



UNITED STATES MARINE CORPS

2D MARINE AIRCRAFT WING
U. S. MARINE CORPS FORCES, ATLANTIC
POSTAL SERVICE CENTER BOX 8050
CHERRY POINT, NC 28533-0050

WgO 4790.7I
ALD
FEB 01 2008

WING ORDER 4790.7I

From: Commanding General
To: Distribution List

Subj: MAINTENANCE DATA SYSTEM (MDS) AND 3M SUMMARY REPORTING
REQUIREMENTS

Ref: (a) CNAFINST 4790.2
(b) WGO 3501.4C
(c) OPNAVINST 5442.4M

Encl: (1) MALS/Squadron Monthly 3M Summary

1. Situation. To establish procedures for the reporting of Naval Aviation Maintenance and Material Management (3M) System statistical data for all units within the 2d MAW and provide standardized formats and guidelines for the submission of a monthly MDS per references (a) through (c).

2. Cancellation. WgO 4790.7H.

3. Mission. Reference (a) contains policy and procedures for the operation of the Naval Aviation Maintenance program and includes all phases of the documentation subsystem. The program is directed by the Chief of Naval Operations and administered through the operational chain of command.

a. The 3M system, through accurate documentation, is a timely reporting and trend analysis designed to provide the management tool required for efficient and economical utilization of human and material resources for the performance of aircraft maintenance. Local management benefits derived from this system are directly proportional to the local effort expended in the accurate reporting and utilization of available 3M data.

b. Deviations from the documentation procedures outlined in reference (a) are not authorized. Recommended changes/revisions for the improvement of 3M documentation procedures are encouraged and may be submitted per reference (a).

c. This instruction relates to the MDS and submission of MDS data via a monthly 3M summary listed in the enclosure.

d. All organizations within 2d MAW responsible for 3M reporting shall give full support to the MDS reporting program. General responsibilities include, but are not limited to, monitoring the MDS program, with emphasis on:

(1) Ensuring accuracy of documentation and expeditious submission of all data generated.

(2) The utilization of data to improve aircraft (ACFT) and support equipment (SE) material condition.

(3) The utilization of data for improving ACFT and SE maintenance procedures through effective management techniques.

(4) Monitoring supply effectiveness in providing rapid response to maintenance material requirements.

(5) Evaluating the adequacy and effective utilization of locally produced 3M reports.

e. Optimized Nalcomis Squadrons should follow order as applicable.

4. Execution.

a. 2d Marine Aircraft Wing

(1) When requested, provide assistance to subordinate units in the preparation of the monthly 3M summary.

(2) Monitor the management of the MDS in all subordinate supplementary 3M training, ensuring the accuracy, legibility, completeness, and timeliness of monthly summaries submitted by subordinate units.

(3) Ensure 79 data received from each Marine Aviation Logistics Squadron (MALS) is forwarded to CNAF (Code N422G4) per reference (a) and (b).

b. Marine Aircraft Groups (MAG)

(1) The MALS analyst shall submit to 2d MAW analysis those 79 cards created during the end-of-month processing, all corrections to the monthly reports within the MAG, and

reason(s)/cause(s) worksheet and expounded letter by type/model/series (T/M/S) not achieving current goals as set forth in reference (c). When submitting the above information, MALS/squadrons should utilize the most efficient means available, (i.e. FAX, E-Mail). The above is to be submitted per guidance established and published in 2d MAW end-of-month closeout message.

(a) If the above time frame cannot be met, the MALS/squadron will send a message to the Commanding General (CG), 2d MAW (ALD-B) stating the reason(s) for the delay.

(2) Ensure MDS detail data produced during the end-of-month processing is forwarded to COMNAVAIRFOR not later than the 5th calendar day of each month per reference (a).

(3) Maintain monthly data reports (MDRs) for a minimum of one year in the form of PC data files on diskette. In addition to the above, the most current three months' reports will be maintained on paper.

(4) Ensure that squadrons assigned to the unit deployment program comply with reference (a) Vol I paragraph 13.5 and info CG 2d MAW (ALD-A) as an information addressee.

(5) Ensure that squadron Commanding Officers and Aircraft Maintenance Officers are prepared monthly to brief all aspects of 3M Monthly Readiness Data to the 2d MAW Commanding General.

5. Administration and Logistics.

a. Organizational Maintenance Activities (OMA)

(1) Submit all corrections to the monthly reports via naval message IAW ref (a) by the close of business on the first calendar day following receipt of MDRs.

(2) Submit all reports required by reference (c) to the MALS analyst IAW CG 2d MAW End-of-Month Closeout message.

(3) The monthly 3M summary will be forwarded to the MALS analyst not later than the fifth working day following receipt of the MDRs, utilizing Enclosure (1) as a guideline. Ensure separate pages are made for each T/M/S where designated. Ensure reports are legible, complete and accurate.

(4) Maintain MDRs for a minimum of one year in the form of PC data files on diskette. In addition, the most current three months of reports will be maintained on paper.

(5) If required, ensure corrections to detail or 79 data are accomplished in a timely manner in order to update central data base files. The above is to be performed per reference (a) if errors were noted on MDRs and require corrections up line.

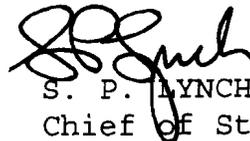
(6) Commanding Officers are responsible for 3M training and timely submission of the monthly 3M summary for their squadron and detachments.

(7) If corrections to previous summaries are required, submit complete corrected page(s). Each page submitted must be dated and clearly marked "CORRECTED COPY" at the top of the page. Each corrected element shall also be clearly identified by the use of an asterisk (*) adjacent to the corrected element.

5. Command and Signal.

a. Command. The provisions of this order are applicable to all units and personnel of 2dMAW.

b. Signal. This Order is effective the date signed.


S. P. LYNCH
Chief of Staff

DISTRIBUTION: A

O LEVEL MAINTENANCE DEPARTMENT PERSONNEL DATA

1. The data on this page is the responsibility of the maintenance chief.
2. Org: Enter the short title (acronym) of the unit being reported (i.e., VMFA-451, VMAQ-2, VMA-542, etc.).
3. Month: Month being reported on.
4. Table of Organization (T/O)
 - a. Number: Enter the actual T/O number listed on the T/O currently being used.
 - b. Date: This is the date listed on the current T/O.
 - c. Authorized: The total number of personnel authorized in the maintenance department by T/O, minus the officers and civilian technical representatives.
 - d. Assigned: The total number of enlisted Marines assigned to the maintenance department as of midnight the last day of the month.
5. Assigned Distribution
 - a. Staff functions: Enlisted personnel assigned to staff billets regardless of rank (i.e., QA, maintenance/material control, work center supervisors, etc.).
 - b. Detail/TAD: Enlisted personnel assigned out of the maintenance department for periods of 30 days or more. Do not include categories such as leave, rifle/pistol range, NAMTRADETS (under 30 days), etc. This includes those maintenance personnel assigned to squadron administration billets such as career planners, drug and alcohol advisors, training, FAPS, etc. TAD would be utilized for personnel attending schools, recruiter assistance, etc.
 - c. Maintenance workers: Enlisted personnel assigned to other than staff billets regardless of rank.
6. Comments: Critical shortages, projected losses if it will affect the maintenance department. Any other comments that are deemed necessary (i.e., detail/TAD breakdown).

O-LEVEL MAINTENANCE DEPARTMENT PERSONNEL DATA

ORG: _____

MONTH: _____

Table of Organization

Number:	_____
Date:	_____
Authorized:	_____
Assigned:	_____

Assigned Distribution

Staff Functions:	_____	_____
Maintenance Workers:	_____	_____
Detail/TAD:	_____	_____

COMMENTS: Critical shortages, projected losses if it will affect maintenance department. Any other comments that are deemed necessary.

MONTHLY 3M NARRATIVE ANALYSIS SUMMARY

1. From: Commanding Officer, Unit Designator
2. To: Commanding General or Commanding Officer
2d Marine Air Wing MAG D esignator
3. Date: Enter month and year
4. Narrative Analysis

Assistance Items: Enter any information that is impacting readiness or personnel and is beyond the scope of the activity and that assistance will be required.

Attention Items: Enter any information that may impact readiness or personnel, but is within scope of the activity to resolve.

Comments: Any other information by the squadron that needs to be noted.

5. The summary will be signed by the squadron Analyst, Aircraft Maintenance Officer, and Commanding Officer.

ENCLOSURE (1)

ACFT READINESS CHART BY T/E

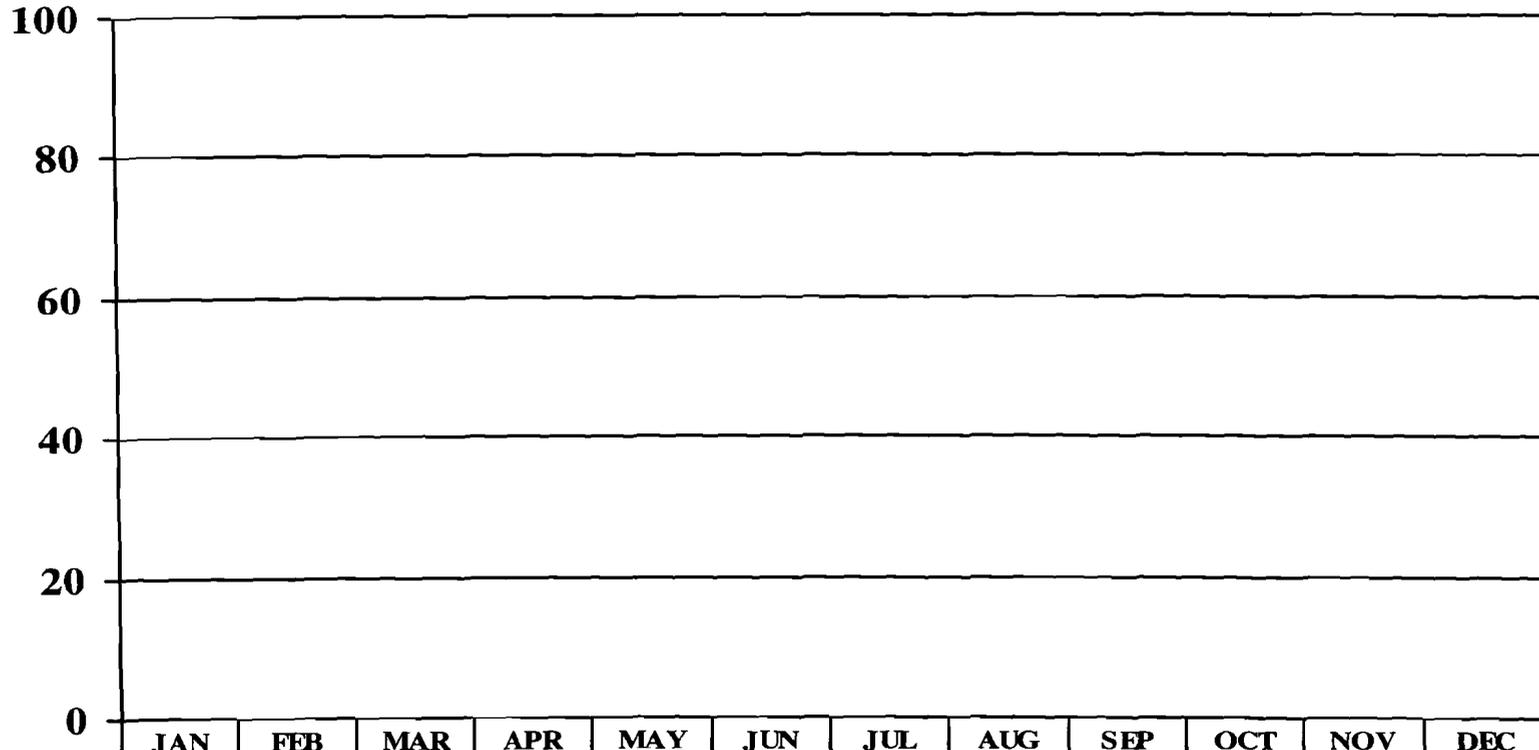
1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC130F, CH46E, etc.).
2. Percent Mission Capable: Obtained by dividing total MC hours by total Equipment-in-Service (EIS) hours.
3. Percent Full Mission Capable: Obtained by dividing total FMC hours by total EIS hours.
4. Percent Not Mission Capable Supply: Obtained by dividing total NMCS hours by total EIS hours.
5. Percent Not Mission Capable Maintenance: Obtained by dividing total NMCM (scheduled and unscheduled) hours by total EIS hours.
6. Percent Partial Mission Capable Supply: Obtained by dividing total PMCS hours by total EIS hours.
7. Percent Partial Mission Capable Maintenance: Obtained by dividing total PMCM hours by total EIS hours.

NOTES:

- a. Utilize the SCIR-3 report to compute the information contained on this chart.
- b. Current established CNO readiness goals, as set forth in reference (b), shall be portrayed for MC and FMC as a footnote.
- c. When updating charts, ensure that 12 months of data are shown and place current months data in the right most column.
- d. In addition to the individual squadron T/M/S readiness charts, each MAG should include a group T/M/S chart.
- e. Include unit designation as a footnote.

ENCLOSURE (1)

AIRCRAFT READINESS CHART BY T/M/S



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
—●— % MC												
—■— % FMC												
% NMCS												
% NMCM												
% PMCS												
% PMCM												

UNIT:

CNO GOALS: MC:
FMC:

ACFT READINESS BY BUREAU NUMBER (BUNO)

1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.).

2. BUNO: List the BUNO of all assigned ACFT regardless of reporting status.

3. Enter the total EIS hours for each BUNO listed.

4. The percentage for each individual BUNO will be displayed for the following categories:

a. Not mission capable maintenance (NMCM). Combined total of scheduled and unscheduled maintenance hours divided by total EIS for each individual ACFT.

b. Not mission capable supply (NMCS).

c. Mission capability (MC).

d. Partial mission capable maintenance (PMCM).

e. Partial mission capable supply (PMCS).

f. Full mission capable (FMC).

g. Flight hours (FLTHRS). Use whole hours, not percentages or decimals.

NOTES:

a. Utilize the SCIR-3 report to compute the information contained on this page.

b. Include unit designation as a footnote.

ENCLOSURE (1)

ACFT UTILIZATION CHART BY T/M/S

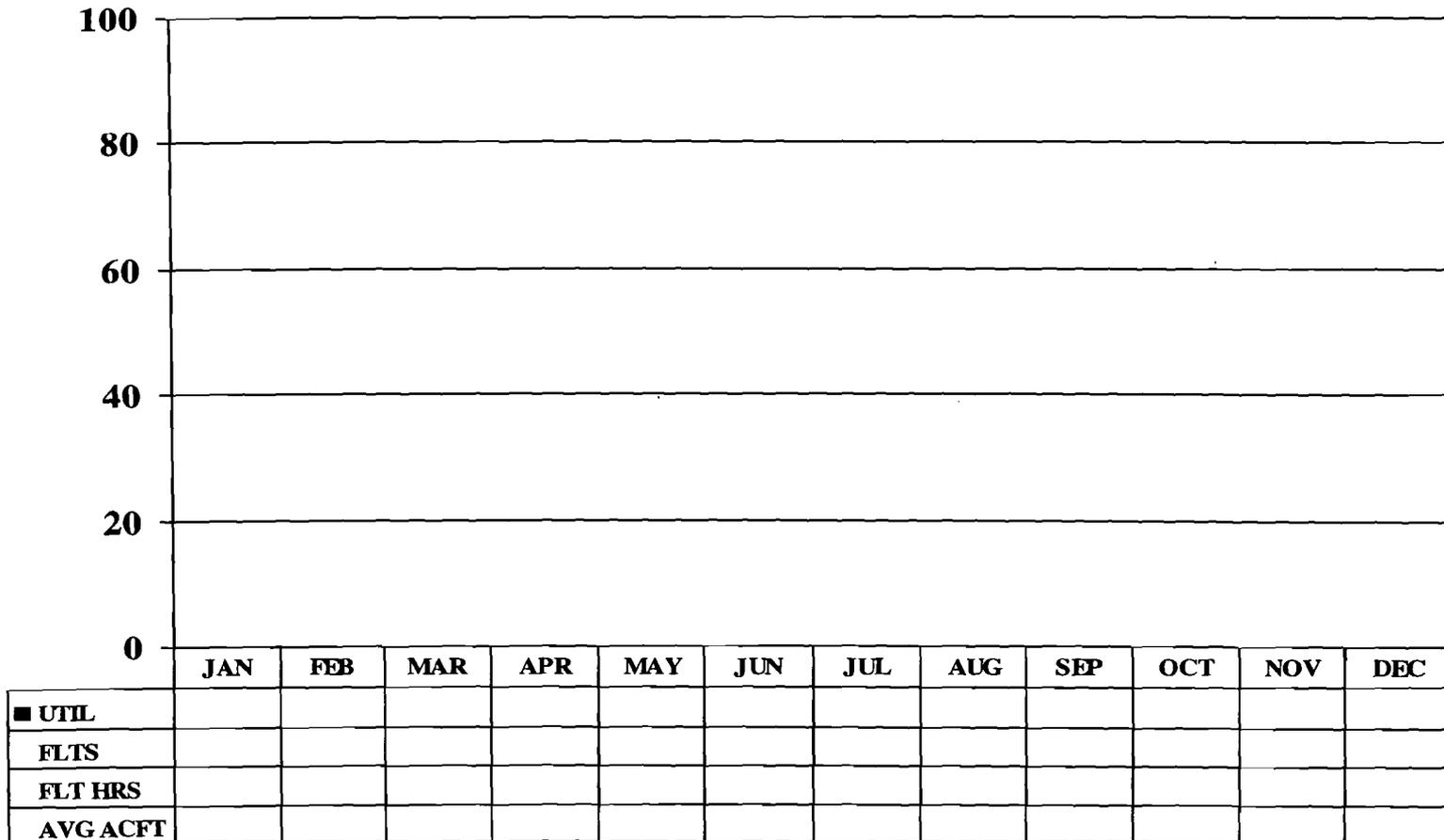
1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.).
2. Average ACFT: Divide the total EIS hours for the type ACFT by the total number of hours in the reporting period.
3. FLTHRS: Use the total whole hours, not percentages or decimals.
4. Flights: Use total number of flights/sorties.
5. ACFT Utilization: Divide total FLTHRS (item 3) by average number of ACFT (item 2).

NOTES:

- a. Utilize the SCIR-3 report to compute the information contained on this chart.
- b. When updating charts, ensure that 12 months of data are shown and place current months data in the right most column.
- c. In addition to the individual squadron T/M/S utilization charts, each MAG should include a group T/M/S chart.
- d. Include unit designation as a footnote.

ENCLOSURE (1)

AIRCRAFT UTILIZATION CHART BY T/M/S



UNIT:

TOP 10 NMC MAINTENANCE AND SUPPLY ITEMS

1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.). Ensure each T/M/S in custody have separate pages.

2. NMC Top 10: List the top 10 items that impacted the MC for this T/M/S. Arrange in descending order based on largest amount of total hours.

a. WUC and total hours: Obtained from the SCIR-5-1.

b. Nomenclature: Utilize the proper work unit code (WUC) manual for type ACFT to define the nomenclature of the WUC.

c. Percent of total subsystem capability impact report (SCIR) hours: Utilize the one star (*) total under the "Z" category for the total SCIR hours to compute the percentage. Round off to the nearest tenth.

d. Percent of maintenance: Divide NMCM (Z category scheduled (SCH) and unscheduled (UNS) hours) by total Z category SCIR utilizing the one star (*) total SCIR hours to compute the percentage.

e. Percent supply: Divide NMCS hours by total SCIR hours. Utilize the one star (*) total under the Z category for the (*) total SCIR hours to compute the percentage.

NOTE: Percent NMCM plus percent NMCS must equal percent SCIR hours. Items d plus e equals item c.

f. Percent awaiting maintenance: To compute this percentage, divide total AWM hours for each selected WUC by the total NMCM hours for each selected WUC.

g. Number of ACFT impacted: Utilizing the SCIR-5-2, count the number of ACFT within the particular T/M/S that were affected by the identified WUC.

h. Total SCIR hours: Obtained from the one star (*) total under the Z category.

i. Include unit designation as a footnote.

ENCLOSURE (1)

TOP 10 NOT MISSION CAPABLE MAINTENANCE AND SUPPLY ITEMS

WUC	NOMENCLATURE	TOTAL HOURS	% OF SCIR HOURS	% MAINT	% SUPPLY	% AWM	NO OF ACFT IMPACTED

TOTAL NMC HOURS:

UNIT:

TOP 10 PMC MAINTENANCE AND SUPPLY ITEMS

1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.).
2. PMC top 10: List the top 10 items that impacted the partial mission capability for this T/M/S. Arrange in descending order based on largest amount of total hours.
 - a. WUC and total hours: Obtained from the SCIR-5-1.
 - b. Nomenclature: Utilize the proper WUC for type ACFT to define the nomenclature of the WUC.
 - c. Percent of SCIR hours: Utilize the one star (*) total under the C thru L categories for the total SCIR hours to compute the percentage. Round off to the nearest tenth (one decimal place).
 - d. Percent of maintenance: Divide PMCM by total SCIR hours utilizing the one star (*) totals under the C thru L categories for the total SCIR hours to compute the percentage.
 - e. Percent supply: Divide PMCS hours by total SCIR hours. Utilize the one star (*) total under the C thru L categories for the total SCIR hours to compute the percentage.
NOTE: Percent PMCM plus percent PMCS must equal percent of SCIR hours. Items d plus e equals item c.
 - f. Percent awaiting maintenance: To compute the percentage, divide total AWM hours for each selected WUC by the total PMCM hours for each selected WUC.
 - g. Number of ACFT impacted: Utilizing the SCIR-5-2, count the number of ACFT within the particular T/M/S that were affected by the identified WUC.
 - h. Total SCIR hours: Obtained from the one star (*) total under the C thru L categories.
 - i. Include unit designation as a footnote.

ENCLOSURE (1)

**TOP 10
PARTIAL MISSION CAPABLE MAINTENANCE
AND SUPPLY ITEMS**

WUC	NOMENCLATURE	TOTAL HOURS	% OF SCIR HOURS	% MAINT	% SUPPLY	% AWM	NO OF ACFT IMPACTED

TOTAL PMC HOURS:

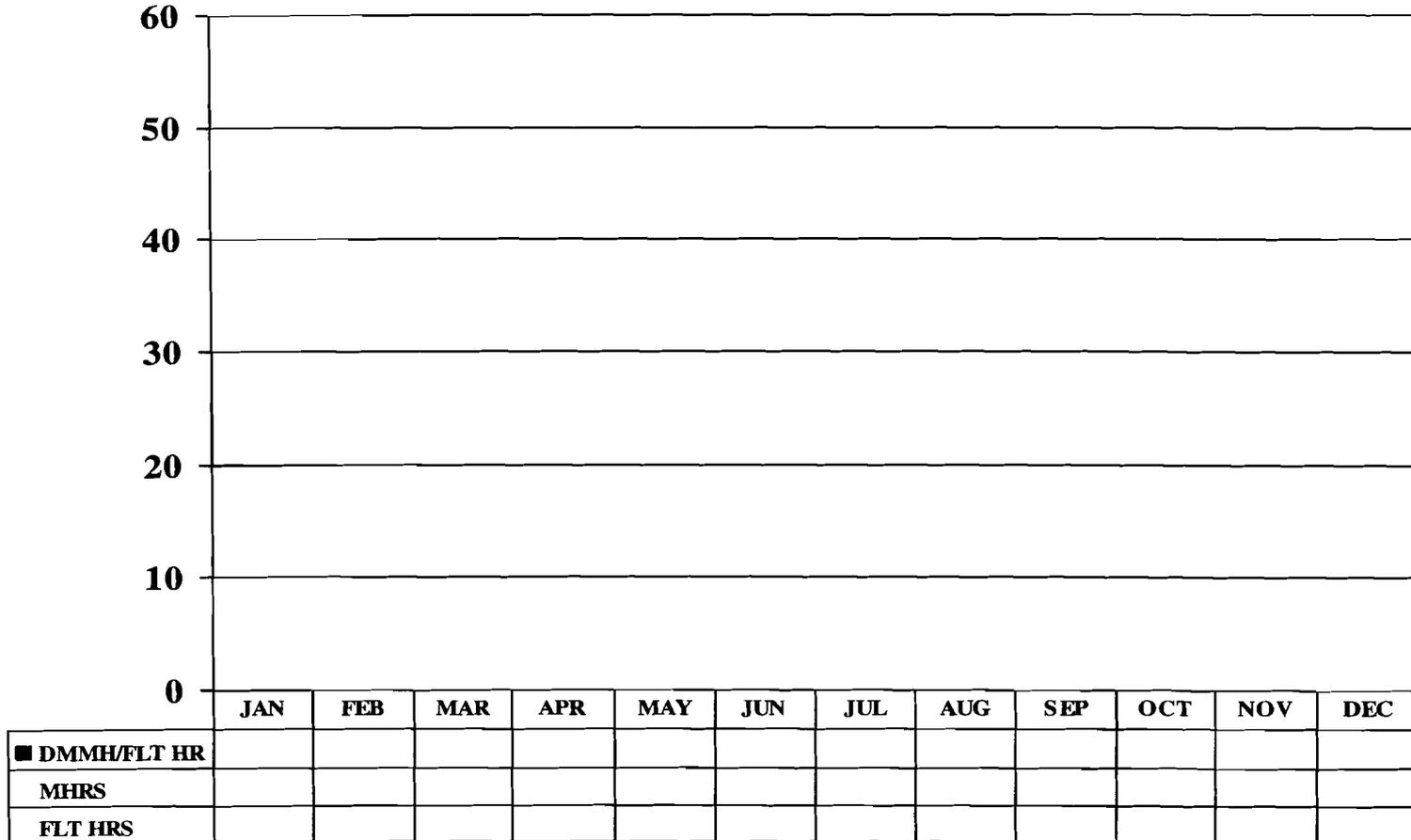
UNIT:

ACFT DMMH/FLTHR CHART BY T/M/S

1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.).
2. Flight hours: Data for this field is obtained from the SCIR-3 report.
3. Total man-hours: Enter the sum of Total Man-hours column from the MDR-5. Enter the tec total for the specific T/M/S.
4. DMMH/FLTHR: This data is computed by dividing total MHRS by the total flight hours.
5. Include unit designation as a footnote.

ENCLOSURE (1)

AIRCRAFT DMMH/FLTHR CHART BY T/M/S



UNIT:

DIRECT MAINTENANCE MANHOURS PER FLTHR BY T/M/S

1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.).
2. BUNO: List the BUNO of all assigned ACFT regardless of reporting status from SCIR-3 report.
3. Unsked maintenance: Enter the total MHRSO for T/M line from the MDR-5 report for type maintenance (TM) B.
4. Phase inspections
 - a. Look: Enter total subsystem line from MDR-5 for TM G with WUC 03 series.
 - b. Fix: Enter the total from MDR-5 with TM G and WUC other than 03 series.
5. Accept/transfer inspection: Enter the total for the subsystems from MDR-5 for TM E.
6. Conditional inspection: Enter the total for TM line from the MDR-5 for TM S.
7. Special inspection: Enter the total for TM line from the MDR-5 for TM D,K,M, or N.
8. TDC: Refer to the MDR-4-1 and enter the (**) total for the BUNO listed in column 1. Use only the MHRSO column of the MDR-4-1 report. When using the MDR-5, it must be screened by BUNO for all TDC (TRCODE 41/47 data) using the MHRSO column only.
9. Total MHRS: Enter the sum of the entries shown in columns 2 through 8. Total must match MDR-5 BUNO total.
10. FLTHRS: Data for this column is obtained from the SCIR-3 report. Use whole hours, no decimals.
11. DMMH per FLTHR: This field is computed by dividing the total MHRS by the total FLTHRS.
12. Include unit designation as a footnote.

ENCLOSURE (1)

AWM REASON CODE PERCENT CHART BY T/M/S

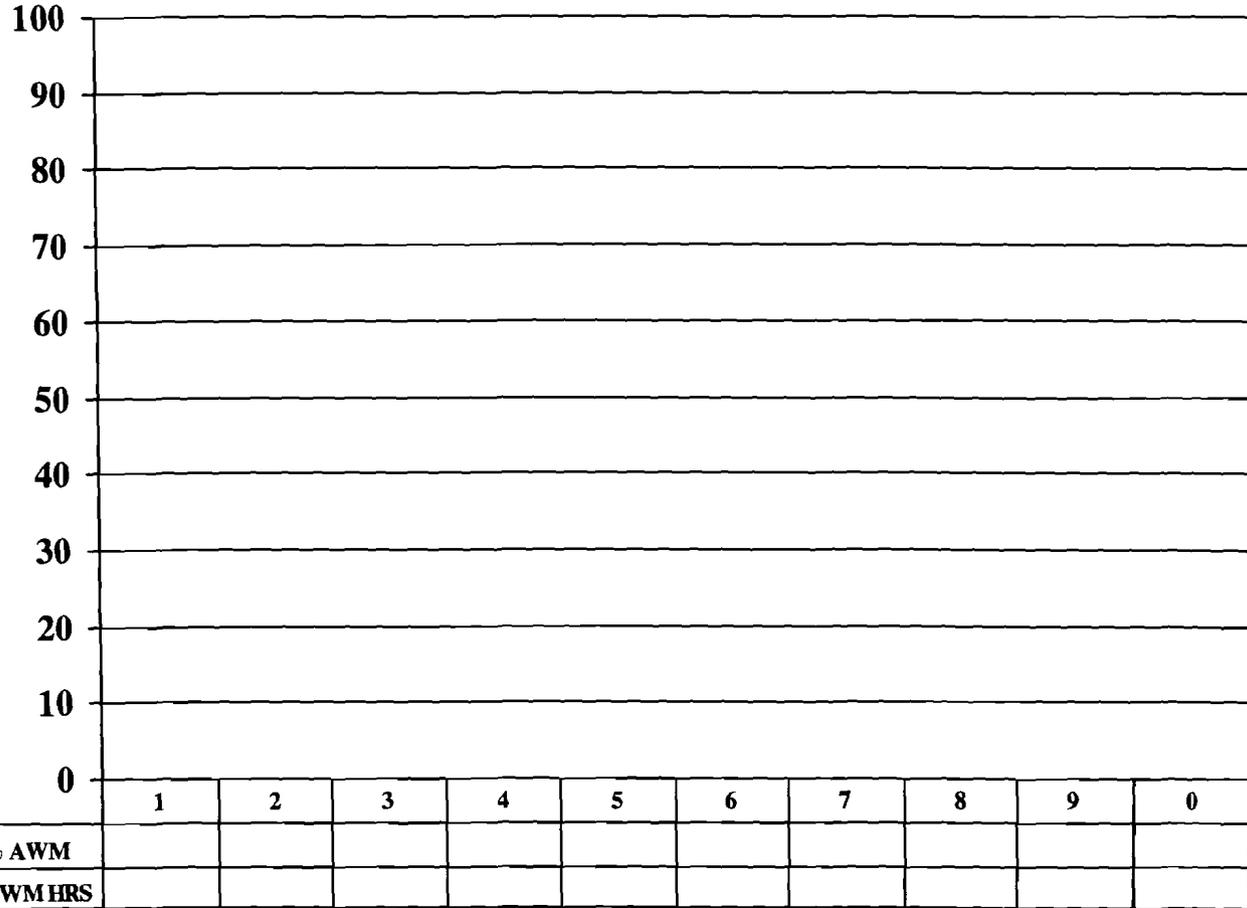
1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.).
 2. Reason code - These codes can be obtained from Appendix N of the NAMP VOL III and are listed horizontally at the top of the SCIR-5-1.
 3. FMC AWM HRS: Utilizing the FMC category AWM one star (*) totals on the SCIR-5-1, list the total AWM HRS for each AWM reason code.
 4. PMC AWM HRS: Utilizing the PMC category AWM one star (*) totals on the SCIR-5-1, list the total AWM HRS for each AWM reason code.
 5. NMC AWM HRS: Utilizing the NMC category AWM one star (*) totals on the SCIR-5-1, list the total AWM HRS for each AWM reason code.
 6. Total AWM HRS: Utilizing the two star (**) totals on the SCIR-5-1, list the total AWM HRS for each AWM reason code.
 7. % OF AWM HRS: This information can be computed by dividing the total AWM hours for each AWM category by the one star (**) total AWM hour's category.
- NOTE: The sum of all percentages shown should equal 100%.
8. Include unit designation as a footnote.

ENCLOSURE (1)

AWM REASON CODE CHART BY T/M/S

AWM REASON CODES

- 1. DEPOT REPAIR
- 2. SE/HANGER/FACILITIES
- 3. BACKLOG
- 4. OFF-SHIFT
- 5. OTHER
- 6. AWTG IMA MAINT.
- 7. FLT OPS
- 8. AWTG OTHER SHOPS
- 9. AWTG FUNDING
- 0. COMPUTER GENERATED



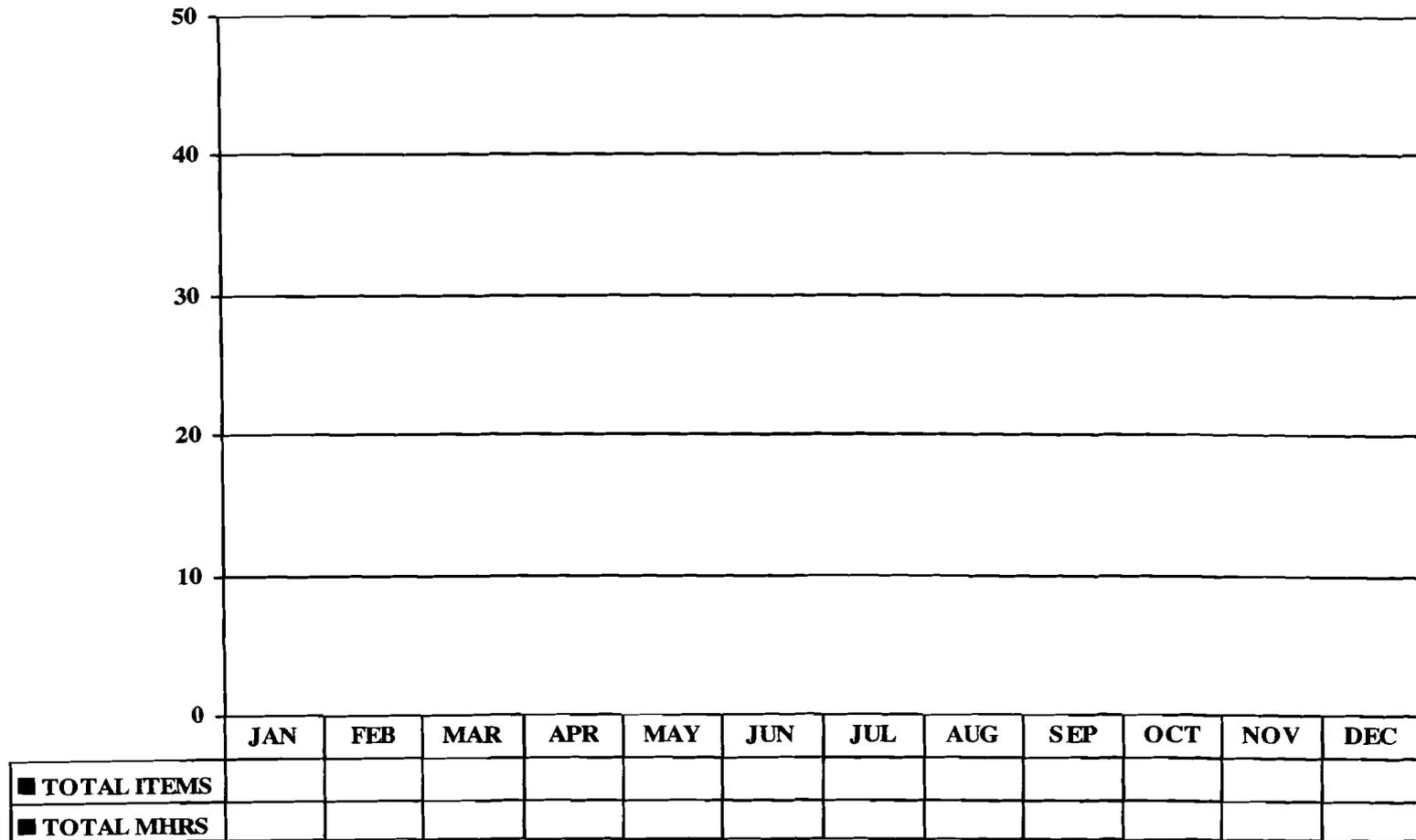
UNIT:

ACFT CANNIBALIZATION CHART BY T/M/S

1. T/M/S - Utilize the actual ACFT designation, not the type equipment code (i.e., AV8B, KC-130F, CH-53E, etc.).
2. Total items: Utilizing the MDR-12 report, enter the total items for malfunction (MAL) codes 812 through 818.
3. Total man-hours: Enter the total cannibalization man-hours found in the MDR-12 for MAL codes 812 through 818.
4. Include unit designation as a footnote.

ENCLOSURE (1)

AIRCRAFT CANNIBALIZATION CHART BY T/M/S



UNIT:

IMA NO DEFECT (A-799) CHART

1. Information portrayed on this chart can be obtained by utilizing the MDR-12 monthly 3M report.
2. A-799 I/P: Enter the total repairable items processed with an A/T code of A and a MAL code of 799.
3. MHRS: Enter the sum of man-hours documented for all repairable IP with an A/T code of A and a MAL code of 799.
4. % of Total IP: This field is computed by dividing the total A-799 IP from the MDR-12 by the total IPs contained on the MDR-7 and displayed as a percentage.

ENCLOSURE (1)

IMA WHEN DISCOVERED Y CHART

1. Information portrayed on this chart can be obtained by utilizing the MDR-13 monthly 3M report.
2. W/D Y IP: Enter the total repairable IPs with a W/D code of Y.
3. MHRS: Enter the sum of man-hours documented for all IP with a W/D code of Y.
4. % of Total IP: This field is computed by dividing the total W/D code Y from the MDR-13 by the total IPs contained on the MDR-7 and displayed as a percentage.

ENCLOSURE (1)

