

CASE 12.2

Fireside Tire Company

Fireside Tire Company, a manufacturer of radial tires for sport utility vehicles, sells its products in the automotive aftermarket and distributes them throughout the United States. Fireside has three tire production plants located in Allentown, Pennsylvania; Toledo, Ohio; and Macomb, Illinois (see map). Normally, Fireside ships tires from its plants to distribution centers, but truckload-size purchases typically are transported directly from plants to customer locations. All shipments to a region move under truck-load rates applying to a minimum weight of 40,000 pounds, or 400 cwt.



Fireside management is concerned about the most economical location for a distribution center to serve its southeastern region, consisting of North Carolina, South Carolina, Georgia, Florida, Mississippi, Alabama, and southeastern Tennessee. Although an Atlanta distribution center currently serves this region, Fireside management is concerned that the Atlanta location is not the most logistically sound alternative.

To help the logistics department conduct an analysis of this region's distribution center location using the grid method, Fireside's transportation department developed the following data based on projections for 2012:

2012 SHIPMENTS TO ATLANTA				GRID COORDINATES	
FROM	CWT	RATE/CWT	MILEAGE	HORIZONTAL	VERTICAL
Toledo	15,000	\$2.20	640	1,360	1,160
Macomb	5,000	2.43	735	980	1,070
Allentown	11,000	2.52	780	1,840	1,150

2012 SHIPMENTS FROM ATLANTA		GRID COORDINATES	
TO	CWT	HORIZONTAL	VERTICAL
Chattanooga	2,700	1,350	650
Atlanta	3,500	1,400	600
Tampa	4,300	1,570	220
Birmingham	2,800	1,260	580
Miami	5,300	1,740	90
Jacksonville	5,100	1,600	450
Columbia	2,200	1,600	650
Charlotte	2,900	1,590	740
Raleigh/Durham	2,200	1,700	800

The transportation department also determined that total freight expenditures from the Atlanta distribution center during 2012 were \$217,000 and that the average shipment distance was 330 miles.

CASE QUESTIONS

1. Based on the available information, is Atlanta the best location for a distribution center to serve the southeastern region? If not, what would you recommend?
2. The Fireside transportation department projects a 25 percent rate increase in 2013 from all of its transportation providers. How will this affect the southeastern location?
3. Marketing anticipates that the Raleigh/Durham market will grow by 3,000 cwt in 2014, and that Fireside will serve the growth from Allentown. How will this affect Atlanta as a location?