



JCG Global Business Case

Elaborated by:

Ismael Porras Villafuerte

Rashmi Harwani

Mark Kale

Hitesh Kamal Agarwal



Agenda

- Background
- Solutions
- Scenarios 1, 2 & 3
- Conclusions
- Recommendations



Background

JCG Global Air Services (AS) is a unit that operates to serve the needs of transportation of JCG headquarters, by operating four aircraft. Some of the stakeholders and employees often travel to corporate locations throughout the world. Our objective is to prepare a fuel plan for an upcoming four-leg flight to several US cities, our team on behalf of Sam Bursk, prepared a work using an analytical approach with the help of the tool SAS to run an SSLP code that allows us to manipulate the information in an easy and optimal way to be able to get the accurate insights based on the three scenarios provided.

Solution

Demo - We used SAS for this case study

Rationale for selection of tool

- SAS is more accurate than Python and can solve issues with ease.
- The code in SAS is more autonomous.
- SAS comes with a larger small-package ecology which makes it more supportive.
- Library utilization.
- Built-in functionalities.

Scenario 1

Objective:
To minimize
the fuel cost
of our journey



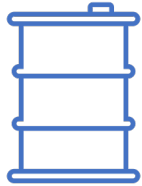
Constraints:
Ramp fee waiver and
weight,
Minimum departure and
landing fuel and weight,
Fuel tank capacity.



Total
Cost:
\$11,645

Destination	Fuel refilled (Pounds)	Ramp Fee (\$)
Moline (KMLI)	6000	0
Boston (KBOS)	0	\$800
NewYork (KTEB)	2010	Waived off
Dallas (KDAL)	2590	Waived off
Moline (KMLI)	4600	0

Scenario 2



Fuel cost remains the same at each airport i.e., \$3.97 / gallon



Since the fuel cost is the same, fuel can be purchased at all airports

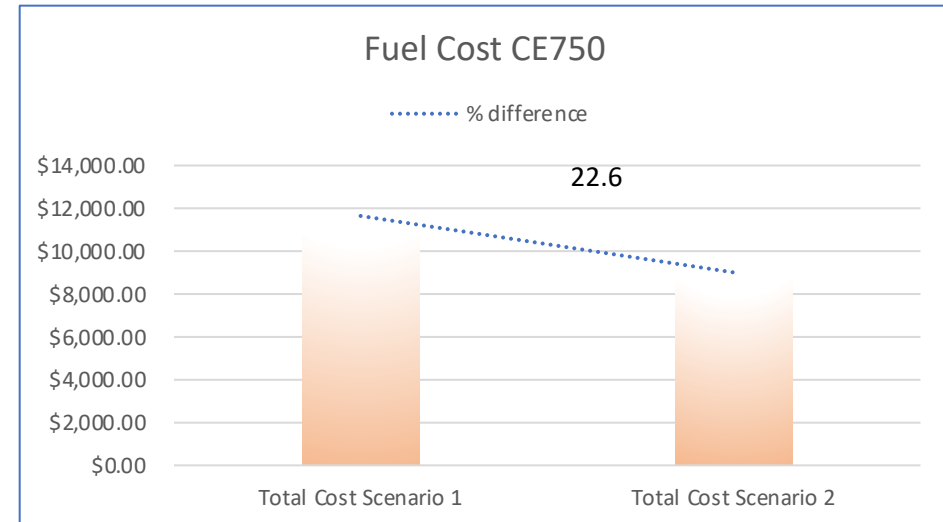


This will avoid the ramp fee at each airport and save on total costs.

Scenario 2

As we can see there is a reduction of **22.6%** in cost if fuel price is the same at all airports

The total amount we are saving is \$2,638.60

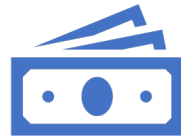


Total Cost Scenario 1	Total Cost Scenario 2
\$11645.16	\$9006.56

Scenario 3



Considering a minimum
landing fuel of 2000
pounds



Total cost- \$11,570.57
We will savings of \$6,713
in 1 year(650h)



Therefore, buying less
fuel at New York and
Moline



Resulting in overall weight
of the flight reduced and
reduced cost

Conclusions

Scenario 3 is the most appropriate for the overall optimum performance of the plan since the minimum landing fuel of 2000 pounds is sufficient for the short distance flights and in case of emergency they can easily land at a nearby airport



Savings of \$74 for one single trip and \$6713 per year



Less fuel spending in locations like New York



Less overall weight of the aircraft

Recommendations

Create	Alliances in airports nearby for re-stocking fuel in case of unexpected weather events happen
Establish	Adequate fuel prices for alternate airports
Negotiate	Lower fuel prices for established airports







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