



Delta System  
Solutions GmbH

*Your independent aviation systems, safety & reliability specialists*

## Company Overview

- ▲ Our expertise in **RAMS and System Engineering** has contributed to the certification of major civil and military aircraft programs.
- ▲ Our **Safety Management** consulting services have led to the *first-time* ANSP certification of a CNS provider in Germany.

- ▲ Established in 2013.
- ▲ Registered office: Munich, Germany.
- ▲ Engineering office: Berlin-Brandenburg, Germany.
  
- ▲ 2 senior directors:
  - ▲ Around 40 years' combined experience.
  - ▲ Registered S&R expert with EASA.
  
- ▲ Plus 7 expert engineers, forming our core team of 9:
  - ▲ Presence in Germany, UK, Morocco, Brazil, Italy & Croatia
  - ▲ Capable of working remotely &/or within infrastructure of clients
  
- ▲ Further support from our specialists and partner firms.

- ▲ We provide **expert & independent** services in:
  - ▲ S&R Engineering
  - ▲ Safety Management
  - ▲ Systems Engineering
- ▲ Our experience is based mainly in aviation, however we read-across **our best practices** to other domains, such as space, rail.
- ▲ We offer **real improvements** to your products and services, whilst efficiently complying with certification and end-user requirements.

# Key Clients & End Users (past & present)



- ▲ Airbus Defence & Space
- ▲ Airbus Helicopters
- ▲ Airbus UK \*
- ▲ Alstom Transportation
- ▲ ARRK | P+Z
- ▲ BAE Systems \*
- ▲ Berns Engineers GmbH
- ▲ Breeze-Eastern
- ▲ DLR GfR mbH
- ▲ ESA
- ▲ Liliun Aviation GmbH
- ▲ MTU Aero-engines
- ▲ Philotech GmbH
- ▲ Rolls-Royce
- ▲ ROSAS



\* Clients supported by directors prior to formation of company

# Reference Projects

- ▲ Engine Systems & Powerplant Integration:
  - ▲ RR BR725, TP400
- ▲ Thrust Reverser & Nacelle Systems:
  - ▲ Gulfstream G650
- ▲ Engine Protection and Monitoring System:
  - ▲ TP400
- ▲ Engine Control System:
  - ▲ RR BR700NextGen, RB3043
- ▲ Automation & Emergency Recovery System (A&ER):
  - ▲ ADS ERA (Enhanced RPAS Automation)
- ▲ Chaff & Flare Dispense System:
  - ▲ GAF Tornado
- ▲ Fuel and Fuel Tank Inerting Systems:
  - ▲ A350, A380, Nimrod MRA4
- ▲ ANSP (CNS) Safety Management System:
  - ▲ ATIS, GBAS
- ▲ S&R Concept Proposal:
  - ▲ ESA / DLR GfR Space Traffic Management Concept



- ▲ We have the experience & knowledge it takes to perform any or all aspects of your S&R requirements
  - ▲ Our expert service can also provide an independent audit of existing assessments
  - ▲ EASA registered expert in S&R
  
- ▲ We support innovative product development & regulations / guidance, including:
  - ▲ Space Traffic Management
  - ▲ Next Generation Aircraft Powerplants
  - ▲ GNSS applications (e.g. landing systems)
  - ▲ UAVs / RPAS
  - ▲ Commercial Human Spaceflight
    - ▲ *IAASS Technical Committee member*



# S&R Engineering Areas of Expertise



- ▲ Planning
- ▲ Integration
- ▲ Assessments:
  - ▲ FHA, FTA, DFMEA, PFMEA, FMECA, HAZOP, PSSA, SSA, CCA (CMA, PRA & ZSA), HEA, FRACAS, DAL/SIL, TLD, MSG-3
- ▲ Design for Reliability
  - ▲ E.g. predictions, HALT/HASS strategy, requirements & verification
- ▲ Requirements Management & Integration
- ▲ In-service Support / Continued Airworthiness
- ▲ Process Management & Support
- ▲ Software and Hardware Design Assurance



- ▲ We have played an important role in helping a client obtain their ANSP certificate (CNS).
- ▲ We played **a key role**, tasked with:
  - ▲ SMS implementation & continuous improvement
  - ▲ Reporting & compliance demonstration to NSA
  - ▲ SMS extension into new services
  - ▲ Safety culture development
  - ▲ Guidance and Training
    - ▲ *E.g.: SMS, Safety Assessments, Certification/Regulations*
- ▲ We have supported new **GBAS** installations with operations, safety, assurance and certification activities.
- ▲ We are part of a multi-national team that produced a space traffic management concept for ESA



## ▲ ICAO

- ▲ Annex 19
- ▲ Doc. 9859

## ▲ EU Regulations

- ▲ 1035/2011, 482/2008
- ▲ 376/2014, 2015/1018
- ▲ 552/2004
- ▲ 1034/2011

## ▲ Eurocontrol

- ▲ ESARR's
- ▲ RAT
- ▲ SAM



- ▲ Delta System Solutions has a proven record of systems engineering in the fields of Aviation, Propulsion, Marine and Power Generation.
- ▲ We support the complete development lifecycle, tailoring the development process, as required by the system criticality
- ▲ Our capabilities include:
  - ▲ Requirements capture and analysis
  - ▲ System architecture and design
  - ▲ Model-based design and autocoding
  - ▲ Control algorithm and software design
  - ▲ Verification and certification

- ▲ ISO 9001 Quality Management:
- ▲ Rolls Royce Design Delegate
  - ▲ In preparation
- ▲ AÜG Erlaubnis
  - ▲ Licence to provide temporary workers in Germany:





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