

## Chapter 9

# Weight and Balance Control— Commuter Category and Large Aircraft

## Introduction

This chapter discusses general guidelines and procedures for weighing large fixed-wing aircraft exceeding a takeoff weight of 12,500 pounds. Several examples of center of gravity (CG) determination for various operational aspects of these aircraft are also included. Persons seeking approval for a weight and balance control program for aircraft operated under Title 14 of the Code of Federal Regulations (14 CFR) part 91, subpart K, 121, 125, or 135 should consult with the Flight Standards District Office (FSDO) or Certificate Management Office (CMO) that has jurisdiction in their area. Additional information on weight and balance for large aircraft can be found in Federal Aviation Administration (FAA) Advisory Circular (AC) 120-27, Aircraft Weight and Balance Control, FAA Type Certificate Data Sheets (TCDS), and the aircraft flight and maintenance manuals for specific aircraft.

Fuel Loading Table				
Tank 2 (3 cells)				
Weight (lb)	Arm	Moment/1,000	Weight (lb)	Arm
8,500	917.5	7,799	22,500	914.5
9,000	917.2	8,255	23,000	914.5
9,500	917.0	8,711	23,500	914.4
10,000	916.8	9,168	24,000	914.3
10,500	916.6	9,624	24,500	914.3
11,000	916.5	10,082	25,000	914.2
11,500	916.3	10,537	25,500	914.2
12,000	916.1	10,993	26,000	914.1
**(see note at lower left)			26,500	914.1
18,500	915.1	16,929	27,000	914.0
19,000	915.0	17,385	27,500	913.9
19,500	914.9	17,841	28,000	913.9
20,000	914.9	18,298	28,500	913.8
20,500	914.8	18,753	29,000	913.7
21,000	914.7	19,209		
21,500	914.6	19,664		
22,000	914.6	20,121		

Weight	Arm	Moment/100
(-) 300	200	(-) 600
(-) 250	230	
Row 1		
Row 2		
Row 8	(+) 300	(+) 1,230
Row 9	(+) 250	(+) 1,100
14,729		43,139
0		(+) 1,155
14,729		44,294
		300.7

