6140	111 4670	111 4420	112 4180	112 3940	117	123	0	111 5740	110 4530	110 4280	110 4040	111 3810	115	122				
5	109 6650	112 4950	112 4690	113 4440	113 4190	117	123	5	110 6220	111 4790	111 4530	111 4290	111 4050	116	122				
10	108 7210	113 5250	113 4980	113 4710	114 4450	117	123	10	109 6740	112 5070	112 4810	112 4550	112 4290	116	122				
15	108 7800	114 5560	114 5270	114 4990	114 4720	118	123	15	109 7290	112 5370	113 5090	113 4820	113 4550	117	122				
20	107 8420	115 5870	115 5570	115 5280	115 4990	118	123	20	108 7870	113 5670	113 5380	114 5090	114 4810	117	122				
25	106 9280	116 6280	116 5960	116 5650	116 5350	119	123	25	107 8650	114 6060	114 5750	115 5450	115 5160	118	122				
30	105 10590	116 6890	117 6540	117 6210	117 5880	120	123	30	106 9870	116 6650	116 6310	116 5980	116 5660	118	122				
35		115 7750	119 7220	119 6860	119 6500	120	123	35	106 11440	116 7330	117 6960	117 6610	118 6260	119	122				
36		115 7990	119 7380	119 7000	119 6630	120	123	37		116 7640	118 7260	118 6880	118 6520	119	122				
37		115 8250	118 7530	119 7150	119 6770	121	123	39		116 7980	119 7560	119 7180	119 6800	120	122				

WEIGHT = 11600 LBS										WEIGHT = 11400 LBS									
		ZERO WIND		HEADWINDS								ZERO WIND		HEADWINDS					
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR	V2 KIAS				
-35	110 4600	107 3680	108 3460	108 3260	108 3060	114	121	-35	109 4500	106 3590	106 3380	107 3180	107 2980	113	121				
-30	110 4680	107 3750	107 3530	108 3320	108 3120	114	121	-30	109 4570	106 3650	106 3440	107 3240	107 3040	113	121				
-25	110 4760	107 3810	107 3600	108 3390	108 3180	114	121	-25	109 4640	106 3720	106 3510	107 3300	107 3100	113	121				
-20	110 4830	107 3880	107 3660	108 3450	108 3250	114	121	-20	109 4720	106 3790	106 3570	107 3370	107 3160	113	121				
-15	110 4920	107 3960	107 3740	108 3520	108 3310	114	121	-15	108 4800	106 3860	106 3640	107 3430	107 3230	113	121				
-10	110 5040	107 4060	108 3830	108 3610	108 3400	114	121	-10	109 4910	106 3950	106 3730	107 3520	107 3310	113	120				
-5	110 5190	108 4180	108 3950	108 3730	108 3510	114	121	-5	109 5050	106 4070	107 3840	107 3620	107 3410	113	120				
0	111 5440	108 4390	109 4150	109 3920	109 3690	114	121	0	110 5270	107 4250	107 4020	108 3790	108 3570	113	120				
5	111 5790	109 4620	110 4380	110 4130	110 3900	115	121	5	111 5630	108 4460	108 4220	108 3990	109 3760	113	120				
10	110 6270	110 4900	111 4640	111 4390	111 4140	115	121	10	111 5820	109 4730	109 4470	109 4230	110 3990	114	120				
15	110 6790	111 5180	111 4910	112 4650	112 4390	116	121	15	111 6310	110 5000	110 4740	110 4480	110 4230	114	120				
20	109 7330	112 5470	112 5190	112 4910	112 4640	116	121	20	110 6800	111 5280	111 5000	111 4730	111 4470	115	120				
25	108 8050	113 5850	113 5550	113 5260	113 4970	116	121	25	109 7470	112 5640	112 5350	112 5060	112 4790	115	120				
30	107 9160	114 6410	115 6080	115 5760	115 5450	117	121	30	108 8480	113 6180	113 5860	113 5550	113 5250	116	120				
35	107 10590	116 7070	116 6710	116 6360	116 6020	118	121	35	108 9790	115 6810	115 6460	115 6120	115 5790	117	120				
39		117 7660	117 7280	117 6910	117 6540	118	121	40	107 11460	116 7530	116 7150	116 6780	116 6420	117	120				
40		117 7830	117 7430	118 7050	118 6680	119	121	42		117 7860	117 7470	117 7080	117 6710	118	120				

Figure 4-19 (Sheet 13)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
6000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE HEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	V1 DIST				20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	V1 DIST	20 KTS	30 KTS				
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		
-35	107	4310	104	3430	105	3230	105	3040	105	2850	112	120	-35	104	4080	102	3250	102	3050	103	2870	103	2690	110	119
-30	107	4380	104	3500	105	3290	105	3100	105	2910	112	120	-30	104	4150	102	3310	102	3110	103	2930	103	2740	110	119
-25	107	4450	104	3560	105	3360	105	3160	105	2960	112	120	-25	104	4210	102	3370	102	3170	103	2980	103	2800	110	119
-20	107	4520	104	3620	105	3420	105	3220	105	3020	112	120	-20	104	4280	102	3430	102	3230	103	3040	103	2850	110	119
-15	107	4600	104	3690	105	3480	105	3280	105	3080	111	120	-15	104	4360	102	3490	102	3290	103	3100	103	2910	110	119
-10	107	4690	104	3770	105	3560	105	3350	105	3150	111	120	-10	104	4440	102	3560	102	3360	103	3170	103	2970	110	118
-5	107	4800	104	3860	105	3650	105	3440	105	3230	111	119	-5	104	4540	102	3650	102	3440	103	3240	103	3050	109	118
0	107	4980	105	4010	105	3780	105	3570	105	3360	111	118	0	104	4680	102	3750	102	3540	103	3340	103	3140	109	117
5	108	5200	105	4180	105	3950	106	3730	106	3510	111	118	5	104	4830	102	3880	102	3660	103	3450	103	3240	108	116
10	109	5460	106	4390	106	4160	107	3920	107	3700	111	118	10	105	5030	103	4040	103	3810	103	3590	103	3380	108	115
15	110	5720	107	4650	107	4400	107	4150	108	3920	112	118	15	106	5250	103	4230	104	3990	104	3770	104	3580	109	115
20	110	6030	108	4900	108	4640	108	4390	108	4140	112	118	20	107	5500	104	4460	104	4210	105	3980	105	3750	109	115
25	111	6440	109	5240	109	4960	109	4690	109	4430	113	118	25	108	5870	105	4760	105	4500	106	4250	106	4010	110	115
30	110	7210	110	5730	110	5430	111	5140	111	4850	114	118	30	109	6410	107	5200	107	4920	107	4650	107	4390	110	115
35	110	8270	112	6310	112	5980	112	5660	112	5350	114	118	35	111	7040	108	5720	108	5410	109	5120	109	4830	111	115
40	109	9620	113	6970	113	6620	114	6270	114	5930	115	118	40	112	7760	110	6310	110	5980	110	5660	110	5340	112	115
42	109	10280	114	7270	114	6900	114	6540	114	6190	115	118	42	112	8080	110	6580	110	6230	111	5900	111	5570	112	115

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	V1 DIST				20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	V1 DIST	20 KTS	30 KTS				
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		
-35	102	3860	100	3070	100	2880	100	2710	101	2530	108	118	-35	99	3640	97	2890	97	2720	98	2550	98	2390	107	117
-30	102	3920	100	3120	100	2940	100	2760	101	2590	108	118	-30	99	3700	97	2950	97	2770	98	2600	98	2430	107	117
-25	102	3980	100	3180	100	2990	100	2810	101	2640	108	118	-25	99	3760	97	3000	97	2820	98	2650	98	2480	107	117
-20	102	4050	100	3240	100	3050	100	2870	101	2690	108	118	-20	99	3820	97	3050	97	2870	98	2700	98	2530	107	117
-15	102	4120	99	3300	100	3110	100	2920	101	2740	108	118	-15	99	3890	97	3110	97	2930	98	2750	98	2580	106	117
-10	102	4200	99	3360	100	3170	100	2980	101	2800	108	117	-10	99	3960	97	3170	97	2990	98	2810	98	2640	106	116
-5	102	4290	99	3440	100	3240	100	3050	100	2870	108	117	-5	99	4050	97	3240	97	3050	98	2870	98	2700	106	116
0	102	4410	99	3540	100	3340	100	3140	100	2950	107	115	0	99	4160	97	3330	97	3140	98	2950	98	2770	105	114
5	102	4540	99	3640	100	3430	100	3230	100	3030	106	114	5	99	4270	97	3420	97	3220	98	3030	98	2850	105	113
10	102	4670	99	3740	100	3530	100	3320	100	3120	106	113	10	99	4390	97	3510	97	3310	98	3120	98	2920	104	112
15	102	4850	100	3880	100	3660	100	3450	101	3240	106	113	15	99	4520	97	3610	97	3400	98	3200	98	3010	103	111
20	103	5030	100	4040	101	3810	101	3590	101	3380	106	113	20	99	4650	97	3720	97	3510	98	3300	98	3100	103	110
25	104	5330	102	4310	102	4070	102	3840	102	3610	106	113	25	100	4860	98	3890	98	3670	98	3460	98	3250	103	110
30	106	5810	103	4700	103	4450	103	4200	104	3950	107	113	30	102	5260	99	4230	99	4000	100	3770	100	3540	104	110
35	107	6380	105	5160	105	4880	105	4610	105	4350	108	113	35	103	5760	101	4640	101	4390	101	4130	101	3890	105	110
40	109	7020	106	5690	106	5390	106	5090	107	4800	109	113	40	105	6330	102	5110	103	4830	103	4560	103	4290	105	110
42	109	7310	107	5930	107	5610	107	5300	107	5000	109	113	42	106	6590	103	5320	103	5030	103	4740	103	4470	106	110

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	V1 DIST				20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	V1 DIST	20 KTS	30 KTS				
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		
-35	96	3430	94	2720	95	2560	95	2400	96	2240	105	116	-35	93	3240	93	2660	93	2480	93	2300	93	2130	103	115
-30	96	3490	94	2770	95	2610	95	2440	96	2290	105	116	-30	93	3290	93	2700	93	2520	93	2340	93	2170	103	115
-25	96	3550	94	2820	95	2660	95	2490	96	2330	105	116	-25	93	3340	93	2750	93	2560	93	2380	93	2210	103	115
-20	96	3600	94	2870	95	2710	95	2540	96	2380	105	116	-20	93	3390	93	2790	93	2610	93	2430	93	2250	103	115
-15	96	3660	94	2930	95	2750	95	2590	96	2430	105	116	-15	93	3440	93	2830	93	2640	93	2460	93	2290	103	115
-10	96	3730	94	2980	95	2810	95	2640	96	2480	104	115	-10	93	3500	92	2850	92	2660	92	2480	93	2320	103	114
-5	96	3810	94	3050	95	2870	95	2700	96	2530	104	115	-5	93	3570	91	2860	92	2690	92	2530	93	2370	102	114
0	96	3910	94	3120	95	2940	95	2770	96	2600	103	113	0	93	3660	92	2920	92	2750	92	2590	93	2420	101	112
5	96	4010	94	3210	95	3020	95	2840	96	2660	103	112	5	93	3760	92	3000	92	2820	92	2650	93	2480	101	111
10	97	4120	94	3290	95	3100	95	2910	96	2730	102	111	10	94	3850	92	3070	92	2890	92	2720	93	2550	100	110
15	97	4230	94	3380	95	3180	95	2990	96	2810	102	110	15	94	3950	92	3150	92	2960	92	2780	93	2610	100	109
20	97	4340	94	3470	95	3260	95	3070	96	2880	101	109	20	94	4050	92	3230	92	3040	92	2850	93	2680	99	108
25	97	4470	94	3570	95	3360	95	3160	96	2970	100	108	25	94	4170	92	3320	92	3130	92	2940	93	2750	98	106
30																									



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
7000 FEET

CONDITIONS: ANTI-ICE OFF  
RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				
-35	114	5330	112	4220	112	3990	112	3760	113	3540	118	125	-35	113	5120	111	4110	111	3880	111	3660	111	3440	117	124
-30	112	5530	112	4310	112	4070	112	3840	113	3620	118	125	-30	113	5220	111	4200	111	3970	111	3740	111	3520	117	124
-25	111	5740	112	4400	112	4160	112	3930	113	3700	118	125	-25	112	5430	111	4290	111	4060	111	3830	112	3600	117	124
-20	110	5950	112	4500	112	4260	112	4020	113	3790	118	125	-20	111	5640	111	4380	111	4150	111	3910	112	3690	117	124
-15	109	6270	112	4650	113	4400	113	4160	113	3920	118	125	-15	110	5940	111	4530	111	4280	112	4040	112	3810	117	124
-10	108	6640	113	4810	113	4560	113	4310	114	4070	118	125	-10	109	6290	112	4690	112	4440	112	4190	112	3960	117	124
-5	107	7170	114	5090	114	4820	114	4560	114	4310	119	125	-5	108	6790	113	4940	113	4680	113	4430	113	4180	118	124
0	107	7780	115	5410	115	5130	115	4860	115	4590	119	125	0	107	7370	114	5250	114	4980	114	4710	114	4450	118	124
5	106	8450	116	5740	116	5460	116	5160	116	4880	120	125	5	106	8000	114	5570	115	5290	115	5010	115	4740	119	124
10	105	9180	116	6090	117	5780	117	5480	117	5190	120	125	10	106	8690	115	5910	116	5610	116	5320	116	5030	119	124
15	104	9950	115	6550	117	6130	118	5810	118	5510	121	125	15	105	9410	116	6260	116	5940	116	5640	117	5340	120	124
20	103	10800	114	7140	117	6490	118	6160	119	5840	121	125	20	104	10200	115	6660	117	6300	117	5970	117	5660	120	124
25			113	8050	117	7130	120	6680	120	6340	122	125	25	103	11460	114	7490	117	6820	118	6480	119	6140	121	124
30			112	9250	116	8210	119	7330	121	6950	122	125	30			113	8590	117	7570	120	7100	120	6730	121	124
31			112	9530	116	8460	119	7470	121	7090	122	125	31			113	8850	116	7800	120	7240	120	6860	121	124
													32			113	9110	116	8040	120	7380	120	7000	121	124

WEIGHT = 12000 LBS										WEIGHT = 11800 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				
-35	112	4990	109	4000	110	3780	110	3560	110	3350	116	123	-35	111	4860	108	3900	109	3680	109	3460	109	3250	115	122
-30	112	5080	109	4080	110	3860	110	3630	110	3420	116	123	-30	111	4950	108	3980	109	3750	109	3540	109	3330	115	122
-25	112	5180	109	4170	110	3940	110	3720	110	3500	116	123	-25	111	5050	108	4060	109	3830	109	3610	109	3400	115	122
-20	112	5290	109	4260	110	4020	110	3800	110	3580	116	123	-20	111	5140	108	4140	109	3920	109	3690	109	3480	115	122
-15	111	5560	110	4390	110	4150	110	3920	111	3690	116	123	-15	111	5280	109	4260	109	4030	109	3800	109	3580	115	122
-10	110	5890	110	4550	111	4300	111	4060	111	3830	116	123	-10	111	5510	109	4410	109	4170	109	3940	110	3710	115	122
-5	109	6360	111	4780	111	4520	112	4280	112	4040	117	123	-5	110	5960	110	4620	110	4370	110	4130	111	3900	115	122
0	108	6910	112	5070	112	4810	113	4550	113	4300	117	123	0	109	6460	111	4900	111	4640	111	4390	112	4150	116	122
5	107	7490	113	5380	113	5110	114	4840	114	4570	118	123	5	108	7010	112	5200	112	4930	112	4670	112	4410	116	122
10	107	8140	114	5710	114	5420	114	5140	115	4860	118	123	10	108	7600	113	5520	113	5230	113	4960	113	4680	117	122
15	106	8800	115	6050	115	5740	115	5440	115	5150	118	123	15	107	8230	113	5840	114	5540	114	5250	114	4960	117	122
20	105	9550	116	6400	116	6080	116	5760	116	5460	119	123	20	106	8920	114	6180	114	5860	115	5560	115	5260	118	122
25	104	10710	115	6930	117	6580	117	6250	117	5920	119	123	25	105	9690	115	6680	116	6350	116	6020	116	5700	118	122
30			114	7880	117	7210	118	6840	118	6490	120	123	30	105	11400	115	7310	117	6950	117	6590	117	6250	119	122
32			114	8340	117	7490	119	7110	119	6740	120	123	32			114	8080	118	7500	118	7120	118	6750	119	122
34			113	8860	117	7780	119	7390	120	7010	121	123	34			114	8330	118	7650	118	7270	118	6890	120	122

WEIGHT = 11600 LBS										WEIGHT = 11400 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				
-35	110	4740	107	3800	107	3580	108	3370	108	3170	114	121	-35	109	4630	106	3710	106	3490	107	3290	107	3090	113	121
-30	110	4820	107	3870	107	3660	108	3440	108	3240	114	121	-30	109	4710	106	3780	106	3560	107	3360	107	3150	113	121
-25	110	4920	107	3960	107	3740	108	3520	108	3310	114	121	-25	109	4790	106	3850	106	3640	107	3430	107	3220	113	121
-20	110	5010	107	4030	107	3810	108	3590	108	3380	114	121	-20	109	4880	106	3930	106	3710	107	3500	107	3290	113	121
-15	110	5150	107	4150	108	3920	108	3700	108	3480	114	121	-15	109	5010	106	4040	106	3810	107	3600	107	3380	113	120
-10	110	5300	108	4280	108	4040	108	3820	108	3600	114	121	-10	109	5160	106	4160	107	3930	107	3710	107	3490	113	120
-5	111	5550	109	4480	109	4240	109	4000	109	3770	114	121	-5	110	5370	107	4340	107	4100	108	3870	108	3650	113	120
0	110	6030	109	4730	110	4480	110	4240	110	4000	115	121	0	111	5650	108	4570	108	4320	109	4090	109	3860	113	120
5	109	6540	110	5020	111	4760	111	4500	111	4250	115	121	5	110	6080	109	4850	109	4590	109	4340	110	4100	114	120
10	109	7090	111	5330	111	5050	112	4780	112	4520	116	121	10	109	6590	110	5140	110	4870	110	4610	111	4350	114	120
15	108	7670	112	5630	112	5340	112	5060	113	4780	116	121	15	109	7130	111	5430	111	5150	111	4880	111	4610	115	120
20	107	8310	113	5960	113	5660	113	5360	113	5070	116	121	20	108	7730	111	5750	112	5450	112	5160	112	4880	115	120
25	106	9000	114	6450	114	6120	114	5800	115	5490	117	121	25	107	8620	113	6210	113	5900	113	5590	113	5290	116	120
30	105	10590	115	7050	116	6700	116	6350	116	6020	118	121	30	106	9810	114	6790	114	6450	114	6110	114	5790	117	120
35			115	7750	117	7370	117	7000	117	6630	118	121	35	106	11330	115	7470	116	7090	116	6730	116	6370	117	120
37			115	8080	118	7680	118																		



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
7000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS																	
TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS		TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS	
						10 KTS		20 KTS		30 KTS										10 KTS		20 KTS		30 KTS			
						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT									V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT		
-35	107	4440	104	3550	105	3340	105	3150	105	2950	112	120	-35	104	4200	102	3360	102	3160	103	2970	103	2790	110	119		
-30	107	4520	104	3620	105	3410	105	3210	105	3020	112	120	-30	104	4280	102	3420	102	3220	103	3030	103	2850	110	119		
-25	107	4600	104	3690	105	3480	105	3280	105	3080	112	120	-25	104	4350	102	3490	102	3290	103	3100	103	2910	110	119		
-20	107	4680	104	3760	105	3550	105	3340	105	3150	111	120	-20	104	4430	102	3550	102	3350	103	3160	103	2970	110	119		
-15	107	4780	104	3850	105	3630	105	3420	105	3220	111	119	-15	104	4520	102	3640	102	3430	103	3230	103	3040	110	118		
-10	107	4890	104	3940	104	3720	105	3510	105	3300	111	119	-10	104	4630	102	3720	102	3510	102	3310	103	3110	109	118		
-5	107	5080	105	4090	105	3860	105	3640	105	3430	111	118	-5	104	4760	102	3830	102	3610	102	3400	103	3200	109	116		
0	108	5300	105	4270	106	4040	106	3810	106	3590	111	118	0	105	4920	102	3960	102	3740	103	3520	103	3310	108	116		
5	109	5560	106	4500	106	4260	107	4030	107	3800	111	118	5	105	5130	103	4120	103	3900	103	3670	103	3460	108	115		
10	110	5870	107	4770	107	4520	108	4270	108	4030	112	118	10	106	5370	103	4340	104	4110	104	3880	104	3650	109	115		
15	111	6190	108	5050	108	4780	108	4520	109	4270	112	118	15	107	5650	104	4590	105	4340	105	4100	105	3860	109	115		
20	110	6610	109	5340	109	5060	109	4780	109	4520	113	118	20	108	5970	105	4850	105	4590	106	4340	106	4090	110	115		
25	109	7350	110	5770	110	5470	110	5180	110	4890	113	118	25	109	6430	106	5230	107	4960	107	4690	107	4420	110	115		
30	108	8340	111	6290	111	5970	112	5660	112	5350	114	118	30	111	7010	108	5710	108	5410	108	5120	108	4830	111	115		
35	108	9980	113	6910	113	6560	113	6220	113	5890	115	118	35	111	7880	109	6260	109	5930	109	5620	110	5310	112	115		
40	107	11280	114	7670	114	7280	114	6910	115	6540	115	118	40	110	8850	111	6930	111	6570	111	6230	111	5890	112	115		

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS																	
TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS		TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS	
						10 KTS		20 KTS		30 KTS										10 KTS		20 KTS		30 KTS			
						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT									V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT		
-35	102	3970	100	3170	100	2980	100	2800	101	2630	108	118	-35	99	3750	97	2990	97	2810	98	2640	98	2470	107	117		
-30	102	4040	100	3230	100	3040	100	2860	101	2680	108	118	-30	99	3820	97	3050	97	2870	98	2690	98	2530	107	117		
-25	102	4110	100	3290	100	3100	100	2920	101	2740	108	118	-25	99	3880	97	3100	97	2920	98	2750	98	2580	106	117		
-20	102	4190	100	3360	100	3160	100	2980	101	2800	108	118	-20	99	3950	97	3160	97	2980	98	2800	98	2630	106	117		
-15	102	4270	100	3430	100	3240	100	3050	100	2860	108	117	-15	99	4030	97	3230	97	3050	98	2870	98	2690	106	116		
-10	102	4370	99	3510	100	3310	100	3120	100	2930	107	117	-10	99	4120	97	3300	97	3120	98	2930	98	2750	106	115		
-5	102	4490	99	3600	100	3400	100	3200	100	3010	106	114	-5	99	4230	97	3390	97	3200	98	3010	98	2830	105	114		
0	102	4620	99	3710	100	3500	100	3300	100	3100	106	114	0	99	4350	97	3480	97	3290	98	3090	98	2910	104	113		
5	102	4760	99	3820	100	3600	100	3400	100	3190	106	113	5	99	4470	97	3580	97	3380	98	3180	98	2990	104	112		
10	102	4950	100	3970	100	3750	100	3530	101	3320	106	113	10	99	4600	97	3680	97	3470	98	3270	98	3070	103	111		
15	103	5160	101	4150	101	3930	101	3700	101	3490	106	113	15	100	4750	97	3810	97	3590	98	3380	98	3170	103	110		
20	104	5420	101	4390	102	4150	102	3910	102	3690	106	113	20	100	4940	98	3960	98	3740	98	3520	98	3310	103	110		
25	105	5840	103	4730	103	4480	103	4230	103	3980	107	113	25	101	5280	99	4260	99	4030	99	3800	100	3570	104	110		
30	107	6350	104	5160	104	4880	104	4610	105	4350	108	113	30	103	5740	100	4640	101	4380	101	4130	101	3890	104	110		
35	108	6950	106	5650	106	5350	106	5050	106	4770	109	113	35	104	6270	102	5070	102	4800	102	4530	102	4270	105	110		
40	109	7680	107	6240	107	5910	107	5590	107	5280	109	113	40	106	6920	103	5600	103	5300	104	5000	104	4720	106	110		

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS																	
TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS		TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS	
						10 KTS		20 KTS		30 KTS										10 KTS		20 KTS		30 KTS			
						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT									V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT		
-35	96	3530	94	2820	95	2650	95	2480	95	2320	105	116	-35	93	3340	93	2750	93	2560	93	2380	93	2210	103	115		
-30	96	3600	94	2870	95	2700	95	2530	95	2370	105	116	-30	93	3380	93	2790	93	2600	93	2420	93	2250	103	115		
-25	96	3660	94	2920	95	2750	95	2580	95	2420	105	116	-25	93	3440	93	2830	93	2640	93	2460	93	2280	103	115		
-20	96	3720	94	2980	95	2800	95	2630	95	2470	105	116	-20	93	3500	93	2860	93	2680	93	2490	93	2320	103	115		
-15	96	3800	94	3040	95	2860	95	2690	95	2530	104	115	-15	93	3570	92	2880	92	2690	92	2520	93	2360	102	114		
-10	96	3880	94	3100	95	2930	95	2750	95	2580	104	114	-10	93	3640	91	2910	92	2740	92	2580	93	2420	102	113		
-5	96	3970	94	3180	95	3000	95	2820	95	2650	103	113	-5	93	3730	92	2980	92	2800	92	2640	93	2470	101	112		
0	96	4080	94	3270	95	3080	95	2900	95	2720	103	112	0	93	3820	92	3050	92	2880	92	2700	93	2530	101	111		
5	97	4190	94	3350	95	3160	95	2970	95	2790	102	111	5	94	3920	92	3130	92	2950	92	2770	93	2600	100	110		
10	97	4310	94	3450	95	3250	95	3050	95	2870	101	110	10	94	4030	92	3210	92	3030	92	2840	93	2670	99	108		
15	97	4430	94	3540	95	3340	95	3140	95	2950	101	109	15	94	4130	92	3300	92	3100	92	2920	93	2740	99	107		
20	97	4550	94	3640	95	3430	95	3220	95	3030	100	108	20	94	4240	92	3380	92	3190	92	2990	93	2810	98	106		
25	97	4770	95	3830	95	3610	96	3400	96	3190	100	107	25	94	4390	92	3490	92	3290	92	3090	93	2900	98	105		
30	99	5160	96	4150	97	3910	97	3690	97	3470	101	107	30	95	4620	92	3700	93	3480	93	3280	93	3070	97	104		
35	100	5630	98	4530	98	4280	98	4030	98	3790	102	107	35	96	5020												



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
8000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

SPEED BRAKES - RETRACT

LANDING GEAR - DOWN

INOPERATIVE ENGINE - WINDMILLING AFTER V1

THRUST ATTENUATORS - AUTO

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		
-35	112	5880	112	4370	112	4130	112	3900	113	3680	118	125	-35	112	5380	111	4260	111	4030	111	3800	111	3580	117	124
-30	110	5890	112	4470	112	4220	112	3990	113	3760	118	125	-30	111	5580	111	4350	111	4110	111	3880	111	3660	117	124
-25	109	6100	112	4560	112	4320	112	4080	113	3850	118	125	-25	110	5780	111	4440	111	4200	111	3970	112	3740	117	124
-20	108	6360	112	4680	112	4430	113	4190	113	3950	118	125	-20	109	6030	111	4560	111	4310	111	4080	112	3850	117	124
-15	107	6860	113	4910	113	4650	113	4400	114	4160	118	125	-15	108	6500	112	4780	112	4530	112	4280	113	4040	117	124
-10	106	7410	114	5200	114	4930	114	4670	114	4420	119	125	-10	107	7020	113	5050	113	4790	113	4530	113	4290	118	124
-5	105	8060	115	5530	115	5250	115	4980	115	4710	119	125	-5	106	7640	114	5370	114	5100	114	4830	114	4570	118	124
0	105	8770	115	5880	116	5590	116	5300	116	5020	120	125	0	105	8300	115	5710	115	5420	115	5140	115	4860	119	124
5	104	9540	114	6320	117	5940	117	5630	117	5340	120	125	5	105	9020	115	6070	116	5760	116	5460	116	5170	119	124
10	103	10380	114	6920	117	6310	118	5990	118	5680	121	125	10	104	9820	114	6460	116	6120	117	5810	117	5500	120	124
15	102	11280	113	7550	116	6710	119	6350	119	6030	121	125	15	103	10670	113	7050	117	6490	117	6160	118	5840	120	124
20			112	8320	115	7410	119	6780	119	6430	121	125	20			113	7750	116	6920	118	6570	118	6230	120	124
25			111	9450	114	8440	118	7410	121	7000	122	125	25			112	8800	115	7810	119	7150	120	6780	121	124
26			111	9710	114	8670	118	7610	121	7130	122	125	26			112	9290	115	8250	118	7400	120	7030	121	124
27			111	9980	114	8920	118	7830	121	7260	122	125	27			111	9830	115	8740	118	7680	120	7290	122	124

WEIGHT = 12000 LBS										WEIGHT = 11800 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		
-35	112	5150	109	4140	110	3910	110	3690	110	3470	116	123	-35	111	5020	108	4030	109	3810	109	3590	109	3380	115	122
-30	112	5240	109	4230	110	4000	110	3770	110	3550	116	123	-30	111	5110	108	4120	109	3890	109	3670	109	3450	115	122
-25	111	5400	109	4320	110	4080	110	3850	110	3630	116	123	-25	111	5210	108	4200	109	3970	109	3750	109	3530	115	122
-20	110	5660	110	4420	110	4180	110	3950	110	3730	116	123	-20	111	5330	108	4300	109	4070	109	3840	109	3620	115	122
-15	109	6100	110	4640	111	4390	111	4150	111	3910	116	123	-15	110	5710	109	4490	109	4250	110	4020	110	3790	115	122
-10	108	6590	111	4880	112	4630	112	4380	112	4140	117	123	-10	109	6170	110	4720	110	4470	110	4230	111	3990	115	122
-5	107	7170	112	5190	113	4920	113	4660	113	4410	117	123	-5	108	6710	111	5020	111	4760	111	4500	112	4250	116	122
0	106	7790	113	5520	113	5240	114	4960	114	4690	118	123	0	107	7290	112	5330	112	5060	112	4790	113	4530	116	122
5	106	8460	114	5860	114	5560	114	5270	115	4990	118	123	5	106	7920	113	5660	113	5370	113	5090	113	4810	117	122
10	105	9200	115	6220	115	5910	115	5600	115	5310	119	123	10	106	8600	114	6010	114	5700	114	5410	114	5120	117	122
15	104	9990	114	6590	116	6260	116	5940	116	5630	119	123	15	105	9330	114	6360	115	6040	115	5730	115	5430	118	122
20	103	10930	114	7140	117	6670	117	6340	117	6010	119	123	20	104	10200	114	6770	115	6440	116	6110	116	5790	118	122
25			113	8090	116	7260	118	6890	118	6540	120	123	25	103	11520	114	7410	117	7000	117	6640	117	6300	119	122
29			112	9010	116	7940	119	7400	119	7020	120	123	29			113	8480	116	7640	118	7260	118	6880	119	122
30			112	9270	115	8180	119	7530	119	7150	121	123	30			113	8970	116	7920	118	7530	119	7140	120	122

WEIGHT = 11600 LBS										WEIGHT = 11400 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR KIAS	V2 KIAS
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS				10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT				KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		
-35	110	4980	107	3930	107	3710	108	3500	108	3290	114	121	-35	108	4770	106	3830	106	3620	107	3410	107	3200	113	121
-30	110	4980	107	4010	107	3790	108	3570	108	3360	114	121	-30	108	4850	106	3910	106	3690	107	3480	107	3270	113	121
-25	110	5070	107	4090	107	3860	108	3650	108	3430	114	121	-25	108	4940	106	3980	106	3760	107	3550	107	3340	113	121
-20	110	5180	107	4190	107	3960	108	3740	108	3520	114	121	-20	108	5050	106	4080	106	3850	107	3640	107	3420	113	120
-15	110	5390	108	4360	108	4120	108	3890	108	3670	114	121	-15	109	5250	107	4240	107	4010	107	3780	107	3560	113	120
-10	110	5760	109	4570	109	4330	109	4090	109	3860	114	121	-10	110	5480	107	4430	107	4190	108	3960	108	3730	113	120
-5	109	6260	110	4850	110	4590	110	4340	110	4100	115	121	-5	110	5830	108	4680	108	4430	109	4190	109	3950	114	120
0	108	6810	111	5150	111	4880	111	4620	111	4370	115	121	0	109	6340	109	4970	109	4710	110	4450	110	4210	114	120
5	107	7380	111	5460	112	5180	112	4910	112	4640	116	121	5	108	6880	110	5270	110	5000	110	4730	111	4470	114	120
10	107	8030	112	5800	112	5500	113	5210	113	4930	116	121	10	108	7460	111	5590	111	5300	111	5020	111	4750	115	120
15	106	8710	113	6140	113	5830	113	5530	114	5230	117	121	15	107	8090	112	5920	112	5620	112	5320	112	5040	115	120
20	105	9510	114	6530	114	6210	114	5890	114	5580	117	121	20	106	8850	113	6300	113	5980	113	5670	113	5370	116	120
25	104	10720	115	7090	115	6740	115	6400	116	6060	118	121	25	105	9950	114	6830	114	6490	114	6160	114	5830	116	120
30			114	7740	116	7360	117	6990	117	6620	118	121	30	105	11320	115	7450	115	7080	115	6720	115	6370	117	120
32			114	8150	117	7830	117	7250	117	6870	118	121	32			114	7870	116	7490	116	7110	116	6740	117	120
33			113	8400	117	7780	117	7390	117	7010	119	121	33			114	8210	116	7810	117	7420	117	7030	118	120



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
8000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS																	
TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS		TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS	
						10 KTS		20 KTS		30 KTS										10 KTS		20 KTS		30 KTS			
						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT									V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT		
-35	107	4570	104	3670	105	3460	105	3260	105	3060	112	120	-35	104	4330	102	3470	102	3270	103	3080	103	2890	110	119		
-30	107	4660	104	3740	105	3530	105	3330	105	3130	112	120	-30	104	4410	102	3540	102	3340	103	3140	103	2950	110	119		
-25	107	4740	104	3810	105	3600	105	3400	105	3190	111	120	-25	104	4490	102	3610	102	3400	103	3210	103	3020	110	119		
-20	107	4830	104	3890	104	3680	105	3470	105	3270	111	120	-20	104	4570	102	3680	102	3480	103	3280	103	3080	110	119		
-15	107	4970	104	4010	104	3790	105	3580	105	3370	111	119	-15	104	4710	102	3790	102	3580	102	3370	103	3170	109	118		
-10	107	5170	105	4170	105	3940	105	3720	105	3500	111	118	-10	104	4850	102	3900	102	3680	102	3470	103	3270	109	116		
-5	108	5410	105	4360	106	4130	106	3900	106	3670	111	118	-5	105	5020	102	4040	102	3820	103	3600	103	3390	108	116		
0	109	5680	106	4620	107	4370	107	4130	107	3900	112	118	0	105	5230	103	4210	103	3980	103	3760	103	3540	108	115		
5	110	6010	107	4900	107	4640	108	4390	108	4140	112	118	5	106	5480	104	4450	104	4210	104	3980	104	3750	109	115		
10	110	6410	108	5190	108	4920	108	4660	109	4400	112	118	10	107	5800	104	4720	105	4470	105	4220	105	3980	109	115		
15	109	6940	109	5500	109	5210	109	4930	109	4660	113	118	15	108	6130	105	4990	105	4730	106	4470	106	4220	110	115		
20	108	7570	110	5840	110	5540	110	5250	110	4970	113	118	20	109	6510	106	5310	106	5030	107	4760	107	4490	110	115		
25	107	8500	111	6340	111	6010	111	5700	111	5390	114	118	25	110	7040	107	5750	108	5450	108	5160	108	4870	111	115		
30	107	9640	112	6900	112	6550	113	6210	113	5880	115	118	30	109	7700	109	6250	109	5930	109	5610	109	5310	111	115		
35	106	11160	114	7590	114	7220	114	6850	114	6450	115	118	35	109	8850	110	6870	110	6520	110	6180	110	5840	112	115		
36	106	11550	114	7780	114	7370	114	6990	114	6630	115	118	36	108	9450	111	7160	111	6800	111	6440	111	6100	112	115		
37	106	11960	114	7920	114	7530	114	7150	115	6770	116	118															

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS																	
TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS		TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS	
						10 KTS		20 KTS		30 KTS										10 KTS		20 KTS		30 KTS			
						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT									V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT		
-35	102	4090	100	3280	100	3090	100	2900	101	2730	108	118	-35	99	3870	97	3090	97	2910	98	2740	98	2570	107	117		
-30	102	4170	100	3340	100	3150	100	2970	101	2780	108	118	-30	99	3930	97	3150	97	2970	98	2790	98	2620	107	117		
-25	102	4240	100	3410	100	3210	100	3030	101	2840	108	118	-25	99	4000	97	3210	97	3030	98	2850	98	2680	106	117		
-20	102	4320	99	3480	100	3280	100	3090	100	2910	108	118	-20	99	4080	97	3280	97	3090	98	2910	98	2730	106	117		
-15	102	4440	100	3570	100	3370	100	3180	100	2990	107	116	-15	99	4190	97	3360	97	3170	98	2990	98	2810	106	115		
-10	102	4570	99	3670	100	3470	100	3270	100	3070	107	115	-10	99	4300	97	3460	97	3260	98	3070	98	2880	105	114		
-5	102	4700	99	3780	100	3570	100	3360	100	3160	106	114	-5	99	4430	97	3550	97	3350	98	3150	98	2970	104	113		
0	102	4850	100	3900	100	3680	100	3470	100	3270	106	113	0	99	4550	97	3650	97	3450	98	3250	98	3050	104	112		
5	102	5050	100	4060	100	3830	101	3610	101	3400	106	113	5	99	4680	97	3760	97	3550	98	3340	98	3140	103	111		
10	103	5280	101	4270	101	4040	101	3810	101	3590	106	113	10	100	4860	97	3890	98	3680	98	3460	98	3250	103	110		
15	104	5570	102	4520	102	4270	102	4030	102	3800	107	113	15	100	5050	98	4070	98	3850	98	3630	99	3410	103	110		
20	105	5910	103	4800	103	4540	103	4290	103	4040	107	113	20	101	5340	99	4320	99	4080	99	3850	99	3630	104	110		
25	106	6390	104	5190	104	4910	104	4650	104	4380	108	113	25	103	5770	100	4670	100	4420	100	4170	101	3930	104	110		
30	108	6930	105	5640	105	5340	105	5050	106	4770	108	113	30	104	6250	101	5070	101	4800	102	4530	102	4270	105	110		
35	109	7600	106	6190	107	5870	107	5550	107	5250	109	113	35	105	6850	103	5560	103	5260	103	4970	103	4690	106	110		
37	109	7920	107	6450	107	6110	107	5790	107	5470	109	113	37	106	7130	103	5780	103	5480	104	5180	104	4880	106	110		

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS																	
TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS		TEMP DEG C		TAILWIND 10 KTS V1 DIST KIAS FT		ZERO WIND V1 DIST KIAS FT		HEADWINDS						VR V2 KIAS	
						10 KTS		20 KTS		30 KTS										10 KTS		20 KTS		30 KTS			
						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT									V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT		
-35	96	3640	94	2910	95	2740	95	2570	95	2410	105	116	-35	93	3430	93	2830	93	2650	93	2460	93	2290	103	115		
-30	96	3710	94	2970	95	2790	95	2620	95	2460	105	116	-30	93	3480	93	2880	93	2690	93	2500	93	2330	103	115		
-25	96	3770	94	3020	95	2850	95	2680	95	2510	105	116	-25	93	3540	93	2920	93	2730	93	2540	93	2360	103	115		
-20	96	3840	94	3080	95	2900	95	2730	95	2570	105	115	-20	93	3610	92	2950	92	2760	92	2570	93	2400	103	114		
-15	96	3940	94	3160	95	2980	95	2800	95	2630	104	114	-15	93	3700	91	2960	92	2790	92	2630	93	2460	102	113		
-10	96	4040	94	3240	95	3060	95	2880	95	2700	103	113	-10	93	3790	92	3030	92	2860	92	2690	93	2520	101	112		
-5	96	4150	94	3330	95	3140	95	2950	95	2770	103	112	-5	93	3890	92	3110	92	2930	92	2760	93	2590	101	111		
0	97	4270	94	3420	95	3220	95	3030	95	2850	102	111	0	94	3990	92	3190	92	3010	92	2830	93	2650	100	109		
5	97	4390	94	3510	95	3310	95	3120	95	2930	101	110	5	94	4100	92	3280	92	3090	92	2900	93	2720	99	108		
10	97	4520	94	3610	95	3410	95	3210	95	3010	101	109	10	94	4210	92	3360	92	3170	92	2980	93	2800	99	107		
15	97	4640	94	3720	95	3510	95	3300	95	3100	100	108	15	94	4330	92	3460	92	3260	92	3060	93	2870	98	106		
20	97	4830	95	3890	95	3670	95	3450	96	3250	100	107	20	94	4450	92	3550	92	3350	92	3150	92	2960	98	105		
25	98	5180	96	4180	96	3950	96	3720	97	3500	101	107	25	94	4650	92	3740	92	3520	93	3310	93	3110	97	104		
30	100	5610	97	4530	98	4280	98	4040	98	3800	102	107	30	96	5010	93	4020	93	3790	94	3570	94	3360	98	104		
35	101	6140	99	4960	99	4690	99	4420	99	4160																	



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
9000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS											
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT											
-35	109	6140	112	4580	112	4330	113	4100	113	3860	118	125	-35	110	5810	111	4460	111	4220	111	3990	112	3760	117	124
-30	108	6430	112	4710	113	4460	113	4220	113	3980	118	125	-30	109	6090	111	4590	111	4340	112	4110	112	3870	117	124
-25	107	6730	113	4850	113	4590	113	4340	113	4100	118	125	-25	108	6380	111	4720	112	4470	112	4230	112	3990	117	124
-20	106	7150	113	5050	113	4790	114	4540	114	4290	119	125	-20	107	6780	112	4910	112	4650	113	4400	113	4160	118	124
-15	105	7700	114	5340	114	5070	114	4800	115	4540	119	125	-15	106	7300	113	5180	113	4920	113	4660	114	4400	118	124
-10	104	8330	115	5660	115	5380	115	5100	115	4820	119	125	-10	105	7900	114	5500	114	5220	114	4950	114	4680	118	124
-5	104	9080	114	6050	116	5720	116	5430	116	5140	120	125	-5	104	8600	115	5850	115	5560	115	5270	115	4990	119	124
0	103	9900	113	6630	117	6090	117	5780	117	5480	120	125	0	104	9370	114	6220	116	5910	116	5610	116	5320	119	124
5	102	10790	112	7270	116	6480	118	6160	118	5840	121	125	5	103	10210	113	6800	117	6290	117	5970	117	5660	120	124
10			112	7960	115	7100	118	6650	119	6210	121	125	10	102	11130	112	7450	116	6680	118	6350	118	6020	120	124
15			111	8740	114	7820	117	6960	120	6610	122	125	15			111	8160	115	7260	118	6750	118	6400	121	124
20			110	9750	113	8740	117	7720	120	7110	122	125	20			111	9100	114	8120	117	7250	119	6880	121	124
21			110	9990	113	8970	116	7930	120	7220	122	125	23			110	9810	114	8760	117	7710	120	7230	121	124
23			113	9450	116	8360	120	7470	122	125			25			113	9240	117	8140	120	7480	122	124		

WEIGHT = 12000 LBS								WEIGHT = 11800 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS											
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT											
-35	111	5450	110	4330	110	4090	110	3860	110	3640	116	123	-35	111	5220	108	4210	109	3980	109	3760	109	3540	115	122
-30	110	5720	110	4450	110	4210	110	3980	111	3750	116	123	-30	111	5360	109	4320	109	4090	109	3860	109	3640	115	122
-25	109	5990	110	4580	110	4330	111	4100	111	3870	116	123	-25	110	5610	109	4440	109	4200	109	3970	110	3740	115	122
-20	108	6370	111	4760	111	4510	111	4260	111	4020	116	123	-20	109	5960	109	4610	110	4370	110	4130	110	3900	115	122
-15	107	6880	111	5010	112	4750	112	4500	112	4250	117	123	-15	108	6490	110	4840	110	4590	111	4340	111	4100	116	122
-10	106	7420	112	5310	113	5040	113	4780	113	4520	117	123	-10	107	6950	111	5130	111	4870	111	4610	112	4360	116	122
-5	105	8080	113	5650	114	5370	114	5090	114	4810	118	123	-5	106	7560	112	5460	112	5180	112	4910	113	4640	117	122
0	104	8800	114	6010	114	5710	115	5420	115	5130	118	123	0	105	8230	113	5810	113	5510	113	5230	113	4950	117	122
5	104	9580	114	6390	115	6070	115	5760	116	5460	119	123	5	105	8980	114	6170	114	5860	114	5560	114	5260	117	122
10	103	10430	113	6870	116	6450	116	6120	116	5800	119	123	10	104	9750	114	6550	115	6220	115	5900	115	5600	118	122
15	102	11360	112	7530	116	6850	117	6510	117	6170	119	123	15	103	10620	113	6950	115	6610	116	6270	116	5950	118	122
20			111	8390	115	7420	118	6990	118	6630	120	123	20			112	7700	116	7090	117	6740	117	6390	119	122
25			111	9500	114	8440	117	7590	119	7210	120	123	25			112	8710	115	7690	118	7310	118	6940	119	122
26			111	9760	114	8680	117	7720	119	7330	121	123	26			111	8950	115	7890	118	7440	118	7060	119	122
28													28			111	9430	115	8320	118	7890	118	7310	120	122

WEIGHT = 11600 LBS								WEIGHT = 11400 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS											
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT											
-35	110	5090	107	4100	107	3870	108	3650	108	3440	114	121	-35	109	4950	106	3990	106	3770	107	3550	107	3350	113	120
-30	110	5210	107	4200	108	3980	108	3750	108	3530	114	121	-30	109	5070	106	4090	106	3870	107	3650	107	3430	113	120
-25	110	5340	108	4310	108	4080	108	3850	108	3630	114	121	-25	109	5200	106	4200	107	3970	107	3750	107	3530	113	120
-20	110	5580	108	4470	108	4230	108	4000	109	3770	114	121	-20	109	5370	107	4340	107	4100	107	3880	107	3650	113	120
-15	109	6010	109	4680	109	4430	109	4190	109	3960	114	121	-15	110	5600	107	4530	108	4290	108	4050	108	3820	113	120
-10	108	6500	110	4960	110	4700	110	4450	110	4200	115	121	-10	109	6060	108	4780	108	4530	109	4290	109	4050	114	120
-5	107	7070	111	5270	111	5000	111	4730	111	4480	115	121	-5	108	6580	109	5090	109	4820	110	4560	110	4310	114	120
0	106	7890	111	5600	112	5320	112	5040	112	4770	116	121	0	107	7160	110	5410	110	5130	111	4860	111	4590	115	120
5	105	8970	112	5950	113	5650	113	5360	113	5070	116	121	5	106	7790	111	5740	111	5450	111	5160	112	4880	115	120
10	105	9090	113	6320	113	6000	114	5690	114	5390	117	121	10	106	8470	112	6090	112	5780	112	5480	112	5190	115	120
15	104	9910	114	6700	114	6370	114	6050	114	5730	117	121	15	105	9220	113	6460	113	6140	113	5820	113	5510	116	120
20	103	10970	113	7190	115	6830	115	6490	115	6150	118	121	20	104	10190	114	6930	114	6580	114	6250	114	5920	116	120
25			113	7960	116	7410	116	7040	116	6680	118	121	25	103	11190	113	7500	115	7130	115	6770	115	6420	117	120
28			112	8600	115	7790	117	7410	117	7030	118	121	30			113	8230	116	7760	116	7380	116	7000	117	120
30			112	9080	115	8070	117	7670	118	7280	119	121	33			112	9070	116	8260	117	7850	117	7450	118	120

Figure 4-19 (Sheet 19)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
9000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS					VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS					VR V2 KIAS				
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST			10 KTS	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT		
-35	107	4740	104	3810	104	3600	105	3390	105	3190	111	120	-35	104	4480	102	3600	102	3400	103	3200	103	3010	110	119
-30	107	4840	104	3900	104	3680	105	3470	105	3270	111	119	-30	104	4580	102	3680	102	3480	102	3280	103	3080	110	118
-25	107	4940	104	3980	104	3770	105	3550	105	3340	111	119	-25	104	4670	102	3760	102	3560	102	3350	103	3150	109	118
-20	107	5080	104	4100	105	3880	105	3660	105	3440	111	118	-20	104	4790	102	3860	102	3650	102	3440	103	3240	109	117
-15	107	5280	105	4260	105	4030	105	3810	105	3590	111	118	-15	104	4940	102	3980	102	3760	102	3540	103	3340	108	116
-10	108	5510	105	4460	106	4220	106	3980	106	3760	111	118	-10	105	5120	102	4120	102	3900	103	3680	103	3460	108	116
-5	109	5800	106	4730	107	4480	107	4230	107	4000	112	118	-5	105	5330	103	4300	103	4070	103	3840	103	3620	108	115
0	109	6160	107	5020	108	4760	108	4500	108	4250	112	118	0	106	5610	104	4570	104	4300	104	4080	104	3850	109	115
5	108	6700	108	5330	108	5050	109	4790	109	4520	113	118	5	107	5950	105	4840	105	4590	105	4340	105	4090	109	115
10	108	7280	109	5650	109	5360	109	5080	110	4800	113	118	10	108	6290	105	5130	106	4860	106	4600	106	4350	110	115
15	107	7910	110	5990	110	5690	110	5390	110	5100	113	118	15	109	6660	106	5440	106	5160	107	4880	107	4610	110	115
20	106	8730	111	6420	111	6100	111	5780	111	5470	114	118	20	109	7120	107	5820	107	5520	108	5230	108	4950	111	115
25	105	9800	112	6950	112	6600	112	6260	112	5930	114	118	25	108	7800	108	6300	109	5970	109	5660	109	5360	111	115
30	105	11120	113	7550	113	7180	113	6810	114	6460	115	118	30	107	8910	110	6830	110	6490	110	6150	110	5820	112	115
33			114	8020	114	7630	114	7240	114	6870	115	118	35	107	10410	111	7560	111	7190	111	6820	111	6460	113	115
35			114	8370	115	7960	115	7560	115	7170	116	118													

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS					VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS					VR V2 KIAS				
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST			10 KTS	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT		
-35	102	4240	99	3400	100	3210	100	3020	100	2840	108	118	-35	99	4000	97	3210	97	3020	98	2840	98	2670	106	117
-30	102	4330	99	3480	100	3280	100	3090	100	2900	108	117	-30	99	4080	97	3280	97	3090	98	2910	98	2730	106	116
-25	102	4420	99	3550	100	3350	100	3160	100	2970	108	117	-25	99	4170	97	3350	97	3160	98	2970	98	2800	106	116
-20	102	4530	99	3640	100	3440	100	3240	100	3050	107	116	-20	99	4270	97	3430	97	3240	98	3050	98	2870	106	115
-15	102	4650	99	3750	100	3540	100	3340	100	3140	107	115	-15	99	4380	97	3520	97	3330	98	3130	98	2950	105	114
-10	102	4790	99	3860	100	3640	100	3430	100	3230	106	114	-10	99	4510	97	3620	97	3420	98	3220	98	3030	104	113
-5	102	4950	100	3980	100	3760	100	3540	100	3330	106	113	-5	99	4640	97	3730	97	3520	98	3310	98	3120	104	112
0	102	5150	100	4150	100	3920	101	3700	101	3480	106	113	0	99	4770	97	3840	97	3620	98	3410	98	3210	103	111
5	103	5400	101	4390	101	4150	101	3920	102	3690	106	113	5	100	4960	97	3980	98	3760	98	3540	98	3330	103	110
10	104	5720	102	4640	102	4400	102	4150	102	3920	107	113	10	100	5150	98	4180	98	3950	98	3730	99	3510	103	110
15	105	6050	103	4920	103	4660	103	4400	103	4150	107	113	15	101	5460	99	4430	99	4190	99	3950	99	3720	104	110
20	106	6460	104	5260	104	4980	104	4710	104	4450	108	113	20	102	5830	100	4730	100	4480	100	4230	100	3990	104	110
25	107	6970	105	5680	105	5390	105	5100	105	4810	108	113	25	104	6290	101	5110	101	4830	101	4570	102	4310	105	110
30	109	7550	106	6160	106	5840	106	5530	106	5230	109	113	30	105	6800	102	5530	102	5240	103	4950	103	4670	105	110
35	109	8330	107	6810	108	6460	108	6120	108	5790	109	113	35	106	7500	104	6100	104	5780	104	5470	104	5170	106	110

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS					VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS					VR V2 KIAS				
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST			10 KTS	20 KTS	30 KTS	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS					
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT		
-35	96	3770	94	3020	95	2840	95	2670	95	2510	105	115	-35	93	3540	93	2900	93	2710	93	2520	93	2350	103	114
-30	96	3840	94	3080	95	2900	95	2730	95	2560	104	115	-30	93	3610	92	2920	92	2730	92	2560	93	2400	102	114
-25	96	3920	94	3150	95	2970	95	2790	95	2620	104	115	-25	93	3680	92	2950	92	2780	92	2610	93	2450	102	114
-20	96	4010	94	3220	95	3040	95	2860	95	2690	104	114	-20	93	3760	91	3020	92	2850	92	2670	93	2510	102	113
-15	96	4120	94	3310	95	3120	95	2940	95	2760	103	113	-15	93	3860	92	3090	92	2910	92	2740	93	2570	101	112
-10	96	4230	94	3390	95	3200	95	3010	95	2830	103	112	-10	93	3960	92	3170	92	2990	92	2810	93	2640	101	111
-5	96	4350	94	3490	95	3290	95	3100	95	2910	102	111	-5	94	4060	92	3250	92	3070	92	2890	93	2710	100	109
0	97	4470	94	3590	95	3380	95	3180	95	2990	101	109	0	94	4170	92	3340	92	3150	92	2960	93	2780	99	108
5	97	4600	94	3690	95	3480	95	3280	95	3080	101	108	5	94	4290	92	3430	92	3240	92	3040	93	2860	99	107
10	97	4740	94	3800	95	3590	95	3380	95	3180	100	107	10	94	4410	92	3530	92	3330	92	3130	93	2940	98	106
15	97	4930	95	3980	95	3760	95	3540	96	3330	100	107	15	94	4540	92	3630	92	3420	92	3220	92	3020	98	105
20	98	5240	96	4240	96	4000	96	3770	97	3550	101	107	20	94	4710	92	3790	92	3580	92	3370	93	3160	97	104
25	100	5650	97	4570	97	4320	97	4070	98	3830	101	107	25	95	5040	93	4060	93	3830	93	3600	94	3390	98	104
30	101	6100	98	4940	98	4670	99	4410	99	4160	102	107	30	97	5440	94	4380	94	4140	95	3900	95	3670	98	104
35	102	6720	100	5440	100	5150	100	4860	100	4590	103	107	35	98	5980	96	4820	96	4550	96	4290	96	4040	99	104

Figure 4-19 (Sheet 20)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
10,000 FEET

CONDITIONS: ANTI-ICE OFF  
RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-35	107 6740	113 4870	113 4610	113 4360	113 4120	118 125	-35	108 6390	111 4740	112 4490	112 4240	112 4010	117 124		
-30	106 7110	113 5030	113 4770	113 4520	114 4270	118 125	-30	107 6740	112 4900	112 4640	112 4390	113 4150	117 124		
-25	105 7490	113 5230	114 4960	114 4700	114 4440	119 125	-25	106 7110	112 5080	112 4810	113 4560	113 4310	118 124		
-20	104 8070	114 5530	114 5250	115 4980	115 4710	119 125	-20	105 7660	113 5370	113 5100	113 4830	114 4570	118 124		
-15	103 8730	114 5860	115 5570	115 5280	116 5000	120 125	-15	104 8280	114 5690	114 5400	114 5120	114 4850	118 124		
-10	103 9470	113 6380	116 5910	116 5610	116 5320	120 125	-10	103 8980	114 6040	115 5740	115 5440	115 5150	119 124		
-5	102 10340	112 7010	116 6300	117 5980	117 5670	120 125	-5	103 9790	113 6560	116 6110	116 5800	116 5500	119 124		
0	101 11290	111 7690	115 6870	118 6380	118 6050	121 125	0	102 10690	112 7210	115 6510	117 6180	117 5860	120 124		
5		110 8450	114 7570	117 6800	119 6450	121 125	5		111 7920	115 7050	118 6590	118 6250	120 124		
10		109 9280	113 8340	116 7390	120 6860	122 125	10		110 8670	114 7750	117 7000	119 6650	121 124		
15		109 10200	112 9200	115 8180	119 7310	122 125	15		109 9550	113 8560	116 7850	119 7080	121 124		
16			112 9420	115 8390	119 7420	122 125	16			112 9180	116 8130	119 7420	121 124		
18			112 9880	115 8810	118 7730	122 125	18								
20							20			112 9640	115 8550	119 7650	122 124		

WEIGHT = 12000 LBS							WEIGHT = 11800 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	
-35	109 6000	110 4600	110 4350	111 4110	111 3880	116 123	-35	110 5620	109 4460	109 4220	109 3980	110 3760	115 122	
-30	108 6330	111 4750	111 4500	111 4250	111 4020	116 123	-30	109 5930	109 4610	109 4360	110 4120	110 3890	115 122	
-25	107 6580	111 4910	111 4650	111 4410	112 4160	116 123	-25	108 6260	110 4760	110 4510	110 4260	110 4030	115 122	
-20	106 7200	112 5190	112 4920	112 4660	112 4410	117 123	-20	107 6750	110 5020	111 4760	111 4500	111 4260	116 122	
-15	105 7780	113 5500	113 5220	113 4950	113 4680	117 123	-15	106 7290	111 5310	111 5040	112 4770	112 4520	116 122	
-10	104 8440	113 5830	114 5540	114 5250	114 4970	118 123	-10	105 7910	112 5640	112 5350	112 5070	113 4800	117 122	
-5	103 9200	114 6210	114 5900	115 5600	115 5310	118 123	-5	104 8620	113 6000	113 5700	113 5400	114 5120	117 122	
0	103 10030	113 6650	115 6290	116 5970	116 5660	119 123	0	104 9390	114 6380	114 6070	114 5760	114 5450	118 122	
5	102 10960	112 7310	116 6590	116 6360	117 6030	119 123	5	103 10260	113 6790	115 6460	115 6130	115 5810	118 122	
10		111 8020	115 7120	117 6760	117 6410	119 123	10	102 11170	112 7380	115 6860	116 6510	116 6180	118 122	
15		110 8810	114 7850	117 7190	118 6830	120 123	15		111 8110	115 7290	117 6930	117 6580	119 122	
20		109 9900	113 8850	116 7780	119 7370	120 123	20		110 9100	114 8070	117 7470	118 7100	119 122	
22			112 9300	116 8190	119 7610	121 123	22		110 9550	113 8480	117 7710	118 7330	119 122	
							24		110 10030	113 8920	116 7950	118 7570	120 122	

WEIGHT = 11600 LBS							WEIGHT = 11400 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	
-35	110 5360	107 4330	108 4100	108 3870	108 3650	114 121	-35	109 5220	106 4210	107 3980	107 3760	107 3540	113 120	
-30	110 5550	108 4460	108 4220	108 3990	109 3760	114 121	-30	109 5370	107 4340	107 4100	107 3880	107 3650	113 120	
-25	109 5850	108 4610	108 4370	109 4130	109 3890	114 121	-25	109 5520	107 4470	107 4230	107 3990	108 3770	113 120	
-20	108 6310	109 4840	109 4590	109 4340	110 4100	114 121	-20	109 5890	108 4680	108 4430	108 4190	108 3960	113 120	
-15	107 6820	110 5130	110 4860	110 4610	110 4350	115 121	-15	108 6360	108 4950	109 4690	109 4440	109 4200	114 120	
-10	106 7400	111 5440	111 5160	111 4890	111 4630	115 121	-10	107 6900	109 5250	109 4980	110 4710	110 4460	114 120	
-5	105 8060	112 5790	112 5500	112 5210	112 4930	116 121	-5	106 7510	110 5590	110 5300	111 5020	111 4750	115 120	
0	104 8780	112 6160	113 5850	113 5550	113 5260	116 121	0	105 8190	111 5940	111 5640	111 5350	112 5060	115 120	
5	104 9580	113 6550	114 6220	114 5910	114 5600	117 121	5	105 8920	112 6310	112 6000	112 5690	112 5390	116 120	
10	103 10430	113 6950	114 6610	114 6270	115 5950	117 121	10	104 9710	113 6700	113 6370	113 6040	113 5730	116 120	
15	102 11400	112 7440	115 7030	115 6680	115 6330	118 121	15	103 10600	113 7120	114 6770	114 6430	114 6090	116 120	
20		111 8320	115 7570	116 7200	116 6830	118 121	20	102 11830	112 7660	115 7290	115 6930	115 6570	117 120	
24		111 9180	114 8080	117 7670	117 7280	118 121	25		111 8560	115 7880	116 7490	116 7110	117 120	
25		111 9410	114 8300	117 7790	117 7400	119 121	26		111 8790	115 8010	116 7620	116 7230	117 120	
26		110 9660	114 8530	117 7920	118 7520	119 121	29		111 9530	114 8430	117 8020	117 7620	118 120	

Figure 4-19 (Sheet 21)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
10,000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS							WEIGHT = 10500 LBS						
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS
			10 KTS	20 KTS	30 KTS					10 KTS	20 KTS	30 KTS	
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	
-35	107 4960	104 4000	104 3780	105 3570	105 3360	111 119	-35	104 4690	102 3780	102 3570	102 3370	103 3170	109 118
-30	107 5080	104 4100	104 3880	105 3660	105 3450	111 118	-30	104 4800	102 3870	102 3660	102 3450	103 3250	109 117
-25	107 5220	104 4220	105 3990	105 3770	105 3550	111 118	-25	104 4910	102 3970	102 3750	102 3540	103 3330	109 117
-20	107 5430	105 4390	105 4160	105 3930	106 3700	111 118	-20	104 5060	102 4090	102 3860	102 3640	103 3430	108 116
-15	108 5680	106 4600	106 4360	106 4120	106 3890	111 118	-15	105 5260	102 4250	102 4020	103 3790	103 3570	108 115
-10	109 5970	106 4880	107 4620	107 4370	107 4130	112 118	-10	105 5490	103 4440	103 4200	103 3970	104 3740	108 115
-5	108 6480	107 5190	108 4920	108 4660	108 4400	112 118	-5	106 5790	104 4720	104 4470	104 4220	104 3990	109 115
0	107 7050	108 5510	108 5230	109 4960	109 4690	113 118	0	107 6140	105 5010	105 4750	105 4490	105 4240	109 115
5	107 7680	109 5860	109 5560	110 5270	110 4990	113 118	5	108 6510	106 5320	106 5040	106 4770	106 4510	110 115
10	106 8360	110 6210	110 5900	110 5600	110 5300	114 118	10	108 6890	106 5640	107 5350	107 5070	107 4790	110 115
15	105 9110	111 6600	111 6270	111 5950	111 5630	114 118	15	108 7400	107 5980	107 5680	108 5380	108 5090	111 115
20	104 10130	112 7100	112 6750	112 6400	112 6070	114 118	20	107 8200	108 6430	108 6110	109 5790	109 5480	111 115
25	103 11370	113 7660	113 7290	113 6920	113 6570	115 118	25	106 9170	109 6940	109 6590	110 6250	110 5920	112 115
29		113 8190	114 7790	114 7400	114 7020	115 118	30	105 10440	110 7560	111 7180	111 6820	111 6460	112 115
30		113 8360	114 7960	114 7560	114 7180	116 118	33	105 11560	111 8060	112 7660	112 7270	112 6900	113 115
33		112 8920	115 8490	115 8070	115 7670	116 118							

WEIGHT = 10000 LBS							WEIGHT = 9500 LBS						
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS
			10 KTS	20 KTS	30 KTS					10 KTS	20 KTS	30 KTS	
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	
-35	102 4440	99 3570	100 3370	100 3170	100 2980	108 117	-35	99 4180	97 3360	97 3170	98 2990	98 2810	106 116
-30	102 4540	99 3650	100 3450	100 3250	100 3060	107 116	-30	99 4280	97 3440	97 3250	98 3060	98 2870	106 115
-25	102 4640	99 3740	100 3530	100 3330	100 3130	107 116	-25	99 4370	97 3520	97 3320	98 3130	98 2940	105 115
-20	102 4770	99 3850	100 3630	100 3430	100 3230	107 115	-20	99 4500	97 3620	97 3420	98 3220	98 3030	105 114
-15	102 4920	99 3960	100 3750	100 3530	100 3330	106 114	-15	99 4630	97 3720	97 3520	98 3310	98 3120	104 113
-10	102 5080	100 4100	100 3870	100 3650	100 3440	106 113	-10	99 4760	97 3830	97 3620	98 3410	98 3210	104 112
-5	103 5300	100 4280	100 4050	101 3820	101 3600	106 113	-5	99 4900	97 3950	97 3730	97 3510	98 3300	103 111
0	103 5580	101 4540	101 4290	101 4050	102 3820	106 113	0	100 5100	97 4110	98 3880	98 3660	98 3450	103 110
5	104 5910	102 4810	102 4560	102 4310	103 4060	107 113	5	100 5350	98 4340	98 4100	99 3870	99 3650	103 110
10	105 6250	103 5100	103 4830	103 4570	103 4310	107 113	10	101 5650	99 4590	99 4340	99 4100	100 3870	104 110
15	106 6630	104 5410	104 5120	104 4850	104 4580	108 113	15	102 5980	100 4860	100 4600	100 4350	100 4100	104 110
20	107 7110	105 5810	105 5500	105 5210	105 4930	108 113	20	103 6410	101 5220	101 4940	101 4670	101 4410	105 110
25	108 7650	106 6260	106 5930	106 5620	106 5320	109 113	25	105 6900	102 5620	102 5320	102 5030	102 4760	105 110
30	108 8320	107 6810	107 6460	107 6130	107 5800	109 113	30	106 7490	103 6110	103 5790	103 5480	104 5180	106 110
33	108 8950	108 7250	108 6880	108 6530	108 6180	110 113	33	106 7960	104 6490	104 6160	104 5830	104 5510	106 110

WEIGHT = 9000 LBS							WEIGHT = 8500 LBS						
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS
			10 KTS	20 KTS	30 KTS					10 KTS	20 KTS	30 KTS	
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	
-35	96 3940	94 3160	95 2980	95 2800	95 2630	104 115	-35	93 3700	92 2970	92 2790	92 2630	93 2470	102 114
-30	96 4020	94 3230	95 3050	95 2870	95 2700	104 114	-30	93 3780	91 3030	92 2860	92 2690	93 2520	102 113
-25	96 4110	94 3310	95 3120	95 2940	95 2760	104 114	-25	93 3850	91 3100	92 2920	92 2750	93 2580	102 113
-20	96 4220	94 3390	95 3200	95 3020	95 2840	103 113	-20	93 3950	92 3170	92 2990	92 2820	93 2650	101 112
-15	96 4340	94 3490	95 3290	95 3100	95 2910	102 112	-15	94 4060	92 3260	92 3070	92 2890	93 2720	101 110
-10	96 4460	94 3580	95 3380	95 3190	95 3000	102 111	-10	94 4170	92 3340	92 3150	92 2970	93 2790	100 109
-5	97 4590	94 3690	95 3480	95 3280	95 3080	101 109	-5	94 4280	92 3440	92 3240	92 3050	93 2860	99 108
0	97 4730	94 3790	95 3580	95 3370	95 3170	101 108	0	94 4410	92 3530	92 3330	92 3130	93 2940	99 107
5	97 4880	95 3920	95 3700	95 3490	95 3280	100 107	5	94 4530	92 3630	92 3420	92 3220	92 3030	98 106
10	97 5090	95 4120	95 3890	95 3670	96 3450	100 107	10	94 4660	92 3730	92 3520	92 3310	92 3110	98 105
15	98 5380	96 4350	96 4110	96 3880	96 3650	101 107	15	94 4830	92 3900	92 3680	92 3460	93 3260	97 104
20	99 5760	97 4660	97 4410	97 4160	97 3920	101 107	20	95 5140	93 4140	93 3910	93 3690	93 3470	98 104
25	100 6180	98 5020	98 4750	98 4480	99 4230	102 107	25	96 5510	94 4450	94 4210	94 3970	94 3730	98 104
30	102 6710	99 5450	99 5160	100 4870	100 4600	103 107	30	98 5970	95 4830	95 4560	95 4310	96 4050	99 104
33	103 7120	100 5790	100 5480	100 5180	101 4890	103 107	33	99 6340	96 5130	96 4850	96 4570	97 4310	99 104

Figure 4-19 (Sheet 22)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
11,000 FEET

CONDITIONS: ANTI-ICE OFF  
RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS		
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT			KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT					
-35	105	7660	114	5340	114	5070	114	4800	114	4540	119	125	-35	106	7260	112	5190	113	4920	113	4660	113	4410	118	124
-30	104	8070	114	5540	114	5260	114	4990	115	4720	119	125	-30	105	7660	113	5390	113	5110	113	4840	113	4580	118	124
-25	103	8570	114	5800	115	5510	115	5220	115	4950	119	125	-25	104	8130	113	5630	113	5350	114	5070	114	4800	118	124
-20	102	9270	113	6260	115	5840	116	5540	116	5250	120	125	-20	103	8790	114	5970	114	5670	114	5380	115	5090	119	124
-15	102	10040	112	6840	116	6200	116	5880	117	5580	120	125	-15	102	9530	113	6410	115	6010	115	5710	115	5410	119	124
-10	101	10920	111	7470	115	6680	117	6260	117	5920	120	125	-10	101	10350	112	7000	115	6390	116	6070	116	5750	119	124
-5			110	8220	114	7370	117	6680	118	6340	121	125	-5	101	11320	111	7700	114	6880	117	6480	117	6150	120	124
0			109	9050	113	8140	116	7220	119	6770	121	125	0			110	8470	113	7580	117	6910	118	6550	120	124
5			108	9950	112	8970	115	8000	118	7210	122	125	5			109	9310	113	8360	116	7400	119	6990	121	124
10					111	9910	114	8870	117	7810	122	125	10			108	10250	112	9230	115	8210	118	7450	121	124
11					111	10110	114	9050	117	7980	122	125	13			111	9820	114	8750	118	7740	118	7400	121	124
13							114	9460	117	8330	122	125	15					114	9160	117	8040	117	7600	122	124

WEIGHT = 12000 LBS										WEIGHT = 11800 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS		
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT			KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT					
-35	107	6820	111	5020	111	4760	111	4500	112	4260	117	123	-35	108	6400	110	4860	110	4610	110	4360	110	4110	115	122
-30	106	7190	111	5210	112	4940	112	4680	112	4420	117	123	-30	107	6750	110	5030	110	4770	110	4520	111	4270	116	122
-25	105	7650	112	5440	112	5160	112	4890	113	4630	117	123	-25	106	7170	111	5260	111	4990	111	4730	111	4470	116	122
-20	104	8270	113	5770	113	5480	113	5190	113	4920	117	123	-20	105	7780	111	5570	112	5290	112	5010	112	4740	116	122
-15	103	8950	114	6110	114	5810	114	5510	114	5220	118	123	-15	104	8400	112	5900	112	5610	113	5320	113	5040	117	122
-10	102	9720	113	6490	115	6170	115	5860	115	5550	118	123	-10	103	9110	113	6270	113	5960	113	5650	114	5350	117	122
-5	102	10630	112	7130	115	6580	116	6250	116	5930	119	123	-5	102	9950	113	6680	114	6350	114	6030	114	5710	118	122
0	101	11620	111	7850	114	7010	116	6650	117	6320	119	123	0	102	10880	112	7230	115	6760	115	6420	115	6090	118	122
5			110	8620	113	7690	117	7090	117	6740	120	123	5	101	11890	111	7950	114	7200	116	6840	116	6490	118	122
10			109	9490	112	8490	116	7550	118	7180	120	123	10			110	8750	113	7760	117	7280	117	6910	119	122
15					112	9440	115	8350	118	7680	120	123	15			109	9690	112	8640	116	7780	118	7400	119	122
17					111	9900	115	8780	118	7910	121	123	17			109	10140	112	9060	115	8020	118	7620	119	122
													19					112	9500	115	8350	118	7850	120	122

WEIGHT = 11600 LBS										WEIGHT = 11400 LBS															
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2 KIAS		
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS	20 KTS	30 KTS			10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT			KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT					
-35	109	5980	108	4710	109	4460	109	4220	109	3980	114	121	-35	109	5640	107	4560	107	4320	107	4080	108	3850	113	120
-30	108	6320	109	4870	109	4610	109	4360	109	4120	114	121	-30	109	5890	107	4710	107	4460	108	4220	108	3980	113	120
-25	107	6710	109	5080	109	4820	110	4560	110	4310	115	121	-25	108	6280	108	4900	108	4650	108	4400	108	4150	113	120
-20	106	7260	110	5380	110	5100	110	4830	111	4570	115	121	-20	107	6780	109	5190	109	4920	109	4660	109	4410	114	120
-15	105	7860	111	5700	111	5410	111	5130	111	4850	115	121	-15	106	7340	109	5500	110	5220	110	4940	110	4680	114	120
-10	104	8530	112	6050	112	5750	112	5450	112	5160	116	121	-10	105	7960	110	5840	110	5540	111	5250	111	4970	115	120
-5	103	9310	113	6440	113	6120	113	5810	113	5510	116	121	-5	104	8680	111	6210	111	5900	112	5600	112	5300	115	120
0	103	10160	113	6860	114	6520	114	6190	114	5870	117	121	0	104	9480	112	6610	112	6280	112	5960	113	5650	116	120
5	102	11110	112	7290	114	6940	115	6590	115	6250	117	121	5	103	10350	113	7030	113	6680	113	6350	113	6020	116	120
10			111	8030	114	7380	115	7010	115	6660	118	121	10	102	11300	112	7470	114	7110	114	6750	114	6400	116	120
15			110	8880	113	7880	116	7500	116	7120	118	121	15			111	8120	114	7590	115	7210	115	6850	117	120
19			109	9790	113	8640	116	7950	117	7560	118	121	20			110	9090	113	8170	116	7770	116	7380	117	120
20			109	9980	113	8850	116	8070	117	7670	118	121	21			110	9320	113	8290	116	7880	116	7490	117	120
21			109	10210	112	9080	116	8200	117	7790	119	121	25			109	10280	113	9090	116	8390	117	7970	118	120
													26					113	9320	116	8520	117	8100	118	120

Figure 4-19 (Sheet 23)



MODEL 525A

SECTION IV - PERFORMANCE  
TAKEOFF

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
11,000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

SPEED BRAKES - RETRACT

LANDING GEAR - DOWN

INOPERATIVE ENGINE - WINDMILLING AFTER V1

THRUST ATTENUATORS - AUTO

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS															
		HEADWINDS												HEADWINDS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	10 KTS			20 KTS			30 KTS		VR	V2	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	10 KTS			20 KTS			30 KTS		VR	V2
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						
-35	107 5330	104 4310	105 4070	105 3840	105 3620	111 118	-35	104 5010	102 4040	102 3820	103 3990	109 117													
-30	107 5480	105 4430	105 4190	105 3960	105 3730	111 118	-30	104 5130	102 4140	102 3910	103 3480	108 116													
-25	107 5660	105 4580	105 4340	105 4100	106 3870	111 118	-25	104 5270	102 4260	102 4020	103 3580	108 116													
-20	108 5930	106 4830	106 4570	106 4330	106 4090	111 118	-20	105 5480	102 4430	103 4190	103 3960	103 3730													
-15	108 6350	107 5110	107 4850	107 4590	107 4340	112 118	-15	105 5720	103 4650	103 4400	103 4160	104 3930													
-10	107 6680	107 5420	108 5140	108 4870	108 4610	112 118	-10	106 6040	104 4930	104 4670	104 4420	105 4170													
-5	106 7510	108 5770	109 5480	109 5190	109 4910	113 118	-5	107 6410	105 5240	105 4970	105 4700	105 4440													
0	106 8180	109 6140	109 5830	110 5520	110 5230	113 118	0	108 6810	106 5570	106 5280	106 5000	106 4730													
5	105 8910	110 6520	110 6190	110 5880	111 5570	114 118	5	107 7280	107 5910	107 5610	107 5320	107 5030													
10	104 9720	111 6920	111 6580	111 6250	111 5920	114 118	10	106 7920	107 6280	108 5960	108 5650	108 5350													
15	103 10700	112 7390	112 7020	112 6670	112 6330	114 118	15	106 8700	108 6690	108 6360	109 6030	109 5710													
20	102 11910	112 7940	113 7550	113 7180	113 6810	115 118	20	105 9650	109 7180	109 6830	109 6480	110 6140													
25		111 8560	114 8150	114 7740	114 7350	115 118	25	104 10790	110 7740	110 7360	110 6990	111 6620													
26		111 8690	114 8270	114 7870	114 7470	115 118	29	104 12140	111 8340	111 7930	111 7540	112 7150													
29		111 9500	114 8790	115 8370	115 7950	116 118	30		111 8520	112 8110	112 7700	112 7310													
							31		112 8710	112 8290	112 7870	112 7470													

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS															
		HEADWINDS												HEADWINDS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	10 KTS			20 KTS			30 KTS		VR	V2	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	10 KTS			20 KTS			30 KTS		VR	V2
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						
-35	102 4730	99 3810	100 3600	100 3390	100 3190	107 116	-35	99 4460	97 3580	97 3380	98 3190	105 115													
-30	102 4840	99 3900	100 3680	100 3470	100 3270	107 115	-30	99 4550	97 3670	97 3460	98 3260	105 114													
-25	102 4960	99 4000	100 3780	100 3570	100 3360	106 115	-25	99 4670	97 3760	97 3550	98 3350	105 113													
-20	102 5110	99 4120	100 3900	100 3680	100 3460	106 114	-20	99 4800	97 3870	97 3660	98 3450	104 112													
-15	102 5290	100 4040	100 4040	100 3810	100 3590	106 113	-15	99 4950	97 3990	97 3770	98 3550	104 111													
-10	103 5510	100 4470	100 4230	101 3990	101 3770	106 113	-10	99 5090	97 4110	97 3880	98 3660	103 110													
-5	104 5830	101 4740	101 4490	102 4250	102 4010	106 113	-5	100 5310	97 4290	98 4060	98 3830	103 110													
0	105 6180	102 5040	102 4770	102 4510	103 4260	107 113	0	101 5590	98 4540	98 4290	99 4050	103 110													
5	105 6550	103 5350	103 5070	103 4790	103 4530	107 113	5	101 5920	99 4810	99 4550	99 4300	104 110													
10	106 6940	104 5670	104 5380	104 5090	104 4810	108 113	10	102 6260	100 5100	100 4830	100 4570	104 110													
15	107 7380	105 6040	105 5730	105 5430	105 5130	108 113	15	103 6660	101 5430	101 5140	101 4870	105 110													
20	108 7910	106 6480	106 6150	106 5830	106 5520	109 113	20	104 7130	102 5820	102 5520	102 5220	105 110													
25	107 8500	107 6970	107 6620	107 6280	107 5940	109 113	25	105 7650	103 6250	103 5930	103 5620	103 5310													
30	106 9800	108 7660	108 7280	108 6910	108 6550	110 113	30	106 8390	104 6860	104 6510	104 6170	105 5840													
31	106 10140	108 7830	108 7440	108 7060	109 6690	110 113	31	107 8570	104 7010	105 6650	105 6310	105 5970													

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS															
		HEADWINDS												HEADWINDS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	10 KTS			20 KTS			30 KTS		VR	V2	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	10 KTS			20 KTS			30 KTS		VR	V2
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						
-35	96 4190	94 3370	95 3170	95 2990	95 2810	104 114	-35	93 3930	92 3150	92 2970	92 2800	102 112													
-30	96 4280	94 3440	95 3250	95 3060	95 2880	103 113	-30	93 4010	92 3220	92 3040	92 2860	101 112													
-25	96 4380	94 3530	95 3330	95 3140	95 2950	103 112	-25	93 4100	92 3300	92 3110	92 2930	101 111													
-20	96 4510	94 3630	95 3420	95 3230	95 3030	102 111	-20	94 4220	92 3390	92 3200	92 3010	100 110													
-15	97 4640	94 3730	95 3520	95 3320	95 3120	102 110	-15	94 4330	92 3480	92 3280	92 3090	100 109													
-10	97 4770	94 3840	95 3620	95 3420	95 3210	101 109	-10	94 4450	92 3580	92 3370	92 3180	99 108													
-5	97 4910	94 3950	95 3730	95 3520	95 3310	101 108	-5	94 4580	92 3670	92 3470	92 3270	99 107													
0	97 5080	95 4100	95 3870	95 3650	95 3440	100 107	0	94 4710	92 3780	92 3570	92 3360	98 106													
5	97 5320	95 4310	95 4070	96 3840	96 3620	100 107	5	94 4840	92 3890	92 3670	92 3460	98 105													
10	98 5630	96 4560	96 4310	97 4070	97 3840	101 107	10	94 5050	92 4080	92 3850	92 3630	97 104													
15	99 5980	97 4850	97 4590	97 4340	97 4090	101 107	15	95 5330	93 4310	93 4070	93 3840	98 104													
20	100 6390	98 5200	98 4920	98 4650	98 4390	102 107	20	96 5700	94 4610	94 4360	94 4110	98 104													
25	101 6860	99 5580	99 5280	99 5000	99 4720	102 107	25	97 6110	95 4950	95 4680	95 4420	99 104													
30	103 7510	100 6120	100 5800	101 5480	101 5180	103 107	30	99 6680	96 5420	96 5120	96 4840	99 104													
31	103 7670	101 6240	101 5920	101 5600	101 5290	103 107	31	99 6820	96 5530	97 5230	97 4940	100 104													

Figure 4-19 (Sheet 24)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
12,000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

SPEED BRAKES - RETRACT

LANDING GEAR - DOWN

INOPERATIVE ENGINE - WINDMILLING AFTER V1

THRUST ATTENUATORS - AUTO

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS							VENR = 139 KIAS							WEIGHT = 12200 LBS							VENR = 138 KIAS						
TEMP DEG C	TAILWIND 10 KTS		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS		ZERO WIND		HEADWINDS						VR V2 KIAS				
	V1 KIAS	DIST FT	V1 KIAS	DIST FT	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST	V1 DIST			V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST							
-35	109	8720	114	5900	115	5800	115	5310	115	5030	119	125	-35	104	8270	113	5730	114	5440	114	5150	114	4880	118	124		
-30	102	9170	113	6200	115	5810	115	5510	115	5220	119	125	-30	103	8700	114	5940	114	5640	114	5350	114	5070	118	124		
-25	102	9850	112	6720	115	6130	116	5820	116	5520	120	125	-25	102	9350	113	6300	115	5950	115	5650	115	5350	119	124		
-20	101	10680	111	7340	114	6560	117	6180	117	5870	120	125	-20	101	10130	112	6880	115	6320	115	6000	116	5690	119	124		
-15	100	11580	110	8000	113	7180	117	6560	118	6230	121	125	-15	101	10980	111	7510	114	6710	116	6370	116	6000	120	124		
-10			109	8770	112	7890	116	7010	118	6640	121	125	-10			110	8220	113	7380	117	6780	117	6430	120	124		
-5			108	9660	111	8730	115	7790	118	7090	121	125	-5			109	9070	112	8150	116	7230	118	6870	120	124		
0			107	10670	111	9660	114	8640	117	7820	122	125	0			108	10000	111	9010	115	8030	118	7340	121	124		
5							113	9600	116	8500	122	125	5					110	9960	114	8900	117	7830	121	124		
7							113	10000	116	8880	122	125	7					110	10380	113	9270	117	8170	121	124		
													9					113	9690	116	8560	116	8560	121	124		

WEIGHT = 12000 LBS							VENR = 137 KIAS							WEIGHT = 11800 LBS							VENR = 136 KIAS						
TEMP DEG C	TAILWIND 10 KTS		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS		ZERO WIND		HEADWINDS						VR V2 KIAS				
	V1 KIAS	DIST FT	V1 KIAS	DIST FT	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST	V1 DIST			V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST							
-35	105	7780	112	5540	112	5250	112	4980	113	4710	117	123	-35	106	7290	111	5350	111	5070	111	4810	111	4550	116	122		
-30	104	8180	112	5740	112	5450	113	5170	113	4890	117	123	-30	105	7680	111	5550	111	5260	111	4990	112	4720	116	122		
-25	103	8790	113	6050	113	5750	113	5450	114	5170	118	123	-25	104	8250	112	5840	112	5550	112	5260	112	4980	116	122		
-20	102	9530	113	6420	114	6100	114	5790	114	5490	118	123	-20	103	8940	112	6200	113	5890	113	5590	113	5290	117	122		
-15	101	10320	112	6960	115	6470	115	6140	115	5830	118	123	-15	102	9680	113	6570	113	6240	114	5930	114	5620	117	122		
-10	101	11240	111	7630	114	6880	116	6540	116	6210	119	123	-10	101	10540	112	7050	114	6640	114	6310	115	5980	118	122		
-5			110	8400	113	7500	117	6980	117	6630	119	123	-5	101	11520	111	7760	114	7080	115	6730	115	6390	118	122		
0			109	9260	112	8300	116	7450	117	7080	120	123	0			110	8650	113	7610	116	7180	116	6820	118	122		
5			108	10190	111	9160	115	8130	118	7550	120	123	5			109	9410	112	8410	115	7650	117	7270	119	122		
9					111	9950	114	8850	117	7950	120	123	10			108	10380	111	9310	115	8230	118	7750	119	122		
10					110	10150	114	9040	117	8050	120	123	12					111	9730	114	8610	117	7970	119	122		
12							113	9460	117	8300	121	123	14					111	10180	114	9000	117	8190	120	122		

WEIGHT = 11600 LBS							VENR = 134 KIAS							WEIGHT = 11400 LBS							VENR = 133 KIAS						
TEMP DEG C	TAILWIND 10 KTS		ZERO WIND		HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS		ZERO WIND		HEADWINDS						VR V2 KIAS				
	V1 KIAS	DIST FT	V1 KIAS	DIST FT	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST	V1 DIST			V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST	V1 DIST							
-35	107	6830	109	5170	109	4900	110	4640	110	4380	115	121	-35	108	6370	108	4990	108	4730	108	4470	109	4230	113	120		
-30	106	7190	110	5350	110	5080	110	4810	110	4550	115	121	-30	107	6720	108	5170	108	4900	109	4640	109	4390	114	120		
-25	105	7730	110	5640	110	5360	111	5080	111	4800	115	121	-25	106	7230	109	5440	109	5170	109	4890	110	4630	114	120		
-20	104	8370	111	5980	111	5680	111	5390	112	5100	116	121	-20	105	7820	110	5770	110	5480	110	5200	110	4920	114	120		
-15	103	9070	112	6340	112	6020	112	5720	112	5420	116	121	-15	104	8470	110	6120	111	5810	111	5510	111	5220	115	120		
-10	102	9860	113	6740	113	6400	113	6080	113	5760	116	121	-10	103	9210	111	6500	111	6170	112	5860	112	5550	115	120		
-5	101	10790	112	7180	114	6830	114	6490	114	6150	117	121	-5	102	10060	112	6920	112	6580	113	6250	113	5920	116	120		
0	101	11810	111	7850	114	7280	115	6920	115	6570	117	121	0	102	11020	112	7370	113	7010	113	6660	113	6320	116	120		
5			110	8650	113	7750	115	7370	116	7000	118	121	5	101	12040	111	7930	114	7460	114	7090	114	6730	117	120		
10			109	9540	112	8500	115	7850	116	7480	118	121	10			110	8740	113	7950	115	7580	115	7180	117	120		
14			108	10400	111	9280	115	8290	117	7880	118	121	15			109	9730	112	8620	116	8090	116	7690	117	120		
15			108	10620	111	9490	115	8410	117	8000	118	121	17			109	10170	112	9020	115	8320	116	7910	117	120		
17					111	9940	114	8760	117	8230	119	121	20					111	9690	115	8690	117	8270	118	120		
													21					111	9920	114	8820	117	8390	118	120		

Figure 4-19 (Sheet 25)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
12,000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 11000 LBS								WEIGHT = 10500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS										
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT						
-35	107	5760	105	4660	105	4410	105	4170	106	3930	111	118	-35	104	5360	102	4330	102	4090	102	3860	103	3640	108	116
-30	108	5930	105	4810	106	4560	106	4310	106	4070	111	118	-30	104	5510	102	4450	102	4210	103	3980	103	3750	108	116
-25	108	6250	106	5060	106	4800	106	4540	107	4290	111	118	-25	105	5710	102	4620	103	4380	103	4140	103	3900	108	115
-20	107	6780	107	5370	107	5090	107	4820	108	4560	112	118	-20	106	5980	103	4880	103	4620	104	4370	104	4130	109	115
-15	106	7330	108	5680	108	5390	108	5110	108	4830	112	118	-15	107	6320	104	5170	104	4900	104	4630	105	4380	109	115
-10	105	7970	109	6030	109	5730	109	5430	109	5140	113	118	-10	107	6690	105	5480	105	5200	105	4920	106	4650	110	115
-5	104	8700	109	6420	110	6100	110	5790	110	5480	113	118	-5	107	7120	106	5830	106	5530	106	5240	106	4960	110	115
0	104	9510	110	6840	110	6500	111	6170	111	5850	114	118	0	106	7780	107	6200	107	5890	107	5580	107	5280	111	115
5	103	10390	111	7270	111	6910	111	6560	112	6220	114	118	5	105	8490	107	6590	108	6260	108	5940	108	5620	111	115
10	102	11380	112	7730	112	7350	112	6990	112	6630	114	118	10	105	9280	108	7000	108	6660	109	6320	109	5990	111	115
15			111	8260	113	7860	113	7480	113	7100	115	118	15	104	10230	109	7480	109	7110	109	6750	110	6400	112	115
20			110	8970	113	8440	114	8030	114	7620	115	118	20	103	11350	110	8010	110	7620	110	7240	110	6870	112	115
25			110	9180	113	8560	114	8140	114	7740	115	118	25			111	8630	111	8220	111	7810	111	7410	113	115
25			109	10150	113	9110	115	8670	115	8240	116	118	26			111	8820	111	8390	112	7980	112	7580	113	115
26			109	10500	112	9310	115	8860	115	8420	116	118	29			111	9420	112	8970	112	8530	112	8100	113	115

WEIGHT = 10000 LBS								WEIGHT = 9500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS										
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT						
-35	102	5040	99	4070	100	3840	100	3620	100	3410	106	114	-35	99	4750	97	3820	97	3610	98	3400	98	3200	105	113
-30	102	5160	99	4160	100	3940	100	3710	100	3500	106	114	-30	99	4850	97	3910	97	3700	98	3490	98	3280	104	113
-25	102	5310	99	4290	100	4050	100	3820	100	3600	106	113	-25	99	4990	97	4020	97	3800	98	3590	98	3380	104	112
-20	102	5520	100	4460	100	4220	100	3980	101	3750	106	113	-20	99	5140	97	4150	97	3920	97	3700	98	3480	103	111
-15	103	5750	100	4680	101	4430	101	4190	101	3950	106	113	-15	99	5300	97	4280	97	4040	98	3820	98	3590	103	110
-10	104	6080	101	4960	101	4700	102	4440	102	4190	106	113	-10	100	5520	98	4480	98	4240	98	4010	98	3780	103	110
-5	105	6450	102	5270	102	5000	103	4730	103	4470	107	113	-5	101	5830	98	4750	98	4490	99	4250	99	4010	103	110
0	106	6860	103	5600	103	5310	103	5030	104	4760	107	113	0	102	6190	99	5040	99	4780	100	4520	100	4260	104	110
5	106	7260	104	5950	104	5640	104	5350	104	5060	108	113	5	102	6560	100	5350	100	5070	100	4800	101	4530	104	110
10	107	7710	105	6320	105	6000	105	5690	105	5380	108	113	10	103	6950	101	5680	101	5380	101	5100	101	4820	105	110
15	106	8210	105	6740	106	6400	106	6070	106	5750	109	113	15	104	7400	102	6060	102	5740	102	5440	102	5140	105	110
20	106	8980	106	7220	107	6860	107	6510	107	6170	109	113	20	105	7910	103	6480	103	6150	103	5820	103	5510	106	110
25	106	10040	107	7770	107	7390	108	7010	108	6650	110	113	25	106	8490	104	6960	104	6610	104	6270	104	5930	106	110
29	104	11480	109	8460	109	8050	109	7650	109	7250	110	113	29	107	9230	105	7570	105	7190	105	6820	105	6460	107	110

WEIGHT = 9000 LBS								WEIGHT = 8500 LBS																	
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS			VR V2 KIAS								
	10 KTS	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	10 KTS			V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS										
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS			FT	KIAS	FT	KIAS	FT	KIAS	FT		KIAS	FT						
-35	96	4460	94	3590	95	3380	95	3190	95	3000	103	112	-35	93	4170	92	3350	92	3160	92	2980	93	2800	101	111
-30	96	4560	94	3670	95	3460	95	3260	95	3070	103	112	-30	93	4260	92	3430	92	3240	92	3050	93	2860	101	111
-25	96	4680	94	3770	95	3560	95	3350	95	3160	102	111	-25	94	4380	92	3520	92	3320	92	3130	93	2940	100	110
-20	96	4820	94	3880	95	3660	95	3450	95	3250	102	110	-20	94	4500	92	3620	92	3410	92	3220	93	3020	100	109
-15	97	4960	94	3990	95	3770	95	3560	95	3350	101	109	-15	94	4620	92	3720	92	3510	92	3310	93	3110	99	108
-10	97	5110	94	4110	95	3880	95	3660	95	3450	101	108	-10	94	4760	92	3820	92	3610	92	3400	93	3200	99	107
-5	97	5290	95	4280	95	4050	95	3820	95	3600	100	107	-5	94	4900	92	3940	92	3710	92	3500	93	3290	98	106
0	97	5560	95	4510	95	4270	96	4030	96	3800	100	107	0	94	5040	92	4060	92	3840	92	3620	92	3400	97	105
5	98	5890	96	4790	96	4530	96	4280	97	4030	101	107	5	94	5280	92	4270	92	4040	93	3810	93	3580	97	104
10	99	6240	97	5080	97	4810	97	4540	97	4290	101	107	10	95	5570	93	4510	93	4260	93	4020	93	3790	98	104
15	100	6640	98	5410	98	5120	98	4840	98	4570	102	107	15	96	5920	94	4800	94	4540	94	4280	94	4040	98	104
20	101	7090	99	5780	99	5480	99	5180	99	4890	102	107	20	97	6310	95	5120	95	4850	95	4580	95	4320	99	104
25	102	7600	100	6210	100	5880	100	5570	100	5260	103	107	25	98	6770	96	5500	96	5200	96	4920	96	4640	99	104
29	103	8250	101	6740	101	6390	101	6060	101	5730	103	107	29	99	7330	97	5960	97	5650	97	5340	97	5040	100	104

Figure 4-19 (Sheet 26)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
13,000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS																							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR	V2 KIAS										
			10 KTS		20 KTS		30 KTS							10 KTS		20 KTS		30 KTS													
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT												
-35	102 9920	112 6770	116 6180	116 5870	116 5570	120 125				-35	102 9420	113 6340	114 6000	115 5700	115 5400	119 124															
-30	101 10460	111 7190	114 6440	116 6110	116 5800	120 125				-30	101 9940	112 6760	115 6240	115 5930	115 5620	119 124															
-25	100 11340	110 7860	113 7060	117 6490	117 6160	120 125				-25	100 10770	111 7380	114 6630	116 6300	116 5970	119 124															
-20		109 8590	112 7750	116 6900	118 6560	121 125				-20	100 11690	110 8070	113 7240	116 6690	117 6360	120 124															
-15		108 9390	111 8480	115 7570	118 6970	121 125				-15		109 8810	112 7930	116 7110	117 6750	120 124															
-10		107 10300	110 9330	114 8360	117 7430	121 125				-10		108 9670	111 8720	114 7770	118 7200	120 124															
-5			109 10360	113 9320	116 8270	122 125				-5		107 10690	110 9680	113 8660	117 7700	121 124															
0				112 10370	115 9240	122 125				0			109 10730	113 9640	116 8530	121 124															
1				112 10590	115 9440	122 125				1				112 9830	116 8710	121 124															
										3				112 10270	115 9110	121 124															

WEIGHT = 12000 LBS								WEIGHT = 11800 LBS																								
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR	V2 KIAS											
			10 KTS		20 KTS		30 KTS							10 KTS		20 KTS		30 KTS														
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT													
-35	103 8850	113 6100	113 5800	113 5500	113 5210	117 123				-35	104 8310	111 5900	112 5600	112 5310	112 5030	116 122																
-30	102 9340	113 6350	113 6030	114 5720	114 5430	118 123				-30	103 8780	112 6130	112 5820	112 5530	112 5230	117 122																
-25	101 10120	112 6840	114 6400	114 6080	115 5770	118 123				-25	102 9500	112 6500	113 6180	113 5870	113 5560	117 122																
-20	100 11000	111 7490	114 6800	115 6460	115 6130	119 123				-20	101 10320	112 6920	114 6560	114 6230	114 5910	117 122																
-15	100 11930	110 8180	113 7320	116 6860	116 6520	119 123				-15	100 11190	111 7560	114 6960	116 6620	116 6280	118 122																
-10		109 8970	112 8040	115 7300	117 6940	119 123				-10	100 12200	110 8300	113 7410	115 7040	115 6690	118 122																
-5		108 9910	111 8920	114 7930	118 7420	120 123				-5		109 9170	112 8200	115 7530	116 7150	119 122																
0			110 9890	113 8820	117 7930	120 123				0		108 10130	111 9090	114 8050	117 7640	119 122																
3			110 10510	113 9400	116 8270	120 123				3			110 10060	113 8940	117 8150	119 122																
5				112 9820	116 8640	120 123				5			110 10280	113 9130	116 8260	119 122																
6				112 10030	116 8850	121 123				6			110 10720	113 9550	116 8480	120 122																
										8																						

WEIGHT = 11600 LBS								WEIGHT = 11400 LBS																								
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR	V2 KIAS											
			10 KTS		20 KTS		30 KTS							10 KTS		20 KTS		30 KTS														
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT						V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT													
-35	105 7790	110 5690	110 5400	111 5120	111 4850	115 121				-35	106 7280	109 5500	109 5210	109 4940	109 4670	114 120																
-30	104 8220	110 5920	111 5620	111 5330	111 5050	115 121				-30	105 7680	109 5710	109 5420	110 5140	110 4860	114 120																
-25	103 8910	111 6270	111 5960	112 5660	112 5360	116 121				-25	104 8390	110 6050	110 5750	110 5450	110 5160	115 120																
-20	102 9670	112 6660	112 6330	112 6010	113 5700	116 121				-20	103 9040	111 6420	111 6100	111 5790	111 5490	115 120																
-15	101 10490	111 7050	113 6720	113 6380	113 6050	117 121				-15	102 9790	111 6810	112 6470	112 6150	112 5830	115 120																
-10	100 11420	110 7660	114 7140	114 6790	114 6440	117 121				-10	101 10660	111 7230	112 6880	113 6540	113 6200	116 120																
-5		110 8450	113 7630	115 7250	115 6890	117 121				-5	101 11690	110 7760	113 7350	113 6980	114 6630	116 120																
0		109 9390	112 8320	115 7740	116 7350	118 121				0		110 8560	113 7840	114 7450	114 7080	117 120																
5		108 10280	111 9200	114 8250	116 7840	118 121				5		109 9440	112 8390	115 7940	115 7550	117 120																
8			110 9800	114 8660	117 8160	118 121				8		108 10440	111 9310	114 8480	116 8060	117 120																
10			110 10240	113 9060	117 8380	119 121				10		108 10680	111 9530	114 8590	116 8170	117 120																
11			110 10460	113 9270	116 8500	119 121				11			110 10410	113 9170	117 8630	118 120																
										16			110 10640	113 9380	116 8750	118 120																

Figure 4-19 (Sheet 27)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
13,000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 11000 LBS										WEIGHT = 10500 LBS									
VENR = 131 KIAS										VENR = 127 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT					10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT				
-35	108 8290	106 5110	106 4840	106 4580	107 4330	111 118			-35	105 5780	102 4680	103 4430	103 4190	103 3950	108 115				
-30	107 6670	106 5310	106 5030	107 4770	107 4510	112 118			-30	105 5950	103 4830	103 4580	103 4330	103 4090	108 115				
-25	106 7230	107 5630	107 5340	108 5060	108 4790	112 118			-25	106 6260	103 5120	104 4850	104 4590	104 4340	109 115				
-20	105 7840	108 5970	108 5660	108 5370	108 5080	112 118			-20	107 6620	104 5420	105 5140	105 4870	105 4600	109 115				
-15	104 8490	109 6320	109 6010	109 5700	109 5400	113 118			-15	107 7010	105 5740	105 5450	105 5160	106 4890	110 115				
-10	103 9230	109 6710	110 6380	110 6060	110 5740	113 118			-10	106 7590	106 6090	106 5790	106 5490	106 5190	110 115				
-5	102 10120	110 7160	111 6810	111 6460	111 6130	114 118			-5	105 8300	107 6490	107 6170	107 5850	107 5540	111 115				
0	102 11080	111 7630	111 7260	111 6900	112 6540	114 118			0	104 9080	108 6910	108 6570	108 6240	108 5910	111 115				
5	101 12140	111 8110	112 7720	112 7340	112 6970	115 118			5	103 9940	108 7350	109 6990	109 6640	109 6290	111 115				
10		110 8680	113 8230	113 7830	113 7440	115 118			10	103 10900	109 7820	109 7440	110 7070	110 6710	112 115				
15		109 9640	112 8800	114 8370	114 7960	115 118			15	102 12020	110 8350	110 7950	110 7550	110 7170	112 115				
20		109 9840	112 8920	114 8490	114 8070	115 118			20		111 8930	111 8500	111 8090	111 7680	113 115				
25		108 10780	111 9500	114 8970	115 8530	116 118			25		110 9180	111 8740	111 8320	112 7900	113 115				
26			111 9970	114 9230	115 8780	116 118			26		110 9750	112 9290	112 8840	112 8400	113 115				
27									27		110 9970	112 9500	112 9040	113 8590	113 115				

WEIGHT = 10000 LBS										WEIGHT = 9500 LBS									
VENR = 125 KIAS										VENR = 121 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT					10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT				
-35	102 5380	99 4350	100 4110	100 3880	100 3650	106 113			-35	99 5060	97 4080	97 3860	97 3640	98 3420	104 112				
-30	102 5520	99 4460	100 4220	100 3980	100 3760	106 113			-30	99 5180	97 4180	97 3950	97 3730	98 3510	104 112				
-25	102 5750	100 4650	100 4400	100 4160	101 3930	106 113			-25	99 5340	97 4310	97 4070	97 3850	98 3620	103 111				
-20	103 6020	101 4910	101 4650	101 4400	101 4150	106 113			-20	99 5530	97 4470	97 4220	98 3990	98 3760	103 110				
-15	104 6360	101 5200	102 4930	102 4660	102 4400	106 113			-15	100 5760	98 4690	98 4440	98 4200	98 3960	103 110				
-10	105 6740	102 5510	102 5230	103 4950	103 4680	107 113			-10	101 6090	98 4960	99 4700	99 4440	99 4190	104 110				
-5	106 7160	103 5870	103 5570	103 5270	104 4990	107 113			-5	102 6470	99 5280	99 5000	100 4730	100 4470	104 110				
0	107 7610	104 6240	104 5930	104 5620	104 5320	108 113			0	103 6870	100 5610	100 5320	101 5040	101 4760	105 110				
5	108 8070	105 6630	105 6300	105 5970	105 5660	108 113			5	104 7280	101 5960	101 5650	101 5350	102 5060	105 110				
10	105 8700	106 7050	106 6700	106 6360	106 6030	109 113			10	104 7730	102 6330	102 6010	102 5700	102 5390	105 110				
15	104 9570	106 7520	107 7150	107 6790	107 6440	109 113			15	105 8230	103 6750	103 6410	103 6070	103 5750	106 110				
20	104 10590	107 8040	107 7650	107 7260	108 6890	110 113			20	106 8770	103 7200	104 6840	104 6490	104 6150	106 110				
25	103 12110	108 8760	108 8340	109 7930	109 7520	110 113			25	106 9540	105 7840	105 7460	105 7080	105 6710	107 110				
26	103 12520	109 8950	109 8530	109 8100	109 7690	110 113			26	106 9960	105 8190	105 7790	105 7390	106 7010	107 110				
27	103 12990	109 9160	109 8720	109 8290	109 7870	110 113			27										

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS									
VENR = 117 KIAS										VENR = 115 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT					10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT				
-35	96 4740	94 3820	95 3610	95 3400	95 3200	102 111			-35	93 4440	92 3570	92 3370	92 3170	93 2980	100 110				
-30	96 4850	94 3910	95 3700	95 3490	95 3280	102 111			-30	94 4540	92 3650	92 3450	92 3250	93 3060	100 110				
-25	96 5000	94 4030	95 3810	95 3590	95 3380	101 110			-25	94 4670	92 3760	92 3550	92 3340	93 3150	100 108				
-20	97 5150	94 4150	95 3920	95 3700	95 3480	101 109			-20	94 4800	92 3870	92 3650	92 3440	93 3240	99 107				
-15	97 5310	94 4280	95 4040	95 3810	95 3590	100 108			-15	94 4940	92 3980	92 3760	92 3540	93 3330	98 106				
-10	97 5510	95 4470	95 4230	95 3990	95 3760	100 107			-10	94 5090	92 4100	92 3870	92 3650	92 3430	98 105				
-5	98 5810	95 4730	96 4470	96 4220	96 3980	101 107			-5	94 5240	92 4250	92 4010	92 3780	92 3560	97 104				
0	99 6170	96 5020	96 4750	97 4490	97 4240	101 107			0	94 5520	92 4470	92 4230	93 3990	93 3760	98 104				
5	99 6530	97 5320	97 5040	97 4770	98 4500	101 107			5	95 5830	93 4730	93 4470	93 4220	93 3980	98 104				
10	100 6930	98 5660	98 5360	98 5070	98 4790	102 107			10	96 6180	94 5020	94 4750	94 4480	94 4230	98 104				
15	101 7370	99 6020	99 5710	99 5400	99 5110	102 107			15	97 6560	95 5340	95 5050	95 4780	95 4510	99 104				
20	102 7850	100 6420	100 6090	100 5770	100 5460	103 107			20	98 6990	95 5690	96 5390	96 5100	96 4810	99 104				
25	103 8530	101 6980	101 6630	101 6280	101 5940	103 107			25	99 7580	97 6180	97 5860	97 5540	97 5230	100 104				
27	104 8900	101 7290	101 6920	102 6560	102 6210	104 107			27	100 7900	97 6440	97 6110	98 5780	98 5460	100 104				

Figure 4-19 (Sheet 28)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
14,000 FEET

CONDITIONS: ANTI-ICE OFF  
RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-35	100 11290	110 7830	113 7030	117 6500	117 6170	120 125		-35	101 10720	111 7350	114 6640	115 6300	116 5980	119 124	
-30	99 12070	109 8430	112 7590	116 6830	117 6480	120 125		-30	99 11450	110 7920	113 7110	116 6520	116 6280	119 124	
-25		108 9210	111 8330	115 7440	118 6890	121 125		-25		109 8650	112 7790	115 7040	117 6680	120 124	
-20		107 10070	110 9140	114 8200	117 7340	121 125		-20		108 9480	111 8550	114 7630	118 7110	120 124	
-15		106 11020	109 10020	113 9030	116 8030	122 125		-15		107 10360	110 9380	113 8410	117 7560	121 124	
-10				112 10000	115 8930	122 125		-10			109 10360	112 9310	116 8260	121 124	
-7				111 10680	114 9560	122 125		-5				111 10390	115 9230	121 124	
-5					114 10000	122 125		-3					114 9690	122 124	

WEIGHT = 12000 LBS								WEIGHT = 11800 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-35	101 10090	112 6820	114 6410	114 6090	114 5770	118 123		-35	102 9480	112 6510	113 6190	113 5870	113 5570	117 122	
-30	100 10780	111 7360	114 6730	115 6390	115 6060	118 123		-30	101 10120	111 6830	113 6490	113 6170	113 5850	117 122	
-25	99 11700	110 8040	113 7190	115 6790	115 6460	119 123		-25	100 10990	110 7450	114 6890	114 6550	114 6220	117 122	
-20		109 8800	112 7900	115 7220	116 6860	119 123		-20	99 11940	109 8150	113 7320	115 6980	115 6610	118 122	
-15		108 9630	111 8680	114 7720	117 7290	119 123		-15		108 8910	112 7990	115 7400	116 7030	118 122	
-10		107 10590	110 9570	113 8550	116 7780	120 123		-10		107 9810	111 8820	114 7880	116 7490	119 122	
-5			109 10630	112 9530	115 8420	120 123		-5		107 10840	110 9780	113 8700	116 8020	119 122	
-3				112 9960	115 8820	120 123		0			109 10850	112 9700	115 8570	119 122	
0				111 10620	114 9490	121 123		2			112 10130	115 8930	120 122		

WEIGHT = 11600 LBS								WEIGHT = 11400 LBS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-35	103 8880	111 6280	111 5970	111 5660	112 5370	116 121		-35	104 8310	110 6060	110 5760	110 5460	110 5170	114 120	
-30	102 9490	112 6590	112 6260	112 5950	112 5640	116 121		-30	103 8880	110 6360	110 6040	111 5730	111 5430	115 120	
-25	101 10300	111 6990	112 6650	113 6320	113 5990	116 121		-25	102 9620	111 6740	111 6410	111 6090	111 5770	115 120	
-20	100 11180	110 7520	113 7060	113 6710	114 6370	117 121		-20	101 10460	111 7150	112 6810	112 6470	112 6130	115 120	
-15	99 12150	109 8240	113 7500	114 7130	114 6770	117 121		-15	100 11360	110 7590	113 7220	113 6870	113 6520	116 120	
-10		108 9050	112 8090	115 7600	115 7220	117 121		-10	100 12400	109 8320	113 7690	114 7310	114 6950	116 120	
-5		108 10000	111 8960	114 8120	116 7720	118 121		-5		108 9200	112 8210	114 7810	114 7430	117 120	
0		107 11080	110 9950	113 8820	116 8250	118 121		0		108 10170	111 9090	114 8340	115 7930	117 120	
2			109 10370	113 9220	116 8460	118 121		5			110 10100	113 8900	116 8470	117 120	
5				112 9850	115 8810	119 121		10				112 9950	115 9040	118 120	
								11				112 10180	115 9160	118 120	

Figure 4-19 (Sheet 29)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
14,000 FEET

CONDITIONS: ANTI-ICE OFF

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE HEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 11000 LBS								WEIGHT = 10500 LBS							
TAILWIND		ZERO WIND		HEADWINDS				TAILWIND		ZERO WIND		HEADWINDS			
TEMP DEG C	10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR V2 KIAS	TEMP DEG C	10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR V2 KIAS		
-35	106 7210	107 5640	107 5350	107 5070	107 4790	112 118	-35	106 6280	103 5130	103 4860	104 4600	104 4340	109 115		
-30	105 7710	107 5910	108 5610	108 5320	108 5030	112 118	-30	106 6560	104 5370	104 5090	104 4820	104 4560	109 115		
-25	104 8360	108 6260	108 5950	109 5640	109 5340	113 118	-25	107 6940	105 5690	105 5400	105 5120	105 4840	109 115		
-20	103 9070	109 6640	109 6310	109 5990	109 5680	113 118	-20	106 7480	105 6030	106 5730	106 5430	106 5140	110 115		
-15	102 9850	110 7040	110 6700	110 6360	110 6030	113 118	-15	105 8110	106 6390	106 6070	106 5760	107 5450	110 115		
-10	101 10740	111 7490	111 7130	111 6770	111 6420	114 118	-10	104 8840	107 6790	107 6460	107 6130	107 5810	111 115		
-5	101 11790	111 7990	111 7600	112 7230	112 6860	114 118	-5	103 9690	108 7240	108 6890	108 6540	108 6200	111 115		
0		109 8510	112 8110	112 7710	113 7330	115 118	0	102 10620	109 7710	109 7330	109 6970	109 6610	112 115		
5		109 9390	112 8640	113 8230	113 7820	115 118	5	101 11650	109 8210	109 7810	110 7430	110 7050	112 115		
10		108 10390	111 9210	114 8770	114 8340	115 118	10	101 12800	110 8740	110 8320	110 7910	110 7520	112 115		
11		108 10600	111 9400	114 8890	114 8450	115 118	15		109 9300	111 8870	111 8440	111 8020	113 115		
15			110 10250	113 9360	115 8910	116 118	18		109 9670	111 9220	112 8770	112 8340	113 115		
18				113 9740	115 9270	116 118	20		108 9930	112 9470	112 9010	112 8570	113 115		
							23		108 10940	111 10060	113 9580	113 9120	113 115		

WEIGHT = 10000 LBS								WEIGHT = 9500 LBS							
TAILWIND		ZERO WIND		HEADWINDS				TAILWIND		ZERO WIND		HEADWINDS			
TEMP DEG C	10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR V2 KIAS	TEMP DEG C	10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR V2 KIAS		
-35	102 5790	100 4690	100 4440	100 4190	100 3950	106 113	-35	99 5400	97 4360	97 4120	97 3890	98 3670	104 111		
-30	102 5990	100 4870	100 4610	101 4360	101 4120	106 113	-30	99 5550	97 4480	97 4240	97 4000	98 3770	103 111		
-25	103 6310	101 5150	101 4880	101 4620	101 4360	106 113	-25	100 5760	97 4670	97 4420	98 4180	98 3940	103 110		
-20	104 6670	102 5460	102 5180	102 4900	102 4630	107 113	-20	100 6030	98 4920	98 4660	98 4400	98 4160	103 110		
-15	105 7060	102 5780	103 5490	103 5200	103 4910	107 113	-15	101 6380	99 5210	99 4930	99 4670	99 4410	104 110		
-10	106 7480	103 6140	103 5830	104 5520	104 5230	107 113	-10	102 6760	99 5520	100 5240	100 4960	100 4680	104 110		
-5	106 7960	104 6540	104 6210	104 5890	105 5580	108 113	-5	103 7180	100 5880	100 5580	101 5280	101 4990	105 110		
0	105 8530	105 6960	105 6610	105 6270	105 5940	108 113	0	104 7620	101 6250	101 5930	101 5620	102 5320	105 110		
5	104 9330	106 7400	106 7030	106 6680	106 6330	109 113	5	104 8090	102 6640	102 6310	102 5990	102 5660	105 110		
10	103 10230	106 7870	107 7490	107 7110	107 6750	109 113	10	105 8590	103 7060	103 6710	103 6360	103 6030	106 110		
15	103 11250	107 8380	107 7970	107 7580	108 7190	110 113	15	105 9120	103 7510	104 7130	104 6770	104 6420	106 110		
20	102 12430	108 8930	108 8500	108 8080	108 7680	110 113	20	105 9710	104 8000	104 7600	104 7220	105 6850	107 110		
23		109 9480	109 9030	109 8590	109 8160	110 113	25	104 11230	106 8860	106 8430	106 8010	106 7600	107 110		
25		109 9910	109 9450	110 8990	110 8540	111 113									

WEIGHT = 9000 LBS								WEIGHT = 8500 LBS							
TAILWIND		ZERO WIND		HEADWINDS				TAILWIND		ZERO WIND		HEADWINDS			
TEMP DEG C	10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR V2 KIAS	TEMP DEG C	10 KTS V1 DIST KIAS FT	V1 DIST KIAS FT	10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT	VR V2 KIAS		
-35	96 5060	94 4080	95 3860	95 3640	95 3420	102 110	-35	94 4730	92 3810	92 3590	92 3390	93 3190	100 109		
-30	96 5190	94 4190	95 3960	95 3740	95 3520	101 109	-30	94 4850	92 3910	92 3690	92 3480	93 3270	99 108		
-25	96 5350	94 4320	95 4080	95 3850	95 3630	101 108	-25	94 4990	92 4020	92 3800	92 3580	92 3370	99 107		
-20	97 5510	94 4460	95 4210	95 3980	95 3750	100 108	-20	94 5140	92 4140	92 3910	92 3690	92 3470	98 106		
-15	97 5760	95 4680	95 4430	95 4190	95 3950	100 107	-15	94 5290	92 4260	92 4030	92 3800	92 3580	98 105		
-10	98 6070	95 4940	96 4680	96 4420	96 4170	101 107	-10	94 5470	92 4440	92 4200	92 3960	92 3730	97 104		
-5	99 6450	96 5260	97 4980	97 4710	97 4440	101 107	-5	94 5770	92 4680	92 4430	93 4180	93 3940	98 104		
0	100 6840	97 5580	97 5290	98 5010	98 4730	102 107	0	95 6100	93 4960	93 4690	93 4430	94 4180	98 104		
5	100 7260	98 5930	98 5620	98 5320	99 5030	102 107	5	96 6470	94 5260	94 4980	94 4710	94 4440	98 104		
10	101 7700	99 6300	99 5980	99 5660	99 5350	102 107	10	97 6850	95 5580	95 5290	95 5000	95 4720	99 104		
15	102 8170	100 6690	100 6350	100 6020	100 5700	103 107	15	98 7270	95 5930	96 5620	96 5310	96 5020	99 104		
20	103 8680	100 7120	100 6760	101 6410	101 6070	103 107	20	99 7720	96 6300	96 5980	97 5660	97 5350	100 104		
25	104 9590	102 7880	102 7490	102 7100	102 6730	104 107	25	100 8510	98 6960	98 6600	98 6250	98 5920	100 104		

Figure 4-19 (Sheet 30)







**TAKEOFF FIELD LENGTH - FEET, FLAPS UP  
(DRY RUNWAY OVER A 35 FOOT SCREEN HEIGHT)  
(ANTI-ICE ON)**

Determine takeoff field length,  $V_1$ ,  $V_R$ ,  $V_2$  and  $V_{ENR}$  from Figure 4-21. If the runway has a gradient, adjust  $V_1$  and takeoff field length using figure 4-20.

If the required distance is greater than the available distance, the airplane weight must be reduced until distance required is less than or equal to distance available.

**TAKEOFF FIELD LENGTH WITH RUNWAY GRADIENT  
FLAPS UP, ANTI-ICE ON**

ZERO RUNWAY GRADIENT	UPHILL GRADIENT				DOWNHILL GRADIENT			
	SHADED AND NON-SHADED				SHADED		NON-SHADED	
	2%	1.5%	1%	0.5%	-1%	-2%	-1%	-2%
	$V_1 + 4^*$ Knot	$V_1 + 3^*$ Knot	$V_1 + 2^*$ Knot	$V_1 + 2^*$ Knot	$V_1 - 3$ Knots	$V_1 - 5$ Knots	$V_1 + 1^*$ Knot	$V_1 + 1^*$ Knot
1800	2000	1950	1950	1950	1800	1800	1900	1950
2000	2250	2200	2150	2150	2000	2000	2100	2150
2200	2450	2400	2350	2350	2200	2200	2350	2350
2400	2700	2650	2550	2550	2400	2400	2550	2550
2600	2950	2850	2750	2800	2600	2550	2750	2750
2800	3150	3050	3000	3000	2800	2750	2950	2950
3000	3350	3300	3200	3200	3000	2950	3150	3150
3200	3600	3500	3400	3400	3200	3150	3350	3350
3400	3800	3700	3600	3600	3400	3350	3550	3550
3600	4050	3950	3850	3800	3600	3500	3750	3800
3800	4300	4150	4050	4000	3800	3700	3950	4000
4000	4550	4350	4250	4250	4000	3900	4150	4200
4200	4800	4600	4450	4450	4150	4050	4350	4400
4400	5150	4900	4700	4650	4350	4250	4550	4550
4600	5500	5200	4900	4850	4550	4400	4750	4750
4800	5750	5450	5150	5050	4700	4600	4950	4950
5000	6050	5700	5400	5250	4900	4750	5150	5150
5200	6350	5950	5650	5450	5100	4950	5350	5350
5400	6700	6300	5900	5650	5300	5150	5550	5550
5600	7100	6550	6150	5900	5500	5300	5750	5750
5800	7500	6750	6400	6100	5700	5500	5950	5950
6000	7900	7000	6600	6300	5850	5650	6150	6150
6200	8400	7250	6850	6500	6050	5850	6350	6300
6400	8700	7550	7050	6700	6250	6050	6500	6500
6600	9050	7850	7300	6900	6400	6200	6600	6650
6800	9400	8150	7550	7100	6600	6350	6750	6800
7000	9750	8500	7800	7350	6750	6550	6950	6950
7200	10100	8800	8100	7550	6950	6700	7100	7100
7400	10450	9100	8350	7750	7150	6850	7250	7250
7600	10850	9450	8650	8000	7350	7000	7400	7400
7800	11450	9850	8950	8200	7500	7200	7600	7600
8000	12300	10250	9250	8450	7750	7400	7800	7700
8200	13300	11000	9600	8700	7950	7600	7950	7850
8400	13800	11500	9950	8950	8100	7750	8100	8000
8600	14250	12000	10200	9150	8300	7900	8300	8150
8800	14700	12400	10550	9400	8500	8050	8500	8250
9000	15100	12700	10850	9650	8650	8250	8700	8400
9500		13300	11450	10150	9050	8650	9050	8700
10000		14000	12100	10650	9500	9000	9550	9000
10500		14700	12700	11200	9950	9400	10000	9300
11000		15400	13300	11750	10300	9750	10350	9600
12000			14650	12950	11100	10350	11050	10050

\* If the adjusted  $V_1$  is greater than  $V_R$ , the value of  $V_R$  must be used for  $V_1$ .

Figure 4-20



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
SEA LEVEL

CONDITIONS: ANTI-ICE ON  
RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE HEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS															
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS						
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS								
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT							
-20	116	4620	113	3650	113	3490	114	3210	114	3010	118	125	-20	115	4510	112	3550	112	3340	113	3130	113	2930	117	124
-15	116	4690	113	3710	113	3490	114	3270	114	3060	118	125	-15	115	4570	112	3610	112	3400	112	3190	113	2980	117	124
-10	116	4760	113	3770	113	3550	114	3330	114	3120	118	125	-10	115	4640	112	3670	112	3450	112	3240	113	3040	117	124
-5	116	4830	113	3830	113	3610	114	3390	114	3180	118	125	-5	115	4710	112	3730	112	3510	112	3300	113	3090	117	124
0	116	4940	113	3930	113	3700	114	3480	114	3260	118	125	0	115	4820	112	3820	112	3600	112	3380	113	3170	117	124
5	116	5050	113	4020	114	3790	114	3570	114	3350	118	125	5	115	4930	112	3920	113	3690	113	3470	113	3260	117	124
10	119	5490	115	4410	116	4160	116	3920	116	3680	119	125	10	117	5350	114	4280	114	4040	115	3800	115	3570	118	124

WEIGHT = 12000 LBS										WEIGHT = 11500 LBS															
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS						
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS								
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT							
-20	114	4380	111	3450	111	3240	111	3030	111	2840	116	123	-20	110	4090	107	3210	108	3010	108	2820	108	2630	113	121
-15	114	4450	111	3510	111	3290	111	3090	111	2890	116	123	-15	110	4150	107	3260	108	3060	108	2870	108	2680	113	121
-10	113	4510	110	3560	111	3350	111	3140	111	2940	116	123	-10	110	4210	107	3320	108	3120	108	2920	108	2730	113	121
-5	113	4570	110	3620	111	3410	111	3200	111	2990	116	123	-5	110	4270	107	3370	108	3170	108	2970	108	2780	113	121
0	114	4680	111	3710	111	3490	111	3280	111	3070	116	123	0	110	4360	107	3450	108	3240	108	3040	108	2850	113	120
5	114	4790	111	3800	111	3580	111	3360	112	3150	116	123	5	110	4450	107	3520	108	3310	108	3100	108	2910	113	120
10	116	5190	113	4140	113	3900	113	3670	114	3440	117	123	10	112	4820	109	3820	110	3590	110	3380	110	3160	114	120

WEIGHT = 11000 LBS										WEIGHT = 10000 LBS															
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS						
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS								
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT							
-20	107	3830	104	3000	105	2810	105	2630	105	2450	111	119	-20	102	3430	100	2680	100	2510	100	2340	101	2180	107	117
-15	107	3890	104	3050	105	2860	105	2680	105	2500	111	119	-15	102	3480	100	2720	100	2550	100	2380	101	2220	107	117
-10	107	3950	104	3100	105	2910	105	2720	105	2540	111	119	-10	102	3530	100	2770	100	2590	100	2420	101	2260	107	117
-5	107	4010	104	3150	105	2960	105	2770	105	2590	111	119	-5	102	3580	100	2810	100	2640	100	2470	101	2300	108	117
0	107	4080	104	3220	105	3020	105	2830	105	2650	111	119	0	102	3650	100	2870	100	2690	100	2520	101	2350	107	116
5	107	4160	104	3290	105	3090	105	2890	105	2710	111	118	5	102	3710	100	2920	100	2740	100	2570	101	2400	107	116
10	109	4460	106	3520	106	3310	106	3100	107	2900	111	118	10	102	3870	100	3040	100	2850	100	2670	101	2490	106	114

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS															
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS						
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS								
			V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT					V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT	V1 DIST KIAS FT							
-20	97	3050	94	2380	95	2220	95	2070	96	1920	104	115	-20	93	2900	93	2350	93	2180	93	2020	93	1860	102	114
-15	97	3100	94	2420	95	2260	95	2110	96	1960	104	115	-15	93	2940	93	2390	93	2220	93	2050	93	1890	102	114
-10	96	3140	94	2460	95	2300	95	2140	96	2000	104	115	-10	93	2980	93	2430	93	2250	93	2090	93	1930	102	114
-5	96	3190	94	2500	95	2340	95	2180	96	2030	104	115	-5	93	3020	93	2470	93	2290	93	2120	93	1960	102	114
0	96	3240	94	2540	95	2380	95	2220	96	2070	104	114	0	93	3070	92	2500	92	2330	92	2160	93	2000	102	113
5	96	3300	94	2590	95	2420	95	2270	96	2110	104	114	5	93	3110	92	2540	92	2370	92	2200	93	2030	102	113
10	97	3420	94	2680	95	2510	95	2340	96	2180	102	112	10	94	3210	92	2580	92	2400	92	2230	93	2070	100	111

Figure 4-21 (Sheet 1 of 15)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
1000 FEET

CONDITIONS: ANTI-ICE ON

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

HEIGHT = 12375 LBS VENR = 138 KIAS										HEIGHT = 12200 LBS VENR = 137 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS				
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						
-20	116 4790	113 3790	114 3570	114 3350	114 3140	118 125	-20	115 4670	112 3700	112 3480	113 3260	113 3050	117 124						
-15	116 4860	113 3860	114 3630	114 3410	114 3200	118 125	-15	115 4740	112 3760	112 3540	113 3320	113 3110	117 124						
-10	116 4930	113 3920	113 3690	114 3470	114 3260	118 125	-10	115 4810	112 3820	112 3600	113 3380	113 3170	117 124						
-5	116 5020	113 4000	114 3770	114 3550	114 3330	118 125	-5	115 4900	112 3900	112 3670	113 3450	113 3240	117 124						
0	116 5140	113 4100	114 3870	114 3640	114 3420	118 125	0	115 5020	112 4000	113 3770	113 3540	113 3330	117 124						
5	117 5390	114 4310	115 4060	115 3830	115 3600	119 125	5	116 5280	113 4190	113 3950	114 3720	114 3500	118 124						
10	117 6140	116 4770	116 4510	117 4250	117 4000	120 125	10	118 5760	115 4630	115 4370	116 4120	116 3880	119 124						

HEIGHT = 12000 LBS VENR = 136 KIAS							HEIGHT = 11500 LBS VENR = 133 KIAS								
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-20	114 4540	111 3590	111 3370	111 3160	112 2960	116 123	-20	110 4230	107 3330	108 3130	108 2930	108 2740	113 120		
-15	114 4610	111 3650	111 3430	111 3220	112 3010	116 123	-15	110 4290	107 3390	108 3180	108 2980	108 2790	113 120		
-10	114 4670	111 3710	111 3490	111 3280	111 3070	116 123	-10	110 4360	107 3440	108 3240	108 3040	108 2840	113 120		
-5	114 4760	111 3780	111 3560	111 3340	112 3140	116 123	-5	110 4430	107 3510	108 3300	108 3090	108 2900	113 120		
0	114 4870	111 3880	111 3650	111 3430	112 3220	116 123	0	110 4530	107 3590	108 3380	108 3170	108 2970	113 120		
5	115 5100	112 4070	112 3830	112 3610	113 3390	117 123	5	111 4740	108 3760	109 3540	109 3330	109 3120	114 120		
10	117 5580	114 4480	114 4220	114 3980	114 3740	118 123	10	113 5140	110 4100	111 3870	111 3640	111 3410	115 120		

HEIGHT = 11000 LBS VENR = 130 KIAS							HEIGHT = 10000 LBS VENR = 125 KIAS								
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-20	107 3960	104 3110	105 2910	105 2730	105 2550	111 119	-20	102 3540	100 2770	100 2600	100 2430	101 2260	107 116		
-15	107 4020	104 3160	105 2970	105 2780	105 2590	111 119	-15	102 3590	100 2820	100 2640	100 2470	101 2300	107 116		
-10	107 4080	104 3210	105 3020	105 2830	105 2640	111 119	-10	102 3640	100 2860	100 2690	100 2510	101 2350	107 116		
-5	107 4140	104 3270	105 3070	105 2880	105 2690	111 118	-5	102 3700	100 2910	100 2740	100 2560	101 2390	107 116		
0	107 4230	105 3350	105 3150	105 2950	105 2760	111 118	0	102 3770	100 2970	100 2790	100 2610	101 2440	107 116		
5	108 4400	105 3480	105 3280	106 3070	106 2880	111 118	5	102 3870	100 3050	100 2870	100 2680	101 2510	107 115		
10	110 4750	107 3760	107 3540	107 3330	108 3120	112 118	10	103 4060	100 3200	100 3000	100 2810	101 2620	106 113		

HEIGHT = 9000 LBS VENR = 118 KIAS							HEIGHT = 8500 LBS VENR = 115 KIAS								
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR	V2 KIAS
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-20	97 3140	94 2450	95 2300	95 2140	96 2000	104 114	-20	93 2960	92 2400	92 2230	92 2060	93 1900	102 113		
-15	96 3190	94 2500	95 2340	95 2180	96 2030	104 114	-15	93 3000	92 2440	92 2270	92 2100	93 1940	102 113		
-10	96 3240	94 2540	95 2380	95 2220	96 2070	104 114	-10	93 3040	92 2480	92 2310	92 2140	93 1970	102 113		
-5	96 3290	94 2580	95 2420	95 2260	96 2110	104 114	-5	93 3090	92 2520	92 2350	92 2180	93 2010	102 113		
0	96 3350	94 2630	95 2470	95 2310	96 2150	104 114	0	93 3140	91 2560	92 2380	92 2210	93 2050	102 113		
5	97 3430	94 2700	95 2530	95 2360	96 2210	103 113	5	94 3220	91 2600	92 2420	92 2250	93 2080	101 112		
10	97 3570	94 2800	95 2620	95 2450	96 2280	102 110	10	94 3340	92 2640	92 2460	92 2290	93 2130	100 109		

Figure 4-21 (Sheet 2)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
2000 FEET

CONDITIONS: ANTI-ICE ON

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE HEIGHT FROM MAXIMUM TAKEOFF HEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT					V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	
-20	116 4950	113 3940	114 3710	114 3480	114 3270	118 125	-20	115 4830	112 3830	112 3610	113 3390	113 3180	117 124						
-15	116 5030	113 4000	114 3770	114 3550	114 3330	118 125	-15	115 4900	112 3900	112 3670	113 3450	113 3240	117 124						
-10	116 5100	113 4070	114 3840	114 3610	114 3390	118 125	-10	115 4970	112 3960	112 3730	113 3510	113 3300	117 124						
-5	116 5220	113 4170	114 3930	114 3700	114 3480	118 125	-5	115 5090	112 4060	113 3830	113 3600	113 3380	117 124						
0	117 5350	114 4280	114 4040	114 3810	114 3580	119 125	0	115 5220	113 4170	113 3940	113 3710	113 3480	118 124						
5	116 6040	115 4660	116 4410	116 4160	116 3910	119 125	5	117 5650	114 4530	114 4280	115 4030	115 3790	118 124						
10	115 6970	117 5180	117 4890	118 4620	118 4350	120 125	10	116 6540	116 5030	116 4750	116 4480	117 4220	119 124						

WEIGHT = 12000 LBS								WEIGHT = 11500 LBS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT					V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	
-20	114 4690	111 3720	111 3500	111 3290	112 3080	116 123	-20	110 4370	107 3450	108 3250	108 3040	108 2840	113 120						
-15	114 4760	111 3780	111 3560	111 3350	112 3140	116 123	-15	110 4430	107 3510	108 3300	108 3090	108 2900	113 120						
-10	114 4830	111 3840	111 3620	111 3400	112 3190	116 123	-10	110 4500	107 3560	108 3350	108 3150	108 2950	113 120						
-5	114 4940	111 3940	111 3710	111 3490	112 3280	116 123	-5	110 4590	107 3650	108 3430	108 3220	108 3020	113 120						
0	114 5070	111 4050	111 3820	112 3590	112 3370	116 123	0	111 4700	108 3740	108 3520	108 3310	109 3110	113 120						
5	116 5450	113 4380	113 4130	113 3890	114 3660	117 123	5	112 5050	109 4020	110 3790	110 3570	110 3350	114 120						
10	117 6030	115 4860	115 4590	115 4320	115 4070	118 123	10	114 5540	111 4450	112 4190	112 3950	112 3710	115 120						

WEIGHT = 11000 LBS								WEIGHT = 10000 LBS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT					V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	
-20	107 4080	104 3220	105 3020	105 2830	105 2640	111 118	-20	102 3650	100 2860	100 2690	100 2510	101 2350	107 116						
-15	107 4140	104 3270	105 3070	105 2880	105 2690	111 118	-15	102 3700	100 2910	100 2730	100 2560	101 2390	107 116						
-10	107 4210	104 3330	105 3130	105 2930	105 2740	111 118	-10	102 3760	100 2960	100 2780	100 2600	101 2430	107 116						
-5	107 4290	104 3400	105 3200	105 3000	105 2810	111 118	-5	102 3820	100 3020	100 2840	100 2660	101 2480	107 116						
0	107 4390	105 3480	105 3280	105 3080	106 2880	111 118	0	102 3900	100 3080	100 2890	100 2710	101 2540	107 116						
5	109 4670	106 3710	106 3490	106 3280	107 3070	111 118	5	102 4050	100 3190	100 3000	100 2810	101 2630	106 114						
10	111 5070	108 4060	108 3820	108 3600	108 3370	112 118	10	103 4300	100 3390	101 3180	101 2980	101 2790	106 113						

WEIGHT = 9000 LBS								WEIGHT = 8500 LBS											
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS						VR V2 KIAS
			10 KTS		20 KTS		30 KTS						10 KTS		20 KTS		30 KTS		
			V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT					V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	V1 DIST KIAS	V1 DIST FT	
-20	96 3240	94 2540	95 2380	95 2220	96 2070	104 114	-20	93 3040	92 2470	92 2290	92 2120	93 1960	102 113						
-15	96 3290	94 2580	95 2420	95 2260	96 2110	104 114	-15	93 3090	92 2510	92 2330	92 2160	93 2000	102 113						
-10	96 3340	94 2620	95 2460	95 2300	95 2150	104 114	-10	93 3130	92 2550	92 2370	92 2200	93 2030	102 113						
-5	96 3390	94 2670	95 2510	95 2350	95 2190	104 114	-5	93 3180	91 2590	92 2410	92 2240	93 2070	102 113						
0	96 3450	94 2720	95 2560	95 2390	95 2230	103 114	0	93 3240	91 2630	92 2450	92 2280	93 2110	101 112						
5	97 3580	94 2810	95 2640	95 2470	95 2310	102 112	5	94 3350	92 2670	92 2490	92 2310	93 2150	100 110						
10	97 3730	95 2920	95 2740	95 2560	96 2390	101 109	10	94 3480	92 2730	92 2550	92 2390	93 2230	99 108						

Figure 4-21 (Sheet 3)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
3000 FEET

CONDITIONS: ANTI-ICE ON

RUNWAY GRADIENT - ZERO  
LANDING GEAR - DOWN  
THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT  
INOPERATIVE ENGINE - WINDMILLING AFTER V1  
OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS										WEIGHT = 12200 LBS									
VENR = 139 KIAS										VENR = 138 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS						
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT					10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT							
-25	116 5010	113 3990	114 3760	114 3530	114 3310	118 125	-25	115 4880	112 3880	112 3660	113 3440	113 3220	117 124						
-20	116 5090	113 4060	113 3820	114 3600	114 3380	118 125	-20	115 4960	112 3950	112 3720	113 3500	113 3290	117 124						
-15	116 5160	113 4120	113 3890	114 3660	114 3440	118 125	-15	115 5040	112 4020	112 3790	112 3560	113 3350	117 124						
-10	116 5260	113 4210	113 3970	114 3740	114 3510	118 125	-10	115 5130	112 4100	112 3860	113 3640	113 3420	117 124						
-5	116 5490	114 4340	114 4090	114 3860	114 3630	119 125	-5	115 5280	112 4220	113 3990	113 3760	113 3530	118 124						
0	115 5890	114 4540	114 4290	115 4040	115 3810	119 125	0	115 5530	113 4400	113 4160	114 3920	114 3690	118 124						
5	114 6830	116 5060	116 4790	117 4520	117 4260	120 125	5	115 6420	115 4920	115 4650	116 4390	116 4130	119 124						
10	113 7930	118 5630	118 5320	118 5030	119 4740	121 125	10	114 7430	117 5460	117 5160	117 4880	117 4600	120 124						

WEIGHT = 12000 LBS										WEIGHT = 11500 LBS									
VENR = 136 KIAS										VENR = 134 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS						
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT					10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT							
-25	114 4740	111 3770	111 3550	111 3330	112 3120	116 123	-25	110 4420	107 3490	108 3290	108 3090	108 2890	113 120						
-20	114 4820	111 3830	111 3610	111 3390	111 3180	116 123	-20	110 4480	107 3560	108 3340	108 3140	108 2950	113 120						
-15	113 4890	111 3900	111 3670	111 3450	111 3240	116 123	-15	110 4550	107 3620	108 3400	108 3200	108 3000	113 120						
-10	114 4980	111 3970	111 3750	111 3530	111 3310	116 123	-10	110 4630	107 3680	108 3470	108 3260	108 3060	113 120						
-5	114 5120	111 4100	111 3860	112 3640	112 3420	116 123	-5	110 4760	108 3790	108 3570	108 3360	108 3150	113 120						
0	115 5330	112 4270	112 4030	112 3800	112 3570	117 123	0	111 4950	108 3950	109 3720	109 3500	109 3290	114 120						
5	116 5950	114 4750	114 4490	114 4230	114 3990	118 123	5	113 5410	110 4350	111 4110	111 3870	111 3640	115 120						
10	115 6880	116 5270	116 4980	116 4700	116 4430	119 123	10	115 5990	112 4820	112 4560	113 4290	113 4040	116 120						

WEIGHT = 11000 LBS										WEIGHT = 10000 LBS									
VENR = 130 KIAS										VENR = 125 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS						
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT					10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT							
-25	107 4130	104 3260	105 3060	105 2870	105 2680	111 118	-25	102 3690	100 2910	100 2730	100 2550	101 2380	107 116						
-20	107 4200	104 3320	105 3120	105 2920	105 2740	111 119	-20	102 3750	100 2960	100 2780	100 2600	101 2430	107 116						
-15	107 4260	104 3370	105 3170	105 2980	105 2790	111 119	-15	102 3810	100 3010	100 2830	100 2650	101 2480	107 116						
-10	107 4330	104 3440	105 3230	105 3040	105 2850	111 118	-10	102 3870	100 3060	100 2880	100 2700	101 2520	107 116						
-5	107 4440	105 3530	105 3320	105 3120	105 2930	111 118	-5	102 3950	100 3130	100 2940	100 2760	101 2580	107 116						
0	108 4590	105 3650	105 3440	105 3230	106 3030	111 118	0	102 4050	100 3210	100 3010	100 2830	100 2650	107 115						
5	110 4990	107 3970	107 3750	107 3520	108 3310	112 118	5	103 4260	100 3370	100 3170	100 2970	101 2780	106 113						
10	112 5480	109 4400	109 4150	109 3910	109 3670	113 118	10	104 4580	101 3620	102 3410	102 3200	102 2990	106 113						

WEIGHT = 9000 LBS										WEIGHT = 8500 LBS									
VENR = 118 KIAS										VENR = 115 KIAS									
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS						
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT					10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT							
-25	96 3280	94 2570	95 2410	95 2250	96 2100	104 114	-25	93 3080	92 2500	92 2330	92 2150	93 1990	102 113						
-20	96 3330	94 2620	95 2460	95 2300	96 2140	104 114	-20	93 3130	92 2540	92 2370	92 2190	93 2030	102 113						
-15	96 3380	94 2660	95 2500	95 2340	95 2180	104 114	-15	93 3180	92 2580	92 2410	92 2230	93 2070	102 113						
-10	96 3430	94 2710	95 2540	95 2380	95 2230	104 114	-10	93 3230	92 2630	92 2450	92 2270	93 2100	102 113						
-5	96 3500	94 2770	95 2600	95 2430	95 2270	104 114	-5	93 3280	91 2670	92 2490	92 2310	93 2140	102 113						
0	97 3580	94 2830	95 2660	95 2490	95 2330	103 113	0	93 3360	91 2710	92 2530	92 2350	93 2180	101 112						
5	97 3740	94 2940	95 2760	95 2590	95 2410	102 110	5	94 3490	92 2750	92 2580	92 2410	93 2250	100 109						
10	97 3900	95 3060	95 2870	95 2690	95 2510	101 108	10	94 3640	92 2850	92 2670	92 2500	93 2330	99 107						

Figure 4-21 (Sheet 4)



TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
4000 FEET

CONDITIONS: ANTI-ICE ON

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS								VENR = 139 KIAS								WEIGHT = 12200 LBS								VENR = 138 KIAS							
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2								
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST	V1 DIST			V1 DIST	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST		V1 DIST	V1 DIST						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	KIAS	FT	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT							
-25	116	5150	113	4110	113	3880	114	3650	114	3430	118	125	-25	115	5020	112	4000	112	3770	112	3550	113	3330	117	124						
-20	116	5230	113	4180	113	3950	114	3720	114	3490	118	125	-20	115	5100	112	4070	112	3840	112	3620	113	3400	117	124						
-15	116	5340	113	4250	113	4020	114	3790	114	3560	118	125	-15	115	5180	112	4140	112	3910	112	3680	113	3460	117	124						
-10	115	5590	113	4370	114	4130	114	3890	114	3660	118	125	-10	115	5310	112	4260	112	4020	113	3790	113	3560	117	124						
-5	114	5930	114	4520	114	4280	114	4040	114	3800	119	125	-5	114	5590	113	4400	113	4160	113	3920	113	3690	118	124						
0	113	6640	115	4920	115	4650	116	4400	116	4140	119	125	0	114	6250	114	4780	114	4520	114	4260	115	4020	118	124						
5	112	7740	117	5500	117	5200	118	4920	118	4640	120	125	5	113	7270	116	5340	116	5050	116	4770	117	4500	119	124						
10	111	9030	119	6110	119	5790	119	5480	119	5170	121	125	10	112	8460	118	5930	118	5620	118	5310	118	5010	120	124						

WEIGHT = 12000 LBS								VENR = 137 KIAS								WEIGHT = 11500 LBS								VENR = 134 KIAS							
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2								
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST	V1 DIST			V1 DIST	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST		V1 DIST	V1 DIST						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	KIAS	FT	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT							
-25	113	4880	111	3880	111	3660	111	3440	111	3230	116	123	-25	110	4540	107	3600	108	3390	108	3190	108	2990	113	120						
-20	113	4950	111	3950	111	3730	111	3510	111	3290	116	123	-20	110	4610	107	3670	108	3450	108	3250	108	3040	113	120						
-15	113	5030	110	4020	111	3790	111	3570	111	3350	116	123	-15	110	4680	107	3730	107	3520	108	3310	108	3100	113	120						
-10	114	5180	111	4130	111	3900	111	3670	112	3450	116	123	-10	110	4790	107	3820	108	3600	108	3390	108	3180	113	120						
-5	114	5330	111	4270	111	4030	112	3800	112	3580	116	123	-5	111	4940	108	3950	108	3730	108	3510	109	3300	113	120						
0	115	5820	113	4620	113	4360	113	4120	113	3880	117	123	0	112	5280	109	4230	110	3990	110	3770	110	3540	114	120						
5	114	6780	115	5150	115	4880	115	4600	115	4340	118	123	5	114	6850	111	4720	112	4460	112	4200	112	3960	115	120						
10	113	7840	116	5730	117	5420	117	5120	117	4830	119	123	10	116	8480	113	5230	113	4950	113	4670	114	4400	116	120						

WEIGHT = 11000 LBS								VENR = 130 KIAS								WEIGHT = 10000 LBS								VENR = 124 KIAS							
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2								
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST	V1 DIST			V1 DIST	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST		V1 DIST	V1 DIST						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	KIAS	FT	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT							
-25	107	4250	104	3370	105	3170	105	2970	105	2780	111	119	-25	102	3800	100	3000	100	2820	100	2640	101	2470	107	116						
-20	107	4320	104	3430	105	3220	105	3030	105	2840	111	119	-20	102	3860	100	3050	100	2870	100	2690	101	2520	107	116						
-15	107	4380	104	3490	105	3280	105	3080	105	2890	111	119	-15	102	3920	99	3110	100	2920	100	2740	101	2570	107	117						
-10	107	4480	104	3570	105	3360	105	3160	105	2960	111	118	-10	102	3990	99	3170	100	2980	100	2800	100	2620	107	116						
-5	107	4600	105	3670	105	3460	105	3260	106	3060	111	118	-5	102	4080	99	3240	100	3050	100	2860	100	2680	107	116						
0	108	4890	106	3900	106	3670	106	3460	107	3250	111	118	0	102	4230	100	3360	100	3160	100	2960	100	2780	106	114						
5	111	5360	108	4310	108	4060	108	3830	108	3600	112	118	5	103	4510	100	3570	101	3360	101	3160	101	2960	106	113						
10	113	5930	110	4770	110	4500	110	4250	110	3990	113	118	10	105	4910	102	3920	103	3690	103	3470	103	3250	107	113						

WEIGHT = 9000 LBS								VENR = 119 KIAS								WEIGHT = 8500 LBS								VENR = 115 KIAS							
TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2	TEMP DEG C	TAILWIND		ZERO WIND		HEADWINDS						VR V2								
	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST	V1 DIST			V1 DIST	10 KTS	V1 DIST	V1 DIST	V1 DIST	10 KTS	20 KTS	30 KTS	V1 DIST	V1 DIST		V1 DIST	V1 DIST						
	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	KIAS	FT	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT	KIAS	FT							
-25	96	3370	94	2660	95	2490	95	2330	95	2180	104	114	-25	93	3170	92	2580	92	2400	92	2230	93	2060	102	113						
-20	96	3430	94	2700	95	2540	95	2380	95	2220	104	114	-20	93	3220	92	2620	92	2440	92	2270	93	2100	102	113						
-15	96	3480	94	2750	95	2580	95	2420	95	2260	104	114	-15	93	3270	92	2670	92	2480	92	2310	93	2140	102	113						
-10	96	3540	94	2810	95	2640	95	2470	95	2310	104	114	-10	93	3320	91	2710	92	2530	92	2350	93	2180	102	113						
-5	96	3620	94	2870	95	2690	95	2520	95	2360	103	113	-5	93	3390	91	2750	92	2570	92	2390	93	2220	101	112						
0	97	3740	94	2960	95	2780	95	2600	95	2440	102	112	0	94	3500	92	2790	92	2600	92	2430	93	2270	100	110						
5	97	3900	94	3080	95	2890	95	2710	95	2530	101	109	5	94	3650	92	2870	92	2690	92	2520	93	2350	99	108						
10	97	4100	95	3230	95	3030	95	2840	96	2650	100	107	10	94	3800	92	2980	92	2800	92	2620	93	2440	98	106						

Figure 4-21 (Sheet 5)



MODEL 525A

TAKEOFF FIELD LENGTH - FEET  
(OVER 35 FOOT SCREEN HEIGHT)

FLAPS - UP  
5000 FEET

CONDITIONS: ANTI-ICE ON

RUNWAY GRADIENT - ZERO

LANDING GEAR - DOWN

THRUST ATTENUATORS - AUTO

SPEED BRAKES - RETRACT

INOPERATIVE ENGINE - WINDMILLING AFTER V1

OPERATIVE ENGINE - TAKEOFF THRUST

SOME CONDITIONS DO NOT MEET CLIMB REQUIREMENTS. OBTAIN ALLOWABLE WEIGHT FROM MAXIMUM TAKEOFF WEIGHT TABLES.

WEIGHT = 12375 LBS								WEIGHT = 12200 LBS							
VENR = 139 KIAS								VENR = 138 KIAS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-30	116 5200	113 4160	113 3920	113 3700	114 3470	118 125		-30	115 5070	112 4050	112 3820	112 3600	113 3380	117 124	
-25	116 5290	113 4240	113 4000	113 3770	114 3540	118 125		-25	115 5160	112 4130	112 3890	112 3670	113 3450	117 124	
-20	115 5480	113 4310	113 4070	113 3840	114 3610	118 125		-20	115 5240	112 4200	112 3970	112 3740	113 3510	117 124	
-15	114 5650	113 4390	113 4150	113 3910	114 3680	118 125		-15	114 5340	112 4270	112 4040	112 3810	112 3580	117 124	
-10	112 6030	113 4560	114 4310	114 4070	114 3830	119 125		-10	113 5690	112 4440	113 4190	113 3960	113 3730	117 124	
-5	111 6420	114 4760	114 4500	114 4250	115 4010	119 125		-5	112 6080	113 4620	113 4370	113 4130	114 3890	118 124	
0	111 7510	116 5350	116 5070	117 4790	117 4520	120 125		0	112 7080	115 5190	115 4920	115 4650	116 4380	119 124	
5	110 8800	118 5980	118 5670	118 5360	119 5070	121 125		5	111 8270	117 5800	117 5500	117 5200	117 4910	120 124	
10	109 10330	120 6660	120 6320	120 5980	120 5650	122 125		10	110 9690	119 6460	119 6120	119 5790	119 5470	121 124	

WEIGHT = 12000 LBS								WEIGHT = 11500 LBS							
VENR = 137 KIAS								VENR = 134 KIAS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-30	113 4930	110 3930	111 3700	111 3490	111 3270	116 123		-30	110 4590	107 3650	107 3440	108 3230	108 3030	113 121	
-25	113 5010	110 4000	111 3780	111 3550	111 3340	116 123		-25	110 4660	107 3720	107 3500	108 3290	108 3090	113 121	
-20	113 5090	110 4070	111 3840	111 3620	111 3400	116 123		-20	110 4740	107 3780	107 3570	108 3360	108 3150	113 121	
-15	113 5170	110 4150	111 3910	111 3690	111 3470	116 123		-15	110 4810	107 3850	107 3630	108 3420	108 3210	113 121	
-10	114 5360	111 4300	111 4070	111 3830	112 3610	116 123		-10	110 4970	107 3980	108 3750	108 3540	108 3320	113 120	
-5	113 5660	112 4470	112 4230	112 3990	112 3760	117 123		-5	111 5150	108 4130	108 3900	109 3680	109 3460	114 120	
0	113 6590	114 5020	114 4750	114 4490	114 4230	118 123		0	113 5690	110 4600	111 4340	111 4100	111 3860	115 120	
5	112 7690	116 5610	116 5310	116 5020	116 4740	119 123		5	114 6340	112 5130	112 4850	113 4580	113 4320	116 120	
10	111 8970	117 6230	118 5910	118 5590	118 5280	120 123		10	114 7330	114 5690	114 5390	114 5090	114 4800	117 120	

WEIGHT = 11000 LBS								WEIGHT = 10000 LBS							
VENR = 131 KIAS								VENR = 124 KIAS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-30	107 4300	104 3410	105 3210	105 3010	105 2820	111 119		-30	102 3850	100 3040	100 2860	100 2680	101 2510	107 117	
-25	107 4370	104 3480	105 3270	105 3070	105 2880	111 119		-25	102 3910	99 3100	100 2910	100 2730	101 2560	107 117	
-20	107 4440	104 3540	105 3330	105 3130	105 2940	111 119		-20	102 3970	99 3150	100 2970	100 2780	101 2610	107 117	
-15	107 4510	104 3600	105 3390	105 3190	105 2990	111 119		-15	102 4030	99 3210	100 3020	100 2840	100 2660	107 117	
-10	107 4640	104 3710	105 3500	105 3290	105 3090	111 118		-10	102 4120	99 3280	100 3090	100 2910	100 2720	107 116	
-5	107 4780	105 3830	105 3610	105 3400	106 3190	111 118		-5	102 4220	99 3360	100 3170	100 2980	100 2790	107 115	
0	110 5230	107 4200	107 3960	107 3730	108 3510	112 118		0	102 4460	100 3550	100 3340	100 3140	101 2940	106 113	
5	112 5800	109 4680	109 4420	109 4160	109 3920	113 118		5	104 4820	101 3850	102 3620	102 3410	102 3200	106 113	
10	113 6430	111 5190	111 4900	111 4630	111 4360	114 118		10	106 5310	103 4250	103 4010	104 3770	104 3540	107 113	

WEIGHT = 9000 LBS								WEIGHT = 8500 LBS							
VENR = 119 KIAS								VENR = 115 KIAS							
TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS		TEMP DEG C	TAILWIND 10 KTS V1 DIST KIAS FT	ZERO WIND V1 DIST KIAS FT	HEADWINDS			VR V2 KIAS	
			10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT						10 KTS V1 DIST KIAS FT	20 KTS V1 DIST KIAS FT	30 KTS V1 DIST KIAS FT		
-30	96 3420	94 2700	95 2530	95 2370	95 2210	104 115		-30	93 3210	92 2620	92 2440	92 2260	93 2100	102 113	
-25	96 3470	94 2740	95 2580	95 2410	95 2260	104 115		-25	93 3260	92 2660	92 2480	92 2300	93 2130	102 113	
-20	96 3520	94 2790	95 2620	95 2460	95 2300	104 115		-20	93 3310	92 2710	92 2520	92 2350	93 2170	102 113	
-15	96 3580	94 2840	95 2670	95 2510	95 2350	104 115		-15	93 3360	92 2750	92 2570	92 2390	93 2220	102 113	
-10	96 3660	94 2910	95 2730	95 2560	95 2400	104 114		-10	93 3430	91 2780	92 2590	92 2410	93 2250	102 113	
-5	96 3740	94 2970	95 2790	95 2620	95 2460	103 113		-5	93 3500	91 2800	92 2610	92 2450	93 2290	101 112	
0	97 3910	94 3090	95 2910	95 2730	95 2550	102 110		0	94 3650	92 2890	92 2710	92 2540	93 2380	100 109	
5	97 4090	94 3230	95 3030	95 2840	95 2660	100 108		5	94 3810	92 3000	92 2820	92 2640	93 2470	98 107	
10	98 4340	95 3430	96 3220	96 3020	96 2830	100 107		10	94 3980	92 3130	92 2930	92 2750	93 2560	97 105	

Figure 4-21 (Sheet 6)