## Safety Assessment







One Stop Solution for Continuous Safety and Reliability

Service, Software, Methodology, Training, Team, Management

## Safety Assessment

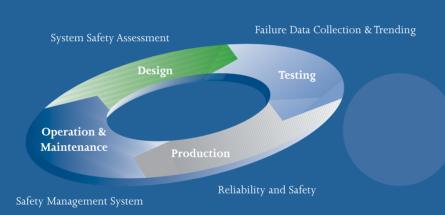




#### All Systems, All Suppliers, All Over The World

ALD supports its customers all the way through the SSA process:

- Creation and approval of the Functional Hazard Analysis (FHA)
- Preliminary Hazard Analysis (PHA)
- Preliminary System Safety Assessment (PSSA)
- Underlying Reliability, FMEA, FTA, MA
- Common Cause Analysis (CCA)
- Presentation of the SSA to regulatory authorities
- Reliability Maturity Plan



#### **About ALD Group**

ALD Group is a worldwide provider of Reliability and Safety Service, Software, and Training. Since the establishment in 1984, ALD has participated in hundreds of cutting-edge aerospace, military and commercial projects. ALD's off-the-shelf Reliability, Safety and FRACAS software is used by hundreds of devoted customers.

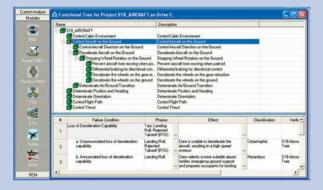
Headquartered in Tel Aviv, Israel, ALD Group has subsidiaries in USA and Israel and representatives in Europe, Asia and Australia.

# Reliability & Safety Data Base



#### Reliability, Safety & Maintainability Toolkit

The toolkit implements the requirements and tasks of SAE ARP4761. Defined and developed in cooperation with AIRBUS, it allows to perform FHA, PHA, SSA.



Using ALD's RAM Commander to support all necessary iterations and to produce all required output is an easy, accurate and time-saving way to perform qualitative and quantitative safety assessment required during system development:

- Generation and verification of safety requirements
- Identification of all relevant failure conditions
- Consideration of significant combinations of failures causing failure conditions
- Generation of output reports starting from the stage of Functional Hazard Analysis (FHA / PHA)
- System Safety Assessment (SSA) verifying that design meets safety requirements
- Reliability Prediction, Reliability Block Diagrams (RBD)
- Failure Modes, Effects and Criticality Analysis (FMECA)
- Fault Tree Analysis (FTA)
- Event Tree Analysis (ETA)
- Markov Analysis (MA)
- MSG-3

#### **Incidents Monitoring & Corrective Action**

Incident monitoring, analysis and corrective action are necessary and integral to efficient Safety Management System (SMS) providing full traceability, root cause investigation for incidents and failures occurring during test, operation, storage, maintenance.

ALD offers a total solution for incident data processing and management based on the state-of-the-art software tool - FAVOWEB.



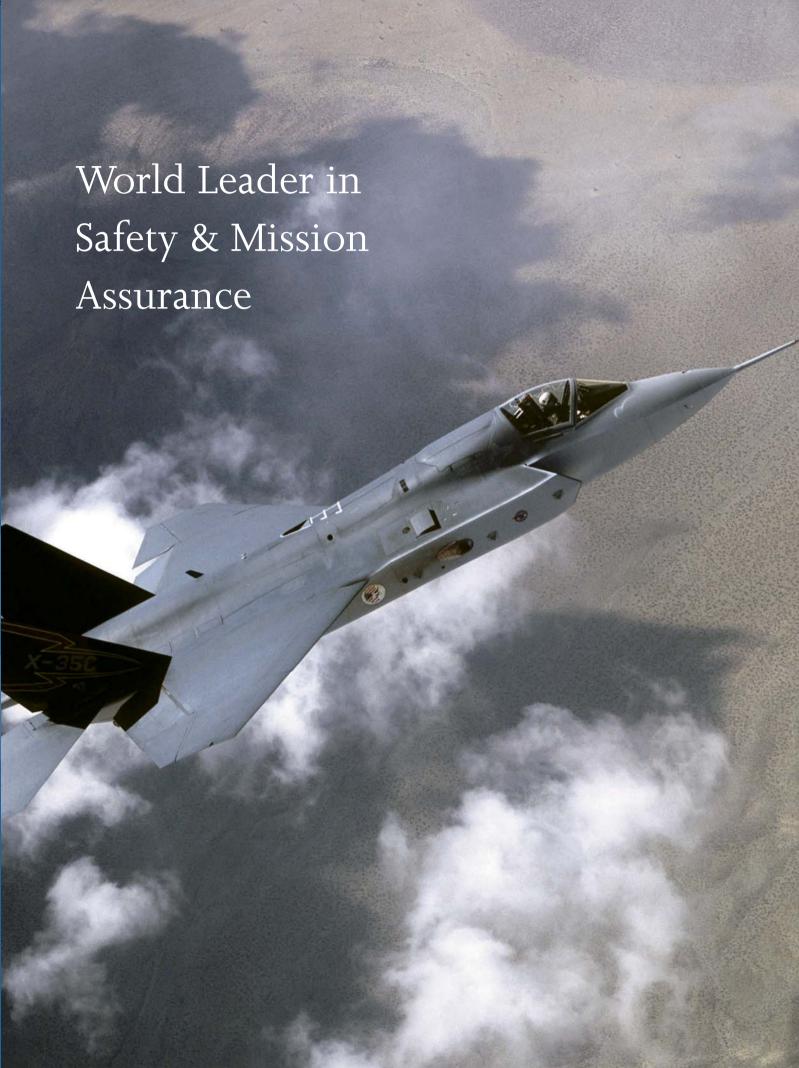
Incident monitoring dashboard from one of ALD customers

The tool is web-based, multilingual and compatible with up-to-date IT infrastructure of multinational and multitask enterprises and projects.

The tool has been adopted by Lockheed Martin F-35, Israel Aircraft Industries, Selex SAS, IDF and many others who take full advantage of the groundbreaking combination of features:

- Applicability to any phase of a product life cycle: from design to maintenance
- Easy customer defined setup and adaptation
- Intranet / Internet accessibility combined with unprecedented data and access security
- Built-in incident data management scenarios and Failure Review Boards (FRB)
- Hundreds of safety and reliability reports for data trending and regulatory requirements satisfaction
- Unique incident prediction algorithms based on free text and data mining





ALD guarantees the SSA process to be timely, well-documented for regulatory authorities (FAA, EASA, AR IAC, etc.) and easily reproducible for your next project or modification.

#### ALD is your partner in development of unique methodologies:

- Dispatch Reliability Scenarios
- Reliability & Cost Maturity
- Production Statistical Trends
- Analysis and Prognosis of Warranty Costs
- Integrated Logistics Support
- Spare Parts
- FRACAS

### ALD customers master four components of efficient SSA:

- Methodology for assuring that all significant failure conditions have been identified and considered
- Knowledge of international (FAA, EASA, AR IAC, etc.) safety regulations and procedures
- Deep engineering understanding of aircraft, aerospace, defense and telecommunication systems
- Ability to coordinate SSA effort in a big international aviation, military and telecommunication project





**Your Safety Partner** 

#### **Customers:**

A&C Medical, ABB, ADI, AEL Industries, AF Robotics, Agis, AKKA Technologies, Aironautics, Airslide, Airspan Networks, **Airbus**, Alenia, **Alstom Transport**, Alcatel Lucent, AMDOCS, Applied Materials, Arko Electronics, Astronautics, AT&T, ATLAS, Avaya, Avion Systems, Avionitek, Aviva, Avondale Industries, **BAE Systems**, B.M.C. Software Israel, B.V.R. Baran, Bezek, Biosense, Biotechnologies, Bitman Engineering, Boeing, Carmel Ulefins, Caterpillar, CMM, Cognitens, Comverse, Controp, Corrigent Systems, Dekson, Delta, **Deutsche Bahn**, Dimex, EADS – SODERN, E.C.I., El-Al, Elbatronics, **Elbit Systems**, Electra, ELF Electronica, Elik-tronics, Elisra, El-Op, Elta, Embry-Riddle Aeronautical University, ENEL, Enerco, Eurocom, EZ CHIP, FAA, Ferrero, Finland Defence Forces, Flomerix, Galtronics, General Electrics, Giat Industries, Gulfstream, Halevy Dvik Industries, Harmonic Drive, Hemodynamics, Hewlett-Packard, Home Flow, Hyper Roll, IBM, IDE Technologies, Ikerlan, Inserco, INTEL, IOC, ISAS, Iscar, ISD, Isra-Air, Israel Aircraft Industries, Israel Ministry of Defense, Israeli Military Factories, IVECO, Johnson & Johnson, Israel nuclear research center, Kinetics, Kramer Electronics, Kur, L-3 Communications, Landys & Gyr, Lear Astronics, Leach International Corp., Licorad, Lipman, Lockheed Martin, Lumenis, Lynx, MAN, Marconi Selenia, Maxbill, MBDA, MDT, Medicard, Metrolight, Microsoft, Mikes Microwave Electronic systems, More Energy, Motorola, NATO, NASA, Ness, New Horizon, Nexus, Nice, Nisko Advanced Solutions, Nortel Networks, **Northrop Grumman**, NOVA, Novel Power Systems, Orange Mobile, Orbit, Orbotech Ordan, Ormat, ORS, Philips, Pitney Bowes, Pixer Technology, Plastic Crown, Power Spectrum, Prizma, PRO, Q-Systems, QTEL, Qualcom, Qualitech, RAD, RAD Vision, Radware, Radwin, Rafael, Reutech Systems, Rohde & Schwarz, RR Satellite, SAAB, SAGEM, SAT Paris, Sukhoi Civil Aviation corp., SELEX SAS, SenSonor, Serconet, Sextant Avionique, Siemens, Sigma, Silent Communication, Silver Arrow, Sisco, Skylab, Smart Robotics, Snecma, Tadiran, Turkish Aerospace Industries, Tallowillow, Taro Pharmateutical Services, TEGA Systems, Telebit, Teko Telecon, Teledata Networks, Telkoor&OPS, Telmania, Telrad, Tel-Ran, Tetra Electronics, Teva Medical, THOMSON, THALES, TKS Electronics, TLW, Trak Microwave, Treplex, Trio-Ex, Turbomeca, Unibarcol, US Navy, USR Electronic Systems, VAHAL, VALEO, Veraz Networks, Vishay, Visual Defense, Vitalife, Voltaire, VSOFT, VUMII



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