

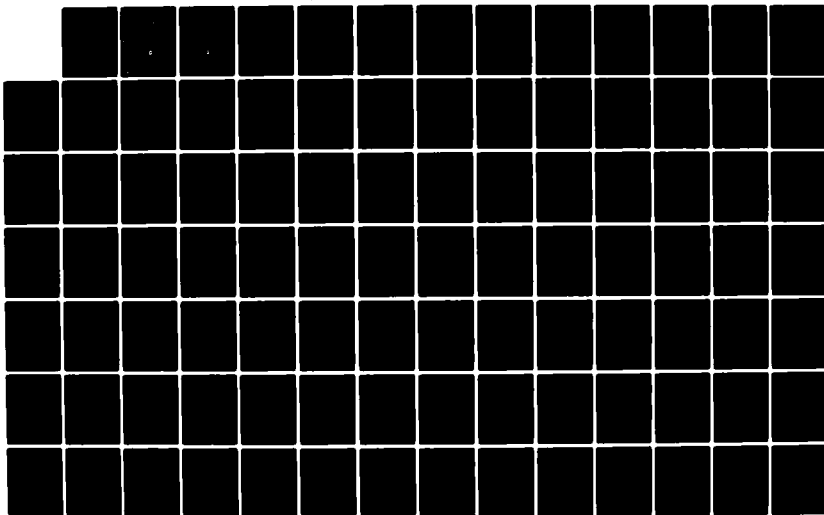
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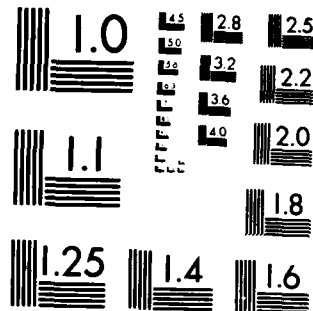
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Concepts Evaluation Model (CEM) Attrition and Calibration Modification I

FINAL REPORT

By:

John E. Shepherd
Tactical Warfare Operations

October 1980

EASTERN TECHNOLOGIES DIVISION

**GENERAL
RESEARCH**



CORPORATION

A SUBSIDIARY OF FLOW GENERAL INC.

7655 Old Springhouse Road, McLean, Virginia 22102

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Submitted To:

Mr. Philip E. Louer
Director, MRCD
US Army Concepts Analysis Agency
Bethesda, Maryland 20014

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FOREWORD

The author is indebted to Mrs. Londin, Dr. Johnsrud, and Maj. Allison of the Concepts Analysis Agency (CAA) for their expert assistance and support with this project. Special recognition goes to Mr. Philip Louer (CAA) for his support and confidence in our efforts.



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1 BACKGROUND

In the fall of 1979 the General Research Corporation (GRC) developed the design specifications¹ to integrate a new combat attrition algorithm into the Concepts Evaluation Model (CEM). It has long been recognized that the use of "firepower potentials," as a basic ingredient of weapon performance in the CEM produced the following:

1. All weapons have an equal capability to engage all targets; thus, the firepower is equally distributed among all targets.
2. In a given engagement type, each weapon expends an expected quantity of ammunition regardless of the quantity of targets.
3. Allocation of fire fails to include variations in target availability.

✓ The principal feature of the new attrition algorithm is its use of battle attrition (killer/victim scores), as generated by a high-resolution model, to calculate attrition for differing combat situations. The particular advantage of using the killer/victim scores is that they reflect the engagement attrition as a function of:

- 1- Target acquisition;
- 2- Fire allocation and ammo expenditure, and
- 3- Target and weapon availability.

In addition, such functions as sensors, intelligence, communications, and weather conditions can be simulated in the high-resolution model and their influence on the battle ²carry² forward to the theater model (CEM) in the killer/victim scores.

¹ John E. Shepherd, Concepts Evaluation Model (CEM) Design Specifications for: (1) Attrition and Calibration, (2) Fixed Fortified Defense, General Research Corporation, 1118-01-79-CR, 1979.

2 SPECIFIC TASKS

→ The objective of this study is to modify the Concepts Analysis Agency's version of the CEM so as to replace its present firepower-driven combat assessment logic with the new killer/victim attrition algorithm:

- a. In accordance with design specifications, previously developed by GRC, develop new and modify existing CEM subroutines as required to incorporate the revised attrition process into the CEM.
- b. Develop a set of representative data inputs for testing and validation of "CEM/ATRIT"; (CEM with the revised attrition process incorporated as stated in (a) above).
- c. Validate the CEM utilizing data input derived in (b) above.



3 CEM MODIFICATIONS

3.1 OVERVIEW

Figure 1 shows the macro flow of the CEM using the new attrition algorithm. Heretofore the CEM battle assessment was built around the weapon's firepower potential for each weapon type, by engagement type. This value was a function of the quantity of expected rounds expended, the lethal area of a round, a correlation coefficient which equated the lethal area to the probability of kill, and a battle intensity factor.

These firepower potentials will continue to be used by the CEM in the situation estimation; or until such time as a more desirable method is developed. The absence of a methodology (high-resolution model) to generate the killer/victim scores for the artillery DS, GS, and counter-battery, and the air models' close air support has necessitated the continued use of the firepower potentials for these functions of the battle assessment.

Two new sources of data are now required for the CEM. As shown in Fig. 1, the principal changes to the CEM input data come from a high-resolution model (COSAGE). It is, therefore, imperative that the CEM preprocessor scan the input data (CEM scenario and the new attrition algorithm) for inconsistencies. Such inconsistencies include checking for less weapon types being simulated in the high-resolution model than are being input in the CEM scenario. To attempt to simulate a particular weapon in the CEM, not having included said weapon in the high-resolution model would make the killer/victim scores and the fire allocation inputs invalid.

The new attrition algorithm is contained in two new computer programs. The first, Phase 1, inputs the killer/victim scores and the fire allocation from the high-resolution model. Phase 1 computes the target-to-weapon availability and the probability of kill. These two arrays of data are "passed" to a new subroutine (Phase 2) in the CEM main model. This new subroutine computes the combat attrition and ammunition expenditure for each CEM subsector engagement. The reader is

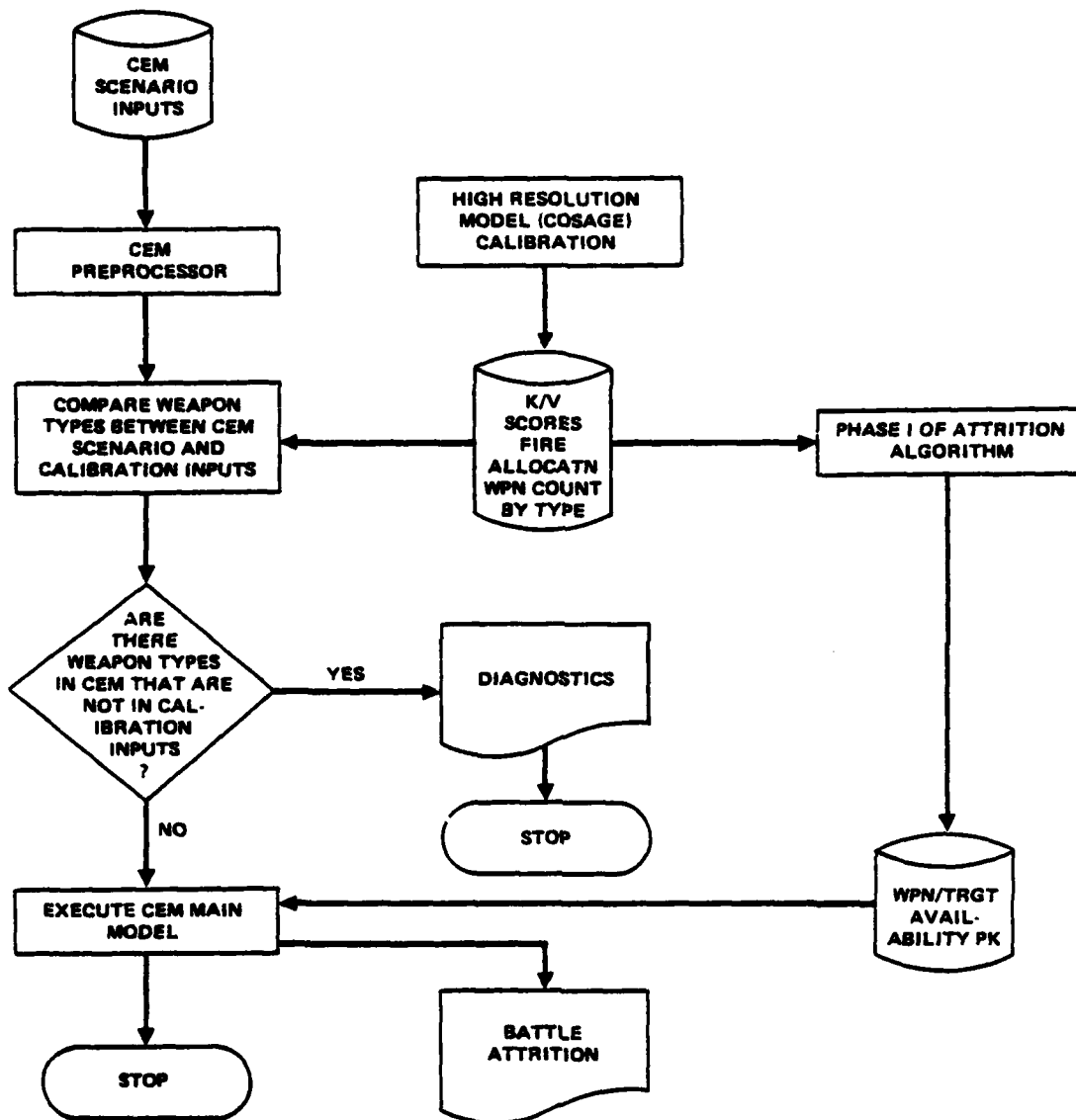


Figure 1. CEM MACRO Flow With New Attrition Algorithm

directed to a previously published report on the new attrition algorithm for a more definitive description of this process.

Due to the current constraints of the CAA UNIVAC 1108 computer (availability memory) the quantity of different weapon types available to each side (Blue/Red) was constrained to three types in each major weapon category¹ i.e., three types of tanks, three types of APCs, three types of helicopters, and three types of AT/M. Each weapon type may have up to two different types of tubes (guns), a main and a secondary. When CAA's new UNIVAC computer becomes available, this limitation can be changed to the normal CEM weapon count of 12 tank types, 12 APC types, 5 helicopter types and 12 AT/M types; this depending on availability of computer memory to the CEM. Assuming the computer memory is adequate, the CEM could account for ammunition by tube type and weapon type.

3.2 PREPROCESSOR

The following section describes the changes to each subroutine in the CEM preprocessor (see Appendix C for a computer listing of these subroutines). To assist the reader in identifying the FORTRAN code changes to the CEM:

- a. Each new/modified statement is commented "@ K/V month-year."
- b. A solid vertical bar drawn in the left-hand margin.

Subroutines requiring modification are: PKLOG, PKSTFL, RDRDIV, RUNSEC, STFILE, UNTSEC, WPNDAT.

SUBROUTINE: PKLOG

This subroutine packs the logistical items due to arrive in theater by theater cycle. This subroutine was modified to input the direct fire

¹ Existing CEM logic which permitted up to 12 types of tanks, 12 types of APCs, 5 types of helicopters, and 12 types of AT/Ms per side remains. Should the new CAA computer have adequate memory to expand the new attrition logic to 41 weapon types, only the new attrition logic will require modification.

weapons' ammo (in rounds in lieu of tons) in units of 1000 rounds per theater cycle (max 2,097,151 rounds).

SUBROUTINE: PKSTFL

This subroutine packs the data entries¹ in each unit's status/file. The ammo is packed to the nearest 10 rounds, (max 1,048,575 rounds) for type 1 and type 2 ammo.

SUBROUTINE: RDRDIV

This subroutine inputs the Red division data and forms its status file. The WPNBUF array size was changed² from (64,12,8) to (46,3,8).

SUBROUTINE: RUNSEC

This subroutine inputs the "run" control parameters and as print options, quantity of weapons types, etc. per side. This subroutine was modified to compare the quantity of weapon types used to generate the killer/victim scores to the quantity being input to the CEM processor. Should there be less weapon types used to generate the killer, victim scores than input to the CEM--an error exists. At present only an error comment is listed in the CEM preprocessor output listing.

Should it be desired to have the CEM automatically call (execute) phase 1 of the new attrition algorithm, this is so noted as a comment statement in this subroutine.

SUBROUTINE: STFILE

This subroutine formulates a unit's status file. Two changes were made to this subroutine: (1) the size of the array WPNBUF was changed from (64,12,8) to (46,3,8), (2) the unit status file now contains the quantity of ammo by tube type 1 and 2 presently on hand. The authorized level is computed by multiplying the quantity of authorized weapons by the TOE stowed load by weapon type and tube type.

¹ See Appendix A, STAFIL.

² See Appendix A, WPNBUF.

SUBROUTINE: UNTSEC

This subroutine inputs the data description for each weapon and battalion type. Changes are:

- (a) The array DESTR (7,12,2,2) which contains the percent of those weapons hit which are totally destroyed includes personnel as a weapon category--here before it did not. (See Appendix A for array description.)
- (b) The array WPNBUF has been redefined as (46,3,8).
- (c) The stowed ammo load by tube type per vehicle is stored in the array WPNBUF. Other changes to the WPNBUF items such as the location of each item within this array are set to this subroutine.
- (d) The full TOE firepower (AT, ALA, AP) for each weapon type is computed here using the meeting engagement firepower by tube type. This number is used later to compute the full TOE firepower of a unit which is the denominator in the unit's "state" computations.

SUBROUTINE: WPNDAT

This subroutine inputs the weapon characteristics and computes the firepower for a meeting engagement by tube type, for each weapon type. Changed to use the firepower by tube types to compute the full TOE firepower of a unit.

3.3 MAIN MODEL

The following section describes the changes to each subroutine in the CEM main model. See Appendix C for a computer listing of these subroutines.

Subroutines requiring modifications or new subroutines are:

ARTDEC	EXCHG	PQMOD
ASSESS	GIVART	RARTS
CASL	HELOSS	READAT
CRQMNT	MATSUM	RESLOS
DDEND	MYOUT	STAMAT
DDSUP	NDSUPY	SUMART
DECRMT	PHASE2	TNKAPC
DECSUP	PKSTFL	

SUBROUTINE: ARTDEC

This subroutine decrements an artillery unit's status file as a function of its expenditures and losses. The arrays RQMNTS and RQMNTX were changed to account for expenditures of ammo by direct fire weapons tube types 1 and 2. As a result the entity locations of the artillery ammo and tube types were shifted. This location shifting of the artillery data required new subscript notations (see Appendix A).

SUBROUTINE: ASSESS

This subroutine controls the combat assessment logic. Changes are:

- a. Initialization of arrays used in the assessment logic.
- b. In each subsector engagement up to 3 separate Blue units may be involved--Bde, Div Air Cav, and the Corps Air Cav. Each unit has its own "on-hand" ammo supply by tube type, therefore, each weapon engaged may be constrained by ammo stowed load of its parent unit's available ammo. Ammo expenditures must be proportioned to each unit depending on the amount stowed (legally expendable) on each weapon (shooter).
- c. This subroutine executes phase 2 of the new attrition algorithm (computes ammo expenditure and weapons hit).

SUBROUTINE: CASL

This subroutine controls the computation of which weapon hit are totally destroyed, repairable, and abandoned. Personnel WIA, DNBI, CMIA, KIA are also computed in this subroutine. Changes are proportioning expenditures by ammo and losses/hits among the units in the engagement. The subroutine HELOSS, which here before used separate computations to compute the helicopter loss, is no longer required. The killer/victim scores now drive the combat assessment logic.

SUBROUTINE: CROMNT

This subroutine computes the unit requirements for weapons, personnel, POL, ammo tubes 1 & 2, and other supplies for a unit and the theater by side. Changes to this subroutine are to account for the two tube types of ammo in the unit and theater requirements arrays.

SUBROUTINE: DDEND

This subroutine controls the resupply to each unit. The changes in this subroutine were to account for the two types of ammo (tubes) now permitted in the CEM. Resupply ammo is entered into the CEM as one number representing both types of ammo to the nearest 1000 rounds. This resupply ammo is divided among the two tube types in proportion of the total theater requirement by side and tube types.

SUBROUTINE: DDSUP

This subroutine allocates resupply resources, weapons, personnel, ammo (by tube type), POL and other supplies, to Blue Corps and divisional air cavalry units. The changes to this subroutine were to account for the two types of ammo in the unit and theater requirements arrays.

SUBROUTINE: DECRMT

This subroutine decrements the expenditures and losses from a unit's status file. Changes to this subroutine were to account for the two types of ammo in the unit and theater requirements arrays.

SUBROUTINE: DECSUP

This subroutine gives men and equipment to Red decimated divisions. Changes to this subroutine were to account for the two types of ammo in the unit and theater requirements arrays.

SUBROUTINE: EXCHG

This subroutine computes the substitution rate between weapon types. The changes were to account for the tube type 1 & 2 ammo subscripting.

SUBROUTINE: GIVART

This subroutine computes and allocates the resupply to the artillery battalions. The changes were to account for the tube type (1&2) of ammo in resupply/requirement computations.

SUBROUTINE: HELOSS

This subroutine is no longer required--DELETED--see write-up on subroutine ASSESS.

SUBROUTINE: MATSUM

This subroutine forms the outcome firepower matrix for both the estimation and engagement assessment logic. The engagement outcome assessment is now computed using the killer/victim scores. That portion of the engagement outcome matrix which uses the firepower scores for the artillery and close air support remains. All other direct fire weapons logic has been deleted.

SUBROUTINE: MYOUT

This subroutine computes the numerical engagement outcome for the estimation logic only. The execution of this subroutine during the battle assessment logic, set for the numerical outcome to a DRAW for the QUIET engagement only.

SUBROUTINE: NDSUPY

This subroutine resupplies the nondivisional artillery battalions. Changes to this subroutine were to keeping track of the ammo by tube type 1 and 2 for the theater shortage computations.

SUBROUTINE: PHASE2 (new subroutine)

This subroutine computes the rounds expended and the hits by whom and against whom by tube type. It also computes the numerical engagement outcome.

SUBROUTINE: PKSTFL

This subroutine packs the data in a unit's status file. The change is to pack the "on-hand" ammo for tube types 1 and 2.

SUBROUTINE: PGMOD

This subroutine computes the constraint due to shortages of ammo, POL or other supplies. The change is to include both tube types of ammo in lieu of just one type of ammo in the ammo constraint computations.

SUBROUTINE: RARTS

This subroutine computes the resupply requirements for artillery. The change was to redesignate the proper subscript in the unit and theater requirements array due to the addition of the two types of ammo.

SUBROUTINE: READAT

This subroutine inputs data from the CEM preprocessor to the CEM main model. The changes are to input from phase 1 of the attrition algorithm the quantity of weapons, by type, used by the high resolution model to generate the killer/victim scores. Also input, from phase 1, is the probability of kill for the ith type weapon killing the jth type target and the availability of the jth type target to the ith type weapon.

SUBROUTINE: RESLOS

This subroutine computes the losses and expenditures for a reserve unit. Changes are to account for two types of ammo in the unit and theater requirements arrays.

SUBROUTINE: STAMAT

This subroutine computes the sum, by unit and side, of the weapons, by type, engaged in an engagement. It also recomputes a unit's state (present firepower/TOE firepower) after the unit is resupplied.

SUBROUTINE: SUMART

This subroutine sums the artillery battalion requirements for resupply. Change is due to accounting for two types of ammo which required redimensioning of the requirements (RQMNTX, RQMNTS) arrays.

SUBROUTINE: TNKAPC

This subroutine computes the kills (given the hits computed in phase 2) and the total breakdowns, abandoned, repairable by unit and weapon type.

4 SUMMARY COMMENTS

This study was limited to the direct-fire weapons (tanks, APCs, helicopters, AT/Ms, and personnel). This limitation was imposed due to:

- a. Currently available computer memory at CAA.
- b. The direct-fire weapon attrition was the most logical subset due to the previously developed attrition algorithm and available data (killer/victim scores).
- c. Uncertainty of the algorithm to define the attrition by indirect-fire weapons (artillery and close air support) to reserve and counter-battery targets.

APPENDIX A

NEW AND/OR MODIFIED VARIABLE AND ARRAY DEFINITIONS

<u>VARIABLE</u>	<u>PAGE</u>
WPNBUF	17
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XTANK, XAPC, XATM, XHELO	38
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LOSSES	40
SUMWPN, AMOSTO, UNTWPN	41
THITS, ARTAIR, AMOEXP	42
COLOR, F, AP, KL, Q, E, V, A, P. D	43

1. VARIABLE NAME: WPNBUF (i,j,k)
SIZE: (46,3,8)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The WPNBUF array contains the performance characteristics for each weapon type. This information is used during the battle assessment and resupply phases of the CEM execution.
 - b. Data Entry Definitions:

i =

 - (1) Quantity of personnel in each weapon crew.
 - (2) Quantity of casualties in crew given a hit.
 - (3) Quantity of (2) which are WIA.
 - (4) Enemy AP IFP/minisector which causes 50% suppression of this weapon.
 - (5) Enemy AP IFP/minisector which causes 100% suppression of this weapon.
 - (6-7) Not used.
 - (8) Percent helicopters hit which may be retrieved.
 - (9-10) Not used.
 - (11-12) AT IFP/weapon in a ME for tube types 1 & 2.
 - (13-14) ALA IFP/weapon in a ME for tube types 1 & 2.
 - (15-16) AP IFP/weapon in a ME for tube types 1 & 2.
 - (17-18) POL constraint (P&Q) if POL < requirement.
 - (19-27) POL expended (tons/12 hours) in BAD, ..., RESERVE.
 - (28) Ammo full TOE stowed load for tube type 1.
 - (29) Ammo full TOE stowed load for tube type 2.
 - (30-31) OTHER supply constraint (P&Q) if OTHER supplies < requirements.
 - (32-40) OTHER supplies expended (tons/12 hours) in BAD, ..., RESERVE.
 - (41) Fraction of breakdown/12 hours.
 - (42) Fraction of breakdown repairable.
 - (43-44) Ammo consumption for tube type 1 & 2 for a quiet engagement.

(45-46) Ammo consumption for tube type 1 & 2 for a reserve unit.

j = 1-3 up to (3) three different weapon types in each major weapon category; tanks, APCs, helicopters & AT/Ms.

k = 1-4 Blue: 1=tanks, 2=APC, 3=helicopters, 4=AT/M.
5-8 Red: 5=tank, 6=APC, 7=helicopter, 8=AT/M.

c. Miscellaneous: For example, the quantity of ammo of tube type 1 for Red tank type 3 and full TOE stowed load is:

WPNBUF (28,3,5)

1. VARIABLE NAME: FIRALC (i,j,k) CEM PROC
SIZE: (26,2,26)

2. ARRAY SPECIFICATIONS:

a. General Description and Usage: The array FIRALC contains, the quantity of rounds fired by the (i)th type weapon, (j)th type tube, against the (k)th type target. This array is input to the new attrition algorithm (PHASE I) from the high resolution model (COSAGE) engagement.

It is recomputed in PHASE II of the new attrition algorithm based on the CEM engagement weapon mix.

b. Data Entry Definitions:

- i = (1-3) Blue tank types 1, 2 & 3; (weapon).
(4-6) Blue APC types 1, 2 & 3; (weapon).
(7-9) Blue Helicopter types 1, 2 & 3; (weapon).
(10-12) Blue AT/M types 1, 2 & 3; (weapon).
(13) Blue personnel,
(14-26) Red weapon.
- j = (1) Tube type 1
(2) Tube type 2.
- k = (1-3) Blue tank types 1, 2 & 3; (target).
(4-6) Blue APC types 1, 2 & 3; (target).
(7-9) Blue Helicopter types 1, 2 & 3; (target).
(10-12) Blue AT/M types 1, 2 & 3; (target)
(13) Blue Personnel
(14-26) Red targets.

1. VARIABLE NAME: PRBKIL (i, j) CEM PROC
SIZE: (52,26)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array PRBKIL contains the fraction of time (assessment cycle) that the (i)th type weapon can shoot at the (j)th type target. This value is computed in Phase I of the attrition algorithm based on the inputs from the high resolution model (COSAGE). This array is "passed" to Phase II of the attrition algorithm via file (14).
 - b. Data Entry Definitions:
 - i = (1-3) Blue tank types 1-3; (weapons).
 - (4-6) Blue APC types 1-3; (weapons).
 - (7-9) Blue helicopters types 1-3; (weapons).
 - (10-12) Blue AT/M types 1-3; (weapons).
 - (13) Blue Personnel (weapons).
 - (14-26) Red weapons.
 - j = (1-3) Blue tank types 1-3; (targets).
 - (4-6) Blue APC types 1-3; (targets)
 - (7-9) Blue helicopter types 1-3; (targets).
 - (10-12) Blue AT/M types 1-3; (targets).
 - (13) Blue personnel (targets).
 - (14-26) Red targets.

1. VARIABLE NAME: KILLMX (i,j,k) CEM PROC
SIZE: (26,2,26)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array KILLMX contains the quantity of the (k)th type targets hit by the (i)th type weapon, (j)th type tube. This value is computed in PHASE 2 of the new attrition algorithm.
 - b. Data Entry Definitions:
 - i = (1-3) Blue tank types 1-3; (weapons).
(4-6) Blue APC types 1-3; (weapons).
(7-9) Blue helicopter types 1-3; (weapons).
(10-12) Blue AT/M types 1-3; (weapons).
(13) Blue personnel (weapons).
(14-26) Red weapons.
 - j = (1) Tube type 1
(2) Tube type 2.
 - k = (1-3) Blue tank types 1-3; (targets).
(4-6) Blue APC types 1-3; (targets).
(7-9) Blue helicopter types 1-3; (targets).
(10-12) Blue AT/M types 1-3; (targets).
(13) Blue personnel (targets).
(14-26) Red targets..

1. VARIABLE NAME: ATRTN (i,j,k) CEM PROC
SIZE: (26,13,2)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: Same as KILLMX; (hits by (i)th weapon on (j)th target.
 - b. Data Entry Definitions:
 - i = (1-26) Tube type 1, Weapon type 1, ..., tube type 2, weapon type 13; (weapon).
 - j = (1-13) Target weapon type 1-13.
 - k = (1) Blue weapon.
(2) Red weapon.

1. VARIABLE NAME: RATE (i) CEM PROC
SIZE: (52)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array RATE contains the quantity of rounds, full TOE stowed load, by weapon and tube type. These values are derived for each weapon type from the array WPNBUF.
 - b. Data Entry Definition:
 - 1 = (1) Tube type 1 tank type 1, (Blue).
 - (2) Tube type 2 tank type 1, (Blue).
 - (3) Tube type 1 tank type 2, (Blue).
 - (4) Tube type 2 tank type 2, (Blue).
 - .
 - .
 - .
 - (26) Tube type 2 Personnel,* (Blue).
 - (27-52) Red ammo stowed load.

* Personnel shoot only tube type 2.

1. VARIABLE NAME: QNTRND (1) CEM PROC
SIZE: (26)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array QNTRND contains the target priority for a given weapon. This value is computed in PHASE II of the new attriton algorithm.
 - b. Data Entry Description:
i = (1-26) Weapon types

1. VARIABLE NAME: VNBR (1) CEM PROC
SIZE: (52)

2. ARRAY SPECIFICATIONS:

a. General Description and Usage: The array VNBR contains the average quantity of weapon by weapon/tube type (1). This is computed in PHASE II of the new attrition algorithm.

b. Data Entry Description:

i = (1-52) Tube 1, weapon 1
tube 2, weapon 13 Blue,
tube 3, weapon 13 Red.

1. VARIABLE NAME: EXPNDR (i,j) CEM PROC
SIZE: (26,2)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array EXPNDR contains the quantity of ammo expended by the (i)th weapon/tube type by side (j). This is computed in PHASE II of the new attrition algorithm.
 - b. Data Entry Description:

i = (1-26) tube type 1, weapon type 1, ..., tube type 2, weapon type 12.

j = (1) Blue
(2) Red.

1. VARIABLE NAME: VVV (i, j) CEM PROC
SIZE: (26,2)

2. ARRAY SPECIFICATIONS:

a. General Description and Usage: The array VVV contains the intrinsic value of the (i)th weapon, by tube type (j).

1. VARIABLE NAME: STAFIL (i,j) CEM PROC
SIZE: (139, 4)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The STAFIL array contains personnel IFP's, supply requirements and other current unit status information for 139 data items. This array will contain current unit status data only during the battle assessment phase of the CEM's execution.
 - b. Data Entry Definition: (j) 1 = Blue Online Bde, 2 = Red Online Div, 3 = Blue Online Air Cav Unit associated with the Blue brigade's headquarters corps, 4 = Blue divisional air cav unit.
 - c. Data Items:
 - (1-2) Authorized and actual personnel, excluding crews.
 - (3-9) AT IFP/man for BAD, BAPD, BAHD, ME, RAHD, RAPD, RAD engagements.
 - (10-16) ALA IFP/man for BAD, BAPD BAHD, ME, RAHD, RAPD, RAD engagements.
 - (17-23) AP IFP/man for BAD, BAPD, BAHD, ME, RAHD, RAPD, RAD engagements.
 - (24) Troop condition.
 - (26-26) Authorized and actual tons of POL.
 - (27-35) POL tons expended/man for BAD, ..., RAD, STATIC, RESERVE.
 - (36) Rounds of tube type 1 ammunition on hand.
 - (37) Rounds of tube type 2 ammunition on hand.
 - (38-46) Ammo rounds expended/man for BAD, ..., RAD, STATIC, RESERVE.
 - (47-48) Authorized and actual OTHER supply tons.
 - (49-57) OTHER supply tons expended/man for BAD, ..., RAD, STATIC RESERVE.
 - (58-81) Authorized and actual quantities of tank types 1, 2, ..., 12.

(82-105) Authorized and actual quantities of light armor
(APC) types 1 12.

(106-115) Authorized and actual quantities of helicopters
types 1 12.

(116-139) Authorized and actual quantities of AT/M types
1 12.

d. Miscellaneous. Each call to the subroutine "UPSTEL" will
unpack these 139 entries.

UNPACK:

CALL UPSTFL (IBDE, ISIDE)

where: IBDE = index of unit

ISIDE = see Data Entry Definition

PACK:

CALL PKSTFL (IBDE, ISIDE) parameters same as UPSTFL

1. VARIABLE NAME: AVTIME (1,j) CEM PROC
SIZE: (52, 26)

2. ARRAY SPECIFICATIONS:

a. General Description and Usage: The array AVTIME is the same
as PRBKIL array.

1. VARIABLE NAME: PKILL (i, j) CEM PROC
SIZE: (52,26)

2. ARRAY SPECIFICATIONS:

a. General Description and Usage: The array PKILL contains the probability that the (i)th type weapon hits the (j)th type target/round fired.

b. Data Entry Description:

i = (1-26) Blue tube type 1, weapon type 1, tube type 2,
weapon type 2.

(27-52) Red

j = (1-13) Blue targets

(14-26) Red targets

1. VARIABLE NAME: DPRIOR (i, j) CEM PROC
SIZE: (26,26)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array DPRIOR contains an indicator (zero or one), indicating if there is a higher priority target than the one currently being processed.

1. VARIABLE NAME: COMMON/TRQMNX/RQMNTX (i, j)
SIZE: (6,3)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array RQMNTX is the total requirement for major item (i) by partition (j).
 - b. Data Entry Definitions:
 - i = (1) Personnel
 - (2) POL
 - (3) Ammo tube type 1
 - (4) Ammo tube type 2
 - (5) OTHER supplies
 - (6) Artillery AMMO

1. VARIABLE NAME: COMMON/TRQMNS/RQMNTS (i, j)
SIZE: (52,2)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The RQMNTS array contains the side's (j) shortage of major items and weapons. This is the sum total of all shortages for an assessment cycle for all units by side, (j=1=Blue, 2=Red).
 - b. Data Entry Definitions:
i = (1) Personnel
(2) POL
(3) Ammo tube type 1
(4) Ammo tube type 2
(5) OTHER supplies
(6-17) Tank types 1-12
(18-29) APC types 1-12
(30-34) Helicopter types 1-5
(35-46) AT/M types 1-12
(47-54) Artillery tubes 1-8
(55) Artillery Ammo

1. VARIABLE NAME: COMMON/REQIT/REQUIR (i)
SIZE: (46)

2. ARRAY SPECIFICATIONS

a. General Description and Usage: The REQUIR array contains the unit's shortage of major items and weapons. This is computed only when a unit has completed all of its engagement or at the end of an assessment cycle for reserve units.

b. Data Entry Definitions:

- i = (1) Personnel
- (2) POL
- (3) Ammo tube type 1
- (4) Ammo tube type 2
- (5) OTHER supplies
- (6-17) Tank types 1-12*
- (18-29) APC Types 1-12*
- (30-34) Helicopter types 1-5*
- (35-46) AT/M types 1-12*

*The CEM "normally" will accept up to (12) twelve types of tanks, APCs and AT/Ms and up to (5) five types of helicopters. Due to the present constraint of available computer memory, at CAA, the limit is (3) three types of weapons in each major weapon category. To ease the future expansion to the full CEM capability, when additional computer memory is available, existing CEM weapon counts remain in tact.

1. VARIABLE NAME: COMMON/YCONST/YVALW (i,j,k), YVALP (i)
SIZE: (12,4,2), (4)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array YVALW contains the constraint, if any, due to shortages of either POL, AMMO or OTHER supplies for each weapon type (i) for each unit engaged (j) for each tube type (k). This is computed in subroutine PQMOD.
 - b. Data Entry Definition:
 - i = (1-3) Tanks by type
(4-6) APCs by type
(7-9) Helicopters by type
(10-12) AT/M by type
 - j = (1) Blue Bde
(2) Red Div
(3) Blue Corps Air Cav
(4) Blue Div Air Cav
 - k = (1) Tube type 1
(2) Tube type 2
 - a. General Description and Usage: The array YVALP contains the constraint for personnel due to shortage(s) of POL, AMMO or OTHER supplies. This value is computed in subroutine PQMOD.
 - b. Data Entry Definitions:
 - i = (1) Blue Bde
(2) Red Div
(3) Blue Corps Air Cav
(4) Blue Div Air Cav

1. VARIABLE NAME: COMMON/GRC/AMMO (i)
SIZE: (52)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: This array contains the full TOE ammo load by weapon and tube type. Computed in subroutine READAT, used in subroutine PHASE 2.
 - b. Data Entry Description:

i = (1) Tube type 1, weapon type 1
(2) Tube type 2, weapon type 1
(3) Tube type 1, weapon type 2
.
.
.
(52) Tube type 2, weapon type 13

1. VARIABLE NAME: COMMON/AMOTYP/XTANK (i,j),
XAPC (i,j),
XATM (i,j),
XHELO (i,j)
SIZE: (12,2), (12,2), (13,2), (5,2)

2. ARRAY SPECIFICATIONS:

a. General Description and Usage: These arrays accounted for the ammo expended by weapon type. As a result of the addition of up to 2 tube types these array now account for ammo expenditure by weapon type (i) and by tube type (j).

b. Data Entry Description:

i = (1-12) Weapon type

j = (1-2) Tube type 1 or 2

1. VARIABLE NAME: DESTR (i,j,k,l)
SIZE: (7,12,2,2)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array DESTR contain the percent of the weapons (hit) which are totally destroyed.
 - b. Data Entry Description:
 - i = shooting category
 - (1) tank (5) Personnel
 - (2) APC (6) Arty
 - (3) helicopter (7) CAS
 - (4) AT/M
 - j = target weapon type
 - k = target category
 - (1) tanks
 - (2) APC
 - l = side 1 or 2

1. VARIABLE NAME: COMMON/BIGLOS/LOSSES (i,j)
SIZE: (46,4)
2. ARRAY SPECIFICATIONS:
 - a. General Description and Usage: The array LOSSES contains the losses; damaged, destroyed, lost, and expended, for an engagement by unit engaged. This value is computed in subroutines CASL and TNKAPC.
 - b. Data Entry Definition:
 - i = (1) Personnel
(2) POL (tons)
(3) Ammo tube type 1 (rounds)
(4) Ammo tube type 2 (rounds)
(5) OTHER supplies (tons)
(6-17) Tanks by type
(18-29) APCs by type
(30-34) Helicopters by type
(35-46) AT/M by type
 - j = (1) Blue Bde
(2) Red Div
(3) Blue Corps Air Cav
(4) Blue Div Air Cav

1. VARIABLE NAME: COMMON/WPNCT/SUMWPN (i,j,k)
AMOSTO (i,j,k),
UNTWPN (i,j),
SIZE: (13,2,3), (2,13,2), (13,4)

2. ARRAY SPECIFICATIONS:

SUMWPN

- a. General Description and Usage: The array SUMWPN contains the sum of weapon type (i) on side (j) in the engagement. These values are computed in the subroutine STAMAT.
- b. Data Entry Definition:
 - i = (1-13) weapon type (1-13)
 - j = (1-2) side (Blue, Red)
 - k = (1) count of all weapons
 - (2) count of only weapons which are 100% effective
 - (3)

AMOSTO

- a. General Description and Usage: The array AMOSTO contains the count of rounds by tube type (i), weapon type (j), side (k). This value is computed by subroutine ASSESS.

UNTWPN

- a. General Description and Usage: The array UNTWPN contains the count of weapons, by weapon type (i), by unit (j) in the engagement. This value is computed in subroutine STAMAT
- b. Data Entry Definition:
 - i = (1-13) Weapon type
 - j = (1-4) 1 Blue Bde; 2 Red Div;
3 Blue Corps Air Cav;
4 Blue Div Air Cav

1. VARIABLE NAME: COMMON/AJJS/THITS (i, j)
ARTAIR (i,j),
AMOEXP (i,j)
SIZE: (13,2), (13,2), (26,2)

2. ARRAY SPECIFICATIONS:

THITS

- a. General Description and Usage: The array THITS contains the total hits against the (i)th type weapon on the (j)th side by the enemy direct fire weapons. These values are computed in subroutine PHASE II.
- b. Data Entry Definition:
i = (1-13) Weapon type 1-13
j = (1-2) Side Blue & Red

ARTAIR

- a. The array ARTAIR contains the total hits against the (i)th type weapon on the (j)th side by enemy artillery and CAS. These values are computed in subroutine TNKAPC.
- b. Data Entry Definition:
i = (1-13) Weapon type 1-13
j = (1-2) Side

AMOEXP

- a. General Description and Usage: The array AMOEXP contains the quantity of rounds, by tube, expended by each weapon. These values are computed in subroutine PHASE II.
- b. Data Entry Description:
i = (1-26) Blue weapon type 1, tube type 1 Red weapon
type 13, tube type 2
j = side, 1 = Blue, 2 = Red

1. VARIABLE NAME: Dimension COLOR (2), F (26,2,26), AP (52,26),
KL (26,2,26), Q (26), E (26,2), V (26,2),
A (52,26), P (52,26), D (26,26)

2. ARRAY DESCRIPTIONS:

- a. General Description and Usage:

COLOR (i); Blue or Red, used in report generation to denote side

F (i,j,k); rounds fired by (i)th type weapons, tube type (j) at target type (k)

AP (i,j); average fraction of an assessment cycle that target type (j) is available to weapon type (i)

KL (i,j,k); quantity of targets of type (k) hit/killed by weapon type (i) tube type (j)

Q (i); the priority of target type (i), where Q (i) equals the probability that a weapon can kill target type (i) time target type (i)'s relative importance.

E (i,j); quantity of rounds expended by weapon type (i), tube type (j).

V (i,j); same as VVV

A (i,j); same as AP

P (i,j); probability that the (i)th type weapon hits/kills the (j)th type target.

D (i,j); same as DPRIOR.

APPENDIX B
MODIFIED CARD INPUT FORMATS

<u>CARD DESCRIPTION</u>	<u>PAGE</u>
Weapon Description (Tank)	47
Weapon Description (Light Armor)	48
Weapon Description (Helicopter)	49
Weapon Description (AT/M)	50
Destroyed Weapons	51
Weapon Description (AT IFP)	52
Weapon Description (ALA IFP)	53
Weapon Description (AP IFP)	54
Weapon Description (Ammo Rqmnts)	55
Manevuer Bn Type Definition	56

INTENTIONALLY BLANK

WEAPON DESCRIPTION (TANK) CARD (K/V)

FORMAT 2A4,3X,3F5.0, 6F4.2,23X,A3,I5

Col 1-8 "TANKTYPE"
Col 9-10 Blank
Col 11-15 Quantity of personnel in crew
Col 16-20 Quantity of casualties to crew, given a hit
Col 21-25 Quantity of crew casualties wounded, given a hit*
Col 26-33 Not used
Col 34-37 TOE ammo stowed load/weapon, tube type 1***
Col 38-41 TOE ammo stowed load/weapon, tube type 2***
Col 42-45 Breakdowns per 100 weapons engaged
Col 46-49 Percent of breakdowns repairable**
Col 50-72 Optional comments
Col 73-75 Sequence label
Col 76-80 Sequence number

* Crew KIA equals total crew casualties minus crew casualties wounded.

** All other breakdowns are non-repairable and are counted as permanent losses.

*** Rounds.

WEAPON DESCRIPTION (LIGHT ARMOR) CARD (K/V)

FORMAT 2A4,2X,3F5.0,6F4.2,23X,A3,I5

Col 1-8 "LARMTYPE"
Col 9-10 Blank
Col 11-15 Quantity of personnel in crew
Col 16-20 Quantity of casualties to crew, given a hit
Col 21-25 Quantity of crew casualties wounded, given a hit*
Col 26-29 Enemy AP IFP per minisector at which 50 percent suppression of friendly AT firepower is caused.**
Col 30-33 Enemy AP IPP per minisector at which 100 percent suppression of friendly AT firepower is caused**
Col 34-37 TOE ammo tube type 1 stowed load****
Col 38-41 TOE ammo tube type 2 stowed load****
Col 42-45 Breakdowns per 100 weapons engaged
Col 46-49 Percent of breakdowns repairable***
Col 50-72 Optional comments
Col 73-75 Sequence label
Col 76-80 Sequence number

* Crew WIA equals total crew casualties minus crew casualties wounded

** Value for 50 percent suppression < value for 100 percent suppression.
ON/OFF suppression is contained on RUNLIMIT Card

*** All other breakdowns are non-repairable and are counted as permanent losses.

**** Rounds.

WEAPON DESCRIPTION (HELICOPTER) CARD (K/V)

FORMAT 2A4,2X,3F5.0,6F4.2,35X,A3,I5

Col 1-8 "HELOTYPE"
Col 9-10 Blank
Col 11-15 Quantity of personnel in crew
Col 16-20 Quantity of casualties to crew, given a hit
Col 21-25 Quantity of crew casualties wounded, given a hit
Col 26-29 Fraction of helicopters downed that may be retrievable
Col 30-33 Breakdown rate/100 weapons
Col 34-37 Percentage of breakdowns repairable
Col 38-41 TOE ammo tube type 1, stowed load*
Col 42-45 TOE ammo tube type 2, stowed load*
Col 46-72 Optional comments
Col 73-75 Sequence label
Col 76-80 Sequence number

* Rounds.

WEAPON DESCRIPTION (ANTITANK, MORTAR) CARD (K/V)

FORMAT 2A4,2X,3F5.0,6F4.2,23X,A3,I5

Col 1-8 "ATNKTYPE"
Col 9-10 Blank
Col 11-15 Quantity of personnel in crew*
Col 16-25 Not used
Col 26-29 Enemy AP IFP per minisector at which 50 percent suppression
of friendly AT firepower is caused
Col 30-33 Enemy AP IFP per minisector at which 100 percent suppression
of friendly AT firepower is caused.
Col 34-37 TOE ammo stowed load, tube type 1**
Col 38-41 TOE ammo stowed load, tube type 2**
Col 42-72 Blank
Col 73-75 Sequence label
Col 76-80 Sequence number

* In order for a replacement AT/M weapon to be issued to a unit,
sufficient personnel must be present in the unit's status file
to provide crews for the replacement weapon(s).

** Rounds.

DESTROYED WEAPONS CARD (K/V)

FORMAT 2A4,2X,7F5.0,27X,A3,I5

Col 1-8	"DESTROYD"
Col 9-10	Blank
Col 11-15	Fraction of the weapons hit by tanks which are totally destroyed
Col 16-20	Fraction of the weapons hit by light armor which are totally destroyed
Col 21-25	Fraction of the weapons hit by helicopters which are totally destroyed
Col 26-30	Fraction of the weapons hit by AT/M which are totally destroyed
Col 31-35	Fraction of weapons hit by personnel which are totally destroyed
Col 36-40	Fraction of the weapons hit by artillery which are totally destroyed
Col 41-45	Fraction of the weapons hit by CAS which are totally destroyed
Col 46-72	Blank
Col 73-75	Sequence label
Col 76-80	Sequence number

WEAPON DESCRIPTION (AT IFP) CARD (K/V)

FORMAT 2A4,2X,7F6.2,20X,A3,I5

Col 1-8 "WPNTYPE2"

Col 9-10 Blank

Col 11-16 AT IFP per weapon for tube type 1, ME*

Col 17-22 AT IFP per weapon for tube type 2, ME*

Col 23-72 Blank

Col 73-75 Sequence label

Col 76-80 Sequence number

*MEETING ENGAGEMENT; used to recompute unit's state after resupply.

WEAPON DESCRIPTION (ALA IFP) CARD (K/V)

FORMAT 2A4,2X,7F6.2,20X,A3,I5

Col 1-8 "WPNTYPE3"

Col 9-10 Blank

Col 11-16 ALA IFP per weapon for tube type 1, ME

Col 17-22 ALA IFP per weapon for tube type 2, ME

Col 23-72 Blank

Col 73-75 Sequence label

Col 76-80 Sequence number

WEAPON DESCRIPTION (AP IFP) CARD (K/V)

FORMAT 2A4,2X,7F6.2,20X,A3,I5

Col 1-8 "WPNTYPE4"

Col 9-10 Blank

Col 11-16 AP IFP per weapon for tube type 1, ME

Col 17-22 AP IFP per weapon for tube type 2, ME

Col 23-72 Blank

Col 73-75 Sequence label

Col 76-80 Sequence number

WEAPON DESCRIPTION (AMMO RQMTS) CARD (K/V)

FORMAT 2A4,10X,9F6.2,A3,I5

Col 1-8 "WPNTYPE6"
Col 9-18 Blank
Col 19-24 Ammo requirements (in rounds)* for a quiet engagement,
tube type 1
Col 25-30 Ammo requirements (in rounds)* for a quiet engagement,
tube type 2
Col 31-36 Ammo requirements (in rounds)* for a reserve unit,
tube type 1
Col 37-42 Ammo requirements (in rounds)* for a reserve unit,
tube type 2
Col 43-72 Blank
Col 73-75 Sequence label
Col 76-80 Sequence number

*Per division cycle (12 hours).

MANEUVER BN TYPE DEFINITION CARD (K/V)
(Antitank Firepower)

FORMAT 2A4,2X;10F6.2,2X,A3,I5

Col 1-8 "MNBNTYPE"
Col 9-10 Blank
Col 11-16 Quantity of personnel (not weapon crews) assigned to this
bn type
Col 17-34 Blank
Col 35-40 Antitank (AT) firepower for ME from personnel
Col 41-58 Blank
Col 59-64 ON Hand Ammo (units of 10 rounds)* of tube type 1
Col 65-70 ON Hand Ammo (units of 10 rounds)* of tube type 2
Col 71-72 Blank
Col 73-75 Sequence label
Col 76-80 Sequence number

NOTE: Above IFP values are for 12 hours

* I.e. an entry of 100 is in fact 1000 rounds.

APPENDIX C

FORTRAN PROGRAM LISTINGS
(New or Modified CEM Programs)

LIST OF SUBROUTINES & DATA IN K8ATRIT FILE

ARTDEC	PKSTFA
ASSESS	PKSTFL/MAIN
CASL/POST	PKSTFL/PRE
CEM PROC	POSTPROC
CRQMNT	PQMD
DATA-I	RARTS
DATA-II	RDTCM
DDEND	READAT
DDSUP	RESLOS
DECRMT/POST	RUN/MAIN
DECSUP	RUN/POST
DIVRPT	RUN/PRE
EXCHG	RUNJCL
GIVART	RUNSEC
MAP/MAIN	RUNSEC/DATA
MAP/POST	STAMAT
MAP/PRE	STFILE
MATSUM	SUMART
MYOUT	TNKAPC/POST
NDSUPY	UNTSEC
OWT	UPSTFL/MAIN
PHASEONE	WPNDAT
PHASE2	XLCAL
PKLOG	

The following subroutines (CEM Post Processor) were not changed, but required recompilation due to COMMON array changes.

ADDCOP, CUTSUM, DIVSUM, LOGREP, NFTGEN, NGTTYP,
PRBDIV, PROCDV, PROCTS, PROCUT, PRRDIV, PRTBDE,
RDRDIV, SKEL, STATRP, UPSTFL, UTLOG, UTREP.

..... 55155'

[illegible]

***** ASSESS *****

```

000329 C COMPUTE THE AMMO STORED LOAD FOR PERSONNEL
000330 C THIS IS DONE TO THE WEIGHTED AVERAGE BY UNIT
000331 C OF THE STORED LOAD BY ENGAGEMENT TYPE.
000332 C
000333 C PERSONNEL SHOOT ONLY TUBE TYPE TWO AMMO
000334 C
000335 DBRIG=STAFIL(137*NGAGMT,1)*UNITPRN(13,1)
000336 DBCORP=STAFIL(137*NGAGMT,1)*UNITPRN(13,2)
000337 DBDIV=STAFIL(137*NGAGMT,1)*UNITPRN(13,3)
000338 SURALL=BRIG*DBCORP+DBDIV
000339 AMOSTO12,13,11=(DBRIG/SUMALL)*STAFIL(137*NGAGMT,11)+
000340 (DBCORP/SUMALL)*STAFIL(137*NGAGMT,12)+
000341 (DBDIV/SUMALL)*STAFIL(137*NGAGMT,13)
000342 AMOSTO12,13,21=STAFIL(137*NGAGMT,21)
000343 C
000344 C
000345 C
000346 C
000347 C
000348 C
000349 C
000350 C
000351 C
000352 C
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***** ASSESS *****

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000000 CASL 000000

***** CASL/POST *****	DATE 070803	PAGE 1
000001	COMMON/CASCOMP	TOTALS OF THE FOLLOWING ELEMENTS: TOP ENEMY IN VN, JN.
000002	0001	EATC(12), CENSV, CENON, JNAT(1,4),
000003	0002	WPHEN: HGAOHT, IFERCC, IJSTIESO
000004	0003	COMMON/USC/ JUS(170)
000005	0004	COMMON/PARTS/ ENLOXTS(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100)
000006	0005	COMMON/USC/ JUS(1,2)
000007	0006	COMMON/USC/ JUS(1,2)
000008	0007	COMMON/USC/ JUS(1,2)
000009	0008	COMMON/USC/ JUS(1,2)
000010	0009	COMMON/USC/ JUS(1,2)
000011	0010	COMMON/USC/ JUS(1,2)
000012	0011	COMMON/USC/ JUS(1,2)
000013	0012	COMMON/USC/ JUS(1,2)
000014	0013	COMMON/USC/ JUS(1,2)
000015	0014	COMMON/USC/ JUS(1,2)
000016	0015	COMMON/USC/ JUS(1,2)
000017	0016	COMMON/USC/ JUS(1,2)
000018	0017	COMMON/USC/ JUS(1,2)
000019	0018	COMMON/USC/ JUS(1,2)
000020	0019	COMMON/USC/ JUS(1,2)
000021	0020	COMMON/USC/ JUS(1,2)
000022	0021	COMMON/USC/ JUS(1,2)
000023	0022	COMMON/USC/ JUS(1,2)
000024	0023	COMMON/USC/ JUS(1,2)
000025	0024	COMMON/USC/ JUS(1,2)
000026	0025	COMMON/USC/ JUS(1,2)
000027	0026	COMMON/USC/ JUS(1,2)
000028	0027	COMMON/USC/ JUS(1,2)
000029	0028	COMMON/USC/ JUS(1,2)
000030	0029	COMMON/USC/ JUS(1,2)
000031	0030	COMMON/USC/ JUS(1,2)
000032	0031	COMMON/USC/ JUS(1,2)
000033	0032	COMMON/USC/ JUS(1,2)
000034	0033	COMMON/USC/ JUS(1,2)
000035	0034	COMMON/USC/ JUS(1,2)
000036	0035	COMMON/USC/ JUS(1,2)
000037	0036	COMMON/USC/ JUS(1,2)
000038	0037	COMMON/USC/ JUS(1,2)
000039	0038	COMMON/USC/ JUS(1,2)
000040	0039	COMMON/USC/ JUS(1,2)
000041	0040	COMMON/USC/ JUS(1,2)
000042	0041	COMMON/USC/ JUS(1,2)
000043	0042	COMMON/USC/ JUS(1,2)
000044	0043	COMMON/USC/ JUS(1,2)
000045	0044	COMMON/USC/ JUS(1,2)
000046	0045	COMMON/USC/ JUS(1,2)
000047	0046	COMMON/USC/ JUS(1,2)
000048	0047	COMMON/USC/ JUS(1,2)
000049	0048	COMMON/USC/ JUS(1,2)
000050	0049	COMMON/USC/ JUS(1,2)
000051	0050	COMMON/USC/ JUS(1,2)
000052	0051	COMMON/USC/ JUS(1,2)
000053	0052	COMMON/USC/ JUS(1,2)
000054	0053	COMMON/USC/ JUS(1,2)
000055	0054	COMMON/USC/ JUS(1,2)
000056	0055	COMMON/USC/ JUS(1,2)
000057	0056	COMMON/USC/ JUS(1,2)
000058	0057	COMMON/USC/ JUS(1,2)
000059	0058	COMMON/USC/ JUS(1,2)
000060	0059	COMMON/USC/ JUS(1,2)
000061	0060	COMMON/USC/ JUS(1,2)
000062	0061	COMMON/USC/ JUS(1,2)
000063	0062	COMMON/USC/ JUS(1,2)
000064	0063	COMMON/USC/ JUS(1,2)
000065	0064	COMMON/USC/ JUS(1,2)
000066	0065	COMMON/USC/ JUS(1,2)
000067	0066	COMMON/USC/ JUS(1,2)
000068	0067	COMMON/USC/ JUS(1,2)
000069	0068	COMMON/USC/ JUS(1,2)
000070	0069	COMMON/USC/ JUS(1,2)
000071	0070	COMMON/USC/ JUS(1,2)
000072	0071	COMMON/USC/ JUS(1,2)
000073	0072	COMMON/USC/ JUS(1,2)
000074	0073	COMMON/USC/ JUS(1,2)
000075	0074	COMMON/USC/ JUS(1,2)
000076	0075	COMMON/USC/ JUS(1,2)
000077	0076	COMMON/USC/ JUS(1,2)

LINE	ITEM	DESCRIPTION	UNIT	QUANTITY	REMARKS
1	000135	000135	000135	000135	000135
2	000136	000136	000136	000136	000136
3	000137	000137	000137	000137	000137
4	000138	000138	000138	000138	000138
5	000139	000139	000139	000139	000139
6	000140	000140	000140	000140	000140
7	000141	000141	000141	000141	000141
8	000142	000142	000142	000142	000142
9	000143	000143	000143	000143	000143
10	000144	000144	000144	000144	000144
11	000145	000145	000145	000145	000145
12	000146	000146	000146	000146	000146
13	000147	000147	000147	000147	000147
14	000148	000148	000148	000148	000148
15	000149	000149	000149	000149	000149
16	000150	000150	000150	000150	000150
17	000151	000151	000151	000151	000151
18	000152	000152	000152	000152	000152
19	000153	000153	000153	000153	000153
20	000154	000154	000154	000154	000154
21	000155	000155	000155	000155	000155
22	000156	000156	000156	000156	000156
23	000157	000157	000157	000157	000157
24	000158	000158	000158	000158	000158
25	000159	000159	000159	000159	000159
26	000160	000160	000160	000160	000160
27	000161	000161	000161	000161	000161
28	000162	000162	000162	000162	000162
29	000163	000163	000163	000163	000163
30	000164	000164	000164	000164	000164
31	000165	000165	000165	000165	000165
32	000166	000166	000166	000166	000166
33	000167	000167	000167	000167	000167
34	000168	000168	000168	000168	000168
35	000169	000169	000169	000169	000169
36	000170	000170	000170	000170	000170
37	000171	000171	000171	000171	000171
38	000172	000172	000172	000172	000172
39	000173	000173	000173	000173	000173
40	000174	000174	000174	000174	000174
41	000175	000175	000175	000175	000175
42	000176	000176	000176	000176	000176
43	000177	000177	000177	000177	000177
44	000178	000178	000178	000178	000178
45	000179	000179	000179	000179	000179
46	000180	000180	000180	000180	000180
47	000181	000181	000181	000181	000181
48	000182	000182	000182	000182	000182
49	000183	000183	000183	000183	000183
50	000184	000184	000184	000184	000184
51	000185	000185	000185	000185	000185
52	000186	000186	000186	000186	000186
53	000187	000187	000187	000187	000187
54	000188	000188	000188	000188	0


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000244 12 C K/V 4-80
000245 12 C K/V 4-80
000246 12 C K/V 4-80
000247 12 C K/V 4-80
000248 12 C K/V 4-80
000249 12 C K/V 4-80
000250 12 C K/V 4-80
000251 12 C K/V 4-80
000252 12 C K/V 4-80
000253 12 C K/V 4-80
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000256 12 C K/V 4-80
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000259 12 C K/V 4-80
000260 12 C K/V 4-80
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000263 12 C K/V 4-80
000264 12 C K/V 4-80
000265 12 C K/V 4-80
000266 12 C K/V 4-80
000267 12 C K/V 4-80
000268 12 C K/V 4-80
000269 12 C K/V 4-80
000270 12 C K/V 4-80
000271 12 C K/V 4-80
000272 12 C K/V 4-80
000273 12 C K/V 4-80
000274 12 C K/V 4-80
000275 12 C K/V 4-80
000276 12 C K/V 4-80
000277 12 C K/V 4-80
000278 12 C K/V 4-80
000279 12 C K/V 4-80
000280 12 C K/V 4-80
000281 12 C K/V 4-80
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000297 12 C K/V 4-80
000298 12 C K/V 4-80
000299 12 C K/V 4-80
000300 12 C K/V 4-80
000301 12 C K/V 4-80
000302 12 C K/V 4-80
000303 12 C K/V 4-80
000304 12 C K/V 4-80
000305 12 C K/V 4-80

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[illegible]

000001	11	COMPILE TAB 11	
000002	11	SUBROUTINE CROHMT (100E,1,10E4)	
000003	11	C	
000004	11	C CALLED BY ASSESS	
000005	11	C CALLED BY WESLOS	
000006	11	C	
000007	11	INCLUDE PROC	
000008	11	C THIS SUBROUTINE COMPUTES REQUIREMENTS FOR THIS UNIT AND ALL	
000009	11	C INREQ=TOTAL REQUIREMENTS FOR TREATEN	
000010	11	C INREQ=TOTAL REQUIREMENTS FOR UNIT	
000011	11	COMMON/INREQ/REQUIREMTS1	8 K/V 4-B3
000012	11	COMMON/INREQ / INTCYC,INACYC,INCCYC,INDCTC	
000013	11	COMMON/BCORP/BCORP,BCORPST01	
000014	11	INCLUDE BCORP	
000015	11	COMMON/INREQ/INREQNTS155,21	8 K/V 4-B3
000016	11	C 1=PERSONNEL,2=POL,3=AMMO,4=OTHER SUPPLIES,5=16-TANKS BY TYPE,	
000017	11	C 17=28-PICTRY ARMOR BY TYPE,29=33-HELICOPTERS BY TYPE,	
000018	11	C 34-45=ANTI-TANKS/MORTARS BY TYPE	
000019	11	C INTRBCDE INTRBCD	
000020	11	COMMON/INREQ/INREQNTS16,31	8 K/V 4-B3
000021	11	COMMON/INREQ / INREQNTS16,31	

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DATE 090880

PAGE :

000023 COMMON/INPTP/MTKS(12),HLARR(12),HELOS(12),NANTNK(12)
000024 COMMON/SE06 / PCTLOC(12),US08(12),9,12)
000025 IF C NEXT 4 LINES ADDED FOR EQUIP INTERCHANGEABILITY NOV 79
000026 COMMON/TC05B/TC06(12),IMP06(12),15)
000027 IF C OVER CONTAINS THE UNAUTHORIZED EQUIP ON HAND IN THE UNIT
000028
000029 DIMENSION OVER(4)
000030 IF C E=250 MAX NUMBER IN 20 BIT FIELD 0K/V 7=80
000031 DATA 10THAI/149575/ 0K/V 7=80
000032 IF C
000033 IF C
000034 IF C
000035 IF C
000036 IF C
000037 IF C OVER(1)=0.
000038 IF C PERSONNEL
000039 IF C
000040 IF C
000041 IF C
000042 IF C
000043 IF C
000044 IF C
000045 IF C
000046 IF C
000047 IF C
000048 IF C
000049 IF C
000050 IF C
000051 IF C
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000065 IF C
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000073 IF C
000074 IF C
000075 IF C
000076 IF C
000077 IF C
000078 IF C

C

000079	C	SUN AUTHORIZED AMMO FOR TUBE TYPE 1 & 2 BY AUTHORIZED	
000080	C	QUANTITY OF WEAPONS TIMES THE AUTHORIZED AMMO STORED LOAD	
000081	C	PLR WEAPON TYPE	
000082	C	TUBE TYPE 1	
000083	C	TUBE1=INDEX1+1*STAFIL(INDEX+M,1)+RPHUF(120,J,1,1)	
000084	C	TUBE TYPE 2	
000085	C	TUBE2=INDEX2+1*STAFIL(INDEX+M,1)+RPHUF(120,J,1,1)	
000086	C	IF (K=EQ,9) GO TO 99	
000087	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000088	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000089	C	ROT=ROT+ADD	
000090	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000091	C	ROT=ROT+ADD	
000092	C	IF (K=EQ,9) GO TO 99	
000093	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000094	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000095	C	ROT=ROT+ADD	
000096	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000097	C	ROT=ROT+ADD	
000098	C	IF (K=EQ,9) GO TO 99	
000099	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000100	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000101	C	ROT=ROT+ADD	
000102	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000103	C	ROT=ROT+ADD	
000104	C	IF (K=EQ,9) GO TO 99	
000105	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000106	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000107	C	ROT=ROT+ADD	
000108	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000109	C	ROT=ROT+ADD	
000110	C	IF (K=EQ,9) GO TO 99	
000111	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000112	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000113	C	ROT=ROT+ADD	
000114	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000115	C	ROT=ROT+ADD	
000116	C	IF (K=EQ,9) GO TO 99	
000117	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000118	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000119	C	ROT=ROT+ADD	
000120	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000121	C	ROT=ROT+ADD	
000122	C	IF (K=EQ,9) GO TO 99	
000123	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000124	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000125	C	ROT=ROT+ADD	
000126	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000127	C	ROT=ROT+ADD	
000128	C	IF (K=EQ,9) GO TO 99	
000129	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000130	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000131	C	ROT=ROT+ADD	
000132	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000133	C	ROT=ROT+ADD	
000134	C	IF (K=EQ,9) GO TO 99	
000135	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000136	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000137	C	ROT=ROT+ADD	
000138	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000139	C	ROT=ROT+ADD	
000140	C	IF (K=EQ,9) GO TO 99	
000141	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000142	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000143	C	ROT=ROT+ADD	
000144	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000145	C	ROT=ROT+ADD	
000146	C	IF (K=EQ,9) GO TO 99	
000147	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000148	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000149	C	ROT=ROT+ADD	
000150	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000151	C	ROT=ROT+ADD	
000152	C	IF (K=EQ,9) GO TO 99	
000153	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000154	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000155	C	ROT=ROT+ADD	
000156	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000157	C	ROT=ROT+ADD	
000158	C	IF (K=EQ,9) GO TO 99	
000159	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000160	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000161	C	ROT=ROT+ADD	
000162	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000163	C	ROT=ROT+ADD	
000164	C	IF (K=EQ,9) GO TO 99	
000165	C	PFSTAFIL(INDEX+M,1) LE: 0700 TO 99	
000166	C	ADD=PPHUF(1,J,12)+STAFIL(INDEX+M,1)	
000167	C	ROT=ROT+ADD	
000168	C	ADD=PPHUF(1,J,12	

0806.P DATA-1

ELT107 STORIA 09/00/00 0011122 (10)									
000001	2	13 13							
000002	2	13 13							
000003	1								
000004	2	13 13							
000005	2	13 13							
000006	2	13 13							
000007	2	13 13							
000008	2	13 13							
000009	2	13 13							
000010	2	13 13							
000011	2	13 13							
000012	2	13 13							
000013	2	13 13							
000014	2	13 13							
000015	2	13 13							
000016	2	13 13							
000017	2	13 13							
000018	2	13 13							
000019	2	13 13							
000020	2	13 13							
000021	2	13 13							
000022	2	13 13							
000023	2	13 13							
000024	2	13 13							
000025	2	13 13							
000026	2	13 13							
000027	2	13 13							
000028	2	13 13							
000029	2	13 13							
000030	2	13 13							
000031	2	13 13							
000032	2	13 13							
000033	2	13 13							
000034	2	13 13							
000035	2	13 13							
000036	2	13 13							
000037	2	13 13							
000038	2	13 13							
000039	2	13 13							
000040	2	13 13							
000041	2	13 13							
000042	2	13 13							
000043	2	13 13							
000044	2	13 13							
000045	2	13 13							
000046	2	13 13							
000047	2	13 13							

99



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000000 00 C COMPUTE UNIT'S REQUIREMENTS
000100 00 C NEXT LINE JULY 80 TO INCLUDE ARMY ARMO RQMTS
000200 00 C EMERG ARMY BN IS IN A DECKARTED DIVISION...
000300 00 IF (ISUPPLY=0) GO TO 160
000400 00 CALL UPSTELTBY(2)
000500 00 CALL CROHNTIIOV(2,2)
000600 00 150 CONTINUE
000700 00 C MOVE UP ASSIMULATION STACK FOR NEXT DIVISION CYCLE
000800 00 172 00 15 151 V
000900 00 PEOPLE(1,2)=PEOPLE(1,1,2)
001000 00 15 CONTINUE
001100 00 PEOPLE(10,2)=0
001200 00 17 151 V
001300 00 IF (ASSIM(1,2).LE.0.0) GO TO 17
001400 00 QUANT=AVAIL(1,2)/ASSIM(1,2)
001500 00 PEOPLE(1,2)=PEOPLE(1,2)*QUANT
001600 00 17 CONTINUE
001700 00 DAVAIL(1,2)=DAVAIL(1,2)+PEOPLE(1,2)
001800 00 CALL MYRAN 17021,46,RQMTS(17,2),TRNSTM, 0 K/V 4-80
001900 00 1,45,DAVAIL(1,2),TRNSTM,22)
002000 00 CALL MYRAN 17113,13,DAVAIL(1,2),TRNSTM,
002100 00 1,19,17,ART(1,2),TRNSTM,
002200 00 1,17,RQMTS(17,2),TRNSTM, 0 K/V 4-80
002300 00 22)
002400 00 00 VVJ TRN(1,2)
002500 00 ALLOC(INK)=DAVAIL(INK,2)
002600 00 905 CONTINUE
002700 00 7887 151 V
002800 00 17113 151 V
002900 00 17113 151 V
003000 00 17113 151 V
003100 00 17113 151 V
003200 00 17113 151 V
003300 00 17113 151 V
003400 00 17113 151 V
003500 00 17113 151 V
003600 00 17113 151 V
003700 00 17113 151 V
003800 00 17113 151 V
003900 00 17113 151 V
004000 00 17113 151 V
004100 00 17113 151 V
004200 00 17113 151 V
004300 00 17113 151 V
004400 00 17113 151 V
004500 00 17113 151 V
004600 00 17113 151 V
004700 00 17113 151 V
004800 00 17113 151 V
004900 00 17113 151 V
005000 00 17113 151 V
005100 00 17113 151 V
005200 00 17113 151 V
005300 00 17113 151 V
005400 00 17113 151 V
005500 00 17113 151 V
005600 00 17113 151 V
005700 00 17113 151 V
005800 00 17113 151 V
005900 00 17113 151 V
006000 00 17113 151 V
006100 00 17113 151 V
006200 00 17113 151 V
006300 00 17113 151 V
006400 00 17113 151 V
006500 00 17113 151 V
006600 00 17113 151 V
006700 00 17113 151 V
006800 00 17113 151 V
006900 00 17113 151 V
007000 00 17113 151 V
007100 00 17113 151 V
007200 00 17113 151 V
007300 00 17113 151 V
007400 00 17113 151 V
007500 00 17113 151 V
007600 00 17113 151 V
007700 00 17113 151 V
007800 00 17113 151 V
007900 00 17113 151 V
008000 00 17113 151 V
008100 00 17113 151 V
008200 00 17113 151 V
008300 00 17113 151 V
008400 00 17113 151 V
008500 00 17113 151 V
008600 00 17113 151 V
008700 00 17113 151 V
008800 00 17113 151 V
008900 00 17113 151 V
009000 00 17113 151 V
009100 00 17113 151 V
009200 00 17113 151 V
009300 00 17113 151 V
009400 00 17113 151 V
009500 00 17113 151 V
009600 00 17113 151 V
009700 00 17113 151 V
009800 00 17113 151 V
009900 00 17113 151 V
010000 00 17113 151 V

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000293 00 C 1234 CONTINUE
000294 00 C NEXT LINE ADDED FOR DEACTIVATED DEC DIV, FEB 78
000295 00 C IF (IDEXACT EQ. 1) GO TO 2226
000296 00 C PROCESS OS ARTY BMS FOR RESUPPLY
000297 00 C IND=05ABNR
000298 00 C IF (IND=GT.0) CALL GIVANT(IND,15)
000299 00 C
000300 00 C IF (IS=EQ.2) GO TO 2224
000301 00 C IF (STATIDIV=15) GO TO 915
000302 00 C UNPACK STATUS FILE
000303 00 C 2226 CALL UPSTFLY(15)
000304 00 C
000305 00 C OBTAIN ONHAND QTY FOR WEAPONS FOR WARP DATA
000306 00 C IF WARP SWITCH IS SET AND BLUE SLOC
000307 00 C
000308 00 C IF USER REQUEST PARTITION ONLY, CHECK (US10DV)
000309 00 C
000310 00 C IF (IARF=LE.0) GO TO 2228
000311 00 C IF (IS=NE.1) GO TO 2228
000312 00 C IF (IS=US11)
000313 00 C IF (IARF=NE.1) GO TO 2228
000314 00 C CALL ABARF(1)
000315 00 C CONTINUE
000316 00 C
000317 00 C COMPUTE UNITS REQUIREMENTS
000318 00 C IF (IS=EQ.2 AND OCMAT=GT.0) GO TO 900
000319 00 C BLUE UNIT ON NO DEACTIVATED DEC DIVISION
000320 00 C
000321 00 C 910 CALL CMMRTIDV(15,1)
000322 00 C
000323 00 C GO TO 921
000324 00 C
000325 00 C
000326 00 C
000327 00 C
000328 00 C
000329 00 C
000330 00 C
000331 00 C
000332 00 C
000333 00 C
000334 00 C
000335 00 C
000336 00 C
000337 00 C
000338 00 C
000339 00 C
000340 00 C
000341 00 C
000342 00 C
000343 00 C
000344 00 C
000345 00 C
000346 00 C
000347 00 C
000348 00 C
000349 00 C

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LINE	ITEM	QTY	UNIT	DESCRIPTION	REMARKS
1	AMMO				
2	C			RESUPPLY AMMO FOR TUBE TYPE 1	
3	C			TRQ=AMMO(1,REQUIN(1),REQUIN(1),1,3) * TOTAL UNIT AMMO REQUIREMENT	
4	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
5	C			* PAVAIL(13)	
6	C			RESUPPLY AMMO FOR TUBE TYPE 2	
7	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
8	C			* PAVAIL(13)	
9	C			TRQ=AMMO(1,REQUIN(1),REQUIN(1),1,3)	
10	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
11	C			* PAVAIL(13)	
12	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
13	C			* PAVAIL(13)	
14	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
15	C			* PAVAIL(13)	
16	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
17	C			* PAVAIL(13)	
18	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
19	C			* PAVAIL(13)	
20	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
21	C			* PAVAIL(13)	
22	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
23	C			* PAVAIL(13)	
24	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
25	C			* PAVAIL(13)	
26	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
27	C			* PAVAIL(13)	
28	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
29	C			* PAVAIL(13)	
30	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
31	C			* PAVAIL(13)	
32	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
33	C			* PAVAIL(13)	
34	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
35	C			* PAVAIL(13)	
36	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
37	C			* PAVAIL(13)	
38	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
39	C			* PAVAIL(13)	
40	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
41	C			* PAVAIL(13)	
42	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
43	C			* PAVAIL(13)	
44	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
45	C			* PAVAIL(13)	
46	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
47	C			* PAVAIL(13)	
48	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
49	C			* PAVAIL(13)	
50	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
51	C			* PAVAIL(13)	
52	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
53	C			* PAVAIL(13)	
54	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
55	C			* PAVAIL(13)	
56	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
57	C			* PAVAIL(13)	
58	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
59	C			* PAVAIL(13)	
60	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
61	C			* PAVAIL(13)	
62	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
63	C			* PAVAIL(13)	
64	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
65	C			* PAVAIL(13)	
66	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	
67	C			* PAVAIL(13)	
68	C			STAFIL(13,15)=STAFIL(13,15)+(REQUIN(1),1,3)	

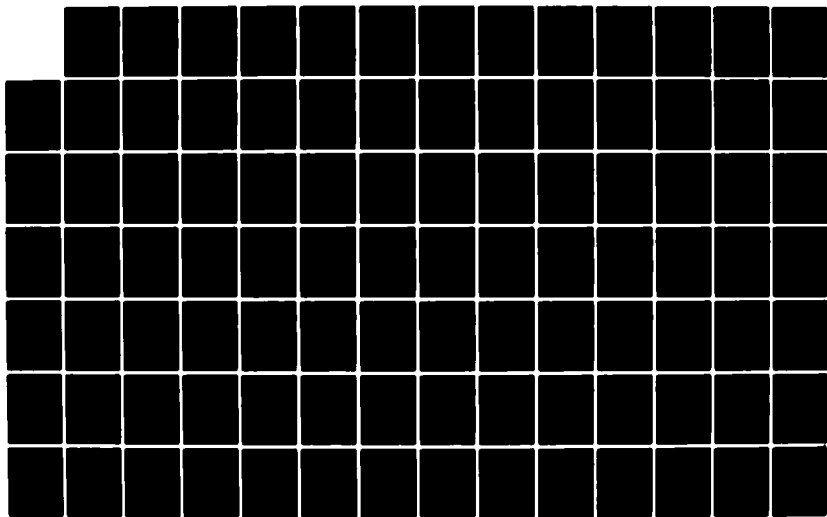
[illegible]

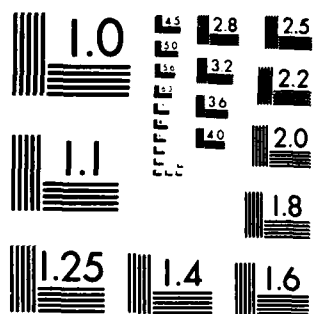
LINE	ADDRESS	INSTRUCTIONS	DATA
000031	000031	IF (K=EQ) AND (J=GT, S) GO TO 70	
000032	000032	IF (K=EQ) AND (J=GT, S) GO TO 70	
000033	000033	IF (K=EQ) AND (J=GT, S) GO TO 70	
000034	000034	IF (K=EQ) AND (J=GT, S) GO TO 70	
000035	000035	IF (K=EQ) AND (J=GT, S) GO TO 70	
000036	000036	IF (K=EQ) AND (J=GT, S) GO TO 70	
000037	000037	IF (K=EQ) AND (J=GT, S) GO TO 70	
000038	000038	IF (K=EQ) AND (J=GT, S) GO TO 70	
000039	000039	IF (K=EQ) AND (J=GT, S) GO TO 70	
000040	000040	IF (K=EQ) AND (J=GT, S) GO TO 70	
000041	000041	IF (K=EQ) AND (J=GT, S) GO TO 70	
000042	000042	IF (K=EQ) AND (J=GT, S) GO TO 70	
000043	000043	IF (K=EQ) AND (J=GT, S) GO TO 70	
000044	000044	IF (K=EQ) AND (J=GT, S) GO TO 70	
000045	000045	IF (K=EQ) AND (J=GT, S) GO TO 70	
000046	000046	IF (K=EQ) AND (J=GT, S) GO TO 70	
000047	000047	IF (K=EQ) AND (J=GT, S) GO TO 70	
000048	000048	IF (K=EQ) AND (J=GT, S) GO TO 70	
000049	000049	IF (K=EQ) AND (J=GT, S) GO TO 70	
000050	000050	IF (K=EQ) AND (J=GT, S) GO TO 70	
000051	000051	IF (K=EQ) AND (J=GT, S) GO TO 70	
000052	000052	IF (K=EQ) AND (J=GT, S) GO TO 70	
000053	000053	IF (K=EQ) AND (J=GT, S) GO TO 70	
000054	000054	IF (K=EQ) AND (J=GT, S) GO TO 70	
000055	000055	IF (K=EQ) AND (J=GT, S) GO TO 70	
000056	000056	IF (K=EQ) AND (J=GT, S) GO TO 70	
000057	000057	IF (K=EQ) AND (J=GT, S) GO TO 70	
000058	000058	IF (K=EQ) AND (J=GT, S) GO TO 70	
000059	000059	IF (K=EQ) AND (J=GT, S) GO TO 70	
000060	000060	IF (K=EQ) AND (J=GT, S) GO TO 70	
000061	000061	IF (K=EQ) AND (J=GT, S) GO TO 70	
000062	000062	IF (K=EQ) AND (J=GT, S) GO TO 70	
000063	000063	IF (K=EQ) AND (J=GT, S) GO TO 70	
000064	000064	IF (K=EQ) AND (J=GT, S) GO TO 70	
000065	000065	IF (K=EQ) AND (J=GT, S) GO TO 70	
000066	000066	IF (K=EQ) AND (J=GT, S) GO TO 70	
000067	000067	IF (K=EQ) AND (J=GT, S) GO TO 70	
000068	000068	IF (K=EQ) AND (J=GT, S) GO TO 70	
000069	000069	IF (K=EQ) AND (J=GT, S) GO TO 70	
000070	000070	IF (K=EQ) AND (J=GT, S) GO TO 70	
000071	000071	IF (K=EQ) AND (J=GT, S) GO TO 70	
000072	000072	IF (K=EQ) AND (J=GT, S) GO TO 70	
000073	000073	IF (K=EQ) AND (J=GT, S) GO TO 70	
000074	000074	IF (K=EQ) AND (J=GT, S) GO TO 70	
000075	000075	IF (K=EQ) AND (J=GT, S) GO TO 70	
000076	000076	IF (K=EQ) AND (J=GT, S) GO TO 70	
000077	000077	IF (K=EQ) AND (J=GT, S) GO TO 70	

AD-A130 065

CONCEPTS EVALUATION MODEL (CEM) ATTRITION AND
CALIBRATION MODIFICATION I..(U) GENERAL RESEARCH CORP
MCLEAN VA EASTERN TECHNOLOGIES DIV J E SHEPHERD OCT 80
UNCLASSIFIED GRC-1162-01-80-CR MDA903-80-C-0321 F/G 14/2 NL

23





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

0006970010

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END OF PAGE

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***** DUSUP *****

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000040 AM C REPLACEMENT FOR OTHER WEAPONS.
000041 21 C DIMENSION AR(10)
000042 21 C
000043 21 C
000044 21 C
000045 21 C
000046 21 C M=NRCOMP
000047 21 C DO 100 I=1,M
000048 21 C IF (I15.EQ.0) M=MODIV
000049 21 C DO 100 I=1,M
000050 21 C NEXT LINE ADDED FOR REINFORCING BDES 6 CAV, DFC 79
000051 21 C IF (I15.EQ.0) J=J+1
000052 21 C INITIALIZE AVLBL
000053 21 C DO 100 I=1,M
000054 21 C AVLBL(I)=0.
000055 21 C
000056 21 C UMPACK STATUS FILE
000057 21 C CALL UMPACK(STATUS)
000058 21 C IF (I15.EQ.0) GO TO 2220
000059 21 C IF (I15.EQ.0) GO TO 2220
000060 21 C
000061 21 C BLUE CORPS CAV
000062 21 C
000063 21 C IF (I15.EQ.0) RETURN 0
000064 21 C IF (I15.EQ.0) GO TO 2220
000065 21 C
000066 21 C BLUE DIV CAV
000067 21 C 2220 IF (I15.EQ.0) GO TO 2220
000068 21 C 2220 CALL ARAR(15)
000069 21 C 2220 CONTINUE
000070 21 C
000071 21 C IF (I15.EQ.0) RETURN 0
000072 21 C IF (I15.EQ.0) GO TO 100
000073 21 C COMPUTE THIS UNIT'S REQUIREMENTS
000074 21 C IF (I15.EQ.0) GO TO 97
000075 21 C
000076 21 C BLUE CORPS. CHK FLAG
000077 21 C
000078 21 C IF (I15.EQ.0) GO TO 97
000079 21 C IF (I15.EQ.0) GO TO 97
000080 21 C IF (I15.EQ.0) GO TO 97
000081 21 C IF (I15.EQ.0) GO TO 97
000082 21 C IF (I15.EQ.0) GO TO 97
000083 21 C IF (I15.EQ.0) GO TO 97
000084 21 C IF (I15.EQ.0) GO TO 97
000085 21 C IF (I15.EQ.0) GO TO 97
000086 21 C IF (I15.EQ.0) GO TO 97
000087 21 C IF (I15.EQ.0) GO TO 97
000088 21 C IF (I15.EQ.0) GO TO 97
000089 21 C IF (I15.EQ.0) GO TO 97
000090 21 C IF (I15.EQ.0) GO TO 97
000091 21 C IF (I15.EQ.0) GO TO 97
000092 21 C IF (I15.EQ.0) GO TO 97
000093 21 C IF (I15.EQ.0) GO TO 97
000094 21 C IF (I15.EQ.0) GO TO 97
000095 21 C IF (I15.EQ.0) GO TO 97
000096 21 C IF (I15.EQ.0) GO TO 97

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***** DUSUP *****

[illegible]

101

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• 177 - 003

[illegible]

DATE 090000 PAGE 3

000016	Z	C	TARGET - INDEX OF BLUE BUE AND RED DIV DS BR3
000017	02	C	IREDS-INDEX OF RES BLUE BUE AND RED DIV DS BR
000018	02	C	16SDIV-INDEX OF BLUE RED DIV DS BR3
000019	02	C	COMMON/AREAP/EXPART(10,9,2),6SLOS(12,3,2)
000020	02	C	COMMON/TBPTP/THRS(12),HEMR(12),HRCOS(12),N,RINK(2)
000021	02	C	COMMON/EATFP/ARTEP(12),IFRINO
000022	Z	C	EFFECTIVE ARTILLERY FIREPOWER DELIVERED AGAINST ENEMY
000023	02	C	COMMON/BIGLOS/LOSSES(9,9) W K/V 9-QC
000024	02	C	REAL LOSSES
000025	02	C	CHLOS(15,9,2) 1-95,.... 1 PERSONNEL, 2 POL, 3 AMMO, 4 OTHER,
000026	02	C	5-15 TANKS; 17-28 LIGHT ARMOR; 29-33 HELICOPTERS,
000027	02	C	34-95 ANTITANKS AND MORTARS
000028	02	C	1-95,.... 1 RESTURABLE COMBAT LOSS, 2 PERMANENT
000029	02	C	COMBAT LOSS, 3 RESTURABLE NONCOMBAT LOSS, 4 PERMANENT NONCOMBAT
000030	02	C	LOSS 1-2,.... 1 BLUE FORCES, 2 REG FORCES.
000031	02	C	ADD CBILLOS ARRAY
000032	02	C	CBLOS(435,3) JM'S POL; 6AMHO; 7OTHER, 8AT/M
000033	02	C	COMMON/ARRAYB/AL(16,2),RATIO(16),MELO(1),PERLOS(12,3)
000034	02	C	COMMON/PNPT/XLP(12,6,2) W K/V BR3
000035	02	C	I SPEC=0
000036	02	C	LS958
000037	02	C	CSY-LS6+1
000038	02	C	IFTTIDECLTY-25160 TO 4
000039	02	C	ISIDE = 4
000040	02	C	SET SWITCH TO PROCESS NON DIV GS
000041	02	C	I SPEC = 4
000042	02	C	IS = ISIDE
000043	06	C	BATIC(16,9,9) ISTAFIL(J,I,ISIDE),J(I)=I,190)
000044	06	C	+ LOSSESTEST(ISTEST,1,90)
000045	06	C	FORMAT IN "DECMET STAFIL"/IM ,191/IM ,196(1,3),
000046	06	C	CS 8 /IM "DECMET LOSSES"/IM ,517/IM ,1012,91)
000047	02	C	ESTABLISH LOSSER FOR CBLOS
000048	02	C	GO TO ITOF(12,13),ISIDE
000049	02	C	10 LEFT-INBDE
000050	02	C	INBT + LTBDE-1173
000051	02	C	IFLAG=JUS(LIND)
000052	02	C	IFTFLAG=LECT IFLAGM
000053	02	C	GO TO 14
000054	02	C	11 TENT=210*INBDE
000055	02	C	GO TO 14
000056	02	C	12 TENT=335*INBDE
000057	02	C	IFLAG=JUS(LINBDE)
000058	02	C	IFTFLAG=ST+AMMO,IFLXG,LE,CT GO TO 14
000059	02	C	RETURN O
000060	02	C	13 TENT=385*INBDE
000061	02	C	IFLAG=JUS(LINBDE)
000062	02	C	IFTFLAG=CEW, J IFLAGM
000063	02	C	14 CONTINUE
000064	02	C	IF ITTIDE<GT-87 GO TO 8
000065	02	C	SPECIAL UPDATE OF HISTORY ARRAY FOR ARTILLERY FIREPOWER
000066	02	C	125*285*ISIDE
000067	02	C	CALL DBSE(T,J,H,N),MYINT(ARFF(ISIDE)),O,LINBDE,(25)
000068	02	C	ARFF(ITTSIDE)M,N
000069	02	C	6 IFITSIDE-GT(2) IS=1
000070	02	C	-----COMBAT SUPPLY CONSUMPTION IS COMBAT-PERMANENT
000071	02	C	CHLOS(12,2,15) = CHLOS(12,2,15) + LOSSES(12,15)E) *POL
000072	02	C	AMHO

***** DIVERT *****

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000140 001 C SUMPTREKINENGT = 0.
000141 001 C 00 1040 L = 1.0
000142 001 C 01040 SUMPTREKINENGT = 0.
000143 001 C 00 1050 L = 1.12
000144 001 C 01050 SUMPTREKINENGT = 0.
000145 001 C SUMPTREKINENGT = 0.
000146 001 C 00 1060 L = 1.11
000147 001 C 01060 SUMPTREKINENGT = 0.
000148 001 C 00 1070 L = 1.10
000149 001 C 01070 SUMPTREKINENGT = 0.
000150 001 C 1000 CONTINUE
000151 001 C -----EXIT
000152 001 C RETURN
000153 001 C END

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END ELT.

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000000 BT C STATUS FILE*****
000001 01 C
000002 02 C
000003 03 C
000004 04 C
000005 05 C
000006 06 C
000007 07 C
000008 08 C
000009 09 C
000010 10 C
000011 11 C
000012 12 C
000013 13 C
000014 14 C
000015 15 C
000016 16 C
000017 17 C
000018 18 C
000019 19 C
000020 20 C
000021 21 C
000022 22 C
000023 23 C
000024 24 C
000025 25 C
000026 26 C
000027 27 C
000028 28 C
000029 29 C
000030 30 C
000031 31 C
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000066 66 C
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000068 68 C
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000083 83 C
000084 84 C
000085 85 C
000086 86 C
000087 87 C
000088 88 C
000089 89 C
000090 90 C
000091 91 C
000092 92 C
000093 93 C
000094 94 C
000095 95 C
000096 96 C
000097 97 C
000098 98 C
000099 99 C
000100 100 C

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LINE	CODE	TEXT	DATE	PAGE
000005	01	C-GET-OPN-INFO-FOR-INTERCHANGEABILITY-OF-WPN	000000	2
000006	01	IF(1) NE .J160 TO 10		
000007	01	RTOT=RTOT+REQUIN(I)		
000008	01	10 CONTINUE		
000009	01	20 CONTINUE		
000010	01	IF (RTOT) .LE. 0.160 TO 30		
000011	01	DO 3 1-RTOT		
000012	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000013	01	RTOT=RTOT-1		
000014	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000015	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000016	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000017	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000018	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000019	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000020	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000021	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000022	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000023	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000024	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000025	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000026	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000027	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000028	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000029	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000030	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000031	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000032	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000033	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000034	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000035	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000036	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000037	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000038	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000039	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000040	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000041	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000042	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000043	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000044	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000045	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000046	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000047	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000048	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000049	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000050	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000051	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000052	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000053	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000054	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000055	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000056	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000057	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000058	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000059	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000060	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000061	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000062	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000063	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000064	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000065	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		
000066	01	IF (K) .EQ. 1 .GT. 5160 TO 5 0 HELD		

LINE	UNIT	DESCRIPTION	AMOUNT	DATE	STATUS	REMARKS
000001	01	COMMON/AVIL/ ALLOC(15,3)				000001
000002	01	COMMON/AVIL/ ALLOC(15,3)				000002
000003	01	COMMON/AVIL/ ALLOC(15,3)				000003
000004	01	COMMON/AVIL/ ALLOC(15,3)				000004
000005	01	COMMON/AVIL/ ALLOC(15,3)				000005
000006	01	COMMON/AVIL/ ALLOC(15,3)				000006
000007	01	COMMON/AVIL/ ALLOC(15,3)				000007
000008	01	COMMON/AVIL/ ALLOC(15,3)				000008
000009	01	COMMON/AVIL/ ALLOC(15,3)				000009
000010	01	COMMON/AVIL/ ALLOC(15,3)				000010
000011	01	COMMON/AVIL/ ALLOC(15,3)				000011
000012	01	COMMON/AVIL/ ALLOC(15,3)				000012
000013	01	COMMON/AVIL/ ALLOC(15,3)				000013
000014	01	COMMON/AVIL/ ALLOC(15,3)				000014
000015	01	COMMON/AVIL/ ALLOC(15,3)				000015
000016	01	COMMON/AVIL/ ALLOC(15,3)				000016
000017	01	COMMON/AVIL/ ALLOC(15,3)				000017
000018	01	COMMON/AVIL/ ALLOC(15,3)				000018
000019	01	COMMON/AVIL/ ALLOC(15,3)				000019
000020	01	COMMON/AVIL/ ALLOC(15,3)				000020
000021	01	COMMON/AVIL/ ALLOC(15,3)				000021
000022	01	COMMON/AVIL/ ALLOC(15,3)				000022
000023	01	COMMON/AVIL/ ALLOC(15,3)				000023
000024	01	COMMON/AVIL/ ALLOC(15,3)				000024
000025	01	COMMON/AVIL/ ALLOC(15,3)				000025
000026	01	COMMON/AVIL/ ALLOC(15,3)				000026
000027	01	COMMON/AVIL/ ALLOC(15,3)				000027
000028	01	COMMON/AVIL/ ALLOC(15,3)				000028
000029	01	COMMON/AVIL/ ALLOC(15,3)				000029
000030	01	COMMON/AVIL/ ALLOC(15,3)				000030
000031	01	COMMON/AVIL/ ALLOC(15,3)				000031
000032	01	COMMON/AVIL/ ALLOC(15,3)				000032
000033	01	COMMON/AVIL/ ALLOC(15,3)				000033
000034	01	COMMON/AVIL/ ALLOC(15,3)				000034
000035	01	COMMON/AVIL/ ALLOC(15,3)				000035
000036	01	COMMON/AVIL/ ALLOC(15,3)				000036
000037	01	COMMON/AVIL/ ALLOC(15,3)				000037
000038	01	COMMON/AVIL/ ALLOC(15,3)				000038
000039	01	COMMON/AVIL/ ALLOC(15,3)				000039
000040	01	COMMON/AVIL/ ALLOC(15,3)				000040
000041	01	COMMON/AVIL/ ALLOC(15,3)				000041
000042	01	COMMON/AVIL/ ALLOC(15,3)				000042
000043	01	COMMON/AVIL/ ALLOC(15,3)				000043

..... FOR/MAIN

DATE 697800D

PAGE

000000P ***** MAP/MAIN *****

BELT L COAST/INAP/MAIN
ELI007 573RIA 9/00/90 001151 (13.1)

000001 09 NOT TPF0

000002 09 SEC MAIN

000003 09 IN ACROB

000004 09 IN ACROB

000005 09 IN ACROB

000006 09 IN ACRIK

000007 09 IN ADORAT

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***** LOGREP *****

DATE 090890

PAGE

6

000030	09	IN SHIPS
000031	09	IN SHIP
000032	09	IN STACN
000033	09	IN STARM
000034	09	IN STBDE
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MAP/MAIN

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000197	39	IN X-UPEND
000198	39	IN X-UPEND
000199	39	IN X-UPEND
000200	39	IN X-UPEND

MAP/MAIN

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SECRET

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000002	00	IN A-CALAPP
000003	00	IN A-SCAMTP
000004	00	IN A-SCORP
000005	00	IN A-SCRECP
000006	00	IN A-SCSHFT
000007	00	IN A-SCSTH
000008	00	IN A-SCAMH
000009	00	IN A-SCORND
000010	00	IN A-SCITSS
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000057	00	IN A-SCRECP

DATE	TIME	PAGE
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10/10/50	10:00	96
10/10/50	10:00	97
10/10/50	10:00	98
10/10/50	10:00	99
10/10/50	10:00	100

***** 11AP/MAIL *****

000250	09	IN	RECONFC
000251	09	IN	A.CALCOP
000252	09	IN	RECONFC
000253	09	IN	RECONFC
000254	09	IN	RECONFC
000255	09	IN	RECONFC
000256	09	IN	RECONFC
000257	09	IN	RECONFC
000258	09	IN	RECONFC
000259	09	IN	RECONFC
000260	09	IN	RECONFC
000261	09	IN	RECONFC
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000263	09	IN	RECONFC
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000313	09	IN	RECONFC
000314	09	IN	RECONFC

1. *Journal of Management Studies*, 1996, 33, 1, 1-14.

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Figure 2

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SUM

[illegible]

3

[illegible]

SET L	Q	TRIT	PHASE ONE
000001	000001	000001	000001
000002	000002	000002	000002
000003	000003	000003	000003
000004	000004	000004	000004
000005	000005	000005	000005
000006	000006	000006	000006
000007	000007	000007	000007
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000021	000021	000021	000021
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000024	000024	000024	000024
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000029	000029	000029	000029
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PHASEONE	DATE	PAGE
000304	10-10-1980	1
000317	IF (INL,ENL) DIM(K) = 0	22
000318	535 CONTINUE	22
000319	540 CONTINUE	22
000320	DO 5357 MUMS(MVT)	22
000321	WRITE (4,535) (DIMUM,KUM),KUM=1,MVT)	22
000322	375 FORMAT (13F10.1,3F10.1)	22
000323	5357 CONTINUE	22
000324	DO 545 K = 1,MVT	22
000325	FDSUM = 0	22
000326	DO 545 M = 1,MVT	22
000327	FDSUM = FDSUM + (DIM,K) * (FIL,M)	22
000328	545 CONTINUE	22
000329	I = IND(L,1)	22
000330	DIVSUM = (VBR(I) * QBS(L) * RATE(L) * REPL) * FDSUM	22
000331	IF (DIVSUM,87.0,0.0) GO TO 540	22
000332	IF (DIVSUM,87.0,0.0) GO TO 540	22
000333	IF (DIVSUM,87.0,0.0) GO TO 540	22
000334	IF (DIVSUM,87.0,0.0) GO TO 540	22
000335	IF (DIVSUM,87.0,0.0) GO TO 540	22
000336	IF (DIVSUM,87.0,0.0) GO TO 540	22
000337	IF (DIVSUM,87.0,0.0) GO TO 540	22
000338	IF (DIVSUM,87.0,0.0) GO TO 540	22
000339	IF (DIVSUM,87.0,0.0) GO TO 540	22
000340	IF (DIVSUM,87.0,0.0) GO TO 540	22
000341	IF (DIVSUM,87.0,0.0) GO TO 540	22
000342	IF (DIVSUM,87.0,0.0) GO TO 540	22
000343	IF (DIVSUM,87.0,0.0) GO TO 540	22
000344	IF (DIVSUM,87.0,0.0) GO TO 540	22
000345	IF (DIVSUM,87.0,0.0) GO TO 540	22
000346	IF (DIVSUM,87.0,0.0) GO TO 540	22
000347	IF (DIVSUM,87.0,0.0) GO TO 540	22
000348	IF (DIVSUM,87.0,0.0) GO TO 540	22
000349	IF (DIVSUM,87.0,0.0) GO TO 540	22
000350	IF (DIVSUM,87.0,0.0) GO TO 540	22
000351	IF (DIVSUM,87.0,0.0) GO TO 540	22
000352	IF (DIVSUM,87.0,0.0) GO TO 540	22
000353	IF (DIVSUM,87.0,0.0) GO TO 540	22
000354	IF (DIVSUM,87.0,0.0) GO TO 540	22
000355	IF (DIVSUM,87.0,0.0) GO TO 540	22
000356	IF (DIVSUM,87.0,0.0) GO TO 540	22
000357	IF (DIVSUM,87.0,0.0) GO TO 540	22
000358	IF (DIVSUM,87.0,0.0) GO TO 540	22
000359	IF (DIVSUM,87.0,0.0) GO TO 540	22
000360	IF (DIVSUM,87.0,0.0) GO TO 540	22
000361	IF (DIVSUM,87.0,0.0) GO TO 540	22
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000364	IF (DIVSUM,87.0,0.0) GO TO 540	22
000365	IF (DIVSUM,87.0,0.0) GO TO 540	22
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000370	IF (DIVSUM,87.0,0.0) GO TO 540	22
000371	IF (DIVSUM,87.0,0.0) GO TO 540	22
000372	IF (DIVSUM,87.0,0.0) GO TO 540	22

***** PHASE2 *****

DELTA ABATIT, PHASE2

ELT037 5751A 19/08/88 06:12:15 (127)

***** COMPILER (H=1)

***** SUBROUTINE PHASE2IRGACH1, IATKR, IOUTT

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***** PHASE-1IP *****


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000134 C IMP IMPORTANCE TO 1
000135 IMIKI=I
000136 IN CONTINUE
000137 2 IN
000138 2 C A-PRIM(L,K) IS SET TO THE AVERAGE FRACTION OF TIME A PARTICULAR
000139 TARGET IS AVAILABLE TO C
000140 2 C
000141 DO 24 L=1,NMST
000142 DO 15 A=1,NMST
000143 APIC(KI)=ALIKT
000144 15 CONTINUE
000145 20 CONTINUE
000146 2 C
000147 ADD UP SUM OF PK FOR EACH WEAPON
000148 2 C
000149 DO 30 L=1,NMST
000150 PRSUM(L)=0.
000151 DO 25 K=1,NMST
000152 PRSUM(L)=PRSUM(L)+P(L,K)
000153 25 CONTINUE
000154 30 CONTINUE
000155 2 C
000156 2 C
000157 DO 32 L=1,N
000158 DO 100 I=1,NMST
000159 SIM=0.
000160 2 C
000161 SELECT A VEHICLE
000162 2 C
000163 DO 90 J=1,N2
000164 2 C
000165 SELECT A WEAPON
000166 2 C
000167 C W L P T
000168 IF (AM(I,J)=EQ+Q+Q+Q+Q+Q+Q+Q+Q+Q) GO TO 40
000169 DO 35 K=1,NMST
000170 IF (V(K)=LE+U+U) GO TO 33
000171 2 C
000172 SELECT A TARGET
000173 2 C
000174 BUILD TARGET PRIORITY MATRIX BASED ON PK AND TARGET IMPORTANCE
000175 2 C
000176 2 C
000177 IF (IMIKI=EQ+Q+Q+Q+Q+Q+Q+Q+Q+Q) GO TO 33
000178 QIKI=PIL(KI)+IMIKI
000179 GO TO 35
000180 33 QIKI=L.
000181 IDENTIFY VEHICLES THAT CANNOT KILL THORNTLESS VEHICLE
000182 2 C
000183 IF (PIL(KI)=E. )
000184 C QIKT=IPIC(KI)/PRSUM(LI)=1)
000185 35 CONTINUE
000186 2 C
000187 IF MATQ IS TURNED ON, THE Q AND D MATRICES WILL BE PRINTED
000188 2 C
000189 IF (MATQ=EQ+Q+Q+Q+Q+Q+Q+Q+Q+Q) GO TO 37
000190 2 C
000191 WRITE (6,355) L,(QIKI,HUBI,KHUBI,NMST)

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000247 C SHOOTER IJ WILL FIRE AT K WHEN HIGHER PRIORITY TARGETS ARE NOT
000248 C AVAILABLE LOWER PRIORITY TARGETS HAVE NO IMPACT
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END ELY.

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000008 13 C MODENINDEX OF BDE OR DIV OR CORPS UNIT
000009 14 C ISIDES=BLUE 00E,2HEO DIV,3BLUE COMPS AIR CAV,4BLUE DIV AIR CAV
000010 15 C
000011 16 C
000012 17 C
000013 18 C
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000017 22 C
000018 23 C
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000059 64 C
000060 65 C
000061 66 C

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000041 02 IF (STAFIL(1)=0) GO TO 05
000042 02 STAFIL(1)=0.1
000043 02 GO TO 90
000044 02 05 IF (1.EQ.24-OR.1.EQ.25-OR.1.EQ.26) GO TO 91
000045 02 IF (1.EQ.28-OR.1.EQ.29) GO TO 92
000046 02 IF (1.EQ.47-OR.1.EQ.48) GO TO 93
000047 02 IF (STAFIL(1)=APENST(1) OR STAFIL(1)=0) GO TO 95
000048 02 GO TO 95
000049 02 97 IF (STAFIL(1)=0) GO TO 7
000050 02 05 C AMMO IN UNITS OF 100 ROUNDS W K/V 7-80
000051 02 IF (1.EQ.36-OR.1.EQ.37) STAFIL(1)=1000595, (1STFIL(1)=1) GR/V 7-80
000052 02 C
000053 02 95 CALL PARTSTF(1)=0, LOVER=0, LGSF, (1STFIL(1))
000054 02 LOVER=LOVER+LGSF
000055 02 730 CONTINUE
000056 02 C STORE WEAPON COUNTS BY TYPE TO 1 DECIMAL PLACE
000057 02 DO 203 T=50133
000058 02 IF (1)=STAFIL(1)=1000000
000059 02 CALL PARTSTF(1)=0, LOVER=0, LGSF, (1STFIL(1))
000060 02 LOVER=LOVER+LGSF
000061 02 203 CONTINUE
000062 02 C IF PACKING CORPS OR DIV SUPPORT BDE STATUS FILE CONVERT HELIFP
000063 02 C ARRAY FOR THIS SUPPORT BDE TO AN AVERAGE IF HELICOPTER
000064 02 C
000065 02 C ALSO, CARRY SUM TOTAL OF HELICOPTERS ASSIGNED TO CORPS/DIV
000066 02 C SUPPORT BDES AND SUM SUPPORT BDE IFP SUCH THAT SUBROUTINE UNITSEC
000067 02 C CAN AVERAGE IFP ARRAY/BLUE HELICOPTER
000068 02 IF (1)=0, (1)=0) RETURN
000069 02 SUM=0
000070 02 DO 28 J=1,5
000071 02 H=HELOS(1)=0
000072 02 IF (1)=0, (1)=0) C=HELOS(1)=0
000073 02 IF (1)=0, (1)=0) C=HELOS(1)=0
000074 02 28 CONTINUE
000075 02 J=1
000076 02 H=0
000077 02 IF (1)=0, (1)=0) H=0
000078 02 DO 28 I=1, N, 2
000079 02 J=1
000080 02 C SAVE COUNT OF HELICOPTERS BY TYPE ASSIGNED TO THIS SUPPORT BDE
000081 02 IF (1)=0, (1)=0) C=HELOS(1)=0
000082 02 IF (1)=0, (1)=0) C=HELOS(1)=0
000083 02 SUM=SUM+STAFIL(1)=0
000084 02 28 CONTINUE
000085 02 C SUM=COUNT OF TOTAL HELICOPTERS IN THIS BDE
000086 02 C
000087 02 C ADD SUM TO HELICOPTER SUM
000088 02 C
000089 02 C DO WE NEED A NOTION OF HELICOPTER TO SATISFY ESTIMATION CYCLE
000090 02 IF (SUM=0) GO TO 220
000091 02 C YES
000092 02 SUM=1
000093 02 C 8SUM=SUM*8
000094 02 IF (1)=0, (1)=0) C=HELOS(1)=0
000095 02 IF (1)=0, (1)=0) C=HELOS(1)=0
000096 02 220 DO 175 J=1,4
000097 02 DO 175 J=1,4

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***** POSTPROC *****
GROUP 1, K04TR11, POSTPROC
P01TR1: M72-10 09/08/80 0818:23 (M) HI
PE0001 BUILDIV PROC
COMMON/BUCEUT/ BTSPLE181LCSF,TSF1L1340817,
0002 SHOP12L,30,21,OPN0UF194,3,0),
0003 ARTS1A114,83-1,AL003133,21,TILART110,21,
0004 MASCH112,MO1V6514,CARLOS19,21,01L051435,0),
0005 CATEMP1935101,0P19,3391,1BR1012101,
0006 POS121,19,1005112101,056112101
0007 .SUMPER14,17,30MTR14,12,81,SUNAPR14,12,81
0008 .SUMHEB14,5,01,SUMATA14,12,01,SUNARB14,0,01
0009 .SUMPER14,17,30MTR14,12,81,SUNAPR14,12,81
0010 .SUMHEB14,5,01,SUMATA14,12,01,SUNARB14,0,01
0011 .SUMPER14,17,30MTR14,12,81,SUNAPR14,12,81
0012 .SUMHEB14,5,01,SUMATA14,12,01,SUNARB14,0,01
0013 INTEGER BTSPLE,01LCSF
END
POP- NO FORTRAN PROCEDURE TABLE ENTRIES PRODUCED
PDP- 110 SYMBOLIC OUTPUT PRODUCED
END PDP ERRORS 1 NONE

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***** PUNCH *****
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000227	73	C	CONTINUE	0 K/V 8-6
000228	73	C	CONTINUE	0 K/V 8-6
000229	73	C	PERSONNEL-THRO-STORED LOADS ARE SET BY UNIT FOR EACH ENGAGEMENT	
000230	73	C	IN THE SUBROUTINE PHASE2....	
000231	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000232	73	C	JSUB(1,2,1,1)=MLARM(I,1,1)	
000233	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000234	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000235	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000236	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000237	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000238	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000239	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000240	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000241	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000242	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000243	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000244	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000245	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
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000247	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
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000260	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000261	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000262	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000263	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000264	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000265	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000266	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
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000278	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000279	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000280	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000281	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000282	73	C	JSUB(1,2,1,1)=MTRKSTIAS	
000283	73	C	JSUB(1,2,1,1)=MTRKSTIAS	

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STANAT(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196,197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,267,268,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,299,300,301,302,303,304,305,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323,324,325,326,327,328,329,330,331,332,333,334,335,336,337,338,339,340,341,342,343,344,345,346,347,348,349,350,351,352,353,354,355,356,357,358,359,360,361,362,363,364,365,366,367,368,369,370,371,372,373,374,375,376,377,378,379,380,381,382,383,384,385,386,387,388,389,390,391,392,393,394,395,396,397,398,399,400,401,402,403,404,405,406,407,408,409,410,411,412,413,414,415,416,417,418,419,420,421,422,423,424,425,426,427,428,429,430,431,432,433,434,435,436,437,438,439,440,441,442,443,444,445,446,447,448,449,450,451,452,453,454,455,456,457,458,459,460,461,462,463,464,465,466,467,468,469,470,471,472,473,474,475,476,477,478,479,480,481,482,483,484,485,486,487,488,489,490,491,492,493,494,495,496,497,498,499,500,501,502,503,504,505,506,507,508,509,510,511,512,513,514,515,516,517,518,519,520,521,522,523,524,525,526,527,528,529,530,531,532,533,534,535,536,537,538,539,540,541,542,543,544,545,546,547,548,549,550,551,552,553,554,555,556,557,558,559,560,561,562,563,564,565,566,567,568,569,570,571,572,573,574,575,576,577,578,579,580,581,582,583,584,585,586,587,588,589,590,591,592,593,594,595,596,597,598,599,600,601,602,603,604,605,606,607,608,609,610,611,612,613,614,615,616,617,618,619,620,621,622,623,624,625,626,627,628,629,630,631,632,633,634,635,636,637,638,639,640,641,642,643,644,645,646,647,648,649,650,651,652,653,654,655,656,657,658,659,660,661,662,663,664,665,666,667,668,669,670,671,672,673,674,675,676,677,678,679,680,681,682,683,684,685,686,687,688,689,690,691,692,693,694,695,696,697,698,699,700,701,702,703,704,705,706,707,708,709,710,711,712,713,714,715,716,717,718,719,720,721,722,723,724,725,726,727,728,729,730,731,732,733,734,735,736,737,738,739,740,741,742,743,744,745,746,747,748,749,750,751,752,753,754,755,756,757,758,759,760,761,762,763,764,765,766,767,768,769,770,771,772,773,774,775,776,777,778,779,780,781,782,783,784,785,786,787,788,789,790,791,792,793,794,795,796,797,798,799,800,801,802,803,804,805,806,807,808,809,810,811,812,813,814,815,816,817,818,819,820,821,822,823,824,825,826,827,828,829,830,831,832,833,834,835,836,837,838,839,840,841,842,843,844,845,846,847,848,849,850,851,852,853,854,855,856,857,858,859,860,861,862,863,864,865,866,867,868,869,870,871,872,873,874,875,876,877,878,879,880,881,882,883,884,885,886,887,888,889,890,891,892,893,894,895,896,897,898,899,900,901,902,903,904,905,906,907,908,909,910,911,912,913,914,915,916,917,918,919,920,921,922,923,924,925,926,927,928,929,930,931,932,933,934,935,936,937,938,939,940,941,942,943,944,945,946,947,948,949,950,951,952,953,954,955,956,957,958,959,960,961,962,963,964,965,966,967,968,969,970,971,972,973,974,975,976,977,978,979,980,981,982,983,984,985,986,987,988,989,990,991,992,993,994,995,996,997,998,999,1000,1001,1002,1003,1004,1005,1006,1007,1008,1009,1010,1011,1012,1013,1014,1015,1016,1017,1018,1019,1020,1021,1022,1023,1024,1025,1026,1027,1028,1029,1030,1031,1032,1033,1034,1035,1036,1037,1038,1039,1040,1041,1042,1043,1044,1045,1046,1047,1048,1049,1050,1051,1052,1053,1054,1055,1056,1057,1058,1059,1060,1061,1062,1063,1064,1065,1066,1067,1068,1069,1070,1071,1072,1073,1074,1075,1076,1077,1078,1079,1080,1081,1082,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1109,1110,1111,1112,1113,1114,1115,1116,1117,1118,1119,1120,1121,1122,1123,1124,1125,1126,1127,1128,1129,1130,1131,1132,1133,1134,1135,1136,1137,1138,1139,1140,1141,1142,1143,1144,1145,1146,1147,1148,1149,1150,1151,1152,1153,1154,1155,1156,1157,1158,1159,1160,1161,1162,1163,1164,1165,1166,1167,1168,1169,1170,1171,1172,1173,1174,1175,1176,1177,1178,1179,1180,1181,1182,1183,1184,1185,1186,1187,1188,1189,1190,1191,1192,1193,1194,1195,1196,1197,1198,1199,1200,1201,1202,1203,1204,1205,1206,1207,1208,1209,1210,1211,1212,1213,1214,1215,1216,1217,1218,1219,1220,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2221,2222,2223,2224,2225,2226,2227,2228,2229,2230,2231,2232,2233,2234,2235,2236,2237,2238,2239,2240,2241,2242,2243,2244,2245,2246,2247,2248,2249,2250,2251,2252,2253,2254,2255,2256,2257,2258,2259,2260,2261,2262,2263,2264,2265,2266,2267,2268,2269,2270,2271,2272,2273,2274,2275,2276,2277,2278,2279,2280,2281,2282,2283,2284,2285,2286,2287,2288,2289,2290,2291,2292,2293,2294,2295,2296,2297,2298,2299,2300,2301,2302,2303,2304,2305,2306,2307,2308,2309,2310,2311,2312,2313,2314,2315,2316,2317,2318,2319,2320,2321,2322,2323,2324,2325,2326,2327,2328,2329,2330,2331,2332,2333,2334,2335,2336,2337,2338,2339,2340,2341,2342,2343,2344,2345,2346,2347,2348,2349,2350,2351,2352,2353,2354,2355,2356,2357,2358,2359,2360,2361,2362,2363,2364,2365,2366,2367,2368,2369,2370,2371,2372,2373,2374,2375,2376,2377,2378,2379,2380,2381,2382,2383,2384,2385,2386,2387,2388,2389,2390,2391,2392,2393,2394,2395,2396,2397,2398,2399,2400,2401,2402,2403,2404,2405,2406,2407,2408,2409,2410,2411,2412,2413,2414,2415,2416,2417,2418,2419,2420,2421,2422,2423,2424,2425,2426,2427,2428,2429,2430,2431,2432,2433,2434,2435,2436,2437,2438,2439,2440,2441,2442,2443,2444,2445,2446,2447,2448,2449,2450,2451,2452,2453,2454,2455,2456,2457,2458,2459,2460,2461,2462,2463,2464,2465,2466,2467,2468,2469,2470,2471,2472,2473,2474,2475,2476,2477,2478,2479,2480,2481,2482,2483,2484,2485,2486,2487,2488,2489,2490,2491,2492,2493,2494,2495,2496,2497,2498,2499,2500,2501,2502,2503,2504,2505,2506,2507,2508,2509,2510,2511,2512,2513,2514,2515,2516,2517,2518,2519,2520,2521,2522,2523,2524,2525,2526,2527,2528,2529,2530,2531,2532,2533,2534,2535,2536,2537,2538,2539,2540,2541,2542,2543,2544,2545,2546,2547,2548,2549,2550,2551,2552,2553,2554,2555,2556,2557,2558,2559,2560,2561,2562,2563,2564,2565,2566,2567,2568,2569,2570,2571,2572,2573,2574,2575,2576,2577,2578,2579,2580,2581,2582,2583,2584,2585,2586,2587,2588,2589,2590,2591,2592,2593,2594,2595,2596,2597,2598,2599,2600,2601,2602,2603,2604,2605,2606,2607,2608,2609,2610,2611,2612,2613,2614,2615,2616,2617,2618,2619,2620,2621,2622,2623,2624,2625,2626,2627,2628,2629,2630,2631,2632,2633,2634,2635,2636,2637,2638,2639,2640,2641,2642,2643,2644,2645,2646,2647,2648,2649,2650,2651,2652,2653,2654,2655,2656,2657,2658,2659,2660,2661,2662,2663,2
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***** START *****

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000114 14 C IF (INACT=1) THEN (INACT=0) UNTIL 000115 0 K/V 5-81
000115 14 C
000116 14 C GO TO 33
000117 14 C
000118 14 C CALLED FROM DDDUP OR NO AUTHORIZED PERSONNEL TGNOST OR NO CAUT
000119 14 C 29 VALP (ISIDE)=1.1
000120 14 C TSTICR1
000121 14 C FTR0=1.0
000122 14 C WEN
000123 14 C DO 100 I=1,4
000124 14 C DO 100 J=1,3
000125 14 C UMATR(I,J,ISIDE)=0.0
000126 14 C CONTINUE
000127 14 C 100 CONTINUE
000128 14 C DOES THIS UNIT HAVE ANY FIRE POWER, IF NOT EXIT
000129 14 C IF A BLUE DIV OR CORPS W/O SUPPORT BDE EXIT
000130 14 C TEST AUTHORIZED PERSONNEL
000131 14 C IF (ISAFIL(I,ISIDE),LE0,0) RETURN
000132 14 C
000133 14 C ITET=INTKSLIS)
000134 14 C FORM MATRIX JX3
000135 14 C INDEX=0
000136 14 C PMSREQ = 0.
000137 14 C TYPE=4HTANK
000138 14 C THIS PORTION ADDED TO OPTIMIZE RUNTIME ***** MAY 1979
000139 14 C
000140 14 C DO 500 K=1,3
000141 14 C IF (K=0.3) GO TO 150
000142 14 C TCAT = K
000143 14 C IF (K=0.1) GO TO 175
000144 14 C TYPE = 4HEARM
000145 14 C ITET = MLARM (IS)
000146 14 C INDEX = 0
000147 14 C GO TO 175
000148 14 C 150 TCAT = 1
000149 14 C ITET = MAINTK (IS)
000150 14 C INDEX = 110
000151 14 C 175 J = 0
000152 14 C
000153 14 C J=0
000154 14 C T244 (IS)=TICAT
000155 14 C TAPN=30 (ICAT=J)
000156 14 C DO 200 I=1,2312
000157 14 C J=J+1
000158 14 C IMPRINTPRT
000159 14 C INITIALIZE UNIT WEAPON COUNTS
000160 14 C UNTIL TAPN,ISIDE=1.1
000161 14 C IF (ITET,LT,J) GO TO 511
000162 14 C WPNOSTAT (IT,INDEX,ISIDE)
000163 14 C IF (WPNOS,LE,J) GO TO 2
000164 14 C REPON=WPNOS+VALP (J,ISIDE,1)
000165 14 C REPON2=WPNOS+VALP (J,ISIDE,2)
000166 14 C
000167 14 C
000168 14 C
000169 14 C
000170 14 C

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***** START *****

***** STAMAT *****

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000220 14 SUMPH(12,15,21)=SUMPH(12,15,21)
000221 14 SUMPH(12,15,21)=SUMPH(12,15,21)
000222 14 SUMPH(12,15,21)=SUMPH(12,15,21)
000223 14 C ESTIMATION
000224 14 C
000225 14 C
000226 14 413 PRSEFF=STAFIL(2,15,21)*VALP(15,21)
000227 14 IF PRSESS=0 THEN GO TO 419
000228 14 PP=STAFIL(2,15,21)*PRSEFF
000229 14 WPIPT(2,15,21)=PP(2,15,21)/PPWHOLE
000230 14 IF (1/ASSESS+NE+J) GO TO 419
000231 14 UNATRI(2,15,21)=UNATRI(2,15,21)*PPWHOLE
000232 14 UNATRI(2,15,21)=UNATRI(2,15,21)*PPWHOLE
000233 14 UNATRI(2,15,21)=UNATRI(2,15,21)*PPWHOLE
000234 14 UNATRI(2,15,21)=UNATRI(2,15,21)*PPWHOLE
000235 14 C EFFECTIVE PERSONNEL IN ENGAGEMENT
000236 14 C K/V 3-80
000237 14 C
000238 14 C
000239 14 C
000240 14 C
000241 14 C
000242 14 C
000243 14 C
000244 14 C
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000263 14 C
000264 14 C
000265 14 C
000266 14 C
000267 14 C
000268 14 C
000269 14 C
000270 14 C
000271 14 C
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000275 14 C
000276 14 C
000277 14 C
000278 14 C
000279 14 C
000280 14 C
000281 14 C
000282 14 C
000283 14 C
000284 14 C

```

***** STAMAT *****

181

[illegible]

***** SUMMARY *****

CELTIC K0ATRII.SUMARY

ELT7007 575R18 .9700780 00113:27 19.1

COMPILER (AN=1)

SURROUTINE SUMARY(INDX,15)

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DATE 09/08/80

PAGE

3

000000	00	C	ARMSTRONGSTRK ON RCT'S DEFENDANCE COEFFICIENT OF ENEMY AT ON A/LA
000001	00	C	
000002	00	C	
000003	00	C	8888 METZEL CHANGES 2 MAY 77 550.
000004	00	C	COMMON/METZEL/JFL,PSHO(5,29,3),PCAP(13,3),PDELAY(13,3),REPAR(12,3),
000005	00	C	INTEGREN PDECAF
000006	00	C	
000007	00	C	
000008	00	C	
000009	00	C	
000010	00	C	
000011	00	C	
000012	00	C	
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000014	00	C	
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000110	00	C	
000111	00	C	
000112	00	C	
000113	00	C	

0000771	C	-----CALCULATE WEAPONS DESTROYED
0000772	C	WPESTRT=0
0000773	C	JKL=SHOOTERS 1=TANKS,2=APC,3=HELO,4=AT/TH,5=PERSONNEL
0000774	C	IF (INGAGHT.EQ.0) GO TO 88
0000775	C	DIRECT FIRE ONLY TANKS,APC,HELO,AT/TH & PERSONNEL
0000776	C	IF (INGAGHT.EQ.0) GO TO 88
0000777	C	IF (INGAGHT.EQ.0) GO TO 120
0000778	C	IF (INGAGHT.EQ.0) GO TO 120
0000779	C	IF (INGAGHT.EQ.0) GO TO 120
0000780	C	IF (INGAGHT.EQ.0) GO TO 120
0000781	C	IF (INGAGHT.EQ.0) GO TO 120
0000782	C	IF (INGAGHT.EQ.0) GO TO 120
0000783	C	IF (INGAGHT.EQ.0) GO TO 120
0000784	C	IF (INGAGHT.EQ.0) GO TO 120
0000785	C	IF (INGAGHT.EQ.0) GO TO 120
0000786	C	IF (INGAGHT.EQ.0) GO TO 120
0000787	C	IF (INGAGHT.EQ.0) GO TO 120
0000788	C	IF (INGAGHT.EQ.0) GO TO 120
0000789	C	IF (INGAGHT.EQ.0) GO TO 120
0000790	C	IF (INGAGHT.EQ.0) GO TO 120
0000791	C	IF (INGAGHT.EQ.0) GO TO 120
0000792	C	IF (INGAGHT.EQ.0) GO TO 120
0000793	C	IF (INGAGHT.EQ.0) GO TO 120
0000794	C	IF (INGAGHT.EQ.0) GO TO 120
0000795	C	IF (INGAGHT.EQ.0) GO TO 120
0000796	C	IF (INGAGHT.EQ.0) GO TO 120
0000797	C	IF (INGAGHT.EQ.0) GO TO 120
0000798	C	IF (INGAGHT.EQ.0) GO TO 120
0000799	C	IF (INGAGHT.EQ.0) GO TO 120
0000800	C	IF (INGAGHT.EQ.0) GO TO 120
0000801	C	IF (INGAGHT.EQ.0) GO TO 120
0000802	C	IF (INGAGHT.EQ.0) GO TO 120
0000803	C	IF (INGAGHT.EQ.0) GO TO 120
0000804	C	IF (INGAGHT.EQ.0) GO TO 120
0000805	C	IF (INGAGHT.EQ.0) GO TO 120
0000806	C	IF (INGAGHT.EQ.0) GO TO 120
0000807	C	IF (INGAGHT.EQ.0) GO TO 120
0000808	C	IF (INGAGHT.EQ.0) GO TO 120
0000809	C	IF (INGAGHT.EQ.0) GO TO 120
0000810	C	IF (INGAGHT.EQ.0) GO TO 120
0000811	C	IF (INGAGHT.EQ.0) GO TO 120
0000812	C	IF (INGAGHT.EQ.0) GO TO 120
0000813	C	IF (INGAGHT.EQ.0) GO TO 120
0000814	C	IF (INGAGHT.EQ.0) GO TO 120
0000815	C	IF (INGAGHT.EQ.0) GO TO 120
0000816	C	IF (INGAGHT.EQ.0) GO TO 120
0000817	C	IF (INGAGHT.EQ.0) GO TO 120
0000818	C	IF (INGAGHT.EQ.0) GO TO 120
0000819	C	IF (INGAGHT.EQ.0) GO TO 120
0000820	C	IF (INGAGHT.EQ.0) GO TO 120
0000821	C	IF (INGAGHT.EQ.0) GO TO 120
0000822	C	IF (INGAGHT.EQ.0) GO TO 120
0000823	C	IF (INGAGHT.EQ.0) GO TO 120
0000824	C	IF (INGAGHT.EQ.0) GO TO 120
0000825	C	IF (INGAGHT.EQ.0) GO TO 120
0000826	C	IF (INGAGHT.EQ.0) GO TO 120
0000827	C	IF (INGAGHT.EQ.0) GO TO 120

□

AD-A130 065

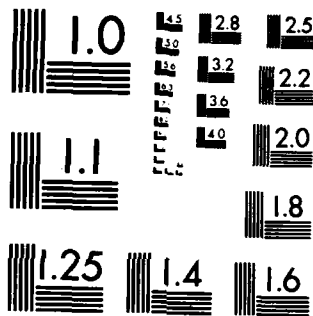
CONCEPTS EVALUATION MODEL (CEM) ATTRITION AND
CALIBRATION MODIFICATION I..(U) GENERAL RESEARCH CORP
MCLEAN VA EASTERN TECHNOLOGIES DIV J E SHEPHERD OCT 80
UNCLASSIFIED GRC-1162-01-80-CR MDA903-80-C-0321

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



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000770 04 DIMENSION TACTIC
000771 04 C ZERO BLUE SIDE AVERAGE HELICOPTER FIREPOWER ARRAY
000772 04 DO 991 TACTIC
000773 04 DO 914 J=1,5
000774 04 DO 992 TACTIC
000775 04 MELIPIN(J)=0.
000776 04 CONTINUE
000777 04 991 CONTINUE
000778 04 914 CONTINUE
000779 04 992 CONTINUE
000780 04 C
000781 04 DO 101 I=1,915
000782 04 I=POOL(I)
000783 04 105 CONTINUE
000784 04 DO 105 I=1,71
000785 04 PLOGR(I)=0.
000786 04 PLOGR(I)=0.
000787 04 IFTALE(J)=TUSC(I)
000788 04 105 CONTINUE
000789 04 TPREP=0
000790 04 HENTP=HENTP(1)
000791 04 HENTP=HENTP(2)
000792 04 C-----READ SECTION CARD
000793 04 MODEL=
000794 04 CALL SECARD
000795 04 C
000796 04 DO 886 L=1,8
000797 04 DO 887 J=1,5
000798 04 K/V 5=0
000799 04 DO 888 J=1,6
000800 04 K/V 5=0
000801 04 886 CONTINUE
000802 04 887 CONTINUE
000803 04 C-----PROCESS BY SIDE
000804 04 HARDP=2000*HREFEE-1
000805 04 ASSIGN HREF TO LABELA
000806 04 ASSIGN 5001 TO LABELB
000807 04 2000 ISIDE=ISIDE+1
000808 04 ISIDE=
000809 04 ISM=ISIDE+1
000810 04 CALL CLROU
000811 04 NMTC=0
000812 04 IF (ISIDE-61.2) 60 TO 9999
000813 04 HREFP=
000814 04 MASGRT(ISIDE)=
000815 04 HREFP=ISIDE
000816 04 CALL SUPRT (ISIDE)
000817 04 DO 1222 K=1,21
000818 04 STADIK,ISIDE=,0
000819 04 1222 CONTINUE
000820 04 C
000821 04 C-----NEED STARTING MISSION
000822 04 CALL READCR(MISSION,61)
000823 04 C SAVE MI, P, AND Q MODIFIERS BY SIDE
000824 04 POLHISIDE=HREF(13)
000825 04 ARMORTISIDE=HREF(14)
000826 04 OTHERMISIDE=HREF(15)
000827 04 C P Q FOR INF FOR POL

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000000	04	IF TIME=TIMEOUT, THEN GO TO 0012
000001	04	C INPUT WEAPON TYPE DESCRIPTION
000002	04	C
000003	04	C TAMES FIRST
000004	04	CALL PENSED
000005	04	GO TO 0015
000006	04	IF TIME=TIMEOUT, THEN GO TO 0011
000007	04	IF TIME=TIMEOUT, THEN GO TO 0011
000008	04	IF TIME=TIMEOUT, THEN GO TO 0011
000009	04	IF TIME=TIMEOUT, THEN GO TO 0011
000010	04	IF TIME=TIMEOUT, THEN GO TO 0011
000011	04	IF TIME=TIMEOUT, THEN GO TO 0011
000012	04	IF TIME=TIMEOUT, THEN GO TO 0011
000013	04	IF TIME=TIMEOUT, THEN GO TO 0011
000014	04	IF TIME=TIMEOUT, THEN GO TO 0011
000015	04	IF TIME=TIMEOUT, THEN GO TO 0011
000016	04	IF TIME=TIMEOUT, THEN GO TO 0011
000017	04	IF TIME=TIMEOUT, THEN GO TO 0011
000018	04	IF TIME=TIMEOUT, THEN GO TO 0011
000019	04	IF TIME=TIMEOUT, THEN GO TO 0011
000020	04	IF TIME=TIMEOUT, THEN GO TO 0011
000021	04	IF TIME=TIMEOUT, THEN GO TO 0011
000022	04	IF TIME=TIMEOUT, THEN GO TO 0011
000023	04	IF TIME=TIMEOUT, THEN GO TO 0011
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000025	04	IF TIME=TIMEOUT, THEN GO TO 0011
000026	04	IF TIME=TIMEOUT, THEN GO TO 0011
000027	04	IF TIME=TIMEOUT, THEN GO TO 0011
000028	04	IF TIME=TIMEOUT, THEN GO TO 0011
000029	04	IF TIME=TIMEOUT, THEN GO TO 0011
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000031	04	IF TIME=TIMEOUT, THEN GO TO 0011
000032	04	IF TIME=TIMEOUT, THEN GO TO 0011
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000042	04	IF TIME=TIMEOUT, THEN GO TO 0011
000043	04	IF TIME=TIMEOUT, THEN GO TO 0011
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000045	04	IF TIME=TIMEOUT, THEN GO TO 0011
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000048	04	IF TIME=TIMEOUT, THEN GO TO 0011
000049	04	IF TIME=TIMEOUT, THEN GO TO 0011
000050	04	IF TIME=TIMEOUT, THEN GO TO 0011
000051	04	IF TIME=TIMEOUT, THEN GO TO 0011
000052	04	IF TIME=TIMEOUT, THEN GO TO 0011
000053	04	IF TIME=TIMEOUT, THEN GO TO 0011
000054	04	IF TIME=TIMEOUT, THEN GO TO 0011

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NO	CODE	DESCRIPTION	REMARKS
1	000000	INITIALIZE	0 K/V 5-80
2	000001	INITIALIZE	0 K/V 5-80
3	000002	INITIALIZE	0 K/V 5-80
4	000003	INITIALIZE	0 K/V 5-80
5	000004	INITIALIZE	0 K/V 5-80
6	000005	INITIALIZE	0 K/V 5-80
7	000006	INITIALIZE	0 K/V 5-80
8	000007	INITIALIZE	0 K/V 5-80
9	000008	INITIALIZE	0 K/V 5-80
10	000009	INITIALIZE	0 K/V 5-80
11	000010	INITIALIZE	0 K/V 5-80
12	000011	INITIALIZE	0 K/V 5-80
13	000012	INITIALIZE	0 K/V 5-80
14	000013	INITIALIZE	0 K/V 5-80
15	000014	INITIALIZE	0 K/V 5-80
16	000015	INITIALIZE	0 K/V 5-80
17	000016	INITIALIZE	0 K/V 5-80
18	000017	INITIALIZE	0 K/V 5-80
19	000018	INITIALIZE	0 K/V 5-80
20	000019	INITIALIZE	0 K/V 5-80
21	000020	INITIALIZE	0 K/V 5-80
22	000021	INITIALIZE	0 K/V 5-80
23	000022	INITIALIZE	0 K/V 5-80
24	000023	INITIALIZE	0 K/V 5-80
25	000024	INITIALIZE	0 K/V 5-80
26	000025	INITIALIZE	0 K/V 5-80
27	000026	INITIALIZE	0 K/V 5-80
28	000027	INITIALIZE	0 K/V 5-80
29	000028	INITIALIZE	0 K/V 5-80
30	000029	INITIALIZE	0 K/V 5-80
31	000030	INITIALIZE	0 K/V 5-80
32	000031	INITIALIZE	0 K/V 5-80
33	000032	INITIALIZE	0 K/V 5-80
34	000033	INITIALIZE	0 K/V 5-80
35	000034	INITIALIZE	0 K/V 5-80
36	000035	INITIALIZE	0 K/V 5-80
37	000036	INITIALIZE	0 K/V 5-80
38	000037	INITIALIZE	0 K/V 5-80
39	000038	INITIALIZE	0 K/V 5-80
40	000039	INITIALIZE	0 K/V 5-80
41	000040	INITIALIZE	0 K/V 5-80
42	000041	INITIALIZE	0 K/V 5-80
43	000042	INITIALIZE	0 K/V 5-80
44	000043	INITIALIZE	0 K/V 5-80
45	000044	INITIALIZE	0 K/V 5-80
46	000045	INITIALIZE	0 K/V 5-80
47	000046	INITIALIZE	0 K/V 5-80
48	000047	INITIALIZE	0 K/V 5-80
49	000048	INITIALIZE	0 K/V 5-80
50	000049	INITIALIZE	0 K/V 5-80
51	000050	INITIALIZE	0 K/V 5-80
52	000051	INITIALIZE	0 K/V 5-80
53	000052	INITIALIZE	0 K/V 5-80
54	000053	INITIALIZE	0 K/V 5-80
55	000054	INITIALIZE	0 K/V 5-80
56	000055	INITIALIZE	0 K/V 5-80
57	000056	INITIALIZE	0 K/V 5-80
58	000057	INITIALIZE	0 K/V 5-80
59	000058	INITIALIZE	0 K/V 5-80
60	000059	INITIALIZE	0 K/V 5-80
61	000060	INITIALIZE	0 K/V 5-80
62	000061	INITIALIZE	0 K/V 5-80
63	000062	INITIALIZE	0 K/V 5-80
64	000063	INITIALIZE	0 K/V 5-80
65	000064	INITIALIZE	0 K/V 5-80
66	000065	INITIALIZE	0 K/V 5-80
67	000066	INITIALIZE	0 K/V 5-80
68	000067	INITIALIZE	0 K/V 5-80
69	000068	INITIALIZE	0 K/V 5-80
70	000069	INITIALIZE	0 K/V 5-80
71	000070	INITIALIZE	0 K/V 5-80
72	000071	INITIALIZE	0 K/V 5-80
73	000072	INITIALIZE	0 K/V 5-80
74	000073	INITIALIZE	0 K/V 5-80
75	000074	INITIALIZE	0 K/V 5-80
76	000075	INITIALIZE	0 K/V 5-80
77	000076	INITIALIZE	0 K/V 5-80
78	000077	INITIALIZE	0 K/V 5-80
79	000078	INITIALIZE	0 K/V 5-80
80	000079	INITIALIZE	0 K/V 5-80
81	000080	INITIALIZE	0 K/V 5-80

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351N11

00000	IF (MHBUS15)GT(0)LT(1) GO TO 0311	
00001	QUANT=MHBUS(152,J,1)	
00002	C K/V 5=00 TANKS	
00003	BNIPPS(1,1)=BNIPPS(1,1)+MHBUS(11,J,1)*MHBUS(12,J,1)*QUANT	
00004	C K/V 5=00	
00005	BNIPPS(2,1)=BNIPPS(2,1)+MHBUS(13,J,1)*MHBUS(14,J,1)*QUANT	
00006	C K/V 5=00	
00007	BNIPPS(3,1)=BNIPPS(3,1)+MHBUS(15,J,1)*MHBUS(16,J,1)*QUANT	
00008	C K/V 5=00	
00009	BNIPPS(4,1)=BNIPPS(4,1)+MHBUS(17,J,1)*MHBUS(18,J,1)*QUANT	
00010	C K/V 5=00	
00011	BNIPPS(5,1)=BNIPPS(5,1)+MHBUS(19,J,1)*MHBUS(20,J,1)*QUANT	
00012	C K/V 5=00	
00013	BNIPPS(6,1)=BNIPPS(6,1)+MHBUS(21,J,1)*MHBUS(22,J,1)*QUANT	
00014	C K/V 5=00	
00015	BNIPPS(7,1)=BNIPPS(7,1)+MHBUS(23,J,1)*MHBUS(24,J,1)*QUANT	
00016	C K/V 5=00	
00017	BNIPPS(8,1)=BNIPPS(8,1)+MHBUS(25,J,1)*MHBUS(26,J,1)*QUANT	
00018	C K/V 5=00	
00019	BNIPPS(9,1)=BNIPPS(9,1)+MHBUS(27,J,1)*MHBUS(28,J,1)*QUANT	
00020	C K/V 5=00	
00021	BNIPPS(10,1)=BNIPPS(10,1)+MHBUS(29,J,1)*MHBUS(30,J,1)*QUANT	
00022	C K/V 5=00	
00023	BNIPPS(11,1)=BNIPPS(11,1)+MHBUS(31,J,1)*MHBUS(32,J,1)*QUANT	
00024	C K/V 5=00	
00025	BNIPPS(12,1)=BNIPPS(12,1)+MHBUS(33,J,1)*MHBUS(34,J,1)*QUANT	
00026	C K/V 5=00	
00027	BNIPPS(13,1)=BNIPPS(13,1)+MHBUS(35,J,1)*MHBUS(36,J,1)*QUANT	
00028	C K/V 5=00	
00029	BNIPPS(14,1)=BNIPPS(14,1)+MHBUS(37,J,1)*MHBUS(38,J,1)*QUANT	
00030	C K/V 5=00	
00031	BNIPPS(15,1)=BNIPPS(15,1)+MHBUS(39,J,1)*MHBUS(40,J,1)*QUANT	
00032	C K/V 5=00	
00033	BNIPPS(16,1)=BNIPPS(16,1)+MHBUS(41,J,1)*MHBUS(42,J,1)*QUANT	
00034	C K/V 5=00	
00035	BNIPPS(17,1)=BNIPPS(17,1)+MHBUS(43,J,1)*MHBUS(44,J,1)*QUANT	
00036	C K/V 5=00	
00037	BNIPPS(18,1)=BNIPPS(18,1)+MHBUS(45,J,1)*MHBUS(46,J,1)*QUANT	
00038	C K/V 5=00	
00039	BNIPPS(19,1)=BNIPPS(19,1)+MHBUS(47,J,1)*MHBUS(48,J,1)*QUANT	
00040	C K/V 5=00	
00041	BNIPPS(20,1)=BNIPPS(20,1)+MHBUS(49,J,1)*MHBUS(50,J,1)*QUANT	
00042	C K/V 5=00	
00043	BNIPPS(21,1)=BNIPPS(21,1)+MHBUS(51,J,1)*MHBUS(52,J,1)*QUANT	
00044	C K/V 5=00	
00045	BNIPPS(22,1)=BNIPPS(22,1)+MHBUS(53,J,1)*MHBUS(54,J,1)*QUANT	
00046	C K/V 5=00	
00047	BNIPPS(23,1)=BNIPPS(23,1)+MHBUS(55,J,1)*MHBUS(56,J,1)*QUANT	
00048	C K/V 5=00	
00049	BNIPPS(24,1)=BNIPPS(24,1)+MHBUS(57,J,1)*MHBUS(58,J,1)*QUANT	
00050	C K/V 5=00	
00051	BNIPPS(25,1)=BNIPPS(25,1)+MHBUS(59,J,1)*MHBUS(60,J,1)*QUANT	
00052	C K/V 5=00	
00053	BNIPPS(26,1)=BNIPPS(26,1)+MHBUS(61,J,1)*MHBUS(62,J,1)*QUANT	
00054	C K/V 5=00	
00055	BNIPPS(27,1)=BNIPPS(27,1)+MHBUS(63,J,1)*MHBUS(64,J,1)*QUANT	
00056	C K/V 5=00	
00057	BNIPPS(28,1)=BNIPPS(28,1)+MHBUS(65,J,1)*MHBUS(66,J,1)*QUANT	
00058	C K/V 5=00	
00059	BNIPPS(29,1)=BNIPPS(29,1)+MHBUS(67,J,1)*MHBUS(68,J,1)*QUANT	
00060	C K/V 5=00	
00061	BNIPPS(30,1)=BNIPPS(30,1)+MHBUS(69,J,1)*MHBUS(70,J,1)*QUANT	
00062	C K/V 5=00	
00063	BNIPPS(31,1)=BNIPPS(31,1)+MHBUS(71,J,1)*MHBUS(72,J,1)*QUANT	
00064	C K/V 5=00	
00065	BNIPPS(32,1)=BNIPPS(32,1)+MHBUS(73,J,1)*MHBUS(74,J,1)*QUANT	
00066	C K/V 5=00	
00067	BNIPPS(33,1)=BNIPPS(33,1)+MHBUS(75,J,1)*MHBUS(76,J,1)*QUANT	
00068	C K/V 5=00	
00069	BNIPPS(34,1)=BNIPPS(34,1)+MHBUS(77,J,1)*MHBUS(78,J,1)*QUANT	
00070	C K/V 5=00	
00071	BNIPPS(35,1)=BNIPPS(35,1)+MHBUS(79,J,1)*MHBUS(80,J,1)*QUANT	
00072	C K/V 5=00	
00073	BNIPPS(36,1)=BNIPPS(36,1)+MHBUS(81,J,1)*MHBUS(82,J,1)*QUANT	
00074	C K/V 5=00	
00075	BNIPPS(37,1)=BNIPPS(37,1)+MHBUS(83,J,1)*MHBUS(84,J,1)*QUANT	
00076	C K/V 5=00	
00077	BNIPPS(38,1)=BNIPPS(38,1)+MHBUS(85,J,1)*MHBUS(86,J,1)*QUANT	
00078	C K/V 5=00	
00079	BNIPPS(39,1)=BNIPPS(39,1)+MHBUS(87,J,1)*MHBUS(88,J,1)*QUANT	
00080	C K/V 5=00	
00081	BNIPPS(40,1)=BNIPPS(40,1)+MHBUS(89,J,1)*MHBUS(90,J,1)*QUANT	
00082	C K/V 5=00	
00083	BNIPPS(41,1)=BNIPPS(41,1)+MHBUS(91,J,1)*MHBUS(92,J,1)*QUANT	
00084	C K/V 5=00	
00085</		

APPENDIX D

SAMPLE OUTPUT FROM A CEM
BATTLE ENGAGEMENT

ENGAGEMENT EXPENDITURE/ATTRITION

SIDE BLUE		W E A P O N S				A M M O				W E A P O N S			
MPN	TUBE	ROUNDS/MPN/TUBE	ALLOWABLE ON-HAND	TOTAL	ENGAGED	HIT	MPN	TUBE	ROUNDS/MPN/TUBE	ALLOWABLE ON-HAND	TOTAL	ENGAGED	HIT
TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE
1	1	15.00	.00	.00	.00	.00	1	1	10.00	10.00	5.00	103.12	6.68
2	2	100.00	.00	.00	.00	.00	2	2	100.00	100.00	2354.77	71.55	5.51
3	1	20.00	.00	.00	.00	.00	3	1	15.00	15.00	4.40	.00	.00
4	1	15.00	.00	.00	.00	.00	4	1	15.00	15.00	.00	.00	.00
5	1	15.00	.00	.00	.00	.00	5	1	20.00	20.00	.12	2.07	.50
6	1	50.00	.00	.00	.00	.00	6	1	15.00	15.00	.00	.00	.00
7	1	10.00	.00	.00	.00	.00	7	1	10.00	10.00	.10	2.84	.75
8	1	15.00	.00	.00	.00	.00	8	1	10.00	10.00	5.46	.00	.00
9	1	20.00	.00	.00	.00	.00	9	1	10.00	10.00	.00	.00	.00
10	1	15.00	.00	.00	.00	.00	10	1	20.00	20.00	.27	5.41	1.50
11	1	55.00	.00	.00	.00	.00	11	1	30.00	30.00	.10	1.08	.34
12	1	25.00	.00	.00	.00	.00	12	1	40.00	40.00	.34	.00	.00
13	1	100.00	.00	.00	.00	.00	13	1	100.00	100.00	.00	4360.76	65.82
14	1	10.00	.00	.00	.00	.00	14	1	10.00	10.00	.16	.00	.00