

AD-A194 143

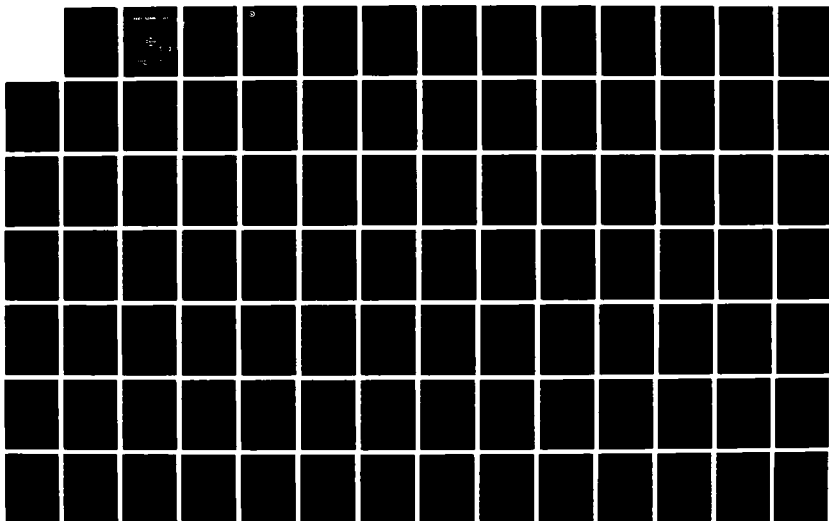
ARMY TRAINING STUDY: TRAINING EFFECTIVENESS ANALYSIS  
1978(U) ARMY TRAINING AND DOCTRINE COMMAND FORT MONROE  
VA F J BROWN 10 APR 78 SBI-AD-F000 119

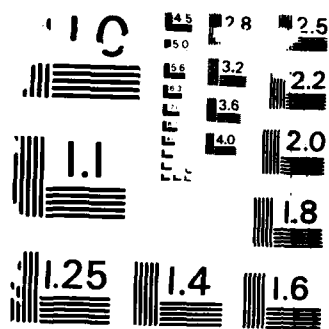
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# ARMY TRAINING STUDY

AD-A194 143



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## TRAINING EFFECTIVENESS ANALYSIS 1978

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AD-A194 143

## REPORT DOCUMENTATION PAGE

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                                         |                                                                                                                   |                                                    |                        |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------|----------------------|
| 1a REPORT SECURITY CLASSIFICATION<br>Unclassified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                                         | 1b RESTRICTIVE MARKINGS                                                                                           |                                                    |                        |                      |
| 2a SECURITY CLASSIFICATION AUTHORITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |                                         | 3 DISTRIBUTION/AVAILABILITY OF REPORT<br>Approved for Public Release;<br>Distribution is unlimited.               |                                                    |                        |                      |
| 2b DECLASSIFICATION/DOWNGRADING SCHEDULE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |                                         |                                                                                                                   |                                                    |                        |                      |
| 4 PERFORMING ORGANIZATION REPORT NUMBER(S)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                                         | 5 MONITORING ORGANIZATION REPORT NUMBER(S)                                                                        |                                                    |                        |                      |
| NAME OF PERFORMING ORGANIZATION<br>U.S. Army Training Study Group                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       | 6b. OFFICE SYMBOL<br>(If applicable)    | 7a NAME OF MONITORING ORGANIZATION<br>U.S. Army Training & Doctrine Command<br>Deputy Chief of Staff for Training |                                                    |                        |                      |
| ADDRESS (City, State, and ZIP Code)<br>Fort Monroe, VA 23651-5000                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                                         | 7b ADDRESS (City, State, and ZIP Code)<br>Fort Monroe, VA 23651-5000                                              |                                                    |                        |                      |
| 8a. NAME OF FUNDING/SPONSORING ORGANIZATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | 8b. OFFICE SYMBOL<br>(If applicable)    | 9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER                                                                    |                                                    |                        |                      |
| 8c. ADDRESS (City, State, and ZIP Code)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       | 10 SOURCE OF FUNDING NUMBERS            |                                                                                                                   |                                                    |                        |                      |
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| 12. PERSONAL AUTHOR(S)<br>Brigadier General Frederic J. Brown III, et al.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                                         |                                                                                                                   |                                                    |                        |                      |
| 13a TYPE OF REPORT<br>Final                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | 13b TIME COVERED<br>FROM _____ TO _____ |                                                                                                                   | 14 DATE OF REPORT (Year, Month, Day)<br>April 1978 |                        | 15 PAGE COUNT<br>172 |
| 16. SUPPLEMENTARY NOTATION<br>See also ADA184392, Army Training Study. Final Report Summary.                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                         |                                                                                                                   |                                                    |                        |                      |
| 17. COSATI CODES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                                         | 18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)                                 |                                                    |                        |                      |
| FIELD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | GROUP | SUB-GROUP                               |                                                                                                                   |                                                    |                        |                      |
| 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1     |                                         |                                                                                                                   |                                                    |                        |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                                         |                                                                                                                   |                                                    |                        |                      |
| 19. ABSTRACT (Continue on reverse if necessary and identify by block number)                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                         |                                                                                                                   |                                                    |                        |                      |
| <div style="float: right; border: 1px solid black; padding: 5px;"> <p>Accession For</p> <p>NTIS GRA&amp;I <input checked="" type="checkbox"/></p> <p>DTIC TAB <input type="checkbox"/></p> <p>Unannounced <input type="checkbox"/></p> <p>Justification</p> <p>By _____</p> <p>Distribution/</p> <p>Availability codes</p> <p>Avail and/or</p> <p>Dist Special</p> <p>A-1</p> </div> <div style="text-align: center; margin-top: 20px;">  </div> |       |                                         |                                                                                                                   |                                                    |                        |                      |
| 20. DISTRIBUTION/AVAILABILITY OF ABSTRACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                                         | 21. ABSTRACT SECURITY CLASSIFICATION                                                                              |                                                    |                        |                      |
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| 22a NAME OF PERSON/COMPANY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                                         | 22b OFFICE SYMBOL                                                                                                 |                                                    | 22c OFFICE SYMBOL      |                      |
| J. Brown III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                         | ADN 727-2755                                                                                                      |                                                    | ATAD-0                 |                      |

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DEPARTMENT OF THE ARMY  
HEADQUARTERS US ARMY TRAINING STUDY  
FORT BELVOIR, VIRGINIA 22060

ATCG-ATS

10 April 1978

SUBJECT: Revised Army Training Study (ARTS) TEA 78 Management System Package

SEE DISTRIBUTION

1. References:

a. Training Developments Study Directive: Army Training Study (ARTS), dated 6 Oct 1977.

b. Director, ARTS Letter of Transmittal, TEA 85, dated 13 Jan 1978.

c. Director, ARTS Letter: Army Training Study (ARTS) TEA 78 Management System, dated 5 April 1978.

2. At Inclosure 1 is the revised ARTS TEA 78 Management System Package. This package reflects the changes that were made in reference c as a result of visits of ARTS staff members to TRADOC proponent schools.

3. At Inclosure 2 is a summary of all changes as coordinated with and agreed to by the TRADOC proponent schools. Corrections have been made to include changes proposed for each test.

4. ARTS will devote increased study effort to analysis of evidence that can be derived from test activities in TEA 78. Validity of the TEA 78 test results is essential to the evolution of the Battalion Training Model. ARTS will drive hard to assist both testers and supporting test units in ensuring a quality effort. We solicit the active, aggressive support of systems work team members, analysts, testers, testees and the multitude of people, soldiers and civilians alike who have already contributed so much to ARTS.

ATCG-ATS

10 April 1978

SUBJECT: Revised Army Training Study (ARTS) TEA 78 Management  
System Package

5. Questions concerning any aspect of this package should be referred to ARTS staff. POC: LTC Bloedorn and LTC Stone, Autovon 354-1461/1462/1463/1464.



FREDERIC J. BROWN  
BG, USA  
Director

2 Incl

1. Revised TEA 78  
Mgt Sys Package
2. MFR: TEA 78 Tests

DISTRIBUTION:

- 2-Ea SAG Attendee
- 1-Ea TEA Consultant Gp Mbr
- 1-Ea Ed/Tng Consultant Gp Mbr
- 1-Ea Cost/Res Mgt Consultant Gp Mbr
- 1-Ea SWT
- 1-Ea ARTS LNO

ATCG-ATS

5 April 1978

SUBJECT: ARMY TRAINING STUDY (ARTS) TEA '78 MANAGEMENT SYSTEM

1. REFERENCES:

a. Training Developments Study Directive: Army Training Study (ARTS) dtd 6 Oct 1977.

b. Director, ARTS Letter of Transmittal, TEA '85, dtd 13 Jan 1978.

2. The purpose of this memorandum is to describe the ARTS system of managing the near-term study effort, Training Effectiveness Analysis (TEA) '78. This management system is designed to:

a. Coordinate TEA '78 field testing and research with other ongoing Army tests so that meaningful data from all tests will be available to ARTS analysts.

b. Provide a common report format which will facilitate analysis of the entire short term study effort in terms of the ARTS model, essential elements of analysis and the long term study, TEA '85.

c. Provide a "crosswalk" between TEA '78 objectives and test activities and the core objectives and situational variables of the long term study, TEA '85.

3. TEA '78 combined with the long term effort, TEA '85, form a TEA program which has been designed to quantify the current training system in order to justify allocation of required training resources. Additionally, this program should develop insights leading to training system improvements designed to provide an Army trained to win not just the first but rather all battles of the next war.

4. Concept: The TEA '78 management system provides:

a. A summary listing of all tests currently included in TEA '78 and additional tests that appear to provide information which will upgrade/validate data gathered in TEA '78 tests.

b. Work sheets for each system work team (SWT). These work sheets outline test objectives, sample sizes, links to the ARTS model, major test activities and scheduled reporting dates. The work sheets are designed to facilitate action officer coordination of ARTS-related efforts. They can also be used to trace the progress of field testing of those add-on tests which can be used in conjunction with SWT Study Plans. Recommendations concerning other ongoing tests which might support ARTS objectives are solicited. Work sheets are at

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5 April 1978

SUBJECT: ARMY TRAINING STUDY (ARTS) TEA '78 MANAGEMENT SYSTEM

Inclosure 1.

c. TEA '78 ARTS Deliverable Summary Sheet. Attached to each test work sheet is a deliverable summary sheet which portrays the separate test activities in relation to various areas of training interest, i.e., training in the institution ( $T_i$ ), individual training in the unit largely to Soldier's Manual tasks ( $T_s$ ) or collective training in the unit, primarily to ARTEP tasks ( $T_a$ ). These activities are also arrayed to portray their interface with TEA '85 core objectives and situational variables. Used in conjunction with reference 1b, these test activities are to be used in transition to testing designed to support long term study efforts. Further, the Deliverable Summary Sheet portrays the TEA '78 interface with ongoing ARTS efforts. Deliverable Summary Sheets are attached to work sheets at Inclosure 1.

d. The reporting handbook attached at Inclosure 2 has been prepared to assist in arraying test data results and conclusions by ARTS area of interest within the ARTS model. Further, the handbook provides guidance to ensure that data is delivered in such a manner that it is readily available to TEA '85 testers and those ARTS personnel developing the Battalion Training Model.

e. ARTS Training Resource Methodology, attached at Inclosure 3, will continue to be a guideline for the collection of resource data for the development of insights concerning the relationships between resources and training conducted both in the institution and in the unit.

4. At Inclosure 4 is an extract of the TEA '85 program, reference 1b, showing the core objectives, situational variables, test concepts and the TEA '85 master test plan. This extract should be used in conjunction with the TEA '78 independent evaluation plans to ensure that data deriving from TEA '78 test activities which will be needed for execution of TEA '85 and other study efforts (Battalion Training Model) is captured and included in all reports to ARTS.

5. ARTS POC are visiting each SWT to:

a. Review work plans and progress.

b. Assist in arranging technical support as appropriate.

c. Discuss report guidelines to identify necessary changes to the final procedures described in the reporting handbook (Inclosure 2). These guidelines encompass how tests will relate to the ARTS Model, objectives, EEA, and situational variables, and subsequent ARTS excursions.

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SUBJECT: ARMY TRAINING STUDY (ARTS) TEA '78 MANAGEMENT SYSTEM

6. ARTS POC's for the administration of this system are:

- a. LTC G. W. Bloedorn & LTC T. Stone AV 354-1461/62/63  
M60A1  
MOS 63/C, H  
CAMMS  
XM-1 OT II  
REALTRAIN  
TIE TEST  
GENERAL SURVEY ON TRAINING REQUIREMENTS
- b. LTC P. Zielenski AV 354-1461/62/63/64  
ARTY FO 13 F Exported Tng  
ARI CANNON CREW Turn-over  
TACFIRE Post OT III  
REDEYE  
AIT COMMON SKILLS RETENTION - 13B
- c. LTC W. Valen AV 354-1461/62/63/64  
TOW  
11B P4  
O5C

4 Incl.

- 1. SWT Worksheets and ARTS  
Deliverable Summary Sheets
- 2. Reporting Handbook
- 3. ARTS Training Resource Methodology
- 4. TEA '85 Extract



FREDERIC J. BROWN  
BG, USA  
Director

SWT WORKSHEETS AND ARTS  
DELIVERABLE SUMMARY SHEETS

ANNEXES:

- A. M60A1
- B. REDEYE
- C. TOW
- D. FO
- E. 63C/H
- F. 05C/F
- G. ADD-ON TESTS

ARMY TRAINING EFFECTIVENESS ANALYSIS 1976 TEST PROGRAM (SHORT TITLE: TIA 78)

| TEST  | TEST/STUDY TITLE              | TRADOC SCHOOL ANALYTICAL AGENCY | SAMPLE SIZES                                                | TEST UNITS                        | LINKS TO ARTS MODEL                                  | LINKS TO CORE & SITUATIONAL VARIABLES | TEST DATES & MAJOR ACTIVITIES                                                                     | INTERIM/FINAL REPORT DATE                        | REMARKS                                 |
|-------|-------------------------------|---------------------------------|-------------------------------------------------------------|-----------------------------------|------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------|
| MGOAL | TANK CREW TURBULENCE RESEARCH | USAAWRS/ARI                     | 1 TR BN<br>1 SEP TR CO.                                     | 2 BN, 34 AR<br>CDEC TR CO         | PROG TO PROF                                         | CORE: A4B<br>VAR: 12, 16, 25          | TABLE VIII 13-24<br>MAR 78. NON-11E<br>TRAIN-UP 29 MAR<br>TO 6 APR 78. CDEC<br>TEST 15-25 MAY 78. | 1-18 MAY<br>P-DRAFT BY<br>18 JUN                 | FINAL RPT<br>SIRU<br>TO ARI<br>APPROVAL |
| MGOAL | PROFICIENCY & RETENTION TESTS | USAAWRS/ARI                     | 1000 BMT<br>TESTERS<br>200-300<br>UNIT TROOPS               | 24ID, 3AD                         | RES TO PROF<br>PROG TO PROF                          | CORE: B, C, D<br>VAR: 3, 18           | 28-29 MAR FT STENANT<br>17-28 APR USAREUR                                                         | 1-7 APR<br>P-7 MAY                               |                                         |
| MGOAL | MODULAR TRAINING FOR R.C.     | USAAWRS/ARI                     | 96 TR CREWS                                                 | 49AD (ARRG)                       | PROG TO PROF<br>RES TO PROF                          | CORE: A, B,<br>VAR: 3, 19, 25         | 49AD READINESS TEST<br>3-18 JUN. BN TRAIN-UP<br>DURING FY79. 49AD<br>READINESS TEST JUN 79        | 1-UNKNOWN<br>P-UNKNOWN                           |                                         |
| MGOAL | MODIFIED MGOAL NSTEA          | USAAWRS/TRASAWRS                | 400 TR CREWS                                                | 41D, 31D                          | PROG TO PROF<br>(INPUT FOR<br>WAR REL)<br>PROG TO CE | CORE: A, B<br>VAR: 16, 17<br>18, 25   | 41D 16 JAN-5 JUN 78<br>31D 11 FEB-15 MAR 78                                                       | 1-4/A<br>P-1 JUL                                 |                                         |
| MGOAL | SCALD RANGE SUB CALIBER TEST  | USAAWRS/USATCA                  | 400 BMT<br>TESTERS                                          | 194 AR BDE<br>USATCA 1<br>TNG BDE | RES TO PROF                                          | CORE: B<br>VAR: 3, 18<br>20, 25       | PIRE TABLE I-VIIC<br>15 MAY-AUG 78<br>15 MAY 12 JUN                                               | 1-PHASE 1<br>30 AUG<br>P-TY180 DAYS<br>EST 9 NOV |                                         |
| MGOAL | TRAINING TIME RATIO           | USAAWRS/ARTS                    | 1 BDE SIZE<br>(3-4 BN)<br>SAMPLE OF<br>CREWS & TNG<br>STAFF | 41D                               | PROG TO PROF                                         | CORE: A<br>VAR: 3, 11                 | 1-2 DAY SEMINAR<br>USAAWRS/ARTS/41D<br>LATE APR 78                                                | 1-31 MAY<br>P-1 JUL                              |                                         |
| MGOAL | MIL OT II                     | USAAWRS/OTEA                    | 1 100 PLT<br>1 160AL PLT<br>2 AGGRESSOR<br>TR PLTS          | FT BLISS, TX<br>UNITS TBD         | RES TO PROF<br>PROG TO PROF                          | CORE: A, B, C, D<br>VAR: 2, 1, 3, 24  | OT II MAY-DEC 78                                                                                  | 1-EST 1 FEB 79<br>P-EST 1 MAR 79                 |                                         |

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

| SNT     | TEST/STUDY TITLE                                               | TRADOC SCHOOL ANALYTICAL AGENCY | SAMPLE SIZES                                            | TEST UNITS                                      | LINES TO ARTS MODEL                             | LINKS TO CORE & SITUATIONAL VARIABLES         | TEST DATES & MAJOR ACTIVITIES                                                        | INTERIM/FINAL REPORT DATE  | REMARKS |
|---------|----------------------------------------------------------------|---------------------------------|---------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------|----------------------------|---------|
| RED-EYE | RED/EYE ENGAGEMENT TEST                                        | USANDS/TRASANA                  | ATT: 128 TROOPS<br>UNIT: 25-158/<br>UNIT<br>RC: 25/UNIT | FORSCOM<br>USAREUR<br>OTHER (SEE<br>WORK SHEET) | RES TO CE                                       | CORE: A, B&D<br>VAR: 3, 16, 18,<br>19, 20, 25 | 28 MAR-7 JUL-FORSCOM<br>24 APR-19 MAY-USAREUR<br>15-19 MAY-KOREA (SEE<br>WORK SHEET) | 1-4/A<br>P- DRAFT<br>1 JUL |         |
| TOW     | INSTITUTIONAL TRAINING<br>FOR 11H                              | USAIS/USAIS                     | 6 INF BNS<br>1 TLAT BN                                  | 4ID, 9ID<br>TLAT BN<br>(ARRG)                   | RES TO PROG<br>TO PROF                          | CORE: B<br>VAR: 3&12                          | DATA GATHERING<br>17 FEB-30 APR                                                      | 1-15 JUN<br>P-20 JUL       |         |
| TOW     | COMPARISON OF INST/ITV TOW<br>TRAINING VS UNIT TOW<br>TRAINING | USAIS/USAIS                     | 6 INF BNS<br>1 TLAT BN<br>P4 CRS STU-<br>DENTS          | 4ID, 9ID<br>TLAT BN<br>(ARRG)                   | RES TO PROG<br>TO PROF                          | CORE: B<br>VAR: 3, 5&12                       | DATA GATHERING<br>1 FEB-30 APR                                                       | 1-15 JUN<br>P-20 JUL       |         |
| TOW     | UNIT PROFICIENCY MAIN-<br>TENANCE AND ITV TRAINING             | USAIS/USAIS                     | 6 INF BNS<br>1 TLAT BN                                  | 4ID, 9ID<br>TLAT BN<br>(ARRG)                   | RES TO PROG<br>TO PROF                          | CORE: B<br>VAR: 3&12                          | DATA GATHERING<br>1 FEB-30 APR                                                       | 1-15 JUN<br>P-20 JUL       |         |
| TOW     | TOW/ITV TRAINING WEARNE-<br>SES (STUDY)                        | USAIS/USAIS                     | 6 INF BNS<br>1 TLAT BN<br>P4 CRS STU-<br>DENTS          | 4ID, 9ID<br>TLAT BN<br>(ARRG)                   | RES TO PROG<br>TO PROF                          | CORE: B<br>VAR: 3                             | DATA GATHERING<br>1 FEB-30 APR                                                       | 1-15 JUN<br>P-20 JUL       |         |
| TOW     | TOW TEA TEST                                                   | USAIS/TCATA                     | 3 GROUPS OF<br>90 TROOPS<br>EACH<br>TOTAL 270           | 2AD                                             | PROG TO PROF<br>AND THROUGH<br>WAR MDL TO<br>CE | CORE: A<br>VAR: 3, 12,<br>18, 19&25           | 13 MAR-28 APR                                                                        | 1-15 JUN<br>P-20 JUL       |         |
| TOW     | WAR GAME MODEL-RELATE<br>LEVELS OF TOW PROF TO CE              | USAIS/TRASANA                   | DATA FROM<br>TOW TEA<br>PLUS 13 TOW<br>CRENS            | 197 INF BDE                                     | PROF THROUGH<br>WAR MDL TO<br>CE                | CORE: A<br>VAR: 18                            | DATA GATHERING<br>13 MAR-28 APR                                                      | 1-30 JUN<br>P-20 JUL       |         |

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

| SWT | TEST/STUDY TITLE                                                                                    | TRADOC SCHOOL ANALYTICAL AGENCY | SAMPLE SIZES                                          | TEST UNITS                          | LINKS TO ARTS MODEL | LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES | TEST DATES & MAJOR ACTIVITIES                      | INTERIM/FINAL REPORT DATE | REMARKS |
|-----|-----------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------|-------------------------------------|---------------------|----------------------------------------------|----------------------------------------------------|---------------------------|---------|
| TOM | TOM GUNNER SELECTION CRITERIA (COMPARATIVE STUDY)                                                   | USALS/ARI                       | REN WITH TOM TEA 3 GROUPS OF 98 TROOPS EACH TOTAL 278 | 2AD                                 | PROG TO PROF        | VAR: 18,19                                   | MODEL VALIDATED BY LIVE FIRE TOM TEA 13 MAR-28 APR | 1-15 JUN P-28 JUL         |         |
| TOM | TLAT BN (ARNG) INSIGHTS ON RESERVE COMPONENT UNIQUE PROBLEMS AND INFORMAL EVALUATION OF TEC LESSONS | USALS/USALS                     | 1 TLAT BN                                             | TLAT BN (ARNG)                      | RES TO PROG TO PROF | CORE: 8<br>VAR: 12, 19,25                    | DATA GATHERING 1 FEB-38 APR                        | 1-15 JUN P-28 JUL         |         |
| TOM | DIVISION RESTRUCTURING STUDY                                                                        | USALS/TOMA                      | 3 INF BNS                                             | 1CW                                 | RES TO PROG TO PROF | CORE: A, B<br>VAR: 19                        | PHASE 1 ENDED FEB 78<br>PHASE 2 SPRING 78          | 1-15 JUN P-28 JUL         |         |
| TOM | ITV OT III                                                                                          | USALS/OTEA                      | 1 MECH INF CO<br>1 CW PLT                             | 9ID                                 | RES TO PROG TO PROF | CORE: A, C, D<br>VAR: 12                     | 15 JAN-38 APR                                      | 1-15 JUN P-28 JUL         |         |
| TOM | ITV CTEA STUDY                                                                                      | USALS/USALS                     | DATA FROM ITV OT III                                  | STUDY                               | RES TO PROG TO PROF | CORE: B<br>VAR: 3, 28,25                     | 15 JAN-38 APR                                      | 1-15 JUN P-28 JUL         |         |
| TOM | TOM COSTING METHODOLOGY                                                                             | USALS/USALS                     | 9 INF BNS<br>1 TLAT BN                                | 4ID<br>9ID<br>1CW<br>TLAT BN (ARNG) | RES TO PROG TO PROF | CORE: B<br>VAR: 3                            | DATA GATHERING 1 FEB-38 APR                        | 1-15 JUN P-28 JUL         |         |
| FO  | FO/UNIT TNG TEST                                                                                    | USAFAS/TRANGANA                 | 144 TROOPS                                            | 4ID<br>2AD<br>1CAY                  | PROG TO PROF        | CORE: A, B,C<br>VAR: 16,17                   | DATES: TED                                         | 1-1 JUL P-1 OCT           |         |

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

| SST   | TEST/STUDY TITLE                                                                                    | TRADOC SCHOOL ANALYTICAL AGENCY | SAMPLE SIZES                                                            | TEST UNITS                                          | LINKS TO ARTS MODEL                 | LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES | TEST DATES & MAJOR ACTIVITIES                                                                            | INTERIM/FINAL REPORT DATE                                                          | REMARKS                                                                                                                                                                                       |
|-------|-----------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PO    | ORS FIRE TNG CTEA EXPANSION                                                                         | USAPAS/TRASANA                  | 393 TROOPS                                                              | 41D<br>91D<br>2AD<br>ICAV,<br>III CORPS,<br>FT RNOX | PROG TO PROF                        | CORE: B<br>VAR: 28&25                        | DATES: TBD                                                                                               | I-1 JUL<br>P-1 DEC                                                                 |                                                                                                                                                                                               |
| PO    | SUITABILITY OF 13R EXFOT TRAINING                                                                   | USAPAS/TRASANA                  | ANALYSIS<br>OPT CTEA<br>EXPANSION                                       | NONE                                                | INDIV TNG                           | CORE: A, B&C<br>VAR: 3, 5, 12&15             | ANALYSIS                                                                                                 | I-15 DEC<br>P-15 FEB 79                                                            |                                                                                                                                                                                               |
| 6 X/H | UNIFORM SQT AS A MEASURE OF PROFICIENCY                                                             | ISAOCOS                         | APPROX 475<br>TROOPS<br>E2-E4,<br>APPROX 128<br>TROOPS<br>B-5 AND ABOVE | 11D<br>41D<br>51D<br>49AD<br>(ARNG)<br>81D          | PROG TO PROF                        | CORE: A<br>VAR: 12&18                        | 81D 24-27 APR<br>11D 8-11 MAY<br>41D 6-18 MAR<br>51D 21-25 FEB<br>49AD (ARNG)<br>12-15 JAN (PT HOOD, TX) | I-N/A<br>P-AUG                                                                     | ADMIN: SQA-<br>TION OF SQT<br>TEST ORIGIN-<br>ALLY PLANNED<br>FOR MAR-MAY<br>HAS BEEN RE-<br>SCHEDULED BY<br>DA TO MAY-JUL.<br>COMPUTER PRO-<br>CESSING WILL<br>ADD A MINIMUM<br>OF 5-8 WEEKS |
| 6 X/H | IDENTIFY PROFICIENCY DEVELOPMENT PROFILES                                                           |                                 |                                                                         |                                                     | PROG TO PROF                        | CORE: B, C&D<br>VAR: 3, 12&18                |                                                                                                          | I-APR-MAY*<br>P-JUN<br>*DATA SUM-<br>MARIES WILL<br>BE PROVIDED<br>AS COMPLETED    |                                                                                                                                                                                               |
| 6 X/H | IDENTIFY COST EFFECT-<br>IVENESS OF INSTITUTIONAL<br>AND UNIT TRAINING PROGRAMS                     |                                 |                                                                         |                                                     | PROG TO PROF                        | CORE: B<br>VAR: 5, 12&16                     | N/A*<br>*DATA FROM 63C/H<br>TESTS WILL BE IN-<br>CLUDED IN WATER-<br>TALS STUDIED.                       | I-APR-MAY*<br>P-15 JUN<br>*DATA SUM-<br>MARIES WILL<br>BE PROVIDED<br>AS COMPLETED |                                                                                                                                                                                               |
| 6 X/H | IDENTIFY OPTIMUM DIS-<br>TRIBUTION OF INDIVIDUAL<br>TRAINING BETWEEN INSTI-<br>TUTIONAL AND (UNIT). |                                 |                                                                         |                                                     | PROG TO CE<br>(THEORETICAL<br>LINK) | VAR: 3, 5,<br>18&28                          | N/A                                                                                                      | I-APR-MAY*<br>P-15 JUN<br>*DATA SUM-<br>MARIES A-2<br>AVAILABLE                    |                                                                                                                                                                                               |

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

| SMT    | TEST/STUDY TITLE                                                       | TRADOC SCHOOL ANALYTICAL AGENCY | SAMPLE SIZES                                                                                                                       | TEST UNITS                 | LINKS TO ARTS MODEL        | LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES | TEST DATES & MAJOR ACTIVITIES                                                                                                                 | INTERIM/FINAL REPORT DATE                                                     | REMARKS                                  |
|--------|------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------|
| 63C/P  | IDENTIFY ALTERNATIVES FOR TRAINING SELECTED PERSONNEL FOR MOBILIZATION |                                 | N/A                                                                                                                                | N/A                        | PROG TO PROF               | VAR: 18619                                   | N/A                                                                                                                                           | 1-N/A<br>P-15 JUN                                                             |                                          |
| OSC/P  | COMPARE TASK PERFORMANCE OF SELF PACED AND GROUP PACED GRADUATES       | USASICS/<br>USASICS             | PART 1<br>224 TROOPS<br>PART 2<br>ALL OSC/P<br>SELF PACED<br>GRADS 15 APR-<br>30 JUN & ALL<br>OSC/P ORUT<br>GRADS 1 JUL-<br>15 SEP | USASICS<br>STUDENTS        | RES TO PROF                | CORE: B                                      | ALL TESTING DONE AT<br>USASICS. PART 1 COM-<br>PLETED. PART 2<br>15 APR-30 JUN,<br>1 JUL-15 SEP                                               | 1-PART 1<br>1 APR<br>PART 2<br>1 JUL<br>P-PART 1<br>1 APR<br>PART 2<br>15 SEP |                                          |
| OSC/P  | TEST PROFICIENCY OF OSC/P TEAMS IN FIELD UNITS                         | USASICS/<br>USASICS             | 238 TROOPS                                                                                                                         | 241D<br>1AD<br>49AD (ARNG) | RES TO PROF                | CORE: C<br>VAR: 12618                        | 241D TRO PROB MAY;<br>49AD (ARNG 5-9 JUN,<br>12-15 JUN; 1AD TRO                                                                               | 1-MID JUN 78<br>P-1 JUL                                                       |                                          |
| OSC/P  | COMPARE ALTERNATIVE UNIT TRAINING PROGRAMS                             | USASICS/<br>USASICS             | SELECTED<br>TROOPS OF<br>THE 238 TESTED<br>ABOVE. SPE-<br>CIFIC NUMBER<br>NOT AVAILABLE                                            | 241D<br>1AD<br>49AD (ARNG) | RES TO TNG<br>PROG TO PROF | CORE: A&B<br>VAR: 12, 16&19                  | ADMINISTERED AFTER<br>COMPLETION OF ABOVE<br>TESTING OF OSC/P IN<br>FIELD UNITS. 241D<br>TRO PROB LATE MAY-<br>JUNE. 49AD MID JUN.<br>1AD TRO | 1-1 JUL<br>P-TRO                                                              |                                          |
| AID-ON | RIFLE SOUND REALTRAIN                                                  | USAS/ART                        | SIX RIFLE SQDS                                                                                                                     | N/A                        | PROG TO PROF               | TRO SUBSEQUENT TO<br>STUDY OF REPORT         | 11 APR-28 MAY 77                                                                                                                              | 1-N/A<br>P-ART FIELD<br>REPORT 11-92<br>DTD OCT 77                            | THIS IS<br>AN ART<br>RESEARCH<br>PROJECT |
| ADD-ON | ANTI-ARMOR REALTRAIN                                                   | ART                             | ONE TR BN<br>ONE MECH BN<br>6 FIST TM                                                                                              | 41D                        | PROG TO PROF               | CORE: A, B, C&D<br>VAR: 18, 20&25            | JAN-MAR AT FT<br>CARSON                                                                                                                       | 1-EST 24<br>MAR<br>P- EST 15<br>JUN                                           |                                          |

ARMY TRAINING EFFECTIVENESS ANALYSIS 1978 TEST PROGRAM (SHORT TITLE: TEA 78)

| TEST   | TEST/STUDY TITLE                               | TRADOC SCHOOL ANALYTICAL AGENCY | SAMPLE SIZES                               | TEST UNITS                          | LINKS TO ARTS MODEL     | LINKS TO TEA 85 CORE & SITUATIONAL VARIABLES  | TEST DATES & MAJOR ACTIVITIES                  | INTERIM/FINAL REPORT DATE | REMARKS                                          |
|--------|------------------------------------------------|---------------------------------|--------------------------------------------|-------------------------------------|-------------------------|-----------------------------------------------|------------------------------------------------|---------------------------|--------------------------------------------------|
| ADD-ON | COMPUTER ASSISTED MAP MANEUVER (CAMMS)         | CAC/CATNADA                     | 5 BN COMMAND GROUPS                        | 2-11D<br>3-41D                      | PROG TO PROF            | CORE: A, B, C, D, E<br>VAR: 16, 17, 19, 20-25 | SCHEDULE OF BN TNG SESSION TBD                 | 1-15 MAY<br>P-1 JUL       | PHASE I OF TEA 85 CAMMS/NTC TESTS                |
| ADD-ON | TRAINING INSTRUMENTATION EVALUATION (TIE) TEST | TWADOC-DCST-/CDEC               | ARM INY CO TN                              | CDEC<br>FORSCOM UNIT<br>TBD         | PROG TO PROF            | CORE: A, B<br>VAR: 16, 17-25                  | PHASE I 31 JUL-26 AUG<br>PHASE II 1 SEP-15 SEP | 1-4/A<br>P-EST 15<br>DEC  |                                                  |
| ADD-ON | CANNON CREW TURNOVER (ADD-ON)                  | USAPAS/ARI                      | VAL: 8 HOW<br>SECT<br>TEST: 36 HOW<br>SECT | III CORPS<br>ARTY, 91D<br>(PENDING) | EFFECT OF<br>TURBULENCE | CORE: C<br>VAR: 16                            | VAL TRIAL 17<br>MAR. FT BILL.<br>AUG FT LEWIS. | 1-TBD<br>P-TBD            |                                                  |
| ADD-ON | TACTICE POST OT III (ADD-ON)                   | USAPAS/ARI,<br>FT HOOD          | 1 TACTICE<br>SYSTEM W/CREW                 | ICAV                                | PROG TO PROF            | CORE: C, D<br>VAR: 16                         | 17 APR-JUL<br>FT HOOD                          | 1-JUL<br>P-TBD            | EMPHASIS ON<br>LEARNING,<br>DECAY & RE-<br>TRAIN |
| ADD-ON | RETENTION & PROFICIENCY OF COMMON ART SKILLS   | ARI                             | 500 TROOPS                                 | III CORPS<br>ARTY                   | PROG TO PROF            | CORE: A, C, D<br>VAR: 3                       | APR-MAY                                        | 1-1 JUL<br>P-TBD          | THIS IS AN<br>ARI TEST                           |

10 Apr 78

WORKSHEET

COL R. Marham AV 464-3546  
Dr. Ken Eaton AV 464-3450

SCHOOL/AGENCY: USAABMC/PT ENOX ARI POC/PHONE:

TITLE: M60A1 - TANK CREW TURBULENCE RESEARCH

| 1. OBJECTIVES                                                                                    | 2. SAMPLE SIZE                                    | 3. TEST UNIT (S)          | 4. DATA COLLECTION PLAN                                        | 5. FIELD TEST DATES/ACTIVITIES                                                                | 6. ARTS AREA OF INTEREST         | 7. LINKS TO ARTS MODEL                   | 8. INTERIM/FINAL REPORT DATE                                                                                                    |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 1. To measure the effect of crew turbulence upon tank gunnery performance.                       | 1. 45 crews (324 crews)                           | 2d Bn 34th ANM (JAD 1977) | 1. Tank crew stability questionnaire. (Includes all JAD crews) | Table VIII 13-24 Mar                                                                          | T <sub>g</sub> , T <sub>g2</sub> | 1. Effects of turbulence on proficiency. | 1-Analysis of turbulence by 18 Jun P-18 May                                                                                     |
| 2. To validate the effects of modular training on AC non-MOS qualified non-proficient ANM crews. | 2. 11 Tank Crews w/non-11E gunner loaders (2280). |                           | 2. Demographic questionnaire. (ANM)                            | Onr/ldr replacement (71L Tanker) train-up 29 Mar - 6 Apr<br>71L Tanker Gunnery 31 Mar - 8 Apr | T <sub>A</sub> , T <sub>A2</sub> | 2. PROG to PROG                          | P-Dr aft 1 Jul                                                                                                                  |
| 3. To validate the effects of modular training on AC MOS qualified non-proficient ANM Crews.     | 3. 17 Tank Crews (68 off/BN)                      | USAABMC                   | 3. Tank table VII, VIII scores.                                | CIBC Test BPT 15-25 May                                                                       |                                  |                                          | P-<br>1. Turbulence Report 18 Jun<br>2. Demographics (ANM) 1 Jul<br>3. Train-up 11E 1 Jul<br>4. Memo Costs to Proficiency 1 Jul |

A-1

# TANK CREW TURBULENCE

## DELIVERABLE SUMMARY

5 April 1978

| <u>TEST ACTIVITY</u> |                                                                       | <u>INTERFACE W/TEA 85 CORE/VARIABLES</u>                                                                                                | <u>INTERFACE W/BATTALION TRAINING MODEL</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>6  | 1. Administer tank crew stability questionnaire to each tank crewman. | Variable 16: Determine effects of stability and turbulence.                                                                             | To be used to adjust heuristic data on tank crew skills for armor bn. (958 battlefield data effort).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                      | 2. Orient/train-up 71L Tanker w/qualified TC & DEVT.                  |                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| T <sub>2</sub>       | 1. Conduct modular train-up for 71L Tanker.                           | Core A: Continue validation of threat oriented SM/ARTSPE.<br>Core B: Determine time/costs to achieve proficiency.                       | 1. Determine frequency of retrain of tank crew SM skills as a function of different levels of turbulence extrapolated to company level.<br>2. Determine proficiency to 3rd level as function of turbulence.<br>3. Determine time to train and retrain to SM skill level for existing turbulence level.<br>4. To what other systems would this data apply?<br>5. To what other tasks within same system does data apply?<br>6. How much time and how many dollars are saved for train (71L) and retrain (11E) using modular train up packages?<br>7. What is proficiency delta as function of modular training programs? |
|                      | 2. Conduct modular train-up for 11E Tanker.                           |                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| T <sub>3</sub><br>A  | 1. Fire Table VIII w/normal crews.                                    | Variable 16: Determine effects of stability and turbulence.<br>Variable 12: Determine exportable training packages to support training. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                      | 2. Fire Table VIII w/scrambled crews.                                 |                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| T <sub>4</sub><br>AZ | 1. Fire Table VIII w/71L Tanker Jnr/Ltr.                              | Variable 25: Validate the effectiveness and efficiency of training devices.                                                             | A-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                      | 2. Fire Table VIII w/11E modular trained crews (Hunter Liggett, CA)   |                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

**WORKSHEET**

**TITLE: M60A PROFICIENCY & RETENTION OF BASIC ARMOR SKILLS**  
**SCHOOL/AGENCY: USAARMC/1 TNG BDE**  
**POC/PHONE: COL R. B. Mathias - AV 464-3346**  
**NAVY**

| 1. OBJECTIVE(S)                                                                                                                     | 2. SAMPLE SIZE   | 3. TEST UNIT(S)             | 4. DATA COLLECTION PLAN                | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST        | 8. LINKS TO ARTS MODEL                     | 8. INTERIM/FINAL REPORT DATE          |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------|----------------------------------------|--------------------------------|---------------------------------|--------------------------------------------|---------------------------------------|
| 1. Measure proficiency of BMT 11E on Midcycle & TSQT.                                                                               | 1000 trainees    | USATC 1st Tng Bde, 24th 3AD | 1. Biographical data.                  | 28-29 Mar                      | T <sub>1</sub> , T <sub>2</sub> | 1. PROF (T <sub>1</sub> & T <sub>2</sub> ) | I-Mid-Apr<br>F-Mid-Jun<br>INTERIM 130 |
| 2. Measure individual retention of basic AGM skills in institution & units.                                                         | 200-300 trainees |                             | 2. Records of tng of indiv in unit.    | 17-20 Apr                      |                                 | 2. RES to PROF                             |                                       |
| 3. Document time & resources dedicated to training & types of training administered from date of assignment to unit to retest date. | 200-300 trainees |                             | 3. Mid-cycle & TSQT scores.            |                                |                                 |                                            |                                       |
| 4. Examine relationship of unit tng to skill retention.                                                                             | 200-300 trainees |                             | 4. Indiv tng experience survey.        |                                |                                 |                                            |                                       |
| 5. Examine relationship of demographic variables to proficiency & retention.                                                        | 200-300 trainees |                             | 5. Supervisor's tng experience survey. |                                |                                 |                                            |                                       |

I-Mid-Apr  
P-Mid-Jun

INTERIM 1 JULY

1

# MEAL PROFICIENCY & RETENTION

## DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY                         |                                                                                              | INTERFACE W/TEA '83 CORE/VARIABLES                                                                                                                                                                                                                                                                                                     | INTERFACE V/BATTALION TRAINING MODEL                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>6<br>T <sub>5</sub> | 1. Measure proficiency attained by BMT in institution.                                       | Core B: Determine time/costs to achieve proficiency.<br>Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Core D: Determine decay rates and frequency of required retraining.<br>Variable 3: Determine allocation of tasks between Inetit/Unit.<br>Variable 18: Determine effects of less capable trainees. | 1. Determine time/costs to train to 95% proficiency on tank crew SM tasks.<br>2. Determine frequency/costs of re-train.<br>3. Validate 1 & 2 above with Table VIII results.<br>4. To what other systems does this data apply?<br>5. Determine time/costs/proficiency of training to 95% proficiency as a function of Selection Criteria scores (capability of trainees). |
|                                       | 2. Document costs of training in institution.                                                |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                          |
| T <sub>52</sub>                       |                                                                                              |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                          |
| T <sub>1A</sub>                       | 1. Document time & resources dedicated to training & types of training administered in unit. | Variable 18: Determine effects of less capable trainees.                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                          |
| T <sub>1A2</sub>                      |                                                                                              |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                          |

10 Apr 78

## WORKSHEET

TITLE: M60A1 MODULAR TRAINING FOR RESERVE COMPONENTS

ARI: DR. Don Haggard AV 464-3450  
COL R. Mathias AV 464-3546

USAAWS/ARI

SCHOOL/AGENCY:

POC/PHONE:

| 1. OBJECTIVES                                                                                                         | 2. SAMPLE SIZE                    | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN                                 | 5. FIELD TEST DATES/ACTIVITIES                                                                               | 6. ARTS AREA OF INTEREST          | 7. LINKS TO ARTS MODEL                                     | 8. INTERIM/FINAL REPORT DATE |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------|------------------------------|
| 1. Determine proficiency acquired by ARNG ARW crewmen using modular training packets vs. current RC training methods. | 96 ARNG TK crews of three TK Bns. | 49AD (ARNG)      | 1. Survey of trainees & students.                       | Readiness Test 3-18 Jun                                                                                      | T <sub>S1</sub> , T <sub>S2</sub> | 1. RES to PROF.                                            | 1-EST 31 Aug<br>P-30 Sep 79  |
| 2. Document cost data associated w/each training packet (module).                                                     |                                   |                  | 2. Resource sheets from units.                          | Modular train-up for Bns during FY79 followed by readiness test of conventional training vs modular training | T <sub>A1</sub> , T <sub>A2</sub> | 2. Relationship of T <sub>S</sub> to T <sub>A</sub> in RC. |                              |
| 3. Validate training modules by comparing Readiness Test proficiency in FY78 w/comparable proficiency in FY79         |                                   |                  | 3. Scores from readiness tests before & after training. |                                                                                                              |                                   | 3. RES to PROF for RC.                                     |                              |
|                                                                                                                       |                                   |                  | 4. Table VIIC scores FY78, FY79.                        |                                                                                                              |                                   | 4. RES to T <sub>S2</sub> & T <sub>A2</sub> in RC.         |                              |
|                                                                                                                       |                                   |                  |                                                         |                                                                                                              |                                   |                                                            |                              |

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5 April 1978

DELIVERABLE SUMMARY

MECOM1 MODULAR TNG FOR RC

| TEST ACTIVITY                                                                                                                                           | INTERFACE B/TEA '85 CORE/VARIABLES                                                                                                                                                              | INTERFACE B/BATTALION TRAINING MODEL                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T1<br>1. Readiness Test 3-18 Jun.<br>2. Readiness Test Jun '79.                                                                                         | Core A: Continue validation of threat oriented SM/ARTEPs.<br><br>Variable 3: Determine allocation of tasks between Instit/unit.                                                                 | 1. Validate against tank crew turbulence test data.<br>. Time/costs to individual proficiency.<br>. Time/costs to collective proficiency.<br><br>2. Determine most cost/time effective program to achieve collective proficiency of RC Bn. |
| T2<br>1. Document cost data associated w/each Training Packet (Module).<br>2. Validate Training Modules by comparing readiness test scores FY78 w/FY79. | Core B: Determine time/costs to achieve proficiency.                                                                                                                                            |                                                                                                                                                                                                                                            |
| T3<br>1. Readiness Test 3-18 Jun.<br>2. Readiness Test Jun '79.                                                                                         | Core A: Continue validation of threat oriented SM/ARTEPs.<br><br>Variable 3: Determine allocation of tasks between Instit/unit.<br><br>Variable 19: Evaluate rapid refresher training programs. |                                                                                                                                                                                                                                            |
| T4<br>1. Document cost data associated w/each Training Packet (Module).<br>2. Validate Training Modules by comparing readiness test scores FY78 w/FY79. | Core B: Determine time/costs to achieve proficiency.<br><br>Variable 25: Validate the effectiveness and efficiency of training devices.<br><br>A-6                                              |                                                                                                                                                                                                                                            |

10 Apr 78

WORKSHEET

TITLE: M60A1 MODIFIED M60A1 WTEA (PARAMETRIC ANALYSIS OF CREW) SCHOOL/AGENCY: USAARMS/TRASANA POC/PHONE: Mr. Ron Cooper, TRASANA AV 254-1494 COL R. Mathias, USAARMS AV 464-1546

| 1. OBJECTIVE(S)                                                                                                                                                                                                     | 2. SAMPLE SIZE                  | 3. TEST UNIT(S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS ARE: OF INTEREST          | 7. LINKS TO ARTS MODEL                                                                 | 8. INTERIM/FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------|-------------------------|--------------------------------|-----------------------------------|----------------------------------------------------------------------------------------|------------------------------|
| 1. Determine crew gunnery proficiency represented by Table VIII firing scores.                                                                                                                                      | 200 crews                       | 4ID             | 1. Demographic data.    | 16 Jan-5 Jun                   | T <sub>S1</sub> , T <sub>S2</sub> | 1. PROF to PROF                                                                        | 1-N/A<br>P-1 Jul             |
| 2. Identify relationship between gunnery scores and combat effectiveness (war models).                                                                                                                              | 200 crews<br>400 crews<br>TOTAL | 3ID             | 2. Training history.    | 11 Feb-15 Mar                  | T <sub>A1</sub> , T <sub>A2</sub> | 2. Input to war md., i.e., PROF to CE.<br>3. Link between PROF & PROF<br>4. PROF to CE |                              |
| 3. Assess level, type & source of training that produced proficiency.                                                                                                                                               |                                 |                 | 3. Attitude surveys.    |                                |                                   |                                                                                        |                              |
| 4. Determine correlation between personal history and training and proficiency with following:<br>- effectiveness baseline for training analysis.<br>- identify significant variables influencing crew proficiency. |                                 |                 |                         |                                |                                   |                                                                                        |                              |
| 5. To relate different gunner proficiency levels to CE through war model (TRASANA effort with CARBONETTE, possibly with BATTLE).                                                                                    |                                 |                 |                         |                                |                                   |                                                                                        |                              |

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5 April 1978

DELIVERABLE SUMMARY

MODIFIED MGOAL WSTEA

|                | TES: ACTIVITY                                                                                                                                                                                     | INTERFACE W/TEA '85 CONC/VARIABLES                                                                                                                                                                                                         | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub> | 1. Determine training history of individual.<br>2. Identify significant variables influencing crew proficiency such as background, physical characteristics, stability, training, and leadership. | Variable 16: Determine effects of stability and turbulence.<br>Variable 18: Determine effects of less capable trainees.<br>Variable 17: Determine effects of reduced off/NCO fill.                                                         | 1. Determine SM proficiency as function of varying levels of turbulence extrapolated to company level.<br>2. Determine SM proficiency as a function of officer/NCO fill and availability for training.           |
| T <sub>2</sub> | 1. Identify level, type and source of training that produced proficiency.                                                                                                                         | Variable 25: Validate the effectiveness and efficiency of training devices.                                                                                                                                                                | 3. Determine time/frequency/costs of SM tasks as a function of turbulence & officer/NCO fill.<br>4. Determine time/frequency/costs/proficiency of collective tasks as function of turbulence & officer/NCO fill. |
| T <sub>3</sub> | 1. Obtain tank crew Table VIII scores.<br>2. Assess level, type and source of training that produced proficiency.                                                                                 | Core A: Continue validation of threat oriented SM/ARTSs.<br>Core B: Determine time/costs to achieve proficiency.<br>Variable 16: Determine effects of stability and turbulence.<br>Variable 17: Determine effects of reduced off/NCO fill. |                                                                                                                                                                                                                  |
| T <sub>4</sub> | 1. Assess level, type and source of training that produced proficiency.                                                                                                                           | Variable 25: Validate the effectiveness and efficiency of training devices.                                                                                                                                                                |                                                                                                                                                                                                                  |

10 Apr 78

WORKSHEET

USAAHNS COL L. Lloyd AV 464-7750  
USAAHNS COL R. Maxham AV 464-1546

SCHOOL/AGENCY: USAHNS/USATCA

POC/PHONE:

TITLE: M60A1 SVT-SCALED RANGE SUBCALIBER TEST

| 1. OBJECTIVE(S)                                                                                   | 2. SAMPLE SIZE                                                  | 3. TEST UNIT(S)                           | 4. DATA COLLECTION PLAN                                                                                                       | 5. FIELD TEST DATES/ACTIVITIES                     | 6. ARTS AREA OF INTEREST         | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE                      |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------|------------------------|---------------------------------------------------|
| 1. Obtain data on the effect of varying the number of subcaliber firings on main gun proficiency. | 40 11E<br>EST 100<br>192<br>(4 PLTs<br>of 25 192)               | 194 ARM<br>802<br>1 Thg<br>Bde<br>USAAHNS | 1. Demographic data.<br><br>2. Table I-VIIC Score Cards<br>194 802 (modified Table IV, Table VI modified to reflect Table IV) | Fire Table I-VIIC 15 May - Aug<br>15 May<br>12 Jun | T <sub>I</sub> , T <sub>SZ</sub> | 1. Ind Thg RES to PROF | I-Phase I<br>30 Aug<br>P-IV 100 days<br>EST 9 Nov |
| 2. Determine optimal number of iterations to be used in basic armor training gunnery.             | Each PLT w/4 samples of 4 variations for a total sample of 100. |                                           |                                                                                                                               |                                                    |                                  |                        |                                                   |
| 3. Determine resources to proficiency by determining costs associated with iterations.            |                                                                 |                                           |                                                                                                                               |                                                    |                                  |                        |                                                   |
| 4. Correlate proficiency w/personal background/physical observations.                             |                                                                 |                                           |                                                                                                                               |                                                    |                                  |                        |                                                   |

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5 April 1978

# DELIVERABLE SUMMARY

## M50A1 SCALED RANGE SUB CALIBER EX

| TEST ACTIVITY                                                                                                                                                                                                                                                       | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>T<sub>1</sub> 1. Obtain demographic data.</p> <p>6 2. Fire Tables IV-VI main gun by platoon.</p> <p>T<sub>5</sub> 3. Cost each main gun iteration &amp; correlate cost to proficiency.</p>                                                                       | <p>Core 9: Determine time/costs to achieve proficiency.</p> <p>Variable 3: Determine allocation of tasks between Instit/Unit.</p> <p>Variable 18: Determine effects of less capable trainees.</p> | <p>1. Determine the most cost/time efficient program to reach 95% proficiency on tank crew SM tasks.</p> <p>2. Determine costs/time.</p> <p>3. Determine frequency of this program vs frequency of regular program.</p> |
| <p>T<sub>52</sub> 1. Fire Scaled Range Subcaliber tables 1-III.</p> <p>2. Vary number of iterations on scaled range table IV.</p> <p>3. Fire Table VIIC with P/BRAWH Cal .50.</p> <p>4. Cost each iteration &amp; correlate cost w/main gun/DUWABE proficiency.</p> | <p>Variable 20: Develop training concept to proficiency with reduced resources.</p> <p>Variable 25: Validate the effectiveness and efficiency of training devices.</p>                            |                                                                                                                                                                                                                         |
| <p>T<sub>A</sub></p>                                                                                                                                                                                                                                                |                                                                                                                                                                                                   |                                                                                                                                                                                                                         |
| <p>T<sub>A2</sub></p>                                                                                                                                                                                                                                               | <p>A-10</p>                                                                                                                                                                                       |                                                                                                                                                                                                                         |

10 Apr 78

WORKSHEET

LTC G. Bloedorn AV 356-1461  
COL R. Matham AV 464-3546

SCHOOL/AGENCY: USAARMS/ARTS

POC/PHONE:

TITLE: MGOAL SMT TRAINING TIME RATIO

| 1. OBJECTIVES                                                                                                                                                                      | 2. SAMPLE SIZE                                   | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN                                                                       | 5. FIELD TEST DATES/ACTIVITIES                  | 6. ARTS AREA OF INTEREST                  | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|------------------------|------------------------------|
| 1. Determine the optimum ratio of individual training ( $T_1$ ) to collective training ( $T_2$ ) as a function of varying individual training time in the training base ( $T_1$ ). | 1. BDE size (3-4 Bn) sample of Cdr's & Thg staff | 41D              | 1. Thg Base Alternatives POI w/alt unit $T_2$ rpt's.                                          | Pl Carson Survey to be conducted in late April. | $T_1 - T_2$<br>$T_1 - T_A$<br>$T_1 - T_A$ | PROG to PROF           | 1-31 May<br>8-1 Jul          |
| 2. Determine resource requirements for varying the lengths of training periods (12, 13, 14 & 15 week variations).                                                                  |                                                  |                  | 2. Questionnaire for unit commander & staff concerning preparation of alt unit trng programs. |                                                 |                                           |                        |                              |
| 3. Determine the impact on unit training, readiness & installation responsibilities as a result of varying lengths of training periods (12, 13, 14 & 15 week variations).          |                                                  |                  |                                                                                               |                                                 |                                           |                        |                              |

5 Apr 11 1978

DELIVERABLE SUMMARY

M6041 TRAINING TIME RATIO

|                                                    | TEST ACTIVITY                                                                                                                                                                                                                                                                                        | INTERFACE W/TEA 'N3 CORE/VARIANTS                                                                                                                                                                                | INTERFACE W/BATTALION TRAINING MODEL                                                                                |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>T <sub>2</sub><br>T <sub>5</sub> | <p>1. Prepare notional OSUT training programs to determine differing levels of SM skills for 12, 13, 14 &amp; 15 week courses.</p> <p>2. Prepare list of SM skills in terms of hours &amp; subjects to be taught in unit for 12, 13, 14, &amp; 15 week courses. Determine resource requirements.</p> |                                                                                                                                                                                                                  | Determine unit collective proficiency as a function of additional weeks of individual training (1, 2, 3 & 4 weeks). |
| T <sub>52</sub>                                    |                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                  |                                                                                                                     |
| T <sub>A</sub>                                     | <p>1. Determine impact on unit training programs, readiness &amp; installation responsibilities as a result of varying BAT course length by conducting unit training seminar w/bu cmd &amp; staff.</p>                                                                                               | <p>Core A: Continue validation of threat oriented SM/ARTPs.</p> <p>Variable 3: Determine allocation of tasks between instt/unit.</p> <p>Variable 11: Determine effect of expanded OSUT for sel high-pri wms.</p> |                                                                                                                     |
| T <sub>A2</sub>                                    |                                                                                                                                                                                                                                                                                                      | A-12                                                                                                                                                                                                             |                                                                                                                     |

10 Apr 78

WORKSHEET

CSTZ-TN-AR (OTEA) AV 289-2384  
POC/PHONE: COL R. Maxham AV 464-3546

SCHOOL/AGENCY: USAARMS/OTEA

TITLE: M60A1 SMT ADD-ON XM-1 OTII

| 1. OBJECTIVE(S)                                                                                                                                                                                                                                                                                                                                         | 2. SAMPLE SIZE                                               | 3. TEST UNIT(S)       | 4. DATA COLLECTION PLAN                                                                        | 5. FIELD TEST DATES/ACTIVITIES                             | 6. ARTS AREA OF INTEREST                         | 7. LINKS TO ARTS MODEL            | 8. INTERIM/FINAL REPORT DATE                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------|-----------------------------------|---------------------------------------------------------------------|
| 1. TEA 85 CORE OBJECTIVES:<br>A. Validate threat oriented critical SW/ARTEP tasks, conditions & standards.<br>B. Determine time/costs to proficiencies for critical indiv/coll tasks.<br>C. Develop diagnostic tests to measure indiv/coll learning decay levels.<br>D. Determine decay rate & frequency of retraining required to sustain proficiency. | 1. One XM-1 PLT<br>2. One M60A1 PLT<br>3. Two aggregate PLTs | Ft Bliss TX Units TBD | 1. Demographic questionnaire.<br>2. Training history.<br>3. ART developed diagnostic analysis. | May - Dec (T date 15 May)<br><br>(Train-up 15 May - 2 Jul) | T <sub>1</sub> , T <sub>5</sub> , T <sub>A</sub> | 1. RES to PROF<br>2. PROF to PROF | 1- Raw Tng data avail from 18 Jul<br><br>P-TN-295 (approx 1 Mar 79) |
| 2. TEA SITUATIONAL VARIABLES:<br>2. Resources/effect of tag common vs. tech skills only in the base.<br>13. Determine training packets to ensure supervisor competence.<br>24. Develop tng programs to assimilate new equipment.                                                                                                                        |                                                              |                       |                                                                                                |                                                            |                                                  |                                   |                                                                     |

A-13

10 Apr 78

## WORKSHEET

TITLE: REDYE

CPT O'Toole 978-2340/1113  
SCHOOL/AGENCY: USAADS FT BLISS POC/PHONE: MR. Dale Tubbs USA TRASANA

| 1. COLLECTIVE(S)                                                                                                                               | 2. SAMPLE SIZE         | 3. TEST UNIT(S)                                                                                  | 4. DATA COLLECTION PLAN                                                                    | 5. FIELD TEST DATES/ACTIVITIES                                                                                                                                                                                                                                                                                            | 6. ARTS AREA OF INTEREST                                                  | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------|------------------------------|
| 1. To determine and associate training resource costs of REDYE with those tasks essential to sustain and fight with the system.                | 1. AIT-120 troops      | KORSUM<br>41G<br>82ABN<br>101ABN<br>11D<br>91D                                                   | 1. ART attitude tests.<br>AIT and unit.                                                    | 28-21 Mar, Ft S. Houston, TX<br>ARR VII<br>22-24 Mar, Denver, CO<br>ARR VIII                                                                                                                                                                                                                                              | RES<br>T <sub>1</sub> , T <sub>2</sub><br>T <sub>3</sub> , T <sub>4</sub> | RES to PROG            | 1-N/A<br>P-Draft<br>1 Jul    |
| 2. To determine the relationship of training programs to proficiency. Of particular concern is the decay of proficiency as a function of time. | 2. Unit-25 troops/unit | III COMPS<br>3 ACR<br>49AD<br>(AWNG)<br>2AD<br>ICAV<br>218 INF<br>BDE (RC)<br>51D<br>71D<br>241D | 2. ARTS questionnaires.<br>a. Range ring<br>b. RELS<br>c. AIT Thg<br>d. Unit Thg<br>e. NCO | 28-30 Mar, Ft Polk, LA<br>51D<br>31 Mar, Cherry Point, NC<br>31AAM                                                                                                                                                                                                                                                        | T <sub>1</sub> , T <sub>2</sub><br>T <sub>3</sub> , T <sub>4</sub>        | PROG to PROG           |                              |
| 3. To determine a methodology for utilizing variable levels of proficiency as parametric values in current war simulations.                    | 3. RC-25 troops/unit   | USAREUR<br>VII COMPS<br>81D<br>Berlin<br>Brigade<br>1AD<br>31D                                   |                                                                                            | 3-7 Apr, Ft Bragg, NC<br>82ABN, 241D, 3 LAAM<br>8 Apr, El Paso, TX<br>49AD (AWNG)<br>17-18 Apr, El Toro, CA<br>3 MARS<br>17-21 Apr, Ft Bliss, TX<br>3 ACR<br>24-28 Apr, Ft Bragg, NC<br>101 ABN (REDYE & RELS Firing)<br>24-28 Apr, Ft Bragg, NC<br>81D<br>1-5 May, Schwabach, GER<br>1AD<br>1-5 May, Ft Riley, KS<br>11D | T <sub>2</sub> , T <sub>3</sub><br>T <sub>4</sub> , T <sub>5</sub>        | PROG to Mar M31        |                              |
| 4. To develop a methodology to determine REDYE crew effectiveness as opposed to individual task proficiency.                                   |                        | OTHER<br>251D-<br>Hawaii<br>21D-<br>Korea                                                        |                                                                                            |                                                                                                                                                                                                                                                                                                                           | T <sub>2</sub> , T <sub>3</sub><br>T <sub>4</sub>                         | Ind Thg<br>excursion   |                              |
| 5. To determine and improve the ability of current war models to give a measure of CE.                                                         |                        |                                                                                                  |                                                                                            |                                                                                                                                                                                                                                                                                                                           |                                                                           |                        |                              |
| 6. To investigate and comment on the impact on proficiency expected from varying the mix of institutional and unit                             |                        |                                                                                                  |                                                                                            |                                                                                                                                                                                                                                                                                                                           |                                                                           |                        |                              |

(continued on next page)

10 Apr 78

## WORKSHEET

Page 2

TITLE: REPORTE (Continued from previous page)

SCHOOL/AGENCY: POC/PHONE:

| 1. OBJECTIVES                                                                                                                                                       | 2. SAMPLE SIZE | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6. ARTS AREA OF INTEREST                                                                                                                                                                           | 7. LINES TO ARTS MODEL                                                     | 8. INTERIM/FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------|
| training and changes in training techniques and technology.                                                                                                         | (See Page 1)   | (See Page 1)     | (See Page 1)            | 8-12 May, Villaseca, GER<br>3ID<br>9 May, Ft Bliss, TX<br>3 ACR (RELS Firing)<br>11-12 May, Ft Ord, CA<br>7ID<br>14-19 May, Ft Lewis, WA<br>9ID (RELS Firing)<br>15-19 May, Camp Case, Korea<br>2ID<br>16-18 May, Zaragoza, AB, Spain<br>Berlin Brigade<br>28-21 May, Ft Bragg, NC<br>218th SONG<br>28-26 May, Fatima, Okinawa<br>2 WASS<br>29 May-2 Jun, Schofield Bks, HI<br>25ID<br>16-23 Jun, Ft Hood, TX<br>2 ARM (RELS Firing)<br>16-23 Jun, Ft Hood, TX<br>1 CAV (RELS Firing)<br>3-7 Jul Ft Carson, CO<br>4ID (RELS Firing) | T <sub>1</sub> , T <sub>51</sub><br>T <sub>AI</sub> , T <sub>A2</sub><br>Turbulence<br>RES<br>T <sub>1</sub> , T <sub>5</sub> , T <sub>A</sub><br>T <sub>1</sub> , T <sub>5</sub> , T <sub>A</sub> | PROG to PROF<br>Personnel program excursion<br>RES to PROG<br>RC Excursion | (See Page 1)                 |
| 7. To describe the impact on proficiency of personnel turbulence, stability and capability and to develop the fluctuations in proficiency due to these variables.   |                |                  |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                    |                                                                            |                              |
| 8. To assess the benefits and costs associated with utilizing training devices in lieu of other training resource requirements and the impact of reduced resources. |                |                  |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                    |                                                                            |                              |
| 9. To define possible intensified programs which might be offered by institutions to RC units and the resultant impact on proficiency.                              |                |                  |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                    |                                                                            |                              |
| 10. To define the interoperability impact relative to other user nations.                                                                                           |                |                  |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                    |                                                                            |                              |

B-2

# RUDEYE

## DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY                                      |                                                                                   | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                                                                                                                                                           | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>S <sub>1</sub><br>T <sub>5</sub> | 1. RUDEYE engagement tests using live tracking.                                   | Core A: Continue validation of threat oriented SM/ARTMPS.<br>Core B: Determine time/costs to achieve proficiency.<br>Core D: Determine decay rates and frequency of required retraining.<br>Variable 3: Determine allocation of tasks between instit/unit.<br>Variable 18: Determine effects of less capable trainees.                                       | 1. Determine time/cost to achieve and maintain individual proficiency.<br>2. Identify critical SM/ARTMPS tasks.<br>3. Determine frequency of retrain.<br>4. Determine above for less capable trainees.<br>5. Determine effect of turbulence on crew proficiency.<br>6. Determine time and ability to train-up. |
|                                                    | 2. Attitude questionnaires.                                                       |                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                |
| T <sub>52</sub>                                    | 1. RUDEYE engagement tests using MTS, ROMAT, DATS, TMT, TVI (institution & unit). | Core A: Continue validation of threat oriented SM/ARTMPS.<br>Core B: Determine time/costs to achieve proficiency.<br>Variable 19: Evaluate rapid refresher training programs. (Insights only)<br>Variable 20: Develop training concept to proficiency with reduced resources.<br>Variable 25: Validate the effectiveness and efficiency of training devices. |                                                                                                                                                                                                                                                                                                                |
| T <sub>1</sub><br>A                                | 1. RUDEYE engagement test using live tracking.                                    | Core A: Continue validation of threat oriented SM/ARTMPS.<br>Core B: Determine time/costs to achieve proficiency.<br>Core D: Determine decay rates and frequency of required retraining.<br>Variable 3: Determine allocation of tasks between instit/unit.<br>Variable 16: Determine effects of stability and turbulence.                                    |                                                                                                                                                                                                                                                                                                                |
|                                                    | 2. Unit training survey.                                                          |                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                |
| T <sub>12</sub>                                    | 1. RUDEYE engagement tests using MTS, ROMAT, DATS, TMT, TVI.                      | Core A: Continue validation of threat oriented SM/ARTMPS.<br>Core B: Determine time/costs to achieve proficiency.<br>Variable 19: Evaluate rapid refresher training programs. (Insights only)<br>Variable 20: Develop training concept to proficiency with reduced resources.<br>Variable 25: Validate the effectiveness and efficiency of training devices. |                                                                                                                                                                                                                                                                                                                |

10 Apr 78

WORKSHEET

TITLE: INSTITUTIONAL TRAINING FOR ITH SCHOOL/AGENCY: USAIS/USAIS POC/PHONE: MAJ Bradley 815-2773/5551

| 1. OBJECTIVE(S)                                                                                                                                                                                                                  | 2. SAMPLE SIZE                                       | 3. TEST UNIT(S)              | 4. DATA COLLECTION PLAN                                                                                                                                                                                                     | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST                                            | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------|------------------------|------------------------------|
| Describe training resources and associated cost of implementing ITH training program.<br>A. Cost to train in institution.<br>B. Cost to train in MC units.<br>C. Cost to train in MC units.<br>D. Cost to implement TV training. | 3 IMP RNB<br>3 IMP HNS<br>1 TLAT BN<br>TOTAL = 7 RNB | 4ID<br>9ID<br>TLAT BN (NRNC) | Instit data to be forecasted.<br>Course cost resource form.<br>Thy resource data BN and lower.<br>Course cost data. for DIV & BDE schopl.<br>Course cost and Thy resource form (TLAT).<br>Course cost resource form (TLAT). | Data gathered 17 Feb - 30 Apr  | T <sub>1</sub> , T <sub>S</sub><br>T <sub>S2</sub> , T <sub>A</sub> | RCS to PROG to PROF    | 1-15 Jun 78<br>P-20 Jul 78   |

C-1

5 April 1978

DELIVERABLE SUMMARY

11H, INSTITUTIONAL TRAINING

|                | TEST ACTIVITY                                                                                          | INTERFACE V/TEA '85 CORE/VARIABLES                                                                                                                                                                   | INTERFACE V/BATTALION TRAINING MODEL                                                                                                                                                                                       |
|----------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub> | Use various forms to describe training resources and associated cost of implementing 11H MCB training. | Core 8: Determine time/costs to achieve proficiency.<br>Variable 3: Determine allocation of tasks between institut/unit.<br>Variable 12: Determine exportable training packages to support training. | 1. Determine time/frequency/costs/proficiency for varying levels of turbulence for training of TOW SM skills in units.<br>2. Determine the most cost effective means of training to 95% proficiency in SM skills in units. |
| T <sub>2</sub> | 1. Cost to train in AC units.<br>2. Cost to train in AC units.<br>3. Cost to train in RC units.        | Variable 12: Determine exportable training packages to support training.                                                                                                                             |                                                                                                                                                                                                                            |
| T <sub>3</sub> | 1. Cost to train in AC units.<br>2. Cost to train in RC units.                                         | Variable 12: Determine exportable training packages to support training.                                                                                                                             |                                                                                                                                                                                                                            |
| T <sub>4</sub> |                                                                                                        |                                                                                                                                                                                                      |                                                                                                                                                                                                                            |
| T <sub>5</sub> |                                                                                                        |                                                                                                                                                                                                      |                                                                                                                                                                                                                            |

10 April 1978

WORKSHEET

UNIT: COMPARISON OF UNIT TOW TRAINING VS INST TOW TRAINING USALS/USAID FOC/PHONE: MAJ Bradley, AV 835-2773/5551 SCHOOL/AGENCY:

| OBJECTIVES                                                                             | 2. SAMPLE SIZE                                                            | 3. TEST UNIT (S)             | 4. DATA COLLECTION PLAN                                                                                                 | 5. FIELD TEST DATES/ACTIVITIES                                                                                                            | 6. ARTS AREA OF INTEREST                                                | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------|------------------------------|
| Comparison of instit vs unit training to proficiency (initial MGS qualification only). | 3 INF BNS<br>3 INF BNS<br>1 TLAT BN<br>Current PC Course<br>TOTAL = 7 BNS | 410<br>910<br>TLAT BN (ARNG) | Resource, cost data - collection form.<br>Prof data - M78 Qual Table.<br>ITV OTIII prof scores.<br>TOW TEA test scores. | 1 Feb-30 Apr: Survey of units<br><br>Similar data gathered for TOW gunnery trained at Ft Benning.<br><br>TRADOC DCSNM will compare costs. | T <sub>1</sub> , T <sub>2</sub> , T <sub>A</sub><br><br>T <sub>S2</sub> | RSS to PROG to PROF    | 1-15 Jun 78<br>P-28 Jul 78   |

C-3

COMPARISON OF UNIT TOW TNC  
VS INST TOW TNC

DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY                                                                                                                                                                   | INTERFACE W/TEA '85 CORN/VARIABLES                                                                                                                                                                  | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>Use forms, ITV OTIII proficiency scores and TOW<br>TEA test statistics to make comparison of institutional vs unit training (Initial MCS qualification only). | Core B: Determine time/costs to achieve proficiency.<br>Variable 3: Determine allocation of tasks between institution/unit.<br>Variable 5: Determine impact of transfer of selected AIT to FORSCOM. | 1. Determine time/cost/frequency/proficiency of SM skills for varying turbulence levels (unit data).<br>2. Determine the most cost effective manner of achieving 95% proficiency.<br>3. Determine training costs. |
| T <sub>52</sub><br>Use proficiency data from W78 qualification table to make a comparison of institutional vs unit TOW training (Initial MCS qualification only).               | Variable 12: Determine exportable training packages to support training.                                                                                                                            |                                                                                                                                                                                                                   |
| T <sub>1A</sub>                                                                                                                                                                 |                                                                                                                                                                                                     |                                                                                                                                                                                                                   |
| T <sub>1</sub>                                                                                                                                                                  |                                                                                                                                                                                                     |                                                                                                                                                                                                                   |

10 April 1978

WORKSHEET

TITLE: UNIT PROFICIENCY MAINTENANCE & ITV TNG SCHOOL/AGENCY: USAIS/USAIS POC/PHONE: MAJ BRADLEY, AV 835-2773/5551

| 1. OBJECTIVES                                                                                                                                               | 2. SAMPLE SIZE                                              | 3. TEST UNIT (S)                | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ ACTIVITIES                                                                                                                                                                                                                                                                                            | 6. ARTS AREA OF INTEREST | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------|----------------------------------------------------------------------|
| To associate unit TOW gunner proficiency to unit ROI, training resources and the associated cost of implementing ITV training in both unit and institution. | 3 INF BNS<br>3 INF BNS<br>1 T1AT BN<br><br>TOTAL =<br>7 BNS | 41D<br>91D<br>T1AT BN<br>(ARNG) | Training data forms.    | 1 Feb-30 Apr TOM units gather data on TOM training to include resources (SMT uses data to build POIs for unit training) (TRADOC/FORSOM det annual cost of Tng).<br><br>ITV COI tentatively validated during ITV OTIII - FORSCOM & USAREUR est cost to implement ITV COI.<br><br>SMT assess impact of ITV on unit training. | Ts, Ts2<br>TA            | RES to PROG to PROF    | 1-15 Jun<br>1-20 Jul<br><br><br><br><br><br><br>1-15 Jun<br>1-20 Jul |

5 April 1978

DELIVERABLE SUMMARY

UNIT PROFICIENCY MAINTENANCE AND ITV TRAINING

| UNIT PROFICIENCY MAINTENANCE AND ITV TRAINING |                                                                                                                                                                                  | DELIVERABLE SUMMARY                                                                                                                                                                                     |  | INTERFACE W/BATTALION TRAINING MODEL                                                                                     |  |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------|--|
| TES ACTIVITY                                  |                                                                                                                                                                                  | INTERFACE W/TEA '85 CONC/VARIABLES                                                                                                                                                                      |  | INTERFACE W/BATTALION TRAINING MODEL                                                                                     |  |
| T <sub>1</sub>                                | 1. Use training data forms to associate unit gunner proficiency to unit POI, training resources and associated cost of implementing ITV training in both unit and institution.   | Core B: Determine time/costs to achieve proficiency.<br>Variable 3: Determine allocation of tasks between institution/unit.<br>Variable 12: Determine exportable training packages to support training. |  | 1. Determine time/costs to achieve 95% proficiency.<br>2. Determine time/frequency and costs to sustain 95% proficiency. |  |
|                                               | 2. Validate ITV COI during ITV OTIII.                                                                                                                                            |                                                                                                                                                                                                         |  |                                                                                                                          |  |
| T <sub>52</sub>                               | Use training data forms to associate unit TOW gunner proficiency to unit POI, training resources and associated cost of implementing ITV training in both unit and institution.  |                                                                                                                                                                                                         |  |                                                                                                                          |  |
| T <sub>A</sub>                                | Use training data forms to associate unit TOW gunner proficiency to unit POI, training resources and associated costs of implementing ITV training in both unit and institution. | Core B: Determine time/costs to achieve proficiency.<br>Variable 12: Determine exportable training packages to support training.                                                                        |  |                                                                                                                          |  |
| T <sub>A2</sub>                               |                                                                                                                                                                                  |                                                                                                                                                                                                         |  |                                                                                                                          |  |

10 Apr 78

## WORKSHEET

TITLE: 10M/1TV LEARNING WEAKNESSES (STUDY) SCHOOL/AGENCY: USATS/USATS POC/PHONE: MAJ Bradley, 835-2773/5551

| 1. OBJECTIVES                                                                                    | 2. SAMPLE SIZE   | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ ACTIVITIES                                                                               | 6. ARTS AREA OF INTEREST                                             | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE |
|--------------------------------------------------------------------------------------------------|------------------|------------------|-------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------|-------------------------------|
| To identify major weaknesses/ deficiencies in unit/institution training for the P4 and 11H (ITV) | 3 INF BNS        | 41D              | NONE                    | Review TOM bng studies, obs made during ITV OTIII and TOM TEA tests/studies.<br>Data gathered 1 Feb-30 Apr 78 | T <sub>I</sub><br>T <sub>S</sub> , T <sub>S2</sub><br>T <sub>A</sub> | NES to PROF            | 1-15 Jun<br>P-28 Jul          |
|                                                                                                  | 3 INF BNS        | 91D              |                         |                                                                                                               |                                                                      |                        |                               |
| (To make Army TOM training the best allowable given resource constraints)                        | 1 TLAT BN        | TLAT BN (ARNG)   |                         |                                                                                                               |                                                                      |                        |                               |
|                                                                                                  | P4 Course        | USATS            |                         |                                                                                                               |                                                                      |                        |                               |
|                                                                                                  | TOTAL =<br>7 BNS |                  |                         |                                                                                                               |                                                                      |                        |                               |

C-7

# LOW/ITV TRAINING WEAKNESSES

## DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY                                                                                                                       | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                | INTERFACE W/BATTALION TRAINING                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <p>T<sub>1</sub><br/>6<br/>T<sub>5</sub></p> <p>Review PLW training studies and observations made during INW drill and PLW TEA.</p> | <p>Core B: Determine time/costs to achieve proficiency.</p> <p>Variable 3: Determine allocation of tasks between Instit/unit.</p> | <p>Validate decay and frequency retrain requirements based on varying proficiency levels.</p> |
| <p>T<sub>2</sub></p>                                                                                                                |                                                                                                                                   |                                                                                               |
| <p>T<sub>4</sub></p> <p>Review PLW training studies and observations made during INW drill and PLW TEA.</p>                         | <p>Core B: Determine time/costs to achieve proficiency.</p>                                                                       |                                                                                               |
| <p>T<sub>12</sub></p>                                                                                                               | <p>C-8</p>                                                                                                                        |                                                                                               |

10 Apr 78

WORKSHEET

TOW TEA TEST

CPT Hanna, 737-9409  
MAJ Bradley, 835-2773/5551

TITLE:

SCHOOL/AGENCY: USASIS/ICATA

POC/PHONE:

| 1. OBJECTIVES                                                                                                                                                                                                                                                                                                                                                       | 2. SAMPLE SIZE                                                                 | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ ACTIVITIES | 6. ARTS AREA OF INTEREST                                                               | 7. LINKS TO ARTS MODEL             | 8. INTERIM/ FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------|-------------------------|---------------------------------|----------------------------------------------------------------------------------------|------------------------------------|-------------------------------|
| 1. Conduct part one of TOW WSTEA to:<br>Evaluate alternative TOW training programs.<br>Establish correlation between M78 scores and live fire.<br>Validate ARI gunner selection models.<br>Evaluate contribution of live-round firing to gunner proficiency.<br>War game model - effect on proficiency of differing levels of model - sensitive TOW gunnery skills. | 3 groups of 98 each (indiv soldiers, not previously TOW trained).<br>TOTAL=278 | 2AD              | ARI Field Form          | Pt Hood, TX, 13 Mar - 28 Apr    | T <sub>1</sub> , T <sub>S</sub><br>T <sub>S2</sub><br>T <sub>A</sub> , T <sub>A2</sub> | PROG to PROG through Mar M31 to CE | 1-15 Jun<br>P-28 Jul          |

5 April 1978

DELIVERABLE SUMMARY

TOW TEA TEST

| TEST ACTIVITY                                                                                                                                                                                                                                                                    | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                                                                                                            | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>T<sub>1</sub><br/>6<br/>T<sub>5</sub></p> <p>Validate ARI Gunner Selection Models.</p>                                                                                                                                                                                        | <p>Variable 18: Determine effects of less capable trainees.</p>                                                                                                                                                                                                                                               | <p>1. Determine time/frequency/cost/proficiency as a function of less capable trainees.</p> <p>2. Determine the most cost effective manner of achieving 95% proficiency.</p> <p>3. Determine time/frequency/cost/proficiency of this means.</p> |
| <p>T<sub>52</sub></p> <p>Compare three alternative training programs using missile firings following a sequential methodology.</p> <p>A. Establish correlation between M78 scores and live fire.</p> <p>B. Evaluate contribution of live-round firing to gunner proficiency.</p> | <p>Variable 3: Determine allocation of tasks between institution/unit.</p> <p>Variable 12: Determine exportable training packages to support training.</p> <p>Variable 19: Evaluate rapid refresher training programs.</p> <p>Variable 25: Validate the effectiveness and efficiency of training devices.</p> |                                                                                                                                                                                                                                                 |
| <p>T<sub>1A</sub></p>                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                 |
| <p>T<sub>12</sub></p> <p>War game model - use TEA data to determine effect on proficiency of differing levels of model-sensitive TOW gunnery skills.</p>                                                                                                                         | <p>Core A: Continue validation of threat oriented SM/ARTERs.</p> <p>Variable 18: Determine effects of less capable (Input data to TRASANA war models)</p> <p>C-10</p>                                                                                                                                         |                                                                                                                                                                                                                                                 |

5 Apr 78

WORKSHEET

TITLE: WAR GAME MODEL - RELATE LEVELS OF TOW PROF TO CE  
 SCHOOL/AGENCY: USAIS/TRASANA  
 POC/PHONE: MAJ Bradley 835-2773/5551  
 Ms. Hince 258-5392/3708

| 1. OBJECTIVE(S)                                                                              | 2. SAMPLE SIZE                                    | 3. TEST UNIT(S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES                                                                             | 6. ARTS AREA OF INTEREST                          | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|----------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------|-------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------|------------------------------|
| To relate different TOW gunner proficiency levels to CE through a war model (TRASANA effort) | Past testing & TOW crew reaction time<br>13 crews | 197 INF<br>BUE  | N/A                     | Data from TOW TEA (test 13 Mar-28 Apr 78)<br>28 Mar-31 May test analysis, model runs, analysis by TRASANA. | T <sub>1</sub> , T <sub>S</sub><br>T <sub>A</sub> | PROF to CE             | 1-38 Jun<br>P-28 Jul         |

C-11

5 April 1978

DELIVERABLE SUMMARY

WAR GAME MODEL - RELATE LEVELS OF TOW PROF TO CE

| TOW PROF | TOW PROF TO CE                                                                 | TOW PROF TO CE                                                                                                                                                                                              | INTERFACE W/BATTALION TRAINING MODEL |
|----------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| TOW PROF | TOW PROF TO CE                                                                 | TOW PROF TO CE                                                                                                                                                                                              | TOW PROF TO CE                       |
| T1       | TRASANA use war model to relate different TOW gunner proficiency levels to CE. | <p>Core A: Continue validation of threat oriented SM/ARTFES.</p> <p>Variable 18: Determine effects of less capable trainees.</p>                                                                            | N/A                                  |
| T2       | TRASANA use war model to relate different TOW gunner proficiency levels to CE. | <p>Core A: Continue validation of threat oriented SM/ARTFES. (Compare present capability with threat oriented capability requirements).</p> <p>Variable 18: Determine effects of less capable trainees.</p> |                                      |
| T3       | TRASANA use war model to relate different TOW gunner proficiency levels to CE. | <p>Core A: Continue validation of threat oriented SM/ARTFES.</p> <p>Variable 18: Determine effects of less capable trainees.</p>                                                                            |                                      |
| T4       | TRASANA use war model to relate different TOW gunner proficiency levels to CE. | <p>Core A: Continue validation of threat oriented SM/ARTFES.</p> <p>Variable 18: Determine effects of less capable trainees.</p>                                                                            | C-17                                 |



# TOW GUNNER SELECTION CRITERIA

## DELIVERABLE SUMMARY

5 Apr-11 1978

|                 | TEST ACTIVITY                                                                                                                  | INTERFACE V/TEA 'HS CORE/VARIABLES                                                                                   | INTERFACE W/BATTALION TRAINING MODEL                                                           |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| T <sub>1</sub>  | Study demographics from A <sup>2</sup> S <sup>2</sup> , TOW System Evaluation, ARI TOW/Dragon Gunner Selection Criteria Study. | Variable 18: Determine effects of less capable trainees.<br>Variable 19: Evaluate rapid refresher training programs. | Determine time/frequency/costs/proficiency of SM tasks as a function of less capable trainees. |
| T <sub>S2</sub> |                                                                                                                                |                                                                                                                      |                                                                                                |
| T <sub>A</sub>  | Study demographics from A <sup>2</sup> S <sup>2</sup> , TOW System Evaluation, ARI TOW/Dragon Gunner Selection Criteria Study. | Variable 18: Determine effects of less capable trainees.                                                             |                                                                                                |
| T <sub>A2</sub> |                                                                                                                                |                                                                                                                      |                                                                                                |

10 April 1978

WORKSHEET

TITLE: TLAT BN (ARMG)

USAS/USAS: MAJ Bradley, R35-2773/5551

SCHOOL/AGENCY:

| 1. OBJECTIVES                                                                                                                   | 2. SAMPLE SIZE | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN                           | 5. FIELD TEST DATES/ ACTIVITIES | 6. ARTS AREA OF INTEREST                         | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|---------------------------------------------------|---------------------------------|--------------------------------------------------|------------------------|-------------------------------|
| 1. Survey to provide insights on Reserve Component training resource requirements and other problems related with TOW training. | 1- TLAT BN     | TLAT BN (ARMG)   | Course resource data form.<br>Training data form. | Data gathering 1 Feb - 30 Apr   | T <sub>1</sub> , T <sub>2</sub> , T <sub>A</sub> | RES to PROG to PROC    | 1-15 Jun<br>P-28 Jul          |
| 2. Informal evaluation of TEC lesson support to TOW training.                                                                   | 1- TLAT BN     | TLAT BN          | TEC questionnaire.                                | Data gathering 1 Feb - 30 Apr   | T <sub>2</sub> , T <sub>2</sub>                  | PROG to PROC           | 1-15 Jun<br>P-28 Jul          |

C-15

TLAT BN

DELIVERABLE SUMMARY

5 April 1978

|                 | TEST ACTIVITY                                                                                                                          | INTERFACZ W/TEA '85 CORE/VARIABLES                                                                                                                                                           | INTERFACZ W/BATTALION TRAINING                                                                                                                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub>  | Survey to provide insights on Reserve Unit current unique training resource requirements and other problems related with TQM training. | Core 0: Determine time/costs to achieve proficiency.<br>Variable 12: Determine exportable training packages to support training.<br>Variable 14: Evaluate rapid refresher training programs. | Determine tasks, time, frequency, retraining, costs and proficiency for each TEC lesson. Compare Input - output with T <sub>5</sub> - Analyze - make recommendations as to most efficient/cost effective program. |
| T <sub>52</sub> | Internal evaluation of TEC lessons.                                                                                                    | Variable 25: Validate the effectiveness and efficiency of training devices.                                                                                                                  |                                                                                                                                                                                                                   |
| T <sub>A</sub>  | Same as T <sub>1</sub> + T <sub>5</sub>                                                                                                | Same as T <sub>1</sub> + T <sub>5</sub>                                                                                                                                                      |                                                                                                                                                                                                                   |
| T <sub>52</sub> | Internal evaluation of TEC lessons.                                                                                                    | Variable 25: Validate the effectiveness and efficiency of training devices.                                                                                                                  |                                                                                                                                                                                                                   |

C-16

10 Apr 78

## WORKSHEET

CPT Kanaa, 737-9409  
MAJ Bradley, 835-2773/3551

USAIS/TCATA

POC/PHONE:

SCHOOL/AGENCY:

DIVISION RESTRUCTURING STUDY (DRS)

TITLE:

| 1. OBJECTIVES                                                                                                                                                         | 2. SAMPLE SIZE | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|-------------------------|--------------------------------|---------------------------------|------------------------|------------------------------|
| *Document resources and resulting proficiency associated w/intensive short-term TOM training.<br><br>*TCATA reviewing — may not provide training data of use to ARTS. | 3 DRS BNS      | 1 CAV            | TCATA forms             | Pt Hood, TX, Ph 1 ended 14 Feb | T <sub>S</sub> , T <sub>A</sub> | RES to PROG to PROF    | 1-15 Jun<br>P-28 Jul         |
| Obtain data on crew/unit proficiency for use in THASANA war game model.                                                                                               | 3 DRS BNS      | 1 CAV            | NONE                    | Pt Hood                        | T <sub>A</sub>                  | PROG to PROF           | 1-15 Jun<br>P-28 Jul         |

C-17

5 April 1978

DELIVERABLE SUMMARY

DIVISION RESTRUCTURING STUDY (DRS)

|                | TEST ACTIVITY                                                                                   | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                    | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                                                                                                       |
|----------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub> | Document resources and resulting proficiency associated with intensive short-term TOW training. | Core A: Continue validation of threat oriented SM/ART/PS.<br><br>Core B: Determine time/costs to achieve proficiency.<br><br>Variable 19: Evaluate rapid refresher training programs. | 1. Determine time/frequency/costs/proficiency in SM tasks using the most cost effective programs as a function of varying levels of turbulence.<br><br>2. Determine time/frequency/costs/proficiency in ART/PS tasks using the most cost effective programs as a function of varying levels of turbulence. |
| T <sub>2</sub> |                                                                                                 |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                            |
| T <sub>3</sub> |                                                                                                 |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                            |
| T <sub>4</sub> | Document resources and resulting proficiency associated with intensive short-term TOW training. | Core B: Determine time/costs to achieve proficiency.<br><br>Variable 19: Evaluate rapid refresher training programs.                                                                  |                                                                                                                                                                                                                                                                                                            |
| T <sub>5</sub> |                                                                                                 |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                            |

5 Apr 78

WORKSHEET

TITLE: ITV OTIII SCHOOL/AGENCY: USAIS/OTEA POC/PHONE: MAJ Rotard/355-8248

| 1. OBJECTIVE(S)                                  | 2. SAMPLE SIZE                              | 3. TEST UNIT(S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST                                          | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|--------------------------------------------------|---------------------------------------------|-----------------|-------------------------|--------------------------------|-------------------------------------------------------------------|------------------------|------------------------------|
| Extract data from ITV OTIII                      | 34 TOW troops                               | 91D             | On site eval by OTEA.   | 15 Jan - 30 Apr                | T <sub>1</sub> , T <sub>2</sub> , T <sub>3</sub> , T <sub>4</sub> | RES to PROF            | 1-15 Jun<br>P-28 Jul         |
| A. Assessment of retention of TOW Gunner skills. | As a part of 1 mech INF CO and 1 AM CAV PLT |                 |                         |                                |                                                                   |                        |                              |
| B. Development of ITV COI.                       |                                             |                 |                         |                                |                                                                   |                        |                              |
| C. Forecast of training resource requirements.   | TOTAL:<br>1 CO &<br>1 PLT                   |                 |                         |                                |                                                                   |                        |                              |
| D. Impact of ITV on instit and unit training.    |                                             |                 |                         |                                |                                                                   |                        |                              |

C-19

# ITV OTIII

## DELIVERABLE SUMMARY

5 April 1978

|                | TEST ACTIVITY                                                                                                                                                                                         | INTERFACE W/TEA 'N' CUMI/VARIABLES                                                                                                                                                                                                                                                       | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                                      |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub> | Individual training programs to develop individual proficiency to support crew/platoon training.                                                                                                      | Core A: Continue validation of threat oriented SM/ARTERS.<br>Core C: Develop diagnostic test to measure proficiency and decay levels.<br>Core D: Determine decay rates and frequency of required retraining.<br>Variable 12: Determine exportable training packages to support training. | 1. Time/frequency/costs/proficiency of SM tasks as function of varying levels of turbulence & trainer capability.<br>2. Time/frequency/costs/proficiency in ARTEP tasks as function of varying levels of turbulence & trainer capability. |
| T <sub>2</sub> |                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                           |
| T <sub>3</sub> |                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                           |
| T <sub>4</sub> | 1. Train Inf crews and Arm Cav sqds to operate ITV system.<br>2. Live-fire exercises against multiple targets.<br>3. Conduct series of Arm Cav Recon Plt and Mech Inf Co exercises vs a threat force. | Core A: Continue validation of threat oriented SM/ARTERS.<br>Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Variable 12: Determine exportable training packages to support training.                                                                       |                                                                                                                                                                                                                                           |
| T <sub>5</sub> |                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                           |

5 Apr 78

WORKSHEET

TITLE: ITV CTEA STUDY SCHOOL/AGENCY: USAS POC/PHONE: MAJ Bradley 835-2773/5551

| 1. OBJECTIVE(S)                                                                                   | 2. SAMPLE SIZE      | 3. TEST UNIT(S) | 4. DATA COLLECTION PLAN       | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST                                            | 8. LINKS TO ARTS MODEL | 9. INTERIM/FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------|---------------------|-----------------|-------------------------------|--------------------------------|---------------------------------------------------------------------|------------------------|------------------------------|
| Determine most cost effective method and location (instit/ unit) to teach ITV gunner/ crew tasks. | Based on OTHH data. | Study           | On-site evaluation from OTHH. | 15 Jan - 30 Apr                | T <sub>1</sub> , T <sub>S</sub> , T <sub>A</sub><br>T <sub>S2</sub> | RES to PROG to PROF    | F-15 Jun<br>P-28 Jul         |

C-21

5 April 1978

ITV CTEA

DELIVERABLE SUMMARY

| TEST ACTIVITY                         |                                                                                                           | INTERFACE W/TEA '05 CORE/VARIABLES                                                                                                                                                                     | INTERFACE W/BATTALION TRAINING MODEL                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>6<br>T <sub>5</sub> | Gather data on most cost effective method and location (institution/unit) to teach ITV gunner/crew tasks. | Core B: Determine time/costs to achieve proficiency.<br>Variable 3: Determine allocation of tasks between instit/unit.                                                                                 | 1. Determine the most cost effective method of achieving 95% proficiency.<br>2. Cost the selected method for SH tasks. |
|                                       |                                                                                                           | Variable 20: Develop training concept to proficiency with reduced resources.<br>Variable 25: Validate the effectiveness and efficiency of training devices.                                            |                                                                                                                        |
| T <sub>52</sub>                       | Correlate proficiency on W70 trainer with live fire gunner proficiency (TOM TEA).                         | Core B: Determine time/costs to achieve proficiency.<br>Variable 3: Determine allocation of tasks between instit/unit.<br>Variable 20: Develop training concept to proficiency with reduced resources. |                                                                                                                        |
| T <sub>1A</sub>                       | Gather data on most cost effective method and location (institution/unit) to teach ITV gunner/crew tasks. |                                                                                                                                                                                                        |                                                                                                                        |
| T <sub>12</sub>                       |                                                                                                           |                                                                                                                                                                                                        |                                                                                                                        |

10 Apr 78

## WORKSHEET

MAJ Bradley, 835-2773/5551

USAS/USAS

POC/PHONE:

SCHOOL/AGENCY:

TITLE: TOW COSTING METHODOLOGY

| 1. OBJECTIVES                                                                                                                                | 2. SAMPLE SIZE                                                                                                                                                   | 3. TEST UNIT (S)                                                                                         | 4. DATA COLLECTION PLAN                                                                                                                                                                                                                                                                                                                 | 5. FIELD TEST DATES/ ACTIVITIES | 6. ARTS AREA OF INTEREST                                                                                      | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|
| Make costs/resource comparisons:<br>A. Gunner training in instrit/unit.<br><br>B. DRS vs TLAT maint training.<br><br>C. AC Unit vs TLAT Trg. | 3 INF BNS<br>3 INF BNS<br>1 TLAT BN<br>ST 7 BNS<br><br>3 BNS<br>1 TLAT BN<br>ST 4 BNS<br><br>3 INF BNS<br>3 INF BNS<br>1 TLAT BN<br>ST 7 BNS<br><br>TOTAL 10 BNS | 4TD<br>91D<br>TLAT BN<br>(ARNG)<br><br>1 CAV<br>TLAT BN<br>(ARNG)<br><br>4TD<br>91D<br>TLAT BN<br>(ARNG) | Course Cost Data Form, (Survey of formal) TOW gunner courses conducted tng within divisions) tng rule Form (Form surveying unit) tng designed and conducted by units (to add level) designed to achieve a specific objective)<br><br>Form surveying maint tng which is not formally structured but consists of a series of tag elements | Data gathering 1 Feb - 30 Apr   | T <sub>I</sub> , T <sub>S</sub><br><br>T <sub>S</sub> , T <sub>A</sub><br><br>T <sub>S</sub> , T <sub>A</sub> | RDS to PROG to PROG    | 1-15 Jun<br>P-20 Jul          |

C-23

# TOW COSTING METHODOLOGY

## DELIVERABLE SUMMARY

5 April 1970

| TEST ACTIVITY    | INTERFACE W/TPA W/ CORE/VARIABLES                            | INTERFACE W/BATTALION TRAINING MODEL                                               |
|------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------|
| T <sub>1</sub>   | Core B: Determine time/costs to achieve proficiency.         | 1. Determine most cost effective manner of achieving 95% proficiency in SM skills. |
| T <sub>2</sub>   | Variable 3: Determine allocation of tasks between Ins./unit. | 2. Cost the selected method.                                                       |
| T <sub>3</sub>   |                                                              |                                                                                    |
| T <sub>4</sub>   |                                                              |                                                                                    |
| T <sub>5</sub>   |                                                              |                                                                                    |
| T <sub>6</sub>   |                                                              |                                                                                    |
| T <sub>7</sub>   |                                                              |                                                                                    |
| T <sub>8</sub>   |                                                              |                                                                                    |
| T <sub>9</sub>   |                                                              |                                                                                    |
| T <sub>10</sub>  |                                                              |                                                                                    |
| T <sub>11</sub>  |                                                              |                                                                                    |
| T <sub>12</sub>  |                                                              |                                                                                    |
| T <sub>13</sub>  |                                                              |                                                                                    |
| T <sub>14</sub>  |                                                              |                                                                                    |
| T <sub>15</sub>  |                                                              |                                                                                    |
| T <sub>16</sub>  |                                                              |                                                                                    |
| T <sub>17</sub>  |                                                              |                                                                                    |
| T <sub>18</sub>  |                                                              |                                                                                    |
| T <sub>19</sub>  |                                                              |                                                                                    |
| T <sub>20</sub>  |                                                              |                                                                                    |
| T <sub>21</sub>  |                                                              |                                                                                    |
| T <sub>22</sub>  |                                                              |                                                                                    |
| T <sub>23</sub>  |                                                              |                                                                                    |
| T <sub>24</sub>  |                                                              |                                                                                    |
| T <sub>25</sub>  |                                                              |                                                                                    |
| T <sub>26</sub>  |                                                              |                                                                                    |
| T <sub>27</sub>  |                                                              |                                                                                    |
| T <sub>28</sub>  |                                                              |                                                                                    |
| T <sub>29</sub>  |                                                              |                                                                                    |
| T <sub>30</sub>  |                                                              |                                                                                    |
| T <sub>31</sub>  |                                                              |                                                                                    |
| T <sub>32</sub>  |                                                              |                                                                                    |
| T <sub>33</sub>  |                                                              |                                                                                    |
| T <sub>34</sub>  |                                                              |                                                                                    |
| T <sub>35</sub>  |                                                              |                                                                                    |
| T <sub>36</sub>  |                                                              |                                                                                    |
| T <sub>37</sub>  |                                                              |                                                                                    |
| T <sub>38</sub>  |                                                              |                                                                                    |
| T <sub>39</sub>  |                                                              |                                                                                    |
| T <sub>40</sub>  |                                                              |                                                                                    |
| T <sub>41</sub>  |                                                              |                                                                                    |
| T <sub>42</sub>  |                                                              |                                                                                    |
| T <sub>43</sub>  |                                                              |                                                                                    |
| T <sub>44</sub>  |                                                              |                                                                                    |
| T <sub>45</sub>  |                                                              |                                                                                    |
| T <sub>46</sub>  |                                                              |                                                                                    |
| T <sub>47</sub>  |                                                              |                                                                                    |
| T <sub>48</sub>  |                                                              |                                                                                    |
| T <sub>49</sub>  |                                                              |                                                                                    |
| T <sub>50</sub>  |                                                              |                                                                                    |
| T <sub>51</sub>  |                                                              |                                                                                    |
| T <sub>52</sub>  |                                                              |                                                                                    |
| T <sub>53</sub>  |                                                              |                                                                                    |
| T <sub>54</sub>  |                                                              |                                                                                    |
| T <sub>55</sub>  |                                                              |                                                                                    |
| T <sub>56</sub>  |                                                              |                                                                                    |
| T <sub>57</sub>  |                                                              |                                                                                    |
| T <sub>58</sub>  |                                                              |                                                                                    |
| T <sub>59</sub>  |                                                              |                                                                                    |
| T <sub>60</sub>  |                                                              |                                                                                    |
| T <sub>61</sub>  |                                                              |                                                                                    |
| T <sub>62</sub>  |                                                              |                                                                                    |
| T <sub>63</sub>  |                                                              |                                                                                    |
| T <sub>64</sub>  |                                                              |                                                                                    |
| T <sub>65</sub>  |                                                              |                                                                                    |
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| T <sub>67</sub>  |                                                              |                                                                                    |
| T <sub>68</sub>  |                                                              |                                                                                    |
| T <sub>69</sub>  |                                                              |                                                                                    |
| T <sub>70</sub>  |                                                              |                                                                                    |
| T <sub>71</sub>  |                                                              |                                                                                    |
| T <sub>72</sub>  |                                                              |                                                                                    |
| T <sub>73</sub>  |                                                              |                                                                                    |
| T <sub>74</sub>  |                                                              |                                                                                    |
| T <sub>75</sub>  |                                                              |                                                                                    |
| T <sub>76</sub>  |                                                              |                                                                                    |
| T <sub>77</sub>  |                                                              |                                                                                    |
| T <sub>78</sub>  |                                                              |                                                                                    |
| T <sub>79</sub>  |                                                              |                                                                                    |
| T <sub>80</sub>  |                                                              |                                                                                    |
| T <sub>81</sub>  |                                                              |                                                                                    |
| T <sub>82</sub>  |                                                              |                                                                                    |
| T <sub>83</sub>  |                                                              |                                                                                    |
| T <sub>84</sub>  |                                                              |                                                                                    |
| T <sub>85</sub>  |                                                              |                                                                                    |
| T <sub>86</sub>  |                                                              |                                                                                    |
| T <sub>87</sub>  |                                                              |                                                                                    |
| T <sub>88</sub>  |                                                              |                                                                                    |
| T <sub>89</sub>  |                                                              |                                                                                    |
| T <sub>90</sub>  |                                                              |                                                                                    |
| T <sub>91</sub>  |                                                              |                                                                                    |
| T <sub>92</sub>  |                                                              |                                                                                    |
| T <sub>93</sub>  |                                                              |                                                                                    |
| T <sub>94</sub>  |                                                              |                                                                                    |
| T <sub>95</sub>  |                                                              |                                                                                    |
| T <sub>96</sub>  |                                                              |                                                                                    |
| T <sub>97</sub>  |                                                              |                                                                                    |
| T <sub>98</sub>  |                                                              |                                                                                    |
| T <sub>99</sub>  |                                                              |                                                                                    |
| T <sub>100</sub> |                                                              |                                                                                    |

10 Apr 78

WORKSHEET

TITLE: PO/UNIT TRAINING TTA 78 SCHOOL/AGENCY: USAFAS FT SILL POC/PHONE: LTC John O. Neal, AV 639-3516

| 1. OBJECTIVE(S)                                                                                   | 2. SAMPLE SIZE                             | 3. TEST UNIT(S)     | 4. DATA COLLECTION PLAN                                                     | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------|-----------------------------------------------------------------------------|--------------------------------|---------------------------------|------------------------|------------------------------|
| To determine the relationship between the level of proficiency of P's and unit training programs. | 144 troops<br>(24 OFF/Div)<br>(24 INF/Div) | 41D<br>2AD<br>1 CAV | 1. Unit trng mgt survey.<br>2. PO SQT written exam.<br>3. PO questionnaire. | Dates: May - Jun               | T <sub>S</sub> , T <sub>A</sub> | PROG to PROF           | 1-1 Jul<br>P-1 Oct           |

D-1

5 April 1976

FO/UNIT TIME

DELIVERABLE SUMMARY

| TEST ACTIVITY                                                                                                                                                                                                 | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                                                                                  | INTERFACE W/BATTALION TRAINING MODEL                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>1. SQT type written test on call for & adjustment of fire.                                                                                                                                  | Core A: Continue validation of threat oriented SW/ARTSPs.                                                                                                                                                                                                                           | 1. Validate critical SW/ARTSP tasks.                                                                                      |
| T <sub>5</sub><br>2. Self-location and target location test w/map correlation.                                                                                                                                | Core C: Develop diagnostic tests to measure proficiency.<br><br>Variable 17: Determine effects of reduced off/MCO fill. (Possible Insights)                                                                                                                                         | 2. Determine individual and unit proficiency based on various training programs.                                          |
| T <sub>52</sub>                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                     | 3. Determine most efficient (time & dollars) costing of FO training.<br>4. Determine impact of turbulence on proficiency. |
| T <sub>A</sub><br>1. Conduct review/discussion of unit FO training programs. Use survey format to insure commonality.<br>2. Administer questionnaire to obtain opinions on the adequacy of training programs. | Core A: Continue validation of threat oriented SW/ARTSPs.<br>Core B: Determine time/costs to achieve proficiency as reflected by unit training schedules.<br>Variable 16: Determine effects of stability and turbulence.<br>Variable 17: Determine effects of reduced off/MCO fill. |                                                                                                                           |
| T <sub>AC</sub>                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                     |                                                                                                                           |

10 Apr 78

WORKSHEET

TITLE: OBSERVED FIRE TRAINER CTEA EXPANSION

USAFAS

LTC John O. Neal AV 639-3518

SCHOOL/AGENCY:

POC/PHONE:

| 1. OBJECTIVES                                                                                                           | 2. SAMPLE SIZE                                                                                     | 3. TEST UNIT (S)                                    | 4. DATA COLLECTION PLAN                                                                                                                                                              | 5. FIELD TEST DATES/ ACTIVITIES                           | 6. ARTS AREA OF INTEREST          | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------|------------------------|-------------------------------|
| 1. To determine the impact of the degree/intensity of the use of tqg devices in the institution has on individual prof. | 300 troops total<br>1 CDC<br>CLASSES<br>(200 of f)<br>5 13F<br>CLASSES<br>20-50 EN/<br>CL          | MONF                                                | 1. Institution background questionnaire.<br>2. STEP Test.<br>3. ORS fire exam.<br>4. Institution question-<br>naire.<br>5. Final ORS fire exam.<br>6. Instructor question-<br>naire. | Resident courses ORC: 13 Jun<br>13F: 16 Jun COMPL: 30 Sep | T <sub>1</sub> , T <sub>12</sub>  | PROG to<br>PROF        | 1-1 Jul<br>P-1 Dec            |
| 2. To determine the impact of the degree/intensity of use of tqg devices in the unit has on individual training.        | 93 troops<br>TOTAL<br>36 (5-7<br>Per Div)<br>63 troops<br>(Basic<br>CTEA)<br>Total -<br>391 troops | 41D<br>91D<br>2AD<br>1 CAV<br>III Qps<br>Pt<br>Knox | 1. TAC unit background questionnaire.<br>2. STEP Test.<br>3. ORS fire exam.<br>4. Unit questionnaire.<br>5. Final ORS fire exam.<br>6. Instructor question-<br>naire.                | Dates: TBD<br><br>Analysis of data                        | T <sub>S1</sub> , T <sub>S2</sub> | PROG to<br>PROF        |                               |
| 3. To determine the impact of changes in the techniques/ technology on indiv mq.                                        |                                                                                                    |                                                     |                                                                                                                                                                                      |                                                           | T <sub>1</sub> , T <sub>S1</sub>  | PROG to<br>PROF        |                               |

D-3

# OFT CTEA EXPANSION

## DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY                                                                                                                                                        | INTERFACE W/TEA 'N'S OWN/VARIABLES                                                                                                                                                                                                                                                                                                                              | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>T<sub>1</sub><br/>1. Variation of mix of OFT vs Live Fire Instruction.</p> <p>T<sub>2</sub><br/>2. Test, Train-up and Retest EM Observers Recalled from Dive.</p> | <p>Core B: Determine time/costs to achieve proficiency.</p> <p>Core C: Develop diagnostic tests to measure proficiency.</p> <p>Variable 19: Evaluate rapid refresher training programs. (The results may provide insights on PC use of these devices for rapid train-up)</p> <p>Variable 25: Validate the effectiveness and efficiency of training devices.</p> | <p>1. Allows most efficient costing (time &amp; dollars) of FO training.</p> <p>2. Measure proficiency based on various training methods.</p> <p>3. Determine time and frequency to train-up to proficiency.</p> |
| <p>T<sub>3</sub><br/>1. Test of OFT.</p>                                                                                                                             | <p>Core B: Determine time/costs to achieve proficiency.</p> <p>Variable 25: Validate the effectiveness and efficiency of training devices.</p>                                                                                                                                                                                                                  |                                                                                                                                                                                                                  |
| <p>T<sub>4</sub></p>                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                  |
| <p>T<sub>5</sub><br/>1. Test of OFT.</p>                                                                                                                             | <p>Core B: Determine time/costs to achieve proficiency.</p> <p>Variable 25: Validate the effectiveness and efficiency of training devices.</p>                                                                                                                                                                                                                  | <p>D-4</p>                                                                                                                                                                                                       |

10 Apr 78

WORKSHEET

TITLE: SUITABILITY OF 13F REPORTED TRAINING SCHOOL/AGENCY: USAFAS FT SILL POC/PHONE: LTC John O. Neal, AV 639-5903/351R

| 1. OBJECTIVE(S)                                                                                                                             | 2. SAMPLE SIZE                | 3. TEST UNIT(S)           | 4. DATA COLLECTION PLAN   | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST                                                                   | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------|---------------------------|--------------------------------|--------------------------------------------------------------------------------------------|------------------------|------------------------------|
| 1. To determine the impact of replacing portions of current institutional courses (13F) with training programs designed for unit execution. | 48 troops<br>2 13F<br>Classes | Prev support in OPT test. | Prev surveys in OPT test. | Analysis                       | T <sub>1</sub> , T <sub>S1</sub> ,<br>T <sub>S2</sub><br>T <sub>A1</sub> , T <sub>A2</sub> | PROG to<br>PROF        | 1-15 Dec<br>P-15 Feb 79      |

5 Apr 11 1978

DELIVERABLE SUMMARY

SUITABILITY OF 13F EXPORTED TRAINING

| TEST ACTIVITY                                                                                                                                                                                                                                | INTERFACE W/ TFA '85 CORE/VARIABLES                                                                                                                                                                                                                                                     | INTERFACE W/ BATTALION TRAINING MODEL                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>T<sub>1</sub></p> <p>1. Two 13F resident courses receive modified COI (base COI less training appropriate for unit training support by exportable packages, end of course proficiency measure &amp; compared to base COI proficiency.</p> | <p>Core B: Determine time/costs to achieve proficiency.</p> <p>Core C: Develop diagnostic tests to measure proficiency.</p> <p>Variable 12: Determine exportable training packages to support training.</p> <p>Variable 5: Determine impact of transfer of selected AIT to FORSCOM.</p> | <p>1. Validate critical SM tasks from previous tests.</p> <p>2. Determine most efficient (time &amp; dollars) methods mixes of training.</p> <p>3. Determine &amp; measure proficiency as result of train-up packages.</p> |
| <p>T<sub>S2</sub></p>                                                                                                                                                                                                                        | <p>Variable 3: Determine allocation of tasks between Instit/Unit.</p>                                                                                                                                                                                                                   |                                                                                                                                                                                                                            |
| <p>T<sub>A</sub></p>                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                            |
| <p>T<sub>A2</sub></p>                                                                                                                                                                                                                        | <p>D-6</p>                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                            |

10 Apr 78

WORKSHEET

TITLE: CONFIRM 63C/N SQT AS A MEASURE OF PROFICIENCY SCHOOL/AGENCY: USAOGCS POC/PHONE: Mr. Oliver 283-3170/4460

| 1. CONJECTIVE(S)                         | 2. SAMPLE SIZE                                    | 3. TEST UNIT(S)                            | 4. DATA COLLECTION PLAN                                                                              | 5. FIELD TEST DATES/ACTIVITIES                                                                         | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE                                                                                                                                                 |
|------------------------------------------|---------------------------------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Confirm SQT as a measure of proficiency. | Approx 475<br>E2-E4<br>Approx 128<br>E5 and above | IID<br>4ID<br>5ID<br>49AD<br>(ANNG)<br>8ID | 1. Background data<br>2. OJT data<br>3. Performance tests<br>4. Supervisors rating<br>5. SQT results | 8ID, 24-27 Apr<br>1ID, 8-11 May<br>4ID, 6-10 Mar<br>5ID, 21-25 Feb<br>49AD, 12-15 Jun<br>(Ft Hood, TX) | T <sub>I</sub> , T <sub>S</sub> | PROG to<br>PROG        | 1-8/A<br>8-Aug 78<br>Administration of SQT tests originally planned for Mar-May has been rescheduled by DA for May-Jul. Computer processing will add a minimum of 6-8 weeks. |

E-1

63C/H MOS CONFIRM SQT AS A  
MEASURE OF PROFICIENCY

DELIVERABLE SUMMARY

5 April 1978

| T <sub>1</sub>  | TEST ACTIVITY                               | INTERFACE W/ TTA '85 CORE/VARIABLES                                   | INTERFACE W/ BATTALION TRAINING MODEL                                                       |
|-----------------|---------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| T <sub>1</sub>  | 1. Obtain SQT results for MOS 63C/H.        | Core A: Continue validation of threat oriented SW/ATTEPs.             | 1. Test selected tasks in critical functional areas.                                        |
| T <sub>2</sub>  | 2. Administrative performance test.         | Variable 12: Determine effect of expanded OSUT for sel. high-pri wps. | 2. Determine most efficient (time and dollars) methods of achieving individual proficiency. |
| T <sub>3</sub>  | 3. Correlate individual performance w/ SQT. | Variable 18: Determine effect of less capable trainees.               | 3. Determine frequency of retrain under various training methods.                           |
| T <sub>4</sub>  |                                             |                                                                       | 4. Develop proficiency development profiles which may be expanded to other task.            |
| T <sub>5</sub>  |                                             |                                                                       |                                                                                             |
| T <sub>6</sub>  |                                             |                                                                       |                                                                                             |
| T <sub>7</sub>  |                                             |                                                                       |                                                                                             |
| T <sub>8</sub>  |                                             |                                                                       |                                                                                             |
| T <sub>9</sub>  |                                             |                                                                       |                                                                                             |
| T <sub>10</sub> |                                             |                                                                       |                                                                                             |
| T <sub>11</sub> |                                             |                                                                       |                                                                                             |
| T <sub>12</sub> |                                             |                                                                       |                                                                                             |
| T <sub>13</sub> |                                             |                                                                       |                                                                                             |
| T <sub>14</sub> |                                             |                                                                       |                                                                                             |
| T <sub>15</sub> |                                             |                                                                       |                                                                                             |
| T <sub>16</sub> |                                             |                                                                       |                                                                                             |
| T <sub>17</sub> |                                             |                                                                       |                                                                                             |
| T <sub>18</sub> |                                             |                                                                       |                                                                                             |
| T <sub>19</sub> |                                             |                                                                       |                                                                                             |
| T <sub>20</sub> |                                             |                                                                       |                                                                                             |
| T <sub>21</sub> |                                             |                                                                       |                                                                                             |
| T <sub>22</sub> |                                             |                                                                       |                                                                                             |
| T <sub>23</sub> |                                             |                                                                       |                                                                                             |
| T <sub>24</sub> |                                             |                                                                       |                                                                                             |
| T <sub>25</sub> |                                             |                                                                       |                                                                                             |
| T <sub>26</sub> |                                             |                                                                       |                                                                                             |
| T <sub>27</sub> |                                             |                                                                       |                                                                                             |
| T <sub>28</sub> |                                             |                                                                       |                                                                                             |
| T <sub>29</sub> |                                             |                                                                       |                                                                                             |
| T <sub>30</sub> |                                             |                                                                       |                                                                                             |
| T <sub>31</sub> |                                             |                                                                       |                                                                                             |
| T <sub>32</sub> |                                             |                                                                       |                                                                                             |
| T <sub>33</sub> |                                             |                                                                       |                                                                                             |
| T <sub>34</sub> |                                             |                                                                       |                                                                                             |
| T <sub>35</sub> |                                             |                                                                       |                                                                                             |

10 Apr 78

WORKSHEET

SCHOOL/AGENCY: USAOCCS

POC/PHONE: Mr. Oliver 283-3170/4460

TITLE: IDENTIFY PROFICIENCY DEVELOPMENT PROFILES

| 1. OBJECTIVE(S)                           | 2. SAMPLE SIZE                                    | 3. TEST UNIT(S)                            | 4. DATA COLLECTION PLAN                                                                                                                           | 5. FIELD TEST DATES/ACTIVITIES                                                                         | 6. ARTS AREA OF INTEREST  | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE                                        |
|-------------------------------------------|---------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------|------------------------|---------------------------------------------------------------------|
| Identify proficiency development profiles | Approx 475<br>F2-84<br>Approx 128<br>E5 and above | 11D<br>41D<br>51D<br>49AD<br>(ARNG)<br>81D | 1. Performance test results<br>2. Questionnaire to determine characteristics of QUT programs<br>3. Individual aptitude scores<br>4. Prior studies | 81D, 24-27 Apr<br>11D, 8-11 May<br>41D, 6-18 Mar<br>51D, 21-25 Feb<br>49AD, 12-15 Jun<br>(Pt Hood, TX) | T11, T12, T13<br>TS1, TS2 | PROG to PROF           | 1-Apr-May<br>15-Jun<br>Data summaries will be provided as completed |

E-3

63C/H IDENTIFY PROFICIENCY,  
DEVELOPMENT PROFILES

DELIVERABLE SUMMARY

5 Apr 11 1978

| TEST ACTIVITY    |                                                                                                                                                                                                                      | INTERFACE W/TEA '65 CORE/VARIABLES                                                                                                                                                                       | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                              |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub>   | 1. Administer performance test to both self pace and lockstep graduates.                                                                                                                                             | Core B: Determine time/costs to achieve proficiency.<br>Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Core D: Determine decay rates and frequency of required retraining. | 1. Determine most efficient (time & dollars) methods of achieving individual proficiency.                                                                                                         |
|                  | 2. Administer cross sectional test.                                                                                                                                                                                  | Variable 3: Determine allocation of task between instt/unit.                                                                                                                                             | 2. Determine frequency of retrain under various training methods.                                                                                                                                 |
|                  | 3. Analyze data to yield:<br>a. Self pace vs lockstep<br>b. Aptitude vs retention<br>c. Decay over time<br>d. Decay related to experience<br>e. Extent and relevance of QTT<br>f. Extent and relevance of experience | Variable 12: Determine exportable training packages to support training.<br>Variable 18: Determine effects of reduced off/NOO fill.                                                                      | 3. Measure proficiency of less capable trainees.<br>4. Determine effect on proficiency of less trainer fill.<br>5. Develop proficiency development profiles which may be expanded to other tasks. |
| T <sub>2</sub>   |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>3</sub>   |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>4</sub>   | 4. Repeat self-paced graduates at four-six month intervals.                                                                                                                                                          |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>5</sub>   |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>6</sub>   |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>7</sub>   |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>8</sub>   |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>9</sub>   |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>10</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>11</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>12</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>13</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>14</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>15</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>16</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>17</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>18</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>19</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>20</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>21</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>22</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>23</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>24</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>25</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>26</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>27</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>28</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>29</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>30</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>31</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>32</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>33</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>34</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>35</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>36</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>37</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>38</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>39</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>40</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>41</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>42</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>43</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>44</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>45</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>46</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>47</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>48</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>49</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>50</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>51</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>52</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>53</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>54</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>55</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>56</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>57</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>58</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>59</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>60</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>61</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>62</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>63</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>64</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>65</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>66</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>67</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>68</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>69</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>70</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>71</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>72</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>73</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>74</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>75</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>76</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>77</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>78</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>79</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>80</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>81</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>82</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>83</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>84</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>85</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>86</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>87</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>88</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>89</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>90</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>91</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>92</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>93</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>94</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>95</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>96</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>97</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>98</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>99</sub>  |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |
| T <sub>100</sub> |                                                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                                                                                                                                   |

E-4

10 Apr 78

WORKSHEET

TITLE: IDENTIFY COST EFFECTIVENESS OF INSTITUTIONAL AND UNIT TRC PROGRAMS. SCHOOL/AGENCY: USAOCCS POC/PHONE: Mr. Oliver 283-3170/4460

| 1. OBJECTIVE(S)                                                          | 2. SAMPLE SIZE                              | 3. TEST UNIT(S)                         | 4. DATA COLLECTION PLAN                                                                                                                                        | 5. FIELD TEST DATES/ACTIVITIES                                                                                                                                | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE                                             |
|--------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|--------------------------------------------------------------------------|
| Identify cost effectiveness of institutional and unit training programs. | Approx 475 E2-E4<br>Approx 128 E5 and above | 11D<br>41D<br>51D<br>49AD (ARNG)<br>81D | 1. Proficiency development profiles<br>2. Aptitude scores<br>3. Cost data from TNAOC, FMS command USAFZUR<br>4. Unit training data<br>5. Productivity profiles | N/A<br>*Test dates are as shown for MOS 6X/H tests. Data from these tests will be studied along with other data listed under "questionnaires/surveys" column. | T1 - T5<br>Quantity<br>T51, T52 | PROG to PROF           | 1-Apr-May*<br>P-15 Jun<br>*Data Summaries will be provided as completed. |

E-5

63C/H<sub>2</sub> IDENTIFY COST EFFECTIVENESS  
OF INSTITUTIONAL TRAINING PROGRAM

DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY   |                                                                                          | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                                                                      | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                           |
|-----------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub>  | Identify resources and effectiveness of combinations of institutional and unit training. | Core B: Determine time/costs to achieve proficiency.<br>Variable 5: Determine impact of transfer of selected AIT to FORSCOM.<br>Variable 12: Determine exportable training packages to support training.<br>Variable 16: Determine effects of stability and turbulence. | 1. Determine most efficient (time & dollars) methods of achieving individual proficiency.<br>2. Determine and measure proficiency as a result of using train-up packages.<br>3. Determine effect of turbulence on proficiency. |
| T <sub>5</sub>  |                                                                                          |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                |
| T <sub>52</sub> |                                                                                          |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                |
| T <sub>A</sub>  |                                                                                          |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                |
| T <sub>A2</sub> |                                                                                          |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                |

10 Apr 78

WORKSHEET

TITLE: IDENTIFY OPTIMUM DISTRIBUTION OF INDIV TNG BETWEEN INST AND UNITS SCHOOL/AGENCY: USAOCCS POC/PHONE Mr. Oliver 283-3170/4460

| 1. OBJECTIVE(S)                                                                     | 2. SAMPLE SIZE                              | 3. TEST UNIT(S)                         | 4. DATA COLLECTION PLAN                                                                                                                        | 5. FIELD TEST DATES/ACTIVITIES                                                                                                                            | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL        | 8. INTERIM/FINAL REPORT DATE                                             |
|-------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------|--------------------------------------------------------------------------|
| Identify optimum distribution of individual training between institution and units. | Approx 475 E2-E4<br>Approx 128 E5 and above | 11D<br>41D<br>51D<br>49AD (ARNG)<br>81D | 1. Proficiency development profiles.<br>2. Questionnaire results.<br>3. Resource effectiveness data.<br>4. Equipment operational availability. | N/A*<br>*Test dates are as shown for MOS 63C/H tests. Data from these will be studied along with other data listed under "questionnaires/surveys" column. | T <sub>1</sub> , T <sub>5</sub> | PROF to CE (theoretical link) | 1-Apr-May*<br>P-15 Jun<br>*Data summaries will be provided as completed. |

E-7

IDENTIFY OPTIMUM DISTRIBUTION OF INDIVIDUAL  
TRAINING BETWEEN INSTITUTION AND UNIT

DELIVERABLE SUMMARY

5 April 1978

| <u>UNIT ACTIVITY</u>                  |                                                                                                                                                                                                                                                              | <u>INTERFACE W/TEA '85 CORE/VARIABLES</u>                                                                                                                                                                                                                                          | <u>INTERFACE W/BATTALION TRAINING MODEL</u> |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| T <sub>1</sub><br>6<br>T <sub>5</sub> | Use of proficiency development profiles, questionnaire results, resource effectiveness data, equipment operational availability for various profiles and prior studies to identify optimum distribution of individual training between institution and unit. | Variable 3: Determine allocation of tasks between instit/unit.<br>Variable 5: Determine impact of transfer of selected AIT to FORSCOM.<br>Variable 18: Determine effects of less capable trainees.<br>Variable 20: Develop training concept to proficiency with reduced resources. |                                             |
| T <sub>52</sub>                       |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                    |                                             |
| T <sub>A</sub>                        |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                    |                                             |
| T <sub>A2</sub>                       |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                    |                                             |

10 Apr 78

WORKSHEET

TITLE: IDENTIFY ALTERNATIVES FOR TNG SELECTED PERSONNEL FOR MOBILIZATION

SCHOOL/AGENCY: USAOCCS

POC/PHONE: Mr. Oliver 283-3170/4460

| 1. OBJECTIVE(S)                                                         | 2. SAMPLE SIZE | 3. TEST UNIT(S) | 4. DATA COLLECTION PLAN                                                                                                                                                               | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|-------------------------------------------------------------------------|----------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|------------------------|------------------------------|
| Identify alternatives for training selected personnel for mobilization. | N/A            | N/A             | 1. Army<br>2. Civilian courses of instruction.<br>3. National Institute of automotive service excellence tests.<br>4. Data from Dept of Labor, Dept of Health, Education and Welfare. | N/A                            | Ts, Ts,                  | PROG to PROF           | I-N/A<br>P-15 Jun            |

IDENTIFY ALTERNATIVES FOR TRAINING  
SELECTED PERSONNEL FOR MOBILIZATION

DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY                                                                                                                                                                                              | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                   | INTERFACE W/BATTALION TRAINING CODEL                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>Correlate statistics from Dept. of Labor and Dept. of Health, Education and Welfare with information from tests administered by the National Institute of Automotive Service Excellence. | Variable 18: Determine effects of less capable trainees.<br>Variable 19: Evaluate rapid refresher training programs. | 1. Determine proficiency of less capable trainees.<br>2. Measure proficiency as a result of using train-up packages. |
| T <sub>S2</sub>                                                                                                                                                                                            |                                                                                                                      |                                                                                                                      |
| T <sub>A</sub>                                                                                                                                                                                             |                                                                                                                      |                                                                                                                      |
| T <sub>A2</sub>                                                                                                                                                                                            |                                                                                                                      |                                                                                                                      |

E-10

10 Apr 78

WORKSHEET

TITLE: COMPARE TASK PERFORMANCE OF SELF-PACED AND GP PACED OSC/P GRADUATES SCHOOL/AGENCY: USASICS POC/PHONE: Mr. Squires 780-7221

| 1. OBJECTIVE(S)                                          | 2. SAMPLE SIZE                                                                                                                                   | 3. TEST UNIT(S) | 4. DATA COLLECTION PLAN                    | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------|--------------------------------|---------------------------------|------------------------|------------------------------|
| To evaluate effectiveness of the OSC self-paced program. | Part 1<br>All OSB,<br>OSC, OSF<br>grads<br>27 Jan-17<br>Feb 77,<br>Total-224                                                                     | USASICS         | Based on data gathered pre ARTS.           | No field tests                 | T <sub>1</sub> , T <sub>2</sub> | RES to PROF            | 1-1 Apr<br>P-1 Apr           |
|                                                          | Part 2<br>Selected<br>OSC/P self-<br>paced grads<br>15 Apr-36<br>Jun and<br>all OSC/P<br>OSUT grads<br>1 Jul-15<br>Sep<br>EST - 150<br>TOTAL-374 | USASICS         | (1) End of crs test.<br>(2) Questionnaire. |                                |                                 |                        | 1-1 Jul<br>P-15 Sep          |

P-1

5 April 1978

DELIVERABLE SUMMARY

COMPARE SELF-PACED AND GROUP-PACED

| <u>TEST ACTIVITY</u> |                                                                                                                   | <u>INTERFACE W/TEA '85 CONF/VARIABLES</u>            | <u>INTERFACE W/BATTALION TRAINING MODEL</u>                                          |
|----------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------|
| T <sub>1</sub>       | 1. Administer end of course test prior to field training exercise.                                                | Core B: Determine time/costs to achieve proficiency. | Determine most efficient (time & dollars) means of achieving individual proficiency. |
|                      | 2. Gather academic data (attrition, average number of weeks in training, absenteeism student profiles, attitude.) |                                                      |                                                                                      |
| T <sub>S2</sub>      |                                                                                                                   |                                                      |                                                                                      |
| T <sub>A</sub>       |                                                                                                                   |                                                      |                                                                                      |
| T <sub>A2</sub>      |                                                                                                                   |                                                      |                                                                                      |

F-2

10 Apr 11 1978

WORKSHEET

TITLE: TEST PROFICIENCY OF OSC/F TEAMS IN FIELD UNITS

Mr. Squires 780-7221

POC/PHONE:

SCHOOL/AGENCY:

| 1. OBJECTIVES                                                                                          | 2. SAMPLE SIZE                    | 3. TEST UNIT (S)       | 4. DATA COLLECTION PLAN                                          | 5. FIELD TEST DATES/ ACTIVITIES                      | 6. ARTS AREA OF INTEREST                                                                                  | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE |
|--------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------|------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|
| Compare performance of OSC/F teams in field units who have completed self-paced and lock-step courses. | 150 24ID<br>80 49AD<br>230 (ARNG) | 24ID<br>49AD<br>(ARNG) | Validated job proficiency test<br><br>USASIGS SMT questionnaire. | 24ID 24-30 Apr<br>49AD<br>5-9 Jun 78<br>12-15 Jun 78 | T <sub>1</sub> , T <sub>2</sub> ,<br>T <sub>3</sub> , T <sub>4</sub> ,<br>T <sub>5</sub> , T <sub>6</sub> | RES to PROF            | I-Mid Jun<br>F-1 Jul          |

F-3

OSC/F IN FIELD UNITS

DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY                                        |                                                                                                                                                                 | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                       | INTERFACE W/BATTALION TRAINING MODEL                                                                                  |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>S <sub>1</sub><br>T <sub>1</sub> S | 1. Administer written test component.<br>2. Administer hands-on test component (portion evaluating individual).                                                 | Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Variable 12: Determine exportable training packages to support training.<br>Variable 18: Determine effects of less capable trainees.        | 1. Compare performance of self-paced and lock step groups.<br>2. Frequency of retrain.<br>3. Validate critical tasks. |
|                                                      | 1. Administer written test component to self-paced graduates.<br>2. Administer hands-on test component to self-paced graduates (portion evaluating individual). | Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Variable 12: Determine exportable training packages to support training.<br>Variable 18: Determine effects of less capable trainees.        |                                                                                                                       |
|                                                      | Administer hands-on test component (portion evaluating RATT team).                                                                                              | Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Variable 12: Determine exportable training packages to support training.<br>Variable 18: Determine effects of less capable trainees.        |                                                                                                                       |
| T <sub>1A</sub>                                      | Administer hands-on component to self-paced graduates (portion evaluating RATT team).                                                                           | Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Variable 12: Determine exportable training packages to support training.<br>Variable 18: Determine effects of less capable trainees.<br>F-4 |                                                                                                                       |

# WORKSHEET

TITLE: COMPARE ALTERNATIVE UNIT TRAINING PROGRAMS SCHOOL/AGENCY: USASIGS POC/PRONT: Mr. Squyres AV 780-7221

| 1. OBJECTIVES                                                                   | 2. SAMPLE SIZE                        | 3. TEST UNIT (S)    | 4. DATA COLLECTION PLAN                                                                                                        | 5. FIELD TEST DATES/ ACTIVITIES                                                                                   | 6. ARTS AREA OF INTEREST                         | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE     |
|---------------------------------------------------------------------------------|---------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------|-----------------------------------|
| Compare alternative unit training programs to correct performance deficiencies. | TBD - Dependent on deficiencies found | 24ID<br>49AD (AENG) | Pretest - validated job proficiency tests & SWT questionnaire Post test - validated job proficiency tests & SWT questionnaire. | Administered after completion of testing performance of OSC/P in field<br><br>24ID May-Jun<br><u>49AD Mid Jun</u> | T <sub>1</sub> , T <sub>2</sub> , T <sub>3</sub> | RES to PROG<br>to PROG | I-24ID 1 Jul<br>49AD TBD<br>P-TBD |

5 April 1978

DELIVERABLE SUMMARY

OSC/F ALTERNATIVE TMC PROGRAMS

| TEST ACTIVITY  |                               | INTERFACE W/FEA '83 CORE/VARIABLES                                       | INTERFACE W/BATTALION TRAINING MODEL                                                                                                    |
|----------------|-------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub> | 1. Administer Pre-test.       | Core A: Continue validation of threat oriented SW/ARTEPs.                | 1. Validate critical SW/ARTEP tasks.                                                                                                    |
|                | 2. Execute training programs. | Core B: Determine time/costs to achieve proficiency.                     | 2. Determine time/cost/frequency for substandard performers to achieve proficiency with selected unit training programs.                |
|                | 3. Administer Post-test.      | Variable 12: Determine exportable training packages to support training. | 3. Measure effect of turbulence on individual and collective proficiency.                                                               |
| T <sub>2</sub> | 1. Administer Pre-test.       | Variable 16: Determine effects of stability and turbulence.              | 4. Determine alternative training packages which will provide time/cost/frequency data for substandard performers to reach proficiency. |
|                | 2. Execute training programs. | Variable 19: Evaluate rapid refresher training programs.                 |                                                                                                                                         |
|                | 3. Administer Post-test.      | Core A: Continue validation of threat oriented SW/ARTEPs.                |                                                                                                                                         |
| T <sub>3</sub> | 1. Administer Pre-test.       | Core B: Determine time/costs to achieve proficiency.                     |                                                                                                                                         |
|                | 2. Execute training programs. | Variable 12: Determine exportable training packages to support training. |                                                                                                                                         |
|                | 3. Administer Post-test.      | Variable 16: Determine effects of stability and turbulence.              |                                                                                                                                         |
| T <sub>4</sub> | 1. Administer Pre-test.       | Variable 19: Evaluate rapid refresher training programs.                 |                                                                                                                                         |
|                | 2. Execute training programs. | Core A: Continue validation of threat oriented SW/ARTEPs.                |                                                                                                                                         |
|                | 3. Administer Post-test.      | Core B: Determine time/costs to achieve proficiency.                     |                                                                                                                                         |
| T <sub>5</sub> | 1. Administer Pre-test.       | Variable 12: Determine exportable training packages to support training. |                                                                                                                                         |
|                | 2. Execute training programs. | Variable 16: Determine effects of stability and turbulence.              |                                                                                                                                         |
|                | 3. Administer Post-test.      | Variable 19: Evaluate rapid refresher training programs.                 |                                                                                                                                         |

# WORKSHEET

10 Apr 11 1978

ARI Dr. Harris 274-8827

TITLE: VALIDATION OF RIFLE SQUAD REALTRAIN FOR ENHANCEMENT SIMULATION SCHOOL/AGENCY: ARI POC/PHONE: 274-8827

| 1. OBJECTIVES                                                                                                                                                                                          | 2. SAMPLE SIZE                                                                                                                                                                | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST          | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------|--------------------------------|-----------------------------------|------------------------|------------------------------------|
| 1. To determine relative effectiveness of REALTRAIN & conventional training for rifle squad tactical training.                                                                                         | PHASE I<br>TRAINING for data collectors, control-lets & OPFOR                                                                                                                 | N/A              | N/A                     | 11 Apr 77<br>28 May 77         | T <sub>S2</sub> , T <sub>A2</sub> | PROG to PROG           | 1-N/A<br>P-ARI 11-92<br>dtd Oct 77 |
| 2. To provide data on the utility of performance measures, measurement procedures and performance data collection strategies for ARTEP training diagnosis and assessment of unit tactical performance. | PHASE II<br>Six Rifle SQUADS (3 REALTRAIN/3 CONVENTIONAL)<br>formed in two to two PLT's & tested to establish Baseline                                                        |                  |                         |                                |                                   |                        |                                    |
| 3. To provide data for inclusion in cost and training effectiveness Analysis (CTEA) for Unit Tactical Performance.                                                                                     | PHASE III<br>Six SQUADS train (3 REALTRAIN/3 CONVENTIONAL)<br>PHASE IV<br>Six SQUADS Post Test<br>PHASE V<br>3 SQUADS oppose 3 SQUADS<br>PHASE VI<br>Repeat PHASES I, II & IV |                  |                         |                                |                                   |                        |                                    |

G-1

10 Apr 78

WORKSHEET

TITLE: VALIDATION OF ANTI-ARMOR REAL-TIME FOR ENGAGEMENT SIMULATION ARTS SCHOOL/AGENCY: ART POC/PHONE: ART DR. Harris, 274-8827

| 1. OBJECTIVES                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2. SAMPLE SIZE                         | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN                          | 5. FIELD TEST DATES/ACTIVITIES | 6. ARTS AREA OF INTEREST         | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------|--------------------------------------------------|--------------------------------|----------------------------------|------------------------|------------------------------|
| <p>1. To determine the relative effectiveness of REAL-TIME and conventional training for Combined Arms Tactical training.</p> <p>2. To provide data on the utility of performance measures, measurement procedures and performance data collection strategies for ARTS training diagnosis and assessment of unit tactical performance.</p> <p>3. To provide data for inclusion in Cost &amp; Training Effectiveness Analysis (CTEA) for tactical engagement simulation systems.</p> | <p>1 TK BN<br/>1 MEC BN<br/>5 PIST</p> | 410              | Training Data Questionnaire for individual/unit. | 9 Jan-Mar                      | T <sub>A</sub> , T <sub>A2</sub> | PROG to PROG           | I-EST 24 Mar<br>F-EST 15 Jun |

G-2

5 Apr-11 1978

REALTRAIN FOR ENGAGEMENT SIMULATION

DELIVERABLE SUMMARY

| TEST ACTIVITY                         | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                                                                             | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>&<br>T <sub>S</sub> |                                                                                                                                                                                                                                                                                | 1. Determine most efficient (time & dollars) methods for achieving collective proficiency.<br><br>2. Determine time/frequency/cost/proficiency as a function of less capable trainees.                                                                                                                                                                                                                                               |
| T <sub>S2</sub>                       |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| T <sub>A</sub>                        | 1. Train-up of participating units.<br>2. Prefest to establish baseline proficiency.<br>3. Two teams receive conventional tactical training.<br>4. Post test to quantify effect of training.<br>5. Free play exercise opposing REALTRAIN force.<br>6. Repeat Pre & Post tests. | Obre A: Continue validation of threat oriented SN/ARTERS.<br>Obre B: Determine time/costs to achieve proficiency.<br>Obre C: Develop diagnostic tests to measure proficiency and decay levels.<br>Obre D: Determine decay rates and frequency of required retraining.                                                                                                                                                                |
| T <sub>A2</sub>                       | 1. Two teams receive tactical training w/ REALTRAIN.<br>2. Post test to quantify effect of training.<br>3. Fill play exercise opposing conventional force.<br>4. Repeat Pre & Post tests.                                                                                      | Core B: Determine time/costs to achieve proficiency.<br>Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Core D: Determine decay rates and frequency of required retraining.<br>Variable 18: Determine effects of less capable trainees.<br>Variable 20: Develop training concepts to proficiency with reduced resources.<br>Variable 25: Validate the effectiveness and efficiency of training devices. |

10 Apr 78

WORKSHEET

CATRADA DR. H. Barber AV 552-4443  
LTC Shambarger AV 552-3180/3395

CAC/CATRADA/ARI

POC/PHONE:

SCHOOL/AGENCY:

COMPUTER ASSISTED MAP MANEUVER (CAMMS)

TITLE:

| 1. OBJECTIVES                                                                                                                                                                                       | 2. SAMPLE SIZE                                       | 3. TEST UNIT (S)                        | 4. DATA COLLECTION PLAN            | 5. FIELD TEST DATES/ACTIVITIES                                                                                                  | 6. ARTS AREA OF INTEREST               | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------|--------------------------------------------------------------------------|
| 1. Measure effectiveness of CAMMS as a training method.                                                                                                                                             | 5 BN sized command groups initially.                 | 3 BNs, 41D by 15 May 2 BN 11D by 15 May | 1. CMD Cb/staff module ARTEP 71-2. | 1. Warm-up<br>2. Pre-test<br>3. Feedback, train, feedback<br>4. Post test<br>10 Apr-28 Apr<br>3BN 41D (2 MECH, LARV)<br>11D TBD | CMD Cb/ contribution to unit readiness | PROG to PROF           | I-NONE<br>Testing complete for short term effort by 15 May<br>P-1 Jul 78 |
| 2. Develop a command group performance assessment procedure & feedback mechanism.                                                                                                                   |                                                      |                                         | 2. Pre-test & Post Test design.    |                                                                                                                                 |                                        |                        |                                                                          |
| 3. Relate unit training proficiency to the type and amount of performance improvement by command group through use of CAMMS. (Long term ARTS objective which is tied to evaluation of unit at NTC). | 10 BN sized command groups annually (500 AC/ 500 PC) |                                         | 3. Performance measurement plan.   |                                                                                                                                 |                                        |                        |                                                                          |
| 4. Determine effects of stability/turbulence on collective proficiencies. (Long term objective tied to evaluation of unit at NTC).                                                                  |                                                      |                                         |                                    |                                                                                                                                 |                                        |                        |                                                                          |

G-4

COMPUTER ASSISTED MAP MANEUVER (CAMMS)

DELIVERABLE SUMMARY

5 April 1978

| ACTIVITY                                                                                                                                                                                                                                          | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                                                                                                                                               | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>T<sub>1</sub></p> <p>1. Conduct warm-up exercise.</p> <p>2. Conduct pre-test.</p> <p>3. Conduct CAMMS training w/pre/post-test.</p>                                                                                                            | <p>Core A: Continue validation of threat oriented SM/ARTEPa.</p> <p>Core B: Determine time/costs to achieve proficiency.</p> <p>Core C: Develop diagnostic tests to measure proficiency and decay levels.</p> <p>Variable 16: Determine effects of stability and turbulence.</p> <p>Variable 19: Evaluate rapid refresher training programs.</p> | <p>1. Gather insights as to effectiveness and efficiency (time &amp; dollars) of training battalion command groups.</p> <p>2. Assess effectiveness of CAMMS as an evaluation tool.</p> |
| <p>T<sub>52</sub></p>                                                                                                                                                                                                                             | <p>Variable 20: Develop training concepts to proficiency with reduced resources.</p> <p>Variable 25: Validate the effectiveness and efficiency of training devices.</p> <p>(Continued from above)</p>                                                                                                                                            |                                                                                                                                                                                        |
| <p>T<sub>A</sub></p>                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                        |
| <p>T<sub>A2</sub></p> <p>LONG RANGE FOLLOW-UP</p> <p>1. Conduct in engagement simulations at NTC/CDC against OPRM.</p> <p>2. Compare results of performance measures of 100 up proficiency of CAMMS trained vs conventional trained (CM) GPs.</p> | <p>Core D: Determine decay rates and frequency of required retraining.</p> <p>Variable 17: Determine effects of reduced off/MCO fill.</p> <p>Variable 16: Determine effects of stability and turbulence.</p> <p>G-5</p>                                                                                                                          |                                                                                                                                                                                        |

10 Apr 78

WORKSHEET

TRAINING INSTRUMENTATION EVALUATION (TIE TEST)

CATRAMA MAJ Ballegh 532-4684  
USACDEC AV 929-3475

TRADOC-DGST/CDEC

POC/PHONE:

SCHOOL/AGENCY:

TITLE:

| 1. OBJECTIVES                                                                                                           | 2. SAMPLE SIZE                                                       | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES                       | 6. ARTS AREA OF INTEREST<br>T <sub>S</sub> T <sub>A</sub> | 7. LINKS TO ARTS MODEL<br>PROG to PROF | 8. INTERIM/FINAL REPORT DATE<br>I-N/A<br>F-EST 15 Dec |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------|-------------------------|------------------------------------------------------|-----------------------------------------------------------|----------------------------------------|-------------------------------------------------------|
| 1. To gain insights into changes in tactical proficiency resulting from instrumented tactical engagement training.      | PHASE I:<br>One A <sub>1</sub> max<br>100 Co TM<br>against<br>OPFOR  | CDEC<br><br>IID  | NONE                    | PHASE I 31 Jul, 26 Aug<br><br>PHASE II 1 Sep, 15 Sep |                                                           |                                        |                                                       |
| 2. To verify/revise tactical MOE.                                                                                       | PHASE II:<br>One A <sub>1</sub> max<br>100 Co TM<br>against<br>OPFOR |                  |                         |                                                      |                                                           |                                        |                                                       |
| 3. To provide information as to instrumentation required to provide feedback/diagnostics needed to improve performance. |                                                                      |                  |                         |                                                      |                                                           |                                        |                                                       |
| 4. To provide data to assist development of a MILLES control system & the NTC.                                          |                                                                      |                  |                         |                                                      |                                                           |                                        |                                                       |

# TRAINING INSTRUMENTATION EVALUATION (TIE TEST)

## DELIVERABLE SUMMARY

5 Apr-11 1978

| TEST ACTIVITY                         |                                                                                         | INTERFACE W/TEA '85 CORE/VARIABLES                                                                                                                                                                                                                                                   | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                                                                                                                                        |
|---------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>b<br>T <sub>5</sub> | 1. Conduct Phase I SM train-up.                                                         | Variable 17: Determine effects of reduced off/NCO fill.                                                                                                                                                                                                                              | 1. Determine time/frequency and cost of training of less capable trainees.<br>2. Provide time and cost of achieving crew proficiency.<br>3. Determine effect of turbulence on crew proficiency.<br>4. Determine frequency of retrain and method of maintaining proficiency. |
|                                       | 1. Conduct Phase I ARREP level 1 train-up.                                              | Core B: Determine time/costs to achieve proficiency.<br>Variable 16: Determine effects of stability and turbulence.                                                                                                                                                                  |                                                                                                                                                                                                                                                                             |
|                                       | 2. Conduct Phase I engagement simulation.<br>3. Conduct Phase II engagement simulation. | Core A: Continue validation of threat oriented SM/ARREP.<br>Core B: Determine time/costs to achieve proficiency. Extract Core C, Collective learning decay by comparing performance w/train-up phase.<br>Variable 25: Validate the effectiveness and efficiency of training devices. |                                                                                                                                                                                                                                                                             |
| T <sub>A</sub>                        |                                                                                         |                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                             |
| T <sub>A2</sub>                       |                                                                                         |                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                             |

10 Apr 78

WORKSHEET

DR. Steve Goldberg, 284-8694  
CPT Patrick, USAFAS, 619-4393

ARI/USAFAS FT SILL POC/PHONE:

SCHOOT/AGENCY:

ARI CANNON CREW TURBULENCE

TITLE:

| 1. OBJECTIVES                                                                                                                                           | 2. SAMPLE SIZE                                                 | 3. TEST UNIT (S)             | 4. DATA COLLECTION PLAN        | 5. FIELD TEST DATES/ACTIVITIES                                   | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL               | 8. INTERIM/FINAL REPORT DATE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------|--------------------------------|------------------------------------------------------------------|---------------------------------|--------------------------------------|------------------------------|
| 1. To measure the proficiency of cannon crews as a function of: time together, individual proficiency by position and training history of crew members. | 1. Validation, 8 M82 crews<br>2. 2 FA battalions (36 sections) | 1. III Corps Arty.<br>2. 91D | Crew turbulence questionnaire. | 1. Validation trial 17, Mar, Ft Sill, OK.<br>2. Ft Lewis, Aug 78 | T <sub>A</sub> , T <sub>S</sub> | PROG to PROF<br>Effect of turbulence | I-TRD<br>P-TRD               |

C-8

# ARI CANNON CREW TURBULENCE

## DELIVERABLE SUMMARY

5 Apr 11 1978

|                 | TEST ACTIVITY                                                        | INTERFACE W/TEA '85 CORE/VARIABLES                                     | INTERFACE W/BATTALION TRAINING MODEL             |
|-----------------|----------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------|
| T <sub>1</sub>  | 1. Individual Proficiency Test of Critical<br>Pers.                  | Core C: Diagnostic tests to measure pro-<br>ficiency and decay levels. | 1. Determine individual and crew<br>proficiency. |
| T <sub>S</sub>  | 2. Administer FA crew stability question-<br>naire to ea FA crewman. | Variable 16: Determine effects of sta-<br>bility and turbulence.       | 2. Impact of turbulence on crew<br>proficiency.  |
| T <sub>S2</sub> |                                                                      |                                                                        |                                                  |
| T <sub>A</sub>  | FA Cannon Section Proficiency Test.                                  | Core C: Diagnostic tests to measure pro-<br>ficiency and decay levels. |                                                  |
| T <sub>A2</sub> |                                                                      | Variable 16: Determine effects of sta-<br>bility and turbulence.       |                                                  |
|                 |                                                                      | G-9                                                                    |                                                  |

10 Apr 78

WORKSHEET

TAC FIRE POST OTIII (TEA 85)

TITLE:

USAFAS FT SILL/  
ARI FT HOOD

DR. Sanders, ARI, Ft Hood, AV 737-1316/  
LTC John Neal 639-3518/5903 9118

SCHOOL/AGENCY:

POC/PHONE:

| 1. OBJECTIVES                                                                                                              | 2. SAMPLE SIZE                    | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ACTIVITIES  | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL | 8. INTERIM/FINAL REPORT DATE |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------|-------------------------|---------------------------------|---------------------------------|------------------------|------------------------------|
| 1. Continue to develop diagnostic tests to measure individual/collective learning decay levels.                            | 22 troops (1 TACFIRE net w/ crew) | 1 CNV            | Attitude surveys        | Train-up class graduates 17 Apr | T <sub>1</sub> , T <sub>5</sub> | PROG/PROP              | 1-Jul<br>P-TBD               |
| 2. Determine decay rates and freq of retraining required to sustain optimal prof for individual/collective critical tasks. |                                   |                  |                         |                                 |                                 | PROG/PROP              |                              |

G-10

5 April 1978

DELIVERABLE SUMMARY

TACFIRE POST OTIII (TEA 85)

| TEST ACTIVITY                         |                                                                             | INTERFACE W/TEA 85 CORE/VARIABLES                                                                                                            | INTERFACE W/BATTALION TRAINING MODEL                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub><br>6<br>T <sub>5</sub> | 1. Individual Proficiency Test of Critical Pers at 15, 38, 45, and 68 days. | Core C: Develop diagnostic tests to measure proficiency and decay levels.<br><br>Variable 16: Determine effects of stability and turbulence. | 1. Allows most efficient (time & dollars) costing of TACFIRE training to proficiency.<br><br>2. Determine frequency of retrain to sustain proficiency. |
|                                       | 2. Administer TACFIRE crew stability questionnaire to ea TACFIRE crewman.   |                                                                                                                                              |                                                                                                                                                        |
| T <sub>52</sub>                       | 1. Individual Proficiency Test of Critical Pers at 15, 38, 45, and 68 days. | Core C: Develop diagnostic tests to measure proficiency and decay levels.<br><br>Variable 16: Determine effects of stability and turbulence. |                                                                                                                                                        |
|                                       | 2. Administer TACFIRE crew stability questionnaire to ea TACFIRE crewman.   |                                                                                                                                              |                                                                                                                                                        |
| T <sub>A</sub>                        |                                                                             |                                                                                                                                              |                                                                                                                                                        |
| T <sub>A2</sub>                       |                                                                             |                                                                                                                                              |                                                                                                                                                        |

10 April 1978

LTC J. Neal, AV 639-3518  
Dr. J. Schields, AV 284-8694

WORKSHEET

USAFAS/ARI

SCHOOL/AGENCY:

TITLE: RETENTION & PROFICIENCY TESTS ON COMMON AIT SKILLS

POC/PHONE:

| 1. OBJECTIVES                                                                      | 2. SAMPLE SIZE | 3. TEST UNIT (S) | 4. DATA COLLECTION PLAN | 5. FIELD TEST DATES/ ACTIVITIES | 6. ARTS AREA OF INTEREST        | 7. LINKS TO ARTS MODEL | 8. INTERIM/ FINAL REPORT DATE |
|------------------------------------------------------------------------------------|----------------|------------------|-------------------------|---------------------------------|---------------------------------|------------------------|-------------------------------|
| To determine the retention and proficiency level of soldiers on common AIT skills. | 500 troops     | III Corps Aty    | ARI Questionnaires      | Pt Sill, OK, Apr - May          | T <sub>1</sub> , T <sub>2</sub> | PROG to PROF           | 1-1 Jul<br>P-JBD              |

# API RETENTION & PROFICIENCY OF COMMON AIT SKILLS TEST

## DELIVERABLE SUMMARY

5 April 1978

| TEST ACTIVITY  |                                                                                                 | INTERFACE W/TEA 'H5 CORE/VARIABLES                                                                                                                                                                                                                                                       | INTERFACE W/BATTALION TRAINING MODEL                                                                                                |
|----------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| T <sub>1</sub> | 1. Measure proficiency attained on selected common tasks in AIT.                                | Core A: Continue validation of threat oriented SN/ARTERs.<br>Core C: Develop diagnostic tests to measure proficiency and decay levels.<br>Core D: Determine decay rates and frequency of required retraining.<br><br>Variable 3: Determine allocation of tasks between institution/unit. | 1. Validate selected tasks in critical functional areas.<br><br>2. Determine frequencies of retrain under various training methods. |
|                | 2. Measure retention of proficiency on selected common tasks after some period of time in unit. |                                                                                                                                                                                                                                                                                          |                                                                                                                                     |
| T <sub>2</sub> |                                                                                                 |                                                                                                                                                                                                                                                                                          |                                                                                                                                     |
| T <sub>3</sub> |                                                                                                 |                                                                                                                                                                                                                                                                                          |                                                                                                                                     |
| T <sub>4</sub> |                                                                                                 |                                                                                                                                                                                                                                                                                          |                                                                                                                                     |
| T <sub>5</sub> |                                                                                                 |                                                                                                                                                                                                                                                                                          |                                                                                                                                     |

GUIDELINES FOR PREPARATION  
of  
SYSTEM WORK TEAM REPORTS

## PREFACE

### Introduction

This workbook was prepared by the Army Training Study Group (ARTS) to guide and facilitate the preparation of interim and final reports of the Systems Work Teams (SWT). Additionally, this workbook should guide the preparation of reports of other studies which ARTS intends to integrate into its Training Effectiveness Analysis for 1978 (TEA 78).

### Situation

ARTS must be prepared to quickly and accurately assemble and synthesize numerous reports from SWT as well as other "piggybacked" studies and tests. While each individual study or test has great value, there will be even greater value in assembling results in various combinations. This demands that reports follow a common format as much as possible.

### Strategy

To quickly and accurately assemble pieces of individual reports into new combinations requires that reports follow certain format and design characteristics. Basically, these are:

- individual tests be reported in a modular format so they can be extracted for use in other combinations.
- significant data elements from within individual tests also be reported in modular format, again so that they can be extracted in the same way.
- tests and data elements be coded to show their relationship to the ARTS model and the "essential elements of analysis" (EEA).

Comment

As stated above, this workbook is intended to facilitate the preparation of test reports. Inevitably there will be test information that will not fit this format. In this case, ARTS will be standing by to work out impromptu solutions with the test proponent agency.

CONTENTS

|                                       |    |
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| Proposed Outlines.....                | 2  |
| Modularizing Reports.....             | 4  |
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| Module Cover Sheet.....               | 10 |
| Putting It All Together.....          | 17 |

## OUTLINING THE REPORT

### Discussion

Most published reports describe the outcome of a single test. As such, the common format of the contents is:

- I Abstract or Summary
  - Problem
  - Method or Test Design
  - Findings or Results
  - Conclusions

- II Introduction
  - Objective
  - Hypothesis

- III Method or Test Design
  - Experimental Design
  - Subjects
  - Apparatus
  - Procedure

- IV Findings or Results

- V Discussion

- VI Conclusion

Appendices

Figures or Tables

### Problem

While the outline above is logical for the presentation of a single test, most SWT are conducting and reporting on several tests. The outline above would, if used to report on multiple tests, cause the reader to page back and forth between sections to follow any one test.

## Proposed Outlines

Since some contributors to TEA 78 are involved with single tests while others are involved with multiple tests, ARTS proposes the following two outlines:

| SINGLE TEST OUTLINE |                       | MULTIPLE TEST OUTLINE |                                           |
|---------------------|-----------------------|-----------------------|-------------------------------------------|
| I                   | Abstract              | I                     | Abstract                                  |
|                     | - Problem             |                       | - Problem                                 |
|                     | - Test Design         |                       | - Test Design                             |
|                     | - Findings            |                       | - Findings                                |
|                     | - Conclusions         |                       | - Conclusions                             |
| II                  | Introduction          | II                    | Tests and Results                         |
|                     | - Objective(s)        | Test #1               | - Objective(s)                            |
|                     | - Hypothesis*         |                       | - Hypothesis*                             |
| III                 | Test Design           |                       | - Experimental Design                     |
|                     | - Experimental Design |                       | - Subjects                                |
|                     | - Subjects            |                       | - Apparatus*                              |
|                     | - Apparatus*          |                       | - Procedure                               |
|                     | - Procedure           |                       | - Findings                                |
| IV                  | Findings              |                       | - Discussion (of this indiv test)         |
|                     |                       |                       | - Conclusions (about this indiv test)     |
| V                   | Discussion            |                       | Test #2 (etc.)                            |
| VI                  | Conclusion(s)         |                       | (Repeat as required)                      |
|                     | Appendices            | III                   | Discussion (of combined test results)     |
|                     | Figures or Tables     | IV                    | Conclusions (about combined test results) |
|                     |                       |                       | Appendices                                |
|                     |                       |                       | Figures or Tables                         |

NOTE: Asterisked items are optional

Comment

The two proposed outlines for reporting single or multiple test results provide a general structure. However, ARTS strategy is to have the test reports modularized and coded. Therefore the subjects of modularizing and coding will be discussed next. Later the discussion will return to how modules will integrate into the proposed general outlines.

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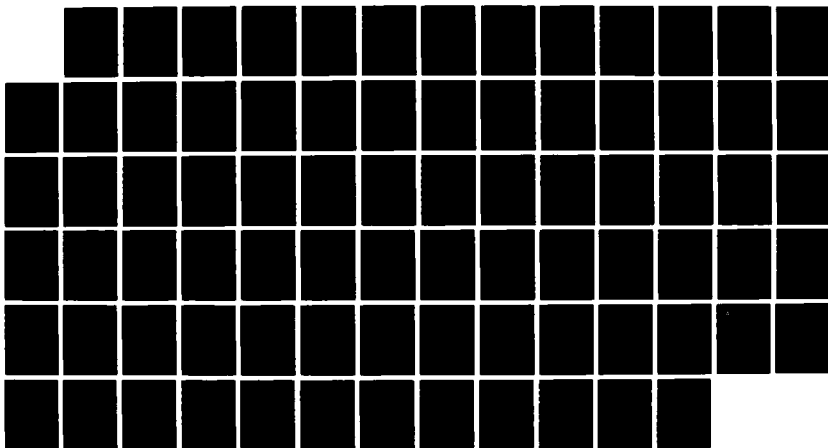
ARMY TRAINING STUDY: TRAINING EFFECTIVENESS ANALYSIS  
1978(U) ARMY TRAINING AND DOCTRINE COMMAND FORT MONROE  
VA F J BROWN 10 APR 78 SBI-AD-F000 119

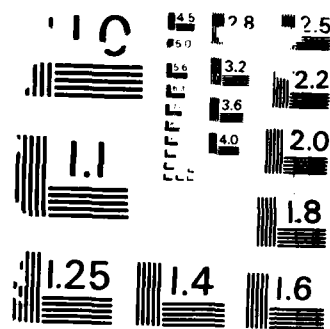
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## MODULARIZING REPORTS

### Introduction

Modularizing the report means segregating and publishing in blocks of information that can be extracted and stand alone. This modularizing will be done on two levels, separate tests and data elements.

### Definitions

Separate test- a test that addresses an SWT objective or an ARTS EEA.

Data element- a part of a test that has the potential to be combined with other SWT tests or data elements to produce useful insights or the basis for broader generalizations.

### Examples

Separate test- USAIS is conducting a separate test when it compares institutional versus unit TOW training.

Data element- Within the example of a separate test given above, USAIS may gather information about training threat vehicle identification. This information would be a data element of great potential usefulness to other users.

### Comment

ARTS recognizes that the definition of data elements is imprecise. If possible, the definition will be tightened up before report writing begins. For the moment, the intent in modularizing data elements is to make available, in extractable format, the small pieces of information that may have utility to others and in other combinations. When in doubt, call it a element and modularize it.

### Summarizing

---

ARTS proposes that each separate test or data element from within a test be reported in a stand-alone module. Therefore, tests and data elements should be published in consecutive pages which can be extracted intact. Each new module should begin on a new page so pages would not have to be cut apart.

---

### Some Rules

Rule #1 - If in doubt, call it a data element.

Rule #2 - Publish modules on consecutive pages.

Rule #3 - Always start a module on a new page.

## IDENTIFICATION CODING OF MODULES

### Introduction

To facilitate rapid and accurate identification of both separate test and data element modules, ARTS proposes an identification code for each module. The purpose of the code is to show how the module relates to;

- the ARTS model
- the ARTS objectives, EEA and situational variables

### Explanation

As you know, to structure efforts toward its objective of relating resources to combat effectiveness, ARTS originally developed the following model;

|     |   |       |   |      |   |        |   |               |
|-----|---|-------|---|------|---|--------|---|---------------|
| TNG | ► | TNG   | ► | TNG  | ► | WAR    | ► | COMBAT        |
| RES |   | PROGS |   | PROF |   | MODELS |   | EFFECTIVENESS |

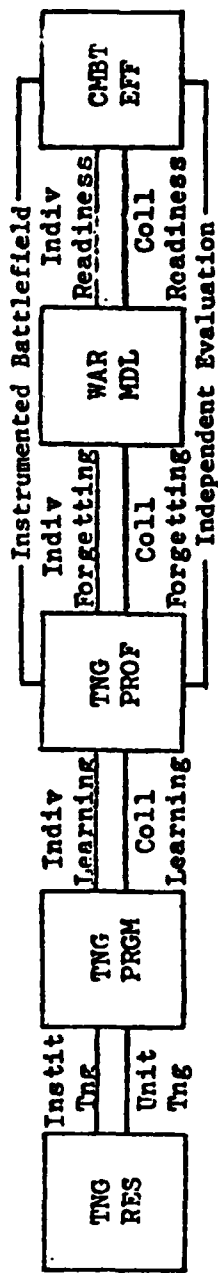
Each test has a specific scope with relation to the model, that is, each has an origin and a destination in the model. For example, some tests encompass TRAINING RESOURCES to TRAINING PROFICIENCY. Other tests encompass the entire model, TRAINING RESOURCES to COMBAT EFFECTIVENESS.

### Path Through the Model

Additionally, there are paths through the model. Modules must indicate not only the point of origin and destination but the path within the model as well.

# Paths Through ARTS Model

There are two or more bridges between each block of the ARTS model. They are;



## Paths Within the Blocks

Additionally, there are paths within the blocks of the model. Considering the blocks one at a time;

### TRAINING RESOURCES

- Dollars only
- People only
- Time only
- Dollars and people
- Dollars and time
- People and time
- All of above

### TRAINING PROGRAMS

- Conventional institutional instruction for individuals
- Self-paced institutional instruction for individuals
- Conventional institutional instruction for collective
- Conventional unit training for individuals
- OJT in units for individuals
- Conventional unit training for collective
- Other

Paths Within  
the Blocks  
(continued)

TRAINING PROFICIENCY  
Individual proficiency  
Collective proficiency

WAR MODELS (Internal paths not applicable to SWT)

COMBAT EFFECTIVENESS  
Individual effectiveness  
Collective effectiveness

Combining  
Block and  
Bridge Paths

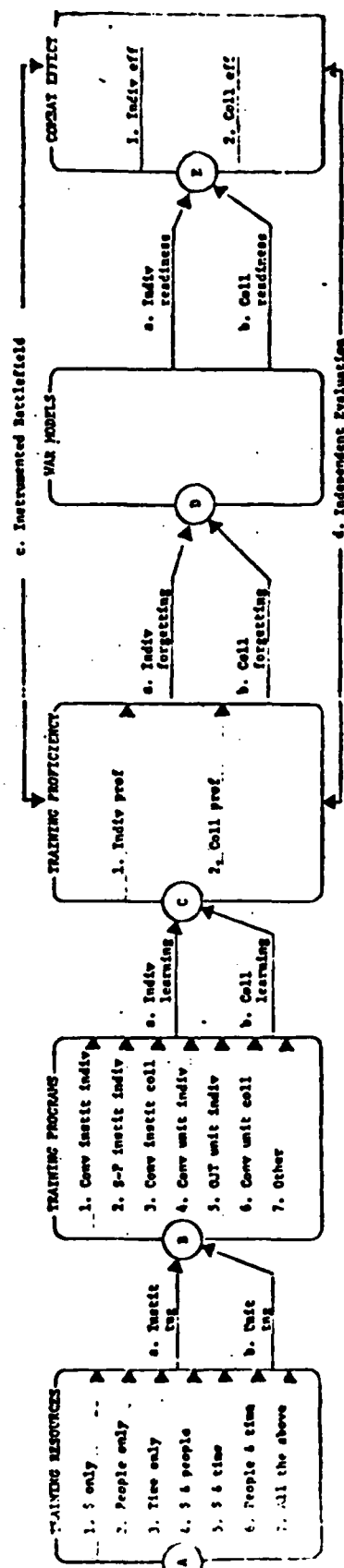
Summarizing, there are either two or seven paths through any block of the ARTS model (excluding the war models block). Further, there are two or more separate bridges between each block. By assigning a single letter or numeral to each possible leg of the overall path a basis is formed for a shorthand code.

Path Coding  
Model

On the following page, the ARTS model is expanded to show all possible paths. Further, each segment of the path has an individual identifying code letter or number. They follow this pattern;

- All blocks are identified by a single capital letter.
- All paths through a block are identified by a single number.
- All bridges between blocks are identified with a lower case letter.

# CODING MODEL



## MODULE COVER SHEET

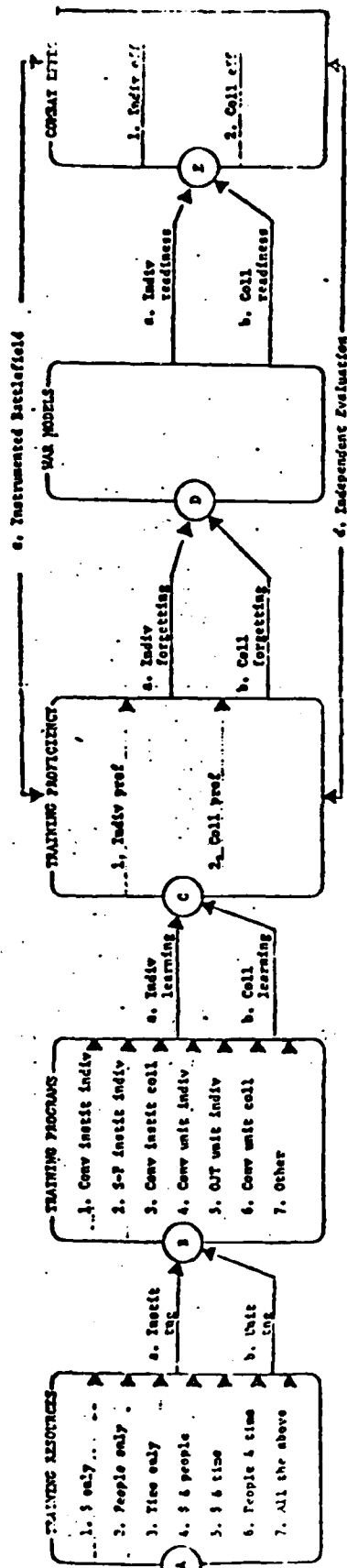
### Introduction

ARTS has designed a Module Cover Sheet to be placed on top of each module, whether the module be of a separate test or data element. The cover sheet is intended to facilitate the indication of the relationship of each module to;

- the ARTS model
- the ARTS objectives, EEA and situational variables

The Module Cover Sheet is shown on the next page.

| Test Number | Data Element Number | Title | System | Date |
|-------------|---------------------|-------|--------|------|
|-------------|---------------------|-------|--------|------|



## OBJECTIVES AND EEA

- A. Continue validation of threat oriented critical SM/ARTEP task , conditions, standards.
1. Are SM tasks/ARTEP events based on the documented results of appropriate front-end analysis techniques?
2. Are ARTEP events supported with prerequisite SM tasks?
3. Was performance of SM/ARTEP task actually necessary for the accomplishment of a specific mission? i.e., was it truly a critical task?
4. Is the specific level of proficiency greater than, equal to, or less than that required to meet the threat? Determine time/costs to achieve optional proficiency for critical individual/collective tasks.
- B. What resources are required in the institution?
1. a. Dollars b. Dollars c. People d. Dollars & people e. \$ & T f. P & T g. \$, P & T
2. What are resources required in the unit?
- a -- g as above.
3. Does the collected data reflect deviation from real-world normalcy, i.e., validity of trainee/instructor, NCO/officer fill, unusual environmental constraints or advantages?

- C. Continue to develop diagnostic tests to measure individual/collective learning decay levels.
1. Do current diagnostic tests account for learning/decay which occurs subsequent to course/period of instruction? (i.e., learning which occurs/decays during situational dependent performance of duty.)
2. Does the diagnostic test program provide for testing at two or more data points? i.e., 30, 60 & 180 days after training?
3. Do diagnostic tests provide data to determine specific skill/proficiency has loss and retraining to proficiency required? (i.e., makes the corrective action obvious).
4. What is the training resource requirement to reacquire mastery after various intervals subsequent to the original training program? (Note: All training activity, or lack thereof, must be considered.)
- D. Determine decay rates and frequency of retraining to sustain optimal proficiency for individual/collective critical tasks (time/costs).
1. What is the time to initially learn a skill to mastery?
2. After specified intervals without practice what is the time required to relearn a skill to mastery?
3. Within task performance, which elements are forgotten first?
4. What is the frequency of retraining or practice necessary to ensure retention of acceptable levels of proficiency?

#### SITUATIONAL VARIABLES

1. Reduce length of selected courses for high density/low tech MOS's vs. low density/high tech MOS's.
2. Resources/effect of tng common vs. technical skills only in institutions.
3. Optimal alloc of tng tasks between institution/unit.
4. Validate selected critical tasks for service school development of how to train to combat proficiency at least cost in a unit.
5. Impact of transfer of selected APT to FORSCOM.
6. Impact of transfer of RT to FORSCOM.
7. Impact of transferring all entry level tng to FORSCOM.
8. Impact of transfer of all except critical task tng to FORSCOM.
9. Impact of transfer of all except high-tech task tng.
10. Effect of expanded RT to develop cross-tng in spt MOS.
11. Effect of expanded OSUT for selected high-pri weapons.
12. Determine exportable/job tng packages required to spt tng in units.
13. Determine tng packages to assure supervisor competence
14. Determine MOS transition tng on proficiency on new equipment/job.

15. Determine resources required to attain unit collective proficiency (%).
16. Effects of personnel stability/turbulence of individual/collective proficiency.
17. Determine effects of reduced officer/sergeant fill on collective/individual tng.
18. Effects of introducing less capable personnel into the tng base and units.
19. Evaluation of rapid refresher tng programs for Reserve Component units.
20. Develop tng concepts to individual/collective proficiency with reduced resources.
21. Develop replacement (D+16 to D+180) unit upgrade tng programs.
22. Determine tng required to exploit the enhanced capability designed into modernized equipment.
23. Determine optimal use of equipment pools to support AC/RC tng.
24. Develop tng programs to assimilate new equip in units.
25. Validate effectiveness and efficiency of tng devices.
26. Develop tng programs to conduct continuous combat.

Completing  
the Top Line

Instructions for entries in the top line are as follows;

Test Number - number separate tests sequentially in the order they are presented in the report. If the cover sheet is for a data element module leave this item blank.

Data Element Number - number data elements sequentially in the order they are presented in the report. If the cover sheet is for a separate test leave this item blank.

Title - enter the title of the test or data element of your own choosing.

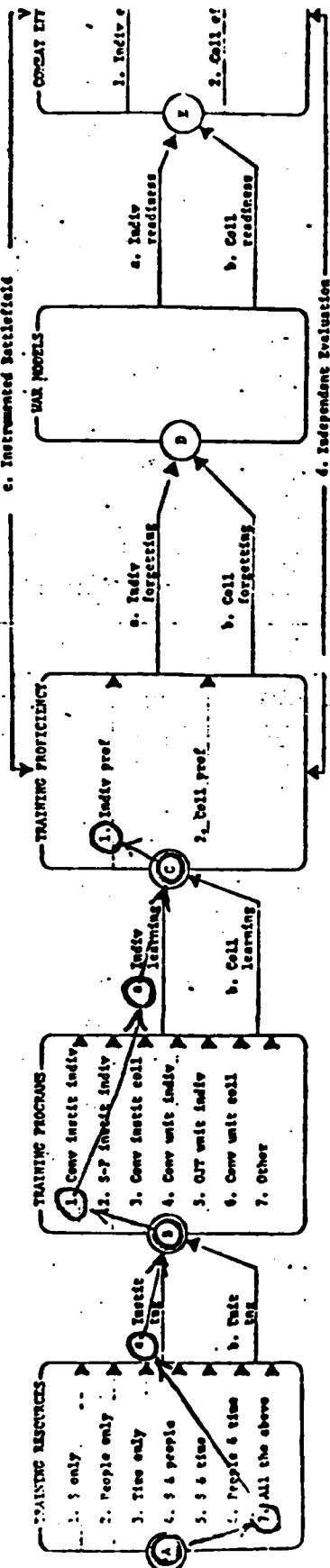
System - enter the equipment or MOS abbreviation, i.e., M60, TOW, OSC etc.

Date - enter date of the report.

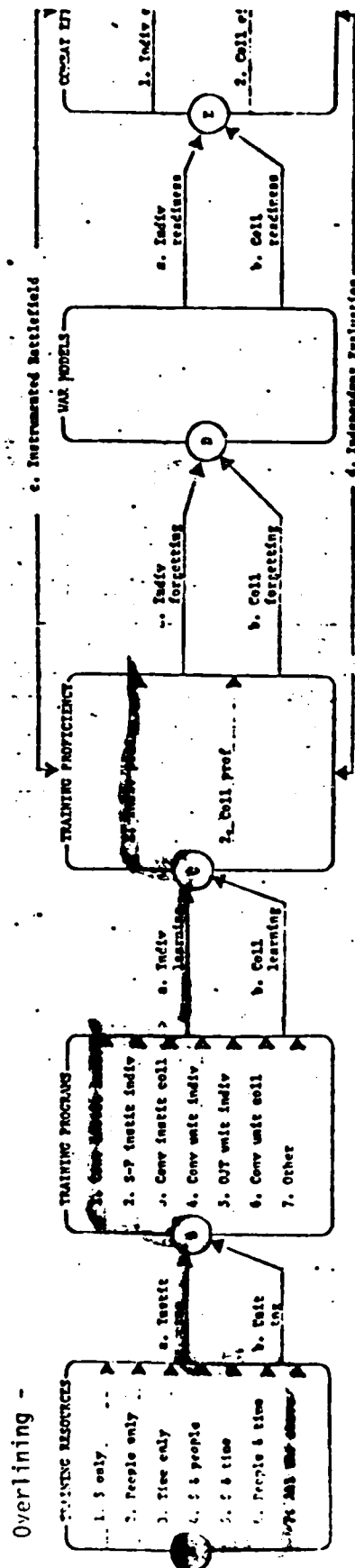
Path Through  
Module

The Coding Model is reproduced on the cover sheet so users can "draw" the point of origin, path and destination. This can be done with an overlining pen or by circles and arrows as displayed on the next page.

Circles and Arrows -



Overlining -

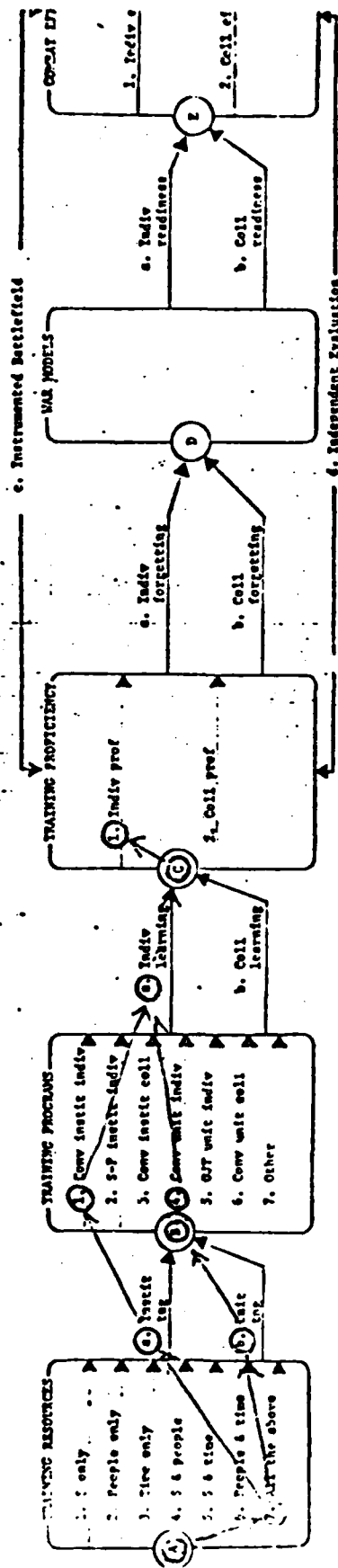


Some tests either compare paths or deliberately encompass parallel paths. To show this, simply overline or mark both paths. For example, if a school is comparing conventional with self-paced courses overline both paths as shown below:



### Looping Through Model

If a test encompasses both institutional and unit training programs in effect it is looping back through the Model. For example, if an SWT is measuring individual proficiency of AIT graduates who have also had conventional unit individual training, and assuming all resource costs were known the path would loop like this;



ARTS Objective  
EEA, and  
variables

The bottom half and the reverse side of the cover sheet lists the ARTS objectives, the EEA and situational variables. They collectively constitute a distillation and refinement of the original Study Directive EEA and the TEA 85 core objectives and situational variables as they are now envisioned by ARTS to apply to TEA 78.

Instructions

In the space provided check all objectives, EEA and variables that the module relates to either directly or indirectly.

PUTTING IT ALL TOGETHER

Assembling  
the Report

Referring back to the two proposed outlines on page 2, in each case a Module Cover Sheet for a test is inserted at the beginning of Section II. In the case of the Multiple Test Outline, there would be a cover sheet on each separate test.

Data Element  
Modules

All data element modules will be placed in the report as Appendix A. Again, each data element module would have a cover sheet.

Problems?

If problems are encountered using these instructions for preparing reports call ARTS, Autocon 354-1461

9 April 1978

ARTS TRAINING RESOURCE METHODOLOGY

1. PURPOSE

Provide SWT guidance for collecting data for the development of relationships between resources and training conducted both in the institution and in the unit.

2. GROUND RULES

A. Training resources are time, personnel, and dollar (FY78) costs.

B. In SWT investigations which involve a comparison of training alternatives the status quo will be included as one of the alternatives in order to establish a baseline. One time cost and/or savings associated with an investigation of alternative unit training strategies will be identified.

C.  $T_I$  resource requirements will be provided to SWT by HQ TRADOC (DCSRM) using the methodology contained in TRADOC Reg 11-5 and associated cost analysis studies of ATCs and schools. SWT input requirements to HQ TRADOC for costing alternative  $T_I$  programs are at TAB A.

D. FORSCOM/DWT in coordination with SWT is requested to determine the resource impact on unit training as a result of any transfer of institutional training to unit training using  $T_S/T_A$  ARTS resource methodology (ATRM).

E. Resource data collected for ARTS should reflect the training resource requirements for the training program(s) (or

portions thereof) which are being investigated by ARTS with respect to training proficiency. For example, if a specific portion of a tank crew training program is being evaluated with respect to a pertinent measure of crew proficiency, resource data collected should reflect the cost of that portion of training a tank crew rather than the cost of the complete program for training a tank crew. The cost of the complete program for training a tank crew would be relevant, however, if the entire program was being reviewed with respect to the overall proficiency of a tank crew.

### 3. METHODOLOGY

A. SWT are responsible for determining which investigations of training programs (or portions thereof) under their review will be supported with training resource requirements data. Although the level of resolution of relating resources to training is dictated by the particular insights being sought by a SWT, the maximum levels of aggregation of data are:

- (1)  $T_1$  by course graduate.
- (2) Total  $T_{S1}$  by MOS and skill level per soldier.
- (3) Total  $T_{S2}$  by MOS and skill level per soldier.
- (4) Total  $T_{A1}$  by separate unit level, i.e., crew/squad/section, platoon, company, and battalion.
- (5) Total  $T_{A2}$  by separate unit level. Formats for the display of the  $T_1$ ,  $T_S$ , and  $T_A$  resource data are at TAB's B, C, and D respectively.  $T_{S1}$  and  $T_{S2}$  use a common format as does  $T_{A1}$  and  $T_{A2}$ . It is acknowledged that some SWT

investigations will require resource data to be collected for only a portion or segment of  $T_{S1}$ ,  $T_{A1}$ , etc. The tank crew example in paragraph 2F illustrates this point for  $T_A$  while the examples given in the next paragraph illustrate different portions of  $T_S$  for which resources may be collected.

B. The total individual training program in a unit for a particular MOS & skill level may be divided and subdivided into meaningful subsets of training programs which are mutually exclusive and totally exhaustive.  $T_{S1}$  may be addressed in any of a number of ways depending upon the intended use of the data.

(1) All formally scheduled instruction (Total  $T_{S1}$  or  $TT_{S1}$ ) includes Soldier's Manual (SM) tasks, as well as non-SM-tasks instruction which is required for the development of a "whole soldier." Human relations and defensive driving are examples of non-SM-task instruction.

(2) Divide Total  $T_{S1}$  into two subsets; all instruction on SM tasks (SM  $T_{S1}$ , and remaining instruction devoted to non-SM-task instruction (NSM  $T_{S1}$ ).

(3) Subdivide SM  $T_{S1}$  into subsets so that each subset addresses a relevant grouping of SM tasks. Relevant groupings of SM tasks for 11B10 would be those grouped in FM7-11B1 by Section (e.g., Battlefield Survival, Combat Techniques, etc.) or by Subsection (Subsections within the Combat Techniques Section address Basic Individual Techniques, Land Navigation, Communications, etc.) or by....The subdivision may continue to the

point that a multiple subdivision of  $T_{S1}$  is addressing training relating to one sub-task of a specific SM task. The point being, data should be collected which reflects (defines) only that particular training which contributed to the proficiency being measured.

C. The treatment of time with respect to the categories of training is as follows:

(1) The time available for a unit to conduct formally scheduled training is recognized as a constraint. For the purpose of this analysis, this constraint is set at 1848 hours (48 weeks x 5 day/week x 8 hours/day - 9 holidays x 8 hours/day). This 1848 hours is distributed between  $T_{S1}$ ,  $T_{A1}$ ,  $T_{A2}$ , and  $T_N$ .  $T_N$  is the time devoted to non-training activities such as guard, detail, training support, demonstrations, etc., all of which compete for a chunk of the 1848 hours.

(2)  $T_{S2}$  does not compete for any of the 1848 hours as it is training conducted at times other than when training is formally scheduled.  $T_{S2}$  may be after duty hours time or slack time during normal duty hours, and therefore, is viewed as bonus time achieved through motivation or training efficiencies. Although  $T_{S2}$  is not competing for any of the 1848 hours, the hours expended must be accounted for in order to provide insights on  $TT_S$ . Dollar costs are attributed to  $T_{S2}$  only for the unique training support material required exclusively for  $T_{S2}$ . Guidance on assigning costs to such materials will be provided on a case-by-case basis as SWT identify the unique

training materials in the course of their investigations.

(3) E is considered to be restricted to individual unit training conducted during time formally allocated to  $T_A$ ; and therefore, it is addressed in the same manner as outlined above for  $T_{S2}$ . It is acknowledged that training on particular individual tasks may be formally transferred from  $T_{S1}$  to E, and thus, this training efficiency frees a given number of  $T_{S1}$  hours for reallocation to other  $T_{S1}$  training or for reallocation to  $T_A$ . An example of a  $T_{S1}$  training event which may be formally transferred to E is the preparation of range cards by tank gunners.

D. The collection of resource data for  $T_{S1}$  and E for a given MOS and skill level is based upon the  $TT_{S1}$ , SM  $T_{S1}$  or subsets of SM  $T_{S1}$  training programs to be investigated. Data for  $T_{A1}$  are collected based upon the particular unit level (crew, platoon, etc.) program or particular portion of a unit level program to be investigated. SWT have lead responsibility of identifying the detailed content and "calendar time period" of the specific  $T_{S1}$  and E program (or portions thereof) as well as the  $T_{A1}$  and  $T_{A2}$  programs for which resource data are to be collected. Requests for assistance available from ARTS Consultant Groups, HQ TRADOC, HQ FORSCOM, HQ USAREUR, and DWT should be made through the ARTS resource point of contact, LTC Michael J. Hatcher, AV 354-1461.

(1) A unit will have a given unit training program for each MOS by skill level which will formally allocate a specific

number of the 1848 hours available to the soldier with that given MOS and skill level. The program is different for the 11B and 11E, as well as, for the 11E10 and the 11E20. Each unique program (e.g., 11E20) will consist of scheduled training which must be identified as SM T<sub>S1</sub>, or NSM T<sub>S1</sub>. A highly structured unit training program may even have individual training scheduled during a time period scheduled primarily for T<sub>A1</sub>. Such individual training must be identified as E. Additionally, one can conceive of a unit having separate collective training programs for each level of collective training (crew, platoon, company, etc.). An example of a portion of a hypothetical training program is at TAB E. Such detailed programs do not exist in units; however, SWT need to construct such a tool for an aid to its analysis. The level of detail of the program constructed by the SWT is dictated by the investigations to be made. The ID#/Task shown on TAB E relates to the ID#/Tasks which appear in the 11E Soldier's Manual and the Mech Inf/Tank Task Force ARTEP. The assigned training categories segregate training events for the purpose of data collection. The training events within a given category should be grouped depending upon the particular investigation a SWT plans to make. (See Paragraph 3B).

E. The basic building blocks for the collection of training program data are the specific training events identified within the training program as illustrated at TAB E. The data for separate events may be aggregated to reflect the total

requirements for that portion of the training program for which proficiency is to be measured. The resource sensitive data elements to be addressed for each training event are:

- (1) Equipment usage by type (M151, M113, etc.) to include miles, hours, or rounds.
- (2) Ammunition requirements by number of rounds by DODIC.
- (3) Number of trainees by grade.
- (4) Number of trainers by grade who physically conduct the training.
- (5) Amount of trainee time and trainer time allocated to the training. Trainer time includes preparation, instruction, and evaluation.
- (6) TDY (EOE 2100) and transportation (EOE 2200) requirements for trainees and trainers.
- (7) Training aids/devices utilized.
- (8) Training materials and special supplies consumed.

F. An example format for collecting the resource data associated with a particular training event is at TAB F. The example uses ID#/Task 6-12, Tank Platoon Battle Run as shown on the hypothetical training program at TAB E. As an assistance in preparing a training event resource data collection worksheet, listings of vehicles, weapons, other equipment, and ammunition associated with combat and combat support battalions is provided at TAB G.

G. The procedures for deriving the dollar costs of a training event are shown at Inclosure 1 to TAB F, continuing

with the Tank Platoon Battle Run example as a vehicle. The format for the costing procedures is keyed to the training resource data display sheets (TAB's B, C, and D). The cost factors necessary for estimating costs of training are at the following TAB's: TAB H, Military Personnel and Allowances; TAB I, Vehicle Usage; TAB J, Weapon Usage; TAB K, Other Equipment; TAB L, Ammunition; and TAB M, Listing of MACOM Wide Cost Factors for Program 2 Mission (Fixed), Program 2 Base Ops (Variable), and Program 2 Base Ops (Fixed). Additionally, guidance for locally developing the man hours associated with the Battalion Training Management Personnel is included at TAB N.

#### 4. ADDITIONAL GUIDANCE

The above guidance should cover most situations; however, additional guidance is available from your ARTS Resource POC, AV 354-1461.

## SWT Input Requirements Required for Costing Alternatives T<sub>I</sub> Programs

1. Course title and number.
2. Name of installations at which the course is taught and any changes to be addressed under the alternative.
3. Current length of course expressed in weeks and days, e.g., 5 weeks and 2 days and any change to course length.
4. Any changes to types of instruction (e.g., lecture, PE, self-paced) included in the alternative courses.
5. Ammunition requirements by quantity and DODIC for the status quo and alternatives.
6. Changes in tng aids/devices, quantity by item (e.g., Bessler Cue See, TV).
7. Revised instructor contact hours.
8. Frequency of classes per year, status quo and alternative.
9. Changes in average grade of instructors.
10. Changes in average grade of students.
11. Changes in school troop requirements expressed in additions or decrements of man days of support.
12. Any changes in training overhead, e.g., school brigade, office of Director Training Developments.
13. Changes in requirements for equipment purchased with Procurement dollars.
14. Any one time costs by OMA/MCA for the modification or construction of facilities.
15. Identify additional facilities which are required by a proposed T<sub>I</sub> Program to include the source of those facilities.
16. Identify facilities which under a proposed T<sub>I</sub> program will become available for an alternative use.

COURSE TITLE:

COURSE NUMBER/MOS:

DOLLARS (FY78)

OMA

MAP

PA

Variable

Program 8 Mission

Instructional Dept

Other

Program 8 TOE Spt

Ammunition

Pay & Allowances

Students

All others

Travel Pay to Course

Per Diem at Course

Program 8 Base Ops

Support Cost (Tng Aids) \_\_\_\_\_

TOTAL:

Fixed

Program 8 Mission

Program 8 Base Ops

Program 8 TOE Spt

Support Costs (Tng Aids) \_\_\_\_\_

TOTAL:

TOTAL VARIABLE & FIXED \_\_\_\_\_

TIME/PERSONNEL:

Student Course Length \_\_\_\_\_

Direct Man weeks of effort of

Instructional Depts & School Overhead. Civ \_\_\_\_\_ Mil \_\_\_\_\_

TAB B

T<sub>S</sub>\* RESOURCE REQUIREMENTS

MOS & Skill Level: \_\_\_\_\_

Authorized Grade: \_\_\_\_\_

Average Pay Grade of Personnel Assigned to MOS & Skill Level: \_\_\_\_\_

Level of Resolution of T<sub>S</sub>\*. (e.g., TTS<sub>1</sub>, - SM TS<sub>1</sub> - Combat Tech - Basic  
Ind Tech, SM ID#/TASK, etc. (See para 3D)

| DOLLARS (FY78) | <u>OMA</u> | <u>MPA</u> | <u>PA</u> | <u>TOTAL</u> |
|----------------|------------|------------|-----------|--------------|
|----------------|------------|------------|-----------|--------------|

Variable

Program 2 Mission  
(Equipment usage)

Ammunition

Pay & Allowances

TDY/Transportation

Program 2 Base Ops

Training Aids/Devices

Training Materials &  
Special Supplies Consumed

|       |       |       |       |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
|-------|-------|-------|-------|

Fixed

Program 2 Mission

Program 2 Base Ops

|       |       |       |       |
|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ |
|-------|-------|-------|-------|

TOTAL:

TOTAL VARIABLE & FIXED:

TIME/PERSONNEL

"Calendar time period" over which this training is conducted. (e.g., 1 yr,  
1 qtr)

Trainee time consumed on this training. (e.g., 45 hrs)

Manweeks\*\* of direct effort required to Spt this training. \_\_\_\_\_

Identification of unit from which data was collected. \_\_\_\_\_

\* Indicate T<sub>S1</sub> or T<sub>S2</sub>.

\*\* Also may be expressed as man hours or man months, whichever is most meaningful for the particular situation.

TAB C

T<sub>A</sub>\* RESOURCE REQUIREMENTS

UNIT LEVEL: (Crew, squad, section, platoon, company or battalion)

TRAINING ID#/TASK: (Relate to ARTEP ID#/TASK)

DOLLARS (FY78) OMA MPA PA TOTAL

Variable

Program 2 mission  
(Equipment usage)

Ammunition

Pay & Allowances

TDY/Transportation

Program 2 Base Ops

Training Aids/Devices

Training Materials &  
Special Supplies Consumed

\_\_\_\_\_

Fixed

Program 2 Mission

Program 2 Base Ops

\_\_\_\_\_

TOTAL:

TOTAL VARIABLE & FIXED:

TIME/PERSONNEL

Training Unit Time (Unit hours, e.g., 12 Platoon hours)

Man weeks\*\* of direct effort required to support the Tng: \_\_\_\_\_

Calendar time period associated with T<sub>A</sub> being addressed: (e.g., 1 yr, 1 qtr,

Identification of Unit from which data was collected. \_\_\_\_\_

\* Indicate T<sub>A1</sub> or T<sub>A2</sub>

\*\* Also maybe expressed as manhours or man months, which ever is most meaningful for the particular situation.

TAB D

PORTION OF UNIT TRAINING PROGRAMS FOR:

IN# / TASK   TRAINING EVENT   ATTENDED BY   TIME   INSTRUCTOR   TRAINING CATEGORY   YEARLY FREQUENCY

11E20 TANK GUNNER

|      |                       |             |       |         |                 |                               |
|------|-----------------------|-------------|-------|---------|-----------------|-------------------------------|
| 7029 | Boresighting          | All gunners | 4 hrs | PSG     | T <sub>S1</sub> | 4                             |
| 7020 | Prepare Range Cards   | Gunners     |       | TC      | E               | Conducted during Co Task 6-12 |
| 7022 | Prepare to Fire Check | Gunners     |       | TC      | E               | do                            |
| 7033 | Fire From Range Card  | Gunners     |       | Plt Ldr | E               | do                            |
|      | Human Relations       | All         | 2 hrs |         | T <sub>S1</sub> | 1                             |
|      | Detail Company        | All         | 8 hrs | N/S     | T <sub>N</sub>  | 12                            |

TANK CREWS

|      |                   |                |       |         |                 |   |
|------|-------------------|----------------|-------|---------|-----------------|---|
| 9-10 | Tactical Movement | All tank crews | 2 hrs | Plt Ldr | T <sub>A1</sub> | 7 |
|------|-------------------|----------------|-------|---------|-----------------|---|

TANK PLATOONS

|      |                            |                   |       |         |                 |   |
|------|----------------------------|-------------------|-------|---------|-----------------|---|
| 8-29 | Plt Battle Run (Live Fire) | All tank Platoons | 4 hrs | Plt Ldr | T <sub>A1</sub> | 3 |
| 6-12 | Prepare Strong Point       | Entire Company    | 4 hrs | Co Cdr  | T <sub>A1</sub> | 2 |

Company A  
1st Bn, 53d Armor  
TA<sub>1</sub>, ID#/TASK 6-12, Tank Platoon Battle Run

Trainee Personnel

| <u>MOS</u> | <u>GRADE</u> | <u>AUTH</u> | <u>ASSIGNED</u> | <u>MAN HOUPS</u> |
|------------|--------------|-------------|-----------------|------------------|
| 11E10      | E-3          | 5           | 8               | 32               |
| 11E10      | E-4          | 5           | 2               | 8                |
| 11E20      | E-4          | 0           | 2               | 8                |
| 11E20      | E-5          | 5           | 3               | 12               |
| 11E30      | E-5          | 0           | 1               | 4                |
| 11E30      | E-6          | 3           | 2               | 8                |
| 11E40      | E-6          | 0           | 1               | 4                |
| 11E40      | E-7          | 1           | 0               | 0                |

Trainer Personnel

| <u>MOS</u> | <u>GRADE</u> | <u>AUTH</u> | <u>ASSIGNED</u> | <u>MAN HOURS</u> |
|------------|--------------|-------------|-----------------|------------------|
| 12A        | O-1          | 1           | 1               | 8*               |

\* Includes 4 hrs preparation.

Participating Weapons

| <u>WPN</u>  | <u>CAL AMMO</u> | <u>NO</u> | <u>AVG RD/WPN</u> | <u>AVG MC/WPN</u> |
|-------------|-----------------|-----------|-------------------|-------------------|
| Tank M60A1  | 105mm           | 5         | 7                 | 30                |
| MG, Veb Mtd | .50cal          | 5         | 100               | 0                 |
| MG, Veb Mtd | 7.62mm          | 5         | 400               | 0                 |

Other Equipment - None.

TDY/Transportation - None. Note: If the platoon expended TDY funds (EOE 2200) or transportation funds (EOE 2100) to travel to a live fire range, these costs would be listed.

Training Aids/Devices Used - None. (If any such materials were used they should be listed to include usage rates. Costs will be provided by ARTS resource POC on a case by case basis as requirements are identified.

Training Materials & Special Supplies Consumed - None. (If any are consumed, quantities should be identified. If costs cannot be determined by SWT, guidance will be provided on a case by case basis).

Training Unit Time - 4 platoon hours.

(Example Format for Resource Data Collection Work Sheet)

Calendar Time Period Associated With TA Being Addressed - N/A  
(This entry is not applicable for separate training events;  
however, if events are aggregated over time, that time period  
should be shown, e.g., 1 yr, 1 qtr, etc.).

Man Hours of Direct Effort Required to Support this Training -  
0.2 hrs (This entry includes a prorated share of the time of  
those responsible within the battalion for training management.

Unit Identification - 1st Platoon, A Co, 1/53 Armor.

NOTE 1: If additional resources were required to support this  
live fire exercise (e.g., range guards, ammo handlers,  
controllers, safety personnel, etc. the associated man hours and  
equipment usage need to be recorded using the same format as for  
the trainees.

NOTE 2: Calculation of dollar values associated with this  
training are shown at Incl 1 to this TAB.

Calculations of Dollar Values Associated  
With Live Fire Exercises of 1st Platoon, A Co., 1/53 Armor

1. Program 2 - Mission (Equipment Usage) -

| <u>Vehicles</u> | <u>Quantity</u> | <u>Avg Mi</u> | <u>Tot Mi</u> | <u>\$/Mi*</u> | <u>Total \$</u> |
|-----------------|-----------------|---------------|---------------|---------------|-----------------|
| M60 TK          | 5               | 30            | 150           |               |                 |

| <u>Weapons</u> | <u>Quantity</u> | <u>Cal Ammo</u> | <u>Avg Rd/Wpn</u> | <u>Tot Rd</u> | <u>\$/Rd*</u> | <u>Total \$</u> |
|----------------|-----------------|-----------------|-------------------|---------------|---------------|-----------------|
| M60 TK         | 5               | 105mm           | 7                 | 35            |               |                 |
| MG, HB         | 5               | .50Cal          | 100               | 500           |               |                 |
| Fixed          |                 |                 |                   |               |               |                 |
| MG, LT         | 5               | 7.62mm          | 400               | 2,000         |               |                 |
| Fixed          |                 |                 |                   |               |               |                 |

Other Equipment - None.

NOTE: See TAB G for a listing of "Other Equipment" and TAB K for appropriate cost factors.

\$ OMA

2. Ammunition

| <u>Cal of Ammo</u> | <u>Total # of Rd</u> | <u>\$/Rd*</u> | <u>Total \$</u> |
|--------------------|----------------------|---------------|-----------------|
| 105mm              | 35                   |               |                 |
| .50Cal             | 500                  |               |                 |
| 7.62mm             | 2,000                |               |                 |

\$ PA

3. Pay & Allowances

Trainees & Trainers

| <u>Grade</u> | <u>No Assigned</u> | <u>Man Hours</u> | <u>\$/MH*</u> | <u>Total \$</u> |
|--------------|--------------------|------------------|---------------|-----------------|
| E-3          | 8                  | 32               | 4.4329        |                 |
| E-4          | 4                  | 16               | 4.8474        |                 |
| E-5          | 4                  | 16               | 5.7754        |                 |
| E-6          | 3                  | 12               | 6.8523        |                 |
| O-1          | 1                  | 8                | 6.6185        |                 |
|              | <u>15</u>          | <u>84</u>        |               |                 |

\$ MPA

Battalion Training Management Personnel

| <u>Man Hours</u> | <u>\$/MH**</u> | <u>Total \$</u> |
|------------------|----------------|-----------------|
| 0.02             |                | \$ MPA          |

Other Personnel - None [If other personnel were required to support this training (See NOTE 1 of TAB F) their pay and allowances would be calculated as shown above for trainees and trainers].

\$ MPA

Incl 1 to TAB F

Total Pay and Allowances -

\$ MPA

4. TDY/Transportation

NOTE: Cost must be developed locally based upon specific requirements for the training event. This example did not have any requirements.

\$ OMA

5. Program 2 Base Ops (Variable)

|                        |   |              |
|------------------------|---|--------------|
| <u>Total Man Hours</u> | X | <u>\$/MH</u> |
| 84.02                  |   |              |

|                 |
|-----------------|
| <u>Total \$</u> |
| \$ OMA          |

NOTE: Total man hours is the sum of all the man hours associated with the pay and allowances calculations in para 3 above. The \$/MH is a MACOM wide cost factor. A listing of these factors is at TAB M.

6. Training Aids/Devices

NOTE: None for this example; however, ARTS Resource POC will provide costs to SWT on a case by case basis as requirements are identified by SWT, costs of locally developed aids/devices must be determined locally.

\$ OMA \$ PA

7. Training Materials & Special Supplies Consumed

NOTE: The NOTE for para 6 applies.

\$ OMA \$ PA

8. Program 2 Mission (Fixed)

|                        |   |              |
|------------------------|---|--------------|
| <u>Total Man Hours</u> | X | <u>\$/MH</u> |
| 84.02                  |   |              |

|                 |
|-----------------|
| <u>Total \$</u> |
| \$ OMA          |

9. Program 2 Base Ops (Fixed)

|                        |   |              |
|------------------------|---|--------------|
| <u>Total Man Hours</u> | X | <u>\$/MH</u> |
| 84                     |   |              |

|                 |
|-----------------|
| <u>Total \$</u> |
| \$ OMA          |

\* The values for these cost factors are taken from a listing of cost factors found at TAB G&L.

CONTENTS OF TAB G  
LISTINGS OF VEHICLE, WEAPONS,  
OTHER EQUIPMENT, AND AMMO FOR:

Armor Bn - TAB G1  
Mech Inf Bn - TAB G2  
Fld Arty (155 SP) Bn - TAB G3

TAB G

APP 3N

| VEHICLES              |      |         |              | WEAPONS                |      |          |                 |
|-----------------------|------|---------|--------------|------------------------|------|----------|-----------------|
| NOMENCLATURE          | AUTH | NO PART | AVG MI /VEN. | NOMENCLATURE           | AUTH | CAL AMMO | NO. AVG RD /UPN |
| 1 - CARR. CP          | 6    | 1       | 1            | 31 - CARR. 106MM MORT  | 4    | 4.2      | 1               |
| 2 - CARR. MGS.        | 4    | 1       | 1            | 32 - CARR. TOW         | 4    | TOW      | 1               |
| 3 - LAUNCH. M60 CHNG. | 2    | 1       | 1            | 33 - LAUNCH. SPEN.     | 18   | 40MM     | 1               |
| 4 - LAUNCH. M60       | 2    | 1       | 1            | 34 - LAUNCH. ROCK.     | 5    | 40MM     | 1               |
| 5 - LAUNCH. M60       | 2    | 1       | 1            | 35 - MG. NR. VEH. MTD. | 26   | .50      | 1               |
| 6 - LAUNCH. M60       | 2    | 1       | 1            | 36 - MG. NR. VEH. MTD. | 14   | .50      | 1               |
| 7 - LAUNCH. M60       | 2    | 1       | 1            | 37 - MG. NR. VEH. MTD. | 54   | .50      | 1               |
| 8 - LAUNCH. M60       | 2    | 1       | 1            | 38 - MG. NR. VEH. MTD. | 200  | 7.62     | 1               |
| 9 - LAUNCH. M60       | 2    | 1       | 1            | 39 - MG. NR. VEH. MTD. | 271  | 5.56     | 1               |
| 10 - LAUNCH. M60      | 2    | 1       | 1            | 40 - MG. NR. VEH. MTD. | 122  | .45      | 1               |
| 11 - LAUNCH. M60      | 2    | 1       | 1            | 41 - SUB MG            | 54   | 105M     | 1               |
| 12 - LAUNCH. M60      | 2    | 1       | 1            | 42 - TRACKER. SU-36    | 4    | DRAG     | 1               |
| 13 - LAUNCH. M60      | 2    | 1       | 1            | 43 -                   | ---  | ---      | 1               |
| 14 - LAUNCH. M60      | 2    | 1       | 1            | 44 -                   | ---  | ---      | 1               |
| 15 - LAUNCH. M60      | 2    | 1       | 1            | 45 -                   | ---  | ---      | 1               |
| 16 - LAUNCH. M60      | 2    | 1       | 1            | 46 -                   | ---  | ---      | 1               |
| 17 - LAUNCH. M60      | 2    | 1       | 1            | 47 -                   | ---  | ---      | 1               |
| 18 - LAUNCH. M60      | 2    | 1       | 1            | 48 -                   | ---  | ---      | 1               |
| 19 - LAUNCH. M60      | 2    | 1       | 1            | 49 -                   | ---  | ---      | 1               |
| 20 - LAUNCH. M60      | 2    | 1       | 1            | 50 -                   | ---  | ---      | 1               |

| OTHER EQUIPMENT |      |     |            | OTHER COSTS  |       | REMARKS |
|-----------------|------|-----|------------|--------------|-------|---------|
| NOMENCLATURE    | AUTH | NO. | AVG MI/HR. | NOMENCLATURE | COSTS |         |
| GEN. SER. 60HZ  | 8    | 1   | 1          | 1            | 1     | 1       |
| GEN. SER. 60    | 7    | 1   | 1          | 2            | 1     | 2       |
| GEN. SER. 600HZ | 4    | 1   | 1          | 3            | 1     | 3       |
| POWER. 60/100S  | 4    | 1   | 1          | 4            | 1     | 4       |
| GEN. SER.       | 1    | 1   | 1          | 5            | 1     | 5       |
| GEN. SER.       | 1    | 1   | 1          | 6            | 1     | 6       |
| GEN. SER.       | 1    | 1   | 1          | 7            | 1     | 7       |
| GEN. SER.       | 1    | 1   | 1          | 8            | 1     | 8       |
| GEN. SER.       | 1    | 1   | 1          | 9            | 1     | 9       |
| GEN. SER.       | 1    | 1   | 1          | 10           | 1     | 10      |

TAB G1A

**ARMOR BATTALION  
AUTHORIZED AMMUNITION & REQUIREMENTS**

| DESCRIPTION      | QNT/ARTEP | QUAL/FAM | DDIC | RQMT | DESCRIPTION       | QNT/ARTEP | QUAL/FAM | DDIC | RQMT |
|------------------|-----------|----------|------|------|-------------------|-----------|----------|------|------|
| 1 12 GA M79 SHOT | 0         | 0        | A014 | ---  | 2 12 GA M79 SHOT  | 0         | 0        | A017 | ---  |
| 2 5.56 MM PRAC   | 1072      | 0        | A028 | ---  | 4 5.56 MM BALL    | 93682     | 23503    | A071 | ---  |
| 3 5.56 MM BLANK  | 0         | 343780   | A080 | ---  | 6 .22 S&T BLANK   | 0         | 1200     | A085 | ---  |
| 4 5.56 MM LP     | 0         | 131192   | A004 | ---  | 9 7.62 MM BLANK   | 0         | 449700   | A111 | ---  |
| 5 7.62 MM TR     | 278002    | 83700    | A131 | ---  | 10 7.62 MM TR CTN | 0         | 150      | A140 | ---  |
| 6 7.62 MM TR     | 278002    | 83700    | A131 | ---  | 12 .50 M71 TR M05 | 54270     | 40500    | A520 | ---  |
| 7 7.62 MM TR     | 278002    | 83700    | A131 | ---  | 14 .50 BLANK      | 0         | 30000    | A549 | ---  |
| 8 7.62 MM TR     | 278002    | 83700    | A131 | ---  | 16 40 MM PRAC     | 454       | 0        | A577 | ---  |
| 9 7.62 MM TR     | 278002    | 83700    | A131 | ---  | 18 105 MM HEP-TPT | 540       | 1080     | A510 | ---  |
| 10 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 20 105 MM WP      | 0         | 108      | A512 | ---  |
| 11 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 22 105 APDS-TP-T  | 5022      | 810      | A520 | ---  |
| 12 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 24 4.2 HE         | 0         | 0        | A575 | ---  |
| 13 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 26 4.2 UP         | 0         | 90       | A575 | ---  |
| 14 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 28 4.2 UP         | 0         | 0        | A575 | ---  |
| 15 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 30 4.2 UP         | 0         | 0        | A575 | ---  |
| 16 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 32 4.2 UP         | 0         | 0        | A575 | ---  |
| 17 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 34 4.2 UP         | 0         | 0        | A575 | ---  |
| 18 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 36 4.2 UP         | 0         | 0        | A575 | ---  |
| 19 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 38 4.2 UP         | 0         | 0        | A575 | ---  |
| 20 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 40 4.2 UP         | 0         | 0        | A575 | ---  |
| 21 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 42 4.2 UP         | 0         | 0        | A575 | ---  |
| 22 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 44 4.2 UP         | 0         | 0        | A575 | ---  |
| 23 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 46 4.2 UP         | 0         | 0        | A575 | ---  |
| 24 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 48 4.2 UP         | 0         | 0        | A575 | ---  |
| 25 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 50 4.2 UP         | 0         | 0        | A575 | ---  |
| 26 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 52 4.2 UP         | 0         | 0        | A575 | ---  |
| 27 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 54 4.2 UP         | 0         | 0        | A575 | ---  |
| 28 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 56 4.2 UP         | 0         | 0        | A575 | ---  |
| 29 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 58 4.2 UP         | 0         | 0        | A575 | ---  |
| 30 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 60 4.2 UP         | 0         | 0        | A575 | ---  |
| 31 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 62 4.2 UP         | 0         | 0        | A575 | ---  |
| 32 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 64 4.2 UP         | 0         | 0        | A575 | ---  |
| 33 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 66 4.2 UP         | 0         | 0        | A575 | ---  |
| 34 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 68 4.2 UP         | 0         | 0        | A575 | ---  |
| 35 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 70 4.2 UP         | 0         | 0        | A575 | ---  |
| 36 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 72 4.2 UP         | 0         | 0        | A575 | ---  |
| 37 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 74 4.2 UP         | 0         | 0        | A575 | ---  |
| 38 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 76 4.2 UP         | 0         | 0        | A575 | ---  |
| 39 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 78 4.2 UP         | 0         | 0        | A575 | ---  |
| 40 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 80 4.2 UP         | 0         | 0        | A575 | ---  |
| 41 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 82 4.2 UP         | 0         | 0        | A575 | ---  |
| 42 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 84 4.2 UP         | 0         | 0        | A575 | ---  |
| 43 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 86 4.2 UP         | 0         | 0        | A575 | ---  |
| 44 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 88 4.2 UP         | 0         | 0        | A575 | ---  |
| 45 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 90 4.2 UP         | 0         | 0        | A575 | ---  |
| 46 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 92 4.2 UP         | 0         | 0        | A575 | ---  |
| 47 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 94 4.2 UP         | 0         | 0        | A575 | ---  |
| 48 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 96 4.2 UP         | 0         | 0        | A575 | ---  |
| 49 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 98 4.2 UP         | 0         | 0        | A575 | ---  |
| 50 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 100 4.2 UP        | 0         | 0        | A575 | ---  |
| 51 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 102 4.2 UP        | 0         | 0        | A575 | ---  |
| 52 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 104 4.2 UP        | 0         | 0        | A575 | ---  |
| 53 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 106 4.2 UP        | 0         | 0        | A575 | ---  |
| 54 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 108 4.2 UP        | 0         | 0        | A575 | ---  |
| 55 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 110 4.2 UP        | 0         | 0        | A575 | ---  |
| 56 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 112 4.2 UP        | 0         | 0        | A575 | ---  |
| 57 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 114 4.2 UP        | 0         | 0        | A575 | ---  |
| 58 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 116 4.2 UP        | 0         | 0        | A575 | ---  |
| 59 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 118 4.2 UP        | 0         | 0        | A575 | ---  |
| 60 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 120 4.2 UP        | 0         | 0        | A575 | ---  |
| 61 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 122 4.2 UP        | 0         | 0        | A575 | ---  |
| 62 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 124 4.2 UP        | 0         | 0        | A575 | ---  |
| 63 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 126 4.2 UP        | 0         | 0        | A575 | ---  |
| 64 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 128 4.2 UP        | 0         | 0        | A575 | ---  |
| 65 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 130 4.2 UP        | 0         | 0        | A575 | ---  |
| 66 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 132 4.2 UP        | 0         | 0        | A575 | ---  |
| 67 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 134 4.2 UP        | 0         | 0        | A575 | ---  |
| 68 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 136 4.2 UP        | 0         | 0        | A575 | ---  |
| 69 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 138 4.2 UP        | 0         | 0        | A575 | ---  |
| 70 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 140 4.2 UP        | 0         | 0        | A575 | ---  |
| 71 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 142 4.2 UP        | 0         | 0        | A575 | ---  |
| 72 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 144 4.2 UP        | 0         | 0        | A575 | ---  |
| 73 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 146 4.2 UP        | 0         | 0        | A575 | ---  |
| 74 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 148 4.2 UP        | 0         | 0        | A575 | ---  |
| 75 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 150 4.2 UP        | 0         | 0        | A575 | ---  |
| 76 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 152 4.2 UP        | 0         | 0        | A575 | ---  |
| 77 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 154 4.2 UP        | 0         | 0        | A575 | ---  |
| 78 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 156 4.2 UP        | 0         | 0        | A575 | ---  |
| 79 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 158 4.2 UP        | 0         | 0        | A575 | ---  |
| 80 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 160 4.2 UP        | 0         | 0        | A575 | ---  |
| 81 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 162 4.2 UP        | 0         | 0        | A575 | ---  |
| 82 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 164 4.2 UP        | 0         | 0        | A575 | ---  |
| 83 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 166 4.2 UP        | 0         | 0        | A575 | ---  |
| 84 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 168 4.2 UP        | 0         | 0        | A575 | ---  |
| 85 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 170 4.2 UP        | 0         | 0        | A575 | ---  |
| 86 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 172 4.2 UP        | 0         | 0        | A575 | ---  |
| 87 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 174 4.2 UP        | 0         | 0        | A575 | ---  |
| 88 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 176 4.2 UP        | 0         | 0        | A575 | ---  |
| 89 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 178 4.2 UP        | 0         | 0        | A575 | ---  |
| 90 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 180 4.2 UP        | 0         | 0        | A575 | ---  |
| 91 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 182 4.2 UP        | 0         | 0        | A575 | ---  |
| 92 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 184 4.2 UP        | 0         | 0        | A575 | ---  |
| 93 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 186 4.2 UP        | 0         | 0        | A575 | ---  |
| 94 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 188 4.2 UP        | 0         | 0        | A575 | ---  |
| 95 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 190 4.2 UP        | 0         | 0        | A575 | ---  |
| 96 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 192 4.2 UP        | 0         | 0        | A575 | ---  |
| 97 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 194 4.2 UP        | 0         | 0        | A575 | ---  |
| 98 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 196 4.2 UP        | 0         | 0        | A575 | ---  |
| 99 7.62 MM TR    | 278002    | 83700    | A131 | ---  | 198 4.2 UP        | 0         | 0        | A575 | ---  |
| 100 7.62 MM TR   | 278002    | 83700    | A131 | ---  | 200 4.2 UP        | 0         | 0        | A575 | ---  |

# NECII INF BN

| VEHICLES                |      |    |             | WEAPONS                |      |      |             |
|-------------------------|------|----|-------------|------------------------|------|------|-------------|
| NOMENCLATURE            | AUTH | NO | AVG MI /VEH | NOMENCLATURE           | AUTH | NO   | AVG MI /UPN |
| 1 - CARRIER, M577       | 7    | 1  | 1           | 31 - CARR. M125, 01MM  | 9    | 81   | 1           |
| 2 - CARRIER, M113       | 59   | 1  | 1           | 32 - CARR. M106, 107MM | 4    | 4,2  | 1           |
| 3 - RECOV. VEH. M570    | 6    | 1  | 1           | 33 - CARR. TOW         | 22   | TOW  | 1           |
| 4 - TRK. M50, 5/4 TON   | 1    | 1  | 1           | 34 - LAUNCH. GREN      | 95   | 40   | 1           |
| 5 - TRK. CGO. 5/4 TON   | 7    | 1  | 1           | 35 - LAUNCH. ROCK      | 9    | 66   | 1           |
| 6 - TRK. CGO. 2 1/2 T   | 14   | 1  | 1           | 36 - MG. VEH. MTD      | 97   | 50   | 1           |
| 7 - TRK. CGO. 2 1/2 T   | 2    | 1  | 1           | 37 - MG. VEH. MTD      | 26   | 50   | 1           |
| 8 - TRK. CGO. 5 TON     | 6    | 1  | 1           | 38 - MG. LT. M60       | 49   | 7,62 | 1           |
| 9 - TRK. STON. M4       | 9    | 1  | 1           | 39 - PISTOL            | 116  | 45   | 1           |
| 10 - TRK. UTIL. 1 1/4 T | 34   | 1  | 1           | 40 - RIFLE, M16        | 731  | 5,56 | 1           |
| 11 - WRECKER, 5 TON     | 1    | 1  | 1           | 41 - SUP. MG           | 45   | 45   | 1           |
| 12 -                    |      | 1  | 1           | 42 - TRACK. SU36       | 40   | DGN  | 1           |
| 13 -                    |      | 1  | 1           | 43 -                   |      |      | 1           |
| 14 -                    |      | 1  | 1           | 44 -                   |      |      | 1           |
| 15 -                    |      | 1  | 1           | 45 -                   |      |      | 1           |
| 16 -                    |      | 1  | 1           | 46 -                   |      |      | 1           |
| 17 -                    |      | 1  | 1           | 47 -                   |      |      | 1           |
| 18 -                    |      | 1  | 1           | 48 -                   |      |      | 1           |
| 19 -                    |      | 1  | 1           | 49 -                   |      |      | 1           |
| 20 -                    |      | 1  | 1           | 50 -                   |      |      | 1           |

| OTHER EQUIPMENT       |      |    |            | OTHER COSTS  |      |    |         |
|-----------------------|------|----|------------|--------------|------|----|---------|
| NOMENCLATURE          | AUTH | NO | AVG MI/HR. | NOMENCLATURE | AUTH | NO | REMARKS |
| 21 - RADAR, AN/PP55   | 4    | 1  | 1          | 1 -          |      | 1  | 1       |
| 22 - RADIO, AN/PRC77  | 12   | 1  | 1          | 2 -          |      | 2  | 1       |
| 23 - GEN. SKW. 60HZ   | 1    | 1  | 1          | 3 -          |      | 3  | 1       |
| 24 - GEN. SKW. 400HZ  | 4    | 1  | 1          | 4 -          |      | 4  | 1       |
| 25 - GEN. 1.5KW, 60HZ | 13   | 1  | 1          | 5 -          |      | 5  | 1       |
| 26 - GEN. 1.5KW, DC   | 2    | 1  | 1          | 6 -          |      | 6  | 1       |
| 27 - COMP. (ALL)      | 5    | 1  | 1          | 7 -          |      | 7  | 1       |
| 28 - RTT              | 1    | 1  | 1          | 8 -          |      | 8  | 1       |
| 29 -                  |      | 1  | 1          | 9 -          |      | 9  | 1       |
| 30 -                  |      | 1  | 1          | 10 -         |      | 10 | 1       |

# Mech Inf Bn Ammo

|    | DESCRIPTION       | ORT/ARTEP | QUAL/FAM | DODIC | RMNT | DESCRIPTION      | ORT/ARTEP | QUAL/FAM | DODIC | RMNT |
|----|-------------------|-----------|----------|-------|------|------------------|-----------|----------|-------|------|
| 1  | 12 GA M9 SHOT     | 0         | 0        | A014  | ---- | 12 GA M9 SHOT    | 0         | 0        | A017  | ---- |
| 3  | 5.56 MM TR        | 2048      | 135000   | A048  | ---- | 5.56 MM BALL     | 203900    | 221100   | A071  | ---- |
| 5  | 5.56 MM BLANK     | 800       | 212230   | A050  | ---- | .22 BLNK/INR M32 | 0         | 3900     | A085  | ---- |
| 7  | 7.62 BLANK        | 0         | 120000   | A111  | ---- | .22 BLNK/INR M32 | 82796     | 196000   | A131  | ---- |
| 9  | 7.62 BALL         | 10522     | 0        | A143  | ---- | 7.62 MM TR       | 0         | 19200    | A146  | ---- |
| 11 | .45 BALL          | 12530     | 0        | A175  | ---- | 7.62 MM TR       | 44242     | 50000    | A557  | ---- |
| 13 | .22 PRAC CHG 1    | 0         | 675      | A600  | ---- | .50 4/1 TR       | 0         | 675      | A601  | ---- |
| 15 | .22 PRAC CHG 3    | 0         | 675      | A602  | ---- | .22 PRAC CHG 2   | 0         | 675      | A603  | ---- |
| 17 | 40 MM HE          | 1526      | 900      | B560  | ---- | .22 PRAC CHG 4   | 0         | 2314     | B577  | ---- |
| 19 | 81 MM ILL         | 0         | 900      | C324  | ---- | 40 MM PRAC       | 0         | 3000     | C256  | ---- |
| 21 | 81 MM UP          | 0         | 400      | C376  | ---- | 81 MM HE         | 154       | 150      | C282  | ---- |
| 23 | 4.2 HE W/FZ       | 0         | 1060     | C700  | ---- | 90 MM HEAT       | 0         | 244      | C706  | ---- |
| 25 | 4.2 WP W/FZ       | 0         | 200      | C700  | ---- | 4.2 ILL W/FZ     | 235       | 0        | G039  | ---- |
| 27 | F2 GREN HD PRAC   | 050       | 162      | G070  | ---- | DRAGON           | 050       | 142      | G078  | ---- |
| 29 | GREN HD PRAC      | 050       | 0        | G001  | ---- | GREN HD PRAC     | 0         | 270      | G930  | ---- |
| 31 | GREN SHK GREEN    | 0         | 270      | G040  | ---- | GREN SHK HC      | 0         | 270      | G945  | ---- |
| 33 | GREN SHK RED      | 0         | 270      | G950  | ---- | GREN SHK YEL     | 0         | 270      | G955  | ---- |
| 35 | GREN HD CS        | 0         | 300      | G924  | ---- | GREN SHK VIOL    | 0         | 0        | G963  | ---- |
| 37 | RET 66 MM INCEND  | 201       | 0        | H110  | ---- | GREN HD CS       | 0         | 0        |       | ---- |
| 39 | RET 66 MM LAU     | 100       | 100      | H057  | ---- | KKT 35 MM PRAC   | 1241      | 0        |       | ---- |
| 41 | MINE AP M14       | 0         | 324      | K121  | ---- | RET 35 MM LAU    | 4250      | 1492     | H700  | ---- |
| 43 | CAPSULE CS        | 0         | 100      | K765  | ---- | MINE AP M18      | 0         | 150      | K143  | ---- |
| 45 | SHK PUT CS        | 0         | 35       | K066  | ---- | RC CS JEEP       | 0         | 103      | K740  | ---- |
| 47 | SIGNAL GSP        | 0         | 0        | L310  | ---- | SIGNAL GSP       | 0         | 150      | L305  | ---- |
| 49 | SIGNAL WSC        | 0         | 150      | L107  | ---- | SIGNAL RSC       | 0         | 150      | L306  | ---- |
| 51 | SIGNAL WSC        | 0         | 150      | L314  | ---- | SIGNAL RSP       | 0         | 150      | L311  | ---- |
| 53 | SIG SHK WIT (MIN) | 0         | 750      | L340  | ---- | SIGNAL GSC       | 0         | 150      | L314  | ---- |
| 55 | SIG SHK WIT (M)   | 0         | 750      | L340  | ---- | SIG SHK GRN (M)  | 0         | 750      | L341  | ---- |
| 57 | FLARE TRIP        | 0         | 250      | L495  | ---- | SIG SHK YEL (M)  | 0         | 750      | L     | ---- |
| 59 | SIM MOBY FLSH     | 0         | 150      | L790  | ---- | SIM GRND PRST    | 0         | 575      | L594  | ---- |
| 61 | SIM MOBY FLSH     | 0         | 150      | L790  | ---- | SIM MOBY ILL     | 0         | 150      | L599  | ---- |
| 63 | SIM ATOM EXPLN    | 0         | 10       | L400  | ---- | SIM HD GREN      | 0         | 1770     | L601  | ---- |
| 65 | CAP BLST ELIC     | 0         | 050      | L400  | ---- | CIG DEMO 1/4TNT  | 109       | 370      | M030  | ---- |
| 67 | F2 BLST TIME      | 756       | 1512     | M470  | ---- | CAPBLST MOH ELCC | 109       | 370      | M131  | ---- |
| 69 | F2 PR ASST        | 0         | 1060     | M355  | ---- | IGN TIME FZ      | 1         | 0        | M743  | ---- |
| 71 | RET 66 MM HEAT    | 11        | 0        | H110  | ---- | RESCUE           | 1         | 0        | 1425  | ---- |
| 73 | RET 66 MM TOW     | 7590      | 0        | L337  | ---- | GM TOW PRAC      | 11        | 0        | 1410  | ---- |

# FIELD ARTILLERY BN - 155 mm SP

| VEHICLES            |      |    |             | WEAPONS              |      |      |             |
|---------------------|------|----|-------------|----------------------|------|------|-------------|
| NOMENCLATURE        | AUTH | NO | AVG MI /VEH | NOMENCLATURE         | AUTH | NO.  | AVG RD /MIN |
| 1 - GSP 155 LT      | 18   | 1  | 1           | 31 - HOW 155 SP      | 18   | 155  | 1           |
| 2 - GSP 155 M377    | 18   | 1  | 1           | 32 - LAUNCH. GREN.   | 50   | 40MM | 1           |
| 3 - VEHIC. LT       | 2    | 1  | 1           | 33 - LAUNCH. RKT     | 3    | 115  | 1           |
| 4 - TPX 155 2/4T    | 16   | 1  | 1           | 34 - MG. HB. VEN MTD | 38   | 50   | 1           |
| 5 - TPX 155 2/4T    | 1    | 1  | 1           | 35 - MG. LT          | 32   | 7.62 | 1           |
| 6 - TPX 155 2 1/2 T | 19   | 1  | 1           | 36 - PISTOL          | 23   | 45   | 1           |
| 7 - TPX 155 3T      | 1    | 1  | 1           | 37 - RIFLE           | 585  | 5.56 | 1           |
| 8 - TPX 155 3T      | 18   | 1  | 1           | 38 - SUB MG          | 4    | 45   | 1           |
| 9 - TPX 155 3T      | 2    | 1  | 1           | 39 -                 |      |      | 1           |
| 10 - TPX 155 1/4T   | 29   | 1  | 1           | 40 -                 |      |      | 1           |
| 11 - GSP 155 10T    | 1    | 1  | 1           | 41 -                 |      |      | 1           |
| 12 -                |      | 1  | 1           | 42 -                 |      |      | 1           |
| 13 -                |      | 1  | 1           | 43 -                 |      |      | 1           |
| 14 -                |      | 1  | 1           | 44 -                 |      |      | 1           |
| 15 -                |      | 1  | 1           | 45 -                 |      |      | 1           |
| 16 -                |      | 1  | 1           | 46 -                 |      |      | 1           |
| 17 -                |      | 1  | 1           | 47 -                 |      |      | 1           |
| 18 -                |      | 1  | 1           | 48 -                 |      |      | 1           |
| 19 -                |      | 1  | 1           | 49 -                 |      |      | 1           |
| 20 -                |      | 1  | 1           | 50 -                 |      |      | 1           |

| OTHER EQUIPMENT    |      |     |            | OTHER COSTS  |       | REMARKS |
|--------------------|------|-----|------------|--------------|-------|---------|
| NOMENCLATURE       | CUTH | NO. | AVG MI/HR. | NOMENCLATURE | COSTS |         |
| 21 - GSP 155 (ALL) | 6    | 1   | 1          | 1 -          | 1     | 1       |
| 22 - GSP 155 10T   | 6    | 1   | 1          | 2 -          | 2     | 2       |
| 23 - GSP 155 10T   | 6    | 1   | 1          | 3 -          | 3     | 3       |
| 24 - GSP 155 10T   | 6    | 1   | 1          | 4 -          | 4     | 4       |
| 25 - GSP 155 10T   | 6    | 1   | 1          | 5 -          | 5     | 5       |
| 26 - GSP 155 10T   | 6    | 1   | 1          | 6 -          | 6     | 6       |
| 27 - GSP 155 10T   | 6    | 1   | 1          | 7 -          | 7     | 7       |
| 28 - GSP 155 10T   | 6    | 1   | 1          | 8 -          | 8     | 8       |
| 29 - GSP 155 10T   | 6    | 1   | 1          | 9 -          | 9     | 9       |
| 30 - GSP 155 10T   | 6    | 1   | 1          | 10 -         | 10    | 10      |

FIELD ARTILLERY - 105 SP  
AUTHORIZED AMMUNITION & REQUIREMENTS

| DESCRIPTION      | ORT/ARTEP | QUAL/FAM | MODIC | RGMT | DESCRIPTION            | ORT/ARTEP | QUAL/FAM | MODIC | PGMT |
|------------------|-----------|----------|-------|------|------------------------|-----------|----------|-------|------|
| 1. 105 CAL 155   | 0         | 0        | 0016  | ---  | 2. 12 GA H7 SHOT       | 0         | 0        | 0017  | ---  |
| 3. 105 CAL 155   | 0         | 2872     | 0020  | ---  | 4. 5.56 BALL           | 0         | 175512   | 0071  | ---  |
| 5. 105 CAL 155   | 0         | 300      | 0009  | ---  | 6. 7.62 MM PLANK       | 95000     | 0        | 0111  | ---  |
| 7. 105 CAL 155   | 0         | 29448    | 0101  | ---  | 8. 7.62 MM MAIL        | 0         | 12096    | 0143  | ---  |
| 9. 105 CAL 155   | 0         | 198      | 0145  | ---  | 10. 14.5 MM 6 SEC      | 198       | 0        | 0265  | ---  |
| 11. 105 CAL 155  | 0         | 3564     | 0327  | ---  | 12. 45 CAL BALL        | 0         | 1544     | 0175  | ---  |
| 13. 105 CAL 155  | 0         | 5128     | 0557  | ---  | 14. 40 MM HE           | 0         | 680      | 0568  | ---  |
| 15. 105 CAL 155  | 0         | 1200     | 0577  | ---  | 16. 155 MM ILL         | 490       | 0        | 0505  | ---  |
| 17. 105 CAL 155  | 0         | 0        | 0586  | ---  | 18. 155 MM HP          | 10        | 0        | 0507  | ---  |
| 19. 105 CAL 155  | 0         | 0        | 0591  | ---  | 20. 155 MM HP          | 3790      | 0        | 0504  | ---  |
| 21. 105 CAL 155  | 0         | 0        | 0594  | ---  | 22. 155 MM KED SMK     | 104       | 0        | 0511  | ---  |
| 23. 105 CAL 155  | 0         | 0        | 0599  | ---  | 24. 155 MM HP          | 223       | 0        | 0508  | ---  |
| 25. 105 CAL 155  | 0         | 539      | 0601  | ---  | 26. FUZE HU GR PRAC    | 0         | 539      | 0578  | ---  |
| 27. 105 CAL 155  | 0         | 0        | 0601  | ---  | 28. GR HU ILLUM        | 45        | 0        | 0500  | ---  |
| 29. 105 CAL 155  | 0         | 0        | 0620  | ---  | 30. GRN SMK OPEN       | 300       | 0        | 0500  | ---  |
| 31. 105 CAL 155  | 0         | 0        | 0624  | ---  | 32. GRN SMK RLD        | 100       | 0        | 0500  | ---  |
| 33. 105 CAL 155  | 0         | 100      | 0624  | ---  | 34. GRN SMK CS         | 0         | 0        | 0500  | ---  |
| 35. 105 CAL 155  | 0         | 100      | 0624  | ---  | 36. 55 MM SUB CAL LAM  | 2695      | 0        | 0503  | ---  |
| 37. 105 CAL 155  | 0         | 100      | 0624  | ---  | 38. SIG RLP STAR CLUST | 360       | 0        | 0503  | ---  |
| 39. 105 CAL 155  | 0         | 0        | 0624  | ---  | 40. SIM PROJ GRND BRGT | 600       | 0        | 0504  | ---  |
| 41. 105 CAL 155  | 0         | 0        | 0624  | ---  | 42. CHG DEMO CH 1 1/4H | 50        | 0        | 0503  | ---  |
| 43. 105 CAL 155  | 0         | 0        | 0624  | ---  | 44. CAP BLAST NON ELEC | 540       | 0        | 0503  | ---  |
| 45. 105 CAL 155  | 0         | 0        | 0624  | ---  | 46. COND RET           | 2755      | 0        | 0503  | ---  |
| 47. 105 CAL 155  | 0         | 0        | 0624  | ---  | 48. IGN TH 10Z         | 540       | 0        | 0503  | ---  |
| 49. 105 CAL 155  | 0         | 0        | 0624  | ---  | 50. FUZE MTSO M501     | 400       | 0        | 0503  | ---  |
| 51. 105 CAL 155  | 0         | 0        | 0624  | ---  | 52. FUZE PH M501       | 2710      | 0        | 0503  | ---  |
| 53. 105 CAL 155  | 0         | 0        | 0624  | ---  | 54. PRIM PLWC M02      | 5415      | 0        | 0503  | ---  |
| 55. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 57. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 59. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 61. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 63. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 65. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 67. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 69. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 71. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 73. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 75. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 77. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 79. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 81. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 83. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 85. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 87. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 89. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 91. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 93. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 95. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 97. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 99. 105 CAL 155  | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 101. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 103. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 105. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 107. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 109. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 111. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 113. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 115. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 117. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 119. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 121. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 123. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 125. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 127. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 129. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 131. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 133. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 135. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 137. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 139. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 141. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 143. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 145. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 147. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 149. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 151. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 153. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 155. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 157. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 159. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 161. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 163. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 165. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 167. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 169. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 171. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 173. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 175. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 177. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 179. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 181. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 183. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 185. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 187. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 189. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 191. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 193. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 195. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 197. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 199. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 201. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 203. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 205. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 207. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 209. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 211. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 213. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 215. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 217. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 219. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 221. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 223. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 225. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 227. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 229. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 231. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 233. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 235. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 237. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 239. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 241. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 243. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 245. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 247. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 249. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 251. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 253. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 255. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 257. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 259. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 261. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 263. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 265. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 267. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 269. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 271. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 273. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 275. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 277. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 279. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 281. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 283. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 285. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 287. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 289. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 291. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 293. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 295. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 297. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 299. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 301. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 303. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 305. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 307. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 309. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 311. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 313. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 315. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 317. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 319. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 321. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 323. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 325. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 327. 105 CAL 155 | 0         | 0        | 0624  | ---  |                        |           |          |       | ---  |
| 329. 105 CAL 1   |           |          |       |      |                        |           |          |       |      |

COMPOSITE STANDARD RATES FOR COSTING MILITARY PERSONNEL SERVICES

| <u>PAY GRADE</u> | <u>ANNUAL RATE</u> | <u>HOURLY RATE*</u> |
|------------------|--------------------|---------------------|
| E-1              | \$ 6,561           | \$ 3.5503           |
| E-2              | 7,557              | 4.0892              |
| E-3              | 8,192              | 4.4329              |
| E-4              | 8,958              | 4.8474              |
| E-5              | 10,673             | 5.7754              |
| E-6              | 12,663             | 6.8523              |
| E-7              | 15,192             | 8.2208              |
| E-8              | 17,777             | 9.6196              |
| E-9              | 21,415             | 11.5882             |
|                  |                    |                     |
| W-1              | 14,528             | 7.8615              |
| W-2              | 16,638             | 9.0032              |
| W-3              | 20,039             | 10.8436             |
| W-4              | 25,075             | 13.5687             |
|                  |                    |                     |
| O-1              | 12,231             | 6.6185              |
| O-2              | 16,677             | 9.0243              |
| O-3              | 21,395             | 11.5774             |
| O-4              | 25,988             | 14.0628             |
| O-5              | 31,521             | 17.0568             |
| O-6              | 38,674             | 20.9275             |

\*Hourly rate based on 1848 hour military man year.

TO BE PUBLISHED

TAB's I, J, K

CONTENTS OF TAB L  
AMMUNITION COST PER RD BY  
TYPE BN FOR:

|                      |   |        |
|----------------------|---|--------|
| Armor Bn             | - | TAB L1 |
| Mech Inf Bn          | - | TAB L2 |
| Fld Arty (155 SP) Bn | - | TAB L3 |

# ARMOR BN AMMO COST PER ROUND

|    |                    |      |        |    |                    |      |        |    |
|----|--------------------|------|--------|----|--------------------|------|--------|----|
| 1  | 12 GA W7/9 SHUT    | A014 | 9E-2   | 2  | 12 GA W7/9 SHOT    | A017 | 1      | 12 |
| 3  | 5.56 TPACER        | A048 | .12    | 4  | 5.56 MM BALL       | A071 | 3E-2   | 4  |
| 5  | 5.56 MM BLANK      | A080 | 7E-2   | 6  | .22 SHT BLANK      | A085 | .14    | 6  |
| 7  | .22 BALL LR        | A086 | 1E-2   | 8  | 7.62 MM BLANK      | A111 | .15    | 8  |
| 9  | 7.62 4/1 TR        | A131 | .21    | 10 | 7.62 MM TR CTN     | A140 | .03    | 10 |
| 11 | .45 BALL           | A475 | .1     | 12 | .50 4/1 TR HBS     | A420 | .10    | 12 |
| 13 | .50 4/1 H2         | A557 | .69    | 14 | .50 BLANK          | A559 | .10    | 14 |
| 15 | 40 MM HE           | B568 | 3.6    | 16 | 40 MM PRAC         | B577 | 3.5    | 16 |
| 17 | 105 MM HEAT        | C538 | 141.74 | 18 | 105 MM HEP-TPT     | C510 | 74.63  | 18 |
| 19 | 105 MM HEP-TPT     | C511 | 99.31  | 20 | 105 MM WP          | C512 | 11.43  | 20 |
| 21 | 105 MM HEP-T       | C518 | 110.00 | 22 | 105 ADOS-TP-T      | C520 | 145.18 | 22 |
| 23 | 4.2 HE             | C704 | 81.12  | 24 | 4.2 HE             | C705 | 87.07  | 24 |
| 25 | 4.2 TLL            | C706 | 90.13  | 26 | 4.2 WP             | C708 | 85.15  | 26 |
| 27 | 4.2 TLL            | G039 | .34    | 28 | GREEN HD FRAG      | G001 | 1.93   | 28 |
| 29 | 4.2 TLL            | G067 | .62    | 30 | FZ HD GR PRAC      | G003 | 9.25   | 30 |
| 31 | FZ GREEN HD PRAC   | G024 | 6.93   | 32 | GREEN SMK HC       | G004 | 7.75   | 32 |
| 33 | FZ HD GR PRAC      | G040 | 0.04   | 34 | GREEN SMK YEL      | G045 | 10.14  | 34 |
| 35 | GREEN HD GR        | G050 | 15.55  | 36 | GREEN SMK VIOL     | G052 | 9.25   | 36 |
| 37 | GREEN HD GR        | G024 | 6.93   | 38 | GREEN HD CS        | G063 | 7.5    | 38 |
| 39 | GREEN HD CS        | H557 | 70.46  | 40 | RCT 35 MM SUB CAL  | H749 | 7.05   | 40 |
| 41 | 40 MM SUB CAL      | K051 | 1.36   | 42 | MINE AP PRAC H28   | K109 | 20.43  | 42 |
| 43 | FZ MINE AT PRAC    | K231 | 19.01  | 44 | CAPSULE CS         | K735 | .21    | 44 |
| 45 | MINE AT PRAC H20   | K866 | 69.44  | 46 | SIGNAL GSP         | L310 | 7.74   | 46 |
| 47 | SMK POT HC         | L306 | 15.08  | 48 | SIGNAL WSP         | L307 | 13.75  | 48 |
| 49 | SIGNAL PSC         | L311 | 18.74  | 50 | SIGNAL WSP         | L312 | 12.05  | 50 |
| 51 | SIGNAL GSP         | L314 | 15.85  | 52 | SIG SMK GRN (MINI) | L741 | 1.26   | 52 |
| 53 | SIG SMK RED (MINI) | L342 | 1.45   | 54 | SIG SMK YEL (MINI) | L741 | 1.26   | 54 |
| 55 | FLARE TRIP         | L495 | 5.54   | 56 | SIM GRND BRST      | L343 | 1.55   | 56 |
| 57 | SIM GOOD FLASH     | L598 | 2.6    | 58 | SIM MOOR TLL       | L594 | 2.32   | 58 |
| 59 | SIM GOOD WHIS      | L600 | 1.86   | 60 | SIM HD GRN         | L599 | 2.38   | 60 |
| 61 | SIM GOOD EXPL      | L605 | 401.14 | 62 | DEMO TNT 1/40      | L431 | 1.17   | 62 |
| 63 | DEMO TNT 1/40      | M039 | 36.61  | 64 | CAP ELST ELEC      | M030 | .93    | 64 |
| 65 | CAP ELST FOR ELFC  | M131 | .32    | 66 | CCUPL HS F DEV     | M130 | .92    | 66 |
| 67 | CCUPL HS F DEV     | M471 | 57.48  | 68 | CORD INT           | M427 | 51.2   | 68 |
| 69 | CORD INT           | M470 | 57.48  | 70 | IGN TIME FZ        | M456 | .1     | 70 |
| 71 | FZ IGN TIME        | M010 | 4E-2   | 72 | FUZE PD            | 766  | 1.34   | 72 |
| 73 | FUZE PD            | M412 | 45     | 74 | REDEYE             | N335 | 8.21   | 74 |
| 75 | GM TOM HEAT        | 1521 | 3169   | 76 | GM TOM PRAC        | 9221 | 9407   | 76 |
| 77 | BLAST SIM TOM      | 2566 | .72    |    |                    | 1527 | 3005   |    |

# MECH INF BN AMMO COST PER ROUND

|    |                 |      |        |    |                   |      |       |
|----|-----------------|------|--------|----|-------------------|------|-------|
| 1  | 12 GA W9 SHOT   | A014 | 95-2   | 2  | 12 GA W9 SHOT     | A017 | .1    |
| 3  | 5.56 MM TR      | A000 | .12    | 4  | 5.56 MM BALL      | A071 | 3E-2  |
| 5  | 5.56 MM BLANK   | A080 | 7E-2   | 6  | .22 BLANK/TNR M32 | A005 | .21   |
| 7  | 7.62 BLANK      | A111 | .14    | 8  | 7.62 4/1 TR       | A131 | .17   |
| 9  | 7.62 BALL       | A143 | .17    | 10 | 7.62 MM TR        | A166 | .69   |
| 11 | .45 BALL        | A075 | .11    | 12 | .50 4/1 TR        | A037 | 5.7   |
| 13 | .22 PRAC CHG 1  | A680 | 5.7    | 14 | .22 PRAC CHG 2    | A681 | 5.7   |
| 15 | .22 PRAC CHG 3  | A682 | 5.7    | 16 | .22 PRAC CHG 4    | A683 | 5.7   |
| 17 | .40 MM HE       | B063 | 3.6    | 18 | .40 MM PRAC       | B577 | 3.5   |
| 19 | .81 MM HE       | C226 | 61.63  | 20 | .81 MM HE         | C256 | 35.94 |
| 21 | .81 MM ILL      | C276 | 37.08  | 22 | .90 MM HEAT       | C282 | 91.44 |
| 23 | .81 MM UP       | C276 | 67.07  | 24 | 4.2 ILL W/FZ      | C705 | 90.13 |
| 25 | 4.2 W/PZ        | C705 | 85.15  | 26 | DRAGON            | G839 | .34   |
| 27 | F2 GREN HD PRAC | C708 | .62    | 28 | GREN HD PRAC      | G870 | 1.96  |
| 29 | GREN HD PRAC    | G891 | 1.96   | 30 | GREN SMK NC       | G830 | 7.74  |
| 31 | GREN SMK YEL    | G950 | 9.04   | 32 | GREN SMK YEL      | G955 | 10.16 |
| 33 | GREN HD CS      | G924 | 15.55  | 34 | GREN SMK VIOL     | G955 | 9.25  |
| 35 | P1 66 MM INCEND | H110 | 6.93   | 36 | GREN HD CS        | G963 | 7.5   |
| 37 | P1 66 MM LAU    | H557 | 200.93 | 38 | RKT 35 MM PRAC    | H708 | 0     |
| 39 | PINE AP M14     | K121 | 70.06  | 40 | RKT 35 MM LAU     | K143 | 7.05  |
| 41 | GRANDULE CS     | K765 | 2.8    | 42 | MINE AP M18       | K143 | 26.23 |
| 43 | GRANDULE CS     | K765 | .21    | 44 | RC CS JLEPO       | K760 | 4.17  |
| 45 | GRANDULE CS     | K765 | 69.44  | 46 | SIGNAL GSP        | L305 | 17.89 |
| 47 | SIGNAL GSP      | L310 | 7.94   | 48 | SIGNAL RSC        | L305 | 15.04 |
| 49 | SIGNAL WSC      | L307 | 13.52  | 50 | SIGNAL RSP        | L311 | 10.74 |
| 51 | SIGNAL WSC      | L314 | 15.85  | 52 | SIGNAL GSC        | L314 | 15.85 |
| 53 | SIG SMK LPT (M) | L340 | 1.19   | 54 | SIG SMK GRN (M)   | L341 | 1.24  |
| 55 | SIG SMK RED (M) | L34  | 1.45   | 56 | SIG SMK YEL (M)   | L    | 1.55  |
| 57 | SIG SMK RED (M) | L495 | 5.56   | 58 | SIM GRND PRST     | L594 | 2.32  |
| 59 | SIG SMK RED (M) | L598 | 2.67   | 60 | SIM ROBY ILL      | L599 | 2.36  |
| 61 | SIM ROBY ILL    | L600 | 1.86   | 62 | SIM HD GREN       | L601 | 1.17  |
| 63 | SIM HD GREN     | L605 | 401.14 | 64 | CHG DEMO 1/4TNT   | M350 | .63   |
| 65 | SIM HD GREN     | M130 | .92    | 66 | CAFBLCT NON ELEC  | H131 | .32   |
| 67 | SIM HD GREN     | M470 | 6E-2   | 68 | IGN TIME FZ       | M766 | 1.59  |
| 69 | SIM HD GREN     | M335 | 0.21   | 70 | REDEYE            | M425 | 9407  |
| 71 | SIM HD GREN     | M410 | 3169   | 72 | GM TOM PRAC       | 1410 | 3005  |
| 73 | SIM HD GREN     | M337 | .72    |    |                   |      |       |

ARTILLERY BN 155 mm SP  
AMMO COST PER ROUND

|    |                    |      |        |    |                    |      |        |
|----|--------------------|------|--------|----|--------------------|------|--------|
| 1  | 22 GA M7 SHOT      | A014 | 95-2   | 2  | 12 GA M9 SHOT      | A017 | .1     |
| 2  | 5.56 MM TP         | A068 | .12    | 4  | 5.56 BALL          | A071 | 6E-2   |
| 3  | 7.62 MM BLANK      | A080 | 7E-2   | 6  | 7.62 M3 BLANK      | A111 | .14    |
| 7  | 7.62 MM 4/1 TR     | A131 | .21    | 8  | 7.62 MM BALL       | A163 | .17    |
| 9  | 14.5 MM 3 SEC      | A365 | 3.68   | 10 | 14.5 MM 6 SEC      | A366 | 3.68   |
| 11 | 14.5 MM PD         | A367 | 3.29   | 12 | .45 CAL BALL       | A675 | .1     |
| 13 | .50 CAL 4/1/1/1/1  | A557 | .69    | 14 | 40 MM HE           | A563 | 7.6    |
| 15 | 40 MM PRAC         | B577 | 3.5    | 16 | 125 MM ILL         | D505 | 107.89 |
| 17 | CHG PROP 155       | D540 | 24.6   | 18 | 155 MM HE          | D562 | 310.57 |
| 19 | CHG PROP 155 UB    | D541 | 29.2   | 20 | 155 MM HE          | D544 | 79.08  |
| 21 | 155 MM HC          | D548 | 172.48 | 22 | 155 MM RED SMK     | D551 | 152.79 |
| 23 | 155 MM RED SMK     | D549 | 182.28 | 24 | 155 MM UP          | D550 | 88.46  |
| 25 | 155 MM TEL SMK     | D551 | 162.79 | 26 | FUZE HD GR PRAC    | D570 | .62    |
| 27 | GREEN HD PRAC      | GR01 | 1.96   | 28 | GR HD INCEND       | G900 | 9.25   |
| 29 | GREEN SMK HC       | G930 | 7.76   | 30 | GREEN SMK GREEN    | G940 | 9.84   |
| 31 | GREEN SMK YEL      | G945 | 10.16  | 32 | GREEN SMK RED      | G953 | 15.55  |
| 33 | GREEN HD CS        | G924 | 6.93   | 34 | GREEN HD CS        | G953 | 7.95   |
| 35 | 46 MM LAU M72      | M557 | 70.06  | 36 | 35 MM SUB CAL LAU  | M708 | 7.05   |
| 37 | SMK POT HC         | L306 | 69.44  | 38 | SIG RED STAR CLUST | L306 | 15.68  |
| 39 | SIG GRN STAR CLUST | L314 | 15.85  | 40 | SIM PROJ GRND PRST | L594 | 2.32   |
| 41 | SIM ATOM EXPL      | L605 | 401.14 | 42 | CHG DEMO C4 1 1/4M | M023 | 2.81   |
| 43 | CAP RL FLFC        | M130 | .92    | 44 | CAP BLAST NON ELEC | M131 | .32    |
| 45 | CHG DEMO SHPD 15M  | M420 | 48.59  | 46 | CORD DET           | M456 | .1     |
| 47 | TIME FUZE          | M670 | 6E-2   | 48 | IGN TM FUZE        | M766 | 7.34   |
| 49 | FUZE RT M555       | N248 | 24.12  | 50 | FUZE M158 M501     | N276 | 12.7   |
| 51 | FUZE RT M564       | N278 | 29.18  | 52 | FUZE PD M557       | N335 | 5.21   |
| 53 | FUZE PFOX M514     | N411 | 44.39  | 54 | PRM PERC M82       | N523 | .75    |
| 55 | M1000E             | 1425 | 9407   |    |                    |      |        |

MACOM COST FACTORS

|                               | USAREUR | FORSCOM |
|-------------------------------|---------|---------|
| Program 2 Mission (Fired)     | _____   | _____   |
| Program 2 Base Ops (Variable) | _____   | _____   |
| Program 2 Base Ops (Fixed)    | _____   | _____   |

TO BE PUBLISHED

TAB M

TO BE PUBLISHED

TAB N

## INDIVIDUAL TEST PLANS

### CORE TEST OBJECTIVES

#### A. CONTINUE VALIDATION OF THREAT ORIENTED CRITICAL SM/ARTEP TASKS, CONDITIONS, STANDARDS.

. CHALLENGE: Continuation of critical task identification through documented front-end analysis for weapons/equipments and units/jobs is an essential part of the Army Training System.

. CONCEPT: Training analysis will continue to form the basis for training development decisions. Modification to training analysis methodology will be limited to that necessary to insure continuity with situational variables and other core objectives.

#### B. DETERMINE TIME/COSTS TO ACHIEVE OPTIMAL PROFICIENCY FOR CRITICAL INDIVIDUAL/COLLECTIVE TASKS.

. CHALLENGE: To justify training resource requirements, it is necessary to quantify costs attributable to attaining optimal proficiency. Once these costs are established, resources to support training requirements/missions allocation and reallocation between the training base and units in the field can be made rapidly and accurately.

. CONCEPT: The ARTS developed training resource methodology will become a part of training development methodology.

#### C. CONTINUE TO DEVELOP DIAGNOSTIC TESTS TO MEASURE INDIVIDUAL/COLLECTIVE LEARNING DECAY LEVELS.

. CHALLENGE: Individual/collective learning decay rates must be determined for each weapon and equipment system/unit/job in order to quantify existing proficiency levels and to fund retraining requirements to obtain optimal proficiency.

. CONCEPT: Training analysis during testing is to be designed to measure skill acquisition and learning decay over time by use of diagnostics and re-training time. Development of diagnostic testing is critical to success as retraining requirements must be based on the Delta between proficiency attained at completion of training and subsequent residual proficiency. In other words, we retrain only that which has been lost, not that which has been retained.

D. DETERMINE DECAY RATES AND FREQUENCY OF RETRAINING REQUIRED TO SUSTAIN OPTIMAL PROFICIENCY FOR INDIVIDUAL/COLLECTIVE TASKS (TIME/COSTS).

. CHALLENGE AND CONCEPT: See Objective C above.

CORE TEST OBJECTIVES  
EEA

- A. Continue validation of threat oriented critical SM/ARTEP tasks, conditions, standards.
  - 1. Are SM tasks/ARTEP events based on the documented results of appropriate front-end analysis techniques?
  - 2. Are ARTEP events supported with prerequisite SM tasks?
  - 3. Was performance of SM/ARTEP tasks actually necessary for the accomplishment of a specific mission? (i.e., was it truly a critical task?).
  - 4. Is the specific level of proficiency greater than, equal to, or less than that required to meet the threat?
- B. Determine time/costs to achieve optimal proficiency for critical individual/collective tasks.
  - 1. What resources are required in the institution?
    - a. Dollars
    - b. People
    - c. Time
    - d. Dollars and people
    - e. Dollars and time
    - f. People and time
    - g. Dollars, people and time
  - 2. What are resources required in the unit?
    - a. Dollars
    - b. People
    - c. Time
    - d. Dollars and people
    - e. Dollars and time
    - f. People and time
    - g. Dollars, people and time
  - 3. Does the collected data reflect deviation from real-world normalcy, i.e., validity of trainee/instructor, NCO/officer fill, unusual environmental constraints or advantages?
- C. Continue to develop diagnostic tests to measure individual/collective learning decay levels.
  - 1. Do current diagnostic tests account for learning/decay which occurs subsequent to course/period of instruction?

2. Does the diagnostic test program provide for testing at two or more data points? (i.e., 30, 60 & 180 days after training).
  3. Do diagnostic tests provide data to determine specific skill/proficiency loss and retraining to proficiency required? (i.e., make the corrective action obvious).
  4. What is the training resource requirement to reacquire mastery after various intervals subsequent to the original training program? (Note: All training activity, or lack thereof, must be considered.)
- D. Determine decay rates and frequency of retraining required to sustain optimal proficiency for individual/collective critical tasks (time/costs).
1. What is the time to initially learn a skill to mastery?
  2. After specified intervals without practice what is the time required to relearn a skill to mastery?
  3. Within task performance, which elements are forgotten first?
  4. What is the frequency of retraining or practice necessary to ensure retention of acceptable levels of proficiency?

1. Reduce Length of Selected Courses for High  
Density/Low Technology MOS's vs. Low  
Density/High Technology MOS's

2. Resources/Effect of Training Common vs.  
Technical Skills Only in Institutions

Not used in TEA 78

### 3. Optimal Allocation of Training Tasks Between Institution/Unit

• CHALLENGE: Resources required to train to proficiency in collective/individual tasks vary as a function of the type task. Acceptable levels of decay in proficiency vary with the missions assigned to the unit. It is necessary to identify required resources, rates of decay for critical tasks, and retraining frequencies. Such determination will form the basis for allocation of training resources.

• CONCEPT: Data should be extracted, as available, from tests as to time and training methods to train to individual proficiency. Post training diagnostic tests administered to determine proficiency decay over time of critical skills can be one indicator of training best conducted in the unit or institution. Skills with lengthy retention, best taught with sophisticated training aids are best taught in the training base. Conversely, skills of short retention with hands-on practice required to maintain proficiency are best taught in the unit. This determination will be a function of the degree of simulator/instructor intensive support required and the rate of past training decay. (See TRADOC Pamphlet 350-30)

4. Validate Selected Critical Tasks For  
Service School Development of How to Train  
to Combat Proficiency at Least Cost in a  
Unit

Not used in TEA 78

5. Impact of Transfer of Selected AIT to  
FORSCOM

• CHALLENGE: To determine a cost efficient policy for training entry level soldiers to proficiency in common and MOS related skills. The feasibility of providing only basic training for selected skills in the training base need to be tested.

• CONCEPT: The test would be conducted by providing to units, replacement personnel in selected MOS, who have completed only common skills basic training. The unit would be required to train all such personnel to proficiency in MOS related skills without increase in current ALO. TRADOC schools will provide the training packages and MTT's to ensure supervisor competence as required. Training within the unit should be conducted on a schedule as desired by the commander, excepting that proficiency required be as established by the proponent school. Evaluation of comparative costs and the effects of this additional training load on unit readiness will be determined by comparison to OSUT costs/proficiency with a baseline unit and by test agency evaluation of resultant individual and unit proficiency.

6. Impact of Transfer of BT to FORSCOM
7. Impact of Transferring all Entry Level Training to FORSCOM
8. Impact of Transfer of all Except Critical Task Training to FORSCOM
9. Impact of Transfer of all Except High-Technology Task Training to FORSCOM
10. Effect of Expanded BT to Develop Cross Training in Support MOS

Not used in TEA 78

11. Effect of Expanded OSUT for Selected High-  
pri Weapons

• CHALLENGE: To determine a cost efficient policy for training selected entry level soldiers in common and high priority weapon system skills. The effect on unit training and costs of providing training to maximum proficiency on critical tasks in the training base needs to be tested.

• CONCEPT: The test would be executed over an extended period by conducting entry level training to varying levels of proficiency by expanding selected OSUT. Testing will involve control and test groups. Post graduation testing to determine learning decay/retraining rates between test and control group will provide data needed to design training programs. These programs provide a basis for timely resource distribution to ensure enhanced individual skill proficiency and retention for high priority weapons systems.

12. Determine Exportable/Job Training Packages  
Required to Support Training in Units

· CHALLENGE: To rapidly train, sustain or retrain soldiers/units in skills when the situation does not permit conventional training or when the skill can be more adequately taught by use of training packages.

· CONCEPT: The concept is to prioritize skills which are critical and then teach these skills in an intensively structured series of indiv/collective training periods. Maximum use of training will be made. Testing will center on comparative analysis of costs and proficiency attained over time against a baseline of similar proficiency levels attained through conventional training. Consider the following in sequence:

- a. Job performance aids
- b. Self-teaching, exportable packages
- c. Formal/supervised OJT programs
- d. Installation (shadow) or unit school

13. Determine Training Packages to Assure  
Supervisor Competence
14. Determine MOS Transition Training on  
Proficiency on New Equipment/Job
15. Determine Resources Required to Attain Unit  
Collective Proficiency ( $T_A$ )

Not used in TEA 78

16. Effects of Personnel Stability/Turbulence  
on Individual/Collective Proficiency

- CHALLENGE: Lack of personnel stability results in lengthened training/retraining time to achieve collective proficiency in critical task skills as well as accelerated decay of collective proficiency.

- CONCEPT: Testing the effects of turbulence and stability envisions introducing controlled turbulence or quantifying existing turbulence in the training environment (within crews and within companies) and then measuring the proficiency decrease in contrast to the proficiency of more stabilized crews/units. This should permit determination of the increased resources and time necessary to attain and maintain individual/collective proficiency when there is high personnel instability by determining the level of over-training required to maintain a desired level of proficiency. Consider also:

- a. Effects on unit training programs (continuity)
- b. Effects on development of leadership
- c. Attitudes on training such that retraining frequency is changed.

17. Determine effects of Reduced Officer/NCO  
Fill on Collective/Individual Training

- **CHALLENGE:** A low percentage of officer/NCO fill interacts with other unit training distractors (turbulence, troop diversions, auth absences, etc.) to degrade training effectiveness and proficiency.
- **CONCEPT:** Testing the training effects of officer/NCO fill variables requires evaluation of fill variation in conjunction with testing. Data will be extracted to enable determination of the resources necessary at different levels of officer/NCO fill to attain individual/collective critical task proficiency and to establish the type and frequency of retraining necessary to maintain that proficiency.

18. Effects of Introducing Less Capable  
Personnel into the Training Base and Units

• **CHALLENGE:** The AWC SSI study on Army 85 predicts the typical incoming soldier of 1985 will be less capable of mastering complex training than his comparable peer today.

• **CONCEPT:** Testing the effects of less capable trainees envisions special attention under controlled conditions, to determine the problems which result. Testers should identify less capable personnel participating in test activities and seek to determine the additional resources needed to bring these soldiers to average proficiency. The effects that application of these additional resources have on other trainees and unit training programs should also be quantified. A range of solutions applicable to a specific set of tasks, conditions and standards should be obtained. Data will be extracted to assist in determination of personnel selection criteria.

19. Evaluation of Rapid Refresher Training  
Programs for Reserve Component Units

- CHALLENGE: Reserve Component units must be rapidly trained up with refresher training to peak critical task skills prior to deployment. (Pre and post M-day)
- CONCEPT: Train-up packages for critical systems and units must be designed, fielded and validated for Reserve Component units. Packages must be designed such that training can be accomplished by RC trainers. They must produce units trained to combat proficiency in the shortest time, both pre and post mobilization. After the packages have been validated at company level, battalion level packages will be developed. In addition, further packages must be devised to rapidly train up troops who, after deployment, are issued new and different equipment. Training packages (modular training) will be administered to RC units. Post training proficiency will be measured against baseline units trained under existing RC programs. Costs to proficiency and levels of proficiency will be compared to validate training modules and to provide necessary feedback to modify modules as necessary.

20. Develop Training Concepts to  
Individual/Collective Proficiency with  
Reduced Resources

• CHALLENGE: Training systems must be devised to enable the institution and units to train to proficiency within decremented resources.

• CONCEPT: Training programs for testing will be analyzed to identify use of advanced or innovative training techniques which result in a degree of proficiency at reduced resources. The effectiveness of these innovative programs should be validated during testing and reports prepared which document fully the resources, training events and level of proficiency attained. Where possible, decay rates for proficiency thus obtained should be determined and compared to conventional training decay.

21. Develop Replacement (D+30 to D+180) Unit  
Upgrade Training Programs

22. Determine Training Required to Exploit the  
Enhanced Capability Designed into  
Modernized Equipment

23. Determine Optimal Use of Equipment Pools to  
Support AC/RC Unit Training

24. Develop Training Programs to Assimilate New  
Equipment in Units

Not used in TEA 78

## 25. Validate Effectiveness and Efficiency of Training Devices

• **CHALLENGE:** Training devices are developed in concert with the major system they are designed to support. Care must be taken to ensure that skills developed on training devices are reliably transferable to the actual system. Further, these skills must be those necessary for development of proficiency.

• **CONCEPT:** Testing will be designed to compare individual/collective performance of actual tasks after training on training devices. A comparison to training conducted exclusively on the real equipment and in mixes of devices and real equipment will be made. Costs to proficiency will be compared and use of training devices to reinforce and retrain decayed skill will also be measured.

26. Develop Training Programs to Conduct  
Continuous Combat

Not used in TEA 78



DEPARTMENT OF THE ARMY  
HEADQUARTERS US ARMY TRAINING STUDY  
FORT BELVOIR, VIRGINIA 22060

ATCG-ATS

24 MAR 1978

MEMORANDUM FOR RECORD

SUBJECT: TEA 78 Tests

1. Purpose: To record agreements concerning the TEA 78 Tests between the SWT and ARTS Gp and to provide for responsibilities for add ons or additional testing.

2. Agreed Actions:

a. M60A1/XML Tests

(1) The ARTS Guidelines for SWT Reports were accepted for implementation subject to any clarification which may prove necessary after further study.

(2) The following tests were reviewed and changed as indicated:

(a) Tank Crew Turbulence Research

1 Baseline correlation will include the five Armor Bns of the 1st AD.

2 Final reports will include:

a Tank crew turbulence test results, 10 Jun 78.

b Demographic data on firing crews (AIR) TBD.

c Results of train-up 11E (CDEC), 1 Jul 78.

d HumRRO Costs to proficiency 1 Jul 78.

3 Interface w/TEA 85 core objectives/variables has been accepted by ARI.

(b) Proficiency & Retention

ATCG-ATS

SUBJECT: TEA 78 Tests

1 Objective 3 is not being met. Units are not complying with requirements to record training from date of assignment.

2 Sample sizes are reduced from 300 to from 200 to 300.

3 Interim report date was deferred from early April to mid-April. Final report date was postponed to mid-June 78.

4 Variable 18 was added to  $T_I$  &  $T_S$ .

5 Core objectives A & B were deleted from  $T_A$  as unobtainable due to test design & unit noncompliance.

(c) Modular Training for RC.

1 Sample size was reduced from 108 TK crews to 90 crews in 3 Bns.

2 Table VIIC Scores were added to data.

3 All retention/decay deliverables were deleted as unobtainable due to test design.

(d) M60A1 WSTEAs: The data from M60A1 WSTEAs will be inputted to TXM to determine if a delta in force exchange does exist in a pure tank on tank situation. If a delta does exist, the data will be run in the CARMONETTE combined arms model to determine combined arms combat effectiveness.

(e) M60A1 Scaled Range Subcaliber test:

1 The Test was expanded to two phases: Phase I tests 40 crewmen of the 194th Armored Bde by firing a modified table IV and table VI; Phase II includes the original firing program, except that the sample has been reduced from 480 to 400.

2 Phase I interim report data has been established as 30 Aug 78 with the final report completion estimated as 9 Nov 78. Report dates are contingent on start date of 15 May. This start date may conflict with AOB/BAT/BNCOC training.

(f) Training Time Ratio: No changes were made. COL R. Maxham provided initial test concept papers which will be reviewed by ARTS and coordinated with the ARTS Battalion Training Survey and General Survey.

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(g) XML OTII: No change was made in the test objectives nor in the situational variables. It is clear, however, that ARI support to develop and field a test to determine core objectives/situational variables is necessary. Appropriate HRN has been submitted to ARI by ARTS through TRADOC DCS-T.

b. REDEYE Engagement Test:

(1) The ARTS reporting format was not accepted, by USAADS because much effort has already been expended in comparative data in the USAADS format. However, the modular data assembly concept will be complied with.

(2) It was agreed that an interim report would be furnished on 1 Jul 78. That report will be essentially a draft of the final report and will contain data available at the time that the report is prepared.

(3) The work sheets and summary sheets were updated and modified as follows:

a. Update of the participating units to include 5ID, 7ID and 24<sup>th</sup> ID. The field testing schedule was also updated.

b. Variable 19 was modified to reflect that it would provide only insights into post-mobilization training.

c. TOW Tests:

(1) Delete Variable 11 from TOW/ITV Training Weaknesses as without an OSUT, the impact of an "expanded OSUT" is considered confusing. Same information will be apparent but in context of "initial OSUT".

(3) Interface of TRASANA war model to core objectives/variables should be addressed with TRASANA.

(4) Delete Variable 3 from TLAT test as USAIS conducts no institutional training for RC units per se. RC units can attend AC institutional training. The problem is in the semantics and the same information will be produced and reported.

(5) Variable 18 is defined as selection from any group, not CAT IV per se.

(6) Add Variable 25 to ITV test.

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d. FO/Unit Training Tests:

(1) An interim report on test progress will be provided to ARTS as of 1 July 1978. This report will provide current status of the test and any data that is of significance and available on that date. It is recognized that available data will be limited because of the close proximity of the report to the data collection period. (15 May to 15 June)

(2) Three surveys/questionnaires/tests are involved in this test.

(a) FO Unit Training Management Survey -- This is to be administered as a structured interview at the unit. The required data collection from unit training records to be used for this interview will be forwarded to the unit in advance and the 12 months to be looked at will be specified.

(b) FO SQT format written exam on "Call for, and adjustment of fire techniques." This exam is to be administered to individual FO's.

(c) FO Questionnaire. This will develop opinions of the adequacy of the unit training programs as well as the demographic data on the test population.

(3) Changes to ARTS Summary Sheets. Variable 17 was removed from T<sub>5</sub> because it is not really measured by the test procedures. Core B was reworded to reflect, "as reflected by unit training schedule information."

e. OFT CTEA w/expansion TEA 78 and 13 F Export Analysis.

(1) An interim report will be forwarded to ARTS as of 1 July 1978 providing current status and any data available on that date. It is recognized that, because of the late arrival of the OFT device at Fort Sill (30 Apr-15 May current projected time), and the late availability of classes for testing, only limited data will be available on 1 July 1978.

(2) Six separate surveys/questionnaires or tests are being used as part of this test.

(a) Institutional/unit background questionnaires. These will gather demographic and background data on test population.

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(b) STEP Test. This standard math test permits random class groupings with respect to math aptitude.

(c) Observed Fire Exam. This exam was specifically developed to test level of knowledge of observed fire procedures prior to initiation of training as part of this test. This information will be used along with math scores to insure random placement.

(d) Institutional/Unit opinion questionnaire. This questionnaire develops the test population opinion of the training devices used as a part of the test.

(e) The final course exam on observed fire along with the live fire mission grades will be accepted as the proficiency level at the end of the training test being conducted.

(f) Instructor Questionnaire. This will develop the opinions of the instructors as to the effectiveness of the training devices being tested.

(3) There are several changes to the sample sizes. Changes to school class sizes from 120 to 200 for the officer class and from 20 to 20-50 for 13F classes, are based upon updated projections of class sizes. Changes to unit sample size reflect the addition of the approved support of 63 personnel for the basic OFT CTEA. Fort Sill is requesting 63 additional personnel from FORSCOM for the CTEA expansion. They would accept 33 additions if assured of the 30 from the ARTS effort. The desired sample size for the test is 125.

(4) Core C was modified to reflect a measure of proficiency only because the beginning and ending tests are not comparable and cannot be used to provide a delta measurement of proficiency. Variable 19 was modified to reflect insights into devices which might be used for RC training. It does not test RC personnel as such. Variables 3 and 5 more correctly belong in the 13F Export-Analysis and were deleted from the OFT CTEA expansion. They are listed in the 13F export analysis.

(5) Because the OFT CTEA includes a comparison of OFT, BT-33 and FOT to determine the most efficient and effectual device for training, an exportable package cannot be developed until the CTEA is completed and the best simulator determined

f. 63C/H CSS MOS Test

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(1) The 63C/H test effort is proceeding IAW the December 1977 SWT plan.

(2) SQT administration for MOS 63C and H has been slipped by DA to the May-July 78 time frame. Computer processing will add a minimum of 6-8 weeks. As a result, comparison of SQT results with test data will not be available until August 1978.

(3) The identification of collective proficiency capabilities will become part of follow-on efforts to be completed after August 1978. This is an agreement with the December 1977 plan. This effort should be incorporated into TEA 85.

(4) Official USAOCCS agreement on the SWT/ARTS Deliverable Summary Sheets is limited to material appearing in the Test Activity column. While advice concerning the potential interface with TEA 85 has been provided, extension of the USAOCCS into TEA 85 will require specific tasking through TRADOC channels IAW the approved Five-Year Test Plan.

g. O5C/F MOS Test

(1) Subject to the availability of historical resource data, and unit training resource methodology, all O5C tests will encompass Resources to Proficiency in the ARTS Model.

(2) Regarding the comparison of self-paced and group-paced courses, Variable 25 was deleted because there are no training devices in either course.

h. CAMMS

(1) The ARTS Guidelines to SWT Reports were accepted for implementation and will be used to structure CAMMS test reports to ARTS.

(2) The CAMMS test was reviewed and the following changes were made:

(a) Test objective 1 was deleted and the following objective inserted: "Measure effectiveness of CAMMS as a training Method."

(b) Test object 4 was caveated to tie it to long term evaluations tied to use of the NTC.

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(c) The interim report date was deleted as testing will not be completed until 15 May. The final report date for the short term effort was confirmed as 1 July 1978.

(d) All interface w/TEA 85 core objectives and situational variables were accepted subject to the following clarification: The short range study report of 1 July 1978 will cover only resources to level of proficiency attained. Data concerning programs to proficiency (number and interval between iterations), learning decay and frequency of retraining and validity of CAMMS skill transfer to actual operation can only be obtained in the TEA 85 program. In the interim, CATRADA/CAMMS will develop/explore and report the TEA 85 type issues to the level of resolution supportable by the data.

i. Cannon Crew Turnover

(1) The validation of this test was conducted on 17 March 1978. The test appeared to be well conducted with only minor problems which involved some additional training for scorers. Dr. Goldberg of ARI, is aware of this and will take corrective actions.

(2) The TEA 78 team will request a draft report of the results of this validation test from HQS ARI.

(3) The actual test is scheduled for August 1978 at Fort Lewis, WA, with two 9ID close support FA Bns.

j. TACFIRE POST OT III. The turbulence tests on TACFIRE OT III crews were not accomplished. Some limited data should be available by 1 July 1978 from tests on new crew members who will graduate from Fort Sill on 17 April 1978. Dr. Sanders, ARI field office, Fort Hood, TX, indicated ARTS should request a draft copy of both the ARI Post OT III report and the follow up turbulence tests from ARI, HQS. TEA 78 team has requested these reports.

3. Unresolved issues.

a. ARI acceptance of the TEA 85 objectives/situational variables is dependent on further study.

b. Final report dates for the demographic portion of the tank crew turbulence test must be coordinated w/AIR and Dr. J. Shields, ARI.

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c. Command action is necessary to obtain support of FORSCOM/USAREUR commanders for the documentation of time/resources/training in support of the proficiency and retention tests.

d. ARTS must work w/the SWT to develop operation and scaling for the training time ratio test. These must be coordinated w/the Battalion Training Survey and the General Survey.

e. REDEYE Test. USAADS requires assistance in obtaining approval to visit the REDEYE sections of the Berlin Brigade during firing in Spain. There is a quota limitation on the number of US troops in Spain which will be at its upper limit during the period of the visit. USAADS/TRASANA will keep ARTS informed.

f. TOW TEA Ph results with "minimum" training program suggests TEA may stop after 90 missiles. Decision hinges on 23-25 March firings.

g. FO Unit Training Test. The support of this effort by TRASANA is still under negotiation between USAFAS, Fort Sill and TRASANA, White Sands.

h. CSS MOS 63C/H TEA.

(1) The initial planning estimate to complete the 63C/H effort was \$23,000. Of this, \$5,000 was funded locally and a request was forwarded to TRADOC for \$18,000. TRADOC increased the travel allocation for the USAOCCS by \$15,000. Funds in this amount were diverted to the ARTS effort from other USAOCCS funding allocations. TRADOC indicated that the additional \$3,000 would be addressed at the FY78 BER.

(2) Due to the large amount of data to be gathered from each individual tested, it was determined during the validation testing that an additional day had to be added to the period of time spent in each division and that one person had to be added to the testing. Additional on-site test preparation time has also been determined to be necessary. This resulted in an additional cost of \$5,300 which raised the total ARTS cost to \$28,300.

(3) While the USAOCCS recently experienced a TRADOC-wide 10 percent cut in travel funds, the portion of this sum which applies to ARTS will be absorbed by the school by deleting other

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high priority evaluation efforts. This still leaves a shortfall of \$8,300. If the shortfall of \$8,300 is not funded, testing planned at USAREUR, Fort Riley and Fort Hood (49th Armed Div) cannot be executed.

(4) DARTS support at TRADOC level to obtain these additional funds is requested. In the event these funds are not provided, DARTS guidance regarding changes to the test plan will be requested.

(5) If additional funding is not provided, 1st ID testing will be cancelled. This would result in a reduction of the data base by 25%.

i. O5C/F MOS Test

(1) O5C/F OSUT start delayed until May. SWT estimates OSUT graduate data collection from 1 July-15 September. Accordingly, SWT estimates final report for this test to be 15 Sep 78.

(2) Due to travel fund constraints O5C testing in the 9th ID and 1st AD has been cancelled. Testing will be conducted in the 24 ID and 49 AD (ARNG).

j. CAMMS TESTING

(1) The sample size has been once again reduced from the original 10 Bns to 5. Of these, 3 are from 4th ID and 2 from 1st ID. This is caused by commitments of 1st ID Bn.

(2) CATRADA needs guidance from TRADOC as to implementation of CAMMS/NTC follow-on tests in TEA 85 so as to better coordinate & execute TEA 78 testing.

k. BATTLE

(1) TRASANA has no plans for using "BATTLE" in a test mode to determine what is taught through its use. It was agreed, however, that a test could be developed using the following concept.

a. Issues

1 How can BATTLE be adapted to a training role?

2 Stop action/on-line critiques.

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3 Special operations - River Crossing, smoke, mine field clearing. Use of CAS, FA?

4 Standardized scoring procedures need to be developed.

5 Mission specific scenarios, attack, defend and delay need be developed.

6 A baseline for acceptable performance should be established.

7 Can we determine existing skills in weapons employment? (i.e. in use of tanks, armor use of infantry.)

b. Costs to play Battle per Bn Cmd Group. Time is 5-7 working days per Bn Cmd Group, with terrain board & computer.

c. Test sample size - 8-10 Bns tested twice each with a short time interval (2 weeks?) between tests.

d. Methods for measuring (quantifying) training value of BATTLE.

0. Play ARTEP and measure performance. (Cmd Gp module)

1. Questionnaire aimed at the basic question "what was learned during play of BATTLE?" (CATRADA doing this in conjunction w/DRS)

(a) Administered post play period.

(b) Cluster analysis of answer.

1a In parallel with step 1 develop by analysis a list of areas in which learning is expected to occur by playing BATTLE.

1b Take union of step 1 and 1a as the list for 2.

2 Develop standard test that can be used pre and post play that covers the list produced by step 1b.

3 Use data from BATTLE to check those clusters from step 1 and other elements from step 2 for which the data is applicable.

4 Play ARTEP and measure performance.

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5 Use feedback to change BATTLE ARTEP or Pre-Post test.

e. Three options exist to execute the BATTLE test within context of TEA 78.

OPTION A

TRASANA design test (would cause delay in ongoing efforts for ARTS).

CATRADA conduct tests w/Cmd Groups

(CATRADA has three battle sets)

TRASANA Analyze Results.

OPTION B

TRASANA Continue to march for ARTS as per DPCS (under a revision to this DPCS as is currently being proposed by TRASANA)

CATRADA Execute entire program.

OPTION C

Either A or B above w/ARI designing test & assisting in analysis.

(2) TRASANA position on use of war models to CE.

(a) Analysts do not know which tasks should be incorporated in CARMONETTE and other models do not appear appropriate.

(b) Analysts need a list of SM/ARTEP tasks and varying levels of proficiency to put in the model.

(c) TRASANA management feels ARTS requirements should be integrated in the TRASANA Model Improvement Program. The Bn model improvement group works under TRASANA agis-Div Model group is under CACDA. This suggestion has been adopted and testing of "Battle" training value will be deferred to a follow-on period.

3. Actions/Decisions.

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a. LTC Shambayer requested ARTS guidance (since ARTS is funding TEA 78 CAMMS) as to actions to be taken if one or more principal staff fail to report for CAMMS testing w/the Bn and Group. LTC Bloedorn decided that judgement must be used in all cases, but when it became clear that unqualified players or unacceptable absences would contaminate the data, that CATRADA should cancel and save the money. This policy should be announced during coordination sessions to assist unit commanders in assigning priorities.

4. Actions Required:

a. Action should be taken by ARTS/TRADOC DCS-T to schedule three additional combined Arms Bns for CAMMS testing ASAP to ensure minimum sampling by 15 May.

b. Coordination should be made with TRADOC DCS-T to determine when CATRADA will receive necessary guidance to ensure continuity between TEA 78 & TEA 85.

c. FO UNIT TEA/OFT/13F TEA 78.

(1) Validation of the 13F Course of Instruction must be accomplished prior to the test of the training devices. Because of shortfalls in 13F course fill, the COI's earliest validation will occur on or about 5 June. USAFAS must complete this validation procedure.

(2) Each of the OFT's can train 15 students per class. Plans call for 24 hours of instruction per class. This requires careful scheduling of the OFT's since only two are expected to be available. This also assumes minimum down time for the system. USAFAS must manage these factors and keep ARTS informed of slippage.

(3) Authorization message allowing Fort Sill to coordinate dates and arrangements with the field should be transmitted.

e. O5C TEA 78.

(1) A formal request to test in 24ID has been initiated by ARTS.

(2) SWT will update/finalize test plan and forward to ARTS ASAP.

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f. CSS TEA 78.

(1) Obtain additional travel funds or modify SWT test plans. DARTS support is needed at TRADOC level.

(2) Decision to modify test schedule should await TRADOC funding guidance.

5. Proposed ARTS Test Site Visits.

a. M60A1 Tests: TBD

b. REDEYE

(1) 24-28 Apr 78 - 8ID, Flint Hen, GER

(2) 24-28 Apr 78 - 101 ABD, FT Bragg, (RELS, LIVE REDEYE)

(3) 9 May 78 - 3 ACR, Ft Bliss, (RELS)

(4) 11-12 May 78 - 7ID, Ft Ord

(5) 14-19 May 78 - 9ID, Ft Lewis, (RELS)

(6) 16-23 Jun 78 - 2AD, 1 CAC Ft Hood, (RELS)

c. TOW test site visits: TBD

d. FO/OFT Test visit: TBD

e. CSS/63C/H Test visit:

(1) 17-20 Apr 78 - 8ID, USA EUR

(2) 12-15 Jun 78 - 49AD (ARNG) Ft Hood

f. O5C Test visit: 24ID TBD

  
for GARY BLOEDORN LTC, FA  
LTC, AF  
CH, TEA 78 TM, ARTS

END

DATE

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JULY 88