



## Lido/TakeOff

### Calculating take-off performance data on the spot

You want to calculate your take-off parameters precisely? The amount of power an aircraft needs for a take-off depends on many variables. Lido/TakeOff takes them all into account and provides you with the final take-off settings. Our single-point take-off performance solution calculates not only the optimal thrust, but also the appropriate flap setting, the optimized speeds for take-off and climb-out, and relevant EOSIDs.

The paperless cockpit as pioneered successfully by Lufthansa Systems provides airlines with a wealth of opportunities to improve the efficiency of their flight operations and reduce the wear on their engines. With Lido/TakeOff the cockpit crew can use their Electronic Flight Bag for individual take-off performance calculation. By calculating the take-off data on the spot, Lido/TakeOff does far more than simplify flight preparation and reduce the potential for manual errors – it drives airlines to save fuel and to increase the on-wing time of their engines at the same time.

Lido/TakeOff can calculate optimum reduced take-off thrust much more precisely than would ever be possible with Runway Weight Charts. The cockpit crew simply enter the relevant data such as take-off weight, wind direction and speed, temperature, and atmospheric pressure, and select the take-off procedure.

Lido/TakeOff then determines the runway details using our Lido/ObstacleData. The solution calculates the optimum thrust, the appropriate flap setting, the optimized speeds for take-off and climb-out, as well as the engine-out departure route for landing in case of engine failure (EOSIDs). Furthermore, Lido/TakeOff takes into account the aircraft-specific limitations as listed in the operations manual.

Lufthansa Systems' Lido/TakeOff is designed to be fleet independent, allowing airlines to rely on one take-off performance solution for any aircraft type that they may operate. In addition, it is offered as an integrated solution with our Lido/FlightBag, the market-proven electronic flight bag solution from Lufthansa Systems. Besides the take-off performance calculation, Lido/FlightBag provides airlines with a platform for further applications such as Lido/eRouteManual and our Electronic Flight Folder (EFF).

#### Benefits

- > **One solution for an airline's entire fleet**
- > **Maximization of payload**
- > **Extension of engine lifecycle**
- > **Flexible use with any EFB hardware**
- > **Integrity check with flight planning system**

#### > Lido/FlightOps Suite

Powerful, high-availability IT-systems are critical to ensure reliable and efficient flight operations. Our Lido/FlightOps solutions provide airlines with the necessary tools and innovative solutions to enable them to optimize processes, save fuel and reduce costs.



### Features and functions:

- single-point calculation
- optimized take-off with assumed temperature reduced thrust analysis
- optimization of slat/flap settings
- second and/or first principle method
- automated consideration of MEL, CDL items and special operations
- consideration of weather data such as wind velocity, outside air temperature and atmospheric pressure
- aircraft configurations setting such as thrust, flap, anti-icing and air condition are supported
- analyzed runway and obstacle data with respective optimized engine-out procedures (EOSIDs)
- specification of runway condition (wet or contamination level)
- obstacles as well as runway shortenings can be added manually on demand
- simple and fast editing of MEL/CDL items with XML editor
- complete constraint check concerning input validity
- plausibility check with performance data in the operations manual

### The following take-off data are displayed after finalizing the calculation:

- take-off speeds V1, VR, V2
- slat/flap settings
- maximum allowed take-off weight
- stop margin
- thrust level
- assumed temperature (if available)
- acceleration altitude
- limiting factors
- EOSID procedures

### System benefits: one for all

- one graphical interface for all aircraft types
- configurable safety margins according to airline's policies
- independent of EFB hardware
- installation on any Windows-based computer or laptop

All the performance solutions provided by Lufthansa Systems are designed to ensure safe and legal operations while saving costs and improving fleet performance. They are based on and proven in close collaboration with international organizations and authorities such as FAA, EASA, ICAO and IATA. Furthermore, we cooperate continuously with aircraft and engine manufacturers, as well as with airport authorities.