

MIL-STD-756B
 NOTICE 1
 31 August 1982

MILITARY STANDARD

RELIABILITY MODELING AND PREDICTION

TO ALL HOLDERS OF MIL-STD-756B:

1. THE FOLLOWING PAGES OF MIL-STD-756B HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

<u>New Page</u>	<u>Date</u>	<u>Superseded Page</u>	<u>Date</u>
v	31 August 1982	v	18 November 1981
vi	31 August 1982	vi	18 November 1981

2. MAKE THE FOLLOWING PEN AND INK CHANGES:

- Page 1001-4 add "(11)" to the right of $P_S = P_A P_B P_1 P_2$.
- Page 1001-6 add "(15)" to the right of $P_S = P_A P_B^2 P_C^2$.
- Page 1001-7 add "=" between $P_A^2 = P_A^2$, $P_B = P_B^2$, and $P_C^2 = P_C$.
- Page 1002-3 add "(2)" to the right of $P_S = B_1 \bar{B}_2 \bar{C}_1 \bar{C}_2 A + \dots$
..... $+B_1 B_2 C_1 C_2 A$.
- Page 1002-3 add "(3)" to the right of $P_S = B_1 C_1 + \dots$
 $+B_1 \bar{B}_2 \bar{C}_1 C_2 A$.
- Page 1003-4 add "(1)" to the right of $P_S = A[C_1 + C_1 \bar{C}_2] + \dots$
.... $+B_1 \bar{C}_1 B_2 C_2$].

3. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

4. Holders of MIL-STD-756B will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the military standard is completely revised or canceled.

Custodians:

Army - CR
 Navy - AS
 Air Force - 17

Preparing Activity:

NAVY - AS
 (Project No. RELI-0038)

Review Activities:

Army - EA, AR
 Navy - SH, OS

Users:

Army - AM
 Navy - EC
 National Security Agency - NS
 Defense Mapping Agency - DMA

RELI

CONTENTS (Continued)

Page

FIGURES

Figure 1.	Service use events in the logistic and operational cycles	8
102.1	Performance parameters, limits and failure criteria	102-3
2003.1	Failure-rate estimating chart for electronic analog function.	2003-3
2003.2	Failure-rate estimation chart for digital electronics functions.	2003-5
2003.3	Failure-rate estimation chart for mechanical devices.	2003-7

TABLES

Table 1002-I	Truth table calculation for the mission reliability diagram.	1002-2
1002-II	Reduction tabulation	1002-4
1003-I	Logic diagram examples	1003-2
1004-I	Success/Failure array for the mission reliability diagram.	1004-3
1004-II	Success/Failure array for the mission reliability diagram.	1004-5
200-I	Environmental symbol identification and description.	200-5
2003-I	Weighting factors for different classes of electronic AEGs used in estimating analog complexity for Figure 2003.1	2003-2
2003-II	Weighting factors for estimating digital electronics AEG complexity for use with Figure 2003.2.	2003-5
2003-III	Weighting factors for shipboard mechanical elements for use in conjunction with Figure 2003.3.	2003-6

MIL-STD-756B

TASK SECTIONS

Task		
Section 100	Reliability modeling	100-1
200	Reliability prediction	200-1

TASKS

Task 101	Basic reliability model.	101-1
102	Mission reliability model.	102-1
201	Basic reliability prediction	201-1
202	Mission reliability prediction	202-1

METHODS

Method 1001	Conventional probability	1001-1
1002	Boolean truth table.	1002-1
1003	Logic diagram.	1003-1
1004	Monte carlo simulation	1004-1
2001	Similar item method.	2001-1
2002	Similar circuit method	2002-1
2003	Active element group method.	2003-1
2004	Parts count method	2004-1
2005	Parts stress analysis method	2005-1

APPENDIX A. APPLICATION AND TAILORING GUIDE

Paragraph		
10.	GENERAL.	A-1
10.1	Scope.	A-1
10.2	Tailoring requirements	A-1
10.3	Duplication of effort.	A-1
10.4	Limitations.	A-1
20.	REFERENCED DOCUMENTS	A-1
30.	DEFINITIONS.	A-1
40.	GENERAL.	A-2
40.1	Ordering data.	A-2
40.2	Data item descriptions	A-2
50.	APPLICATION CRITERIA	A-2
50.1	General considerations	A-2
50.1.1	Level of detail.	A-2
50.1.2	Timing	A-2
50.1.3	Intended use	A-3