

KARL BUTLER M.ENG (HONS)

HOME: +356 21435017 MOBILE: +49 (0)174 305 8389

EMAIL: info@logistic-support-analysis.eu

EXPERIENCE

Mar 16 – Present

Consultant LCC/RAMS Engineer (StadlerRail AG – Switzerland)

- RAMS/ILS Requirements analysis for offers to determine coverage and shortfalls.
- Feasibility study of integration and implementation of LSAR database.
- Produced ILS and RAM plan documentation for specific contracts based on multiple standards including, EN 50126, EN 60300, ASD 3000L, 4000M, 15380-1/2/3/4/5
- ILS and RAM support for contracts and offers.
- Provided ILS/LSA/RAM workshop, training and support for junior engineers.

Sep 14 – Mar 16

Consultant LCC/RAMS Engineer (Alstom – TLS, Braunschweig/Salzgitter)

- Identifying key maintenance cost drivers for train systems.
- Analysing and comparing maintenance task data (MTA) from suppliers and internal sources to determine true LCC.
- **Defining**, integrating and **optimising** maintenance support tasks across all systems.

May 14 – Sep 14

Consultant Depot RAMS Manager for Riyadh Metro (Siemens, Berlin)

- Consultant responsible for developing Depot RAMS documentation regarding RAM and Safety aspects, Identifying the key stumbling blocks of integrating a RAMS plan for Depots based in customer requirements,
- **Developing and decomposing** the engineering and project **requirements** were met for aspects of RAMS,
- Integrating RAMS engineering for the depot with civil engineering partners on site in Riyadh and Dubai,
- Maintaining the defined standards as per contract were met and adhered to. E.g. EN 50126,
- Assessment and initial draft of identifying Hazards and developing Hazard Plan for Depots.

Mar 13 – Dec 13

Consultant RAM Manager – (Hays GmbH) Alstom Transport

Consultant responsible for RAM activities for X60 product. Including:

- Liaison with the customer, and sub-suppliers to determine the best and optimised RAM analysis available,
- Selection of sub-suppliers through, Business Awards based on RAM requirements and analyses ensuring **fulfilment of requirements** using DOORS,
- Writing of and ensuring maintenance **requirements are validated**, verified and traceable and **integrated at a system level**,
- Coordinating RAM team and steering RAM processes inline with international standards.

Mar 12 – Feb 13

Consultant RAMS/LCC Engineer – (Hays GmbH) Bombardier Transportation – Görlitz, Germany

Project analysing RAMS/LCC activities for Deutsche Bahn (DBAG) order DoSto 2010.

- Analysis of RAMS/LCC data from suppliers for delivered modules to ensure that they are compliant with the Client (DBAG) Technical requirements using internal BT BLESS RAM/LCC tool,
- Streamlining/Automatic RAMS/LCC processes/**KPI's** by use of Excel VBA procedures,
- Participate in Reviews to ensure requirements are met, and **RAMS/LCC** philosophy is employed,
- **Fault Tree Analysis (FTA)** to determine failure methods for safety cases,
- **FME(C)A** analysis to determine failure modes and to identify improvement to design and maintenance tasks,
- Use of standards in a/w CENELEC **EN 50126, EN 61025, EN 60812.**

Multiple Days

Dec 11 – Mar 12

Consultant Project Management Engineer, Toulouse, France and Dresden Germany. (accellonet GmbH) – Adhoc days and contract hours

- Project Documentation co-ordination for A400M bid process,
- Risk and requirements management for Airbus Military Dresden for A400M.

May 11 – Jun 11

Consultant ILS/RAMS – Requirements Engineer

Philotech GmbH (Krauss-Maffei Wegmann GmbH), Munich, Germany

4 Week project analysing HMoD (Hellenic MOD) Follow on Support contract proposal for Leopard II Main Battle Tank by using ILS knowledge and requirements management experience to:

- Extract Follow on Support **requirement criteria** from Greek Army proposal for KMW and suppliers, and create a corresponding database with **tracking of source of requirements**,
- Determine **coverage** of above requirements by KMW suppliers, with cross reference to **FoS requirements for traceability**, and
- **Recommend** an ILS process to KMW in order to fulfil unknown/uncovered FoS requirements for each supplier to determine next step in proposal process to HMoD by use of **traceability matrix**.

Feb 11 – Mar 11

Consultant Project Management Engineer Crawley, UK. (accellonet GmbH)

Project Management Planning for AMSL/Thales UK bid proposal for UK MOD A400M training requirement.

- Created and maintained task database and optimised development resource usage to fixed deadline for AMSL (Airbus Military) part. **Achieved milestones**,
- Reported and highlighted program project slip and risks to project timeline,
- Maintained action point register.

Jun 08 – Jan 11

RAMS/ILS/LSA/LCC/LORA (Freelance) Engineer

Philotech GmbH Consulting (EADS Subcontractor), Ulm, Germany

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- Life cycle cost (**LCC**), Level of Repair Analysis (**LORA**) and Maintenance Task (**MTA**) for Radar, EW (Electronic Warfare), UAV's, ship borne, mobile, land systems. ILS Plan and LSA Plan Documentation,
- Analysis of maintenance costs over **lifecycle**, re-iteration of LCC/LORA analysis for design improvement to **reduce** overall **lifecycle costs** and **maintenance** action **times**,
- Spares consumption and **optimisation analysis** of supply chain, LSA,
- Use in a/w MIL-STD-1388-1A/2B, MIL-HDBK-472n1, MIL-HDBK 217, ASD S3000L, DEF-STAN 00-60.

Oct 10 – Dec 10

Consultant Maintenance Systems MSG-3 Engineer for Aeroconseil Deutschland

2 Month Project analysing maintenance task similarities under the auspices of the MSG-3 process.

- Specifically determining an engineering **recommendation** of un-sourced MPD tasks for further MSG-3 analysis, within ATA Chapters 29, 26, 25,
- Delivered **ON TIME**. With quality goals **fulfilled** to the high standard defined by Aeroconseil.

Jan 06 – Sep 07

Risk /Quality Manager (Freelance)

EKIS Contracting (Airbus subcontractor) Toulouse, France

- Risk assessment of A380 program cost, quality and schedule for avionics (Maintenance Information System, NSS/OIS), increase in **identified** risks by 400%. Increase in **risk closures** by 200%,
- **Reduced** likelihood of late mitigation actions by 130%, by using weekly employee reviews and management reporting of action and risk trends,
- Extensive use of **negotiation**, diplomacy, steering, coordination and employee reviews to identify and mitigate safety, security, resource, quality, liability and process risks,
- **Produced** Risk Management document guidelines,
- **Ensured** quality goals are implemented and maintained by introducing KPI's (Key Performance Indicators), compliance reviews and steering boards.

Apr 04 – Dec 05

Maintenance Systems (Freelance) Engineer Team Leader, Philotech GmbH (Airbus subcontractor), Maintenance Analysis (MSG-3), Bremen, Germany

- **Project leader** for Airbus fleet maintenance; led team of three engineers specialising in hydraulics, **high-lift systems**, including **Slats, Flaps and control computer** (SFCC), structures and cargo loading,
- **Achieved** delivery of wide body and single aisle (140-180 PAX) analysis **on time**,
- Analysed and coordinated Airbus wide body and single aisle **maintenance analysis** work packages.

Apr 00 – Sep 02

Systems Engineer, T-Systems Munich, Germany - NATO/German security clearance.

Eurocopter, EADS

- Developed maintenance **requirements** for the Tiger helicopter for guided and free missile systems.
- **Produced** procedures for weapons maintenance testing based on **decomposed requirements**,
- Designed maintenance specification for Tiger helicopter including methods of **calibration** of the weapons system. Also controlled the interfaces between this and other systems, to ensure seamless transition of **systems interfaces. (ICD's)**

Military Aircraft, EADS

- Designed first-line check maintenance requirements to meet customer **requirements**. Employed **V&V model** to achieve this. Level 1 and 2 requirements were derived from customer requirements. Enabling determination of **interfaces** between systems and producing **interface control documents (ICD's)**,
- **Drove** the design process to achieve maximum effectiveness for maintenance personnel interface,
- A secondary role included designing the page layout for the **MFD's** (Multi-Functional Displays) in maintenance mode and the subsequent **interaction** with the selected tests, with associated interfaces on MILBUS (similar to ARINC 429 for civil systems) avionics systems,
- A stand-alone project involved **analysing** the impact of the centre of gravity movement of expended weapons and **optimising** the firing sequence.

Oct 98 – Dec 98

Eurocopter Germany, Munich, Germany

Masters Thesis:

- Investigation and analysis of wind tunnel data of blade/flap concept to understand the method of lift when undergoing forced oscillation by means of a piezo-electric actuated flap.
- Analysed the pressure distribution over the chord of the oscillating blade to determine the method of lift at differing air speeds, angle of attack and flap angles.
- Use of customised frequency analysis tool (HARMA).

Jun 98 – Sep 98

Pilkington Aerospace Ltd, Birmingham, England.

- Vacation project for initialisation of **corrective maintenance** procedures for **Harrier (AV-8B)** canopy, including dis-assembly and reassembly.
- **Defined a process** to remove and replace the transparent canopy from the forward canopy structure without damage.
- **Oversaw Safety and certification** issues relating to above method and processes.

Jul 97 – Sep 97

George Lane & Son, Birmingham, England.

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- Vacation project for installation of LAN and PC systems, database design and implementation of inventory and sales/purchase system, including documentation.

May 96 – May 98

British Territorial Army Engineers (Army Reserve).

Aug 90 – Sep 94

HSBC Finance, Birmingham, England. Finance Assistant/Accounting

EDUCATION

1995 – 1999

University of Manchester, Manchester, England - Master of Aerospace Engineering.

Thesis

- Investigation of flow quality of an open loop wind tunnel. (1998)
- Skills and motivation levels within reliability and maintenance. (1999)
- Avionics presentation of H.U.M.S. (Health and Usage Monitoring Systems) in a helicopter environment. (1999)
Prognostic Maintenance.

OTHER SKILLS

Accreditations

English Language Proficiency Examiner for Aviation

- LBA **Accredited** Examiner to perform English Language Assessment to ICAO Level 4.
- English **Language** Examiner to ICAO Level 5 under LTO.

Flying Licenses

German **JAR-FCL** private pilot's license, **PPL** (A) Fixed Wing SEP + Night.

- Aviation English Proficiency **Level 6.**

Languages

- Fluent spoken German, Intermediate French.

Misc. Courses

- **Cultural Mediation Course, EADS Munich, Germany**
- Analysed and assessed cultural differences within global companies, while working within multi-national teams.

Computer Knowledge

- TFD Group: EDCAS (LCC/LORA), VMetric (Spares calculation).
 - Bombardier Transportation RAMS/LCC tool. BLESS
 - FTA+ Analysis Software Isograph
- Advanced MS Office for Mac and PC.
 - Adobe Acrobat. Windows XP, Mac OS X.
- OmniPlan (Project mgmt tool - Mac), Filemaker Pro (Database), MS Project, Teamwork, Basic **DOORS**, Bespoke Change Management tools, AIRMISS tool