



Green Flying:

Reduction of specific CO₂ emissions.

Cargo Climate Information.

Meeting our climate target with optimum trim.

In its effort to sustainably reduce CO₂ emissions, Lufthansa Cargo has set an ambitious target: the reduction of specific CO₂ emissions by 25 percent (as compared to 2005) by 2020.

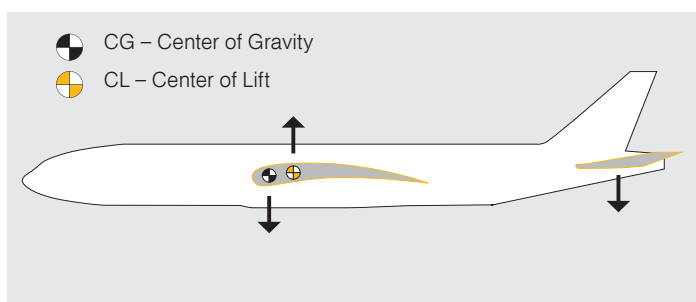
In addition to reducing the weight on aircraft and the use of Lightweight-Containers, efforts to optimize the center of gravity – known as trim – have also played a part in helping us to achieve our goal of 25 percent fewer CO₂ emissions. “Good” trim, which is when there is an ideal distribution of weight and cargo volume, decreases aerodynamic resistance and the necessary lift force – and thereby fuel consumption.

In general:

The closer to the rear the potential trim is located, the more efficiently an aircraft can fly.

An aircraft is considered trimmed if the pilot does not need to exert any steering force to maintain the flight attitude in a given aerodynamic situation. Lufthansa Cargo does everything it can to increase awareness of this matter and continue improving its processes.

- For every flight, the employees on the Weight & Balance Team create what are known as load-sheets, which are precise loading plans that specify the final weight distribution.
- The members of this team then pass on the loading plans to the ramp agent, who implements them when loading the cargo.
- Ensuring the best weight distribution and utilization of pallets during the pallet build-up process also helps to optimize trim.
- In preparing the flight, pilots use the finalized version of the loadsheet and the position of the center of gravity, among other considerations, to calculate the optimum amount of fuel.



The lift on the wings must be offset by downforce on the tailplane. The center of gravity is situated in front of the center of lift. The closer to the rear the center of gravity is located, the less downforce the pilot has to generate with the elevator to stabilize the aircraft.

“Last year, we increased awareness of trim among all managers and employees involved in the process,” says Björn Ostertag, Head of Fuel Efficiency & Punctuality at Lufthansa Cargo.

“Thanks to measures such as these, we have managed to save a total of 1,480 tons of kerosene and 4,665 tons of CO₂ emissions. That is the equivalent of a freighter flying around the world four times,” Ostertag adds.



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