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ABSTRACT

A study was made to (a) describe how self-paced Military Occupational Specialty (MOS) training affects the Army assignment system; (b) identify ways the existing assignment system can accommodate individualized instruction; and (c) suggest modifications to the assignment system to provide better integration of self-paced training with assignment procedures. Information on self-paced systems in the Army, Navy, and Air Force and on assignment policies and procedures at the Department of the Army and at local training bases was collected, through interviews, correspondence, and examination of relevant documents. Relationships between self-paced systems and the assignment system were analyzed to identify points of accommodation. (Three appendixes are included.) (Author)

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Technical Report
73-14

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Self-Paced Advanced Individual Training (AIT) and Duty Assignment Procedures

Harold Hunter and Harold Wagner

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Prepared for

Office of the Chief of Research and Development
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DEPARTMENT OF THE ARMY
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July 19, 1973

DARD-ARS-B

SUBJECT: Self-Paced Advanced Individual Training (AIT) and Duty Assignment Procedures

TO:

1. This report analyzes the implications of individualized instruction for the Army's personnel assignment system. It is part of a research program directed toward developing practical techniques for the management of entry-MOS training programs in order to use individualized instruction more effectively for students at all aptitude levels.

2. Information was collected on existing self-paced systems in the US Army, Navy, and Air Force. Army and local assignment actions that affect self-paced training were traced, and the relationships between them were analyzed to identify points of accommodation. A solution for malalinements within the present assignment system may be possible through the use of one or a combination of procedures: (a) use of artificial graduation dates, with the training commander submitting a graduation date that will ensure the timely return of assignment instructions; (b) a minimum ability to predict individual graduation dates for longer courses. The ability to predict graduation dates with progressively improving accuracy seems within reach. Improvements in the assignment system may be possible through continued analyses of assignment procedures to shorten the time now required to assign and prepare a man for departure from the training base, further attempts to increase the ability to predict individual graduation dates, and changes in legislation to alleviate Public Law 51 constraints.

3. This report should be of interest to those concerned with self-paced training, and assignment of personnel completing training.

FOR THE CHIEF OF RESEARCH AND DEVELOPMENT:

R. O. VITERNA
Colonel, GS
Chief, Behavioral
Sciences Office

HumRRO
Technical
Report
73-14

Self-Paced Advanced Individual Training (AIT) and Duty Assignment Procedures

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HumRRO Division No. 1
Alexandria, Virginia

HUMAN RESOURCES RESEARCH ORGANIZATION

Work Unit STOCK

June 1973

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The Human Resources Research Organization (HumRRO) is a nonprofit corporation established in 1969 to conduct research in the field of training and education. It is a continuation of The George Washington University Human Resources Research Office. HumRRO's general purpose is to improve human performance, particularly in organizational settings, through behavioral and social science research, development, and consultation. HumRRO's mission in work performed under contract with the Department of the Army is to conduct research in the fields of training, motivation, and leadership.

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

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FOREWORD

The research described in this report was performed by the Human Resources Research Organization as part of Work Unit STOCK, Development of Training Management Procedures for Different Ability Groups. The objective of Work Unit STOCK is to develop practical techniques for the management of entry-MOS training programs in order to use individualized instruction more effectively for students at all aptitude levels. This report analyzes the impact of individualized instruction upon the Army's assignment system.

The research was conducted at HumRRO Division No. 1, Alexandria, Virginia. Dr. J. Daniel Lyons is Director of the Division. The work was initiated while the senior author was a member of the research team for Project IMPACT, Prototypes of Computerized Training for Army Personnel, in which the effects of individualized instruction upon military assignments have been studied. Dr. Currell Pattie, the Work Unit STOCK staff member stationed at Fort Lee, Virginia, visited the Air Force training bases to collect the information regarding their self-paced courses.

Other products of Work Unit STOCK include "Work Unit STOCK—Development of Training Management Procedures for Heterogeneous Ability Groups," in *Use of Job and Task Analysis in Training*, HumRRO Professional Paper 1-69, January 1969; a Consulting Report, "Determination and Application of Training Objectives in Revising the Supplyman (MOS 76A10) Course," August 1970; and two presentations given at the CONARC Training Workshop, Fort Gordon, Georgia, October 1971, including a paper on "Computerized Aspects of Systems Engineering," by Dr. Wagner of HumRRO and Mr. James Henry of the U.S. Army Quartermaster School, Fort Lee, Virginia.

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Meredith P. Crawford
President
Human Resources Research Organization

SUMMARY AND CONCLUSIONS

PROBLEM

Almost all Military Occupational Specialty (MOS) training is *fixed-length* training; that is, a fixed number of weeks is set aside to train students in a given MOS. Within the last several years, however, the U.S. Army and the other services have gained considerable experience with *variable-length* MOS training. An example of this is self-paced training where students are allowed as much or as little time as they need to attain and demonstrate MOS proficiency.

Self-pacing and other forms of variable-length training have, however, had an adverse effect upon the Army's duty assignment system. Early graduates are sometimes held unproductively at the training base because they have not yet fulfilled the time-in-training-status requirements of Public Law 51, or because assignment orders have not yet been received from the Department of the Army.

OBJECTIVES

The purposes of the study were to:

(1) Describe the ways in which self-paced enlisted MOS training affects the Army assignment system.
(2) Identify ways by which self-pacing can be accommodated within the existing assignment system.
(3) Suggest modifications to the assignment system, in order to provide better integration of self-paced training into the system.

APPROACH

The problem was approached through three overlapping steps:

(1) Collecting normative or descriptive information on existing self-paced systems in the U.S. Army, Navy, and Air Force.
(2) Tracing Army and local assignment actions that affect self-paced training, including the timing of these actions.
(3) Analyzing the relationships between the self-paced systems and the assignment system to identify points of accommodation.

The experiences of the three services were reviewed through personal visits, correspondence, and examination of relevant documents. Special emphasis was placed on problems of interfacing with the assignment system, as perceived by trainers. Next, an extended series of interviews was held at the Department of the Army and at local training bases with personnel directly responsible for the administration of assignment policies and procedures. Policy and procedures documents were examined in considerable detail. Suggested strategies and points of compromise were then reviewed for feasibility with affected action officers in the training and assignment systems. These officers made significant contributions to the study.

ERIC

FINDINGS

Principal constraints affecting the proper utilization of variable-length training graduates appeared to be as follows:

(1) Public Law 51, which requires that personnel to be assigned overseas first complete 16 weeks of training in the Continental United States (CONUS). This law especially affects short Advanced Individualized Training (AIT) courses because it often requires local training commanders to assign "early" graduates to on-the-job training.

(2) "By name" assignment procedures, which require at least four weeks to process a man for departure from the training base to an overseas duty station.

(3) The absence of a fully developed technology for predicting individual graduation dates.

(4) Strong Army preference to assign self-paced graduates within the standard system, rather than by exception.

A solution *within the present assignment system* may be possible through the use of one or a combination of procedures:

(1) Use of *artificial graduation dates*, with the training commander submitting a graduation date that will ensure the timely return of assignment instructions. This strategy works best for short AIT courses and for certain of the so-called "feeder" courses.

(2) For longer courses, a certain minimum *ability to predict individual graduation dates.* Assignment regulations permit a series of progressive approximations to this date, increasing in accuracy as the actual date approaches.

The ability to predict with *progressive* accuracy seems within reach. Several such systems are described in the report.

Certain changes to existing assignment procedures are suggested. All such suggestions are for the purpose of shortening the time now required to assign and prepare a man for departure from the training base.

CONCLUSIONS

Improvements in the assignment system have doubtless been made since the research for this study was conducted, during the early part of 1971. Further improvements may be possible through:

(1) Continued analyses of assignment procedures to shorten turnaround time.

(2) Further attempts to increase the ability to predict individual graduation dates.

(3) Changes in legislation to alleviate Public Law 51 constraints.

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Self-Paced Advanced Individual Training (AIT) and Duty Assignment Procedures

INTRODUCTION

Self-paced training, defined in this report as variable-length training, permits trainees to take as much or as little time as they need to ensure proficiency in the subject studied. A number of Advanced Individual Training (AIT) courses are now fully self-paced, primarily through programmed instruction.[1] The Department of the Army has stated, "The success achieved so far . . . argues for the wider use of this instructional technique,"[2] and the U.S. Continental Army Command (CONARC) has encouraged its schools to apply self-pacing to additional AIT courses.[3]

This report traces the effects of self-paced AIT upon assignment procedures. As background to a statement of problems being encountered, it is useful to compare a standard (fixed-length) course with the same course after it has been self-paced. Data collected from the U.S. Army, Navy, and Air Force support the following generalizations:

- Self-pacing tends to reduce overall training time by about one-fourth.
- The distribution of training times is approximately normal.
- The distribution has a standard deviation of about one-fifth the original course length.

Figure 1 shows these assumptions in graphic form. It compares a standard (fixed-length) course with the same course following self-pacing.

Comparison of a Course Before and After Self-Pacing

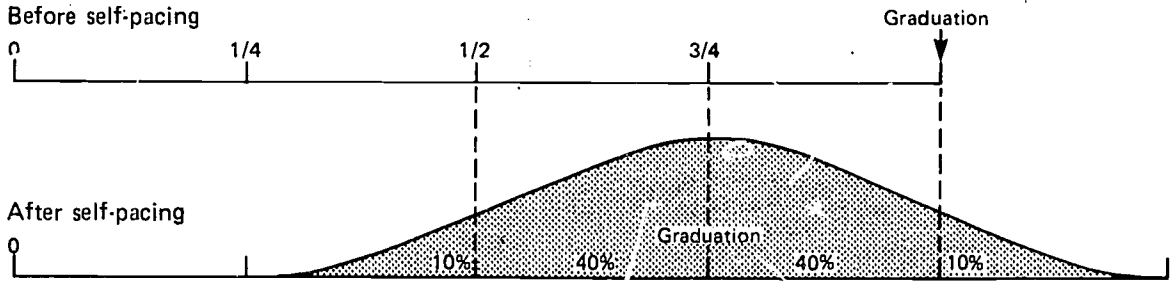

Figure 1

Data for the lower half of Figure 1 are presented in Table 1. The lefthand column shows elapsed time as a percentage of the original, fixed-length course. The middle column shows a sample fixed-length course, originally 10 weeks. The righthand column shows cumulative percentages of students graduating within various lengths of time, after self-pacing. For example, when the fixed-length course is half over (50% in the lefthand column, or five weeks for the sample course), about 11% of the students in the self-paced course have already graduated.

[1] Military experience with self-paced training in the U.S. Army, Navy, and Air Force, including assignment problems, is summarized in Appendix A.

[2] Department of the Army message to CONARC, Subject: Self-Paced Instruction in AIT, Sep 70.

[3] CONARC Message, Subject: Conversion to Self-Paced Instruction in AIT, 30 Nov 70.

Table 1

Percent Self-Paced Students Graduating After Varying Lengths of Comparable Fixed-Length Training[a]

Percent Time (Fixed-Length)	10-Week Course	Percent Graduates (Variable-Length)
30	3 weeks	1
35	3½ weeks	2
40	4 weeks	4
45	4½ weeks	7
50	5 weeks	11
55	5½ weeks	16
60	6 weeks	23
65	6½ weeks	31
70	7 weeks	40
75	7½ weeks	50
80	8 weeks	60
85	8½ weeks	69
90	9 weeks	77
95	9½ weeks	84
100	10 weeks	90
105	10½ weeks	93
110	11 weeks	96
115	11½ weeks	98
120	12 weeks	99

[a]Complete data are shown in Appendix Table B-1.

PROBLEM

Self-pacing has produced at least two types of problems:

(1) Problems relating to the utilization of "early" graduates at local training bases, especially students graduating in less than eight weeks.

(2) Problems relating to the timely arrival of assignment instructions from the Department of the Army, so students may depart the training base immediately upon graduation.

The first problem derives from Public Law 51 (PL 51). PL 51 constrains AIT graduates from departing for overseas assignment until the completion of eight weeks formal training or on-the-job training (OJT), beyond the eight weeks used in Basic Combat Training. Since self-pacing tends to shorten overall training time, PL 51 has made it necessary for local training commanders to generate additional MOS-related assignment options, usually OJT assignments, for self-paced students in the shorter courses.

The second problem relates to current Army assignment procedures. The Army requires at least two weeks to generate assignment instructions under normal (automated) procedures. The local training base requires an additional two weeks, beyond receipt of these instructions, to prepare a man for departure (assuming an overseas assignment). Therefore, the local training commander must inform the Army of the individual's graduation date at least four weeks in advance of that date, in order for the man to depart immediately upon graduation (assuming PL 51 requirements have been fulfilled). However, self-pacing implies variable-length training, and individual graduation dates cannot now be predicted with complete accuracy one full month in advance. The

problem is how to improve such predictions, or how to avoid the prediction problem altogether—either within the existing system, or by revisions to that system.

Both problems are implied in CONARC's report to the Army on progress in self-pacing.

> "The timely and productive assignment of graduates is essential to the success of the self-pacing effort. Students must be assigned to MOS related duties as soon as they have completed the course. The use of self-paced graduates in non-relevant assignments while waiting orders will cause the failure of the effort."[4]

The discussion is organized under three topics:

- Current procedures for assigning AIT graduates to duty positions.
- Requirements for interfacing self-paced training with that system.
- Potential compromises between the training and assignment systems.

THE ENLISTED ASSIGNMENT SYSTEM

This section describes principal actions taken from the point when a student first arrives for AIT, to the day he departs for his first duty assignment (Figure 2). Except where otherwise noted, the prime reference is AR 614-200.[5]. Actions are described in the following sequence: (a) arrival processing, or actions taken at the training base when the man first reports for advanced training; (b) assignment processing, especially actions taken at the Department of Army levels; and (c) graduation processing, or actions required locally to move the man off the training base. (Numbers circled refer to Figure 2.)

ARRIVAL PROCESSING

All personnel in a training status, whether basic or advanced, are listed in a computer system called ACT (Automated Control of Trainees). Before a man arrives for training, ACT contains information on his advanced training assignment. (1) This information includes the expected graduation date from AIT.

Within five days after the man has arrived for AIT (2), the training base must send a card to the Department of the Army that is routed to the ACT system. This *Training Control Card*, or TCC, verifies that the man has arrived, and either confirms or modifies the training assignment. (3) Modifications that may be made by the training base at this point include a change in the expected graduation date. Modifications that occur after the five-day period are also reported via TCC when they become known. (4)

[4] CONARC Message to the Department of the Army, Subject: Conversion to Self-Paced Instruction in AIT, Mar 71, para 4b.

[5] Enlisted Personnel Selection, Training, and Assignment System, Grades 6-1 Through 2-9, Army Regulation 614-200, 4 Jun 70.

Flowchart of Principal Assignment Actions

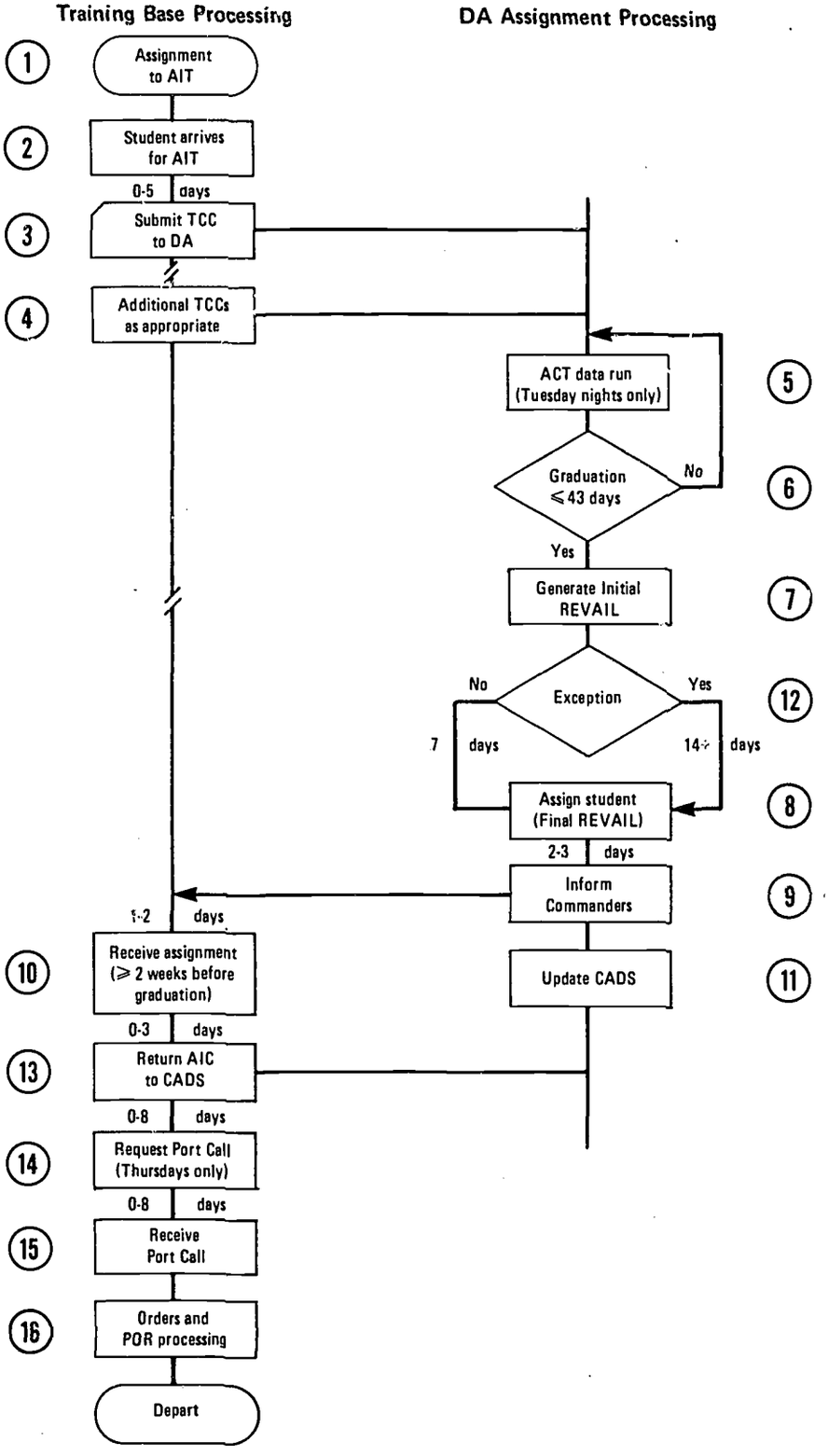

Figure 2

ASSIGNMENT PROCESSING

In general, two sets of procedures are used to assign AIT graduates to duty positions. The first, or normal, set of procedures is called REVAIL processing. Students not qualified for REVAIL processing are assigned under exception procedures.

REVAIL Procedures

Data on personnel in AIT are processed by the Department of the Army every Tuesday night under the ACT system. (5) All TCC data entered by 0600 hours that morning are included. To ensure that TCC data are contained in a Tuesday night run, training bases must forward TCCs no later than Monday, and preferably the preceding Friday.

Students graduating in less than 43 days (about six weeks) are listed on a printout or roster. (6) Punched cards (asset cards) are prepared for each student on the roster; these cards plus the roster are called the Initial REVAIL, or personnel REadily aVAILable for assignment. (7)

On the following day, the Initial REVAIL is given to assignment specialists. They manually match asset cards with requirement cards to generate duty assignments. (About 4,000 to 5,000 such assignments are made each week.) Matched pairs of asset and requirement cards are returned to a control point the following Wednesday. These cards constitute the Final REVAIL. (8)

Additional data processing (not under the ACT system) results in transactions that are forwarded to the losing and gaining commanders, showing the man's duty assignment. (9) This information is sent out Thursday night, arriving (at the training base) no later than the following Monday.[6] Information includes the expected graduation date (10), and the month during which the graduate is to arrive for duty, but not the day within that month. The specific arrival date is determined later; it is not directly controlled by the Department of the Army at this point.

Exception Procedures

Most of the AIT students are assigned under REVAIL procedures, and it is highly desirable that self-paced assignments be handled under this system. Exception procedures place an undesirable burden on assignment specialists.

REVAIL procedures are by-passed in a wide variety of cases. Examples include students in special category courses (e.g., short courses of four weeks and less) and specialized skill courses, and students whose assignments were not received within seven days prior to their graduation. Reports about these persons are made directly to DA by telephone or electrical message. In such cases, assignments can be returned in seven to ten days.

[6]Cards showing assignment instructions are sent via AUTODIN Thursday night. Rosters, mailed the following day, may not arrive until the next Thursday if mail delivery is especially slow. However, all information required to begin graduation processing is contained in the cards.

REVAIL procedures normally require two weeks, from the Monday cut-off for TCC data sent in by the training base, to the Monday two weeks later when training assignment information arrives back at the training base. This period can be extended for a variety of reasons:

- The training base has submitted invalid data, such as misspelled names or nonexistent MOS codes.
- Assets outstrip requirements, producing an excess.
- Individuals are identified for special handling, such as sole surviving sons, persons under 18 or with a brother in a combat zone, and so forth.

All such cases produce an additional delay of at least a week. (12)

GRADUATION PROCESSING

Most of the actions described in this section are the responsibility of the training base, and begin from the point when assignment instructions are received from DA. Such actions include (a) acknowledging to DA that assignment instructions will be followed; (b) obtaining travel orders and arranging transportation to the duty station, especially overseas duty stations; and (c) confirming that the man is eligible for overseas duty, if the assignment is to an overseas position.

Acknowledging Assignment Instructions. All AIT graduates who have been assigned to duty positions are listed in a computer system called CADS[7] (*Centralized Acknowledgement and Deletion System*). (11) Within 72 hours of receiving assignment information, the training base must inform the CADS system whether or not the man will comply with instructions. (13) This is accomplished by returning a punched card, called the Assignment Information Card, with a code punched into one of its columns.

Securing Transportation. If the assignment is to an overseas station, the training base immediately requests a port call date.[8] (14) This is the date that the student is to arrive at an overseas replacement station (within the Continental United States, CONUS) for overseas transportation. To help transportation personnel plan the port call date, the training base submits an availability date together with the request. The availability date is figured as the graduation date plus 15 days leave plus travel time. Travel time varies from one to five days, depending upon the distance to the port of embarkation.

Requests for port calls may be made only on Thursdays. Port call dates are usually returned the same day. (15) The Army requests that the local training base ask for a port call date between the 26th of the requirement month and the 27th of the *preceding* month.

Immediately on receiving the port call, the training base prepares travel orders. (16) About two or three days are required for preparation, publication, and distribution.[9] The reporting date shown on the orders is the port call date. The gaining

[7] Centralized Acknowledgement and Deletion System, Department of the Army Circular 614-18, 30 Jan 70.

[8] Port calls are covered in Port Call Procedures for Passenger Movements, Army Regulation 55-28, 14 Nov 69. The regulation is to be revised, allowing port call requests to be made on any day.

[9] Processing time reflects the experience of the U.S. Army Quartermaster School.

commander does not learn the date that the man will arrive for duty until after the graduate has arrived in country. Prior to that point, the gaining commander knows only the month during which the replacement can be expected. This is the requirement month shown on the Assignment Information Card that was forwarded by DA to both the losing and the gaining commanders. (9) and (10)

Confirming Eligibility for Overseas Duty. If the individual has been assigned overseas, he is confirmed as eligible at the same time travel orders are cut. The procedure consists in little more than marking items on a checklist, and is completed in a matter of minutes.[10] [11] (16)

To review, the training base requires about two weeks beyond receipt of assignment information to prepare a man for departure. That period can be shortened to two to three days if the man has received a CONUS assignment, because then port calls are not required.

INTERFACING SELF-PACED TRAINING WITH DA ASSIGNMENT PROCEDURES

This section describes minimum requirements for ensuring that assignment information will arrive at least two weeks prior to graduation, and that trainees will be used productively until they are free to depart. The requirements to be stated apply to self-paced training systems. Potential modifications to the assignment system will be discussed in the following section.

EFFECTS OF PUBLIC LAW 51

Public Law 51 is treated more fully in Appendix C. The basic provisions of Public Law 51 (PL 51) require personnel to undergo four months (16 weeks) of formal training before being sent overseas (not including Alaska, Hawaii, and U.S. territories and possessions). Of the 16 required weeks, eight are taken up in basic training. Consequently, advanced training must last at least eight weeks to complete the required four months. If formal AIT is completed in less time, the difference must be made up in on-the-job training (OJT), or additional formal training.

The Army now requires that students graduating in less than eight weeks be assigned to local OJT positions, and be reported in a training status, until self-paced AIT plus OJT has reached at least eight weeks.[12]

Figure 3 recasts the information from Table 1 to show percent of students expected to graduate in less than eight weeks as a function of the original course length.

Figure 3 may be useful in estimating local requirements for OJT positions for students receiving overseas assignments. For example, assume that a training commander can handle up to 10% of the self-paced student input in OJT positions. It is suggested in Figure 3 that the original, fixed-length course should be at least 16 weeks long to avoid

[10] Processing time reflects the experience of the U.S. Army Quartermaster School.

[11] POR processing is described in Preparing Individual Replacements for Oversea Movement (POR) and U.S. Army Oversea Replacement Station Processing Procedures, Army Regulation 612-2, 12 Oct 70.

[12] Department of the Army Letter, Subject: Administrative Procedures for Self-Paced Trainees, 6 August 1969.

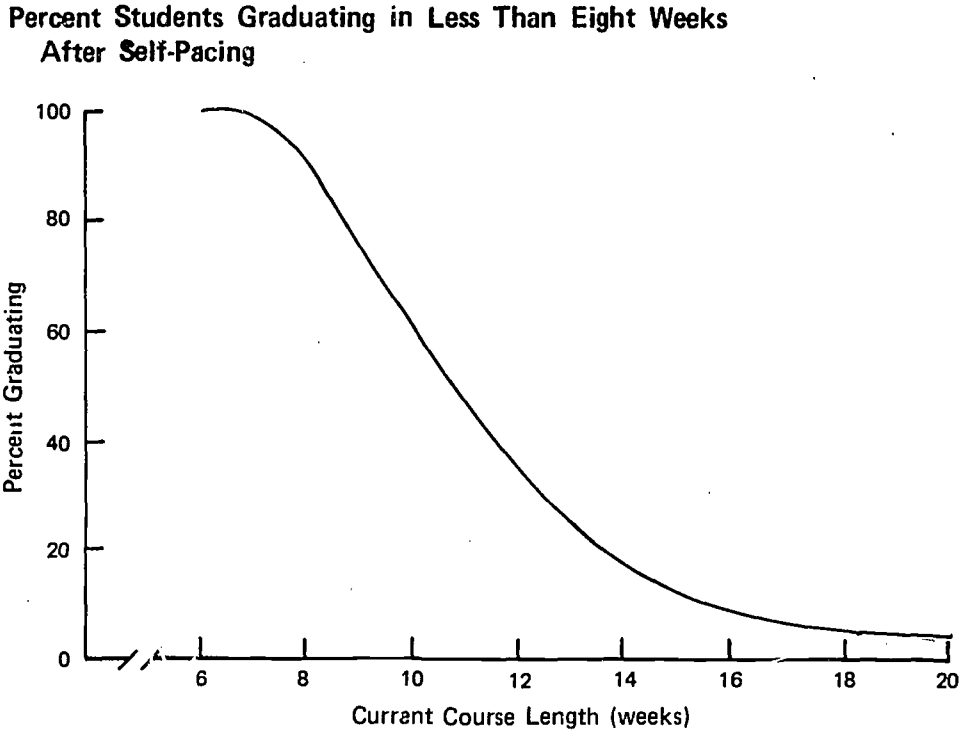

Figure 3

overloading local OJT capabilities. Early CONARC experience with self-pacing (see Appendix A) showed exactly this effect. Courses substantially less than 16 weeks fixed-length were self-paced, and local OJT capabilities quickly were oversaturated with students graduating in less than eight weeks. Local OJT requirements can be reduced if CONUS assignments are available for early graduates; however, this cannot be guaranteed at present.

Some 70 MOS-producing courses currently taught in CONARC schools are 16 weeks or longer. Their combined FY 1971 throughputs totaled over 9,000 man-years of training time. Since self-pacing typically reduces the average course length by about one-fourth, several thousand of those man-years appear to be recoverable.

DA and CONARC prefer that courses under consideration for self-pacing be eight weeks or longer. Under self-pacing, an eight-week course that sends all its graduates overseas (none with prior AIT) would have to increase OJT up to 90% of its input for short periods.

In general, PL 51 has the effect of favoring long courses for self-pacing, because the longer the course, the less the demand will be for local OJT slots.

ADMINISTRATIVE PROCESSING REQUIREMENTS

Assuming an overseas assignment, graduation dates must be submitted to DA at least four weeks in advance—allowing two weeks for DA to return an assignment, and two more weeks locally to prepare the man for departure.

Firm graduation dates for self-paced trainees cannot now be predicted with good accuracy four weeks in advance. However, the training commander can control the arrival

of assignment information through *artificial graduation dates* submitted on the initial TCC.[13] The following key facts are important as background to the use of artificial graduation dates.

(1) The training base must submit a TCC within five days of the student's arrival. Training commanders are authorized to modify the graduation date at this point, via the TCC.

(2) Students shown on the Tuesday night run of the ACT data base as graduating in less than 43 days are listed on the Initial REVAIL for assignment.

(3) Students shown as graduating after about the 10th of a given month are assigned against requisitions for the following month at the earliest. That month is called the requirement month, or the month during which the man is to arrive for duty.

(4) Within 72 hours of receiving the assignment, the training base must inform CADS whether or not the man will comply with the assignment. The man is considered to be in compliance if he will arrive in country by the 26th of the month *following* the requirement month.

The key to the solution is the fact that training commanders, by their authority to modify the graduation date submitted on the TCC, can control the earliest requirement month shown on the Assignment Information Card (AIC). If, for example, the training base submits a graduation date of 5 April, the AIC may show April as the requirement month; however, if the date is changed to 12 April, the AIC will show May as the earliest requirement month. In general, students graduating between the 1st and about the 10th of a month may, if the requirement is great, be assigned against requisitions for the same month. Students graduating after about the 11th of the month are normally assigned against requisitions for the following month. The 10th or 11th day is used as a cut-off on the assumption that about three weeks are needed to place the man at his duty station.

The training base must respond to instructions shown in the AIC within 72 hours. This response is routed to CADS, and tells whether the man will comply with assignment instructions. If the man can comply within 30 days, the instructions remain in effect; if not, the man is reported as a deletion or deferment, with 1 of 27 reason codes.

The interpretation of "within 30 days" is important to a determination of the latest date on which the student can graduate without being reported as a deletion or deferment under CADS procedures. Specifically, the man is acknowledged as complying if he will

> ". . . move as directed or within 30 days of the directed assignment date" (DA Cir 614-18, para 10a): or
>
> ". . . complete training and will proceed to assignment within 30 days after the original graduation date" (AR 614-200, para 3-35a).

The CADS office interprets these statements as meaning that the student should be acknowledged as complying with instructions if he arrives in country by the 26th day of the month *following* the requirement month.

The training base can predict whether the man will comply with the CADS requirement on the basis of estimated transit time, beginning with the *actual* graduation date. The maximum transit time required to place a man in country overseas is estimated at 26 days following graduation. (This figure is somewhat greater than the three weeks estimated by replacement specialists to place the man, not only in country, but at his duty station.)

The 26 days are broken down as follows:

- 16-20 days. The availability date, figured as 15 days leave plus one to five days travel, depending upon the distance to the replacement station.

[13] The writers are indebted to LTC Walter Smith, Chief, Asset Control, Enlisted Personnel Directorate, Office of Personnel Operations, for first suggesting this option.

- 0-4 days. The port call date may be as much as four days beyond the availability date, at the option of transportation personnel.
- 1 day. At the CONUS overseas replacement station.
- 1 day. In transit, placing the man in country.

Although actual transit time is more nearly the three weeks (21 days) used by replacement specialists in assigning personnel, by holding to the more conservative estimate of 26 days transit time, the training base may submit an acknowledgement to CADS, if the man will graduate by the last day of the requirement month. This allows 26 days beyond graduation to place the man in country by the 26th of the month following the requirement month.

Short Courses

The application of artificial graduation dates to an eight-week course (fixed length) is shown in Figure 4. One self-paced version of the course is shown starting on 2 August, the other on 16 August. Training commanders are advised to submit an artificial graduation date of about 14 September in both cases, for the following reasons:

(1) The start dates happen to be Monday. If the training base submits TCCs immediately upon student arrival, the information should be entered into the ACT data base in time for processing on Tuesday night of the first week in training.

(2) ACT will find the students to be graduating in less than 43 days from the date of the computer run. Thus, all students will be listed on a printout as available for assignment.

(3) Assignment personnel, seeing 14 September as the graduation date for both classes, probably will assign students against October requisitions (i.e., October will appear as the earliest requirement month on the Assignment Information Card).

(4) Assignments should arrive back at the training base by Monday of the third week in training. Allowing a maximum of two weeks to prepare students for departure, and an additional three to three and one-half weeks in transit, most students should arrive in country during October, the requirement month, and the rest in September. Of the second class, 10% should arrive early (September) and 10% late (November). Acknowledgements can be submitted to CADS for all students in both classes, because all should arrive in country well before 26 November.

Even if some students may not depart for overseas assignments because of PL 51 constraints, early artificial graduation dates are still recommended, because they do provide timely assignments for early graduates who are *not* constrained by PL 51 (e.g., those who receive CONUS assignments).

Long Courses

A long self-paced course, originally 16 weeks, is shown in Figure 5. If students depart the training base immediately upon graduation, their arrival in the field will be spread over four months, from October through January. None of these months is satisfactory as the requirement month for the entire class.

Allowing about three weeks for leave and travel time, the training commander should try to arrange for students graduating before eight weeks to receive October assignments. Extrapolations based on Table 1 data suggest that approximately 11% of the students will graduate within eight weeks of training. Similarly, students graduating over the next four-week period—about 44% of the class—should be assigned against November requisitions.

Submission of an early graduation date, to obtain assignments for the faster students, would result in the designation of October as the requirement month for all students, including those who may graduate as late as December. To guard against this

Effects of Artificial Graduation Dates Upon the Arrival of Assignment Instructions and the Arrival of Graduates in Country: Eight-Week (Fixed-Length) Courses

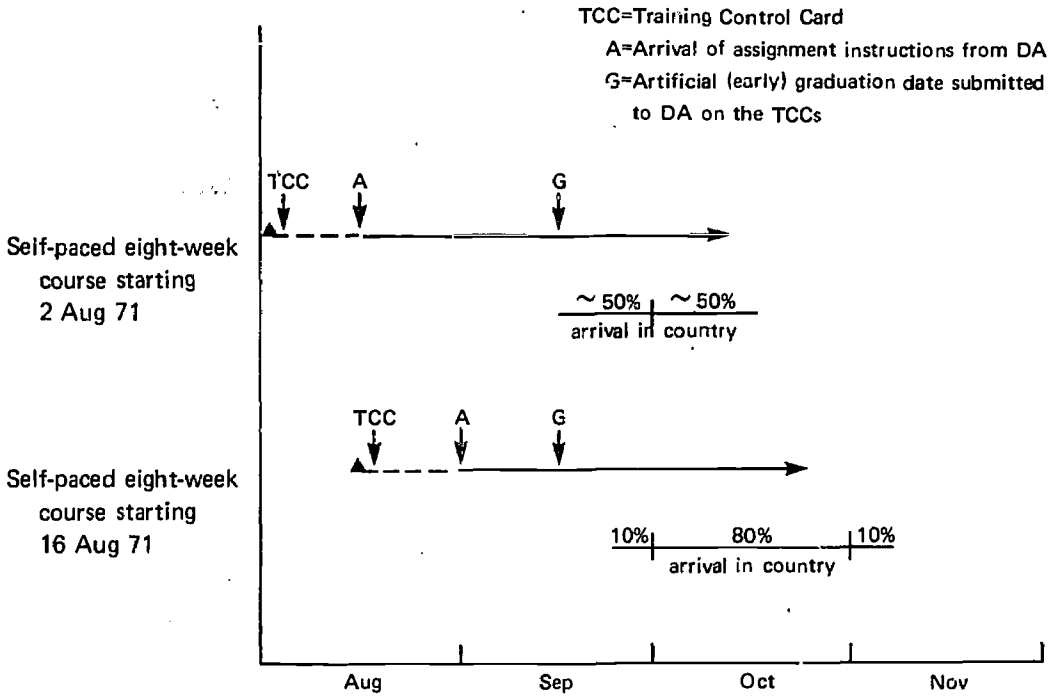

Figure 4

Percent Students in a 16-Week Self-Paced Course Expected to Graduate Three Weeks Prior to Consecutive Calendar Months

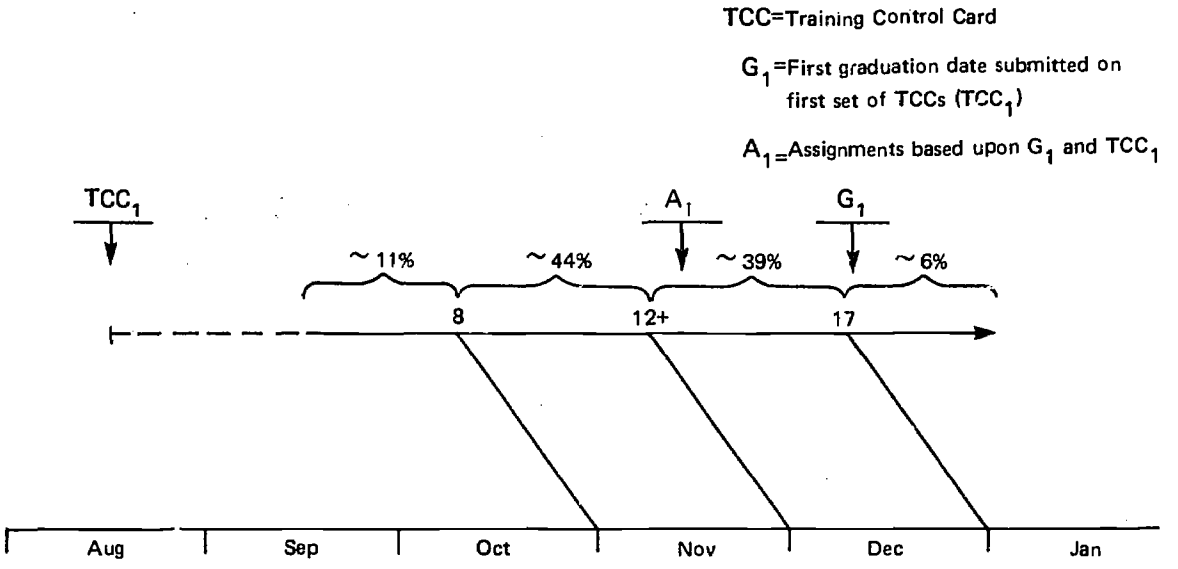

Figure 5

possibility, the first TCC should indicate a late graduation, for example, 15 December. Unless advised otherwise, the ACT computer will list the students as available for assignment on the night of Tuesday, 2 November. Assignments will be returned to the training base around the middle of November.

At the end of the second week, additional TCCs should be submitted identifying students expected to graduate within the first eight weeks of training, and showing a graduation date of about 13 September. In order to prepare the earliest graduates for a timely departure (assuming they are qualified under PL 51), assignments should arrive about 13 September. Students may actually take as long as 11 weeks without being reported as deferments under CADS procedures—a three-week leeway.

This strategy presumes that individual graduation dates can be predicted within plus three weeks. Experience in the U.S. Army and Air Force has shown that this is possible For example, the Southeastern Signal School administers several self-paced courses, all originally over 16 weeks long. Graduation dates are predicted through the use of a Progression Index (PI), a measure of individual progress relative to expected, or average, progress. Graduation dates are submitted to the local personnel office seven weeks in advance, and individual students are informed of their expected graduation dates. Under this system, actual graduation dates are predicted with 98% accuracy. As another example, the Air Force now predicts self-paced graduation dates 10 days in advance, with good success.

HumRRO researchers in Work Unit STOCK III are attempting to project self-paced graduation dates from predictors administered early in training. They are using not only general tests, such as the Armed Forces Qualification Test (AFQT) and Army Classification Battery (ACB) scores, but also performance-based measures derived from training and job requirements. Their work has not been validated, because the course (MOS 76P20) has not yet been fully self-paced or individualized by U.S. Army Quartermaster School personnel. However, they have been able to predict the time to complete self-paced practical exercises with moderate success. These practical exercises account for about half the training time, under the current, fixed-length program. Course-based measures predicted individual training times better than measures of general aptitude and ability.

Occasionally, students predicted to take more than eight weeks will actually complete their training in less time. Consequently, training commanders may be tempted to expand the range of students included in the second set of TCCs to those expected to graduate in, say, nine weeks. This would help ensure the timely arrival of assignments for students graduating earlier than expected. However, the temptation should be resisted on at least three counts:

(1) Students should have to wait no more than a week beyond graduation before they may depart, particularly in view of the expected revisions in port-call procedures.

(2) Should the predicted nine-week students actually require more time, they will arrive at their duty stations even later in the month following the requirement month, placing using commanders in a temporary understrength position. The intent of the strategy is to place graduates at their duty stations *during* the month requested by the using commander, not after.

(3) The permissible error in prediction is reduced from plus three weeks to plus two weeks. If a predicted nine-week student actually requires more than 11 weeks, he must be reported as a deferment to CADS.

Figure 6 shows the timing and expected consequences of the second set of TCCs, and Figure 7 summarizes the timing for the entire set of four TCCs.

Use of Artificial Graduation Dates to Generate Timely Assignments for Early Graduates of a 16-Week Course

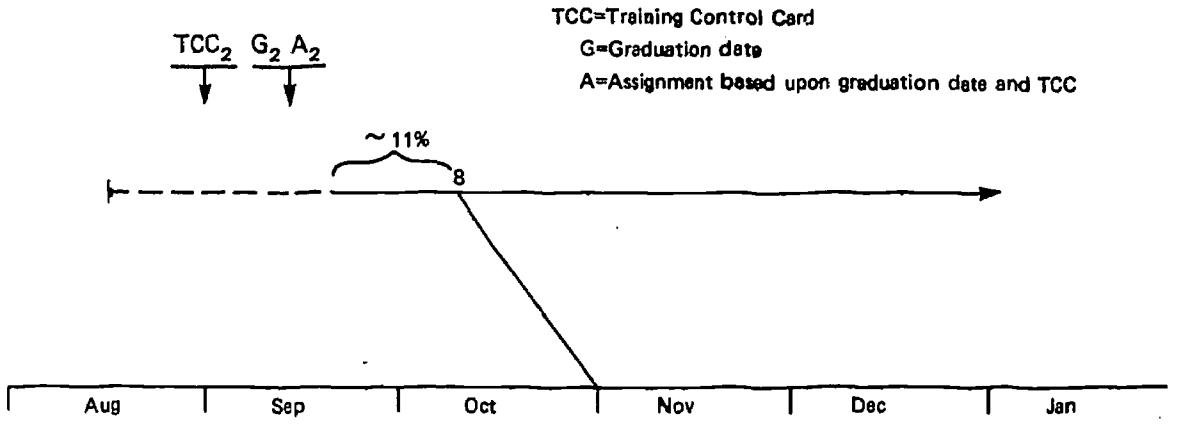

Figure 6

Use of Artificial Graduation Dates to Obtain Timely Assignments for All Students in a 16-Week Course

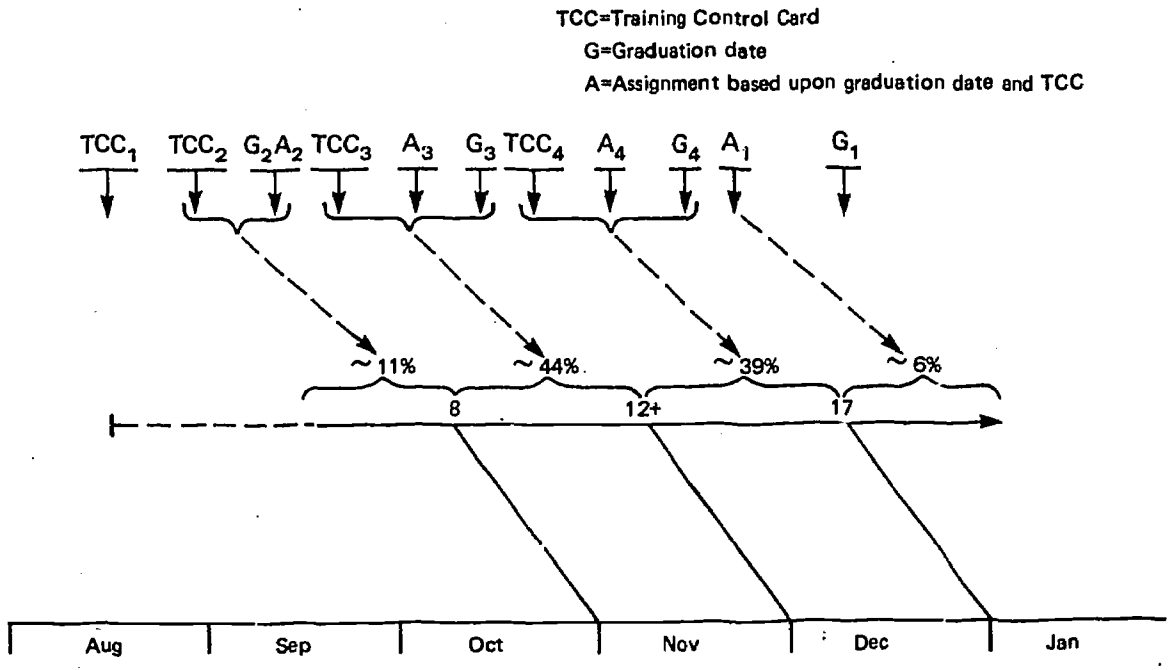

Figure 7

In general, training commanders are advised to apply the strategy of a late graduation date followed by sets of modifying TCCs, for fixed-length courses longer than approximately 10 weeks. This is about the length of time at which self-paced students begin to graduate over a period of more than two months.

Commandant Fill Courses

Approximately 20 AIT courses "feed" other locally administered AIT courses, where assignment from the feeder to the "follow-on" course is under control of the local Commandant. Such follow-on courses, called Commandant fill courses, are conducted at 10 different service schools.

Feeder courses are strong candidates for initial attempts at self-pacing because their follow-on courses offer the administrative protection of fixed-length training. The feeder course may be self-paced without a strong requirement to predict graduation dates. Graduates are simply programmed into the first available follow-on course. Since follow-on courses are fixed length, DA has the required lead time to generate duty assignments. Operational experience with self-paced training can be obtained without interfacing directly with DA. For this to occur, follow-on courses must have at least two features: (a) They must accept all, or virtually all, graduates of the feeder course, and (b) they must begin every day, or no less than every week, since the self-paced feeder course will graduate students daily.

At least two courses satisfy both criteria. They are MOS 67A10 (Phase 1), Aircraft Maintenance Apprentice, and MOS 76P20 Stock Control and Accounting Specialist. The first is taught at the U.S. Army Transportation School (it is also taught at the Aviation School; Transportation School has proponency). The second is taught at the Quartermaster School. Figure 8 shows the follow-on sequences for the two feeder courses. (HumRRO Work Unit STOCK has been assisting Quartermaster School personnel in applying individually prescribed instruction to the 76P20 course.)

Special problems arise in assigning graduates of the follow-on courses, that do not arise in assigning those who only graduate from the feeder courses. Specific self-paced graduation dates cannot be known with certainty at the start of feeder course training. Consequently, the start and graduation dates for the follow-on course to which individuals will be assigned cannot be known. Yet these dates must be included on TCCs within five days of the man's arrival for feeder course training. If the follow-on course is less than seven weeks long (the 43 days used by ACT), the man may receive a duty assignment while he is still in self-paced feeder course training. The assignment will be based upon the expected follow-on course assignment and its graduation date.

Preliminary selection of the follow-on course must be submitted on a TCC during the first week of feeder training; however, depending upon the individual's progress, the follow-on course shown on that TCC may no longer be available. For administrative convenience, a different course may now be selected. The new follow-on assignment must be submitted via a second TCC. Two duty assignments then will be generated on the same individual, the assignment based on the first TCC (this assignment is now canceled), and a second assignment based on the second TCC.

To avoid multiple assignments for students who may enter follow-on courses of less than seven weeks, the first TCC should show a follow-on graduation date (no matter what the course) figured as the feeder course starting date, plus seven weeks (more than 43 days), plus the time expected for the slowest student to complete self-paced, feeder-course training.

In this way, the second TCC, showing the actual (final) assignment of follow-on training, can be submitted at least four weeks prior to graduation, ensuring the timely arrival of duty assignment information, and before the man is listed for assignment by the ACT computer under the first TCC.

Follow-On Courses Fed by the 76P20 and 67A10 Feeder Courses Under Commandant Fill

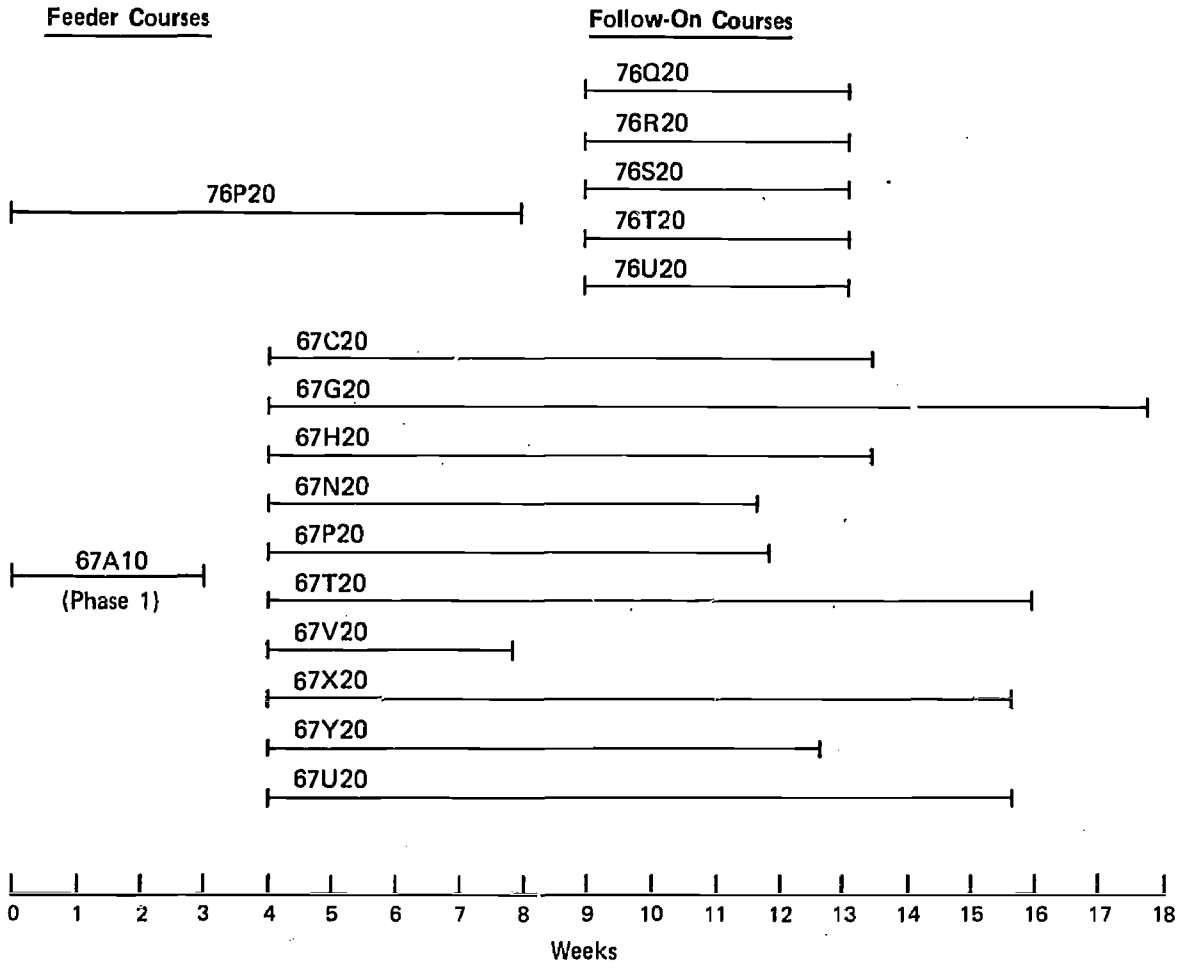

Figure 8

Port Calls

It has been shown that exact graduation dates need not be predicted to obtain timely assignment information; however, precise dates *are* needed when requesting port calls.

The port call regulation is undergoing revision[14] and will permit port call requests on any day of the work week. If the Military Traffic Management and Terminal Service (MTMTS), the port call agency, will guarantee that dates will be returned within two days, actual graduation dates need only be predicted about five training days in advance. These five days allow two days for the port call, and two to three additional days locally for orders and POR processing. This is a conservative estimate, and it is actually closer to

[14]TIPS MAGAZINE, Summer 1971, p. 4. MTMTS estimates that the new regulation will go into effect January 1973.

two or three days. The Air Force now predicts such dates 10 days in advance. They are accurate within three days of the actual date in every case, and within one day most of the time. Five-day predictions should reduce the error even further, or well within the five-day grace period provided under policies governing reporting procedures for persons in transit.[15]

POTENTIAL ADVERSE EFFECTS

The strategies described above are discussed in terms of their potential effects upon the using commanders, manpower planning, and students.

The Using Commanders. The replacement system is designed to satisfy the using commanders' requisitions—to maintain actual strength equal to authorized strength, with neither excesses nor shortfalls. To satisfy this requirement, replacements should arrive for duty in an orderly flow during the requirement month. Although self-paced training tends to graduate students in an orderly flow (fixed-length training graduates students in blocks, rather than spacing them out), the use of artificial graduation dates does less to ensure the arrival of graduates during the requirement month than does the present system.

Artificial graduation dates do, however, fall entirely within existing procedures, and any "error" in the arrival of replacements is likely to be on the "conservative" side. Replacements that do not arrive for duty during the requirement month are much more likely to arrive the month before, than the month after.

Further research into problems of predicting individual, self-paced graduation dates should reduce or eliminate these deficiencies.

Manpower Planning. Students are programmed into AIT courses on the assumption that they will graduate after a known period of time, and become available for assignment against personnel requisitions. Projections of strength requirements, together with known course lengths, provide the basis for scheduling *starting* dates for training. Because self-paced training tends to reduce overall course length, students become available for assignment sooner. This situation may produce short-term personnel excesses.

If, however, self-pacing is instituted in small stages, as is the case at present, revised planning information—specifically, revised average course lengths and ranges in training time—should be available for manpower planning. Manpower planning problems then can be identified and resolved during small-scale, start-up projects.

Students. Personnel assignments are based upon PL 51 graduation dates, monthly arrival objectives overseas, worldwide deployment considerations, and the DA master priority list. Since these factors require that overseas priority assignments be filled first, DA estimates that a high percentage of early graduates would receive undesirable (Southeast Asia) assignments. Motivation would be adversely affected once the students found this out.[16]

However, the assignment factors mentioned do not include any that are based upon time in training. A man is assigned whenever his name comes up, and the factors mentioned apply whether he graduates early or late. Individuals graduating late in one class may be assigned at the same time as early graduates from another class. They would be treated identically at DA, because they come up for assignment at the same time.

More powerful motivational factors are under control of the local training commander. They include such incentives as free time, exemption from details, and preferential treatment in mess lines—all consonant with concepts being developed for the Modern Volunteer Army.

[15] Absence Without Leave and Desertion, Army Regulation 630-10, 23 Apr 71.

[16] DCSPER Self-Paced Instruction Conference, 30 October 1969.

POTENTIAL MODIFICATIONS TO EXISTING PROCEDURES

To this point, the assignment system has been assumed to be fixed, and suggestions for accommodating self-paced training to assignment procedures have been couched within the terms of the existing assignment system. These suggestions have taken two forms:

(1) Use of artificial graduation dates—artificially early dates for short courses, and artificially late dates for long courses and courses feeding into follow-on courses under Commandant fill.

(2) Development of local OJT capabilities to use self-paced graduates restrained from departure by Public Law 51.

This section contains suggestions for modifications to the assignment system itself (exclusive of PL 51). The objective is to reduce the time now required to prepare a man for departure. Modifications are suggested at both the Department of the Army level and the local level.

DEPARTMENT OF THE ARMY LEVEL

At the Department of the Army level, significant delays may now occur in performance of the following functions:

(1) ACT Data Processing. AIT information is processed only on Tuesday nights. TCC data submitted after Monday is not processed until the following Tuesday—eight days later. Alternatives range from more frequent runs (e.g., Monday, Wednesday, and Friday) to a realtime system. All such modifications would produce domino effects on subsequent actions, most of which are performed weekly.

(2) Assignment Procedures. All duty assignments are made manually; the process takes a week under REVAIL procedures. Significant reductions could be effected if assignments were automated, or if bulk requirements were forwarded to the training bases, to be filled under stated constraints. If neither of these options is feasible, it may nevertheless be possible to assign personnel manually in less than one week.

(3) Port Calls. Port calls can be requested only on Thursdays. When assignments are received at the training base on a Friday, a week may elapse between receipt of assignment information and the port call request. This problem should be reduced with publication of the new port call regulation.

THE TRAINING BASE LEVEL

Personnel at the training location can effect significant reductions in turn-around time through a few simple expedients, all of which are provided for under existing procedures.

(1) Arrivals should be reported immediately. Most students arrive between Friday and Monday. If they are reported immediately on TCCs, they may be entered into the ACT system in time for Tuesday night processing. The training base has at least two weeks advance notification of arrivals and can thereby prepare for TCC reporting well in advance. A one-day delay can mean as much as a week delay in ACT processing.

(2) Use of artificial graduation dates should be considered.

(3) Modifications should be submitted as soon as they become known, as required by AR 614-200. At least two weeks are needed at DA to generate and distribute assignments; approximately two more weeks are required at local levels to prepare a man for departure. The longer the training base delays submission of modifications, the less likely it is that the man will be ready for departure immediately upon graduation.

(4) Care should be taken to ensure that all TCC data are accurate. Up to 5% of all TCC data now submitted by training bases contain errors such as misspelled names and invalid MOS codes. Any error normally delays the arrival of assignment information by at least a week. Delays caused by errors in TCC data are entirely under the control of the training base, and can be avoided if care is taken to ensure that all TCC data are accurate.

Modifications to existing procedures—especially ACT, REVAIL, and port call procedures—should make it possible to prepare a man for departure from the training base with less than a week's advance notification.

APPENDICES

Appendix A

MILITARY EXPERIENCE WITH SELF-PACED INSTRUCTION

Self-paced instruction is defined in the narrow sense of variable length training terminating in a duty assignment. All services have had long and extensive experience with programmed instruction of various sorts. Until recently, however, they have not developed much experience with assignment problems implied by self-pacing. This Appendix reviews that experience (as of 1971) and provides points of contact for readers interested in further details.

U.S. Army

1. Adjutant General School
   Fort Benjamin Harrison, Indiana

2. Southeastern Signal School
   Fort Gordon, Georgia

3. Aviation School
   Fort Rucker, Alabama

The Adjutant General School has developed and is now monitoring four self-paced courses, all with an average length of less than eight weeks. These courses are administered at six Army Training Centers, located at Forts Polk, Dix, Jackson, Knox, Leonard Wood, and Ord. They are:

- MOS 71B10 Clerk Typist
- MOS 71B10/B20 Clerk Typist
- MOS 71B10/H20 Personnel Specialist
- MOS 71U20 Key Punch Operator

In 1969, a utilization problem associated with Public Law 51 was encountered when the first of these courses became self-paced. Early graduates, not yet qualified under PL 51, oversaturated local OJT capabilities. Since that time, the utilization problem has been resolved through two courses of action. First, additional OJT positions have been generated at the local training installations; local using commanders now request more graduates than are available. Second, all personnel entering self-paced training are now reported with a graduation date of eight weeks when they first arrive. This permits assignment processing to come under REVAIL procedures. Formerly, personnel were first reported as immediately available for assignment only toward the end of training. This produced delays in the arrival of assignment instructions even after the men were qualified under PL 51.

Southeastern Signal School has two courses that are self-paced, with several others about to become self-paced. The courses take much longer than eight weeks, and thus produce no conflict with PL 51. They are:

- MOS 36G20 Manual Central Office Repair
- MOS 31J20 Teletype Equipment Repair

Individual graduation dates are predicted by means of the system described in the section on "Long Courses." Conferences are held several times during training, for setting deadlines for the completion of course segments. Success in meeting these deadlines

provides the basis for predicting graduation dates. To date, in almost every case, the system has predicted actual graduation dates within a few days. These dates are submitted to the Army several weeks in advance of the projected graduation, and allow for the timely arrival of assignment instructions

For several years, the Aviation School has operated an individualized officer course in Helicopter Instrument Flight, using simulators; however, this course is not normally considered self-pacing by the Army.

In response to a question from CONARC to its service schools, the following courses were reported as under consideration for self-pacing:

(1) Adjutant General School
- 71F20 Computer Programmer
- 71C20 Stenographer

(2) Southeastern Signal School
- 31L20 Radio Relay and Carrier Repair
- 31B20 Field Radio Repair
- 31M20 Radio Relay and Carrier Attendant
- 31N20 Tactical Circuit Controller
- 35B20 Electronic Instrument Repair
- 35K20 Avionics Mechanic
- 35L20 Avionics Communications Equipment Repair
- 35M20 Avionics Navigation Equipment Repair
- 35N20 Avionics Flight Control Equipment Repair

(3) Signal Center and School (officer courses)
- 4C-4825 Electronics Maintenance Officer
- 104-26330 Combat Aerial Surveillance Radar Repair
- 198-41H20 Camera Equipment Repair

(4) Quartermaster School
- 76Q20 Special Purpose Repair Parts Specialist
- 76R20 Aircraft Repair Parts Specialist
- 76S20 Automotive Repair Parts Specialist
- 76T20 Missile Repair Parts Specialist
- 76U20 Communications-Electronics Repair Parts Specialist
- 76V20 Equipment Storage Specialist
- 76Y20 Unit and Organization Supply Specialist and Armorer
- -------- Mechanized Stock Control
- 76A10 Supplyman

(5) Ordnance Center and School
- 44E20 Machinist
- 45B20 Small Arms Repair
- 63G20 Fuel and Electrical Systems Repair

(6) Missile and Munitions School
- 55B30 Ammunition Storage and Operations

(7) Field Artillery School
- 26B20 Weapons Support Radar Maintenance

(8) Chemical Center and School
- 92D20 Chemical Laboratory Procedures

U.S. Navy

1. Office of the Chief of Naval Air Technical Training (CNATECHTRA)
   Naval Air Station Memphis
   Millington, Tennessee

2. Naval Training Center
San Diego, California

CNATECHTRA trains large numbers of personnel in several PI and CMI (Computer Managed Instruction) courses. PL 51 is not a problem because all but a few incoming students have completed 14 weeks of training prior to arrival. In addition, about 80% of the students are predesignated for follow-on training conducted at the same location. These follow-on courses start weekly. A week, therefore, is the longest time students completing self-paced training (on a Monday) may have to wait before the next available follow-on course begins. This time is filled with "enrichment training" (not identified as such to the student).

Overall time savings have been around 28% with PI. Additional savings are expected by combining PI with CMI and other forms of self-pacing.

The Naval Training Center at San Diego has reduced training in basic electricity and electronics from six weeks (fixed length) to about four weeks. Training time is costed at about $57 per week, so the 500 trainees graduated at the time of this summary represent a savings of over $50,000. This self-paced system, a multi-level, multi-media approach called BEEINLES (Basic Electricity and Electronics Individualized Learning System), has reduced attrition from 15 to 2%.

Follow-on assignment procedures represent the weakest aspect to the program. Students are designated for follow-on training early in basic training, before they arrive for BEEINLES instruction. Consequently, BEEINLES graduates simply wait until sufficient numbers have been graduated to warrant initiation of a designated follow-on course.

U.S. Air Force

As of 1 November 1970, 42 officer and enlisted courses had undergone Instructional Systems Design, the Air Force equivalent to Systems Engineering. (The number has since increased.) Of these, about a half-dozen were totally self-paced (many are group-paced, or use auxiliary self-pacing but maintain a fixed length for the total course). Courses on which data were available showed an average reduction in original course length of about 28%—coincidentally, the exact percentage reported in Navy experience. Self-paced courses have been implemented in at least three locations:

(1) Chanute AFB, Illinois. Three courses are totally self-paced at this writing:

- 3ABR42330 Aircraft Electrical Repairman
- 3AAR39170 Maintenance Analysis Technician
- 3ABR42231 Environmental Systems Repairman

Assignments at Chanute, and presumably elsewhere in the Air Training Command, are managed through the use of block assignments. Local assignment specialists are given a block of "line numbers," that are not initially assigned to named individuals. For persons in self-paced courses, a date is predicted about ten days in advance of graduation. The student's name and projected graduation date are forwarded to local personnel specialists, who assign a line number and begin pregraduation processing. Graduation dates can be predicted within plus-or-minus three days of the actual event, usually within a day. Students typically depart the base within 24 hours after graduation.

(2) Keesler AFB, Mississippi

The Administrative Specialist Course, taught at Keesler, makes extensive use of programmed texts. Implemented 7 June 1965, it was the first course in the Air Force to be completely self-paced.

(3) Lowry AFB, Texas

A course in Maintenance (LCI) Electronics (3AQR40020) is analogous to an Army Commandant fill course. It feeds several follow-on courses that are administered locally.

Appendix B

SELF-PACED GRADUATES DATA

Table B-1

Percent Self-Paced Graduates as a Function of Percent Original Course Length (Time)

% Time	% Grad	% Time	% Grad	% Time	% Grad
25	0.6	65	30.8	95	84.1
		66	32.6	96	85.3
30	1.2	67	34.5	97	86.4
		68	36.3	98	87.5
35	2.3	69	38.2	99	88.5
36	2.6				
37	2.9	70	40.1	100	89.4
38	3.2	71	42.1	101	90.3
39	3.6	72	44.0	102	91.2
		73	46.0	103	91.9
40	4.0	74	48.0	104	92.6
41	4.5				
42	5.0			105	93.3
43	5.5	75	50.0	106	93.9
44	6.1	76	52.0	107	94.5
		77	54.0	108	95.0
45	6.7	78	56.0	109	95.5
46	7.4	79	57.9		
47	8.1			110	96.0
48	8.8	80	59.9	111	96.4
49	9.7	81	61.8	112	96.8
		82	63.7	113	97.1
50	10.6	83	65.5	114	97.4
51	11.5	84	76.4		
52	12.5			115	97.7
53	13.6	85	69.2	116	98.0
54	14.7	86	70.9	117	98.2
		87	72.6	118	98.4
55	15.9	88	74.2	119	98.6
56	17.1	89	75.8		
57	18.4			120	98.8
58	19.8	90	77.3		
59	21.2	91	78.8	125	99.4
		92	80.2		
60	22.7	93	81.6		
61	24.2	94	82.9		
62	25.8				
63	27.4				
64	29.1				

Appendix C

PUBLIC LAW 51

In June, 1951, the 82nd Congress enacted certain amendments to the Universal Military Training and Service Act that extended the draft, lowered the minimum draft age to 18 1/2, increased the period of service to 24 months, and stipulated that all inductees receive four months of basic training before being sent overseas. The section of the law (Title 50, Appendix 454 (a) of the U.S. Code) that is relevant to this discussion is quoted.

> "Every person inducted into the Armed Forces pursuant to the authority of this subsection after the date of enactment of the 1951 Amendments to the Universal Military Training and Service Act shall, following his induction, be given full and adequate military training for service in the armed force into which he is inducted for a period of not less than four months, and no such person shall, during this four months' period, be assigned for duty at any installation located on land outside the United States, its Territories and possessions (including the Canal Zone); and no other member of the Armed Forces of the United States who is enlisted, inducted, appointed, or ordered to active duty after the date of enactment of the 1951 Amendments to the Universal Military Training and Service Act shall be assigned to duty at any installation located on land outside the United States, its Territories and possessions (including the Canal Zone), until he has had the equivalent of at least four months of basic training . . ." (Underscoring added).

In August, 1956, Title 10 of the U.S. Code, Section 671 (Members not to be assigned outside United States before completing training) revised the previous enactment as follows:

> "No member of an armed force may be assigned to active duty on land outside the United States and its Territories and possessions until he has had 4 months of basic training or its equivalent." (Underscoring added).

It is apparent from the initial version of PL 51 that there was a difference in the requirements for inductees as opposed to others (e.g., enlistees). In the 1956 revision, this difference in requirements appeared to be eliminated. In tracing the legislative history of PL 51, the reasons for the initial dichotomy of these requirements can be recognized. PL 51, like so many other legislative provisions, came out of committee as a compromise measure that accommodated both the House and Senate versions. The House amendment was confined only to persons inducted into the Armed Forces. The Senate bill provided, in addition to inductees, that no other member of the Armed Forces would be assigned to combat duty in a combat area until he had at least four months of basic training. This law grew out of a reaction to the fact that inadequately trained individuals had been sent into the Korean conflict. Its basic intent was to ensure that this would not happen again. However, this original intent was generalized to all members of the Armed Forces

regardless of whether they served in a combat area or not (perhaps because of the "potential" combat role of all members of the Armed Forces).

By 1956, the two conflicting statements regarding the requirements of PL 51 had been enacted into the U.S. Code. Because many interpretations were possible, several cases requesting clarifications were presented to the Judge Advocate General of the Army (TJAG) between 1956-1962. TJAG has presented several opinions on what the phrase, "equivalent of four months of basic training," meant:

(1) A three-month period of basic training during which the same number of training hours are included as are performed in a four-month BCT program satisfies the "equivalent" provision.

(2) A suitable period of National Guard, ROTC, or Reserve training may be judged equivalent by the Army.

(3) Four months and 16 weeks are equivalent.

In 1962, the Office of Personnel Operations (OPO) prepared a request for legal opinion and presented it to TJAG (see Attachment A). In this particular case, the arguments made against PL 51 restrictions were related primarily to two areas: Civilian Acquired Skills (CAS) and AIT programs of under eight weeks. Until 1962, OPO was restricted from assigning individuals with Civilian Acquired Skills until they had completed at least eight weeks of AIT, OJT, or combined AIT/OJT within CONUS. In addition, 18 MOS-producing training programs within CONARC required as little as five weeks of AIT. It was OPO's opinion that individuals completing such training, although they had only 13 weeks of actual Army service, should be considered fully qualified for overseas assignment under the equivalent provision of Public Law 51.

The opinions provided by TJAG in response to OPO's arguments were as follows:

(1) Persons inducted into the Armed Forces must be given a full four months of training before being eligible for assignment to duty outside the United States, its Territories and possessions.

(2) Personnel with Civilian Acquired Skills who could qualify for an MOS upon completion of eight weeks of BCT may be assigned to duty outside the United States, its Territories and possessions, provided that a determination is made that such combined military and civilian training is "equivalent" to four months of basic training. TJAG indicated that "equivalent" training is intended to be both quantitatively and qualitatively equal to that prescribed.

(3) Personnel who complete only 13 weeks of actual military service (those who graduated from a five-week AIT course) could be assigned to overseas installations only when such training combined with other training (military and civilian) is determined to be "equivalent" to four months of basic training; or within the 13 weeks of military service, the training that is accomplished is both qualitatively and quantitatively equivalent to four months of BCT. (JAGA 1962/4584)

With TJAG's comments as a background, it is understandable that current PL 51-related personnel assignment decisions are based upon the requirements of 16 weeks of CONUS training for all inductees, and four months of basic training or the "equivalent" for other Armed Forces personnel. However, "equivalent" training is not applicable according to current doctrine for assignment to combat and other "sensitive" areas without specific Department of the Army approval. In this way, the present assignment philosophy is in keeping with the original intent of PL 51 as passed by the 82nd Congress. The incorporation of PL 51 in current Army doctrine is stated in AR 614-30 and AR 612-2 (see Attachment B). In these regulations, the impact of TJAG's opinions can be seen in the interpretation of "equivalent training," which mentions CAS personnel specifically.

The DCSPER conference on self-paced instruction, October 1969, concluded that self-pacing is not feasible for AIT courses of less than eight weeks. Public Law 51

limitations, it can be agreed, do not allow AIT graduates who are qualified in less than eight weeks to be assigned overseas. In order to allow for course completion times of under eight weeks, PL 51 must be modified. This would require a change in the law. There is an action at the Department of the Army proposing that the Congress permit overseas assignment to non-hostile-fire zones after two months of formal training (basic training). Passage, however, is considered unlikely.

An alternative is to request a legal opinion from TJAG. Presumably, it would have to be shown, perhaps through research, that if the minimum standards or objectives for a 10-week course have been met successfully by individuals within a five-week period, then those individuals could and should be considered to have had the "equivalent" training to qualify for overseas assignment. As experience in the area of Civilian Acquired Skills has shown, an exception will still be made for assignment to non-combat areas. However, a step in the direction of self-paced instruction implementation can be made, if it is given the status, at least, of Civilian Acquired Skills.

Attachment A
REQUEST TO TJAG FROM OPO FOR LEGAL OPINION
(7 September 1962)

1. Public Law 51, 1951, an extract of which is attached, has restricted the assignment of personnel to overseas commands until they have completed four months of basic military training, or its equivalent. To comply with this law, the Army has required that each person complete eight weeks of advanced individual training or eight weeks of on-the-job training in a CONUS-based unit prior to shipment overseas, or a combination of advanced individual training and on-the-job training for a combined total of eight weeks.

2. At present the Army is making maximum use of civilian-acquired skills. A construction machine operator, for instance, with his skill gained during civilian occupation, does not need individual MOS training to qualify him as an MOS 626, Construction Machine Operator. Enlisted men with this MOS, and many more, are ready for full military duty after only the eight weeks of basic combat training; they do not need the eight weeks of advanced individual training. However, under present interpretation of Public Law 51 such personnel cannot be sent to an overseas command which is not a territory or possession of the United States.

3. This office believes that the civilian skill for which the man is qualified is, in effect, the "equivalent" of at least eight weeks of training. In many cases, it would actually take more than eight weeks to train the man in the civilian-acquired skill. This office believes, therefore, that personnel identified as having a civilian-acquired skill, usable in the Army, should be available for world-wide assignment after completion of only eight weeks of basic combat training.

4. In addition to the civilian-acquired skills, there are eighteen military occupational specialities, training primarily in the service schools, which require as little as five weeks advanced individual training. These personnel complete their formal training, therefore, with only thirteen weeks of actual Army service. They are considered fully qualified for any duty in their MOS in the same manner as those who complete eight weeks of advanced individual training or acquire an MOS through civilian training. It is the opinion of this office that personnel completing these advanced individual courses should also be available for world-wide assignment under the "equivalent" training provision of Public Law 51.

5. Request that your office provide OPO with an opinion on whether or not civilian-acquired skills personnel and personnel who complete AIT training in less than eight weeks are available for world-wide assignment under Public Law 51.

Attachment B

EXTRACT FROM AR 612-2 AND AR 614-30 RELATING TO PUBLIC LAW 51

"..... Assignment of enlisted personnel to an installation outside the 50 United States, or its possessions (Puerto Rico, Canal Zone, and Virgin Islands) is prohibited in the case of personnel without prior service who have not received training as outlined below:

a. For personnel inducted under the Military Selective Service Act of 1967. Basic combat training under ATP 21-114 or basic training under ATP 21-211 and the advanced individual training under an appropriate ATP or POI or on-the-job training, with the total of such training being for not less than 16 weeks.

b. All other personnel entering service (by appointment or enlistment). Four months' basic training or its "equivalent". (Equivalent training is not applicable for assignment to Korea, Taiwan, Southeast Asia, or other sensitive area without Chief of Personnel Operation's approval. Enlisted personnel assigned to these areas must have the training indicated in a above.) For male enlisted personnel, the "equivalent" consists of eight weeks' basic combat training and sufficient civilian acquired skill to be awarded one of the prescribed Military Occupational Specialties, or Reserve duty training as follows:

(1) Two years of satisfactory participation as a member of a troop program unit of a Reserve component, including two periods of active duty for training at least 15 days each; and

(2) Two months of active duty, or active duty for training (other than Reserve component annual active duty for training), encompassing advanced individual training under appropriate ATP's; a course of instruction of two months' duration in an Army service school; practical training with a unit performing its operational or training role (other than during a Reserve component unit's annual active duty for training); or any combination of the foregoing equal to two months of active duty.

c. For enlisted women. The eight weeks' basic military training program for newly enlisted women and advanced individual training under an appropriate POI or on-the-job training, the total of such training being for not less than 16 weeks."

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*Army personnel	MOS training	Variable-length training
Assignment system	Public Law 51	0503 0509 1505

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

A study was made to (a) describe how self-paced Military Occupational Specialty (MOS) training affects the Army assignment system; (b) identify ways the existing assignment system can accommodate individualized instruction; and (c) suggest modifications to the assignment system to provide better integration of self-paced training with assignment procedures. Information on self-paced systems in the Army, Navy, and Air

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20. (Continued)

Force and on assignment policies and procedures at the Department of the Army and at local training bases was collected, through interviews, correspondence, and examination of relevant documents. Relationships between self-paced systems and the assignment system were analyzed to identify points of accommodation.

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1 U OF MICH LIBS SER DIV
1 BROWN U LIB
1 COLUMBIA U LIBS DOCU ACQ
1 DIR JOINT U LIBS NASHVILLE
2 LIB GEO WASH UNIV ATTN SPEC COLL DEPT WASH DC
2 LIB OF CONGRESS CHF OF EXCH + GIFT DIV
U OF PGH DOCU LIBN
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