AFCTN Test Report 93-070

AFCTB-ID 93-044

Technical Publication Transfer

Using:

Magnavox Electronic's Data

MIL-M-28001A (SGML)
MIL-D-28003 (CGM)

Quick Short Test Report

07 May 1993

Prepared for

Electronic Systems Center

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Quick Short Test Report

7 May 1993

Prepared By
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Contents

1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards, formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develope increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze Magnavox Electronic Company's interpretation and use of the CALS standards, in transferring technical publications data. Magnavox used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.

Magnavox indicated that the text file is an ASCII file with no tags. They indicated that the customer does not have a SGML capability and requested the text in this format. The text file was not evaluated.

2. Test Parameters

Test Plan: AFCTB 93-044

Date of Evaluation: 7 May 1993

Evaluator:
George Elwood
Air Force CALS Test Bed
DET 2 HQ ESC/ENCP
4027 Colonel Glenn Hwy
Suite 300
Dayton OH 45431-1672

Data Originator:
Judy Gilbert
Magnavox Electronic Company
1313 Production Road
Fort Wayne IN 46808
(219) 429-6000

Data Description: Technical Manual Test
1 Document Declaration file
1 Text file
42 Computer Graphics Metafile (CGM) files

Data Source System:

1840

HARDWARE
Digital Equipment Corporation
VAX 6220/VMS v5.5-2

SOFTWARE
AFCTN *Tapetool v1.2, R 8*

Text/Standard Generalized Markup Language (SGML)

HARDWARE
Digital Equipment Corporation
VAX 6220/VMS v5.5-2

SOFTWARE
Microsystems Corporation *Mass-11 WP, v8.3*

CGM

HARDWARE

IBM *AIX RISC/System 6000*
Digital Equipment Corporation
VAX 6220/VMS v5.5-2

SOFTWARE

CADAM Inc. *Pro Cadam, v3, R 3.0*
Microsystems Engineering Corporation
MASS-11 Graphics Processor, v6.02

Evaluation Tools Used:

MIL-STD-1840A (TAPE)

SUN 3/280

AFCTN *Tapetool v1.2.9 UNIX*
Texas Instruments (TI) *Tapetool v1.0.1*

MIL-D-28003 (CGM)

SUN SparcStation 2

ArborText *cgm2draw*
Island Graphics *IslandDraw v3.0*
Carberry *CADLeaf v3.1*

PC 486/50

Advance Technology Center
(ATC) *MetaView R 1.12*
ATC *MetaCheck R 2.05*
Software Publishing Corporation
(SPC) *Harvard Graphics v3.05*
Inset Systems *HiJaak v1.0 Windows*
Micrografx *Designer v3.1*
Corel *Ventura Publisher*

Standards Tested:

MIL-STD-1840A
MIL-D-28003

3. 1840A Analysis

3.1 External Packaging

The tape was hand delivered to the Air Force CALS Test Bed (AFCTB) without a box.

The tape was not enclosed in a barrier bag or barrier sheet material, as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed a lack of the labeling indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Some 9-track tape units require the BPI to be set manually. Not attached to the tape was a packing list showing all files that were recorded on the tape. The purpose of this test was to evaluate the CGM files and not the packaging or labeling.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tape was run through the AFCTN *Tapetool v1.2.9* utility. One error was reported while evaluating the contents of the tape labels. This error relates to the use of carriage control characters in the ASCII file. This would be normal for files created on a PC and transfered to a tape.

```
*** WARNING - This variable length record type file contained
    carriage control characters. Carriage control characters
    are used as record terminators and are interpreted
    differently among dissimilar systems.
```

The tape was also read using TI's *Tapetool v1.0.1* with the same reported error as above.

3.2.2 Declaration and Header Fields

No errors were reported in the Document Declaration file or data file headers.

4. IGES Analysis

No Initial Graphics Exchange Specification (IGES) files were included on the tape.

5. SGML Analysis

The SGML file was not evaluated per the customers insturctions.

6. Raster Analysis

No Raster files were included on the tape.

7. CGM Analysis

The tape contained 42 CGM files. All of the files were evaluated using ATC's *MetaCheck* with CALS options. This utility reported that all of the files did not meet the CALS MIL-D-28003 specification because of the required CALS statement in the CGM file. File D001C024 was reported as not meeting basic CGM standards with illegal entities being reported. The log file is included in the Appendix to this report.

The files were evaluated using the beta AFCTN *validcgm* utility. This program reported the missing CALS header information.

The AFCTB has several tools for viewing CGM files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many

of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor and indication of CALS capability. All operations were performed using the default settings.

All files were viewed on screen, but only files D001C024 and D001C034 were selected for the hard copy output.

An attempt to view the files using ATC's *MetaView* resulted in nothing being displayed on the screen because of the black background and black graphics.

File D001C024 was reported in error when imported into Carberry's *Cadleaf* software. The error was the use of an illegal entity. The file still displayed on screen but a set of lines were displayed which were not correct.

The Micrografx *Designer* and *Charisma* both imported a selection of files without a reported error. File D001C024 displayed the added lines defined above.

SPC's *Harvard Graphics 3.05* imported a selection of files without a reported error. File D001C024 displayed the added lines.

Inset Systems' *HiJaak for Windows* imported all 42 files without a reported error. The same error in file D001C024 was again noted.

A selection of files were converted using ArborText's *cgm2draw* utility without a reported error. The resulting files were read into Island Graphics' *IslandDraw*, displayed and printed. File D001C024 displayed the same error as noted above.

A selection of files were directly imported into Island Graphics' *IslandDraw* without a reported error. The images displayed correctly except for D001C024, which displayed with the error noted above.

The two selected files were imported into Corel's *Ventura Publisher* without a reported error. File D001C024 displayed with the same error noted above.

The CGM files do not meet the CALS MIL-D-28003 specification because of the missing CALS header.

8. Conclusions and Recommendations

In summary, the tape from Magnavox Electronic Company was correct. Only one error was generated and is not consider critical. The basic tape structure meets the CALS MIL-STD-1840A requirements.

The Text file on the tape was not evaluated per Magnavox Electronic Company's request.

All 42 CGM files on the tape did not meet the CALS MIL-D-28003 specification because of the missing header data. Further, file D001C024 had a critical basic CGM error.

The tape from Magnavox Electronic Company does not meet the CALS MIL-STD-1840A requirements.

9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

```
Air Force CALS Test Network Catalog Evaluation - Version 1.2; Release 9 (U)

  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Thu May  6 14:56:03 1993

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool9/Set001

                                                                    Page: 1

                                                Record
                                                Format/     Block      Selected/
File Name                 File Type             Length  Length/Total  Extracted
-------------------------------------------------------------------------------
D001                      Document Declaration  D/00260 02048/000001  Extracted
D001C001                  CGM                   F/00080 00800/000039  Extracted
D001C002                  CGM                   F/00080 00800/000035  Extracted
D001C003                  CGM                   F/00080 00800/000050  Extracted

                    <<<<< PART OF LOG FILE REMOVED HERE >>>>>

D001C041                  CGM                   F/00080 00800/000064  Extracted
D001C042                  CGM                   F/00080 00800/000049  Extracted
D001T043                  Text                  D/00260 02048/000128  Extracted

Catalog Process terminated normally.
```

9.2 Tape Evaluation Log

```
Air Force CALS Test Network Tape Evaluation - Version 1.2; Release 9 (O)
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Thu May  6 14:54:52 1993

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1CALS01                                                              4

  Label Identifier: VOL1
  Volume Identifier: CALS01
  Volume Accessibility:
  Owner Identifier:
  Label Standard Version: 4

HDR1D001             CALS0100010001000000 93126 00000 000000

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier: CALS01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0000
  Generation Version Number: 00
  Creation Date:  93126
  Expiration Date:  00000
  File Accessibility:
  Block Count: 000000
  Implementation Identifier:

HDR2D0204800260                                      00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00
```

```
************ Tape Mark ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 1.

************ Tape Mark ***************

EOF1D001            CALS0100010001000000 93126 00000 000001

  Label Identifier: EOF1
  File Identifier: D001
  File Set Identifier: CALS01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0000
  Generation Version Number: 00
  Creation Date:  93126
  Expiration Date:  00000
  File Accessibility:
  Block Count: 000001
  Implementation Identifier:

EOF2D0204800260                                    00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

HDR1D001C001        CALS0100010002000000 93126 00000 000000

  Label Identifier: HDR1
  File Identifier: D001C001
  File Set Identifier: CALS01
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0000
  Generation Version Number: 00
  Creation Date:  93126
  Expiration Date:  00000
  File Accessibility:
  Block Count: 000000
```

```
  Implementation Identifier:

HDR2F0080000080                                    00

  Label Identifier: HDR2
  Recording Format: F
  Block Length: 00800
  Record Length: 00080
  Offset Length: 00

********** Tape Mark **********

  Actual Block Size Found = 800 Bytes.

  Number of data blocks read = 39.

********** Tape Mark **********

EOF1D001C001         CALS0100010002000000 93126 00000 000039

  Label Identifier: EOF1
  File Identifier: D001C001
  File Set Identifier: CALS01
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0000
  Generation Version Number: 00
  Creation Date:  93126
  Expiration Date:  00000
  File Accessibility:
  Block Count: 000039
  Implementation Identifier:

EOF2F0080000080                                    00

  Label Identifier: EOF2
  Recording Format: F
  Block Length: 00800
  Record Length: 00080
  Offset Length: 00

********** Tape Mark **********

                <<<<< PART OF LOG FILE REMOVED HERE >>>>>>

********** Tape Mark **********
```

```
HDR1D001T043         CALS0100010044000000 93126 00000 000000

  Label Identifier: HDR1
  File Identifier: D001T043
  File Set Identifier: CALS01
  File Section Number: 0001
  File Sequence Number: 0044
  Generation Number: 0000
  Generation Version Number: 00
  Creation Date:  93126
  Expiration Date:  00000
  File Accessibility:
  Block Count: 000000
  Implementation Identifier:

HDR2D0204800260                                    00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

  Actual Block Size Found = 2048 Bytes.

*** WARNING - This variable length record type file contained
    carriage control characters.  Carriage control characters
    are used as record terminators and are interpreted
    differently among dissimilar systems.

  Number of data blocks read = 128.

************ Tape Mark ***************

EOF1D001T043         CALS0100010044000000 93126 00000 000128

  Label Identifier: EOF1
  File Identifier: D001T043
  File Set Identifier: CALS01
  File Section Number: 0001
  File Sequence Number: 0044
  Generation Number: 0000
  Generation Version Number: 00
  Creation Date:  93126
  Expiration Date:  00000
```

```
  File Accessibility:
  Block Count: 000128
  Implementation Identifier:

EOF2D0204800260                                    00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

************ Tape Mark ***************

############ End of Volume CALS01 ##############

############ End Of Tape File Set ##############

Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 1 warning(s),
and 0 note(s).
```

9.3 Tape File Set Validation Log

```
Air Force CALS Test Network File Set Evaluation - Version 1.2; Release 9 (O)

  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Thu May  6 14:56:03 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set001

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: Magnavox Electonic Systems Co  1313 Production Rd.  Ft. Wayne IN 46808  VAX/VM
Version V5.5-2 running AFCTN Tapetool Software Version 1.2; Release 8
srcdocid: MX-62-122B
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19911201
dstsys: ATOS, Warner Robins ALC/LZDA Robins AFB GA 31098 Attn: Mike Green
dstdocid: TO 49B3-58-1
dstrelid: NONE
dtetrn: 19930506
dlvacc: CONTRACT F19628-84-C-0084  CLIN 0084  CDRL 58-016
filcnt: C42,T1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: Technical Publication
docttl: OPERATION AND MAINTENANCE INSTRUCTIONS WITH ILLLUSTRATED PARTS BREAKDOWNFOR
AN/TRC-187A


Found file: D001C001
Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: MX-62-122B
dstdocid: TO 49B3-58-1
txtfilid: W
figid: 1-1.1
srcgph: cgm1
doccls: UNCLASSIFIED
```

notes: 1st of 4 graphic files to make up figure 1-1.

Saving CGM Header File: D001C001_HDR
Saving CGM Data File: D001C001_CGM

<<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

Found file: D001C042
Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: MX-62-122B
dstdocid: TO 49B3-58-1
txtfilid: W
figid: FO-1.S2
srcgph: CGM42
doccls: UNCLASSIFIED
notes: FOLDOUT PAGE, SHEET 2 OF 2

Saving CGM Header File: D001C042_HDR
Saving CGM Data File: D001C042_CGM

Found file: D001T043
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: MX-62-122B
dstdocid: TO 49B3-58-1
txtfilid: W
doccls: UNCLASSIFIED
notes: ASCII Text file with ATOS page delimiters for TO49B3-58-1.

Saving Text Header File: D001T043_HDR
Saving Text Data File: D001T043_TXT

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D001.
No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

10. Appendix B - Detailed CGM Analysis

10.1 File D001C024

10.1.1 Parser Log MetaCheck

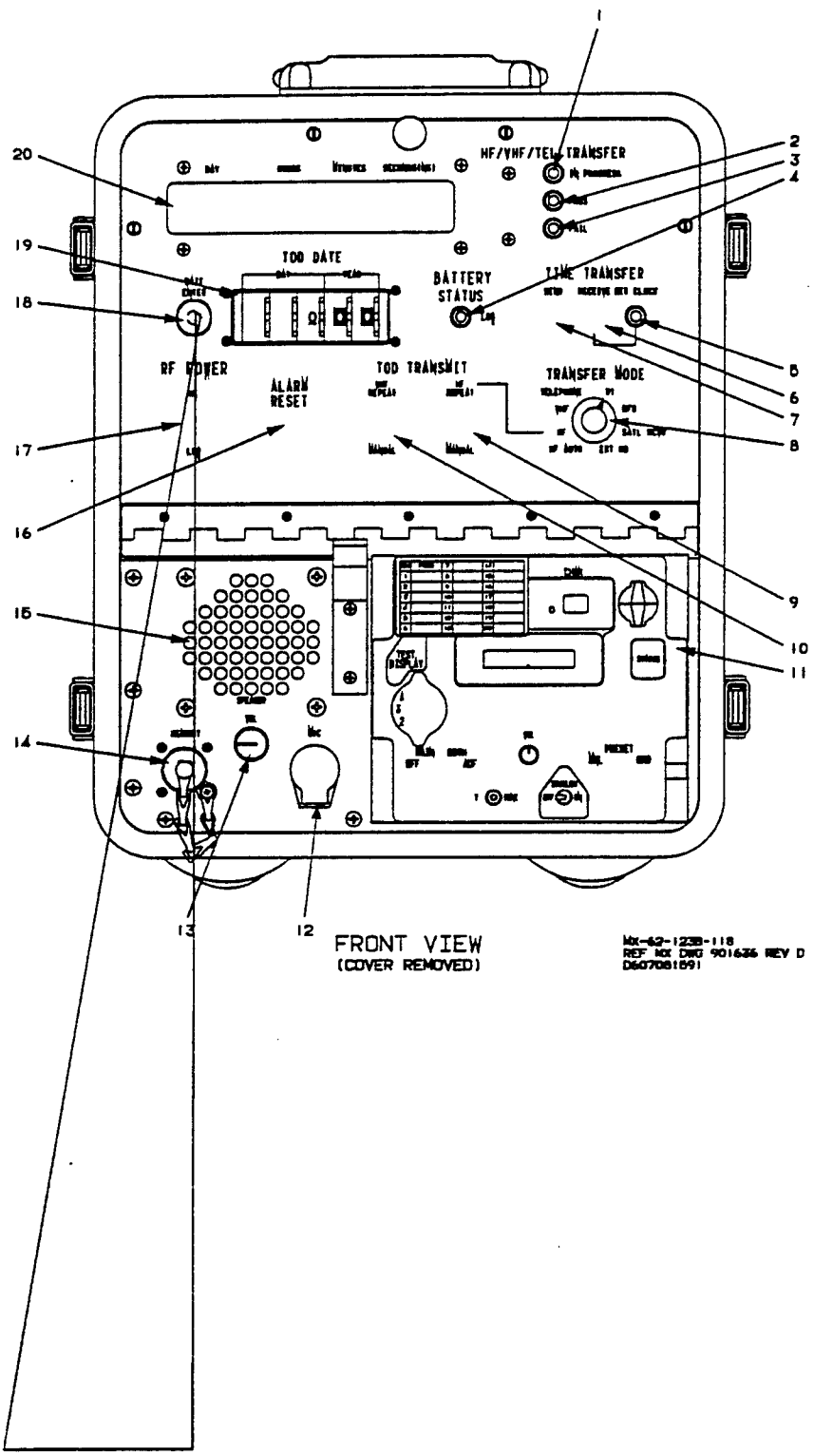
```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/07/93     Time:  08:47:11

Metafile Examined    : i:\9344\c024.cgm

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report =============

Bulletin 20027: Element Class/ID: 4/1   Offset: 182 octets Element No. 28
Warning; a foreground color has been defined and referenced by a primitive,
while the background color has not been defined.

Error 1002: Element Class/ID: 3/114   Offset: 81920 octets Element No. 18814
Unrecognized element encountered; these opcodes are reserved for use in
future versions of the standard.


========== CALS CGM Profile (MIL-D-28003) Report ============

Error 6501: Element Class/ID: 1/2   Offset: 20 octets Element No. 3
The METAFILE DESCRIPTION string is invalid; it lacks the phrase
"MIL-D-28003/BASIC-1" required by the Profile.

================ Conformance Summary Report ================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/07/93     Time:  08:47:28

Name of CGM under test: i:\9344\c024.cgm
```

```
Encoding              : Binary

Pictures Examined     : All
Elements Examined     : All
Bytes    Examined     : All

BEGIN METAFILE string : "Metafile.Dat"
METAFILE DESCRIPTION  : "MEC Metafile V.1"

Picture 1 starts at octet offset 82; string contains: "PICTURE1"

Conformance Summary   :  This file is not a conforming CGM.

                         Consequently, it does not meet the
                         CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
      18976 Elements Tested
      84548 Octets Tested


        1 Illegal CGM Elements                        1000 -   1999
        0 Incorrect CGM Element Lengths               2000 -   2999
        0 CGM State Errors                            3000 -   3499
        0 Required CGM Elements Missing or Wrong      4000 -   4499
        0 CGM Parameter Values Out of Range           6000 -   6499
        0 CGM Structure Errors                        7000 -   7499
        1     ***     CGM Errors Found (total)     ***

        0 Profile State Errors                        3500 -   3999
        0 Illegal Profile Elements                    4500 -   4999
        1 Profile Parameter Values Out of Range       6500 -   6999
        0 Profile Data Limits Exceeded                8500 -   8999
        0 Other Profile Constraints Violated          9500 -   9999
        1     *** Profile Violations Found (total) ***

        1 Warnings (Advisory Remarks)                20000 -  20999

        3 distinct errors and warnings were reported.

================ End of Conformance Report ==================
```

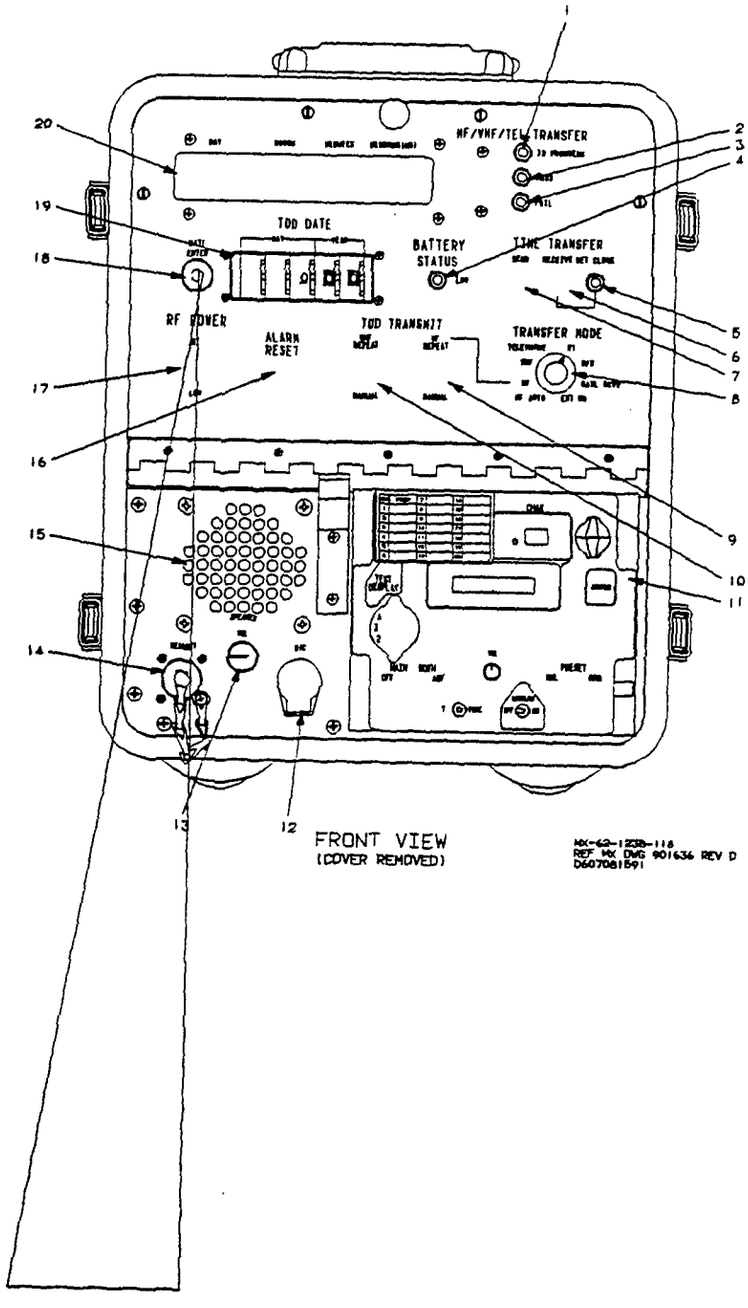
10.1.2 validcgm Log

```
Analysis for file c024.cgm using table table
MILSPEC 28003 error: descriptor doesn't contain MIL-D-28003/BASIC-1
(3, 20)          (1, 2, 18)     Metafile Description "MEC Metafile V.1"
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 7) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(2, 1) occurred 1 time
(2, 2) occurred 1 time
(2, 3) occurred 1 time
(2, 5) occurred 1 time
(2, 6) occurred 1 time
(2, 7) never occurred, required by standard B
(4, 1) occurred 4685 times
(4, 7) occurred 314 times
(5, 2) occurred 1 time
(5, 3) occurred 2 times
(5, 4) occurred 1 time
(5, 14) occurred 1 time
(5, 15) occurred 1 time
(5, 22) occurred 2 times
(5, 27) occurred 1 time
(5, 28) occurred 2 times
(5, 29) occurred 1 time
(5, 30) occurred 1 time
```

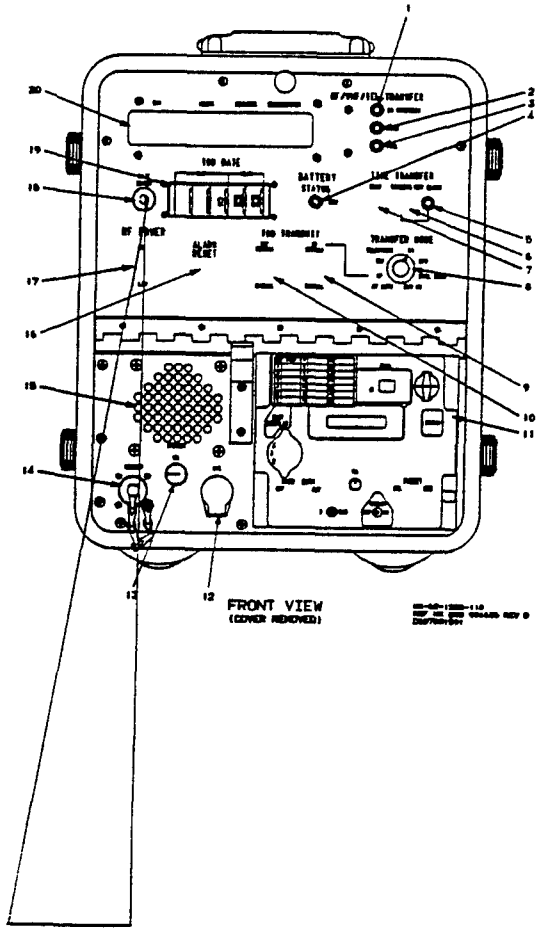
10.1.3 Output Cadleaf



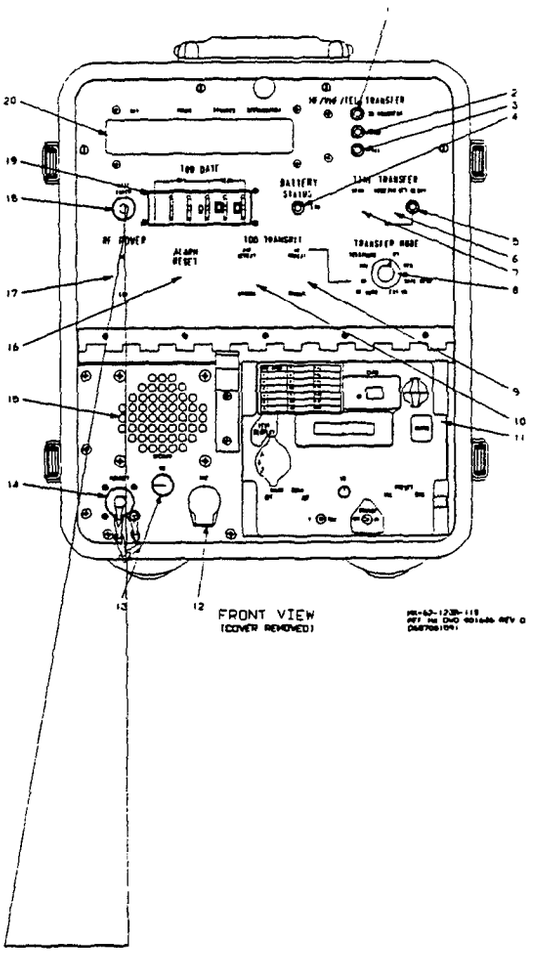
10.1.4 Output Designer



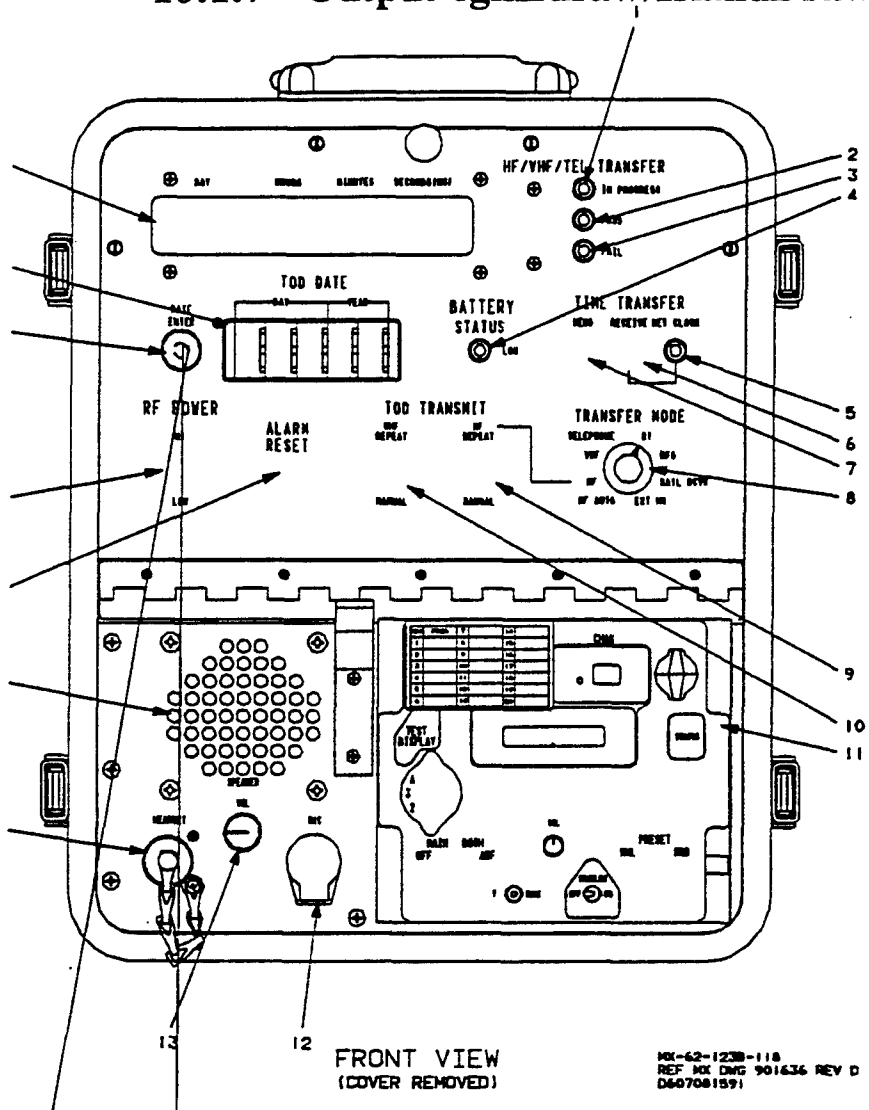
10.1.5 Output Harvard Graphics



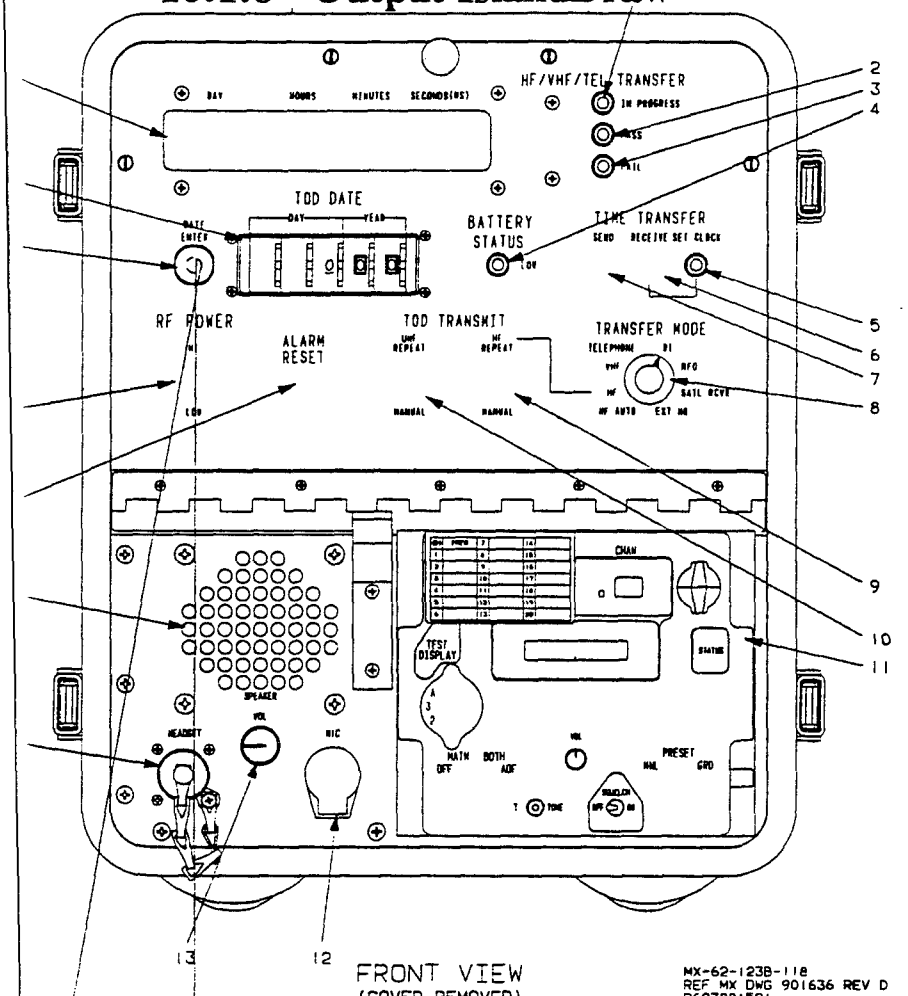
10.1.6 Output HiJaak for Windows



10.1.7 Output cgm2draw/IslandDraw



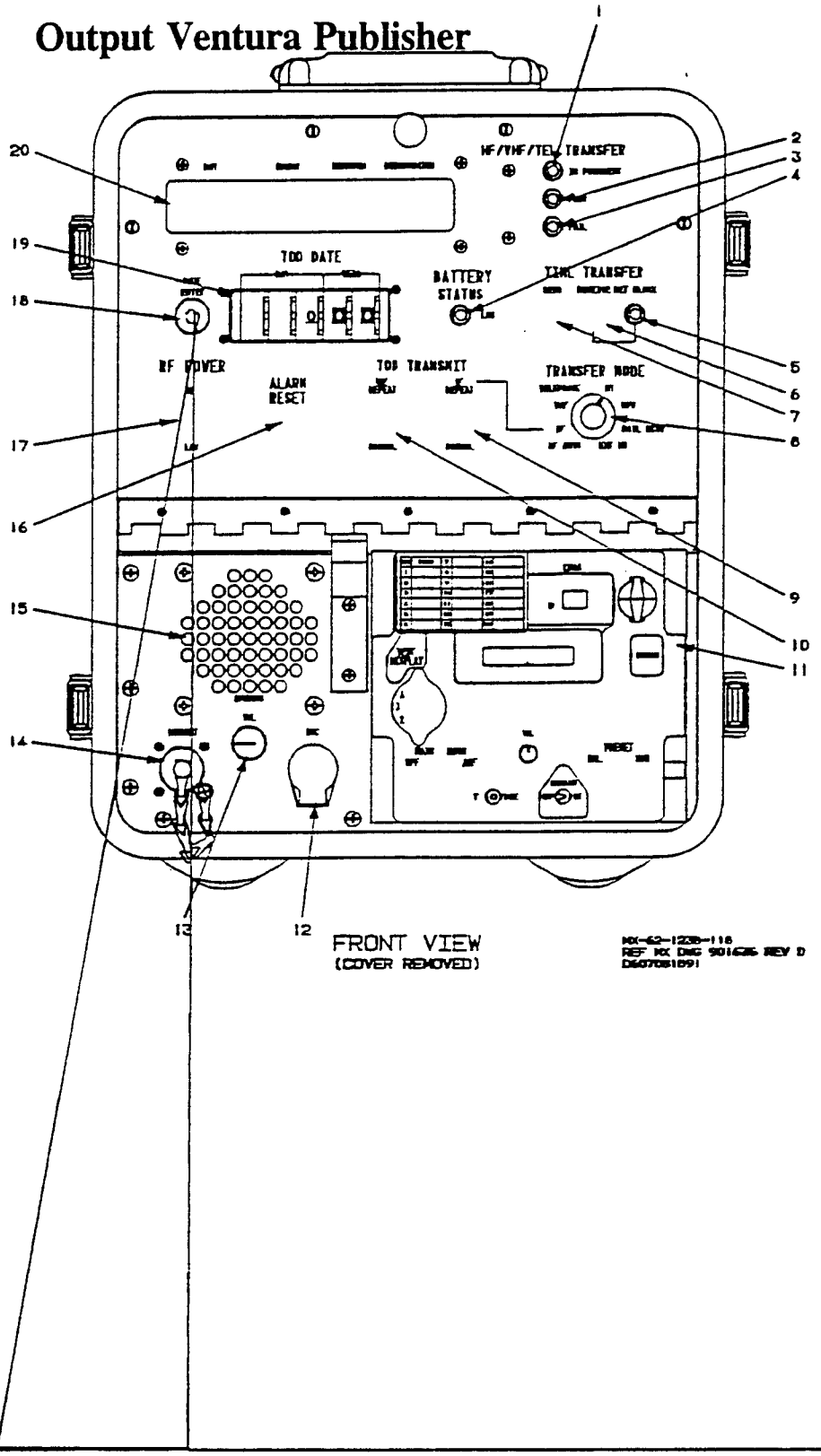
10.1.8 Output IslandDraw



FRONT VIEW
(COVER REMOVED)

MX-62-123B-118
REF MX DWG 901636 REV D
D607081591

10.1.9 Output Ventura Publisher



10.2 File D001C034

10.2.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/06/93     Time:  15:08:58

Metafile Examined    : i:\9344\c034.cgm

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================= Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

Bulletin 20027: Element Class/ID: 4/1   Offset: 182 octets Element No. 28
Warning; a foreground color has been defined and referenced by a primitive,
while the background color has not been defined.

========== CALS CGM Profile (MIL-D-28003) Report ============

Error 6501: Element Class/ID: 1/2   Offset: 20 octets Element No. 3
The METAFILE DESCRIPTION string is invalid; it lacks the phrase
"MIL-D-28003/BASIC-1" required by the Profile.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 05/06/93     Time:  15:09:14

Name of CGM under test: i:\9344\c034.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "Metafile.Dat"
METAFILE DESCRIPTION  : "MEC Metafile V.1"
```

Picture 1 starts at octet offset 82; string contains: "PICTURE1"

Conformance Summary : This file conforms to the CGM specification.

However, this file does not satisfy
the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

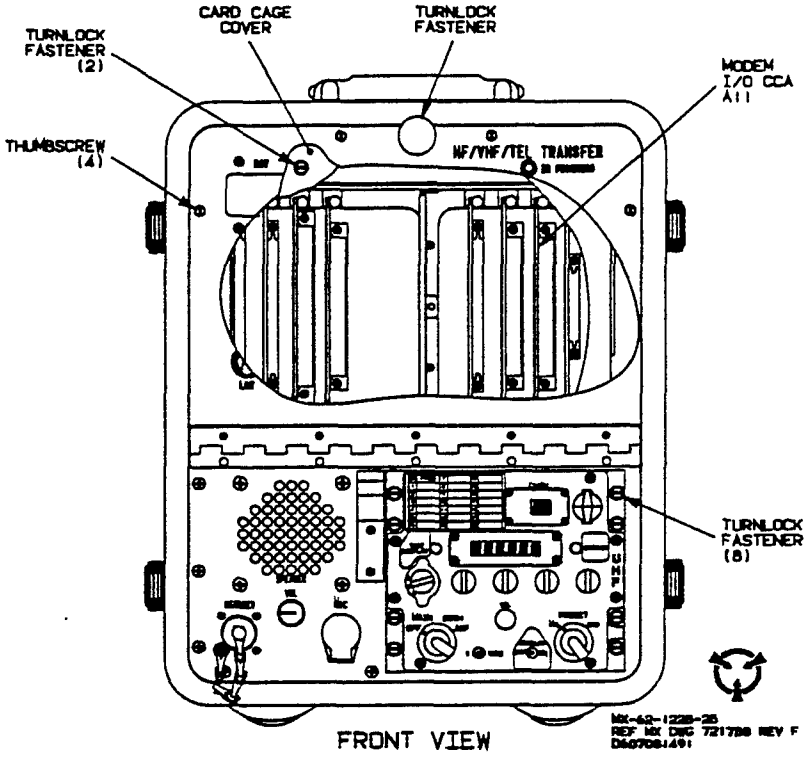
```
   1 Pictures Tested
6004 Elements Tested
89556 Octets Tested

 0 Illegal CGM Elements                          1000 -   1999
 0 Incorrect CGM Element Lengths                 2000 -   2999
 0 CGM State Errors                              3000 -   3499
 0 Required CGM Elements Missing or Wrong        4000 -   4499
 0 CGM Parameter Values Out of Range             6000 -   6499
 0 CGM Structure Errors                          7000 -   7499
 0     ***     CGM Errors Found (total)      ***

 0 Profile State Errors                          3500 -   3999
 0 Illegal Profile Elements                      4500 -   4999
 1 Profile Parameter Values Out of Range         6500 -   6999
 0 Profile Data Limits Exceeded                  8500 -   8999
 0 Other Profile Constraints Violated            9500 -   9999
 1     *** Profile Violations Found (total)  ***

 1 Warnings (Advisory Remarks)                  20000 -  20999

 2 distinct errors and warnings were reported.
```

========== End of Conformance Report ==========

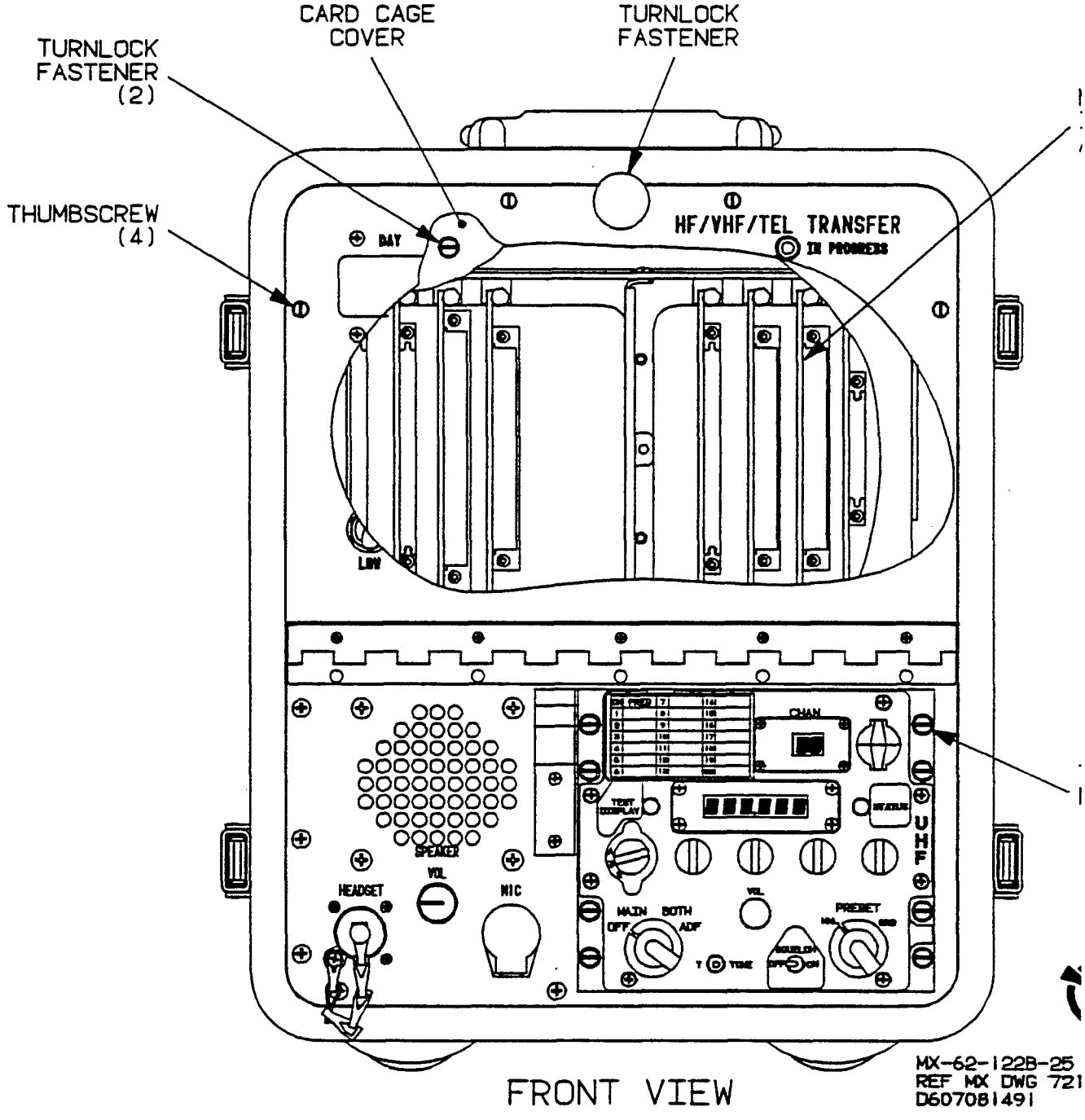
10.2.2 validcgm Log

```
Analysis for file c034.cgm using table table
MILSPEC 28003 error: descriptor doesn't contain MIL-D-28003/BASIC-1
(3, 20)          (1, 2, 18)     Metafile Description "MEC Metafile V.1"
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 7) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(2, 1) occurred 1 time
(2, 2) occurred 1 time
(2, 3) occurred 1 time
(2, 5) occurred 1 time
(2, 6) occurred 1 time
(2, 7) never occurred, required by standard B
(4, 1) occurred 5646 times
(4, 7) occurred 327 times
(5, 2) occurred 1 time
(5, 3) occurred 2 times
(5, 4) occurred 1 time
(5, 14) occurred 1 time
(5, 15) occurred 1 time
(5, 22) occurred 2 times
(5, 27) occurred 1 time
(5, 28) occurred 2 times
(5, 29) occurred 1 time
(5, 30) occurred 1 time
```

10.2.3 Output Cadleaf

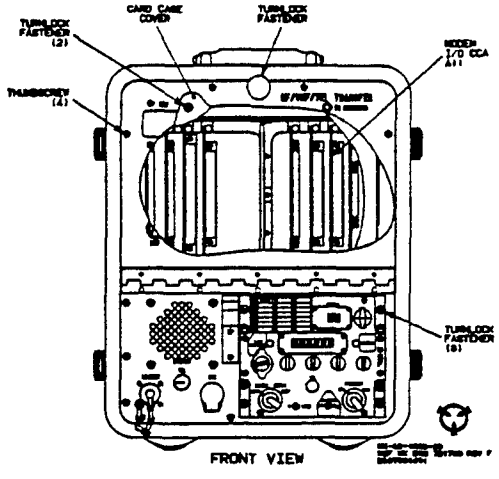


10.2.4 Output Designer

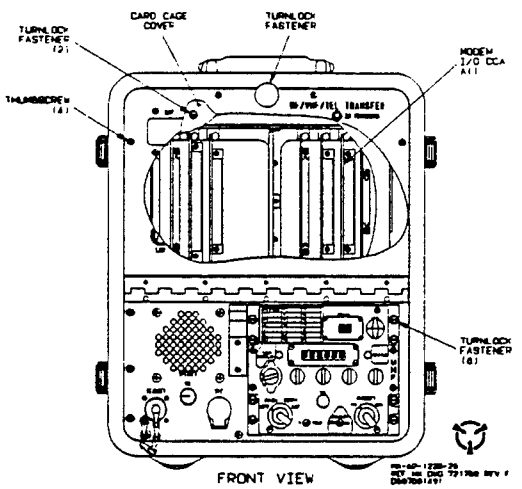


FRONT VIEW

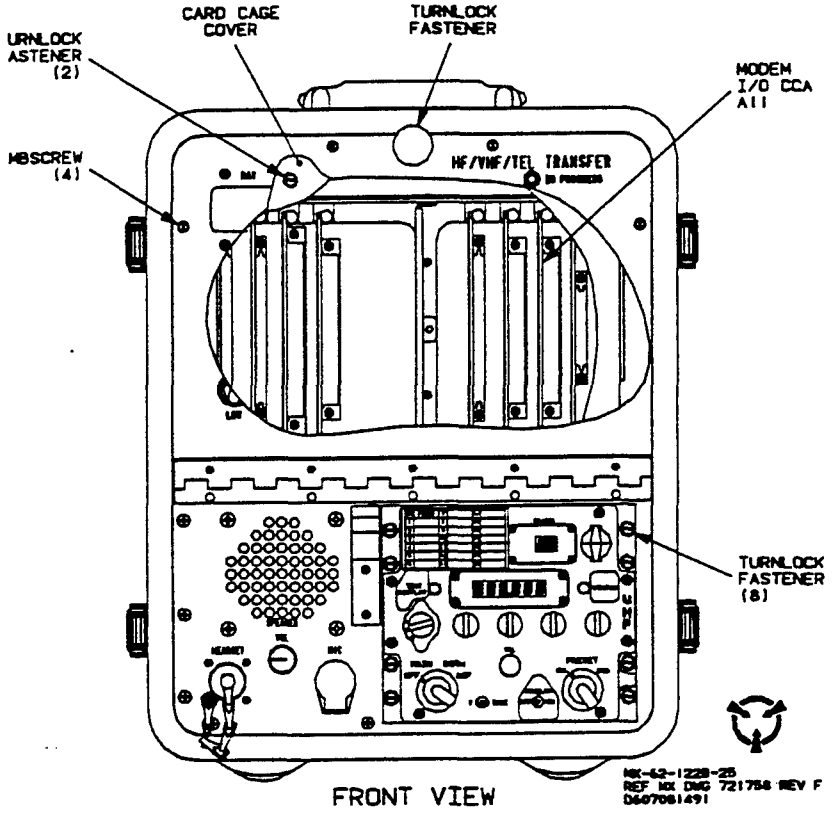
10.2.5 Output Harvard Graphics



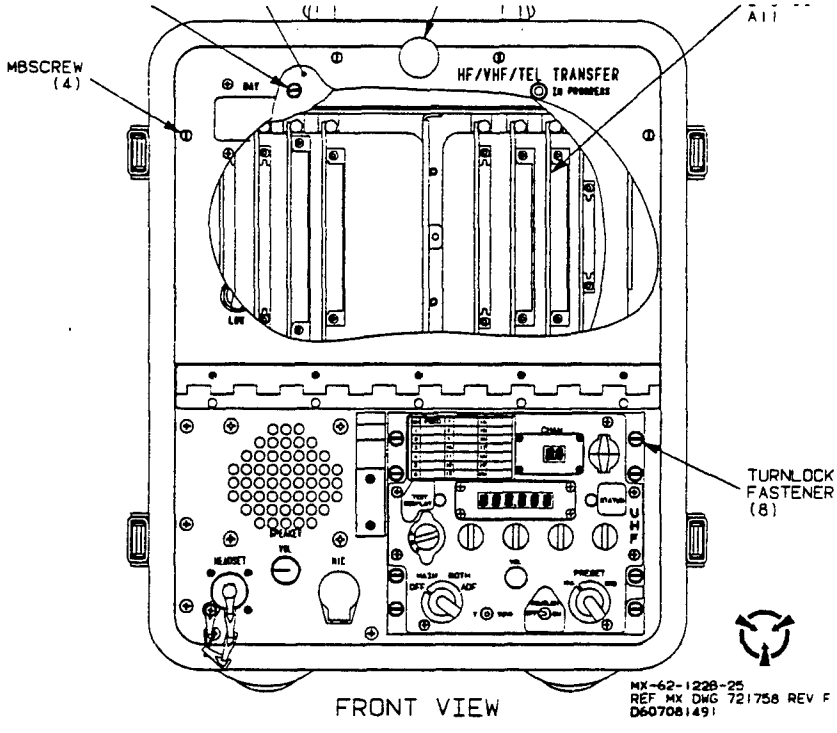
10.2.6 Output HiJaak for Windows



10.2.7 Output cgm2draw/IslandDraw



10.2.8 Output IslandDraw



10.2.9 Output Ventura Publisher