

AD-A215 253

STP FILE COPY

1

TECHNICAL REPORT

For The

Cargo Movement Operations System (CMOS)

Review of Final System/Segment Specification



Science Applications International Corporation
An Employee-Owned Company

DTIC
ELECTE
DEC 06 1989
S D
DGL

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited

30 10 11 257

1

TECHNICAL REPORT

For The

Cargo Movement Operations System (CMOS)

Review of Final System/Segment Specification

1 December 1989

DTIC
ELECTE
DEC 06 1989
S D D

Prepared under

Contract Number F11624-88-D-0001/6K12
CDRL #A004-12

DISTRIBUTION STATEMENT A

Approved for public release
Distribution Unlimited

Prepared for

Standard Systems Center (SSC)
Deputy Chief of Staff for Acquisition
Cargo Movement Operations System Division
Gunter AFB, AL 36114

Prepared by

Science Applications International Corporation (SAIC)
6 Eagle Center, Suite 2
O'Fallon, IL 62269

SECTION I.

INTRODUCTION. The purpose of this Technical Report is to review the Final System/Segment Specification, CDRL A001-03, which has been produced for the Government by Evaluation Research Corporation. The results are provided in the form of Data Item Discrepancy Worksheets as requested by the CMOS Program Office.

SUMMARY. Not Used.

CONCLUSION. Not Used.

ADONIS	
NTIS	
DATE	
CLASS	
JAN 1971	
SYNOPSIS AD-A214404	
DISTRIBUTION	
Availability	
Dist	5
A-1	



SECTION II.

RESULTS. The SAIC analysis is provided in the attached Data Item Description Worksheets.

ORIGINATOR CONTROL NUMBER: SSS-0001
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 14 PARA. NUMBER: 3.1.4

COMMENT OR RECOMMENDED CHANGE:

The Interface Requirements Specification should be referred to when listing external system interfaces instead of the External Interface Requirements Data in Appendix B of the RFP. This comment applies to all subsequent interface references.

RATIONALE:

The information in Appendix B has been updated and renamed the Interface Requirements Specification IAW DoD STD 2167A.

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: SSS-0002
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 17,18 PARA. NUMBER: Figure 3.1.4.6a and 3.1.4.6b

COMMENT OR RECOMMENDED CHANGE:

Add the words "Using the Protocol Converter" to the title of Figure 3.1.4.6a.
Add the words "Using ICI" to the title of Figure 3.1.4.6b.

RATIONALE:

The two figures have the same title; yet, they depict different methods of accomplishing the interface.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0003
OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03 DATE: 12/01/89
ORIGINATOR NAME: Vivian L. Martin OFFICE SYMBOL: SAIC
TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 24 PARA. NUMBER: 3.2.1.1.1.27

COMMENT OR RECOMMENDED CHANGE:

This paragraph states that "a block of controlled serial numbers shall be entered periodically by the Surface Freight PC workstation operator." Manual input of these controlled numbers will make them subject to many errors. A first and last number should be entered and the others calculated by CMOS.

RATIONALE:

This is a good opportunity to reduce data input errors.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0004
OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 24 PARA. NUMBER: 3.2.1.1.1.29

COMMENT OR RECOMMENDED CHANGE:

Section 3.2.1.1.1, titled General Systems Functions, lists capabilities that are later discussed within the Functional Requirements areas. Neither the Frustrated Cargo Record nor frustrated cargo procedures, in general, are discussed in the air or surface freight sections.

RATIONALE:

The oversight prevents frustrated cargo activities from being identified.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0005
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER:	1) 33	PARA. NUMBER:	3.2.1.2.1.3.9
	2) 33		3.2.1.2.1.3.10.1
	3) 36		3.2.1.2.2.3.3
	4) 36		3.2.1.2.2.3.5

COMMENT OR RECOMMENDED CHANGE:

The shipment handling discussion uses the terms "Shipment Record" (ref. 1.), "Document Record" (ref. 2.), and "TCN Record" (ref. 3. and 4.). The practice is present throughout the document. The standard term adopted in other documents should be used in the SSS.

RATIONALE:

The interchangeable use of these phrases is confusing.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0006
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 37 PARA. NUMBER: 3.2.1.2.2.3.9.

COMMENT OR RECOMMENDED CHANGE:

Add the words "to the overseas Water Clearance Authority," to the last line in the paragraph.

RATIONALE:

Makes the surface export sentence consistent with the air export sentence.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0007
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: EDITORIAL: X

PAGE NUMBER: 39 PARA. NUMBER: 3.2.1.2.3.2.5.

COMMENT OR RECOMMENDED CHANGE:

The introductory paragraph does not lead into the subparagraph. Moreover, line 10 and line 11 are the same.

RATIONALE:

N/A

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: SSS-0008
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/84

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 40 PARA. NUMBER: 3.2.1.2.3.3

COMMENT OR RECOMMENDED CHANGE:

The capability to maintain a consignee record is shown as a system function (para. 3.2.1.1.1.15) and as a surface freight function (para. 3.2.1.2.4.3.4) but not an air freight function.

RATIONALE:

Since the pattern is to repeat all system capabilities in both the System Functions area and the Functional Requirements areas, the consignee records should be added to air freight.

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: SSS-0009
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/31/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: EDITORIAL: X

PAGE NUMBER: 39
46

PARA. NUMBER: 3.2.1.2.3.2.6 and 3.2.1.2.3.2.7
3.2.1.2.4.2.6(a) and 3.2.1.2.4.2.6.(b)

COMMENT OR RECOMMENDED CHANGE:

These paragraphs cover the same material but the paragraph numbering and titles are not consistent.

RATIONALE:
N/A

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0010
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 39 PARA. NUMBER: 3.2.1.2.3.2.6

COMMENT OR RECOMMENDED CHANGE:

Once a shortage is recognized, that information needs to be passed to the data base to reconcile the shipment files.

RATIONALE:

The paragraph stops short of resolving the disparity in the record caused by a short shipment.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0011
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 43 PARA. NUMBER: 3.2.1.2.3.3.7.4

COMMENT OR RECOMMENDED CHANGE:

The reference in line 9 is incorrect. The correct references are:

Air Manifest to ADAM III	Table 3.13.2c
Air Manifest to ETADS	Table 3.11.2d
Air Manifest to SC&D	Table 3.12.2k

RATIONALE:

The reference cited pertains to CMOS transmitting the Air Manifest Prime TCMD to the Stock Control and Distribution System.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0012
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 43 PARA. NUMBER: 3.2.1.2.3.3.7.5
51 3.2.1.2.4.3.20

COMMENT OR RECOMMENDED CHANGE:

The mechanism and timing for generating and transmitting the records and data accompanying each shipment is not consistent between air freight and surface freight.

RATIONALE:

In air freight, according to para. 3.2.1.2.3.3.7.5, the action occurs after manifest preparation and cargo departure. In surface freight, according to para. 3.2.1.2.4.3.20, the action is prompted by the entry of the departure date and time on the movement document.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0013
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/31/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 43 PARA. NUMBER: 3.2.1.2.3.3.7.5

COMMENT OR RECOMMENDED CHANGE:

The air manifest process does not mention the Advance Shipment Notices and REPSHIPS.

RATIONALE:

These are included in the surface freight discussion of final movement document handling (para. 3.2.1.2.4.3.20) and should be included for air freight.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0014
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 46 PARA. NUMBER: None

COMMENT OR RECOMMENDED CHANGE:

Recommend adding a paragraph dealing with over and short procedures.

RATIONALE:

Over and short shipments are discussed extensively in air freight (para. 3.2.1.2.3.2.9). Surface freight should employ similar steps.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0015
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 49 PARA. NUMBER: 3.2.1.2.4.3.12

COMMENT OR RECOMMENDED CHANGE:

There are no plans to produce movement documents for shipments made by small package carriers. However, the last sentence in this paragraph refers to specific movement documents that will accompany these shipments. Delete the last sentence.

RATIONALE:

The first and last sentence conflict with one another.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0016
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 49 PARA. NUMBER: 3.2.2.4.3.13(a)

COMMENT OR RECOMMENDED CHANGE:

The responsibility for manually entering MTMC responses to CMOS DRO requests should reside with shipment planning instead of surface freight. Moreover, the reference paragraph deals with movement documents, not DROs.

RATIONALE:

The shipment planning function will assemble cargo for inclusion under a DRO; therefore, it seems logical for this function to enter DRO updates.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0017
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 51 PARA. NUMBER: 3.2.1.2.4.3.20c and d.

COMMENT OR RECOMMENDED CHANGE:
The inclusion of "other CMOS locations" is incorrect.

RATIONALE:

The Advance Shipment Notices and REPSHIPS in these references pertain to shipments destined for Stock Control and Distribution System only.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0018
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 53 PARA. NUMBER: 3.2.2b
34 3.2.1.2.1.3.14

COMMENT OR RECOMMENDED CHANGE:

The first reference raises two points: (1) In line 8, the term "user completes processing" is unnecessarily vague and contradictory to procedures explained in para. 3.2.1.1.3.1, line 35. In the Database procedures section, database updates are timed to occur as the "local function completes a logical transaction. In other words, the update of the central database shall be on a transaction-by-transaction basis, rather than keystroke-for-keystroke basis." (2) Para. 3.2.2b, line 11, states that after information is entered into the central database other users may retrieve the data. According to para. 3.2.1.2.1.3.14, when packing and crating finishes with a shipment, the record is sent to the central database and to the shipping function's workstation.

RATIONALE:

(1) The definition of a database update should be consistent regardless of which functional workstation enters the information. (2) The issue of making the most current data available in the central data base for users to pull down versus sending it automatically to the appropriate function will remain ambiguous if a standard approach is not adopted.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0019
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 54 PARA. NUMBER: 3.2.4

COMMENT OR RECOMMENDED CHANGE:

The list of HWCIs should be condensed from six to three. Delete a., e., and f.

RATIONALE:

This change will bring the SSS into alignment with the SSDD and SRS.

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: SSS-0020
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: EDITORIAL: X

PAGE NUMBER: 54 PARA. NUMBER: 3.2.4.1

COMMENT OR RECOMMENDED CHANGE:
Change "Source" to "Supply"

RATIONALE:
N/A

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: SSS-0021
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 59 PARA. NUMBER: 3.2.5.1.

COMMENT OR RECOMMENDED CHANGE:

Reliability requirements should be addressed in quantitative terms.

RATIONALE:

Does not comply with DI-CMAN-8008A, para. 10.1.5.2.5.1.

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: SSS-0022
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMEOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 59 PARA. NUMBER: 3.2.5.2

COMMENT OR RECOMMENDED CHANGE:

Maintainability requirements for software should be addressed in quantitative terms.

RATIONALE:

Does not comply with DI-CMAN-8008A, para. 10.1.5.2.5.2.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER. SSS-0023
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: EDITORIAL: X

PAGE NUMBER: 64 PARA. NUMBER: 3.2.8

COMMENT OR RECOMMENDED CHANGE:

In line 10 change "hierarchal" to "hierarchical."

RATIONALE:

N/A

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: SSS-0024
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A001-03

DATE: 12/01/89

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 83 PARA. NUMBER: 5

COMMENT OR RECOMMENDED CHANGE:

An explanation should be given why this paragraph does not apply to CMOS. If the strategy for delivery is not yet developed, an explanation could be inserted here. However, the DID calls for this paragraph to be completed.

RATIONALE:

The system, including the software and hardware, will have to be packaged and delivered to the CMOS sites.

DISPOSITION: ACCEPT [] REJECT []