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EVALUATION OF FIELD ARTILLERY COMMANDER'S MANUALS. (U)  
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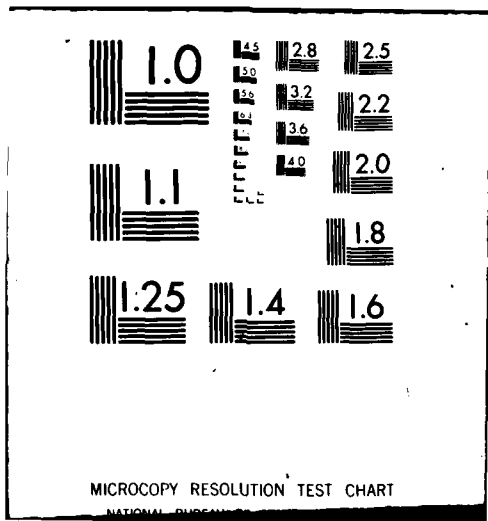
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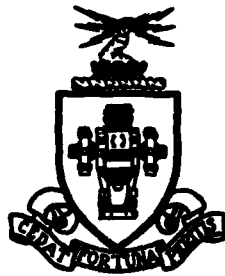
*Evaluation of*

**FIELD ARTILLERY  
COMMANDER'S MANUALS**

**(EXTERNAL EVALUATION)**

**A PRODUCT OF THE  
DIRECTORATE OF EVALUATION**

**MOS 13B, 13E, 13F, 17B, 17C, 82C, 93F**



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**U.S. ARMY  
FIELD ARTILLERY SCHOOL  
Fort Sill, Oklahoma**

**MAY 1980**

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UNITED STATES ARMY  
FIELD ARTILLERY SCHOOL

EVALUATION OF  
FIELD ARTILLERY COMMANDER'S MANUALS

EXTERNAL EVALUATION REPORT

ACN 38575

MAY 1980

ACKNOWLEDGEMENT

This study was initiated and sponsored by the United States Army Field Artillery School, Fort Sill, Oklahoma.

The report has been approved by the Assistant Commandant of the United States Army Field Artillery School, Fort Sill, Oklahoma.

The conclusions and recommendations are those of the Directorate of Evaluation (DOE), United States Army Field Artillery School, and based on information gathered and analyzed by the Collection Division, Directorate of Evaluation.

The DOE evaluation team consisted of Major Kenneth Harmon, Mr. Curtis McBride, Sergeant First Class John Seals, Ms. Valois Shuler, and Ms. Kathy Foster. Administrative assistance was provided by Ms. Joy Jones and Margaret Averre.

This evaluation could not have been accomplished without the assistance and cooperation of the Field Artillery officers who contributed their time and efforts to the evaluation.

DISCLAIMER

The findings in this report are not to be construed as official Department of the Army positions unless so designated by other authorized documents.

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## 1. INTRODUCTION.

a. Background. The Commander's Manuals (CM), as written by USAFAS and published by the Department of the Army, are intended to guide the training managers and trainers to those critical tasks that their soldiers must be able to perform in order to be effective in combat and to be proficient in their Military Occupational Specialty (MOS) and skill level. The CM will also guide the trainers and training managers to the necessary references that must be available in order for the soldiers to effectively train. The CM have been issued to the field; however, no in-depth study has been made to ascertain the utility of the CM to the personnel in the field.

b. Problem Statement. The CM are new products designed to assist in preparing unit training programs. Feedback from the Field Artillery about the manual has been minimal. USAFAS does not know how helpful CM are in planning unit training or if they are well constructed.

c. Purpose. To determine if the CM are useful in planning unit training, if the tasks in the CM are clearly stated, critical and assigned to the proper skill level, and if the introduction and references are adequate.

d. Scope. The evaluation will consist of evaluating CM published in 1977 for all Cannon and Target Acquisition MOS in Career Management Field (CMF) 13.

### e. Assumptions.

(1) Collection instruments (questionnaires) developed and validated will be valid for all Field Artillery CM.

(2) Training managers are sufficiently familiar with the CM to give valid responses on the questionnaires.

## 2. BODY.

### a. Objectives.

(1) To determine if the Commander's Manual is useful in planning the unit training program.

(2) To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(3) To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(4) To determine if the references for the Commander's Manual tasks are complete and correct.

b. Evaluation Process.

(1) Methodology. Identical methodologies were used to evaluate all objectives for each MOS. Questionnaires were administered to battery commanders, executive officers, and assistant executive officers and to battalion commanders, executive officers, fire support officers, and operations officers of Field Artillery units throughout the Active Army. Thirty FA battalions, 15 Target Acquisition battalions and 10 Division Artillery headquarters and headquarters batteries were surveyed. The questionnaires required officers in the duty positions listed above to evaluate the CM that pertained to the FA MOS authorized in their units. The questionnaires presented Yes/No/Do Not Know responses to questions addressing the usefulness of CM in planning training and the adequacy of the introduction, tasks, and references in the CM. The same questionnaire format was used for all officers surveyed. Written comments were actively solicited.

(2) Analysis. Questionnaire items were designed to answer essential elements of analysis for each objective. Each item was analyzed by computing the percentage of positive, negative, and "do not know" responses. The detailed analysis pertaining to each individual MOS is addressed in the appendices to this report.

(a) Objective 1 Questionnaire Items.

1. The Commander's Manual helps me to plan my unit training program.
2. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct.
3. The training method selected for all tasks listed under "UNIT" training is correct.
4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.
5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit.

(b) Objective 2 Questionnaire Items.

1. The INTRODUCTION clearly explains the purpose of the Commander's Manual.
2. The instructions in the INTRODUCTION of the Commander's Manual are complete.

(c) Objective 3 Questionnaire Items.

1. The tasks for each skill level are clearly stated.
2. All tasks listed in the Commander's Manual are critical for the skill level and MOS.
3. All critical tasks for the skill level and MOS are in the Commander's Manual.
4. The skill level assigned to each task is correct.

(d) Objective 4 Questionnaire Items.

1. All necessary REFERENCES for the tasks are listed.
2. The list of REFERENCES for each task is correct.

(3) Findings. The detailed findings pertaining to each MOS are contained in the appropriate appendix to this report. Consult the table of contents for the MOS desired.

3. CONCLUSIONS.

a. General. Based on the analysis of data received from the field, it is readily apparent that the CM are fulfilling their intended purposes. The CM is useful in planning unit training; the introductions to the CM adequately explain the use of the CM; the tasks in the CM are clearly stated, critical, and assigned to the proper skill level; and the references for the CM tasks are complete and correct. The only negative note underlying this positive appraisal of the CM is the availability of the CM to those individuals for whom the CM were designed. Notable percentages of the respondents on all the specific MOS questionnaires indicated that they did not have the CM the MOS being surveyed, were unfamiliar with the CM for the MOS being surveyed, or did not have copies of all the CM for each Field Artillery MOS in their unit.

b. MOS related. See appropriate appendices.

4. RECOMMENDATIONS.

a. That the Directorate of Training Developments (DTD) review and consider the respondents' comments listed in the appendices of this report for changes that should be included in future revisions to the CM.

b. That the Directorate of Evaluation (through the FA Branch Training Team), the DTD (through the Pre-Command Course, Soldier's Manuals and Commander's Manuals), and the Directorate of Course Development and Training (through resident and nonresident instructional courses, fire support conferences and commander's conferences) continually impress upon supervisors and commanders at all levels the importance of insuring that all unit training managers and trainers have copies or have ready access to copies of the CM for each Field Artillery MOS in their units.

APPENDIX A  
MOS 13B (Cannon Crewman) COMMANDER'S MANUAL (Apr 1977)

1. INTRODUCTION. This appendix contains the detailed findings, analysis, and conclusions for the MOS 13B Commander's Manual (CM). Information in this appendix has been used in the derivation of the conclusions and recommendations of the CM main report.

2. METHODOLOGY. Data for the MOS 13B CM evaluation was collected using questionnaires sent to battery commanders, battery executive officers, battalion commanders, and operation officers. In the 30 field artillery cannon battalions which were surveyed, 170 officers completed the questionnaires and returned them to the Directorate of Evaluation, USAFAS. Weapon types in these battalions were M101, M102, M107, M109, M110 and M114. Of the 170 respondents 23 (14%) indicated they did not have a copy of the 13B CM or were not familiar with the 13B CM. These 23 respondents have not been used in the evaluation of the 13B CM. Of the 147 usable respondents, 115 represent battery level officers and 32 represent battalion level officers.

3. EVALUATION PROCESS. The discussion, analysis, and findings are addressed by objective.

a. Objective 1. To determine if the Commander's Manual is useful in planning the unit training program.

(1) Discussion. In order to identify if the CM is useful in planning the unit training program, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 1 are contained in Table A-1 and are analyzed following the table.

Table A-1. Is the Commander's Manual useful for planning training?

| QUESTIONNAIRE ITEM  | YES | NO  | DO NOT KNOW |
|---|-----|-----|-------------|
| 1. The Commander's Manual helps me to plan my unit training program.                              | 84% | 16% | 0%          |
| 2. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct. | 64  | 9   | 27          |
| 3. The training method selected for all tasks listed under "UNIT" training is correct.            | 78  | 10  | 12          |

| QUESTIONNAIRE ITEMS   | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.  | 88% | 8% | 4%          |
| 5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit. | 75  | 24 | 1           |

(a) A large majority (84%) of the respondents indicated that the CM was a help in planning unit training. Also, the large majority (88%) stated that it is easy to cross-reference the CM with the Soldier's Manual.

(b) A significant percentage (64% and 78%) of the respondents indicated that the training method for tasks as institutional and unit are correct. Table A-2 contains specific recommendations for changing the location of initial training for certain tasks.

(c) A notable percentage (24%) of the respondents do not have a copy of the CM for all FA MOS in their unit.

(d) Comments.

1. The section chief plans individual training. I plan collective training using the ARTEP.

2. The ARTEP is our primary training reference.

3. Local SOP does not allow time for using the CM.

4. The CM is one of many references I use to plan training.

5. The CM is a handy reference but not for planning training.

6. Our training is planned by the battalion and is geared around their specific events.

7. The CM is especially helpful for planning training for skill levels 1 and 2.

8. Most of the soldiers we receive from AIT or OSUT require too much familiarizing and training before they become effective in their MOS.

TABLE A-2. Changing Initial Training Location

| SKILL LEVEL | FROM  | TO            | TASK NUMBERS |      |      |      |      |
|-------------|-------|---------------|--------------|------|------|------|------|
| 1           | SOJT  | OSUT          | 0341         | 1096 | 1081 | 1097 | 1098 |
|             |       |               | 1129         | 1009 | 1028 | 1035 | 1139 |
|             |       |               | 1147         | 0517 | 1142 | 1018 | 1019 |
|             |       |               | 1024         | 1124 | 1125 | 0024 | 0028 |
|             |       |               | 0029         | 0030 | 0221 | 0304 | 0308 |
|             |       |               | 0338         | 0328 | 0740 | 0720 | 0743 |
|             |       |               | 0748         | 0749 | 0750 | 0751 | 0755 |
|             |       |               | 0502         | 0503 | 0509 | 1153 | 0553 |
| 2           | PNCOC | UNIT          | 0312         | 0313 | 0315 | 0320 |      |
|             | UNIT  | INSTITUTIONAL | 1038         | 1051 | 1012 | 1026 | 1031 |
|             |       |               | 1033         | 1036 | 1039 | 1025 | 1040 |
|             |       |               | 1102         |      |      |      |      |
| 3           | BNCOC | UNIT          | 1041         | 1042 | 1043 | 1027 | 1030 |
|             |       |               | 1032         | 1034 | 1047 | 1044 | 1046 |
|             |       |               |              | 1082 |      |      |      |
|             | SOJT  | INSTITUTIONAL | 1037         | 0346 |      |      |      |

b. Objective 2. To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(1) Discussion. In order to identify if the introduction to the CM explains the use of the CM, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 2 are contained in Table A-3 and are analyzed following the table.

TABLE A-3. Is the introduction to the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. The INTRODUCTION clearly explains the purpose of the Commander's Manual      | 97% | 3% | 0%          |
| 2. The instructions in the INTRODUCTION of the Commander's Manual are complete. | 93  | 6  | 1           |

(a) Almost all (97% and 93%) of the respondents indicated that the introduction to the CM clearly explains its purpose and that the instructions are complete.

(b) Comments.

1. The title "Commander's Manual" is misleading. This could be changed to "Supervisor's Manual" or "Leader's Manual".

2. The contents should be focused more toward the section chief level.

c. Objective 3 To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(1) Discussion. In order to identify if the tasks in the CM are clearly stated, critical, and assigned to the proper skill level, selected questions were asked of the respondents. The respondents were also to list those tasks which are not clearly stated, critical or assigned to the proper skill level.

(2) Findings. The findings pertaining to objective 3 are contained in Table A-4 and are analyzed following the table.

TABLE A-4. Are the Tasks in the Commander's Manual Adequate?

| QUESTIONNAIRE ITEM  | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. The tasks for each skill level are clearly stated.                                   | 94% | 5% | 1%          |
| 2. All tasks listed in the Commander's Manual are critical for the skill level and MOS. | 82  | 10 | 8           |
| 3. All critical tasks for the skill level and MOS are in the Commander's Manual.        | 79  | 9  | 12          |
| 4. The skill level assigned to each task is correct.                                    | 82  | 5  | 13          |

(a) Almost all (94%) of the respondents stated that the tasks for each skill level are clearly stated.

(b) A large majority (82% and 79%) of the respondents indicated that all tasks listed in the CM are critical for the MOS and skill level and that all critical tasks for the skill level are listed. Table A-5 contains specific tasks which were delineated as not being critical.

(c) The large majority (82%) of the respondents indicated that the skill level assigned to each task is correct.

(d) Comments.

1. There should be more tasks on NBC and individual weapons.
2. Some tasks in range cards, map reading, and safety should be at lower skill levels.
3. More tasks in maintenance are needed for the self-propelled artillery. Also need more on The Army Maintenance Management System (TAMMS).
4. Skill level 1, task 0325 should be skill level 2.

TABLE A-5. Tasks not Critical

| SKILL LEVEL | TASKS  |
|-------------|--|
| 1           | 0328 0325 0201 through 0221<br>0724 through 0742 |

d. Objective 4. To determine if the references for the Commander's Manual tasks are complete and correct.

(1) Discussion. In order to identify if the references listed for the tasks in the Commander's Manual were complete and correct, selected questions were asked. The respondents were also asked to list the skill level and tasks number where the references were not complete or correct.

(2) Findings. The findings pertaining to objective 4 are contained in Table A-6 and are analyzed following the table.

TABLE A-6. Are the References in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM                                    | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. All necessary REFERENCES for the tasks are listed. | 80% | 5% | 15%         |
| 2. The list of REFERENCES for each task is correct.   | 78  | 4  | 18          |

(a) The large majority (80% and 78%) of the respondents indicated that the list of references for each task is complete and correct.

(b) One comment was received that some of the TEC lessons are out-of-date.

4. CONCLUSIONS. (NOTE: Percentages in the parenthesis are the percentages of respondents who indicated support for the conclusion.)

- a. CM for all FA MOS in the units are not available (24%).
- b. The CM is a help in planning training (84%).
- c. It is easy to cross-reference the CM with the Soldier's Manual (88%).
- d. The training method listed in the CM as unit or institutional is correct (64% and 78%).
- e. The introduction to the CM clearly explains its purpose (97%).
- f. The instructions on the use of the CM are complete (93%).
- g. Tasks in the CM are clearly stated (94%).
- h. All tasks in the CM are critical and all critical tasks are listed (82% and 79%).
- i. The skill level assigned to each task in the CM is correct (82%).
- j. The references listed for each task in the CM are complete and correct (80% and 78%).

APPENDIX B  
MOS 13E (Cannon Fire Direction Specialist)  
COMMANDER'S MANUAL (April 1977)

1. INTRODUCTION. This appendix contains the detailed findings, analysis and conclusions for the MOS 13E Commander's Manual (CM). Information in this appendix has been used in the derivation of the conclusions and recommendations of the CM main report.

2. METHODOLOGY. Data for the MOS 13E CM evaluation were collected using questionnaires sent to battery commanders, battery executive officers, battalion commanders, and operation officers. In the 30 field artillery cannon battalions which were surveyed, 152 officers completed the questionnaires and returned them to the Directorate of Evaluation, USAFAS. Of the 152 respondents, 35 (23%) indicated they did not have a copy of the 13E CM or were not familiar with the 13E CM. These 35 respondents have not been used in the evaluation of the 13E CM.

3. EVALUATION PROCESS. The discussion, analysis, and findings are addressed by objective.

a. Objective 1. To determine if the Commander's Manual is useful in planning the unit training program.

(1) Discussion. In order to identify if the CM is useful in planning the unit training program, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 1 are contained in Table B-1 and are analyzed following the table.

Table B-1. Is the Commander's Manual useful for planning training?

| QUESTIONNAIRE ITEM  | YES | NO  | DO NOT KNOW |
|---|-----|-----|-------------|
| 1. The Commander's Manual helps me to plan my unit training program.                              | 81% | 17% | 2%          |
| 2. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct. | 68  | 3   | 29          |
| 3. The training method selected for all tasks listed under "UNIT" training is correct.            | 79  | 4   | 17          |

| QUESTIONNAIRE ITEMS   | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.  | 88% | 8% | 4%          |
| 5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit. | 81  | 18 | 1           |

(a) A large majority (81%) of the respondents indicated that the CM was a help in planning unit training. Also, the large majority (88%) stated that it is easy to cross-reference the CM with the Soldier's Manual.

(b) A significant percentage (68% and 79%) of the respondents indicated that the training method for tasks as institutional and unit are correct.

(c) A large percentage (81%) of the respondents do have a copy of the CM for all Field Artillery MOS in their unit.

(d) Comments.

1. The section chief plans individual training. I plan collective training using the ARTEP.

2. The ARTEP is our primary training reference.

3. Local SOP does not allow time for using the CM.

4. The CM is one of many references I use to plan training.

5. The CM is a handy reference but not for planning training.

6. Our training is planned by the battalion fire direction officer.

7. Training is planned by using the test notice.

8. All skill level 1 tasks should be taught in OSUT.

9. All NBC tasks should be taught at the institutional level and not at the unit.

10. A listing of tasks in numerical order with title and Soldier's Manual page number would be helpful.

11. An index should be added to the Commander's Manual that lists all tasks by their major area.

12. None of the tasks are easy to cross-reference. It is cumbersome and time-consuming.

b. Objective 2. To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(1) Discussion. In order to identify if the introduction to the CM explains the use of the CM, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 2 are contained in Table B-2 and are analyzed following the table.

TABLE B-2. Is the introduction to the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. The INTRODUCTION clearly explains the purpose of the Commander's Manual.     | 97% | 1% | 2%          |
| 2. The instructions in the INTRODUCTION of the Commander's Manual are complete. | 94  | 2  | 4           |

(a) Almost all (97% and 94%) of the respondents indicated that the introduction to the CM clearly explains its purpose and that the instructions are complete.

(b) Comments. No comments were received in this area.

c. Objective 3. To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(1) Discussion. In order to identify if the tasks in the CM are clearly stated, critical, and assigned to the proper skill level, selected questions were asked of the respondents. The respondents were also asked to list those tasks which are not clearly stated, critical or assigned to the proper skill level.

(2) Findings. The findings pertaining to objective 3 are contained in Table B-3 and are analyzed following the table.

**TABLE B-3. Are the tasks in the Commander's Manual adequate?**

| QUESTIONNAIRE ITEM  | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. The tasks for each skill level are clearly stated.                                   | 94% | 3% | 3%          |
| 2. All tasks listed in the Commander's Manual are critical for the skill level and MOS. | 82  | 9  | 9           |
| 3. All critical tasks for the skill level and MOS are in the Commander's Manual.        | 82  | 8  | 10          |
| 4. The skill level assigned to each task is correct.                                    | 84  | 5  | 11          |

(a) Almost all (94%) of the respondents stated that the tasks for each skill level are clearly stated.

(b) A large majority (82%) of the respondents indicated that all tasks listed in the CM are critical for the MOS and skill level and that all critical tasks for the skill level are listed. Table B-4 contains specific tasks which were delineated as not being critical.

(c) The large majority (84%) of the respondents indicated that the skill level assigned to each task is correct.

(d) Comments.

1. There are no tasks on operating a firing chart.
2. Some tasks in range cards, map reading, and safety should be at lower skill levels.
3. Tasks on the new family of ammunition for the M198 need to be included.

**TABLE B-4. Tasks not Critical**

| SKILL LEVEL | TASKS                         |
|-------------|-------------------------------|
| 1           | 0219 0309 0310 0315 0563 1383 |
| 2           | 1336 1337 1338 1339 1340 1341 |
| 3           | 9274 9276 9277                |

d. Objective . To determine if the references for the Commander's Manual tasks are complete and correct.

(1) Discussion. In order to identify if the references listed for the tasks in the CM were complete and correct, selected questions were asked. The respondents were also asked to list the skill level and task number where the references were not complete or correct.

(2) Findings. The findings pertaining to objective 4 are contained in table B-5 and are analyzed following the table.

TABLE B-5. Are the references in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM                                    | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. All necessary REFERENCES for the tasks are listed. | 82% | 4% | 14%         |
| 2. The list of REFERENCES for each task is correct.   | 84  | 4  | 12          |

(a) The large majority (82% and 84%) of the respondents indicated that the list of references for each task is complete and correct.

(b) Comments.

1. The references should not be listed in the CM.

2. The FM 6-40 is newer than the CM; therefore, the chapters listed are not correct.

4. CONCLUSIONS. (NOTE: Percentages in the parenthesis are the percentages of respondents who indicated support for the conclusion.)

a. CM for all FA MOS in the units are available (81%).

b. The CM is a help in planning training (81%).

c. It is easy to cross-reference the CM with the Soldier's Manual (88%).

d. The training method listed in the CM as unit or institutional is correct (68% and 79%).

e. The introduction to the CM clearly explains its purpose (97%).

f. The instructions on the use of the CM are complete (94%).

g. Tasks in the CM are clearly stated (94%).

h. All tasks in the CM are critical and all critical tasks are listed (82%).

i. The skill level assigned to each task in the CM is correct (84%).

j. The references listed for each task in the CM are complete and correct (82% and 84%).

APPENDIX C  
MOS 13F (Fire Support Specialist)  
COMMANDER'S MANUAL (Apr 1977)

1. INTRODUCTION. This appendix contains the detailed findings, analysis and conclusions for the MOS 13F Commander's Manual (CM). Information in this appendix has been used in the derivation of the conclusions and recommendations of the CM main report.

2. METHODOLOGY. Data for the MOS 13F CM evaluation were collected using questionnaires sent to battery commanders, fire support officers, battalion commanders, and operation officers. In the 25 field artillery cannon battalions which were surveyed, 44 officers completed the questionnaires and returned them to the Directorate of Evaluation, USAFAS. Of the 44 respondents, 18 (41%) indicated they did not have a copy of the 13F CM or were not familiar with the 13F CM. These 18 respondents have not been used in the evaluation of the 13F CM.

3. EVALUATION PROCESS. The discussion, analysis, and findings are addressed by objective.

a. Objective 1. To determine if the Commander's Manual is useful in planning the unit training program.

(1) Discussion. In order to identify if the CM is useful in planning the unit training program, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 1 are contained in Table C-1 and are analyzed following the table.

Table C-1. Is the Commander's Manual useful for planning training?

| QUESTIONNAIRE ITEM  | YES | NO  | DO NOT KNOW |
|---|-----|-----|-------------|
| 1. The Commander's Manual helps me to plan my unit training program.                              | 85% | 12% | 3%          |
| 2. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct. | 77  | 4   | 19          |
| 3. The training method selected for all tasks listed under "UNIT" training are correct.           | 81  | 4   | 15          |
| 4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.                | 92  | 4   | 4           |

| QUESTIONNAIRE ITEMS   | YES | NO  | DO NOT KNOW |
|---|-----|-----|-------------|
| 5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit. | 88% | 12% | 0%          |

(a) A large majority (85%) of the respondents indicated that the CM was a help in planning unit training. Also, the large majority (92%) stated that it is easy to cross-reference the CM with the Soldier's Manual.

(b) A significant percentage (77% and 81%) of the respondents indicated that the training method for tasks as institutional and unit are correct.

(c) A large majority (88%) of the respondents do have a copy of the CM for all Field Artillery MOS in their unit.

(d) Comments.

1. The CM is one of many references I use to plan training.
2. The CM is a handy reference but not for planning training.
3. I have just received a copy of the CM and have not had time to use it.
4. Too much demand is put on the training time in the unit.
5. The ARTEP and SQT Notice are our primary training references.
6. A listing of tasks in numerical order, with title and Soldier's Manual number, would be helpful.

b. Objective 2. To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(1) Discussion. In order to identify if the introduction to the CM explains the use of the CM, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 2 are contained in Table C-2 and are analyzed following the table.

TABLE C-2. Is the introduction to the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. The INTRODUCTION clearly explains the purpose of the Commander's Manual.     | 96% | 4% | 0%          |
| 2. The instructions in the INTRODUCTION of the Commander's Manual are complete. | 100 | 0  | 0           |

(a) Almost all (96% and 100%) of the respondents indicated that the introduction to the CM clearly explains its purpose and that the instructions are complete.

(b) One comment was received that knowledge of the Soldier's Manual is presupposed.

c. Objective 3. To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(1) Discussion. In order to identify if the tasks in the CM are clearly stated, critical, and assigned to the proper skill level, selected questions were asked of the respondents. The respondents were also asked to list those tasks which are not clearly stated, critical or assigned to the proper skill level.

(2) Findings. The findings pertaining to objective 3 are contained in Table C-3 and are analyzed following the table.

TABLE C-3. Are the tasks in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. The tasks for each skill level are clearly stated.                                   | 96% | 4% | 0%          |
| 2. All tasks listed in the Commander's Manual are critical for the skill level and MOS. | 88  | 4  | 8           |
| 3. All critical tasks for the skill level and MOS are in the Commander's Manual.        | 85  | 3  | 12          |
| 4. The skill level assigned to each task is correct.                                    | 84  | 0  | 16          |

(a) Almost all (96%) of the respondents stated that the tasks for each skill level are clearly stated.

(b) A large majority (88% and 85%) of the respondents indicated that all tasks listed in the CM are critical for the MOS and skill level and that all critical tasks for the skill level are listed.

(c) The large majority (84%) of the respondents indicated that the skill level assigned to each task is correct.

(d) One comment was received that many E-3's are working in E-5 duty positions and have to do all skill level 1 and 2 tasks.

d. Objective 4. To determine if the references for the Commander's Manual tasks are complete and correct.

(1) Discussion. In order to identify if the references listed for the tasks in the CM were complete and correct, selected questions were asked. The respondents were also asked to list the skill level and tasks number where the references were not complete or correct.

(2) Findings. The findings pertaining to objective 4 are contained in Table C-4 and are analyzed following the table.

TABLE C-4. Are the references in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM                                    | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. All necessary REFERENCES for the tasks are listed. | 80% | 4% | 16%         |
| 2. The list of REFERENCES for each task is correct.   | 76  | 4  | 20          |

(a) The large majority (80% and 76%) of the respondents indicated that the list of references for each task is complete and correct.

(b) Comments.

1. The 13F CM should reference FM 71-2 and FM 71-1 pertaining to mortar gunnery.

2. It is hard to get the references listed in the CM.

4. CONCLUSIONS. (NOTE: Percentages in the parenthesis are the percentages of respondents who indicated support for the conclusion.)

a. CM for all FA MOS in the units are available (88%).

b. The CM is a help in planning training (85%).

c. It is easy to cross-reference the CM with the Soldier's Manual (92%).

- d. The training method listed in the CM as unit or institutional is correct (81% and 77%).
- e. The introduction to the CM clearly explains its purpose (96%).
- f. The instructions on the use of the CM are complete (100%).
- g. Tasks in the CM are clearly stated (96%).
- h. All tasks in the CM are critical and all critical tasks are listed (88% and 85%).
- i. The skill level assigned to each task in the CM is correct (84%).
- j. The references listed for each task in the CM are complete and correct (80% and 76%).

APPENDIX D  
 MOS 17B (FA Radar Crewman)  
 COMMANDER'S MANUAL (Apr 1977)

1. INTRODUCTION. This appendix contains the detailed findings, analysis, and conclusions for the MOS 17B Commander's Manual (CM). Information in this appendix has been used in the derivation of the conclusions and recommendations of the CM main report.

2. METHODOLOGY. Data for the MOS 17B CM evaluation were collected using questionnaires sent to battery commanders. In the 8 field artillery target acquisition batteries which were surveyed, 8 officers completed the questionnaires and returned them to the Directorate of Evaluation, USAFAS. Of the 8 respondents, 2 (25%) indicated they did not have a copy of the 17B CM or were not familiar with the 17B CM. These 2 respondents have not been used in the evaluation of the 17B CM.

3. EVALUATION PROCESS. The discussion, analysis, and findings are addressed by objective.

a. Objective 1. To determine if the Commander's Manual is useful in planning the unit training program.

(1) Discussion. In order to identify if the CM is useful in planning the unit training program, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 1 are contained in Table D-1 and are analyzed following the table.

Table D-1. Is the Commander's Manual useful for planning training?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The Commander's Manual helps me to plan my unit training program.                              | 100% | 0% | 0%          |
| 2. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct. | 100  | 0  | 0           |
| 3. The training method selected for all tasks listed under "UNIT" training is correct.            | 100  | 0  | 0           |

| QUESTIONNAIRE ITEMS   | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.  | 100% | 0% | 0%          |
| 5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit. | 83   | 17 | 0           |

(a) All (100%) of the respondents indicated that the Commander's Manual was a help in planning unit training, that it is easy to cross-reference the CM with the Soldier's Manual, and that the training method for tasks as institutional and unit is correct.

(b) A significant majority (83%) of the respondents have a copy of the CM for all Field Artillery MOS in their unit.

(c) Comments.

1. The section chief plans individual training. I plan collective training using the ARTEP.

2. The ARTEP is our primary training reference.

b. Objective 2. To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(1) Discussion. In order to identify if the introduction to the CM explains the use of the CM, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 2 are contained in Table D-2 and are analyzed following the table.

TABLE D-2. Is the introduction to the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The INTRODUCTION clearly explains the purpose of the Commander's Manual.     | 100% | 0% | 0%          |
| 2. The instructions in the INTRODUCTION of the Commander's Manual are complete. | 100. | 0  | 0           |

(a) All (100%) of the respondents indicated that the introduction to the CM clearly explains its purpose and that the instructions are complete.

(b) Comments. No comments were received on this area.

c. Objective 3. To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(1) Discussion. In order to identify if the tasks in the CM are clearly stated, critical, and assigned to the proper skill level, selected questions were asked of the respondents. The respondents were also asked to list those tasks which are not clearly stated, critical or assigned to the proper skill level.

(2) Findings. The findings pertaining to objective 3 are contained in Table D-3 and are analyzed following the table.

TABLE D-3. Are the tasks in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The tasks for each skill level are clearly stated.                                   | 100% | 0% | 0%          |
| 2. All tasks listed in the Commander's Manual are critical for the skill level and MOS. | 66   | 17 | 17          |
| 3. All critical tasks for the skill level and MOS are in the Commander's Manual.        | 66   | 17 | 17          |
| 4. The skill level assigned to each task is correct.                                    | 100  | 0  | 0           |

(a) All (100%) of the respondents stated that the tasks for each skill level are clearly stated.

(b) A significant percentage (66%) of the respondents indicated that all tasks listed in the CM are critical for the MOS and skill level and that all critical tasks for the skill level are listed.

(c) All (100%) of the respondents indicated that the skill level assigned to each task is correct.

(d) Comments.

1. Some critical tasks are not in the CM; i.e., using hasty survey, declinating M2 aiming circle, determination of direction using Polaris/Kochab.

2. Common tasks are not critical for the MOS.

d. Objective 4. To determine if the references for the Commander's Manual tasks are complete and correct.

(1) Discussion. In order to identify if the references listed for the tasks in the CM were complete and correct, selected questions were asked. The respondents were also asked to list the skill level and task number where the references were not complete or correct.

(2) Findings. The findings pertaining to objective 4 are contained in Table D-4 and are analyzed following the table.

TABLE D-4. Are the references in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM                                    | YES | NO  | DO NOT KNOW |
|---|-----|-----|-------------|
| 1. All necessary REFERENCES for the tasks are listed. | 83% | 17% | 0%          |
| 2. The list of REFERENCES for each task is correct.   | 83  | 17  | 0           |

(a) The large majority (83%) of the respondents indicated that the list of references for each task is complete and correct.

(b) Comments. No comments were received in this area.

4. CONCLUSIONS. (NOTE: Percentages in the parenthesis are the percentages of respondents who indicated support for the conclusion.)

- a. CM for all FA MOS in the units are available (83%).
- b. The CM is a help in planning training (100%).
- c. It is easy to cross-reference the CM with the Soldier's Manual (100%).
- d. The training method listed in the CM as unit or institutional is correct (100%).
- e. The introduction to the CM clearly explains its purpose (100%).

- f. The instructions on the use of the CM are complete (100%).
- g. Tasks in the CM are clearly stated (100%).
- h. All tasks in the CM are critical and all critical tasks are listed (66%).
- i. The skill level assigned to each task in the CM is correct (100%).
- j. The references listed for each task in the CM are complete and correct (83%).

APPENDIX E  
 MOS 17C (FA Target Acquisition Specialist)  
 COMMANDER'S MANUAL (Apr 1977)

1. INTRODUCTION. This appendix contains the detailed findings, analysis, and conclusions for the MOS 17C Commander's Manual (CM). Information in this appendix has been used in the derivation of the conclusions and recommendations of the main report.

2. METHODOLOGY. Data for the MOS 17C CM evaluation were collected using questionnaires sent to battery commanders. In the 9 field artillery target acquisition batteries which were surveyed, 9 officers completed the questionnaires and returned them to the Directorate of Evaluation, USAFAS. Of the 9 respondents, 2 (22%) indicated they did not have a copy of the 17C CM or were not familiar with the 17C CM. These 2 respondents have not been used in the evaluation of the 17C CM.

3. EVALUATION PROCESS. The discussion, analysis, and findings are addressed by objective.

a. Objective 1. To determine if the Commander's Manual is useful in planning the unit training program.

(1) Discussion. In order to identify if the CM is useful in planning the unit training program, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 1 are contained in Table E-1 and are analyzed following the table.

Table E-1. Is the Commander's Manual useful for planning training?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The Commander's Manual helps me to plan my unit training program.                              | 100% | 0% | 0%          |
| 2. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct. | 100  | 0  | 0           |
| 3. The training method selected for all tasks listed under "UNIT" training is correct.            | 100  | 0  | 0           |

| QUESTIONNAIRE ITEMS   | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.  | 100% | 0% | 0%          |
| 5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit. | 88   | 12 | 0           |

(a) All (100%) of the respondents indicated that the CM was a help in planning unit training. Also, it is easy to cross-reference the CM with the Soldier's Manual.

(b) All (100%) of the respondents indicated that the training method for tasks as institutional and unit is correct.

(c) A large majority (88%) of the respondents have a copy of the CM for all Field Artillery MOS in their unit.

(d) Comments.

1. The section chief plans individual training. I plan collective training using the ARTEP.

2. The ARTEP is our primary training reference.

b. Objective 2. To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(1) Discussion. In order to identify if the introduction to the CM explains the use of the CM, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 2 are contained in Table E-2 and are analyzed following the table.

TABLE E-2. Is the introduction to the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The INTRODUCTION clearly explains the purpose of the Commander's Manual.     | 100% | 0% | 0%          |
| 2. The instructions in the INTRODUCTION of the Commander's Manual are complete. | 100  | 0  | 0           |

(a) All (100%) of the respondents indicated that the introduction to the CM clearly explains its purpose and that the instructions are complete.

(b) Comments. No comments were received in this area.

c. Objective 3. To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(1) Discussion. In order to identify if the tasks in the CM are clearly stated, critical, and assigned to the proper skill level, selected questions were asked of the respondents. The respondents were also asked to list those tasks which are not clearly stated, critical or assigned to the proper skill level.

(2) Findings. The findings pertaining to objective 3 are contained in Table E-3 and are analyzed following the table.

TABLE E-3. Are the tasks in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The tasks for each skill level are clearly stated.                                   | 100% | 0% | 0%          |
| 2. All tasks listed in the Commander's Manual are critical for the skill level and MOS. | 76   | 12 | 12          |
| 3. All critical tasks for the skill level and MOS are in the Commander's Manual.        | 76   | 12 | 12          |
| 4. The skill level assigned to each task is correct.                                    | 88   | 0  | 12          |

(a) All (100%) of the respondents stated that the tasks for each skill level are clearly stated.

(b) A significant percentage (76%) of the respondents indicated that all tasks listed in the CM are critical for the MOS and skill level and that all critical tasks for the skill level are listed.

(c) The large majority (88%) of the respondents indicated that the skill level assigned to each task is correct.

(d) Comments.

1. The common tasks are not critical.
2. Hasty survey for flash observation posts (OP) should be covered.

d. Objective 4. To determine if the references for the Commander's Manual tasks are complete and correct.

(1) Discussion. In order to identify if the references listed for the tasks in the CM were complete and correct, selected questions were asked. The respondents were also asked to list the skill level and task number where the references were not complete or correct.

(2) Findings. The findings pertaining to objective 4 are contained in Table E-4 and are analyzed following the table.

TABLE E-4. Are the references in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM                                    | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. All necessary REFERENCES for the tasks are listed. | 88% | 0% | 12%         |
| 2. The list of REFERENCES for each task is correct.   | 88  | 0  | 12          |

(a) The large majority (88%) of the respondents indicated that the list of references for each task is complete and correct.

(b) Comments. TEC lessons are needed for tasks 3505, 3506 and 3508.

4. CONCLUSIONS. (NOTE: Percentages in the parenthesis are the percentages of respondents who indicated support for the conclusion.)

- a. CM for all FA MOS in the unit are available to a notable percentage of the Field Artillery officers (88%).
- b. The CM is a help in planning training (100%).
- c. It is easy to cross-reference the CM with the Soldier's Manual (100%).
- d. The training method listed in the CM as unit or institutional is correct (100%).
- e. The introduction to the CM clearly explains its purpose (100%).

- f. The instructions on the use of the CM are complete (100%).
- g. Tasks in the CM are clearly stated (100%).
- h. All tasks in the CM are critical and all critical tasks are listed (76%).
- i. The skill level assigned to each task in the CM is correct (88%).
- j. The references listed for each task in the CM are complete and correct (88%).

APPENDIX F  
MOS 82C (FA Surveyor) COMMANDER'S MANUAL (Apr 1977)

1. INTRODUCTION. This appendix contains the detailed findings, analysis and conclusions for the MOS 82C Commander's Manual (CM). Information in this appendix has been used in the derivation of the conclusions and recommendations of the CM main report.

2. METHODOLOGY. Data for the MOS 82C CM evaluation were collected using questionnaires sent to battery commanders, battalion commanders, and operation officers. In the 24 field artillery cannon battalions and 8 division artillery headquarters which were surveyed, 55 officers completed the questionnaires and returned them to the Directorate of Evaluation, USAFAS. Of the 55 respondents 12 (22%) indicated they did not have a copy of the 82C CM or were not familiar with the 82C CM. These 12 respondents have not been used in the evaluation of the 82C CM.

3. EVALUATION PROCESS. The discussion, analysis, and findings are addressed by objective.

a. Objective 1. To determine if the Commander's Manual is useful in planning the unit training program.

(1) Discussion. In order to identify if the CM is useful in planning the unit training program, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 1 are contained in Table F-1 and are analyzed following the table.

Table F-1. Is the Commander's Manual useful for planning training?

| QUESTIONNAIRE ITEM  | YES | NO  | DO NOT KNOW |
|---|-----|-----|-------------|
| 1. The Commander's Manual helps me to plan my unit training program.                              | 79% | 16% | 5%          |
| 2. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct. | 74  | 2   | 24          |
| 3. The training method selected for all tasks listed under "UNIT" training is correct.            | 77  | 7   | 16          |

| QUESTIONNAIRE ITEMS   | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.  | 96% | 2% | 2%          |
| 5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit. | 71  | 29 | 0           |

(a) A large majority (79%) of the respondents indicated that the CM was a help in planning unit training. Also, almost all (96%) stated that it is easy to cross-reference the CM with the Soldier's Manual.

(b) A significant percentage (77% and 74%) of the respondents indicated that the training method for tasks as institutional and unit is correct.

(c) A notable percentage (29%) of the respondents do not have a copy of the CM for all Field Artillery MOS in their unit.

(d) Comments.

1. The section chief plans individual training. I plan collective training using the ARTEP.

2. The ARTEP is our primary training reference.

3. The CM is a good tool for training management. It is easy to use and effective.

4. The CM is one of many references I use to plan training.

5. The CM is a handy reference but not for planning training.

b. Objective 2. To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(1) Discussion. In order to identify if the introduction to the CM explains the use of the CM, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 2 are contained in Table F-2 and are analyzed following the table.

TABLE F-2. Is the introduction to the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The INTRODUCTION clearly explains the purpose of the Commander's Manual.     | 100% | 0% | 0%          |
| 2. The instructions in the INTRODUCTION of the Commander's Manual are complete. | 98   | 2  | 0           |

(a) Almost all (100% and 98%) of the respondents indicated that the introduction to the CM clearly explains its purpose and that the instructions are complete.

(b) One comment was received that the introduction to the CM is adequate only if one is familiar with the Soldier's Manual.

c. Objective 3. To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(1) Discussion. In order to identify if the tasks in the CM are clearly stated, critical, and assigned to the proper skill level, selected questions were asked of the respondents. The respondents were also asked to list those tasks which are not clearly stated, critical or assigned to the proper skill level.

(2) Findings. The findings pertaining to objective 3 are contained in Table F-3 and are analyzed following the table.

TABLE F-3. Are the tasks in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. The tasks for each skill level are clearly stated.                                   | 98% | 2% | 0%          |
| 2. All tasks listed in the Commander's Manual are critical for the skill level and MOS. | 81  | 7  | 12          |
| 3. All critical tasks for the skill level and MOS are in the Commander's Manual.        | 77  | 7  | 16          |
| 4. The skill level assigned to each task is correct.                                    | 79  | 5  | 16          |

(a) Almost all (98%) of the respondents stated that the tasks for each skill level are clearly stated.

(b) A large majority (81% and 77%) of the respondents indicated that all tasks listed in the CM are critical for the MOS and skill level and that all critical tasks for the skill level are listed.

(c) The large majority (79%) of the respondents indicated that the skill level assigned to each task is correct.

(d) One comment was received that the common tasks are not critical for the MOS.

d. Objective 4. To determine if the references for the Commander's Manual tasks are complete and correct.

(1) Discussion. In order to identify if the references listed for the tasks in the CM were complete and correct, selected questions were asked. The respondents were also asked to list the skill level and task number where the references were not complete or correct.

(2) Findings. The findings pertaining to objective 4 are contained in Table F-4 and are analyzed following the table.

TABLE F-4. Are the references in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM                                    | YES | NO | DO NOT KNOW |
|---|-----|----|-------------|
| 1. All necessary REFERENCES for the tasks are listed. | 74% | 5% | 21%         |
| 2. The list of REFERENCES for each task is correct.   | 74  | 2  | 24          |

(a) A significant percentage (74%) of the respondents indicated that the list of references for each task is complete and correct.

(b) Comments. No comments were received in this area.

4. CONCLUSIONS. (NOTE: Percentages in the parenthesis are the percentages of respondents who indicated support for the conclusions.)

a. CM for all FA MOS in the units are not available (29%).

b. The CM is a help in planning training (79%).

c. It is easy to cross-reference the CM with the Soldier's Manual (96%).

- d. The training method listed in the CM as unit or institutional is correct (77% and 74%).
- e. The introduction to the CM clearly explains its purpose (100%).
- f. The instructions on the use of the CM are complete (98%).
- g. Tasks in the CM are clearly stated (98%).
- h. All tasks in the CM are critical and all critical tasks are listed (81% and 77%).
- i. The skill level assigned to each task in the CM is correct (79%).
- j. The references listed for each task in the CM are complete and correct (74%).

APPENDIX G  
MOS 93F (FA Meteorological Crewman)  
COMMANDER'S MANUAL (Apr 1977)

1. INTRODUCTION. This appendix contains the detailed findings, analysis, and conclusions for the MOS 93F Commander's Manual (CM). Information in this appendix has been used in the derivation of the conclusions and recommendations of the CM main report.

2. METHODOLOGY. Data for the MOS 93F CM evaluation were collected using questionnaires sent to battery commanders. In the 7 field artillery division artillery headquarters batteries

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| QUESTIONNAIRE ITEMS   | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 4. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.  | 100% | 0% | 0%          |
| 5. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialties (MOS) in my unit. | 80   | 20 | 0           |

(a) A large majority (80%) of the respondents indicated that the CM was a help in planning unit training. Also, all (100%) respondents stated that it is easy to cross-reference the CM with the Soldier's Manual.

(b) The large majority (100% and 80%) of the respondents indicated that the training method for tasks as institutional and unit is correct.

(c) A large percentage (80%) of the respondents have a copy of the CM for all Field Artillery MOS in their unit.

(d) One comment was received that the CM is especially helpful for planning training for skill levels 1 and 2.

b. Objective 2. To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(1) Discussion. In order to identify if the introduction to the CM explains the use of the CM, selected questions were asked of the respondents.

(2) Findings. The findings pertaining to objective 2 are contained in Table G-2 and are analyzed following the table.

TABLE G-2. Is the introduction to the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The INTRODUCTION clearly explains the purpose of the Commander's Manual.     | 100% | 0% | 0%          |
| 2. The instructions in the INTRODUCTION of the Commander's Manual are complete. | 100  | 0  | 0           |

(a) All (100%) of the respondents indicated that the introduction to the CM clearly explains its purpose and that the instructions are complete.

(b) Comments. No comments were received in this area.

c. Objective 3. To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(1) Discussion. In order to identify if the tasks in the CM are clearly stated, critical, and assigned to the proper skill level, selected questions were asked of the respondents. The respondents were also asked to list those tasks which are not clearly stated, critical or assigned to the proper skill level.

(2) Findings. The findings pertaining to objective 3 are contained in Table G-3 and are analyzed following the table.

TABLE G-3. Are the tasks in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM  | YES  | NO | DO NOT KNOW |
|---|------|----|-------------|
| 1. The tasks for each skill level are clearly stated.                                   | 100% | 0% | 0%          |
| 2. All tasks listed in the Commander's Manual are critical for the skill level and MOS. | 60   | 20 | 20          |
| 3. All critical tasks for the skill level and MOS are in the Commander's Manual.        | 80   | 0  | 20          |
| 4. The skill level assigned to each task is correct.                                    | 60   | 40 | 0           |

(a) All (100%) of the respondents stated that the tasks for each skill level are clearly stated.

(b) A significant percentage (60% and 80%) of the respondents indicated that all tasks listed in the CM are critical for the MOS and skill level and that all critical tasks for the skill level are listed.

(c) A notable percentage (40%) of the respondents indicated that the skill level assigned to each task is not correct.

(d) One comment was received that skill level 2 task numbers 4256 and 4266 should be skill level 3.

d. Objective 4. To determine if the references for the Commander's Manual tasks are complete and correct.

(1) Discussion. In order to identify if the references listed for the tasks in the CM were complete and correct, selected questions were asked. The respondents were also asked to list the skill level and task number where the references were not complete or correct.

(2) Findings. The findings pertaining to objective 4 are contained in Table G-4 and are analyzed following the table.

TABLE G-4. Are the references in the Commander's Manual adequate?

| QUESTIONNAIRE ITEM                                    | YES | NO  | DO NOT KNOW |
|---|-----|-----|-------------|
| 1. All necessary REFERENCES for the tasks are listed. | 80% | 20% | 0%          |
| 2. The list of REFERENCES for each task is correct.   | 100 | 0   | 0           |

(a) The large majority (80% and 100%) of the respondents indicated that the list of references for each task is complete and correct.

(b) Comments. No comments were received in this area.

4. CONCLUSIONS. (NOTE: Percentages in the parenthesis are the percentages of respondents who indicated support for the conclusion.)

- a. CM for all FA MOS in the units are available (80%).
- b. The CM is a help in planning training (80%).
- c. It is easy to cross-reference the CM with the Soldier's Manual (100%).
- d. The training method listed in the CM as unit or institutional is correct (80% and 100%).
- e. The introduction to the CM clearly explains its purpose (100%).
- f. The instructions on the use of the CM are complete (100%).
- g. Tasks in the CM are clearly stated (100%).
- h. All tasks in the CM are critical and all critical tasks are listed (60% and 80%).
- i. The skill level assigned to each task in the CM is not correct (40%).
- j. The references listed for each task in the CM are complete and correct (80% and 100%).

## APPENDIX H

### Study Plan for Evaluation of Commander's Manuals

1. PURPOSE. To determine if the Commander's Manuals (CM) are useful in planning unit training, if the tasks in the CM are clearly stated, critical and assigned to the proper skill level, and if the introduction and references are adequate.
2. PROBLEM. The CM are new products designed to assist in preparing unit training programs. Feedback from the Field Artillery about the manuals has been minimal. The Field Artillery School does not know how helpful CM are in planning unit training or if they are well-constructed.
3. OBJECTIVE.
  - a. To determine if the Commander's Manuals are useful in planning the unit training program.
  - b. To determine if the introduction to the Commander's Manuals adequately explains the use of the Commander's Manuals.
  - c. To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.
  - d. To determine if the references for the Commander's Manual tasks are complete and correct.
4. SCOPE. The evaluation will consist of evaluating CM published in 1977 for all cannon and target acquisition MOS in Career Management Field (CMF) 13.
5. ASSUMPTION.
  - a. Training managers are sufficiently familiar with the CM to give valid responses to the questionnaires.
  - b. Collection instruments developed and validated will be valid for all series of the Field Artillery CM.
6. APPLICABILITY. Methodology and collection instruments must be valid for all Field Artillery CM.
7. RESOURCE REQUIREMENTS.
  - a. DOE requirements.

- (1) Preparation and execution of the evaluation plan.
  - (2) Coordination with the Directorate of Training Developments (DTD).
  - (3) Collection of data.
  - (4) Analysis of data.
  - (5) Preparation of report of findings.
- b. Office of Secretary (Data Systems Office) requirements.
- (1) Assistance with developing computer program.
  - (2) Reduction and processing of data.

8. REFERENCES.

- a. TRADOC Pamphlet 350-30, Instructional System Development.
- b. All CMF 13 Commander's Manuals (FM 6-MOS/CM).
- c. TRADOC Circular 351-3, Individual Training Plan.
- d. TRADOC Circular 351-6, Readability of Training Materials (Draft).

## APPENDIX I

### Evaluation Plan for Evaluation of Commander's Manuals

1. PURPOSE. The purpose of this evaluation plan is to describe, in detail, the essential elements of analysis for the evaluation of the Commander's Manuals (CM) and the methodology to be used in evaluating, collecting, and analyzing the information.

2. REFERENCES. Study Plan for Evaluation of Commander's Manuals.

3. TERMS OF REFERENCE.

a. Problem. The CM as written by USAFAS and published by Department of the Army, are intended to guide the training managers and trainers to those critical tasks that their soldiers must be able to perform in order to be effective in combat and to be proficient in their Military Occupational Specialty (MOS) and skill level. The CM will also guide the trainers and training managers to the necessary references that must be available in order for the soldiers to effectively train. The CM have been issued to the field; however, no in-depth study has been made to ascertain the utility of the CM to the personnel in the field.

b. Impact of the problem. If we are to train our soldiers the way they will fight, it is essential that CM identify those critical training tasks that are necessary for the unit to effectively accomplish the training. If there are some tasks outlined in the CM that are not critical for the individual, then training time and effort will be wasted. Conversely, there may be tasks not presently included in the CM that may have a great impact on the way the unit will train and fight. Additionally, it is not known, if the users fully understand how to use the CM. The findings of the evaluation will provide data on which to make recommended changes to improve the next iteration of the CM.

c. Essential Elements of Analysis (EEA) listed by objective.

(1) To determine if the Commander's Manual is useful in planing the unit training program.

(a) Do training managers have a copy of the CM for the Field Artillery MOS in their unit?

(b) Does the CM help in planning individual training in the unit?

(c) Are the training sites listed in the CM appropriate?

(d) Can the Soldier's Manual and CM be cross-referenced easily?

(2) To determine if the introduction to the Commander's Manual adequately explains the use of the Commander's Manual.

(a) Does the introduction clearly explain the purpose of the CM?

(b) Are the instructions in the introduction of the CM complete?

(3) To determine if the Commander's Manual tasks are clearly stated, critical, and assigned to the proper skill level.

(a) Are all tasks in the CM clearly stated?

(b) Are all tasks in the CM critical for the MOS and skill level.

(c) Are there any critical tasks which should be added to the CM?

(d) Are all tasks assigned to the proper skill level?

(4) To determine if the references for the Commander's Manual tasks are complete and correct.

(a) Are there any necessary references for the tasks not listed in the CM?

(b) Are there any references, listed for tasks in the CM, which are not correct?

d. Scope. The evaluation of the CM will involve determining the completeness and accuracy of the Manual and if training managers understand how to use the manual.

e. Limits. The evaluation will be limited to the CM published in 1977 for CMF 13 Cannon and Target Acquisition MOS.

f. Methodology. This section will discuss the procedure used to validate collection instruments and to collect and analyze the data.

(1) The validation process will consist of administering data collection questionnaires to selected personnel in the Field Artillery School. After they complete the questionnaires, interviews of the participants will be conducted to determine if modifications are required.

(2) Upon completion of the validation process, the questionnaires will be mailed or handcarried and administered to randomly selected Field Artillery Cannon and Target Acquisition units Army-wide by personnel from the Directorate of Evaluation (DOE).

(3) Analysis will consist of identifying formats that make the CM difficult to use; introductions that are incomplete or difficult to understand; tasks that are difficult to understand; tasks that are not appropriate for the MOS or skill level; training sites incorrectly listed which may prohibit effective use of the CM; and references that are not appropriate for the task.

4. RESOURCE REQUIREMENTS. DOE Manpower Requirements analysis.

- a. Securing Data                      6 Man-months
- b. Analysis                              2 Man-months
- c. Report of preparation              1 Man-month

5. ADMINISTRATION.

| <u>Event</u>                 | <u>Date</u>  |
|------------------------------|--------------|
| Study Plan                   | Apr 79       |
| Evaluation Plan              | Apr 79       |
| Analysis Program Development | Apr 79       |
| Secure Data                  | Oct 79       |
| Analysis of Data             | Mar - Apr 80 |
| Report                       | May 80       |

6. CORRELATION. ACN 38575, Skill Qualification Test/Soldier's Manual evaluation.

APPENDIX J  
 QUESTIONNAIRE FOR  
 EVALUATION OF COMMANDER'S MANUALS  
 (Career Management Field 13)

The Field Artillery School is conducting an evaluation of the Commander's Manuals to see if the manuals need to be improved. We are trying to determine if the instructions, task lists, references and training responsibilities/locations in the Commander's Manuals are appropriate for each MOS and skill level and if the arrangement, clarity, and usefulness of the Commander's Manuals need to be improved.

The questionnaire gives you the opportunity to provide valuable information for the evaluation. Your experience with and assessment of the Commander's Manual is invaluable to the Field Artillery community. When filling out the form, clarify all "no" responses in the "COMMENTS" section. List the MOS and task number, if appropriate, and briefly explain the problem.

(Complete the following information by placing an "X" in the appropriate block, then go to page 2 for additional instructions.)

1. MY UNIT IS LOCATED IN:

|                          |       |         |        |        |       |
|--------------------------|-------|---------|--------|--------|-------|
| (CONUS)<br>UNITED STATES | KOREA | GERMANY | ALASKA | HAWAII | OTHER |
|                          |       |         |        |        |       |

2. MY WEAPON TYPE IS:  
 (If appropriate)

|          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|
| M<br>101 | M<br>102 | M<br>114 | M<br>107 | M<br>109 | M<br>110 |
|----------|----------|----------|----------|----------|----------|

3. MY RANK IS:

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| ZLT | 1LT | CPT | MAJ | LTC |
|-----|-----|-----|-----|-----|

4. MY DUTY POSITION IS:

|     |    |    |            |    |          |           |
|-----|----|----|------------|----|----------|-----------|
| AXO | XO | BC | ASST<br>S3 | S3 | BN<br>XO | BN<br>CDR |
|-----|----|----|------------|----|----------|-----------|

5. I HAVE A COPY, OR AM FAMILIAR WITH THE  
 COMMANDER'S MANUAL FOR THIS MILITARY  
 OCCUPATIONAL SPECIALTIES (MOS).

|     |    |
|-----|----|
| YES | NO |
|-----|----|

NOTE: If you answered "NO" to question  
 five DO NOT complete the rest of  
 Questionnaire.

(COMPUTER USE ONLY)

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

INSTRUCTIONS: Answer the following questions as they apply to this Commander's Manual. Clarify all "no" responses by listing the SKILL LEVEL and TASK NUMBER, as appropriate, and explaining the problem in the "COMMENTS" section.

|     |    |                |
|-----|----|----------------|
| YES | NO | DO NOT<br>KNOW |
|-----|----|----------------|

6. The Commander's Manual helps me to plan my unit training program.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

7. The INTRODUCTION clearly explains the purpose of the Commander's Manuals.

COMMENTS:

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

8. The instructions in the INTRODUCTION of the Commander's Manuals are complete.

COMMENTS:

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

9. The TASKS for each skill level are clearly stated.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

10. All tasks listed in the Commander's Manuals are critical for the skill levels and MOS.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

(COMPUTER USE ONLY)

|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
|---|---|---|

|     |    |             |
|-----|----|-------------|
| YES | NO | DO NOT KNOW |
|-----|----|-------------|

11. All critical TASKS for the skill level and MOS are in the Commander's Manuals.

COMMENTS:

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

12. The skill level assigned to each task is correct.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

13. The training courses selected for all tasks listed under "INSTITUTIONAL" training are correct.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

14. The training method selected for all tasks listed under "UNIT" training are correct.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

15. The list of REFERENCES for each task is correct.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

16. All necessary REFERENCES for the task are listed.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

(COMPUTER USE ONLY)

|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
|---|---|---|

|     |    |                |
|-----|----|----------------|
| YES | NO | DO NOT<br>KNOW |
|-----|----|----------------|

17. It is easy to cross-reference the Commander's Manual with the Soldier's Manual.

COMMENTS: SKILL LEVEL \_\_\_\_\_ TASK NR \_\_\_\_\_

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

18. I have a copy of the Commander's Manual for all assigned Field Artillery Military Occupational Specialities (MOS) in my unit.

COMMENTS:

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

List any suggestions for improving the Commander's Manuals and any additional comments in the space provided below.

(COMPUTER USE ONLY)

|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
|---|---|---|

APPENDIX K

DISTRIBUTION

Commander  
US Army Training and Doctrine Command  
ATTN: ATTNG-EV  
Fort Monroe, VA 23651

Commandant  
US Army Air Defense School  
ATTN: Director of Evaluation  
Fort Bliss, TX 79916

Commandant  
US Army Armor School  
ATTN: Director of Evaluation  
Fort Knox, KY 40121

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US Army Aviation School and Fort Rucker  
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Fort Rucker, AL 36362

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Fort Benning, GA 31905

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Center  
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Commander  
USA Field Artillery Training Center  
Fort Sill, OK 73503

President  
US Army Field Artillery Board  
Fort Sill, OK 73503

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Alexandria, VA 22333

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Fort Sill Field Unit  
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