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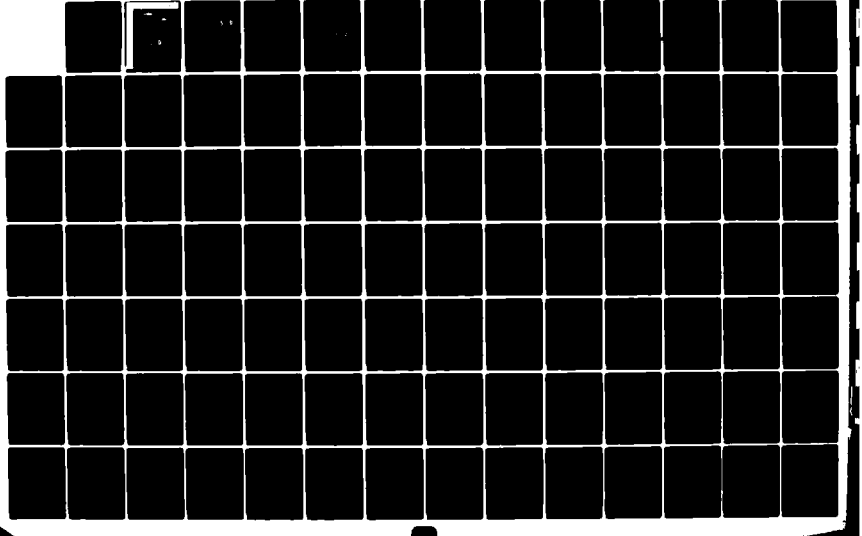

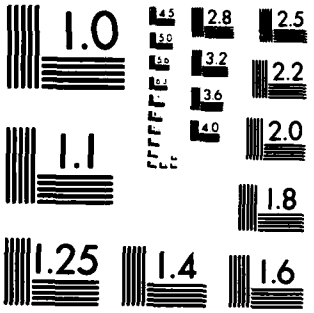

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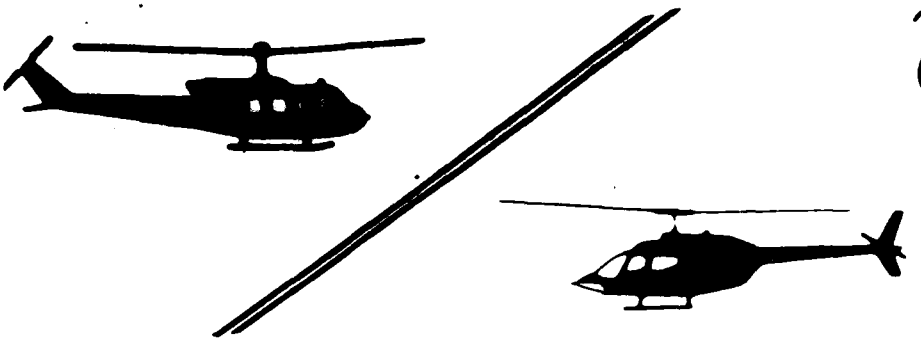

AIR TRAFFIC CONTROL RADAR CONTROLLER COURSE (93J10) OPERATIONAL EFFECTIVENESS EVALUATION

DIRECTORATE OF EVALUATION AND STANDARDIZATION

FORT RUCKER, ALABAMA

DES 81-12

NOVEMBER 1981

AIR TRAFFIC CONTROL RADAR CONTROLLER COURSE (93J10) OPERATIONAL EFFECTIVENESS EVALUATION

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DES-81-12

Directorate of Evaluation and Standardization
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Fort Rucker, Alabama 36362

November 1981

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The Army's Air Traffic Control (ATC) Radar Controller Course (MOS: 93J10) was evaluated to determine the training program's effectiveness in terms of graduate on-the-job performance: A two phase methodology was used.

In phase one, questionnaires were mailed to a six month sample of graduates and their unit commanders. Task specific ratings of training adequacy were obtained. Analysis of these data yielded fourteen tasks that were suspected of having training problems.

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The second phase subjected the fourteen tasks to indepth analysis. Field interviews regarding the tasks were conducted with recent graduates and their immediate supervisors. Findings from this phase confirmed problems in nine task areas.

Undertraining was identified as a problem in assembly and disassembly of the tactical landing control central, and the tactical interrogator set. Electric shock first aid and NBC decontamination were also found to be undertrained. Two NBC tasks dealing with chemical environment mask-to-mouth resusitation were cited due to nonperformance in the field. Limited performance of special VFR clearance, beacon code, and manual approach control tasks challenged the practicality of resident school instruction in these areas.

EXECUTIVE SUMMARY

1. The Directorate of Evaluation and Standardization, United States Army Aviation Center conducted an evaluation of the Air Traffic Control (ATC) Radar Controller Course (MOS 93J10). The goal of the evaluation was to determine if the course was meeting the needs of operational ATC units in the field. A two phase methodology was used.

2. Phase one was a mailed questionnaire effort. Graduates in the field and their commanders rated the adequacy of the school's training based upon the graduates' on-the-job performance. Suspected problem tasks were identified during this phase.

3. The second phase obtained detailed information regarding the suspect tasks through interviews conducted in ATC field units. Analysis of the interview data found nine tasks out of the original eighty-two evaluated to display consistent evidence of training related problems.

4. Five tasks were selected due to high levels of non-performance in the field:

   a. Deliver special VFR clearances.

   b. Assign beacon codes.

   c. Manual approach control.

   d. Mask-to-mouth resusitation to a chemical agent casualty.

   e. Satisfy personal needs in a chemical environment.

5. Four tasks were cited due to undertraining:

   a. Decontaminate self and individual equipment.

   b. First aid to an electric shock casualty.

   c. Operate Landing Control Central (AN/TSQ-71A).

   d. Operate Interrogator Set (AN/TPX-44).

TABLE OF CONTENTS

1. INTRODUCTION:

a. Background: The Army has been conducting the Air Traffic Control (ATC) Radar Controller Course at Fort Rucker, Alabama since January of 1970. The training program is designed to provide enlisted personnel with a general knowledge of Visual Flight Rule (VFR) and Instrument Flight Rule (IFR) air traffic control procedures in order to obtain a Federal Aviation Administration (FAA) Certificate of Grades. It is also designed to give the student a working knowledge of procedures and duty positions used in providing terminal radar services.[1] The entire program of instruction is built upon a fifteen week and two day time frame, yet provides a certain amount of flexibility with a student self-paced format. Training is intended to accommodate the 93J10 Military Occupational Specialty (MOS).

b. Evaluation Objective:

(1) The objective of this evaluation was to examine the current operational effectiveness of the Army's ATC Radar Controller course. Operational effectiveness of the course was to be determined by two factors:

(a) The extent to which recent course graduates are able to perform their newly learned skills in the field.

(b) The extent to which the course, as it was originally developed, continues to represent the job in the field.

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[1] Program of Instruction for 222-93J10 Air Traffic Control Radar Controller Course, MOS: 93J10, United States Army Aviation Center, Ft Rucker, AL, October 1980.

(2) Specific solutions were not a function of the evaluation. Conclusions from the study were expected to be used conjointly by training, training development and internal evaluation functions of the USAAVNC to identify program changes that could correct problems that might be uncovered by the evaluation.

c. Approach: The evaluation was conducted in two phases. Phase one, the questionnaire phase, identified possible training problems. The second, or interview, phase subjected the first phase results to in-depth assessment and verification.

(1) The function of the questionnaire phase was to reduce the large array of radar control course tasks to a smaller more manageable subset of tasks representing possible training problems. Ratings concerning adequacy of training were collected from course graduates and their unit commanders. Two quarters of questionnaire responses were independently tabulated. Tasks with ratings that were consistently unacceptable across the two quarters were labeled as <u>suspect tasks.</u>

(2) The function of the interview phase was to subject each suspect task to detailed analysis. Recent graduates were interviewed at their assigned field units. Each suspect task was addressed in detail in terms of training adequacy and job relevance. The data from this phase were used to determine the validity of the problems defined by the questionnaire effort.

2. PHASE I - FIELD QUESTIONNAIRES:

a. Purpose.

(1) To identify areas of Air Traffic Control Radar Controller training (hereafter referred to as 93J training) perceived as being incompatible with job requirements of ATC field units.

(2) To initiate a systematic process whereby such perceived problem areas could subsequently be evaluated at the highest level of objectivity that circumstances would allow.

b. Background. The 93J questionnaire program was conceived in October 1979. The goal of the program was to use survey techniques to identify possible problem areas related to institutional training. Questionnaires were designed to obtain task specific ratings of training adequacy from 93J graduates after their assignment to a permanent unit and from the unit supervisors of these personnel. Guidance for the basic methodology and for the construction of the questionnaires was obtained from Army Regulation 600-46 entitled "Attitude and Opinion Surveys" and Department of the Army Pamphlet 325-5 entitled "Federal Statistical Standards." The procedures and survey instruments used in this effort were approved by the Occupational Survey Control Branch, MILPERCEN, HQ, DA, on 12 September 1979 and survey control number DAPC-MSP-S-79-36 was assigned.

c. Procedure.

(1) Subjects.

(a) Graduates. Fifty percent of the graduates of classes 79-21 through 80-2 were randomly sampled during the two quarters of the survey effort. National Guard and Reserve personnel were excluded from the sampling because the program's intent was to obtain data based upon full-time field unit experience. Graduates reassigned from the training environment to Air Traffic Control positions at Fort Rucker were excluded for the same reason. Questionnaires were mailed to forty-one graduates. Twenty-two were completed and returned.

(b) Commanders. A commander's questionnaire was forwarded to each unit that had received graduates from classes 79-21 through 80-2. Twenty-five units were surveyed. Out of these units, fourteen commanders completed and returned questionnaires.

(2) Survey Instruments.

(a) Graduate Questionnaires.

1 The graduate questionnaires were divided into three sections. Section one sought data relating to each respondent's background and experience. Section two was comprised of a list of 82 tasks provided by the Directorate of Training Developments at Fort Rucker. The list represented the tasks addressed by the 93J program of instruction and served as the primary focus for this phase of the evaluation. Training and performance data specific to each task was requested in this section. The third section sought general comments and information regarding additional tasks that the respondents felt should be addressed by Aviation Center instruction.

2 The graduate questionnaire effort was divided into two quarterly (two-three month) segments. Suspected problems or problem areas identified from the first quarter's graduate data were subject to verification using the second quarter's graduate data and the ratings from unit commanders. This procedure was adopted to place emphasis on the consistency of ratings across time and samples. The interest in consistency was aimed at reducing the probability that problems would be identified that might in reality be based on sample specific data or on artifacts independent of the quality of training.

3 A split panel technique was used to help control for the effects of item order on the ratings. Thus, there were two versions of the questionnaire developed and referred to as Version A and Version B. Both versions contained the same items, but had different arrangements of the tasks listed in section two. The task list was, for the sake of describing the different arrangements divided into four equal segments. If the segments in Version A could be described as being in the numerical sequence 1, 2, 3, and 4 then the arrangement of Version B would appear as 2, 1, 4, and 3. Version A was used to obtain the first quarter's data and Version B was used during the second quarter.

4 The response scale developed for section two of the graduate questionnaires encouraged training adequacy ratings to be based upon the job requirements encountered by the graduates. If a graduate responded that he or she was overtrained, adequately trained, or undertrained it was intended that the response be relevant to the unit's needs rather than reflect a quality judgement of the instruction alone.

If a graduate had not yet performed a task, an appropriate response choice was provided so the answer would not be based upon factors unrelated to job requirements in the units. Given the short time span from their graduations, such responses were expected. It was intended, however, that any task with a large proportion of such ratings would be subject to follow-on investigation much the same as for ratings of undertraining. A copy of the graduate questionnaire (version A) is included in Appendix A.

(b) Commander's Questionnaire.

1 The commander's questionnaire was developed to support the process for identifying suspected problem areas. The data obtained from the commanders were intended to support the suspect task identification process.

2 The questionnaire was divided into two sections. The first section addressed the tasks taught at the school. Unlike the graduate version of the questionnaire, the commander's version did not include the common soldier tasks, i.e., those relating to first aid and nuclear, biological, and chemical warfare. These tasks were excluded to keep the questionnaire as short as possible and still maintain its integrity in terms of MOS specific tasks. In light of the commanders' workload, it was felt that this shorter version of the questionnaire would encourage a higher return rate with more conscientious responses. The second section provided the commanders with an opportunity to make general comments and touch on areas not addressed by the questionnaire.

3 The response scale used in the first section of the commander's questionnaire was designed to obtain ratings relating to training adequacy in terms of how well prepared the graduate was to perform each task. As with the scale in the graduate questionnaire, the ratings were to be based upon actual performance in the unit. If the task was not a unit mission, a response choice to that effect was provided. For situations where a commander had not observed performance of the task, a response was provided for this option as well. A copy of the Commander's Questionnaire is included in Appendix B.

(3) Method

(a) Questionnaires were mailed to the graduates five months after they had completed the 93J program of instruction at Fort Rucker. The time frame was considered crucial for the effort. A survey too soon after the graduates had arrived in their units would likely present a situation where they would not have much work experience and would provide only minimal data. Waiting too long could present a graduate with so many job related experiences that aviation training program specifics could be but a faint memory. Experience with previous evaluation efforts helped establish the time frame that was used.

(b) The first quarter's graduate questionnaire mailing began 30 November 1979 with class 79-21. Version A of the questionnaire was used. Final mailing for the first quarter was on 11 March 1980 to class 79-36. The second quarter's mailing of the graduate questionnaires began 19 March 1980. Version B was used during this quarter.

Classes 79-37 through 80-2 were surveyed. All graduate questionnaires were mailed through the graduates' commanders with a twenty-one day suspense. If a graduate failed to respond in 30 days, a follow-up questionnaire was mailed directly to the graduate with a 14 day suspense.

(c) At the completion of the second quarter's mailings to the graduates, a list of all unit addresses was compiled for 93J students who graduated from classes 79-21 through 80-2. On June 30, 1980 a commander's questionnaire was mailed to each of the units on the list. The commanders were requested to complete and return the questionnaires within 21 days. If after 30 days a commander had not responded, a second questionnaire was mailed with a 14 day suspense. Fourteen surveys were returned and analysis of these data began in September of 1980.

d. Analysis and Findings - Quarter One.

(1) Responses to sections I and II of the questionnaire were translated from the returned answer sheets to IBM cards by optical scanning device. These data were tabulated through the use of the cross-tabulation program of the Statistical Package for the Social Sciences (SPSS).[2] The SPSS cross-tabulation provided a frequency breakdown of the ratings per category (i.e., not trained, undertrained, adequately trained, overtrained and not performed) for each questionnaire item.

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[2] Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, K., & Brent, D.H., Statistical Package for the Social Sciences, McGraw-Hill, 1975.

(2) Two general points of consideration were established in the first quarter's methodology for selecting a questionnaire item that might represent a problem area. The first point was the extent to which a task was rated outside an acceptable range (defined below). The second consideration was the relative level of importance of the task.

(a) To accommodate the first point, two reviewers analyzed the tabulated responses for the questionnaire items. Initially, the data were studied independently. Primary considerations for identifying items outside an acceptable range were:

1 Tasks showing high proportions of combined undertrained and not trained ratings.

2 Tasks showing high proportions of overtrained ratings.

3 A high proportion of ratings indicating graduates not having performed a task at their units.

(b) Following independent screenings of the rating tabulations, the reviewers compared their lists of tasks with unacceptable ratings. Tasks appearing in both lists were automatically accepted for additional consideration. Differences in the lists (i.e., tasks not on both lists) were discussed and mutually resolved. Tasks surviving this process were added to the list of tasks already accepted for consideration.

(c) In order to determine the relative level of importance of the selected tasks, two Sergeants-First-Class Air Traffic Control Radar Controllers were consulted. Both were instructors assigned to the Army Aviation Center. These individuals were asked to comment on the relative importance of the tasks selected by the reviewers, the manner

in which the training for each task was accomplished, the level of proficiency expected on the task by the field and the reasons why a task might have been rated as it was. Information gleaned from this discussion was used to further refine the task list, thus providing the first quarter's collection of suspect tasks.

e. Analysis and Findings - Quarter Two.

(1) The processing and analysis of second quarter graduate data was basically the same as it was for the second quarter. Answer sheets were optically scanned and data was recorded on IBM cards. The responses for each task were summarized in tables using the cross-tabulation function of SPSS. As before, the focus was on the extent to which a task received ratings other than "adequately trained." Task ratings were analyzed by two reviewers who used the same criteria and procedures for compiling suspect tasks as were used in the previous quarter. Relative importance of the tasks selected, however, was not deemed to be an essential consideration at this point in the analysis.

(2) In addition to identifying tasks rated outside a range of acceptability, the second quarter effort was aimed at cross checking the first quarter's suspect tasks for consistency across the two samples. The interest at this point was to determine if the suspect areas held up over time and from version A to version B of the questionnaire. To assure a high level of objectivity, the second quarter rating tabulations were programmed to identify each task only by version B questionnaire item number. Since task order differed from version A to version B, there was no direct means of cross referencing the previous quarter analysis.

(3) The list of suspect tasks derived from the second quarter analysis were compared to the list compiled from the first quarter's data. The tasks that appeared in both the first quarter's and the second quarter's list were deemed to be validly perceived as problem areas by 93J graduates. Tasks not appearing on both lists were categorized as sample specific phenomena unrepresentative of the graduate population and were removed from consideration.

(4) The second quarter analysis of the 93J graduate questionnaire responses verified thirty-one of the suspect tasks identified by the first quarter analysis. The tasks are listed below and are organized according to the basis for each task's selection. First and second quarter cross tabulations for these tasks are summarized in Appendix C.

(a) Tasks indicating undertraining at USAAVNC:

1 Identify aircraft approach and departure categories, IFR aircraft.

2 Identify aircraft approach and departure categories, VFR aircraft.

3 Report items requiring NOTAMS.

4 Decode/relay NOTAMS.

5 Deliver special VFR clearances.

6 Authorize special VFR.

7 Identify operator controls, indicators, and accessories (AN/TSQ-71A).

8 Perform starting procedures (AN/TSQ-71A).

9 Perform turn-on procedures for radar, IFF, and communications equipment.

10 Identify components of AN/TPX-44.

11 Perform starting procedures on AN/TPX-44.

12 Utilize operational features of AN/TPX-44.

13 Apply mask-to-mouth resuscitation to a chemical agent casualty.

14 Give back pressure armlift artifical resuscitation to a chemical agent casualty.

15 Give first aid to electric shock casualty.

(b) Tasks indicating non-performance in the field:

1 Assign beacon codes.

2 Provide vertical separation, IFR non-radar.

3 Provide longitudinal separation, IFR non-radar.

4 Provide lateral separation, IFR non-radar.

5 Issue holding instructions, IFR non-radar.

6 Formulate/receive IFR clearances, non-radar.

7 Issue IFR departure clearances, non-radar.

8 Issue abbreviated departure clearance, non-radar.

9 Issue separation between IFR departures/arrivals, non-radar.

(c) Tasks indicating both undertraining and overtraining at USAAVNC. (Such ratings suggested instructional inconsistency across students.)

1 Put on and wear a protective mask.

2 Perform operator's maintenance on protective mask.

3 Decontaminate self.

4 Decontaminate individual equipment.

5 Satisfy personal needs in a chemical environment.

6 Put on and wear protective clothing.

7 Determine a location on the ground by terrain association.

f. Commander's Questionnaire Data Analysis.

(1) The responses obtained from the fourteen commanders were organized into cross-tabulation tables and reviewed based upon two criteria.

(a) High proportions of task ratings in the "not unit mission" category.

(b) High proportions of task ratings in the "not prepared" category.

(2) The list of tasks gleaned from the commanders' data was compared to the final graduate suspect task list. The commanders' list included a more liberal sampling of tasks than did the graduates' list. There was, however, no disagreement in regard to the suspect tasks. All tasks appearing in the graduate suspect task list were found in the Commanders' list. Commanders' ratings for the suspect tasks are summarized in Appendix D.

3. PHASE II - FIELD FOLLOW-ON.

a. Purpose. To subject suspected training problems to detailed evaluation and verification.

b. Background.

(1) According to the guidance provided by the Instructional Systems Development (ISD) model,[3] the conclusions of an external evaluation should, in the ideal sense, be based upon direct measures of actual job performance. Initially, the large number of tasks addressed by the 93J program of instruction rendered this course of action impracticable. The questionnaire approach was designed to glean from the large number of tasks a smaller, more manageable subset of suspected problem areas so that some form of direct performance measurement could be accomplished. During the planning of phase II it was determined that direct performance measurement would be unattainable due to a lack of resources. It was decided that the next best course of action would be to obtain in-depth data relating to the suspect task areas through field interviews.

c. Procedure.

(1) Interview Format.

(a) A systematic interview[4] approach was chosen as the format that would cover the proper range of questions for each task and

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[3] TRADOC Pamphlet 350-30, Interservice Procedures for Instructional Systems Development, Department of the Army, August 1971.

[4] Seigel, A.I., Beryman, B.A., Federman, P., & Sellman, W.S., Some Techniques for the Evaluation of Technical Training Courses and Students (AFHRL-TR-72-15). Lowry AFB, Co.: Technical Training Division, Air Force Human Resources Laboratory, February 1972.

at the same time maintain the consistency required of the interviewer across the population sample being interviewed. In short, the systematic interview provided a procedure that combined the planning of the structured interview with the flexibility of the unstructured interview.

(b) Preparation for writing the interview guide sheets entailed a detailed study of the suspect tasks. Each suspect task was cross-referenced with the 93J Soldier's Manual, Commander's Guide, and the Aviation Center Program of Instruction (POI). A list of questions was compiled that related to necessary information not provided by these references. A meeting was held between a Directorate of Evaluation and Standardization (DES) subject matter expert and Directorate of Training Developments (DTD), Course Development Division (CDD), personnel regarding the 93J Program of Instruction and the suspect tasks. The major area of interest pertained to the intent of the instructional program in regard to the tasks. The aim of the meeting was to identify as clearly as possible the level of proficiency expected of graduates in each suspect area. This information was necessary to assist the wording of the interview questions and to aid in the final analysis of the data resulting from the interviews. Following the meeting, a summary of the comments regarding each task was compiled and sent to the Course Development Division attendees. They reviewed the comments for accuracy and added additional information where necessary.

(c) Interview guides were developed for both graduate interviews and interviews with unit supervisors. The original thirty-one suspect tasks were modified into fourteen suspect task areas for the interviews. The systematized approach was realized by using a flowcharting

technique for question and response contingencies in each task area.

(2) Subjects. Graduates who had completed their AIT training five to nine months previously served as the subjects for the interviews. The immediate supervisors of each of these individuals were to be interviewed as well. A total of eleven graduates were interviewed. Only one supervisor was available during the interview effort. Since there was a high probability that the one individual might not be representative of all supervisors, the decision was made to focus only on the graduate responses for the final analysis. The graduate interview guide is included in Appendix E.

(3) Method.

(a) Available resources permitted the planning of two interview trips to the field. A list of ATC field units was compiled that included a frequency count of 93J graduates assigned to each unit within the above mentioned time frame. The Army post that had received the largest number of graduates was chosen as the sight of the initial interview trip. The second and final interview sight was selected in the same manner one month later as would be expected, the post that had been previously visited was not included in consideration.

(b) Both fixed base and tactical units at each of the posts were visited. Graduates were interviewed in privacy, one at a time by two interviewers. The interviews ranged from 45 minutes to an hour in length. Interviewees (and unit officials) were told that the

information being requested was strictly for evaluation of 93J training program effectiveness. It was explained that no reference to them personnally or to their units would be made in the report that would follow the interviews.

d. Findings. The results of the interviews are summarized below and are organized according to: (1) The task area addressed; (2) Survey indications concluded from two quarters' questionnaire data; (3) Background regarding the task area; (4) The interview summary; and (5) Discussion of the findings.

(1) TASK AREA: Notices to Airmen (NOTAMs)

(a) Survey Indications: Undertraining in Advanced Individual Training (AIT).

(b) Background: Suspect tasks were "Report items requiring NOTAMs" and "Decode/Relay NOTAMs." Task number for both tasks is 011-145-1023 and can be found on page 2-234 of the Soldier's Manual for the 93J10 MOS.[5] Both are intended to be taught to Soldier's Manual standards. These tasks are common to both the 93J and the 93H MOSs.

(c) Interview Summary: Five of the eleven 93J graduates interviewed stated they had not had any opportunity to perform NOTAM tasks since their graduation from AIT. The remaining six were performing NOTAM related tasks, but explained that their school preparation had been adequate, given the level of proficiency required by their units. One felt the instructional material did not adequately explain the practical aspects of the NOTAM, i.e., who gets the notice and how.

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5 FM 1-93J 1/2, Soldier's Manual: Air Traffic Control (ATC) Radar Controller, Skill Level 1/2, MOS 93J, Department of the Army, Oct 79.

(d) Discussion: The data suggest that for the most part recent 93J graduates are not required to generate NOTAMs. The interviewees indicated that the initial responsibility of the graduates was limited to relaying the message. This is a relatively simple and straight forward tasking. The interview data indicate that training on this task was at least compatible with the demand of the job. Questionnaire indications of undertraining are not supported by the interviews.

(2) TASK AREA: Aircraft Approach and Departure Categories IFR/VFR Aircraft.

(a) Survey Indications: Undertraining in AIT.

(b) Background: This task area was originally presented in the questionnaire phase as two tasks, one for IFR aircraft and one for VFR aircraft. Both are addressed as one task in the Soldier's Manual on page 2-326. Task number is 011-145-1048. The task pertains to information requested from a pilot. The information is applied in cross-referencing between low altitude approach plates and aircraft types.

(c) Interview Summary: Seven of the graduates interviewed had not had an opportunity to perform this task in their units. Of the four who had performed the task, only one felt the instruction at the Aviation Center was adequate. The three graduates who felt they had <u>not</u> been adequately prepared each cited a different reason as the basis for their responses. One stated there was only one approach plate at Fort Rucker. Another said the instruction failed to provide the three dimensional picture of what was going on. The third felt the instruction did not relate to the conditions at his unit.

(d) Discussion: The training problems cited by the graduates who felt they were not adequately prepared, relate in two of the three instances to unit specific requirements. The third problem regarding the three dimensional picture can be attributed to lack of experience rather than a deficiency in training. The interview data do not support the problem of undertraining that was indicated by the questionnaire data.

(3) TASK AREA: Special VFR Clearances.

(a) Survey Indications: Undertraining in AIT.

(b) Background: Task number is 011-145-1027 and may be found on page 2-242 of the Soldier's Manual. Training is to Soldier's Manual standards. This is primarily a 93H MOS task.

(c) Interview Summary: Nine of the graduates interviewed had not performed this task in their units. Two said they had. One of the two felt he was adequately prepared to perform the task. The other graduate did not feel adequately prepared, stating that the training was a "paperdrill" with no practical experience.

(d) Discussion: There is not enough evidence to support or refute the survey indications of undertraining. Only two of the eleven graduates in the interview sample had performed this task and, even then were split in their opinions of the training's effectiveness. However, the interview data did reveal a large proportion of graduates who have not performed the task in the field. This feature, in light of the fact that this is primarily a 93H task, raises a question of the basis for including the task in the 93J program of instruction.

(4) TASK AREA: Operate Landing Control Central (AN/TSQ-71A)

(a) Survey Indications: Undertraining in AIT.

(b) Background: This is task number 011-143-1054 and is located on page 2-161 of the 93J Soldier's Manual. The landing control central is a tactical radar device. The task area includes the specific tasks "Identify operator controls, indicators, and accessories," "Perform starting procedures," and "Turn-on procedures for radar, IFE, and communications equipment." The specific tasks in question are all intended to be taught to Soldier's Manual standards.

(c) Interview Summary: Eight of the personnel interviewed had not performed this task since their graduation from AIT. Three graduates had performed the task, and all three stated they had not been adequately prepared. The greatest weakness cited by these individuals was in setting up the equipment. They stated they had not had any hands-on training in this area during AIT.

(d) Discussion:

1 Four of the graduates who had not performed this task were assigned to fixed base units. Three nonperformers were working FOC/FCC at a fixed location. Due to the tactical intent of this equipment, nonperformance among these personnel would be expected. For the problem of undertraining to be seriously entertained it would have to be concentrated among the graduates within tactical TO&E units. As it turned out, three of the four tactical unit personnel sampled had operated the landing control central, and of these, all said their training failed to meet their units' needs. Based upon these data, undertraining for

graduates in tactical units is confirmed. The proportion of graduates who are initially assigned to tactical units to those assigned to fixed base units, however, is an important factor in determining the extent of the problem.

2 Available assignment data (July 1979 through June 1981) show a comparatively high proportion of students going to tactical units after completing the Radar Controller Course (see Table 1 below). In all but one quarter the number of tactical assignments is higher than fixed base assignments. Overall, more than fifty-nine percent of the graduates in the above time frame were sent to tactical units.

TABLE 1 - 93J GRADUATE ASSIGNMENTS

FY/QTR	TACTICAL UNITS	FIXED BASE UNITS
79/4	19	11
80/1	7	10
80/2	15	4
80/3	11	9
80/4	21	15
81/1	16	9
81/2	13	12
81/3	9	6
TOTAL =	111	76
%	59.4	40.6

(5) TASK AREA: AN/TPX-44 Interrogator Set.

(a) Survey Indications: Undertraining in AIT.

(b) Background: This is task number 011-143-1095 and is described on page 2-185 of the Soldier's Manual. The above task includes, "Identify components," "Perform starting procedures," and "Utilize operational features (i.e., operate the set)." The task is intended to be taught to Soldier's Manual standards with a practical exercise provided in Radar Lab.

(c) Interview Summary: Five of the 93J personnel interviewed had not operated this equipment or any similar equipment since AIT training. Three of these graduates were working in fixed location flight following positions. The remaining two graduates were assigned to TO&E tactical units. One of these was not performing in his MOS and the other individual said he had not performed in this task area because his unit's interrogator set was broken. None of the four graduates assigned to fixed base units had operated the AN/TPX-44. They had instead been operating the AN/TPX-42 which is interrogator equipment used in the fixed base facilities. All four felt the training they had received at Fort Rucker had adequately prepared them to operate this equipment. The two remaining interviewees were assigned to tactical units and had operated the AN/TPX-44. Neither felt he had been adequately prepared to operate the set, citing weaknesses in operator maintenance and checks, on/off procedures, and practical hands-on knowledge.

(d) Discussion: The problems associated with this task area do not relate to the interrogation function of this equipment. The fixed based personnel who were interviewed indicated no problems in this area. The graduates using the tactical interrogator set indicated that

the problem relates to the peripheral functions that must be addressed in the tactical environment, i.e., setting up and taking down the set. With the majority of 93J graduates going to tactical units, the problem is of no small proportion.

(6) TASK AREA: Assign Beacon Codes

(a) Survey Indications: Nonperformance in the field.

(b) Background: Task number is 011-143-1043 and is discussed on page 2-316 of the Soldier's Manual. The task is intended to be taught to Soldier's Manual standards.

(c) Interview Summary: Four of the graduates stated that they had performed this task since graduating from AIT. Three were in fixed base facilities and one was in a tactical unit. These individuals all indicated that the institutional training for this task had been adequate. The remaining seven individuals had not performed the task since their training at Fort Rucker. Three of these graduates were in FOC/FCC positions and conducted flight following only. Three were in positions restricted to VFR control only, and the remaining individual was not yet working approach.

(d) Discussion: The larger proportion of the graduates in the interview sample were not assigning beacon codes as a part of their unit duties. The data, therefore, support the questionnaire indications of nonperformance.

(7) TASK AREA: Manual Approach Control

(a) Survey Indications: Nonperformance in the field.

(b) Background: The above task area represents seven survey tasks that were all closely related in terms of manual approach control. The tasks are as follows:

1 Provide vertical separation, IFR non-radar.

2 Provide longitudinal separation, IFR non-radar.

3 Provide lateral separation, IFR non-radar.

4 Issue holding instruction, IFR non-radar.

5 Issue IFR departure clearances, non-radar.

6 Issue abbreviated departure clearances, non-radar.

7 Issue separation between IFR departure/arrival, non-radar.

The first three tasks all fall within Soldier's Manual task number 011-145-1036 and can be found on page 2-263 of the manual. The next three tasks relate to Soldiers' Manual task 011-145-1027 and can be found on page 2-242. The last task relates to Soldier's Manual task 011-145-1041 and 011-145-1042 and can be found on pages 2-292 and 2-299 respectively. All seven are intended to be taught to Soldier's Manual standards.

(c) Interview Summary: Only one of the 93J interviewees had performed this task since graduating from AIT. The remaining ten had not. A variety of reasons was given for not performing the task. Three conducted flight following only. One said there was no need for manual approach control with the new radar system at his facility. One said there was no place to do it. Four said they had not yet had an opportunity to do it. One stated that the local municipal ATC takes over if there is a need for manual approach control. Going back, the one graduate who had performed the task felt that the training provided

at Fort Rucker was adequate and the manual portion of training helped more than the radar portion in terms of "getting the picture" of what was going on.

(d) Discussion: The interview data supported the earlier indications of nonperformance in the field. No single basis for the nonperformance was evident. It was, however, very clear that the bulk of the graduates sampled were not performing manual approach control tasks at their facilities. Unless instruction in this task area is needed to provide students with a conceptual foundation for subsequent ATC training, resident school training in this task area cannot be justified.

(8) TASK AREA: Apply Mask-to-Mouth Resusitation to a Chemical Agent Casualty.

(a) Survey Indications: Undertraining in AIT.

(b) Background: This is task number 081-831-1014 in the 93J Soldier's Manual. It is described on page 2-132 of the manual. The task is taught through the use of TEC tapes. It is not taught to Soldier's Manual standards nor is the graduate expected to perform the task to Soldier's Manual standards. There is no practical instruction due to sanitary considerations, i.e., having to clean the mask after its use. In spite of its not being taught to Soldier's Manual standards, questionnaire data gave strong indications that a training problem existed for this task.

(c) Interview Summary: Six of the graduates who were interviewed stated they had not been exposed to this task since completion of AIT. The remaining five had received refresher training in their units. Three had attended an NBC class, one had undergone SQT training

and one had seen a TEC tape. None had had any hands-on unit experience with the task. When asked about their confidence if an actual chemical attack were to occur, five out of eleven were not confident in their ability to perform the task. Two were somewhat confident and four of the graduates were very confident. Three of the respondents based their very confident responses on military experience prior to their 93J training. None had been issued M17A1 masks. Those who had masks, had the M24.

(d) Discussion: The interviews disclosed a problem that extends beyond the undertraining indications of the questionnaire effort. Personnel in the units visited had been issued M24 protective masks which do not have a resusitation function. It was explained that the M-24 permits clearer voice transmission over a radio. Further investigation showed that the M24 is now standard issue for Army Air Traffic Control personnel.[6] However, both the Soldier's Manual and training provided at the Aviation Center address the M17A1 mask which has the resusitation function.

(9) TASK AREA: Back Pressure Armlift Resusitation to a Chemical Agent Casualty

(a) Survey Indications: Undertraining in AIT.

(b) Background: This is task number 081-831-1015 and may be found on page 2-137 of the Soldier's Manual. The instruction is initially presented on TEC tapes. Additional practical training is provided during tactics phase of POI. The students are expected to be able to perform the task to Soldier's Manual standards upon graduation.

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6 TOE 01-227H700, ATC Company (Forward), Department of the Army, 23 January 1981.

(c) Interview Summary: Eight of the graduates interviewed had not been exposed to this task since graduating from AIT. Three had received refresher training in their units, two by way of TEC tapes and one through an NBC lecture. When asked about the confidence they had in their ability to perform this task in an actual chemical environment, five were not confident and six were very confident. Five of the six who were very confident based their feelings on field unit experience gained prior to attending the 93J course or to having attended NBC school after graduation.

(d) Discussion: It was apparent from the interviews that this task did not receive a great deal of attention in the units sampled. There was, therefore, no evidence to substantiate the survey indications of undertraining.

(10) TASK AREA: Put On and Wear Protective Mask

(a) Survey Indications: Undertraining and overtraining in AIT.

(b) Background: This is task 031-503-1002 and can be found on page 2-79 of the 93J Soldier's Manual. Training requirement is for additional training, not qualification. Training is conducted using the M24 mask.

(c) Interview Summary: Four of the interviewees had not used or trained on the protective mask since completing AIT. Seven of the graduates had received refresher training in their units. Of these seven, one had seen a class demonstration on the mask, one had attended a SQT lecture on the use of the mask and five had received practical training with the mask. All graduates were very confident in their ability to use the mask in a chemical environment.

(d) Discussion: None of the graduates interviewed felt that they needed more training on this task beyond that provided by the Aviation Center. Even the graduates who had not yet performed the task in their units indicated they felt fully capable of performing the task correctly. Therefore, the survey indications of undertraining are not supported by the interview data. Indications of overtraining are attributed to the large number of 93J students who have had previous military experience.

(11) TASK AREA: Decontaminate Self and Individual Equipment.

(a) Survey Indications: Undertraining and overtraining in AIT.

(b) Background: This task number 031-503-1007 in the Soldier's Manual and can be found on page 2-83. Students are trained using TEC lesson tapes. Practical training is not provided because the school does not have decontamination kits.

(c) Interview Summary: Two of the graduates had not had any exposure to this task since completing AIT. Nine graduates had received refresher training in their units. Four received this training via TEC tape. One had gone through a formal practical 10 station course. One had attended a primary leadership course where the decontamination task was addressed. One graduate had seen a film on the subject and two had attended a lecture on decontamination. In regard to their confidence on this task under actual chemical attack, only one was not confident. Of the remaining ten, one graduate was somewhat confident and nine were very confident. Seven of the above nine attributed their confidence to previous practical experience gained prior to their 93J training.

(d) Discussion: Graduates who expressed confidence in their ability to perform this task were, in the majority of cases, individuals with previous military experience. Indications of over-training are attributed to this segment of the graduate population. The relationship between experience and confidence in this task cannot be overlooked and it cannot be concluded from the data that the indications of undertraining are unfounded. Furthermore, the Aviation Center had not taught these graduates the task to Soldier's Manual standards, as intended, due to a lack of decontamination kits. The shortage of the kits creates a situation where undertraining is unavoidable. From all indications, a training problem does exist for this task.

(12) TASK AREA: Satisfy Personal Needs in a Chemical Environment.

(a) Survey Indications: Undertraining and overtraining in AIT.

(b) Background: This is task number 031-503-1009 and can be found on page 2-90 of the Soldier's Manual. A practical exercise is conducted on this task at area Alpha. It is intended that the task be taught to Soldier's Manual standards.

(c) Interview Summary: Only two of the eleven 93J graduates interviewed had any experience with this task since completing AIT. The extent of this experience was through TEC tapes in their units. When questioned about their confidence in performing this task under actual chemical conditions, seven stated they were not confident, one was somewhat confident and three were very confident. The three very confident responses were attributed to previous experience or NBC school.

(d) Discussion: Adequacy of training for a task must be based upon practicable considerations, i.e., the extent to which the

graduates skill or knowledge level on a task fulfills the needs of the organization or unit. Since there was little evidence of this task being performed in the units sampled, there is no evidence to support the survey indications of undertraining. The survey indications of overtraining, when viewed in terms of unit performance, are confirmed.

(13) TASK AREA: Put On and Wear Protective Clothing.

(a) Survey Indications: Undertraining and overtraining in AIT.

(b) Background: This is task number 031-503-1015 and may be found in the Soldier's Manual on page 2-94. Training on this task is intended to be Soldier's Manual standards. Instruction includes a four hour practical exercise.

(c) Interview Summary: Nine of the graduates had not had any experience on the task since leaving AIT. The two remaining graduates did have exposure to the task in their units. One of these had viewed a TEC tape on the subject and the other said he had studied this task on his own in the Soldier's Manual. The graduates' confidence on this task was consistent across all interviewees. All eleven were confident in their abilities to successfully perform the task.

(d) Discussion: The low frequency of performance on this task, as revealed by the interviews, and the high confidence levels of the graduates combine to contradict the survey indications of undertraining. Overtraining indications are attributed to the large segment of 93J graduates with previous military experience.

(14) TASK AREA: Give First Aid to Electric Shock Casualty

(a) Survey Indications: Undertraining in AIT.

(b) Backgound: This task is not in the Commander's Manual or the Soldier's Manual, although it is included in the current POI. The task will be included in the new Trainer's Guide and the new Soldier's Manual when they are published. Training on this task is conducted at area Alpha.

(c) Interview Summary: Eight of the graduates interviewed had not had any exposure to this task since leaving AIT at Fort Rucker. The remaining three had received unit training on the task in the form of TEC lesson tapes and lectures. When asked about their confidence in dealing with an actual electric shock victim only three of the graduates stated they were confident. The other eight individuals stated they were not confident in their ability to provide the appropriate first aid.

(d) Discussion: The survey indications of undertraining cannot be substantiated if based upon the performance frequency of the task as revealed by the interviews. Nor can the indications be supported in light of the task's contribution toward the unit's aircraft control mission. This is a unique task, however, that requires adequacy of training to be considered within a different frame of reference. Radar controllers work with high voltage equipment on a daily basis. In such an environment, the potential for applying the first aid task always exists. The majority of the controllers in the interview sample were unable to properly explain either the first aid procedures for electric shock or the function of the equipment on their facility safety boards. In light of this, the questionnaire indications of undertraining are recognized as valid.

4. CONCLUSIONS:

a. The evaluation of the Air Traffic Control Radar Controller Course measured training effectiveness in terms of the needs of the field. Care was taken to ensure that erroneous or misleading data would be minimized. Initially, a questionnaire was used to gather preliminary data regarding training adequacy. Eighty-two tasks underlying the 93J POI served as the main component of the questionnaire. Successive subject matter expert reviews, split-panel verifications and on-site interviews reduced the original list of tasks to a collection of nine tasks or task areas that displayed consistent evidence of training related problems. They are as follows:

(1) Special VFR Clearances. For the most part, graduates in the field are not performing this task. Such clearances are primarily the responsibility of the ATC tower operator. No evidence was found that would justify continued training of this task in the radar controller program of instruction.

(2) Assign Beacon Codes. A large proportion of 93J graduates do not perform this task within their first five months of field duty. Data indicate the nonperformance relates to the graduates facility training programs and to initial duty assignments that do not require this task.

(3) Manual Approach Control. Very few skill level one radar controllers are tasked to perform manual approach control in the field. Unless training in this task area provides vital introductory instruction, it should be made the responsibility of the relatively few units that require such skills of new radar controllers.

(4) Apply Mask-to-Mouth Resusitation to a Chemical Agent Casualty. Institutional training is currently based on a protective mask (M17A1) that is not used by ATC field units. Training should be modified to accommodate the M24 protective mask.

(5) Decontaminate Self and Individual Equipment. A shortage of decontamination kits has prevented the task from being taught to Soldier's Manual standards. The situation should be monitored internally to assure resolution.

(6) Satisfy Personal Needs in a Chemical Environment. The extent of field unit application noted for this task does not justify the time invested in its training at the Aviation Center. The task meets all guidelines for assignment to formal on-the-job training.

(7) Give First Aid to Electric Shock Casualty. Undertraining was evident for this task. Proficiency criteria established for the task in the program of instruction should be reviewed and revised where appropriate.

(8) Operate Landing Control Central (AN/TSQ-71A). Undertraining was indicated for those graduates who were assigned to tactical units. The problem was attributed to a lack of hands-on training. A decision must be made, in light of the assignment data, as to whether it is best to place the burden of this training on the tactical units or to accommodate the problem through more thorough tactical ATC training at the Aviation Center.

(9) AN/TPX-44 Interrogator Set. Graduates assigned to tactical units were not properly prepared to employ this equipment. More emphasis is needed in teaching task related skills unique to the tactical environment. As with the previous task, it must be determined if the large

proportion of tactical assignments justifies more thorough tactical training on this task at the resident school level.

b. Of the fourteen tasks originally identified from the questionnaire data as suspect, five were not verified as training problems. These tasks are as follows:

(1) Notices to Airmen.

(2) Aircraft Approach and Departure Categories IFR/VFR Aircraft.

(3) Back Pressure Armlift Artificial Resusitation to a Chemical Agent Casualty.

(4) Put on and Wear Protective Mask.

(5) Put on and Wear Protective Clothing.

Each of these tasks was originally selected due to questionnaire indications of undertraining. Interview phase data demonstrated that unit performance requirements for the five tasks did not exceed the graduates' capabilities. The last two tasks were also selected in the questionnaire phase due to indications of overtraining. Upon analysis, these indications were attributed to the large proportion of experienced soldiers who attend the 93J program of instruction.

APPENDIX A

GRADUATE QUESTIONNAIRE (VERSION A)

DAPC-MSP-S-79-36

AIR TRAFFIC CONTROL RADAR CONTROLLER (93J)
GRADUATE QUESTIONNAIRE

DIRECTORATE OF EVALUATION AND STANDARDIZATION
UNITED STATES ARMY AVIATION CENTER
Fort Rucker, Alabama

DATA REQUIRED BY THE PRIVACY ACT OF 1974
(5 U.S.C. 552a)

TITLE OF FORM: QUESTIONNAIRE FOR AVIATION SCHOOL GRADUATES OR THEIR COMMANDERS

PRESCRIBING DIRECTIVE: AR 611-3

1 AUTHORITY

Section 301 Title 5 USC

2 PRINCIPAL PURPOSE(S)

To obtain information for evaluating Aviation Center Training Programs.

3 ROUTINE USES

1. To indicate the accuracy of the Aviation Center's instruction in teaching information skills required for the graduate's performance in the field.

2. Monitor the adequacy of instruction presented at the Aviation Center.

4 MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION

Voluntary, however, failure to disclose all or part of the requested information will significantly impair the ability to monitor and maintain effective and efficient instruction. Cooperation in completing this survey is essential.

DA FORM 31-R - Privacy Act Statement - 26 Sep 75

INTRODUCTION: The United States Army Aviation Center (USAAVNC) periodically examines the performance of its graduates to insure the training programs are adequate to meet the needs of units in the field. As a recent graduate, you can provide information about your experiences and the relationship of the Fort Rucker training to unit needs.

This questionnaire consists of three sections. Section I asks questions about your background and experience. Section II asks about your training and performance with reference to specific tasks or skills. The final section asks for your ideas for improving USAAVNC training.

Carefully read the instructions for each section. Please respond to each item in the questionnaire.

ANSWER SHEET INSTRUCTIONS

Remove the answer packet from this booklet. The packet includes one answer sheet for Sections I and II and three pages for write-in answers to questions in Section III.

FIRST: FILL IN THE HEADING OF THE ANSWER SHEET AS FOLLOWS:

-- Print your name and rank in space provided.

-- On the line labeled "Course, Phase, & Class" write in your present unit and location.

-- On the line labeled "Date" write in your duty MOS.

-- Leave the block labeled "Identification Number" blank.

Now, turn the page and answer questions in Section I and II. Enter answers on answer sheet. Use a No. 2 pencil. Mark only one response for each item.

SECTION I

GENERAL DATA

1. How long after graduation from the 93J course did you arrive at your first operational unit?

(5) 4 weeks or less
(4) 5 to 6 weeks
(3) 7 to 8 weeks
(2) 9 to 10 weeks
(1) 11 weeks or longer (If you marked this response please indicate in Section III, page 3-2, question 2, the reason for the delay in reaching your unit.)

2. What type of organization are you assigned to?

(5) Tactical
(4) Fixed Base with Tactical Responsibilities
(3) Fixed Base (Army Airfield)
(2) Fixed Base (Joint Civil/Military Airfield)
(1) Other (Indicate type organization in Section III)

3. What type facility are you assigned to?

(5) Terminal Radar (GCA)
(4) Radar Approach Control
(3) Manual Approach Control
(2) FOC/FCC
(1) Other

4. What is your principal duty position?

(5) 93J Facility
(4) 93H Facility
(3) 93J Staff (S-3, G-3, etc)
(2) 93H Staff (S-3, G-3, etc)
(1) Not Working in 93J MOS (If you select this response, mark the correct block on the answer sheet, then skip to Section III, page 3-2, question 2 and provide a brief description of your duty position.)

5. After arrival at your present unit, how much time elapsed before you started your facility training?

(5) Less than one week
(4) 1 to 3 weeks
(3) 4 to 6 weeks
(2) More than 6 weeks (If you marked this response please indicate in Section III, page 3-2, question 2, the reason for the delay in beginning facility training.)

SECTION II

GENERAL: In this section you are to provide information related to the specific tasks in which you were trained at Fort Rucker. Your experience in performing the task at your present unit is to be used as the basis for your answers.

ANSWER SHEET INSTRUCTIONS:

ADEQUACY OF TRAINING

For each task, respond to the following question by selecting one of the five responses provided below:

"How adequate was the training you received at Fort Rucker in preparing you to perform this task in your present unit?"

Response	Description
5	Trained, but so far have not performed this task in my unit.
4	Overtrained (received more training than required to meet my unit's needs).
3	Adequately Trained (received just about the right amount of training to meet my unit's needs).
2	Undertrained (did not receive enough training to meet my unit's needs).
1	Received no training in this task at Fort Rucker.

Remember to MARK ONLY ONE RESPONSE. Now, turn the page. The first question of Section II is number 6.

TASKS

5	Have Not Performed
4	Overtrained
3	Adequately Trained
2	Undertrained
1	Received No Training

6. Identify aircraft approach and departure categories, IFR aircraft.
7. Identify aircraft approach and departure categories, VFR aircraft.
8. Decode military aircraft designations, service, and mission symbols.
9. Determine significant changes in weather.
10. Solicit/record PIREP information.
11. Disseminate PIREP information.
12. Report weather conditions.
13. Use interphone procedures.
14. Transmit ATC radio messages.
15. Use ATC radio message format.
16. Use standard ATC radio terminology.
17. Log authorized non-ATC messages.
18. Report items requiring NOTAMS.
19. Decode/relay NOTAMS.
20. Issue airport condition advisories.
21. Issue wake turbulence advisory.
22. Issue bird activity advisory.
23. Issue parachute jumping advisory.
24. Issue safety advisory.
25. Request ATC control clearance.
26. Deliver IFR clearance.
27. Deliver abbreviated ATC clearances.
28. Deliver special VFR clearances.

TASKS

5	Have Not Performed
4	Overtrained
3	Adequately Trained
2	Undertrained
1	Received No Training

29. Deliver amendments to ATC clearances.

30. Process flight progress strips.

31. Maintain flight progress strips.

32. Provide vertical separation, IFR non-radar.

33. Provide longitudinal separation, IFR non-radar.

34. Provide lateral separation, IFR non-radar.

35. Issue holding instructions, IFR non-radar.

36. Authorize special VFR.

37. Apply visual separation, VFR.

38. Perform intra facility coordination.

39. Perform inter facility coordination.

40. Issue arrival information.

41. Issue approach clearance.

42. Formulate/receive IFR clearances, non-radar.

43. Issue IFR departure clearances, non-radar.

44. Issue abbreviated departure clearance, non-radar.

45. Issue separation between IFR departures, non-radar.

46. Issue separation between IFR departures/arrivals, non-radar.

47. Determine emergency action.

48. Handle emergency.

49. Perform equipment checks.

50. Provide IFR/VFR supplemental information.

TASKS

5	Have Not Performed
4	Overtrained
3	Adequately Trained
2	Undertrained
1	Received No Training

51. Provide low altitude enroute and instrument approach information as requested.

52. Interpret criteria for facility rating and certification.

53. Maintain DA Forms 3502-R and 3503-R.

54. Maintain DA Forms 3501-R.

55. Issue vector to final approach.

56. Determine vector for final approach course interception angle.

57. Provide vector across final approach course information.

58. Issue arrival instruction.

59. Provide radar approach information.

60. Provide PAR approach procedures.

61. Monitor instrument approaches.

62. Identify aircraft using radar procedures.

63. Identify aircraft using radar handoff procedures.

64. Provide radar separation.

65. Identify operator controls, indicators, and accessories (AN/TSQ-71A).

66. Perform starting procedures (AN/TSQ-71A).

67. Perform turn-on procedures for radar, IFF, and communciations equipment.

68. Identify components of AN/TPX-44.

69. Perform starting procedures on AN/TPX-44.

70. Utilize operational features of AN/TPX-44.

71. Assign beacon codes.

TASKS

5	Have Not Performed
4	Overtrained
3	Adequately Trained
2	Undertrained
1	Received No Training

72. Put on and wear a protective mask.

73. Perform operator's maintenance on protective mask.

74. Decontaminate self.

75. Decontaminate individual equipment.

76. Satisfy personal needs in a chemical environment.

77. Put on and wear protective clothing.

78. Identify terrain features (natural and manmade) on a map.

79. Determine the grid coordinates of a point on a military map using the military grid reference system.

80. Determine the elevation of a point on the ground using a map.

81. Determine a location on the ground by terrain association.

82. Measure distance on a map.

83. Determine azimuth using a coordinate scale and protractor.

84. Orient a map to the ground by map-terrain association.

85. Apply mask-to-mouth resuscitation to a chemical agent casualty.

86. Give back pressure armlift artificial resuscitation to a chemical agent casualty.

87. Give first aid to electric shock casualty.

END OF SECTION II. CONTINUE WITH SECTION III.

AIR TRAFFIC CONTROL RADAR CONTROLLER (93J)

93J GRADUATE QUESTIONNAIRE

SECTION III

WRITE-IN QUESTIONS

NAME _____

UNIT _____

LOCATION _____

CURRENT DATE _____

SECTION III ANSWER SHEET

You just finished rating your training on specific task/skill areas. Using those tasks or skills as a basis, answer the following:

1. Given your experience in your current duty assignment, what additional instruction would have enabled you to adapt more readily to your unit's mission? (If more space is needed, use the back of the sheet.)

	Task/Skill	Comments
a.	_____	_____
b.	_____	_____
c.	_____	_____
d.	_____	_____
e.	_____	_____

2. Are there any additional comments you would like to make? You may clarify or elaborate on any of your previous responses (please cross reference) or comment on aspects of USAAVNC and unit training that have not been covered.

WRITE ON THE BACK OF THIS SHEET IF NECESSARY.

3. While at Fort Rucker, were you or any member of your family exposed to an act of discrimination by virtue of your being a soldier, student, or other reasons? Please provide some details. If none, so state.

COMPLETION INSTRUCTIONS: Now that you have completed this questionnaire, please be sure that all necessary data are entered on all answer sheets. Then place the answer sheets and questionnaire in the envelope provided and mail it. Your cooperation is most appreciated.

WRITE ON THE BACK OF THIS SHEET IF NECESSARY.

APPENDIX B

COMMANDER'S QUESTIONNAIRE

DAPC-MSP-S-79-36

AIR TRAFFIC CONTROL RADAR CONTROLLER (93J)
COMMANDER'S QUESTIONNAIRE

DIRECTORATE OF EVALUATION AND STANDARDIZATION
UNITED STATES ARMY AVIATION CENTER
FORT RUCKER, ALABAMA

DATA REQUIRED BY THE PRIVACY ACT OF 1974
(5 U.S.C. 552a)

TITLE OF FORM: QUESTIONNAIRE FOR AVIATION SCHOOL GRADUATES OR THEIR COMMANDERS | PUBLICATION NUMBER: AR 611-3

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3 ROUTINE USES

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Voluntary, however, failure to disclose all or part of the requested information will significantly impair the ability to monitor and maintain effective and efficient instruction. Cooperation in completing this survey is essential.

DA FORM 31-R - Privacy Act Statement - 20 Sep 75

INTRODUCTION: The United States Army Aviation Center periodically examines the performance of its graduates to insure the training programs are adequate to meet the needs of operational units. As the Commander, you are requested to provide information that will contribute to this feedback program and thereby enhance the assessment of the effectiveness of Air Traffic Control Radar Controller (93J) training.

This questionnaire consists of two sections. Section I asks questions about the performance of tasks by recent graduates. Section II asks for your views and recommendations concerning the improvement of training at the Aviation Center.

Carefully read the instructions for each section. Please respond to each item in the questionnaire.

ANSWER SHEET INSTRUCTIONS.

You should have one answer sheet for Section I and a four page Section II for write-in answers. Responses for Section I will be recorded on the answer sheet.

FIRST: FILL IN THE HEADING OF THE ANSWER SHEET AS FOLLOWS:

-- Print your name and rank in space provided.

-- On the line labeled "Course, Phase, & Class" write in your present unit and location.

-- Leave the block labeled "Identification Number" blank.

SECTION I

GENERAL DIRECTIONS

In this section you are to provide information relating to the recent 93J graduates' initial performance level on selected tasks. You may wish to consult your operations officer or other knowledgeable individuals before formulating your responses. Initial performance level is intended to mean the individuals' performance proficiency upon arrival from the Aviation Center.

Use the following scale to rate the 93J's ability to perform the task indicated. Select only one response per task.

RESPONSE #	DESCRIPTION
5	Well Prepared
4	Adequately Prepared
3	Not Well Prepared
2	Have Not Observed
1	Is Not a Unit Mission

5	Well Prepared
4	Adequately Prepared
3	Not Well Prepared
2	Has Not Performed
1	Is Not a Unit Mission

1. Identify aircraft approach and departure categories, IFR aircraft.
2. Identify aircraft approach and departure categories, VFR aircraft.
3. Decode military aircraft designations, service, and mission symbols.
4. Determine significant changes in weather.
5. Solicit/record PIREP information.
6. Disseminate PIREP information.
7. Report weather conditions.
8. Use interphone procedures.
9. Transmit ATC radio messages.
10. Use ATC radio message format.
11. Use standard ATC radio terminology.
12. Log authorized non-ATC messages.
13. Report items requiring NOTAMS.
14. Decode/relay NOTAMS.
15. Issue airport condition advisories.
16. Issue wake turbulence advisory.
17. Issue bird activity advisory.
18. Issue parachute jumping advisory.
19. Issue safety advisory.
20. Request ATC control clearance.
21. Deliver IFR clearance.
22. Deliver abbreviated ATC clearances.
23. Deliver special VFR clearances.

TASKS

5	Well Prepared
4	Adequately Prepared
3	Not Very Well Prepared
2	Have Not Observed
1	Is Not a Unit Mission

24. Deliver amendments to ATC clearances.

25. Process flight progress strips.

26. Maintain flight progress strips.

27. Provide vertical separation, IFR non-radar.

28. Provide longitudinal separation, IFR non-radar.

29. Provide lateral separation, IFR non-radar.

30. Issue holding instructions, IFR non-radar.

31. Authorize special VFR.

32. Apply visual separation, VFR.

33. Perform intra facility coordination.

34. Perform inter facility coordination.

35. Issue arrival information.

36. Issue approach clearance.

37. Formulate/receive IFR clearances, non-radar.

38. Issue IFR departure clearances, non-radar.

39. Issue abbreviated departure clearance, non-radar.

40. Issue separation between IFR departures, non-radar.

41. Issue separation between IFR departures/arrivals, non-radar.

42. Determine emergency action.

43. Handle emergency.

44. Perform equipment checks.

45. Provide IFR/VFR supplemental information.

TASKS

5	Well Prepared
4	Adequately Prepared
3	Not Very Well Prepared
2	Have Not Observed
1	Is Not a Unit Mission

46. Provide low altitude enroute and instrument approach information as requested.

47. Interpret criteria for facility rating and certification.

48. Maintain DA Forms 3502-R and 3503-R.

49. Maintain DA Form 3501-R.

50. Issue vector to final approach.

51. Determine vector for final approach.

52. Course interceptions angle.

53. Provide vector across final.

54. Approach course information.

55. Issue arrival instruction.

56. Provide radar approach information.

57. Provide PAR approach procedures.

58. Monitor instrument approaches.

59. Identify aircraft using radar procedures.

60. Identify aircraft using radar handoff procedures.

61. Provide radar separation.

62. Identify operator controls, indicators, and accessories (AN/TSQ-71A).

63. Perform starting procedures (AN/TSQ-71A).

64. Perform turn-on procedures for radar, IFF, and communications equipment.

65. Identify components of AN/TPX-44.

66. Perform starting procedures on AN/TPX-44.

67. Utilize operational features of AN/TPX-44.

TASKS

5	Well Prepared
4	Adequately Prepared
3	Not Very Well Prepared
2	Have Not Observed
1	Is Not a Unit Mission

68. Assign beacon codes.

69. What type of organization are you assigned to?

(5) Tactical
(4) Fixed Base with Tactical Responsibilities
(3) Fixed Base US Army Airfield
(2) Fixed Base (Joint Civil/Military Airfield)
(1) Other (Indicate type organization in Section II)

END OF SECTION I. CONTINUE WITH SECTION II.

SECTION II

AIR TRAFFIC CONTROL RADAR CONTROLLER (93J)

COMMANDER'S QUESTIONNAIRE

WRITE-IN QUESTIONS

NAME _____

UNIT _____

LOCATION _____

CURRENT DATE _____

SECTION II

This section provides an opportunity for you to express your opinions or give responses in written form. If you need more space for a given response, write on the back of the sheet. Please provide a response to all questions in Section II. In the space provided on the cover sheet write your name, unit, location and the current date.

Turn the page and answer questions 1-3.

WRITE ON THIS PAGE IF NECESSARY

SECTION II ANSWER SHEET

1. Given your experience with recent 93J graduate(s), please describe any additional instruction that should be given at the Aviation Center to enable future graduates to adapt more readily to your unit's mission.

TASK	COMMENTS
a.	
b.	
c.	
d.	
e.	

2. Which two tasks listed in Section I require the greatest amount of additional training at your unit?

a.

b.

WRITE ON THE BACK OF THIS PAGE IF NECESSARY

3. Are there any additional comments you would like to make? You may clarify or elaborate on any of your previous responses (please cross reference) or comment on aspects of the Aviation Center and unit training that have not been covered.

COMPLETION INSTRUCTIONS: When you have finished Section II, detach it from the questionnaire. Check your answer sheets for completeness and accuracy. Then, place the answer sheets in the envelope provided and mail it. Your cooperation is most appreciated.

WRITE ON THE BACK OF THIS PAGE IF NECESSARY

APPENDIX C

GRADUATE QUESTIONNAIRE SUSPECT TASK CROSSTABULATIONS

There were thirteen respondents to version A of the questionnaire. Ten graduates responded to version B of the questionnaire. Three of these individuals indicated they were not functioning in the 93J MOS. Their responses are not included in the version B tally. Variations in the total frequencies for each version are due to selective nonresponse by the graduates.

IDENTIFY AIRCRAFT APPROACH AND DEPARTURE CATEGORIES, IFR AIRCRAFT

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	4		4
VERSION B	2	2	1		2
TOTAL	3	6	5		6

IDENTIFY AIRCRAFT APPROACH AND DEPARTURE CATEGORIES, VFR AIRCRAFT

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	4	1	3
VERSION B	2	2	1		2
TOTAL	3	6	5	1	5

REPORT ITEMS REQUIRING NOTAMS

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	6	2		4
VERSION B	1	3	2	1	
TOTAL	2	9	4	1	4

DECODE/RELAY NOTAMS

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	2	3	4		4
VERSION B		3	2	1	1
TOTAL	2	6	6	1	5

DELIVER SPECIAL VFR CLEARANCES

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	3	4		5
VERSION B	1	1	2		3
TOTAL	2	4	6		8

AUTHORIZE SPECIAL VFR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	1		7
VERSION B	1	2	1		3
TOTAL	2	6	2		10

IDENTIFY OPERATOR CONTROLS, INDICATORS AND ACCESSORIES (AN/TSQ-71A)

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	2	2	4	1	3
VERSION B	2	1	1		3
TOTAL	4	3	5	1	6

PERFORM STARTING PROCEDURE (AN/TSQ-71A)

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	3	2	4	1	3
VERSION B	2	1	1		3
TOTAL	5	3	5	1	6

PERFORM TURN-ON PROCEDURES FOR RADAR, IFF AND COMMUNICATIONS EQUIPMENT

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	2	2	5	1	3
VERSION B	1	2	3		1
TOTAL	3	4	8	1	4

IDENTIFY COMPONENTS OF AN/TPX-44

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	5	1	2
VERSION B	2	1	2		2
TOTAL	3	5	7	1	4

PERFORM STARTING PROCEDURES ON AN/TPX-44

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	5	1	2
VERSION B	2	1	2		2
TOTAL	3	5	7	1	4

UTILIZE OPERATIONAL FEATURES OF AN/TPX-44

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	5	1	2
VERSION B	2	1	2		2
TOTAL	3	5	7	1	4

APPLY MASK-TO-MOUTH RESUSCITATION TO A CHEMICAL AGENT CASUALTY

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	4	3	2	2	2
VERSION B	3	1	1		2
TOTAL	7	4	3	2	4

GIVE FIRST AID TO ELECTRIC SHOCK CASUALTY

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	5	1	2
VERSION B	2	1	3		1
TOTAL	3	5	8	1	3

ASSIGN BEACON CODES

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		2	4	2	5
VERSION B	2	1	1		3
TOTAL	2	3	5	2	8

PROVIDE VERTICAL SEPARATION, IFR NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		2	3	1	7
VERSION B	1	1	1		4
TOTAL	1	3	4	1	11

PROVIDE LONGITUDINAL SEPARATION, IFR NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		2	3	1	7
VERSION B	1	1	1		4
TOTAL	1	3	4	1	11

PROVIDE LATERAL SEPARATION, IFR NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		2	3	1	7
VERSION B	1	1	1		4
TOTAL	1	3	4	1	11

ISSUE HOLDING INSTRUCTIONS, IFR NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1		4	1	7
VERSION B	1	1	1		4
TOTAL	2	1	5	1	11

FORMULATE/RECEIVE IFR CLEARANCES, NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	1	3	1	7
VERSION B	1	1	1		4
TOTAL	2	2	4	1	11

ISSUE IFR DEPARTURE CLEARANCES, NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		2	3	1	7
VERSION B	1	1	1		4
TOTAL	1	3	4	1	11

ISSUE ABBREVIATED DEPARTURE CLEARANCE, NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		2	3	1	7
VERSION B	1	1	1		4
TOTAL	1	3	4	1	11

ISSUE SEPARATION BETWEEN IFR DEPARTURES/ARRIVALS, NON-RADAR

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		2	3	1	7
VERSION B	1	1	1		4
TOTAL	1	3	4	1	11

PUT ON AND WEAR A PROTECTIVE MASK

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	2	4	4	2
VERSION B	1	2	2		2
TOTAL	2	4	6	4	4

PERFORM OPERATOR'S MAINTENANCE ON PROTECTIVE MASK

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	3	2	3	3	2
VERSION B	2	1	1		3
TOTAL	5	3	4	3	5

DECONTAMINATE SELF

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	2	3	2	3	2
VERSION B	3	1	1		2
TOTAL	5	4	3	3	4

DECONTAMINATE INDIVIDUAL EQUIPMENT

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	2	4	2	3	2
VERSION B	3	1	1		2
TOTAL	5	5	3	3	4

SATISFY PERSONAL NEEDS IN A CHEMICAL ENVIRONMENT

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	2	4	3	2	2
VERSION B	3	1	1		2
TOTAL	5	5	4	2	4

PUT ON AND WEAR PROTECTIVE CLOTHING

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A	1	4	2	3	3
VERSION B	1	1	2		3
TOTAL	2	5	4	3	6

DETERMINE A LOCATION ON THE GROUND BY TERRAIN ASSOCIATION

	NOT TRAINED	UNDER TRAINED	ADEQUATELY TRAINED	OVER TRAINED	NOT PERFORMED
VERSION A		3	5	2	3
VERSION B	2	1	2		2
TOTAL	2	4	7	2	5

APPENDIX D

COMMANDER'S QUESTIONNAIRE SUSPECT TASK TABULATIONS

IDENTIFY AIRCRAFT APPROACH AND DEPARTURE CATEGORIES, IFR AIRCRAFT

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
2		5	4	

IDENTIFY AIRCRAFT APPROACH AND DEPARTURE CATEGORIES, VFR AIRCRAFT

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
2		4	5	

REPORT ITEMS REQUIRING NOTAMS

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
	3	8	3	

DECODE/RELAY NOTAMS

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
1	4	4	5	

DELIVER SPECIAL VFR CLEARANCES

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
3	3	7		

AUTHORIZE SPECIAL VFR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
7	1	6		

IDENTIFY OPERATOR CONTROLS, INDICATORS AND ACCESSORIES (AN/TSQ-71A)

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
8	1	3		

PERFORM STARTING PROCEDURE (AN/TSQ-71A)

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
8	1	4	1	

PERFORM TURN-ON PROCEDURES FOR RADAR, IFF AND COMMUNICATIONS EQUIPMENT

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
3		7	4	

IDENTIFY COMPONENTS OF AN/TPX-44

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
5	1	5	2	

PERFORM STARTING PROCEDURES ON AN/TPX-44

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
5	1	6	1	

UTILIZE OPERATIONAL FEATURES OF AN/TPX-44

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
5	1	5	2	

ASSIGN BEACON CODES

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
3	1	6	2	

PROVIDE VERTICAL SEPARATION, IFR NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
6	1	5		2

PROVIDE LONGITUDINAL SEPARATION, IFR NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
7	2	4		1

PROVIDE LATERAL SEPARATION, IFR NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
6	2	4	1	1

ISSUE HOLDING INSTRUCTIONS, IFR NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
4	1	3	4	1

FORMULATE/RECEIVE IFR CLEARANCES, NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
6	1	6	1	

ISSUE IFR DEPARTURE CLEARANCES, NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
6	1	5		

ISSUE ABBREVIATED DEPARTURE CLEARANCES, NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
6		6		

ISSUE SEPARATION BETWEEN IFR DEPARTURES/ARRIVALS, NON-RADAR

NOT UNIT MISSION	NOT OBSERVED	NOT WELL PREPARED	ADEQUATE	WELL PREPARED
8	1	4		

APPENDIX E

GRADUATE INTERVIEW GUIDE SHEETS

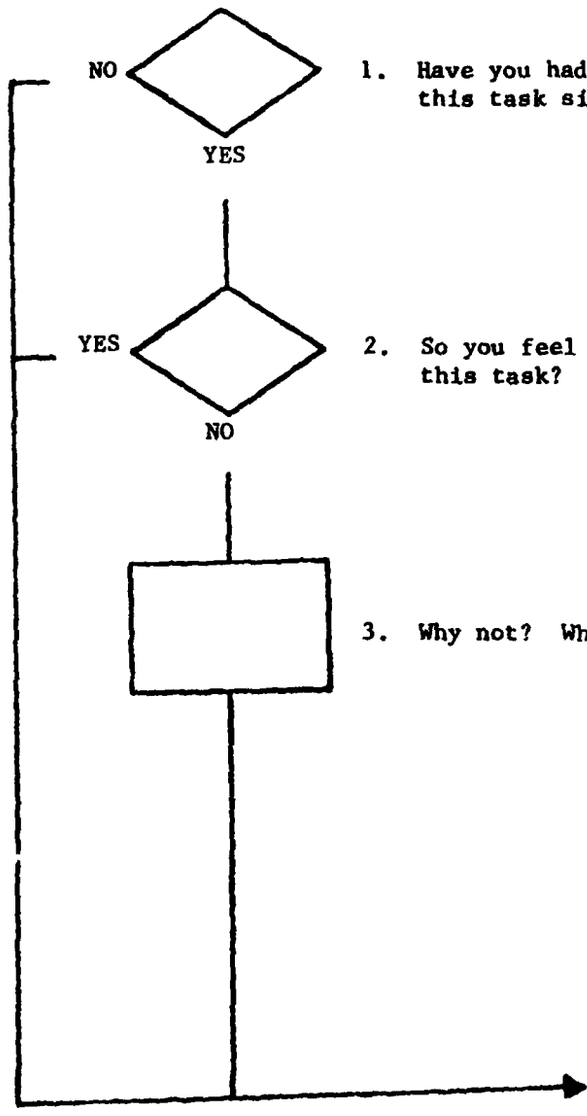
The interview guide was contructed to accommodate anticipated response contingencies. The questions were written for the interviewers' guidance and were not intended to be read from the sheets verbatum. The interviewers were instructed to use their own conversational style.

1. NOTAMS

Survey Indications: Undertraining in AIT.

Background: "Report items requiring NOTAMS" and "decode/relay NOTAMS" tasks are taught to Soldiers' Manual standards. Tasks are common to 93H and 93J.

Questions:



1. Have you had much of an opportunity to perform this task since your graduation from AIT?

2. So you feel you were adequately prepared to perform this task?

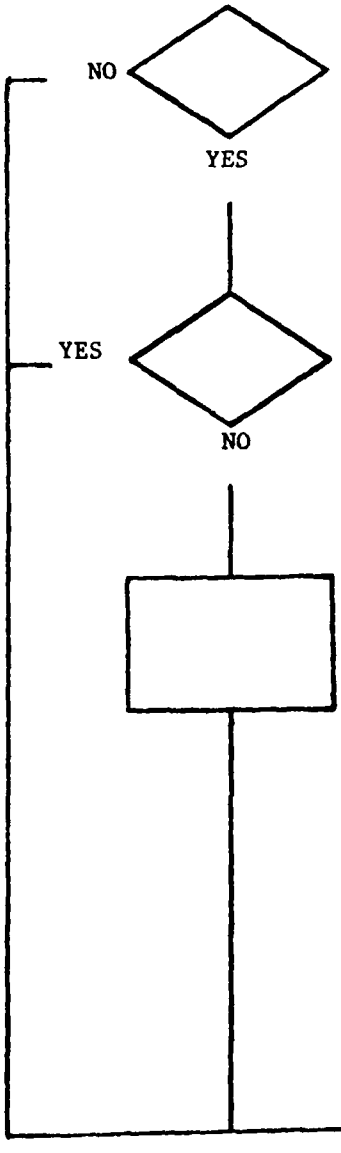
3. Why not? Where was or is your greatest weakness?

2. AIRCRAFT APPROACH AND DEPARTURE CATEGORIES IFR/VFR AIRCRAFT

Survey Indications: Undertraining in AIT.

Background: This information (above) is requested from pilot to be applied in cross referencing between low altitude approach plates and aircraft type.

Questions:



1. Have you had much of an opportunity to perform this task since your graduation from AIT?

2. So you feel you were adequately prepared to perform this task?

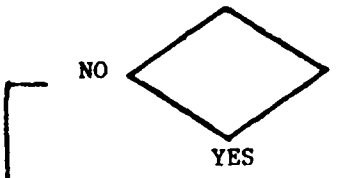
3. Why not? Where was or is your greatest weakness?

3. SPECIAL VFR CLEARANCES

Survey Indications: Undertraining in AIT.

Background: Primarily a 93H task. Taught to SM standards.

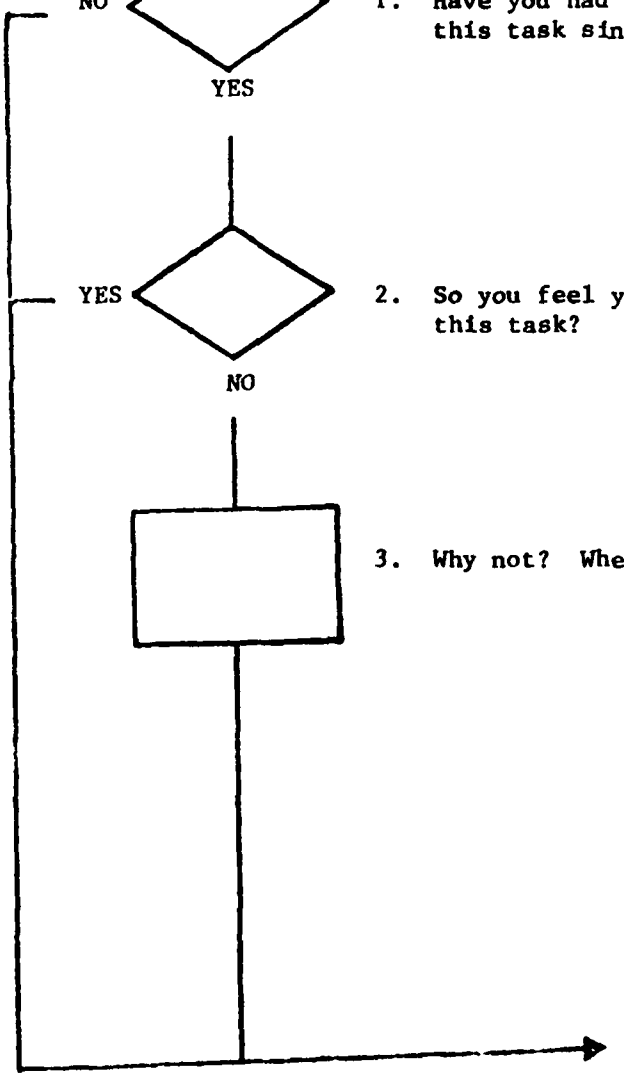
Questions:



1. Have you had much of an opportunity to perform this task since your graduation from AIT?

2. So you feel you were adequately prepared to perform this task?

3. Why not? Where was or is your greatest weakness?

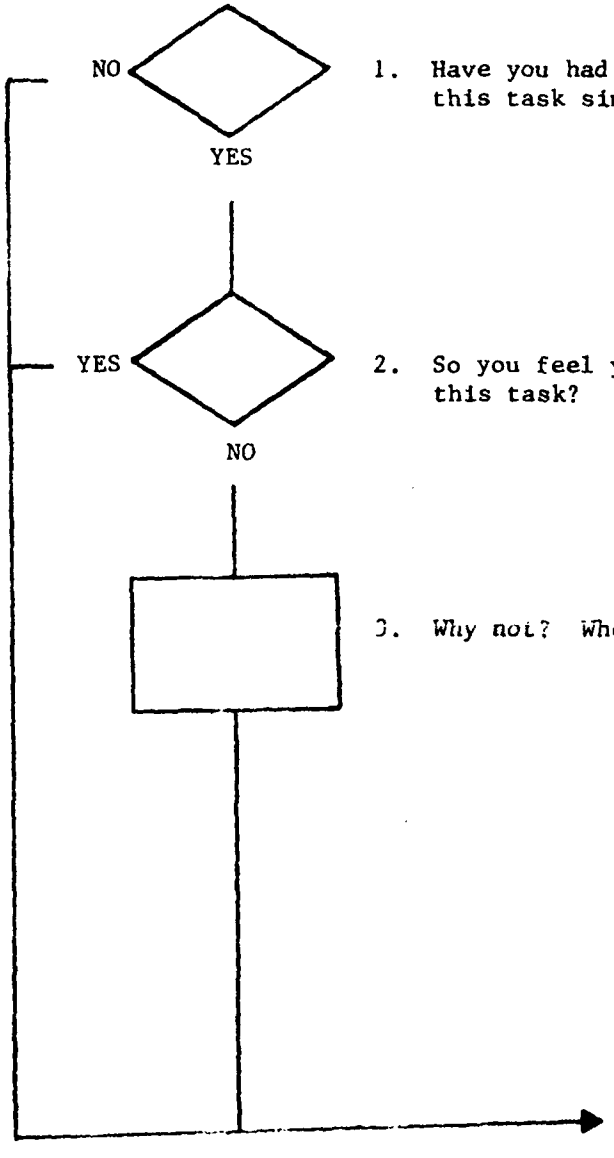


4. AN/TSQ-71A (LANDING CONTROL CENTRAL)

Survey Indications: Undertraining in AIT.

Background: Taught to SM standards. Includes, "Identify operator controls, indicator and accessories", "perform starting procedures", and "turn-on procedures for radar, IFE, and communications equipment"

Questions:



AD-A143 137 AIR TRAFFIC CONTROL RADAR CONTROLLER COURSE (93J10) OPERATIONAL EFFECTIVENESS EVALUATION(U) ARMY AVIATION CENTER FORT RUCKER AL DIRECTORATE OF EVALUATION..

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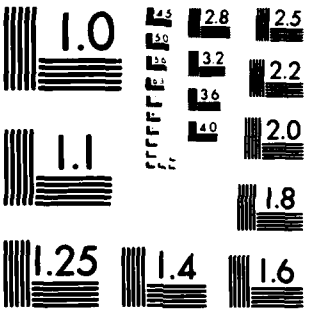
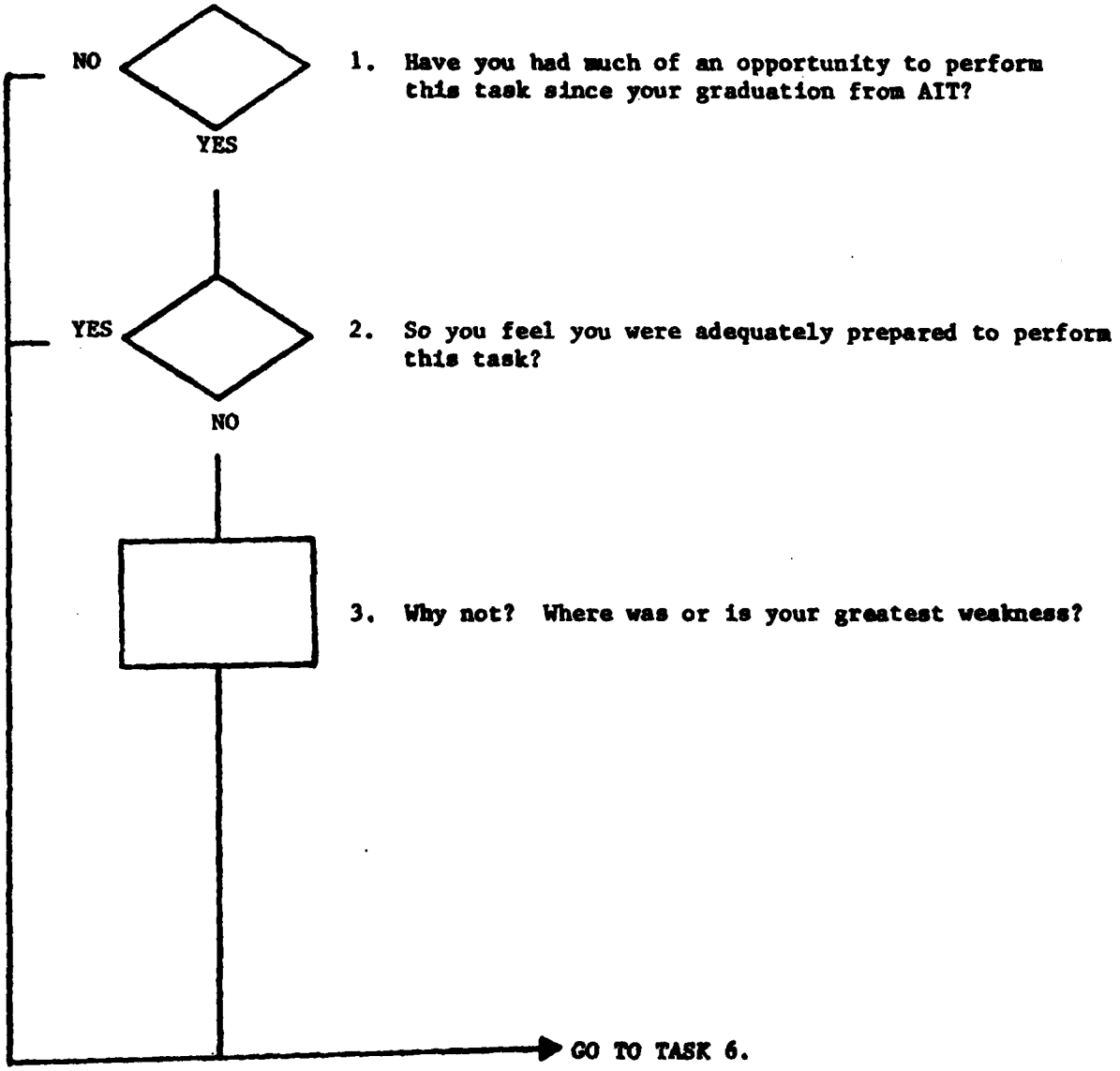


5. AN/TPX-44 (INTERROGATOR SET)

Survey Indications: Undertraining in AIT.

Background: Taught to SM standards. Includes, "Identify components", "perform starting procedures", and "utilize operational features".

Questions:

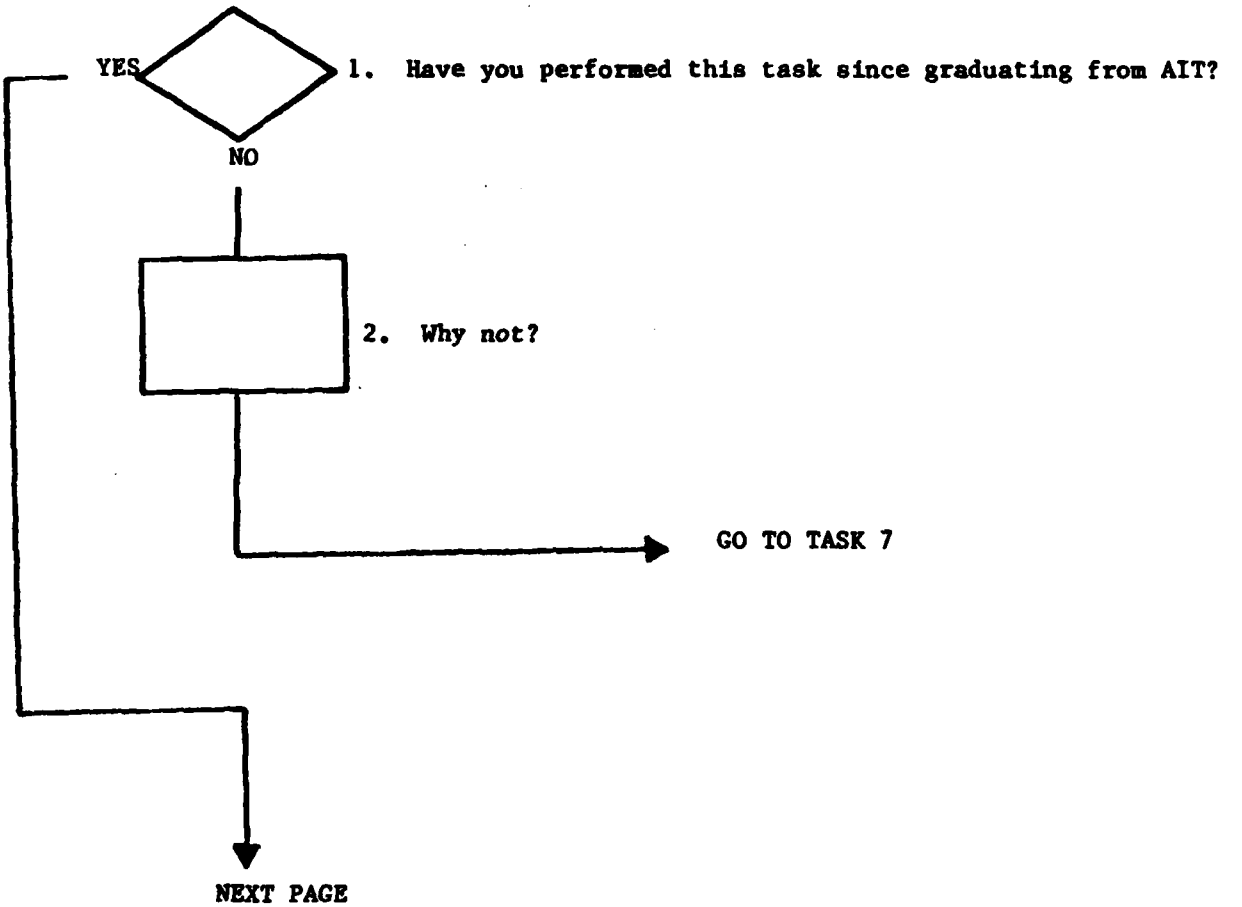


6. ASSIGN BEACON CODES

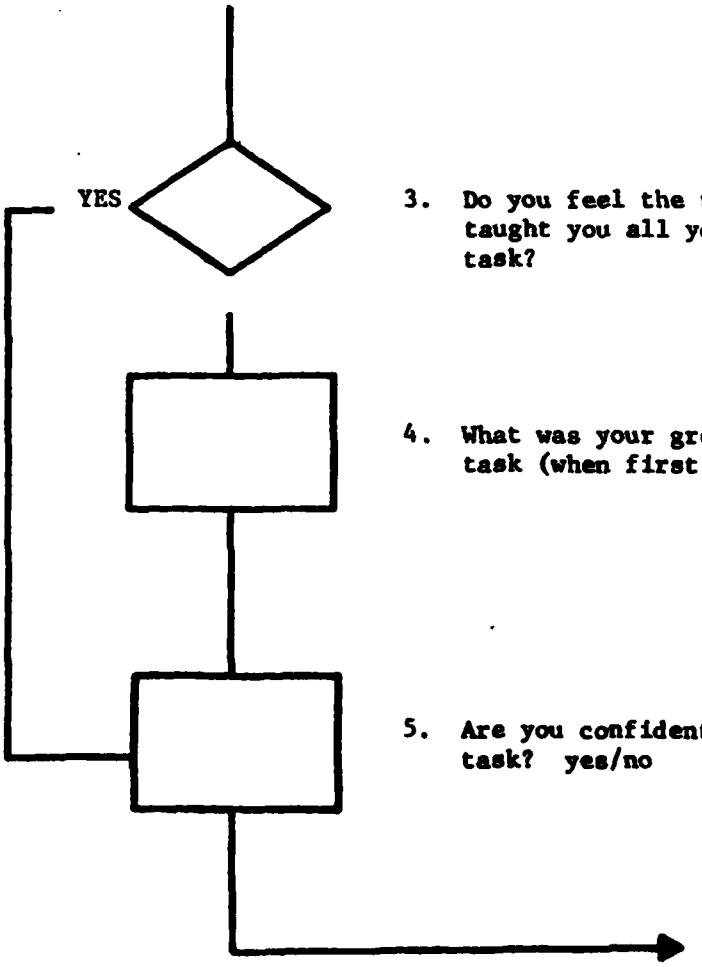
Survey Indications: Nonperformance in field.

Background: Taught to SM standards. Nonperformance may be due to lack of appropriate equipment.

Questions:



6. ASSIGN BEACON CODES (Cont'd)



3. Do you feel the training you received at Ft. Rucker taught you all you needed to know to perform this task?

4. What was your greatest area of weakness regarding this task (when first tasked to perform it in this unit)?

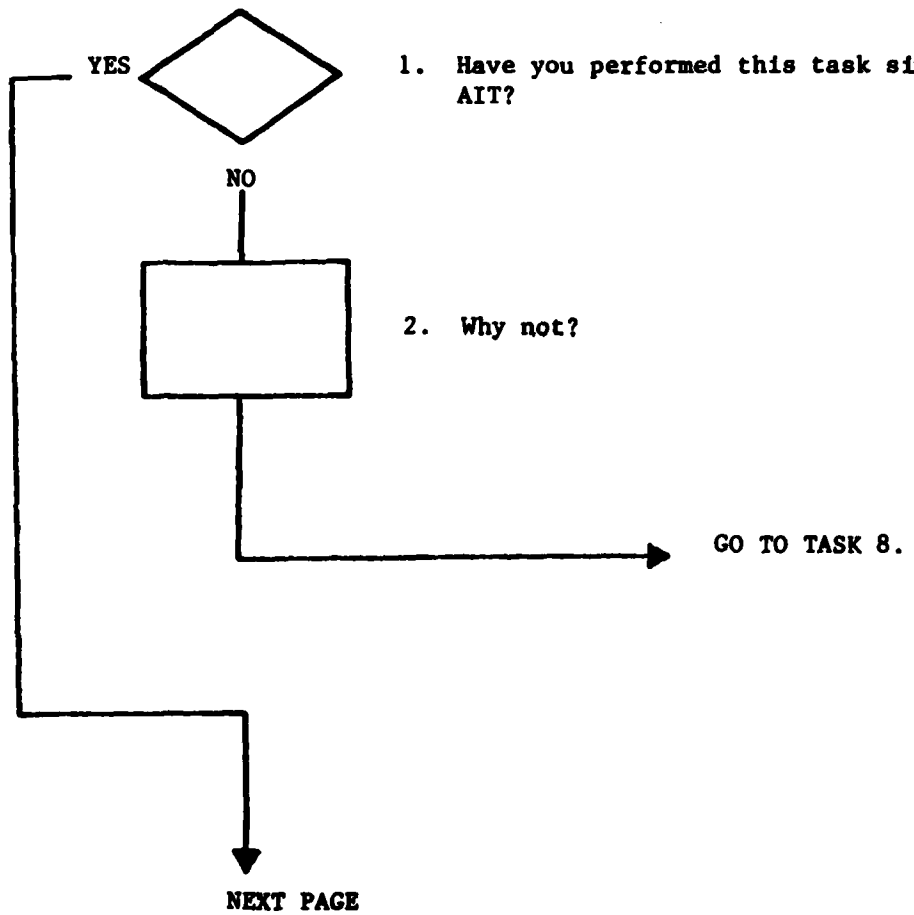
5. Are you confident now in your ability to perform this task? yes/no

GO TO TASK 7

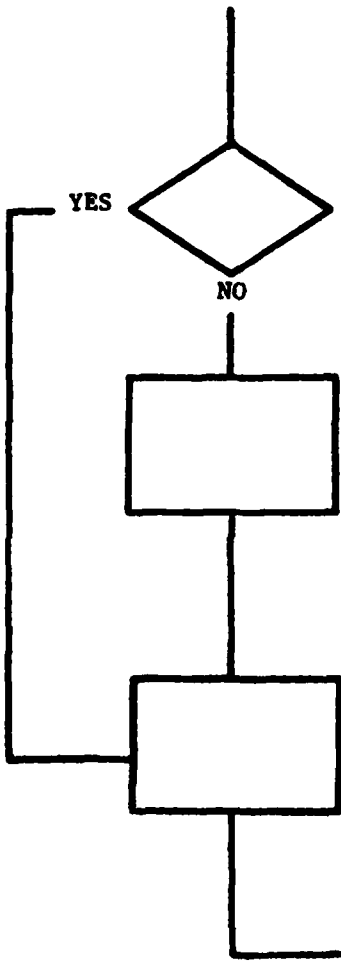
7. MANUAL APPROACH CONTROL

Survey Indications: Nonperformance in field.

Background: Taught to SM standards.
Includes: Vertical Separations, IFR non-radar
Longitudinal Separations, IFR non-radar
Lateral Separations, IFR non-radar
Holding Instructions, IFR non-radar
Departure Clearances, IFR non-radar
Abbreviated Departure Clearances, IFR non-radar
Separation between IFR departs/arrives, non-radar



7. MANUAL APPROACH CONTROL (Cont'd)



3. Do you feel the training you received at Ft. Rucker taught you all you needed to know to perform this task?

4. What was your greatest area of weakness regarding this task (when first tasked to perform it in this unit)?

5. Are you confident now in your ability to perform this task? yes/no

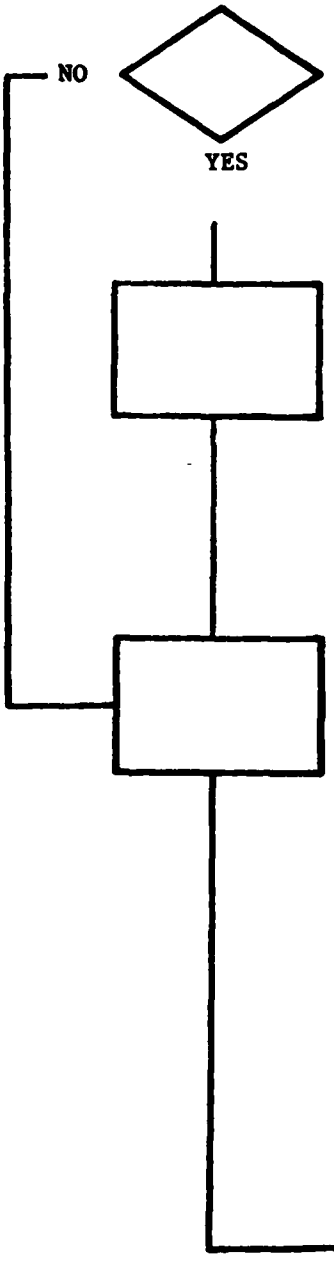
GO TO TASK 8.

8. APPLY MASK-TO-MOUTH RESUSITATION TO CHEMICAL AGENT CASUALTY

Survey Indications: Undertraining in AIT.

Background: Not taught to SM standards. Task is presented via TEC tapes at learning center. No practical exercise because of sanitary considerations.

Questions:



1. Have you had any refresher training on the above task since leaving AIT?

2. What was the extent of this training?

3. Suppose we were under chemical attack this very moment, and you had all the necessary NBC equipment available to you. Under those circumstances, how confident are you in your ability to perform the above task?

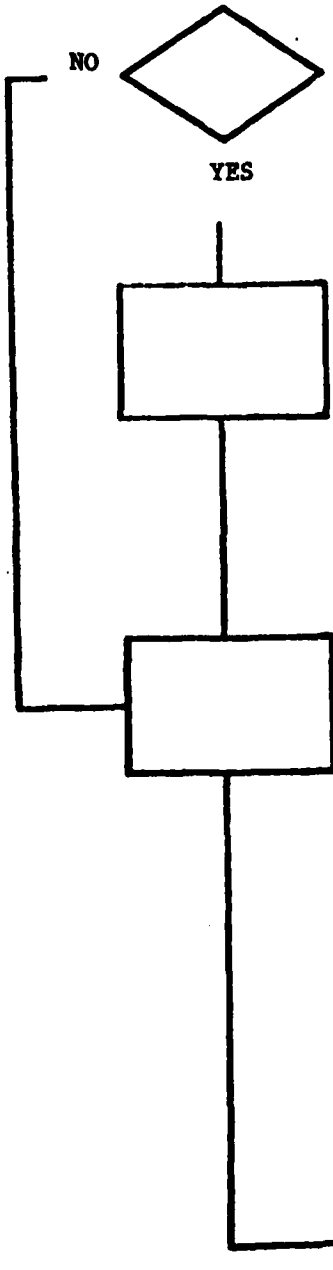
GO TO TASK 9

9. BACK PRESSURE ARMLIFT ARTIFICIAL RESUSITATION TO A CHEMICAL AGENT CASUALTY

Survey Indications: Undertraining in AIT.

Background: Taught to SM standards. TEC lesson at Learning Center and practical exercise in tactical phase.

Questions:



1. Have you had any refresher training on the above task since leaving AIT?

2. What was the extent of this training?

3. Suppose we were under chemical attack this very moment, and you had all the necessary NBC equipment available to you. Under those circumstances, how confident are you in your ability to perform the above task?

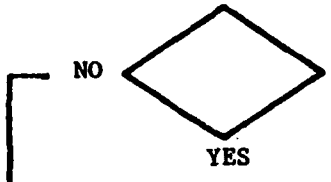
GO TO TASK 10.

10. PUT ON AND WEAR PROTECTIVE MASK

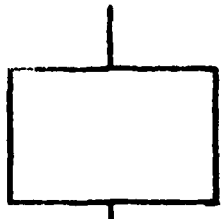
Survey Indications: Undertraining and nonperformance.

Background: Additional training - not taught to SM standards.

Questions:

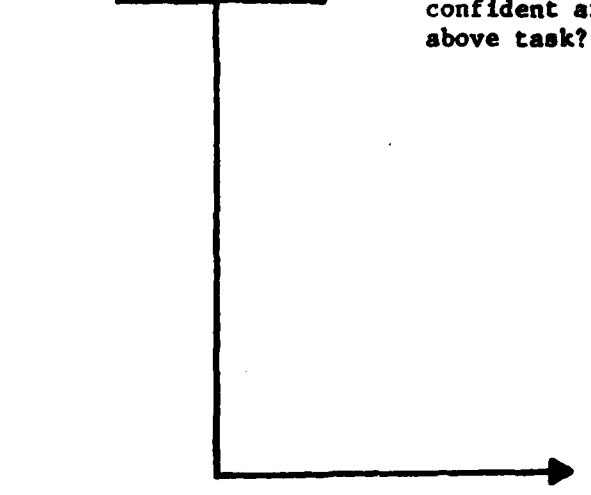


1. Have you had nay refresher training on the above task since leaving AIT?



2. What was the extent of this training?

3. Suppose we were under chemical attack this very moment, and you had all the necessary NBC equipment available to you. Under those circumstances, how confident are you in your ability to perform the above task?



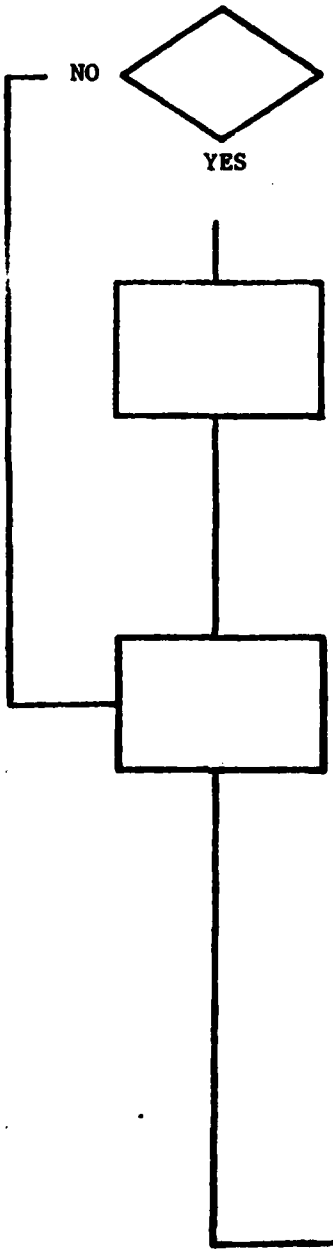
GO TO TASK 11.

11. DECONTAMINATE SELF/INDIVIDUAL EQUIPMENT

Survey Indications: Undertraining in AIT.

Background: Not trained to SM standards because training kit not available. Original was health hazard. New kit on order and when received task will be taught to SM standards.

Questions:



1. Have you had any refresher training on the above task since leaving AIT?

2. What was the extent of this training?

3. Suppose we were under chemical attack this very moment, and you had all the necessary NBC equipment available to you. Under those circumstances, how confident are you in you ability to perform the above task?

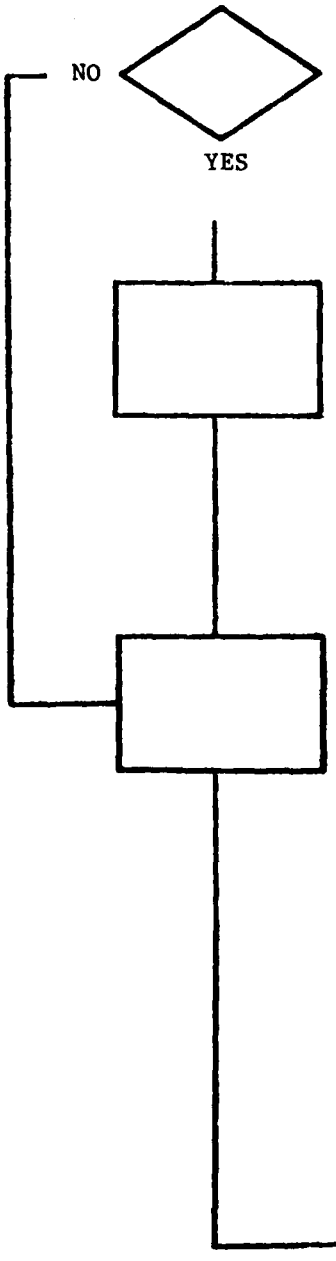
GO TO TASK 12.

12. SATISFY PERSONAL NEEDS IN A CHEMICAL ENVIRONMENT

Survey Indications: Undertraining and nonperformance.

Background: Taught to SM standards. Practical exercise at area alpha.

Questions:



1. Have you had any refresher training on the above task since leaving AIT?

2. What was the extent of this training?

3. Suppose we were under chemical attack this very moment, and you had all the necessary NBC equipment available to you. Under those circumstances, how confident are you in your ability to perform the above task?

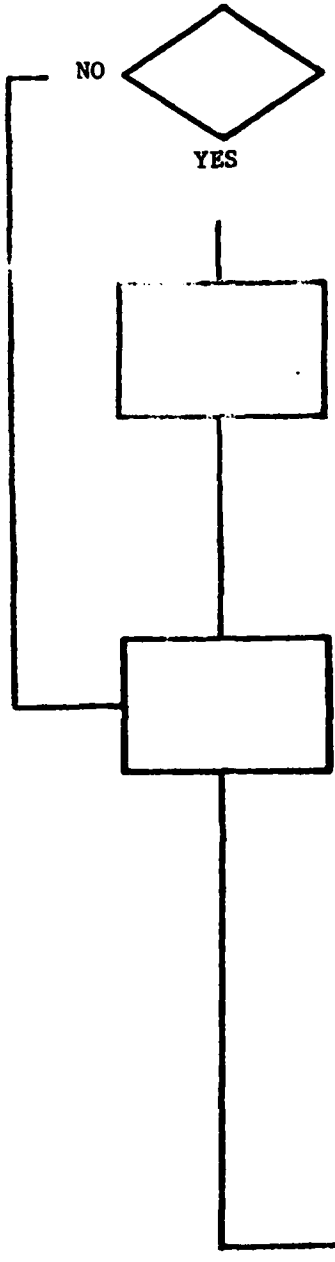
GO TO TASK 13.

13. PUT ON AND WEAR PROTECTIVE CLOTHING

Survey Indications: Undertraining in AIT.

Background: Taught to SM standards. TEC tape in Learning Center and practical exercise in tactical phase.

Questions:



1. Have you had any refresher training on the above task since leaving AIT?

2. What was the extent of this training?

3. Suppose we were under chemical attack this very moment, and you had all the necessary NBC equipment available to you. Under those circumstances, how confident are you in your ability to perform the above task?

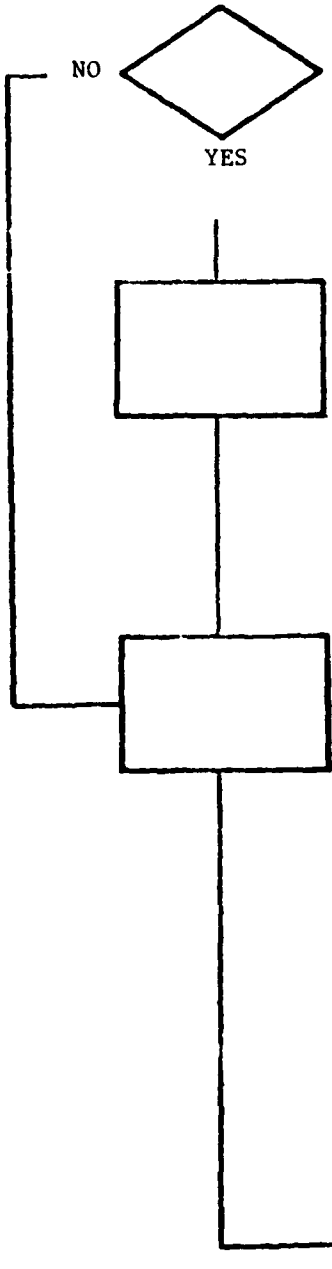
GO TO TASK 14.

14. GIVE FIRST AID TO ELECTRIC SHOCK CASUALTY

Survey Indications: Undertraining in AIT.

Background: Currently task is not in Commanders Manual or Soldiers Manual. Will be included in new training guide and new Soldiers Manual.

Questions:



1. Have you had any refresher training on the above task since leaving AIT?

2. What was the extent of this training?

3. If you were confronted with a situation today in which you had to deal with an electric shock casualty/victim, do you feel confident in your ability to provide the appropriate first aid?

APPENDIX F

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5. Program of Instruction for 222-93J10 Air Traffic Control Radar Controller Course, MOS: 93J10, U.S. Army Aviation Center, Fort Rucker, Alabama, October 1980.

6. Siegel, A.I. Beryman, B.A., Federman, P., & Sellman, W.S., Some techniques for the evaluation of technical training courses and students (AFHRL-TR-72-15). Lowry AFB, Co.: Technical Training Division, Air Force Human Resources Laboratory, February 1972.

7. TOE 01-227H700, ATC Company (Forward), Department of the Army, 23 January 1981.

8. TRADOC Pam 350-30, Interservice Procedures for Instructional Systems Development, Department of the Army, August 1975.

APPENDIX G
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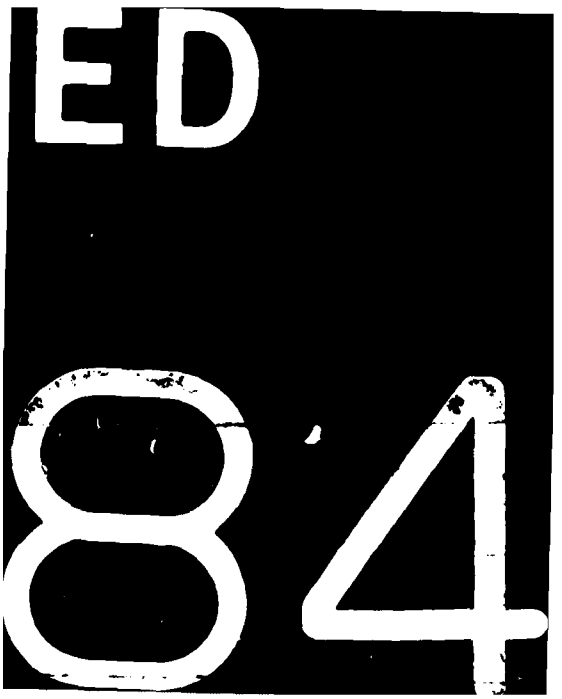
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