

The tools to forecast cargo capacity

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Cargo capacity determination is quite different to that of passenger business, even though in most cases they would be using the same aircraft. The biggest difference is, in case of passenger, is the capacity equals the number of seats of the aircraft planned on a route - whereas cargo capacity fluctuates. Also, it is dependent upon many factors such required fuel, baggage weight, checked-in baggage, weather, etc...

Certain factors that contribute towards the capacity determination are outlined below, these factors, coupled with different Cargo processes (supply chain management), make it much more complex especially due to its multi-dimensional nature.

Core needs:

Uncertain Cargo Capacity: Cargo capacity of each aircraft and its corresponding flight varies whereas the number of passenger seats are fixed.

Multi-Dimensional Nature: Cargo booking depends on weight, volume, and the number of ULDs available on an aircraft (it sometimes becomes more complex if you consider the type of ULD available), whereas in pax it is one customer one seat concept.

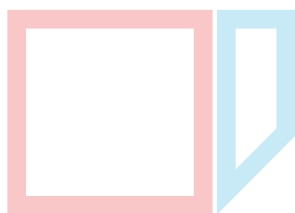
Cargo Customers Demand: Fewer customers, but the demand fluctuates from one booking to another.

Shipment Routings: Shipments can be routed via different gateways and through different means (e.g. other airlines, trucks)

Booking Period: The booking period of cargo is much shorter than for passenger. The passenger booking period is up to 1 year, whereas in the case of cargo it is around 30 days with 80% of actual bookings happening in the last 7 days.

CHAMP's Cargospot solution is a quite simple, practical means to provide results in forecasting the cargo capacity on the passenger aircrafts. However, there is much more to that for any airline.

As with any system, there are some key inputs needed to formulate these calculations.



ULDs

ULD profiles must be setup for any aircraft. The crew or other ULD space that is not available to cargo will also need to be declared at flight original and destination.



Weight

Weight allotted for each passenger class (e.g. economy, business) will be defined, as this can be further redefined at origin and transit. Passenger weight will likewise be defined and can include carry-on baggage. Easy enough already!

Aircraft

The default and full weight and volume (W&V) of any aircraft must be filled-in. Default W&V is defined as parameters that Cargospot will show in case the capacity forecast is not working due to errors or missing information. Furthermore, full W&V is defined as the aircraft uplift capability – including passenger weight, baggage, crew container, cargo, mail (anything other than fuel, crew, and catering weight).

An interface file that contains either an actual or forecast passenger load would be required, which would be uploaded into Cargospot. The frequency of this task can be determined based on your needs (normally once per day).

Results

Once the required data has been updated, Cargospot will calculate the available capacity figures both in terms of weight and volume (ULD). These are dynamic in nature and will be calculated if any of the relevant fields such as number of passengers, baggage, passenger weight, etc. are changed either manually or through system upload.

The complex factors involved with loading and management are simply easier with the help of a dynamic tool that increases productivity and reduces human error. Cargospot is an excellent tool for any airline that is looking for a simple, cost effective and hassle free solution with features that manage their cargo capacities. It will help you in automating tasks related to capacity forecast (which can be quite cumbersome for any size of airline), reduces human error, and at same time gives you an opportunity to maximize revenue and profits.