



> Flight Planning Solutions

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Lufthansa Systems

IT that makes your life easier

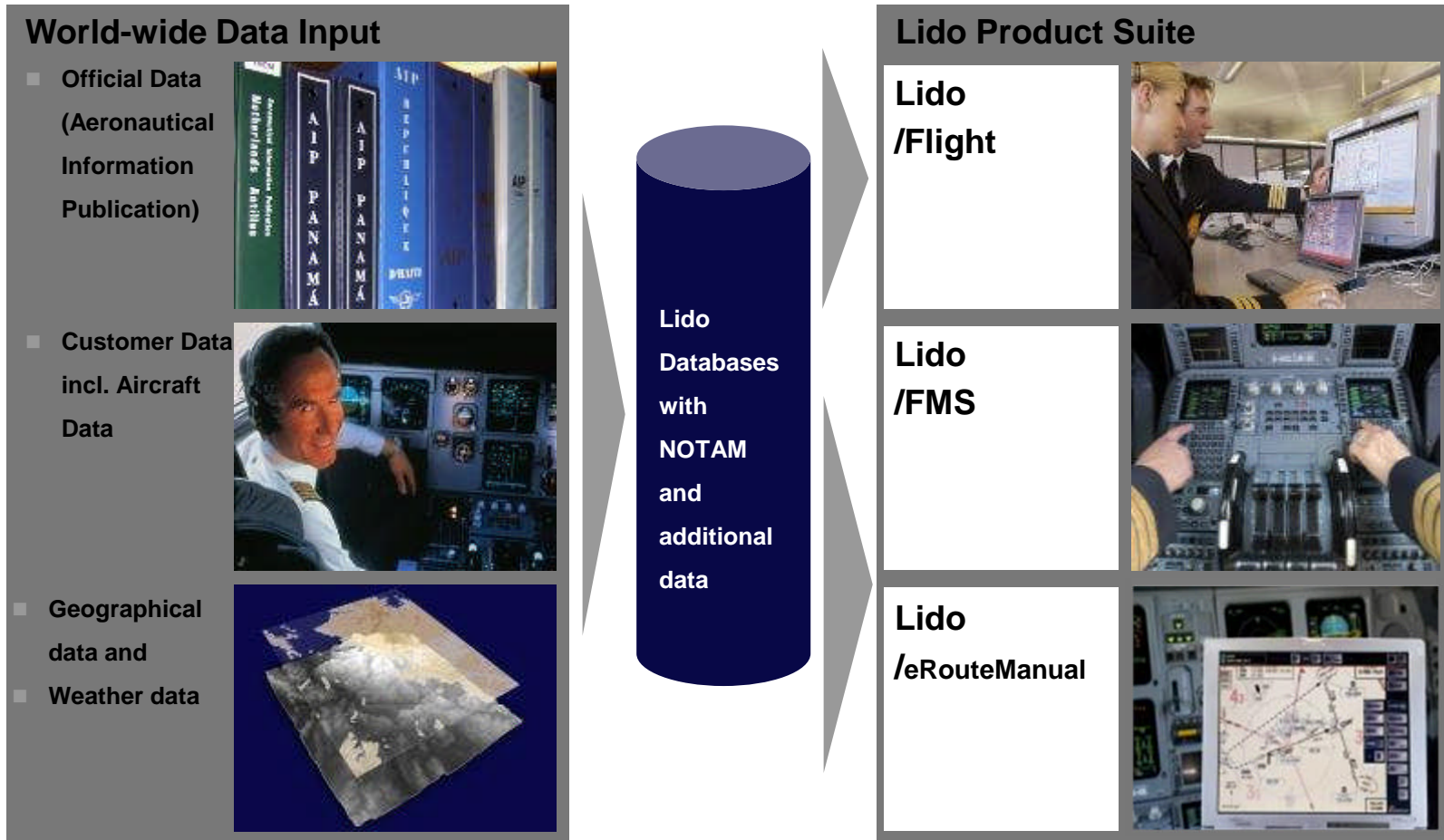
> Agenda

> **Lido/Flight – our proven flight planning application**

> **Lido/Performance – high quality data**



> Common Database for our Applications



> Lido/Flight Data Handling

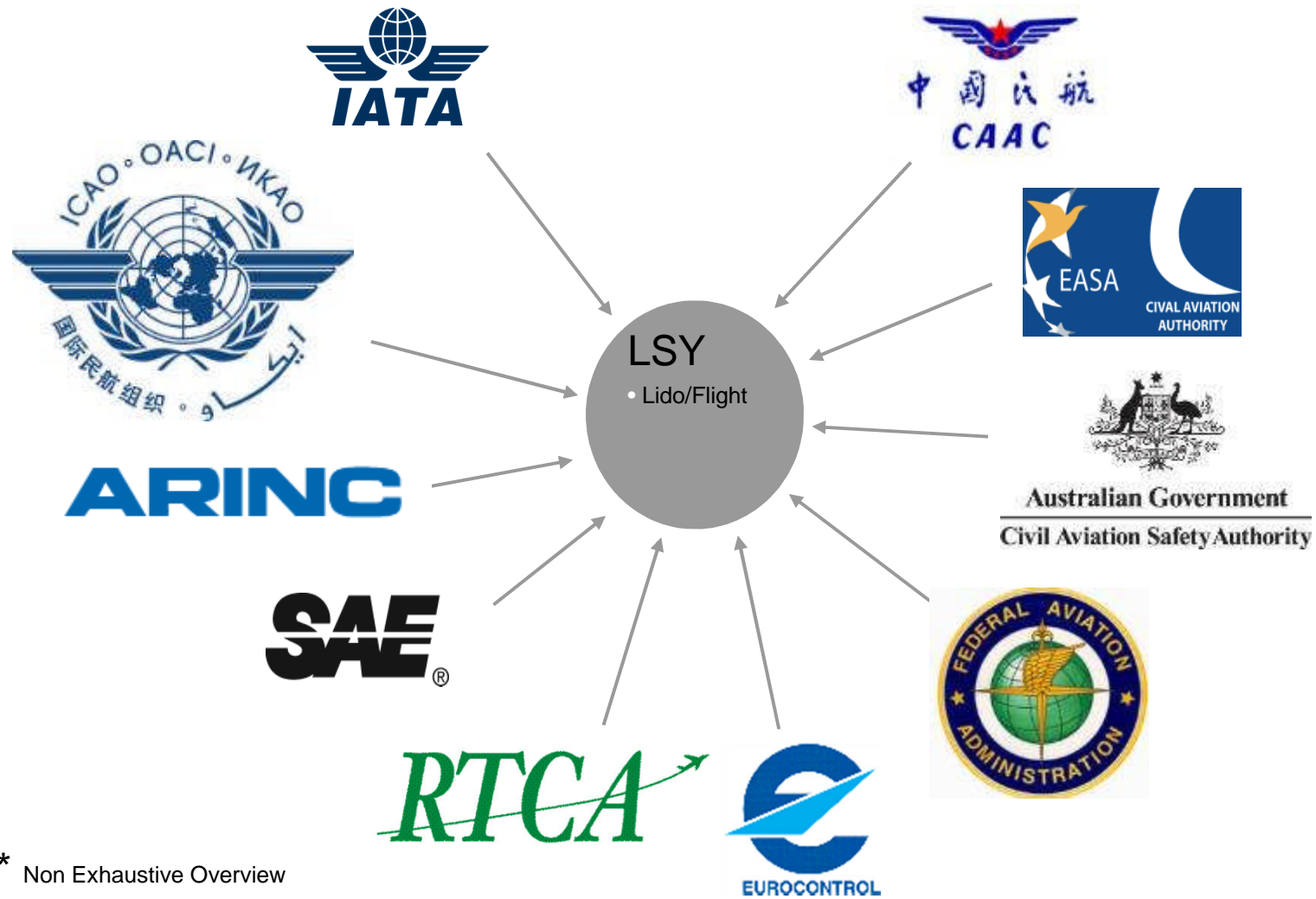
- **20.000 - 150.000 NOTAM per month**
- **40.000 TAF per day**
- **370.000 METAR per day**

Integration of worldwide dynamic data relevant for flight planning as follows:

- Dynamic Data
- All International NOTAM Class I
- specific Domestic NOTAM Series
- SNOWTAM
- OTS Tracks (NAT, NOR, PAC, AUS)
- TAF/METAR/SIGMET (5200 Airports)
- Upper Air Data (4 times per day)
- SAT Images

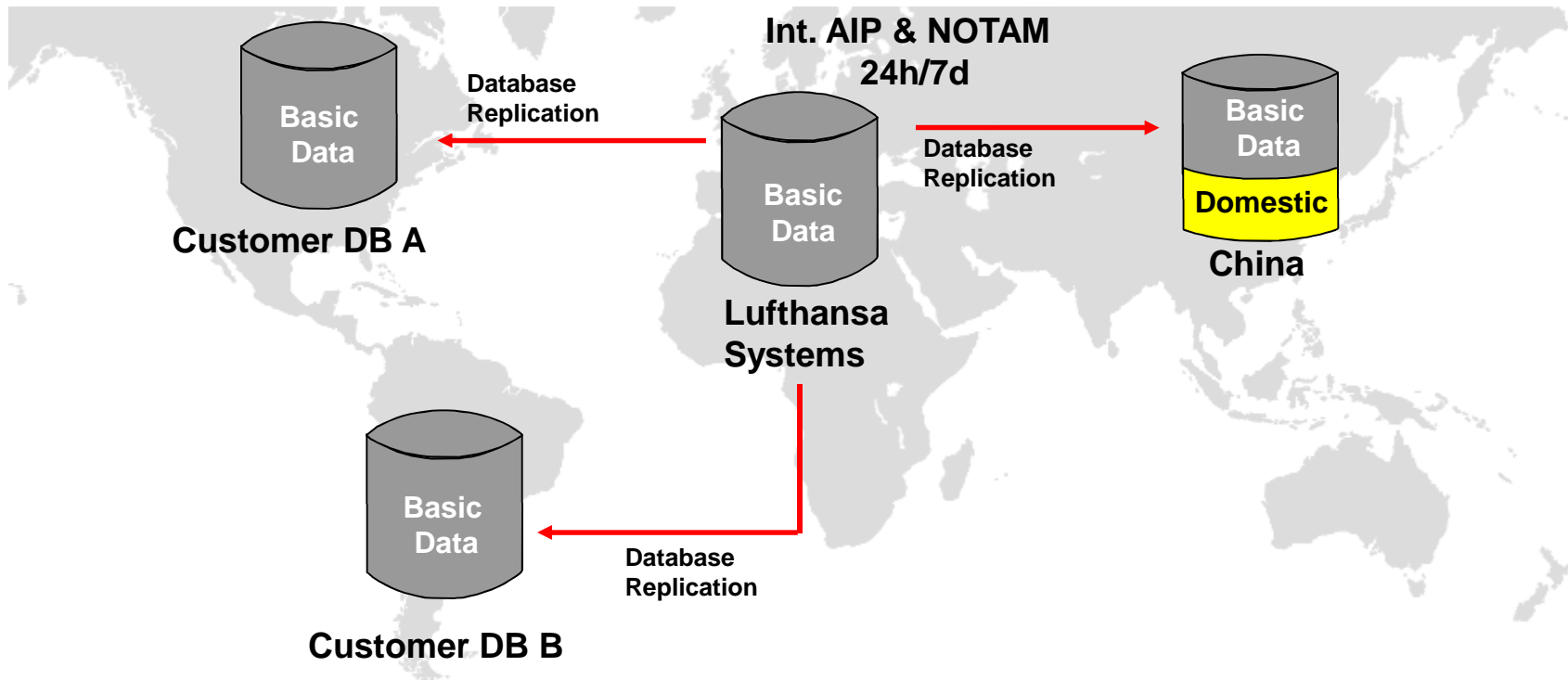


> Selected applicable Regulators/Standards *



* Non Exhaustive Overview

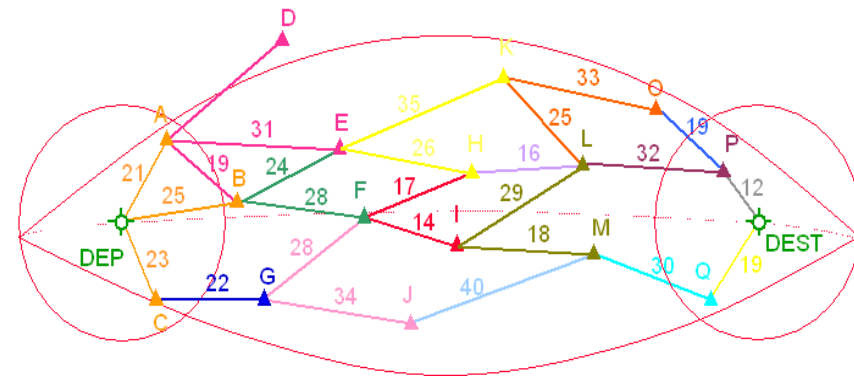
> Lido/Flight Data Handling



> Lido/Flight Optimization

Lido/Flight optimized flightplans are based on EU-Ops & FAA-Ops regulations

- Weather & NOTAM check embedded in the flightplanning system
- Consideration of Company specific information
- Storage of company routes
- Company specific OFP layout



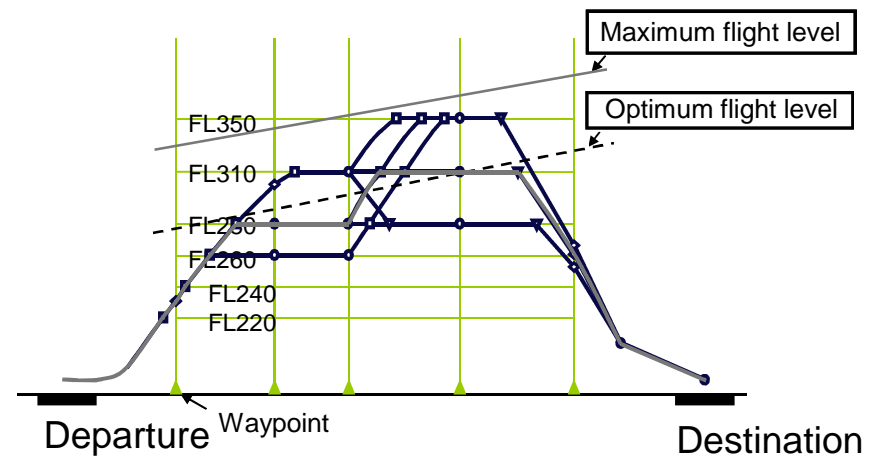
> Lido/Flight Optimization

Lido/Flight offers a vertical optimization of repetitive flightplans based on

- Actual wind situation enroute
- Performance Figures of the selected aircraft

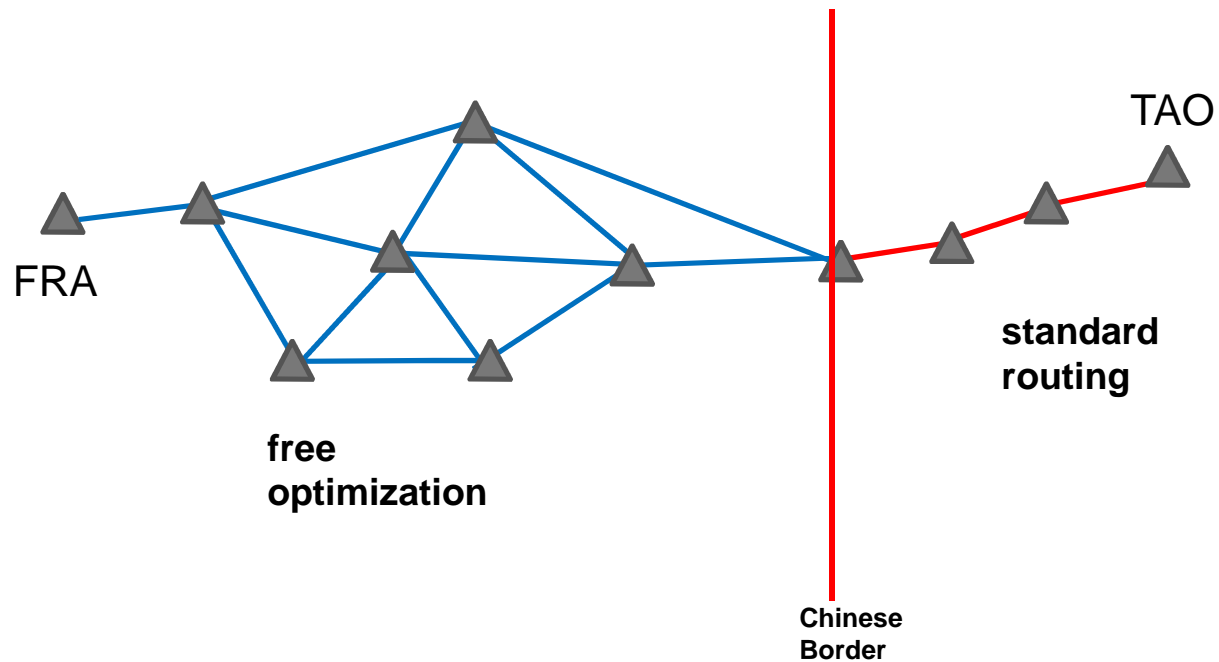
In addition Lido/Flight offers a "free optimization" based on

- Vertical and horizontal optimization
- Every possible segment inside a defined shape
- Consideration of NOTAM restrictions



> Lido/Flight Optimization

Lido/Flight offers a combination of different optimization methods



> Agenda

> **Lido/Flight – our proven flight planning application**

> **Lido/Performance – high quality data**



> Lido/Performance

Lido Obstacle Data Services

- **Surveillance and maintenance of data and EOSIDs from the following sources:**

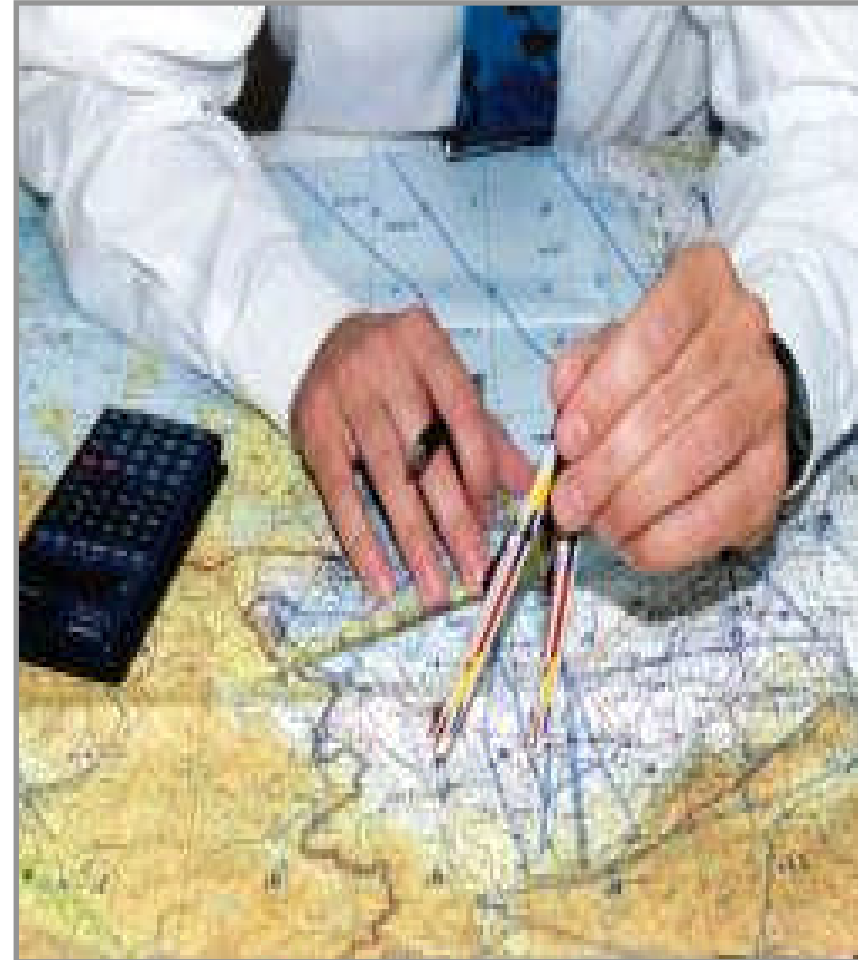
- AIP, AIC amendments
- NOTAM

- **Revision Services**

- Regular updates
- NOTAM Watch Service for temporary change (if requested)
- Additional airports on requests

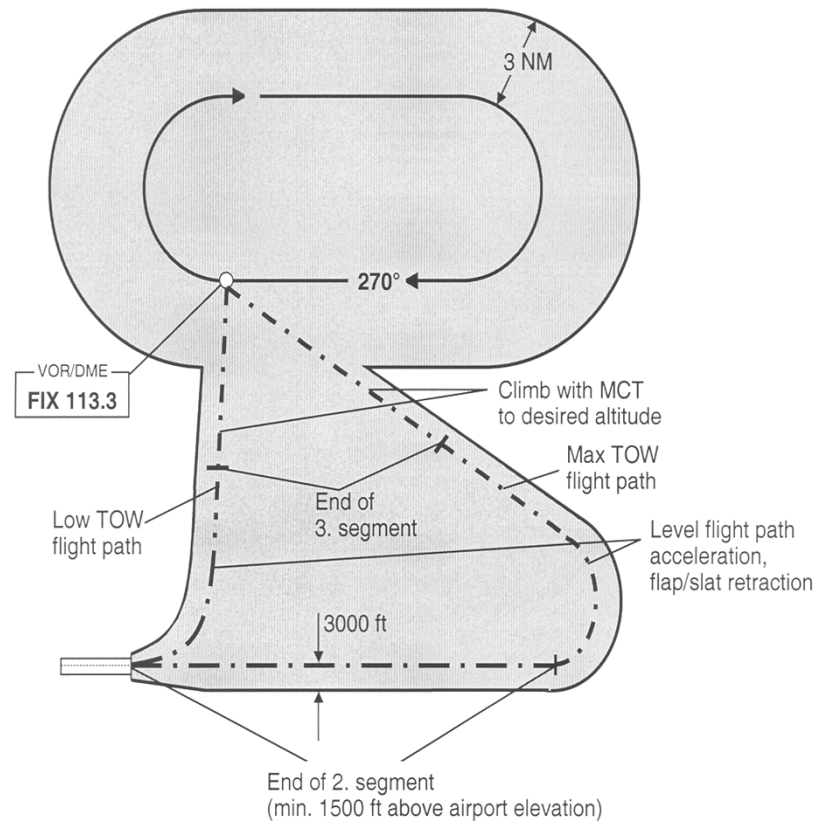
- **Response Times**

- Additional airports within max. 9 office hours
- Urgent requested airports within 3 hours (limited number)



> Lido/Performance

- > 1700 airports
- > 6000 runway intersections
- Contents
 - Airport data
 - Runway data
 - Obstacle data
 - Engine out standard instrument departure (EOSID)
 - Aircraft data



> Lido/Performance

Lido/TakeOff & Lido/Landing

- Based on the OEM base data
- Single point calculation
- Flex TakeOff / Assumed Temp Thrust Analysis
- Consideration of MEL, CDL items and special operations
- Based on Lido/Obstacle Data
- Aircraft configuration settings, e.g. AI, AC, Flaps, thrust
- Auto population, integrity and logical checks of data fields

Database: 2005/11/29 A330-343

Registration: **D-AIKA** Airport: **FRA** EDDF

W/V: **102/10** kt QNH: **1015** hPa Pwr: **DERATE** A/I: **OFF**
 OAT: **+22** °C CONF: **1+F** A/C: **ON**

MEL/CDL/Specials Act TOW: **220** t Alt. CG:

| Runway | Identifier | TORA | Slope | SWY | CWY | FRANKFURT 364 ft |
|--------|------------|------|-------|-----|-----|------------------|
| 07L | TWY L-EAST | 3940 | 0,30 | 0 | 60 | |
| 07L | TWY K | 3312 | 0,30 | 0 | 60 | |

Condition: **standing water** Dept: **4** mm

FRANKFURT 07L TWY L-EAST 3940 220.0

| | | | | |
|----------------|---|-------------|--------------------|---------------------|
| V1-Range | CONF: 1+F | | MTOW: 233.0 | PTOW: 224.4 |
| 142-151 | | | HWC: 8 kt | Field Length: 229.5 |
| VR | MATOW/ Act. TOW | Stop Margin | CWC: 6 kt | Sec. Segment: 224.4 |
| 151 | 220 | 63 | V1MIN: 118 | Obstacle: 224.4 |
| V2 | Thrust | | VRMIN: 120 | Brake Energy: 242.2 |
| 153 | D12 | | V2MIN: 152 (VMU) | |
| Accel. Alt | Special EOSID: At 25 DME 'FRD' 115.9 enter HLDG (069 INBD,RT) | | | |
| 1900 | | | | |

New Calculation



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谢谢!
Thank you!

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Chart 14

中国民航局-汉莎系统研讨会



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