



FSMAO FY-17 MAINTENANCE CHECKLIST

Sample Size Chart

(Using Statistical Yamane (1967) Sampling Formula)

<u>Population Size</u>	<u>Sample Size</u>	
1 To 9	All	
10 To 14	9	
15 To 19	13	
20 To 24	17	
25 To 29	20	
30 To 34	23	
35 To 39	26	
40 To 44	29	
45 To 49	31	
50 To 54	33	
55 To 59	35	
60 To 64	38	
65 To 69	39	
70 To 74	41	
75 To 79	43	
80 To 84	44	
85 To 89	46	
90 To 94	47	
95 To 99	49	
100 To 124	50	
125 To 149	56	
150 To 174	60	
175 To 199	64	
200 To 224	67	
225 To 249	69	
250 To 274	71	
275 To 299	73	
300 To 349	75	
350 To 399	78	
400 To 449	80	
450 To 499	82	
500 To 749	83	
750 To 999	88	
1,000 To 1,499	91	
1,500 To 1,999	94	
2,000 To 2,999	95	
3,000 To 3,999	97	
4,000 To 19,999	98	
> 20,000	100	

Formula Parameters

95% confidence level

10% level of precision

$$n = N/(1+N*e)$$

n = sample size

N = population size

e = level of precision squared

FY-17 FSMAO CHECKLIST

Maintenance Administration

1. Are desktop procedures/turnover folders current for each billet involving administrative and management functions?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 1, Paragraph 3.a and Appendix A; MMSOP/MMPL).

(LOE: Internal Controls)

2. Has the unit Commander assigned in writing a Certifying Official for certification of tactical ground load lifting equipment?

(Reference(s): MCO 11262.2B W/ADMIN CH, Enclosure (1), Chapter 1, Paragraph 2.j)

(LOE: Internal Controls)

3. Has the load test Certifying Official designated, in writing, authorized test directors and inspection/test personnel?

(Reference(s): MCO 11262.2B W/ADMIN CH, Enclosure (1), Chapter 1, Paragraph 2.j)

(LOE: Internal Controls)

FY-17 FSMAO CHECKLIST

Equipment Records

- 1. Is the issue and/or recovery of weapons accomplished with the proper forms and records (NAVMCs 10576, 10520, 11186)?**
(Reference(s): TM 4700-15/1H, Chapter 7; CMC Message 181421Z MAR 10 [MARADMIN 162/10]; CMC Message 211427Z DEC 12 [MARADMIN 733/12]; SECNAV M-5216.5, Chapter 2, Paragraph 3.b; MSC Ground Ordnance SOP)
(LOE: Property Accountability)
- 2. Are Crane Daily Inspection Checklists for tactical ground load lifting equipment completed and filed in accordance with references?**
(Reference(s): MCO 11262.2B W/ADMIN CH, Enclosure (1), Chapter 1, Paragraph 2.b)
(LOE: Maintenance Information and Reporting)
- 3. Is the hook throat spread base measurement properly conducted and recorded?**
(Reference(s): MCO 11262.2B W/ADMIN CH, Enclosure (1), Chapter 3, Paragraph 4; UM 400-125, Part 4, Chapter 2, Paragraph 2)
(LOE: Maintenance Information and Reporting)
- 4. Does a review of the most recent Condition Inspection Record (CIR) indicate the Annual Condition Inspection (ACI)/CIR has been performed on tactical ground load lifting equipment within the past 12 months?**
(Reference(s): MCO 11262.2B W/ADMIN CH, Enclosure (1), Chapter 3, Paragraph 8; UM 4000-125, Part 4, Chapter 2, Paragraph 2)
(LOE: Maintenance Information and Reporting)
- 5. Do equipment records indicate a load test has been performed and documented on tactical ground load lifting equipment?**
(Reference(s): MCO 11262.2B W/ADMIN CH, Enclosure (1), Chapter 1, Paragraph 2.d. and e.; UM 4000-125, Part 4, Chapter 2, Paragraph 2)
(LOE: Maintenance Information and Reporting)
- 6. Do equipment records indicate a Non-Destructive Test (NDT) of tactical ground load lifting equipment has been completed in the last five years?**
(Reference(s): MCO 11262.2B W/ADMIN CH, Enclosure (1), Chapter 4, Paragraph 2.b.(1) and 2.c.; UM 4000-125, Part 4, Chapter 2, Paragraph 2)
(LOE: Maintenance Information and Reporting)
- 7. Are equipment counters updated and reconciled against the GCSS-MC at a minimum of monthly or as operational conditions warrant?**
(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 4.b; UM 4000-125, Part 4, Chapter 3, Paragraph 6)
(LOE: Maintenance Information and Reporting)

FY-17 FSMAO CHECKLIST

Maintenance Reporting

1. Do the commodity personnel use a Service Request (SR) in all instances where required in the performance of maintenance?

(Reference(s): MCO 4790.2, Appendix B, Paragraph 5.c and Appendix C, Paragraph 2.a; UM 4000-125, Part 4, Chapter 3, Paragraph 1.b

(LOE: Maintenance Information and Reporting)

2. Is the operational status of “Deadline” for Readiness Reportable Ground Equipment, including SL-3, accurately reported? (Pertains to both Using Unit/Organic and IMA accounts)

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 1, Paragraphs 2.c(3) and 5; UM 4000-125, Part 4, Chapter 3, Paragraph 3 (Page 513); MCBul 3000)

(LOE: Maintenance Information and Reporting)

3. Are authorized personnel assigning proper Urgency of Need Designators (UND) on Service Requests?

(Reference(s): MCO 4400.16H, Paragraph 4.b.(9); MCO 4400.150, Enclosure (1), Chapter 3, Paragraph 7.c; MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 2.a.(1).(d); UM 4000-125, Part 4, Chapter 3, Paragraph 3.h)

(LOE: Internal Controls)

4. Does the maintenance activity assign the appropriate Status Codes to reflect the transition through the maintenance production process?

(Reference(s): MCO 4790.2, Enclosure (1), Appendix C, Paragraph 3.e.(2); UM 4000-125, Part 4, Chapter 3, Paragraphs 3.g and 4.b (Page 524) and Appendix E)

(LOE: Maintenance Information and Reporting)

5. Do commodity managers validate accuracy and completeness of Service Requests and Maintenance Production Reports (MPR)?

(Reference(s): MCO 4790.2, Enclosure (1), Appendix B, Paragraph 5.c and Appendix C, Paragraph 3.b; MCO 4400.150, Enclosure (1), Chapter 3, Paragraph 7.d; MCO 4400.16H, Enclosure (1), Paragraph 4.b.(9); UM 4000-125, Part 4, Chapter 3 and Appendix E)

(LOE: Maintenance Information and Reporting)

6. Are priorities, operational statuses, and appropriate codes in the Required Delivery Date (RDD) fields for repair parts requirements commensurate with the maintenance action being conducted on the associated task?

(Reference(s): UM 4000-125, Part 4, Chapter 3, Paragraphs 4.c and 4.g (Page 525) and Part 4 Chapter 9, Paragraph 3.a (Page 623) and Appendix E, Paragraph 4.b.(9)(1)-(d); MCO 4400.16H, Enclosure (1), Paragraphs 5 and 7)

(LOE: Maintenance Information and Reporting)

FY-17 FSMAO CHECKLIST

Maintenance Reporting

7. Does the maintenance activity ensure exceptional maintenance practices are authorized, documented and reported within the GCSS-MC?

(Reference(s): MCO 4790.2, Chapter 3, Paragraph 8; UM 4000-125, Chapter 11)

(LOE: Maintenance Information and Reporting)

8. Is the maintenance activity properly debriefing labor prior to the closure of the service request?

(Reference(s): MCO 4790.2, Enclosure (1), Appendix C, Paragraph 6.a(2); UM 4000-125, Part 4, Chapter 3, Paragraph 5.a, 7.c and 10.c)

(LOE: Maintenance Program and Resource Management)

FY-17 FSMAO CHECKLIST

Supply Support

1. Does authorized DSI resident in GCSS-MC, match physical on-hand quantities? (Reference(s): MCO 4400.150, Enclosure (1), Chapter 1, Paragraph 9.a(2) and Chapter 2, Paragraphs 16.c, 16.d, and 16.f; MCO 4790.2, Enclosure (1), Chapter 1, Paragraph 4.d and Appendix B, Paragraph 4.b.(2).(b).4.c; UM 4000-125, Part 4, Chapter 12, Paragraph 2.b and Chapter 13, Paragraph 2.a) (LOE: Maintenance Program and Resource Management)

2. Are all repair parts/assemblies held in maintenance facilities associated with established DSI, Layette or Broken Unit of Issue (BUI) sub-inventories or reported to supply for disposition guidance? (Reference(s): MCO 4790.2, Enclosure (1), Appendix A, Paragraph 3.q.(3); MCO 4400.150, Enclosure (1), Chapter 2, Paragraph 15; UM 4000-125. Part 4, Chapter 12, Paragraphs 2.b and 3; MMSOP and MMPL) (LOE: Maintenance Program and Resource Management)

3. Are validations of the SR, stage sub-inventory and layette sub-inventory being conducted? (Pertains to both Using Unit/Organic and IMA accounts) (Reference(s): MCO 4790.2, Enclosure (1), Chapter 1, Paragraph 4.b.1.(b).1, Appendix A, Paragraph 3.q.(5) and Appendix B, Paragraph 4.b.(2).4.e; MCO 4400.150, Enclosure (1), Chapter 2, Paragraph 11.b and Chapter 3, Paragraph 7.d; UM 4000-125, Part 4, Chapter 12, Paragraph 2.b) (LOE: Maintenance Program and Resource Management)

4. Are validations/reconciliations conducted between the commodities (supply, MMO, maintenance activity and supporting activities), and are corrective actions initiated by the commodity/IMA for requisitions? (Reference(s): MCO 4790.2, Chapter 1, Paragraph 4.b; MCO 4400.150, Chapter 3, Paragraph 7.d; UM 4000-125, Part 4, Chapter 3, Paragraph 5.s(5)(b), page 523) (LOE: Procurement)

5. Is the commodity debriefing parts, as required, on all tasks prior to the closure of the SR? (Reference(s): MCO 4790.2, Enclosure (1), Appendix C, Paragraph 6; UM 4000-125, Part 4, Chapter 3, Paragraphs 5 (Page 525) and 7.c (Page 526)) (LOE: Maintenance Production)

FY-17 FSMAO CHECKLIST

Preventive Maintenance

1. Are equipment operator/crew Preventive Maintenance Checks and Services (PMCS) being performed?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 4; Applicable Technical Publications; MMSOP/MMPL)

(LOE: Maintenance Production)

2. Was an SR initiated for items requiring corrective maintenance that was identified during operator/crew PMCS?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 4.a.(2).(b); Applicable Technical publications; MMSOP/MMPL)

(LOE: Maintenance Information and Reporting)

3. Has on hand equipment requiring scheduled PMCS been scheduled within GCSS-MC?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 4.a.(2).(b); TM 4700-15/1H, Paragraphs 2-4.b thru 2-4.c; UM 4000-125, Part 4, Chapter 4, Paragraph 1; Applicable Technical Publications)

(LOE: Maintenance Production)

4. Has equipment requiring scheduled PMCS been properly performed?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 4; TM 4700-15/1H, Paragraphs 2-2.d.38.c; UM 4000-125, Part 4, Chapter 4, Paragraphs 1.a, 1.b and 1. e; Applicable Technical Publications)

(LOE: Maintenance Production)

5. Are all PMCS entries annotated in the associated Electronic Weapons Record Books (EWRB) or legacy Weapons Record Books, Part I and Part II (NAVMC 10558/10558a)?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 4; TM 4700-15/1H, Paragraphs 2-2.d.38.c and 7-2; TM 9-1000-202-14, Supplemental Paragraph 3.a; TI 800-OD, Paragraph 2.b; CMC Message 172341Z SEP 12, Paragraph 3; UM 4000-125, Part 4, Chapter 3, Paragraph 1.b; Applicable Technical Publications)

(LOE: Maintenance Production)

FY-17 FSMAO CHECKLIST

Corrective Maintenance

- 1. Are acceptance inspections properly conducted and documented when equipment is turned in to the supporting maintenance activity? (Pertains to both Using Unit/Organic and IMA accounts)**
(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 2.a.(1) and Appendix C, Paragraph 3.c; UM 4000-125, Part 4, Chapter 3, Paragraph 1.b.(1) and Paragraph 5.s.(1).(a), pages 520-522)
(LOE: Maintenance Production)
- 2. Is the maintenance activity performing corrective maintenance in accordance with applicable equipment technical publications and within the unit's authority?**
(Reference(s): MCO 4790.2, Appendix C, Paragraph 3.a and Paragraph 5; Unit's Table of Organization)
(LOE: Maintenance Production)
- 3. Is the maintenance activity following established procedures for all warranty repairs?**
(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 10; Applicable Supply Instructions and Fielding Plans)
(LOE: Maintenance Production)
- 4. Is the unit following established procedures for equipment requiring disposition?**
(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 2.d, 3.b.2, 6, and 6.b.1.b2; MCO P4400.82F, Chapter 5; MCO 4400.150, Enclosure (1), Chapter 5, Paragraph 7.b; CMC Message R 022048Z FEB 16)
(LOE: Maintenance Production)
- 5. Upon completion of maintenance actions, are assigned quality control personnel documenting final inspections?**
(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraph 2.c.(4); UM 4000-125, Part 4, Chapter 3, Paragraph 3.s.(3)(Page 522); Appropriate Commodity Chapters of TM 4700-15/1H)
(LOE: Maintenance Production)
- 6. Is the unit following procedures for management of maximum maintenance cycle time (MMCT)?**
(Reference(s): MCO 4790.2, Enclosure (1), Chapter 3, Paragraphs 2 and 3)
(LOE: Maintenance Production)

FY-17 FSMAO CHECKLIST

Inventory Control

1. Are garrison tool allowances accounted for?

(Reference(s): MCO 4400.150, Enclosure (1), Chapter 2, Paragraph 18; MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 11.c)

(LOE: Maintenance Program and Resource Management)

2. Has the unit commander established allowances in writing, for Using Unit Responsibility Items (UURI) and Additional Authorization List (AAL) items?

(Reference(s): MCO 4400.150, Enclosure (1), Chapter 2, Paragraph 17.b.(3) and Appendix A, Page A-20; Update to Clarification 4-15 dtd Oct 26 2015)

(LOE: Maintenance Program and Resource Management)

3. Are procedures established and followed for the control of items issued from Sets, Kits, Outfits and Tools (SKOT)?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 11, MMSOP/ MMPL)

(LOE: Maintenance Program and Resource Management)

4. Are inventory records for sets, kits, outfits, and tools (SKOT) and Military Equipment properly maintained?

(Reference(s): MCO 4400.150, Enclosure (1), Chapter 2, Paragraphs 12.e and 17; MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 11; TM 10209-10/1; TM-4700-15/1H, Paragraph 2-6 and 15-7; MMSOP and MMPLs)

(LOE: Maintenance Program and Resource Management)

5. Are component items requiring replacement, requisitioned or identified as an unfunded deficiency?

(Reference(s): MCO 4400.150, Enclosure (1), Chapter 2, Paragraph 17.b; UM 4000-125, Part 4, Chapter 3, Paragraph 1.b)

(LOE: Maintenance Program and Resource Management)

FY-17 FSMAO CHECKLIST

Modification Control

1. Are only CMC directed modifications applied to Marine Corps equipment?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 4.c.)

(LOE: Internal Controls)

2. Does all equipment requiring urgent modifications indicate that modifications have been applied?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 4; Applicable Modification Instructions)

(LOE: Maintenance Production)

3. Does all equipment requiring normal modifications indicate that modifications have been applied?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 4; Applicable Modification Instructions)

(LOE: Maintenance Production)

4. Have all modifications been recorded?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 4; TM 4700-15/1H, Paragraph 2-5; UM 4000-125, Part 4, Chapter 3, Paragraph 1.b and Chapter 5; CMC Message 091558Z Jan 14)

(LOE: Maintenance Information and Reporting)

5. When the application of a modification changes data elements of military equipment (i.e., TAMCN, ID or NIIN) are requests for applicable changes submitted by the RO and the property records adjusted?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 4; MCO 4400.150, Enclosure (1), Chapter 2, Paragraphs 6.c.4 and 6.c.5; Applicable Supply Instruction, Modification Instruction and Automated Message Handling System)

(LOE: Property Accountability)

FY-17 FSMAO CHECKLIST

Calibration Control

1. Is all equipment requiring calibrations included in the Calibrations and Maintenance Program (CAMP)?

(Reference(s): MCO 4733.1C; MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 5.d; TI 4733-OD/1, Paragraph 5; TI 4733-OD/21; TI 4733-OD/11A; UM 4000-125, Part 4, Chapter 6, Paragraph 1)

(LOE: Maintenance Program and Resource Management)

2. Does the calibration program contain complete and accurate information?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 5.b; TI 4733-OD/1; TI 4733-OD/10; UM 4000-125, Part 4, Chapter 6 and Appendix E; MMSOP/MMPL)

(LOE: Maintenance Program and Resource Management)

3. Has Test Measurement and Diagnostics Equipment (TMDE) requiring calibration been submitted to the calibration facility?

(Reference(s): MCO 4790.2, Enclosure (1), Chapter 4, Paragraph 5; TI 4733-OD/1; TI 4733-OD/10; UM 4000-125, Part 4, Chapter 3, Paragraph 1.b and Chapter 6; MMSOP/MMPL)

(LOE: Maintenance Program and Resource Management)

4. Is TMDE designated as Calibration Not Required (CNR) or INACTIVE used within its calibration status?

(Reference(s): MCO 4733.1C; TM 4700-15/1H, Paragraph 2-7.d; UM 4000-125, Appendix E (Calibration Status Codes))

(LOE: Maintenance Program and Resource Management)