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AEROSPACE INFORMATION REPORT

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Common Launch Acceptability Region Approach Requirements Document (CLARA RD)

RATIONALE

The Technical Committee which originally created this document is no longer active.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE AS-1B Aircraft Store Integration Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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1. SCOPE

1.1 Introduction

CLARA identifies four functions: Data Space Generator, Truth Data Generator, Coefficient Generator, and Reconstructor. Together these four functions standardize the solution to the LAR problem.

1.2 Purpose

This document identifies the requirements associated with the four CLARA functions.

2. REFERENCES

2.1 Applicable Documents

The following publications form part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be issue in effect of the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes preference.

2.1.1 SAE publications

SAE ACE paper 2001-01-2953 titled "Common Launch Acceptability Region Task Group"

AIR5682 Common Launch Acceptability Region Approach Interface Control Document (CLARA ICD)

AIR5712 Common Launch Acceptability Region Approach (CLARA) Rationale Document

2.2 Applicable References

SAE International Technical Standards Board Standard, TSB 003 as issued 1965-06 and revised 1999-05

2.3 Definitions

Refer to the CLAR ICD for definitions of terms.

3. REQUIREMENTS

The requirements identified in this section are assigned to the group of people accomplishing or implementing the specific function. The naming convention for the requirements are as follows:

Digits 1 and 2: function initials (e.g. DS represents Data Space Generator)

Digit 3: Shall (S) or May (M)

Last 3 Digits: requirement number

3.1 Data Space Generator

{DSS-010} The generator of the data space shall use, as a minimum, the input data identified in Table 2 of the CLAR ICD for the Envelope of Aircraft Release Conditions.

{DSS-020} The generator of the data space shall use, as a minimum, the input data identified in Table 2 of the CLAR ICD for the Envelope of Target Conditions.

{DSS-030} The generator of the data space, as a minimum, shall use the input data identified in Table 2 of the CLAR ICD for the Envelope of Impact Constraints.

{DSS-040} The generator of the data space, as a minimum, shall use the input data identified in Table 2 of the CLAR ICD for the Environmental Conditions.

{DSM-010} The generator of the data space, as a minimum, may use the input data identified in Table 2 of the CLAR ICD for the Weapon Specific Input Data.

{DSS-050} The generator of the data space shall produce the output data identified in Table 3 of the CLAR ICD for Impact Constraints.

{DSS-060} The generator of the data space shall produce the output data identified in Table 3 of the CLAR ICD for Target Kinematic State.

{DSS-070} The generator of the data space shall produce the output data identified in Table 3 of the CLAR ICD for Aircraft Kinematic State.

{DSS-080} The generator of the data space shall produce the output data identified in Table 3 of the CLAR ICD for Environmental State.

{DSM-020} The generator of the data space may produce the output data identified in Table 3 of the CLAR ICD for Weapon Specific Input Data.

3.2 Truth DataGenerator

{TDS-010} The generator of the truth data shall use as input the Data Space Generator output identified in Table 3 of the CLAR ICD for Impact Constraints.

{TDS-020} The generator of the truth data shall use as input the Data Space Generator output identified in Table 3 of the CLAR ICD for Target Kinematic State.

{TDS-030} The generator of the truth data shall use as input the Data Space Generator output identified in Table 3 of the CLAR ICD for Aircraft Kinematic State.

{TDS-040} The generator of the truth data shall use as input the Data Space Generator output identified in Table 3 of the CLAR ICD for Environmental State.

{TDM-010} The generator of the of the truth data may use as input the Data Space Generator output identified in Table 3 of the CLAR ICD for Weapon Specific Input Data.

{TDS-050} The generator of the truth data shall produce the output data identified in Table 4 of the CLAR ICD except for the Weapon Specific Output Data covered by {TDM-020} below.

{TDS-060} Each truth data generator output shall be associated with the data identified in Table 3.

{TDM-020} The generator of the truth data may produce the output data identified in Table 4 of the CLAR ICD for Weapon Specific Output Data.