

Jet Fuel Purchases Airline Perspective

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DECISION CRITERIA

- The jet fuel supply chain is very complex because it requires coordination among suppliers, airlines, pipelines, storage facilities and airports in order to deliver quality fuel on a timely basis
- Since jet fuel is so critical to our operations, airlines have a very comprehensive set of criteria for evaluating the jet fuel suppliers and supply sources
- The criteria consists of the following:
 - Fuel quality
 - Security of supply
 - Supplier reliability
 - Total price to the airport
 - Overall supplier relationship and communication

QUALITY OF FUEL

- The most important criteria is the quality of the fuel
- Jet fuel must meet the jet fuel specification (spec) as defined by ASTM-D1655 before it can be delivered into the aircraft
 - The jet fuel must meet the specification at the production plant
 - It must stay on-spec as it moves through the distribution network
 - Fuel must be a “drop-in” fuel to be able to use the existing distribution/storage infrastructure
 - The jet fuel may be tested at various points (in the pipeline, at off-airport storage, and at on-airport storage) to ensure it meets the required specs
 - If the fuel is off-spec anywhere along the distribution network, the airlines will not accept it



RELIABILITY OF THE SUPPLIER

- Airlines must have jet fuel to operate their flights
 - NO FUEL / NO FLY
 - The supplier must supply the jet fuel volumes per the contract agreement
 - Jet fuel must be delivered to meet the airlines' schedules
 - It cannot be late
 - Late deliveries can potentially shut down an airport

SECURITY OF SUPPLY

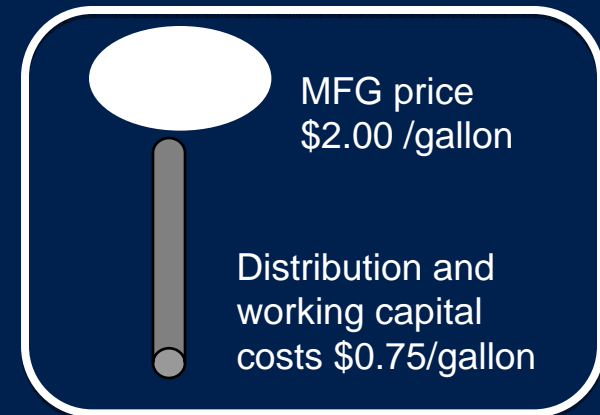
- Since jet fuel supply is critical to the operations of the airlines, the jet fuel supply chain needs to be very robust, flexible and efficient to ensure security of supply
 - Most airlines will have multiple suppliers at their largest airports
 - Most large airports will have multiple delivery systems to get jet fuel to the airport
 - Multiple suppliers and sources minimize the risk of disruptions
 - Suppliers must have the capability to access one of the delivery systems to the airport



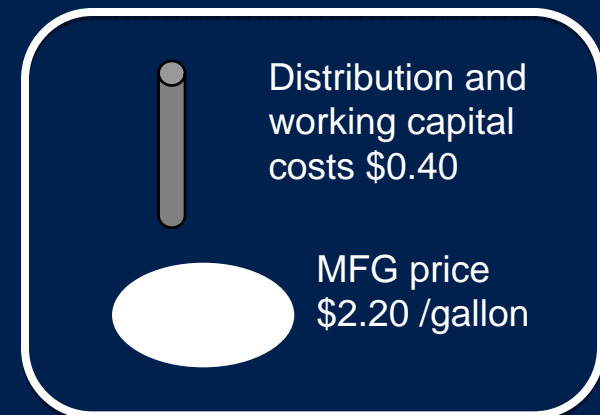
TOTAL COST OF FUEL

- Airlines evaluate the total cost of jet fuel delivered into the airport
- The primary cost components are:
 - Price at the manufacturing plant
 - Pipeline tariffs
 - Storage facility costs
 - Trucking charges
 - Working capital
 - Inventory carrying costs
 - Payment terms

Price: \$2.75/gallon



Price: \$2.60/gallon



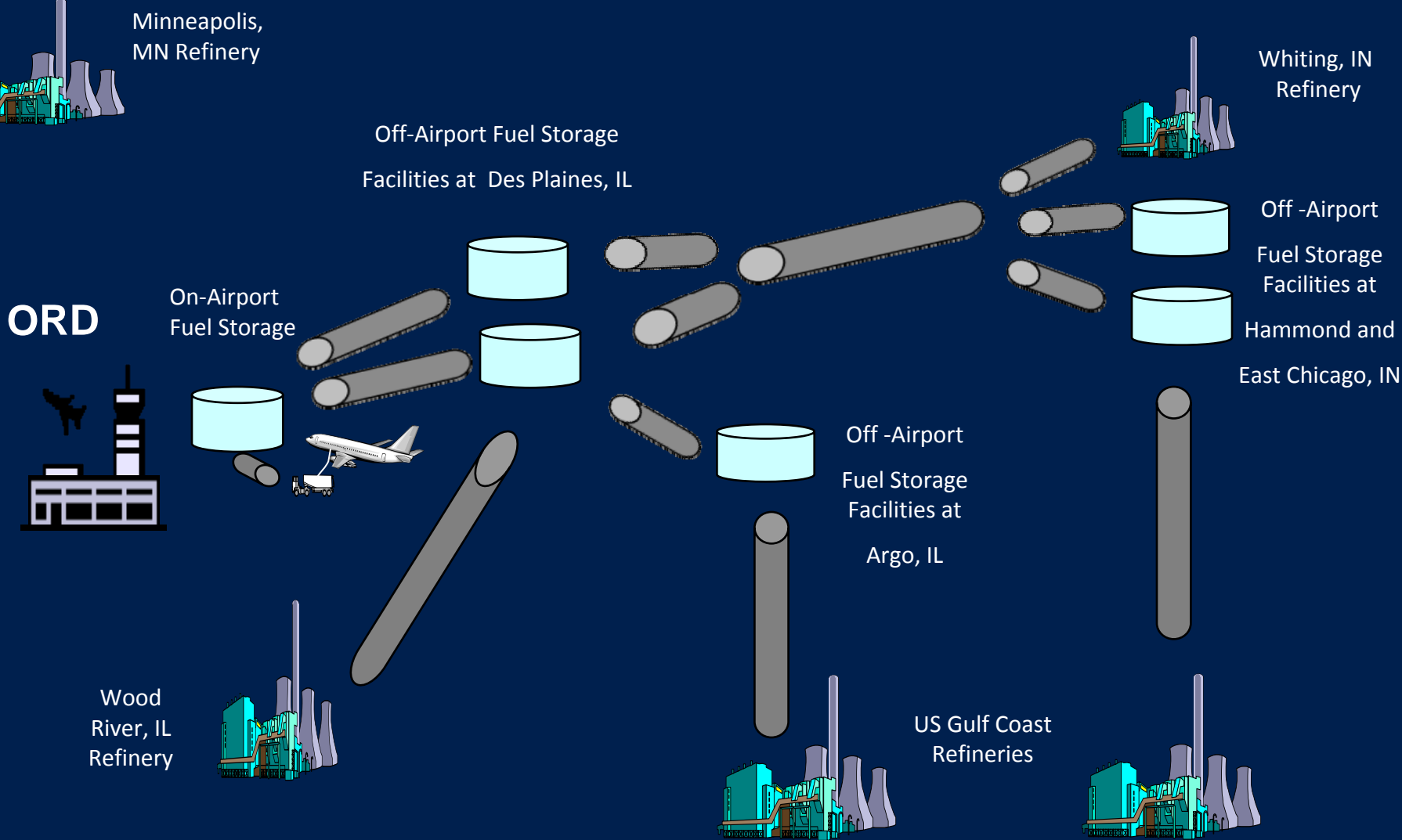
SUPPLIER RELATIONSHIP

- The overall relationship between a supplier and an airline is another criteria in the purchase decision
 - Airlines and suppliers need to have strong communication at all levels
 - Airlines need to be advised of existing or potential quality issues, delivery delays or any incidents that may affect deliveries of fuel
 - Airlines value working with suppliers who will develop and propose alternate options to ensure uninterrupted deliveries of jet fuel to manage through disruptions or incidents
 - Flexibility is very important

SUPPLY CHAIN AND DECISION CRITERIA EXAMPLE

- We just covered the most important criteria used to select supply source and suppliers
- The next slide provides some insight into the decision criteria for each supply source

ORD Fuel Supply Chain - Overview Example



SUMMARY

- There are several important criteria that are considered in making the decision for selecting suppliers and supply sources
- All of the criteria ensure that airlines have the fuel required to run their operations in the most reliable and cost-efficient manner
- NO FUEL / NO FLY



