**CHAPTER CASE 2.1: Senco Electronics Company: A Sequel** p.72-3

**Case Notes:**

1. If you were Skip Grenoble, which alternative would you advice Jim Beierlein to implement? What criteria would you use to arrive at your decision?

The best long-term decision would be to use Ocean freight since it is cheaper beyond the 2.95 million lb. demand threshold. If the 5% increase in demand per year trend is true, Ocean freight will be cheaper sometime during the third year. What the company could do is use Air freight up until that point and then switch over the Ocean, as long as there are not significant switching costs.

1. At what level of demand (in pounds) per year would these two alternatives be equal?

Ocean: Total Cost – Fixed Cost = Variable Cost ($823,000 – $600,000 = $223,000)

Variable Cost / Units = $223,000/2.5 million lbs. = $0.0892/lb.

Equation: 600,000 + .0892x (x = demand in pounds)

Air: Total Cost – Fixed Cost = Variable Cost ($800,000 – $450,000 = $350,000)

Variable Cost / Units = $350,000/2.5 million lbs. = $0.14/lb.

Equation: 450,000 + .14x (x = demand in pounds)

600,000+.0892x=450,000+.14x (solve for x)

x=2,952,756 lbs., Ocean/Air cost the same when demand is 2,952,756 lbs.

1. Graphically represent these two alternatives and their tradeoff point.
2. Which alternative would you recommend be in place to accommodate future demand growth? What additional factors should be considered?

Ocean is the best option for future demand growth since it becomes less expensive after about the third year. Other factors that the company should consider are the availability, security, and speed of the different modes. If any of these factors are deemed to be more important than just cost, another analysis may need to be done.