

ASD/AIA S3000L

International procedure specification for Logistics Support Analysis (LSA)

Dipl.-Ing. Peter Eichmüller

Expert Logistic Support Analysis and Chairman ASD/AIA S3000L Steering Committee







- Logistic Support Analysis short introduction
- Structure and content of ASD/AIA S3000L
- History of specification development
- S3000L, new issue 1.1 compared to issue 1.0







LSA - the main goals

Logistic Support Analysis (LSA) is an extended <u>process</u> to analyze carefully all elements of a complex technical product to guarantee optimized product support during the in-service phase. This includes:

- Identification of product support needs and establishment of the basic information for the ILS disciplines (Technical publication, materiel support, etc...)
- Influence on design to optimize the product and the support system from a supportability perspective
- Determination of the maintenance concept and optimization of the logistic resources

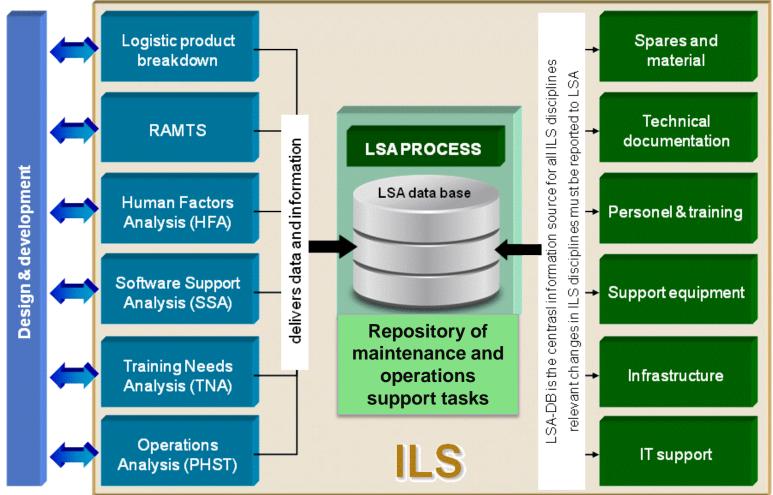






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LSA - the interface ... from design to the ILS disciplines









The LSA process is the central management tool to meet the target of ILS







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S3000L main chapters (1)

Nr	Chapter	Authoring organization
01	Introduction	CASSIDIAN
02	General requirements	BOEING
03	LSA business process	CASSIDIAN
04	Configuration management	CASSIDIAN
05	Influence on design / RMT interface	SAAB
06	Human factors analysis	BOEING
07	FMEA/FMECA results in LSA	EUROCOPTER
80	Damage and special event analysis	DASSAULT
09	Logistics related operations analysis	CASSIDIAN
10	Scheduled maintenance analysis	CASSIDIAN
11	Level of repair analysis	LOGSA
12	Maintenance task analysis	CASSIDIAN







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S3000L main chapters (2)

Nr	Chapter	Authoring organization
13	Software support analysis	CASSIDIAN
14	Life cycle costs considerations	OCCAR
15	Obsolescence analysis	OCCAR
16	In-service LSA	UK DoD
17	Disposal	DASSAULT
18	Interrelation to other ASD standards	CASSIDIAN
19	Data model	SAAB
20	Data exchange	SAAB
21	Terms, definitions and abbreviations	AGUSTA WESTLAND
22	Data element dictionary	AGUSTA WESTLAND







LSA business process ... the sub chapters

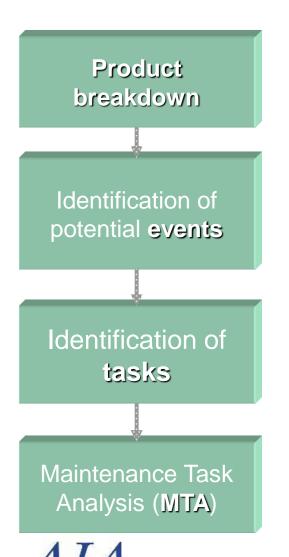
- Introduction
- Establishment of Product Usage Data
- Establishment of Product Design & Performance Data
- LSA Guidance Conference
- Establishment of Breakdown according to agreed rules
- Candidate Item Selection and Identification
- Analysis Tasks for Candidate Items
- Customer Involvement
- LSA Review / Assessment Conference
- Starting Point / Interface to creation of ILS Products
- Checklists







From Product breakdown to MTA



Defines the **logistic product structure** based on design information (drawings, configurations, bills of material, etc..)

Analyzing the product concerning its potential failure behaviour, damage sensibility and special events. The identified **events** are the justifications of each maintenance and/or repair task.

Determination of tasks

Additional tasks can be justified by operations support needs, e.g. PHST (Packaging, Handling, Storage, Transportation).

Detailed analysis of the determined tasks concerning **execution** and **required resources**.





Results from MTA

- Execution of the task (sequence of the working steps, <u>rough</u> description, duration)
- Required personel
 (skill groups, skill levels, special qualification, man hours)
- Required material (spare parts, consumables)
- Required support equipment (special tools, test equipment)
- Required infrastruktur
 (Repair shops and equipment, stores, hangars, test facilities, etc...)
- Required documents / manufacturer information / regulations by law
- Required IT support







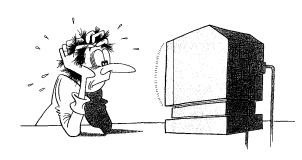
IT aspects ... chapter 19,20 and 22

S3000L contains a data model based on the principles of ISO 10303, AP239 **PLCS**.

All data elements are summarized in a data element dictionary within chapter 22.

All data modelling activities are managed by an overall working group **DMEWG**(**D**ata **M**odelling and **E**xchange **W**orking **G**roup) covering all specifications of the ILS Specification Suite.













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S3000L development history (1)

S3000L is developed to specify the implementation of an optimized LSA process. The first idea was already originated in <u>2006</u>

01/2006 Inaugural meeting in Brussels

24.06.2009 Publication of S3000L, Issue 0.1 (Brussels)

10/2009 End of official commenting phase for

organizations and companies

11/2009 Clarification of comments

04/2010 Finalization of issue 1.0

05/2010 Publication of S3000L, Issue 1.0







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S3000L development history (2)

11/2010 Preparation of establishment of S3000L

Steering Committee

04/2011 1st official ASD/AIA S3000L Steering

Committee in Paris

04/2013 5th official ASD/AIA S3000L Steering

Committee in Berlin with officials' election

01/2012 - today Development of Issue 1.1

Official publication date will be 31.08.2013

Next step: Establish S3000L as a specification in use

In 2012, NATO AGS Project decided to use the ASD Specs

S1000D (4.0), S2000M (4.0) and S3000L (1.0)

⇒ First pilot project for S3000L!







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S3000L - issue 1.1 ... improvements

- Rework of all chapters concerning wording and internal consistency
- Simplification and rework of content of several chapters
- Development of an extended chapter 16 concerning the aspects of In-service LSA activities, new title "In-service LSA"
- Correction of minor shortcomings within the S3000L data model and improvements for better readability and simplification of some Units of Functionality (UoF)







Final

Download website:

www.asd-stan.org/s3000L.html or www.s3000l.org

Thank you for your attention!

Questions?





