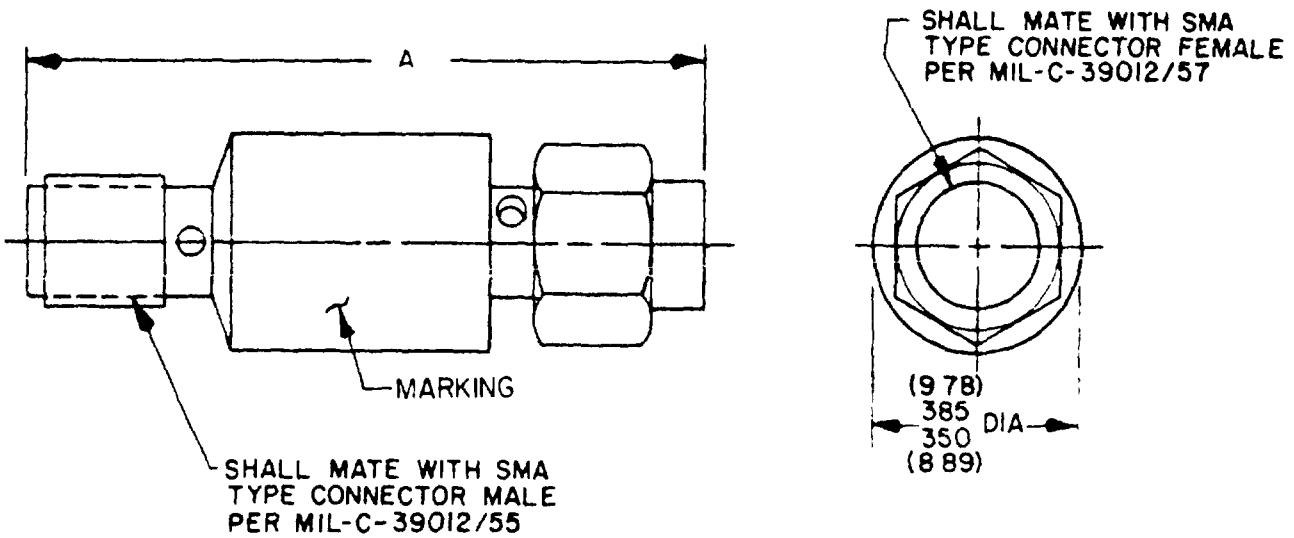
MILITARY SPECIFICATION SHEET

ATTENUATORS, FIXED, COAXIAL LINE (SMA CONNECTORS),

FREQUENCY RANGE: DC TO 18 GHz, CLASS IV, LOW POWER

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the attenuators described herein shall consist of this specification and the latest issue of MIL-A-3933.



NOTES
1 Dimensions are in inches
2 Metric equivalents are given for general information only.
3 Metric equivalents are in parentheses

FIGURE 1 Dimensions and configuration

ENGINEERING DATA

Class IV.

Operating frequency range dc to 18 GHz.

Test frequencies for VSWR and attenuation measurements dc, 4, 8, 12.4, and 18 GHz.

Basic test frequency 8.0 GHz.

Operating temperature range -55°C to +125°C.

Maximum weight See table I.

REQUIREMENTS

Dimensions and configuration See figure 1

Nominal impedance 50 ohms.

Attenuation See table I.

Power See table I.

VSWR See table I.

Power sensitivity 0.005 dB/dB/watt maximum.

Temperature sensitivity 0.0006 $\frac{dB}{dB \times {}^{\circ}C}$ maximum

RF leakage 80 dB below the input power level over the frequency range of dc to 18.0 GHz.

Part number M3933/16- (and dash number from table I)

Supersession data See table II.

TABLE I Electrical characteristics

Dash number	Attenuation dB			Maximum power input @ 25°C		VSWR maximum 1/				Weight (oz) Max	Dimension A (inches) maximum
	Nominal	Deviation									
		DC	DC to 18 GHz	AV (W) 3/ (continuously)	Peak 2/ (kW)	dc to 4.0 GHz	4.0 to 8.0 GHz	8.0 to 12.4 GHz	12.4 to 18.0 GHz		
01 N S	3	±0.2	±0.3	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
02 N S	6	±0.2	±0.3	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
03 N S	10	±0.1	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
04 N S	20	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
05 N S	1	±0.2	±0.4	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
06 N S	2	±0.2	±0.4	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
07 N S	4	±0.2	±0.3	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
08 N S	5	±0.2	±0.3	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
09 N S	7	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
10 N S	8	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
11 N S	9	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
12 N S	30	±0.5	±1.0	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.8	1.850 (46.99)

TABLE I Electrical characteristics - Continued

Dash number	Attenuation dB			Maximum power input 0 25°C		VSWR maximum 1/				Weight (oz) Max	Dimension A (inches) maximum
	Nominal	Deviation									
		DC	DC to 18 GHz	AV (W) 3/ (continuously)	Peak 2/ (kW)	dc to 4 0 GHz	4 0 to 8 0 GHz	8 0 to 12 4 GHz	12 4 to 18 0 GHz		
13 N S	40	±0.5	±1 0	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0.8	1.850 (46.99)
14 N S	50	±0.9	±2 0	2	0 5	1 15 1	1 20 1	1.25 1	1 35 1	0 8	1.850 (46 99)
15 N S	60	±0 9	±2 0	2	0 5	1.15 1	1 20 1	1 25 1	1.35 1	0 8	1.850 (46.99)
16 N S	0	±0 3	±0 4	2	0 5	1.15 1	1 20 1	1.25 1	1 35 1	0 5	1 240 (31 50)
17 N S	0 5	±0 3	±0 4	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0.5	1.240 (31.50)
18 N S	1 5	±0 3	±0 4	2	0 5	1 5 1	1 20 1	1 25 1	1 35 1	0 5	1.240 (31 50)
19 N S	2 5	±0 3	±0 4	2	0 5	1 .5 1	1 20 1	1 25 1	1 35 1	0 5	1.240 (31.50)
20 N S	3.5	±0 2	±0 3	2	0 5	1.15 1	1 20 1	1 25 1	1 35 1	0 5	1 240 (31 50)
21 N S	4 5	±0 2	±0 3	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0 5	1.240 (31 50)
22 N S	5.5	±0 2	±0 3	2	0 5	1 15 1	1 20 1	1.25 1	1 35 1	0 5	1.240 (31.50)
23 N S	6 5	±0 2	±0 3	2	0 5	1.15 1	1.20 1	1 25 1	1 35 1	0.5	1.240 (31 50)
24 N S	7 5	±0 3	±0 5	2	0 5	1 15 1	1.20 1	1 25 1	1 35 1	0 5	1 240 (31.50)

TABLE I Electrical characteristics - Continued.

Dash number	Attenuation dB			Maximum power input @ 25°C		VSWR maximum 1/				Weight (oz) Max	Dimension A (inches) maximum
	Nominal	Deviation									
		DC	DC to 18 GHz	AV (W) 3/ (continuously)	Peak 2/ (kW)	dc to 4.0 GHz	4.0 to 8.0 GHz	8.0 to 12.4 GHz	12.4 to 18.0 GHz		
25 N S	8.5	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
26 N S	9.5	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
27 N S	10.5	±0.1	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
28 N S	11	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
29 N S	11.5	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
30 N S	12	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
31 N S	12.5	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
32 N S	13	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
33 N S	13.5	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
34 N S	14	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
35 N S	14.5	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
36 N S	15	±0.3	±0.5	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)

ABLE I Electrical characteristics - Continued

Dash number	Attenuation dB			Maximum power input @ 25°C		VSWR maximum 1/				Weight (oz) Max	Dimension A (inches) maximum
	Nominal	Deviation									
		DC	DC to 18 GHz	AV (W) 3/ (continuously)	Peak 2/ (kW)	dc to 4 0 GHz	4 0 to 8.0 GHz	8 0 to 12.4 GHz	12.4 to 18 0 GHz		
37 N S	15 5	±0 3	±0 5	2	0 5	1 15 1	1 20 1	1.25 1	1 35 1	0.5	1 240 (31.50)
38 N S	16	±0 4	±0 7	2	0 5	1 15 1	1.20 1	1 25 1	1 35 1	0.5	1 240 (31.50)
39 N S	16 5	±0.4	±0 7	2	0 5	1.15 1	1 20 1	1 25 1	1 35 1	0 5	1.240 (31.50)
40 N S	17	±0.4	±0 7	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0 5	1.240 (31.50)
41 N S	17 5	±0 4	±0.7	2	0 5	1 15 1	1.20 1	1 25 1	1.35 1	0 5	1.240 (31.50)
42 N S	18	±0 4	±0 7	2	0 5	1 15 1	1 20 1	1 25 1	1.35 1	0 5	1 240 (31.50)
43 N S	18 5	±0 4	±0 7	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0 5	1 240 (31 50)
44 N S	19	±0.4	±0 7	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0.5	1.240 (31 50)
45 N S	19 5	±0.4	±0 7	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0.5	1.240 (31.50)
46 N S	20 5	±0.4	±0 7	2	0 5	1 15 1	1.20 1	1 25 1	1 35 1	0 5	1.240 (31.50)
47 N S	21	±0 4	±0 7	2	0 5	1 15 1	1 20 1	1.25 1	1.35 1	0 5	1.240 (31.50)
48 N S	21 5	±0 4	±0 7	2	0 5	1 15 1	1 20 1	1 25 1	1 35 1	0 5	1 240 (31.50)

TABLE I Electrical characteristics - Continued

Dash number	Attenuation dB			Maximum power input @ 25°C		VSWR maximum 1/				Weight (oz) Max	Dimension A (inches) maximum
	Nominal	Deviation									
		DC	DC to 18 GHz	AV (W) 3/ (continuously)	Peak 2/ (kW)	dc to 4.0 GHz	4.0 to 8.0 GHz	8.0 to 12.4 GHz	12.4 to 18.0 GHz		
49 N S	22	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
50 N S	22.5	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
51 N S	23	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
52 N S	23.5	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
53 N S	24	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
54 N S	24.5	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
55 N S	25	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.5	1.240 (31.50)
56 N S	28	±0.4	±0.7	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.7	1.240 (31.50)
57 N S	32	±0.5	±1.0	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.8	1.850 (46.99)
58 N S	36	±0.5	±1.0	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.8	1.850 (46.99)
59 N S	44	±0.5	±1.0	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.8	1.850 (46.99)
60 N S	45	±0.5	±1.0	2	0.5	1.15:1	1.20:1	1.25:1	1.35:1	0.8	1.850 (46.99)

1/ VSWR value is for both ends

2/ Peak power for a duty cycle of 5×10^{-4} maximum pulse duration of 5 microseconds.

3/ Power input is derated linearly to 0.5 watts at +125°C

NOTE: Attenuators covered by this specification sheet are substitutable for the manufacturer's or user's part numbers specified in table II. This information in no way implies that manufacturer's part numbers is suitable as a substitute for the military part number.

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
01	49671	2188385-1	5985-00-239-1011
01	16179	20600-3	5985-00-239-1011
01	32613	228035P1	---
01	93459	4M-3	5985-00-189-2141
01	12436	610203-003	---
01	80131	263-3	5985-01-091-9614
01	99899	4779-3	5985-01-112-3913
01	99899	26379-3	---
01	16179	20600-3	5985-01-091-9614
01	16179	2082-6191-3	5985-01-091-9614
01	16179	2082-4153-06	---
01	93459	9870-3 0	---
01	93459	9269-3	---
01	93459	2751-3	---
01	56977	C5000905-6	---
01	05869	733305-6	---
01	97942	5818199406	---
01	97871	550-6228-001	---
02	16179	20600-6	5985-00-159-7977
02	32613	228035P2	---
02	93459	4M-6	5985-00-258-0152
02	12436	610203-004	---
02	80131	263-6	5985-01-037-9748
02	99899	4779-6	5985-00-412-1878
02	99899	23560-6	5985-00-258-0152
02	99899	26379-6	---
02	18203	4706	5985-01-099-9153
02	16179	2082-5071-00	5985-00-258-0152
02	16179	2082-4153-12	---
02	93459	9269-6	---
02	93459	9870-6	---
02	93459	2751-12	---
02	56977	C5000905-12	---
02	05869	733305-12	---
02	97942	5818199407	---
02	97871	550-6231-001	---
03	16179	20600-10	5985-00-976-3304
03	32613	228035P3	---
03	93459	4M-10	5985-00-258-0123
03	12436	610203-005	---
03	80131	263-10	5985-01-031-3373
03	99899	4779-10	5985-00-147-9451
03	99899	4779-1088	6625-01-018-0934
03	99899	26379-10	---
03	99899	23560-10	5985-00-258-0123
03	16179	2082-5072-10	5985-00-258-0123

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
03	16179	2082-4153-20	---
03	16179	2082-6147-10	5985-00-402-1615
03	16179	2082-6193-10	5985-01-081-3873
03	93459	2751-20	---
03	93459	9269-10	---
03	93459	9870-10	---
03	18203	A710M	5985-01-012-9941
03	56977	C5000905-20	---
03	05869	733305-20	---
03	97942	581R199H08	---
03	97871	550-6235-001	---
04	16179	20600-20	5985-00-255-0802
04	98750	69H35692-7	5985-00-256-0802
04	32613	228035P4	---
04	93459	4M-20	5985-00-258-0125
04	06424	10539-1	---
04	12436	610203-006	---
04	80131	263-20	---
04	99899	4779-20	5985-00-158-5316
04	99899	23560-20	5985-00-258-0125
04	99399	26379-20	---
04	16179	2082-4153-22	---
04	93459	9870-20	---
04	93459	9269-20	---
04	93459	2751-20	---
04	56977	C500905-22	---
04	05869	733305-22	---
04	97942	581R199H08	---
04	97871	550-6236-001	---
05	93459	4M-1	5985-00-258-0121
05	99899	4779-1	5985-01-047-8149
05	12436	610203-001	---
05	80131	263-1	---
05	99399	23560-1	5985-00-258-0121
05	99399	26379-1	5985-01-156-9092
05	16179	2082-4153-02	---
05	16179	2082-5076	5985-00-258-0121
05	16179	2082-4188-02	5985-00-156-9092
05	93459	2751-2	---
05	93459	9370-1	5985-01-156-9092
05	56977	C5000905-2	---
05	05869	733305-2	---
05	97871	550-6223-001	---
05	18203	A701M	5985-01-069-6797
05	18203	A701M	5985-01-074-6584
06	93459	4M-2	5985-00-258-0124
06	99399	4779-2	---
06	12436	610203-002	---
06	80131	263-2	---
06	99399	23560-2	5985-00-258-0124
06	16179	2082-5077-02	5985-00-258-0124

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
06	93459	9270-2	5985-00-258-0124
06	99899	26379-2	5985-01-157-9879
06	99899	26379-2-0	---
06	16179	2082-4153-04	---
06	93459	9870-2.0	---
06	93459	2751-4	---
06	56977	C5000905-4	---
06	05869	733305-4	---
06	97942	581R199H13	---
06	97871	550-6227-001	---
07	93459	4M-4	---
07	99899	4779-4	5985-01-009-8595
07	99899	23560-4	5985-00-258-0130
07	16179	2082-5107	5985-00-258-0130
07	93459	9270-4	5985-00-258-0130
07	99899	26379-4-0	5985-01-157-9880
07	93459	2751-8	---
07	93459	9870-4	---
07	56977	C5000905-8	---
07	05869	733305-8	---
07	97942	581R199H14	---
07	97871	550-6229-001	---
08	99899	4779-5	---
08	93459	4M-5	5985-00-258-0132
08	99899	23560-5	5985-00-258-0132
08	16179	2082-5108	5985-00-258-0132
08	99899	26379-5	---
08	16179	2082-4153-10	---
08	93459	9870-5	---
08	93459	9412-5	---
08	93459	2751-10	---
08	56977	C5000905-10	---
08	05869	733305-10	---
08	97942	581R199H12	---
08	97871	550-6200-001	---
09	99899	4779-7	---
09	93459	4M-7	5985-00-258-0153
09	99899	23560-7	5985-00-258-0153
09	16179	2082-5109-07	5985-00-258-0153
09	99899	26379-7	---
09	16179	2082-4153-14	---
09	93459	2751-14	---
09	93459	9870-7	---
09	56977	C5000905-14	---
09	05869	733305-14	---
09	97871	550-6232-001	---
10	99899	4779-8	5985-01-059-6133
10	93459	4M-8	5985-00-258-0176
10	99899	23560-8	5985-00-258-0176

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
10	16179	2082-5110	5985-00-258-0176
10	93459	9870-8	5985-01-158-2266
10	93459	2751-16	---
10	16179	2082-4153-16	---
10	99899	26379-8	---
10	56977	C5000905-16	---
10	05869	733305-16	---
10	97942	581R199H15	---
10	97871	550-6233-001	---
11	99899	4779-9	5985-01-110-4789
11	93459	4M-9	5985-00-258-0180
11	99899	23560-9	5985-00-258-0180
11	16179	2082-5111-09	5985-00-258-0180
11	93459	2751-18	---
11	93459	9870-9	---
11	16179	2082-4153-18	---
11	99899	26379-9	---
11	56977	C5000905-18	---
11	05869	733305-18	---
11	97871	550-6234-001	---
12	99899	4779-30	5950-01-032-4193
12	12436	610203-007	---
12	06424	10538-2	---
12	93459	4M-30	5985-01-093-8648
12	80131	263-30	---
12	99899	26379-30	---
12	16179	2082-4153-24	---
12	93459	9870-30	---
12	56977	C5000905-24	---
12	05869	733305-24	---
12	97942	581R199H18	---
12	97871	550-6237-001	---
13	99899	4779-40	---
13	12436	610302-008	---
13	93459	4M-40	5985-01-044-4523
13	80131	263-40	5985-01-081-3872
13	99899	26379-40	---
13	16179	2082-4153-25	---
13	16179	2082-6196-40	5985-01-081-3872
13	93459	9870-40	---
13	56977	C5000905-25	---
13	05869	733305-25	---
13	97871	550-6238-001	---
13	00752	435-332-6	---
14	12436	610302-009	---
14	93459	4M-50	5985-01-044-4522
14	80131	263-50	---
14	97871	550-6239-001	---

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
15	12436	610203-010	---
15	93459	4M-60	---
15	80131	263-60	---
15	97871	550-6240-001	---
16	99899	23560-0	5985-00-258-0115
16	93459	4M0	5985-00-258-0115
16	16179	2082-5106-00	5985-00-258-0115
17	56977	C5000905-1	---
17	05869	733305-1	---
17	82577	908103-1	---
17	93459	2751-1	---
17	93459	9870-0.5	---
17	16179	2082-4153-01	---
17	99899	26379-0.5	---
17	82577	908103-51	---
17	16179	2082-5183	---
17	99899	4779-0.5	---
17	93459	2751A-1	---
18	82577	908103-3	---
18	82577	908103-53	---
18	93459	2751-3	---
18	93459	2751A-3	---
18	16179	2082-5185	---
18	99899	4779-1.5	---
18	05869	733305-3	---
18	93459	9870-1.5	---
18	16179	2082-4153-03	---
18	99899	26379-1.5	---
18	56977	C9000905-3	---
19	56977	C5000905-5	---
19	93459	9870-2.5	---
19	16179	2082-4153-05	---
19	99899	26379-2.5	---
19	05869	733305-5	---
19	82577	908103-5	---
19	93459	2751-5	---
19	82577	908103-55	---
19	16179	2082-5187	---
19	99899	4779-2.5	---
19	93459	2751A-5	---
20	82577	908103-7	---
20	82577	908103-57	---
20	93459	2751-7	---
20	93459	2751A-7	---
20	16179	2082-5189	---
20	99899	4779-3.5	---

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
20	05869	733305-7	---
20	93459	9870-3.5	---
20	16179	2082-4153-07	---
20	99899	26379-3.5	---
20	56977	C5000905-7	---
21	56977	C5000905-9	---
21	93459	9870-4.5	---
21	16179	2082-4153-09	---
21	99899	26379-4.5	---
21	05869	733305-9	---
21	82577	908103-9	---
21	82577	908103-59	---
21	93459	2751-9	---
21	93459	2751A-9	---
21	16179	2082-5191	---
21	99899	4779-4.5	---
22	82577	908103-11	---
22	82577	908103-61	---
22	93459	2751-11	---
22	93459	2751A-11	---
22	99899	4779-5.5	---
22	16179	2082-5193	---
22	05869	733305-11	---
22	93459	9870-5.5	---
22	16179	2082-4153-11	---
22	99899	26379-5.5	---
22	56977	C5000905-11	---
23	56977	C5000905-13	---
23	93459	9870-6.5	---
23	16179	2082-4153-13	---
23	99899	26379-6.5	---
23	05869	733305-13	---
23	82577	908103-13	---
23	82577	908103-63	---
23	93459	2751-13	---
23	93459	2751A-13	---
23	16179	2082-5195	---
23	99899	4779-5.5	---
24	82577	908103-15	---
24	82577	908103-65	---
24	93459	2751-15	---
24	93459	2751A-15	---
24	16179	2082-5197	---
24	99899	4779-7.5	---
24	05869	733305-15	---
24	93459	9870-7.5	---
24	16179	2082-4153-15	---
24	99899	26379-7.5	---
24	56977	C5000905-15	---

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
25	56977	C5000905-17	---
25	93459	9870-8.5	---
25	16179	2082-4153-17	---
25	99899	26379-8.5	---
25	05869	733305-17	---
25	82577	908103-17	---
25	82577	908103-67	---
25	93459	2751-17	---
25	93459	2751A-17	---
25	16179	2082-5199	---
25	99899	4779-8.5	---
26	05869	733305-19	---
26	93459	9870-9.5	---
26	16179	2082-4153-19	---
26	99899	26379-9.5	---
26	82577	908103-19	---
26	93459	2751-19	---
26	93459	2751A-19	---
26	82577	908103-69	---
26	16179	2082-5201	---
26	99899	4779-9.5	---
26	56977	C5000905-19	---
27	82577	908103-21	---
27	93459	2751-21	---
27	82577	908103-71	---
27	93459	2751A-21	---
27	16179	2082-5203	---
27	99899	4779-10.5	---
28	82577	908103-22	---
28	93459	2751-22	---
28	82577	908103-72	---
28	16179	2082-5204	---
28	93459	2751A-22	---
28	99899	4779-11	---
28	00752	435332-1	---
29	82577	908103-23	---
29	93459	2751-23	---
29	82577	908103-73	---
29	93459	2751A-23	---
29	16179	2082-5205	---
29	99899	4779-11.5	---
30	82577	908103-24	---
30	93459	2751-24	---
30	82577	908103-74	---
30	93459	2751A-24	---
30	16179	2082-5206	---
30	99899	4779-12	---
30	00752	435332-2	---

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
31	82577	908103-25	---
31	93459	2751-25	---
31	82577	908103-75	---
31	93459	2751A-25	---
31	16179	2082-5207	---
31	99999	4779-12.5	---
32	82577	908103-26	---
32	93459	2751-26	---
32	82577	908103-76	---
32	93459	2751A-26	---
32	16179	2082-5208	---
32	99999	4779-13	---
32	97942	581R199416	---
32	00752	435332-10	---
33	82577	908103-27	---
33	93459	2751-27	---
33	82577	908103-77	---
33	93459	2751A-27	---
33	16179	2082-5209	---
33	99999	4779-13.5	---
34	82577	908103-28	---
34	93459	2751-28	---
34	82577	908103-78	---
34	93459	2751A-28	---
34	16179	2082-5210	---
34	99999	4779-14	---
34	00752	435332-3	---
35	82577	908103-29	---
35	93459	2751-29	---
35	82577	908103-79	---
35	93459	2751A-29	---
35	16179	2082-5211	---
35	99999	4779-14.5	---
36	82577	908103-30	---
36	93459	2751-30	---
36	82577	908103-80	---
36	93459	2751A-30	---
36	16179	2082-5212	---
36	99999	4779-15	---
36	99999	23560-15	5985-00-599-8114
36	93459	9279-15	5985-00-599-8114
36	16179	2082-5112-15	5985-00-599-8114
36	31173	263-15	5935-01-094-2935
36	00752	435332-4	---
36	97942	581R199409	---
36	56977	C5000005-21	---

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
36	93459	9870-15	---
36	16179	2082-4153-21	---
36	99899	26379-15	---
36	05869	733305-21	---
37	82577	908103-31	---
37	93459	2751-31	---
37	82577	908103-81	---
37	93459	2751A-31	---
37	16179	2082-5213	---
37	99899	4779-15.5	---
38	99899	23674-15	5985-01-025-7284
38	93459	4M-16	5985-01-025-7284
38	82577	908103-32	---
38	93459	2751-32	---
38	82577	908103-82	---
38	93459	2751A-32	---
38	16179	2082-5214	---
38	99899	4779-16	---
38	00752	435332-11	---
39	82577	908103-33	---
39	93459	2751-33	---
39	82577	908103-83	---
39	93459	2751A-33	---
39	16179	2082-5215	---
39	99899	4779-16 5	---
40	82577	908103-34	---
40	93459	2751-34	---
40	82577	908103-84	---
40	93459	2751A-34	---
40	16179	2082-5216	---
40	99899	4779-17.0	---
40	97942	5918199H17	---
40	00752	435332-12	---
41	82577	908103-35	---
41	93459	2751-35	---
41	82577	908103-85	---
41	93459	2751A-35	---
41	16179	2082-5217	---
41	99899	4779-17 5	---
42	82577	908103-36	---
42	93459	2751-36	---
42	82577	908103-86	---
42	93459	2751A-36	---
42	16179	2082-5218	---
42	99399	4779-18	---
42	00752	435332-13	---

TABLE II. Substitution information - Continued.

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
43	82577	908103-37	---
43	93459	2751-37	---
43	82577	908103-87	---
43	93459	2751A-37	---
43	16179	2082-5219	---
43	99899	4779-18.5	---
44	82577	908103-38	---
44	93459	2751-38	---
44	82577	908103-88	---
44	93459	2751A-38	---
44	16179	2082-5220	---
44	99899	4779-19	---
44	00752	435332-14	---
45	82577	908103-39	---
45	93459	2751-39	---
45	82577	908103-89	---
45	93459	2751A-39	---
45	16179	2082-5221	---
45	99999	4779-19.5	---
46	82577	908103-41	---
46	93459	2751-41	---
46	82577	908103-91	---
46	93459	2751A-41	---
47	82577	908103-42	---
47	93459	2751-42	---
47	82577	908103-92	---
47	93459	2751A-42	---
48	82577	908103-43	---
48	93459	2751-43	---
48	82577	908103-93	---
48	93459	2751A-43	---
49	82577	908103-44	---
49	93459	2751-44	---
49	82577	908103-94	---
49	93459	2751A-44	---
50	82577	908103-45	---
50	93459	2751-45	---
50	82577	908103-95	---
50	93459	2751A-45	---

TABLE II. Substitution information - Continued

Military part number M3933/16-	Manufacturer's code	Manufacturer's part number	NSN
51	82577	908103-46	---
51	93459	2751-46	---
51	82577	908103-96	---
51	93459	2751A-46	---
52	82577	908103-47	---
52	93459	2751-47	---
52	82577	908103-97	---
52	93459	2751A-47	---
53	82577	908103-48	---
53	93459	2751-48	---
53	82577	908103-98	---
53	93459	2751A-48	---
54	82577	908103-49	---
54	93459	2751-49	---
54	82577	908103-99	---
54	93459	2751A-49	---
55	82577	908103-50	---
55	93459	2751-50	---
55	82577	908103-100	---
55	93459	2751A-50	---
55	56977	C500905-23	---
55	93459	9870-25 0	---
55	16179	2082-4153-23	---
55	99800	26372-25 0	---
55	05869	733305-23	---
56	00752	435332-7	---
57	00752	435332-3	---
58	00752	435332-5	---
59	00752	435332-9	---

Custodians
Army - ER
Navy - EC
Air Force - 95

Review activities
Army - MI
Air Force - 11, 99
DLA - ES

User activities
Navy - MC, SH, AS

Agent
DLA - ES

Preparing activity:
Navy - EC

(Project 5985-0993-10)