

## Developing the Program

The goal of the Army's physical fitness program is to improve each soldier's physical ability so he can survive and win on the battlefield. Physical fitness includes all aspects of physical performance, not just performance on the APFT. Leaders must understand the principles of exercise, the FITT factors, and know how to apply them in order to develop a sound PT program that will improve all the fitness components. To plan PT successfully, the commander and MFT must know the training management system. (See FM 25-100.)

Commanders should not be satisfied with merely meeting the minimum requirements for physical training which is having all of their soldiers pass the APFT. They must develop programs that train soldiers to maximize their physical performance. Leaders should use incentives. More importantly, they must set the example through their own participation.

The unit PT program is the commander's program. It must reflect his goals and be based on sound, scientific principles. The wise commander also uses his PT program as a basis for building team spirit and for enhancing other training activities. Tough, realistic training is good. However, leaders must be aware of the risks involved with physical training and related activities. They should, therefore, plan wisely to minimize injuries and accidents.

### Steps in Planning

#### STEP 1: ANALYZE THE MISSION

When planning a physical fitness program, the commander must consider the type of unit and its mission. Missions vary as do the physical requirements necessary to complete them. As stated in FM 25-100, "The wartime mission drives training." A careful

analysis of the mission, coupled with the commander's intent, yields the mission-essential task list (METL) a unit must perform.

Regardless of the unit's size or mission, reasonable goals are essential. According to FM 25-100, the goals should provide a common direction for all the commander's programs and systems. An example of a goal is as follows because the exceptional physical fitness of the soldier is a critical combat-multiplier in the division, it must be our goal to ensure that our soldiers are capable of roadmarching 12 miles with a 50-pound load in less than three hours.

#### STEP 2: DEVELOP FITNESS OBJECTIVES

Objectives direct the unit's efforts by prescribing specific actions. The commander, as tactician, and the MFT, as physical fitness advisor, must analyze the METL and equate this to specific fitness objectives. Examples of fitness objectives are the following:

- Improve the unit's overall level of strength by ensuring that all soldiers in the unit can correctly perform at least one repetition with 50 percent of their bodyweight on the overhead press using a barbell.
- Improve the unit's average APFT score through each soldier obtaining a minimum score of 80 points on the push-up and sit-up events and 70 points on the 2-mile run.
- Decrease the number of physical training injuries by 25 percent through properly conducted training.

The commander and MFT identify and prioritize the objectives.

#### STEP 3: ASSESS THE UNIT

With the training objectives established, the commander and MFT are ready to find the unit's current fitness level and measure it against the desired level.

*Commanders must develop programs that train soldiers to maximize their physical performance.*

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Giving a diagnostic APFT is one way to find the current level. Another way is to have the soldiers road march a certain distance within a set time while carrying a specified load. Any quantifiable, physically demanding, mission-essential task can be used as an assessment tool. Training records and reports, as well as any previous ARTEP, EDREs, and so forth, can also provide invaluable information.

#### **STEP 4: DETERMINE TRAINING REQUIREMENTS**

By possessing the unit's fitness capabilities and comparing them to the standards defined in training objectives, leaders can determine fitness training requirements. When, after extensive training, soldiers cannot reach the desired levels of fitness, training requirements may be too idealistic. Once training requirements are determined, the commander reviews higher headquarters' long- and short-range training plans to identify training events and allocations of resources which will affect near-term planning.

#### **STEP 5: DEVELOP FITNESS TASKS**

Fitness tasks provide the framework for accomplishing all training requirements. They identify what has to be done to correct all deficiencies and sustain all proficiencies. Fitness tasks establish priorities, frequencies, and the sequence for training requirements. They must be adjusted for real world constraints before they become a part of the training plan. The essential elements of fitness tasks can be cataloged into four groups:

- (1) Collective tasks
- (2) Individual tasks
- (3) Leader tasks
- (4) Resources required for training

**Collective tasks.** Collective tasks are the training activities performed by the unit. They are keyed to the unit's specific fitness objectives. An example would be to conduct training to develop strength and muscular endurance utilizing a sandbag circuit.

**Individual tasks.** Individual tasks are activities that an individual soldier must do to accomplish the collective training task. For example, to improve CR endurance the individual soldier must do ability-group running, road marching, Fartlek training, interval training, and calculate/monitor his THR when appropriate.

**Leader tasks.** Leader tasks are the specific tasks leaders must do in order for collective and individual training to take place. These will involve procuring resources, the setting up of training, education of individual soldiers, and the supervision of the actual training.

**Resources.** Identifying the necessary equipment, facilities, and training aids during the planning phase gives the trainer ample time to prepare for the training. The early identification and acquisition of resources is necessary to fully implement the training program. The bottom line is that training programs must be developed using resources which are available.

#### **STEP 6: DEVELOP A TRAINING SCHEDULE**

The fitness training schedule results from leaders' near-term planning. Leaders must emphasize the development of all the fitness components and follow the principles of exercise and the FITT factors. The training schedule shows the order, intensity, and duration of activities for PT. Figure 10-1 illustrates a typical PT session and its component parts.

There are three distinct steps in planning a unit's daily physical training activities. They are as follows:

1. Determine the minimum frequency of training. Ideally, it should include three cardiorespiratory and three muscular conditioning sessions each weeks. (See the FITT factors in Chapter 1.)
2. Determine the type of activity. This depends on the specific purpose of the training session. (See Figure 10-2.) For more information on this topic, see Chapters 1, 2, and 3.
3. Determine the intensity and time of the selected activity. (See the FITT factors in Chapter 1.)

Each activity period should include a warm-up, a workout that develops cardiorespiratory fitness and/or muscular endurance and strength, and a cool-down. (See Figure 10-1).

At the end of a well-planned and executed PT session, all soldiers should feel that they have been physically stressed. They should also understand the objective of the training session and how it will help them improve their fitness levels.

### STEP 7: CONDUCT AND EVALUATE TRAINING

The commander and MFT now begin managing and supervising the day-to-day training. They evaluate how the training is performed by monitoring its intensity, using THR or muscle failure, along with the duration of the daily workout.

The key to evaluating training is to determine if the training being conducted will result in improvements in physical conditioning. If not, the training needs revision. Leaders should

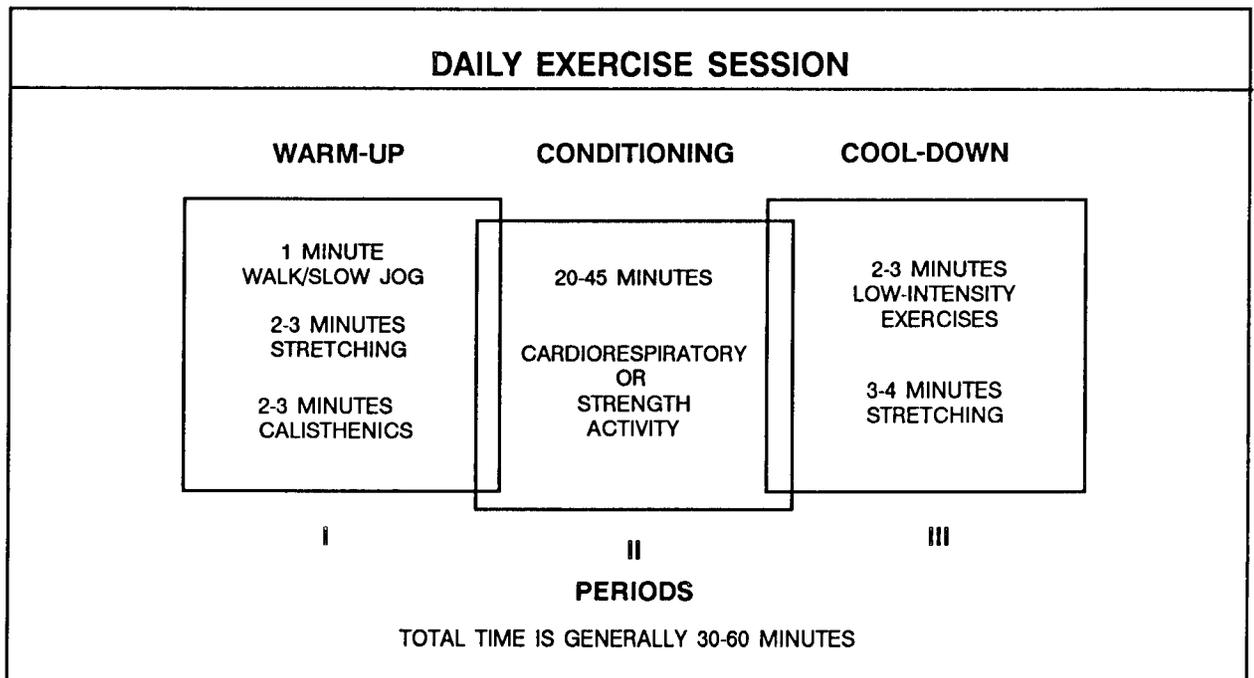


Figure 10-1

## ACTIVITY SELECTION GUIDE

PURPOSE	MUSCULAR STRENGTH	MUSCULAR ENDURANCE	CARDIO-RESPIRATORY ENDURANCE	FLEXIBILITY	BODY COMPOSITION	SPEED/AGILITY	COORDINATION	TEAM-WORK	SOLDIER SKILLS
Aerobics		x	x	x	x		x		
Bicycling		x	x		x				
Circuits	x	x	x	x	x	x	x	x	x
Competitive Activities						x	x	x	x
Calisthenics		x		x		x	x		
Cross Country Skiing	x	x	x	x	x		x		
Grass/Guerrilla Drills	x	x	x		x		x		
Obstacle Courses	x	x	x		x	x	x	x	x
Partner-Resisted Exercises	x	x					x	x	
Relays		x	x		x	x	x	x	
Rifle Drills	x	x					x		x
Road Marching	x	x	x		x				x
Running		x	x		x				
Stretching				x					
Weight Training	x	x				x	x		

Figure 10-2

not be sidetracked by PT that is all form and little substance. Such training defeats the concept of objective-based training and results in little benefit to soldiers.

### Education

Teaching soldiers about physical fitness is vital. It must be an ongoing effort that uses trained experts like MFTs. Soldiers must understand why the program is organized the way it is and what the basic fitness principles are. When they know why they are training in a certain way, they are more likely to wholeheartedly take part. This makes the training more effective.

Education also helps the Army develop its total fitness concept. Total fitness should be reinforced throughout each soldier's career. Classroom instruction in subjects such as principles of exercise, diet and nutrition, tobacco cessation, and stress management should be held at regular

intervals. Local "Fit to Win" coordinators (AR 600-63) can help develop classes on such subjects.

### Common Errors

There are some common errors in unit programs. The most common error concerns the use of unit runs. When all soldiers must run at the same pace as with a unit run, many do not receive a training effect because they do not reach their training heart rate (THR). The least-fit soldiers of the unit may be at risk because they may be training at heart rates above their THR. Another error is exclusively using activities such as the "daily dozen." These exercises emphasize form over substance and do little to improve fitness.

Yet another error is failing to strike a balance in a PT program between CR endurance training and muscular endurance and strength training. In addition, imbalances often stem from a lack of variety in the program which

*Total fitness should be reinforced throughout each soldier's career by classroom instruction.*

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leads to boredom. The principles of exercise are described in Chapter 1, and their application is shown in the sample program below.

## **A Sample Program**

The following sample program shows a commander's thought processes as he develops a 12-week fitness training program for his unit.

Captain Frank Jones's company has just returned from the field where it completed an ARTEP. Several injuries occurred including a broken foot, resulting from a dropped container, and three low back strains. After evaluating his unit during this ARTEP, CPT Jones concluded that its level of physical fitness was inadequate. He thought this contributed to the injuries and poor performance. The soldiers' flexibility was poor, and there was an apparent lack of prior emphasis on, and training in, good lifting techniques. This, combined with poor flexibility in the low back and hamstrings, may have contributed to the unacceptably high number of low back strains. Captain Jones decided to ask the battalion's MFT to help him develop a good unit program for the company. They went through the following steps.

### **7-STEP PLANNING PROCESS**

#### **ANALYZE THE MISSION**

#### **DEVELOP FITNESS OBJECTIVES**

#### **ASSESS THE UNIT**

#### **DETERMINE TRAINING REQUIREMENTS**

#### **DESIGN FITNESS TASKS**

#### **DEVELOP A TRAINING SCHEDULE**

#### **CONDUCT AND EVALUATE TRAINING**

#### **ANALYZE THE MISSION**

First, they analyzed the recently completed ARTEP and reviewed the

ARTEP manual to find the most physically demanding, mission-oriented tasks the unit performs. The analysis showed that, typically, the company does a tactical road march and then occupies a position. It establishes a perimeter, improves its positions, and selects and prepares alternate positions. One of the most demanding missions while in position requires soldiers to move by hand, for 15 to 30 minutes, equipment weighing up to 95 pounds. If his unit received artillery fire, it would need to be able to move to alternate positions as quickly as possible. This requires much lifting, digging, loading, unloading, and moving of heavy equipment. All of these tasks require good muscular endurance and strength and a reasonable level of cardiorespiratory endurance.

### **DEVELOP FITNESS OBJECTIVES**

Next, CPT Jones reviewed his battalion commander's physical training guidance. It showed that the commander was aware that the unit's tasks require muscular endurance and strength and cardiorespiratory fitness. The guidance and objectives issued are as follows:

a. Units will do PT five days a week (0600-0700) when in garrison. In the field, organized PT will be at the commander's discretion.

Captain Jones determined that the major PT emphasis should be to improve muscular endurance and strength. He based this on his unit's mission, training schedule, available resources, and on his commander's guidance and objectives. With this information and the MIT's recommendations, CPT Jones developed the following fitness objectives.

- Improve the unit's overall level of muscular endurance and strength.
- Improve the unit's overall level of flexibility.
- Improve the unit's average APFT score. Each soldier will score at least 80 points on the push-up and

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sit-up events and 70 points on the 2-mile run.

- Improve the unit's road marching capability so that 100 percent of the unit can complete a 12-mile road march with a 35-pound load in at least 3.5 hours.
- Decrease the number of profiles.
- Reduce tobacco use.

### **ASSESS THE UNIT**

The next step CPT Jones accomplished was to assess his unit.

The MFT studied the results of the unit's latest APFT and came up with the following information:

- The average push-up score was 68 points.
- The average sit-up score was 72 points.
- The average number of points scored on the 2-mile run was 74.
- There were six failures, two on the 2-mile run and four on the push-up.

The MFT also recommended that the unit be assessed in the following areas: road march performance, strength, flexibility, substance abuse, and profiled soldiers.

Following the MFT's recommendations, subordinate leaders made the following assessments/determinations:

- Eighty-eight percent of the company finished the 12-mile road march with a 35-pound load in under 3 hours 30 minutes.
- A formation toe-touch test revealed that over half the company could not touch their toes while their knees were extended.
- Thirty percent of the unit uses tobacco.
- Two soldiers are in the overweight program.
- Eight percent of the unit is now on temporary profile, most from back problems.

### **DETERMINE TRAINING REQUIREMENTS**

The next step CPT Jones accomplished was to determine the training requirements.

Training requirements are determined by analyzing the training results and the data obtained from the unit assessment. The next step is to compare this data to the standards identified in the training objectives. When performance is less than the established standard, the problem must be addressed and corrected.

Captain Jones established the following training requirements.

Units will do flexibility exercises during the warm-up and cool-down phase of every PT session. During the cool-down, emphasis will be placed on developing flexibility in the low back, hamstrings, and hip extensor muscle groups.

Each soldier will do 8 to 12 repetitions of bent-leg, sandbag dead-lifts at least two times a week to develop strength. The section leader will supervise lifts.

Each soldier will do heavy resistance/weight training for all the muscle groups of the body two to three times a week.

Each soldier will perform timed sets of push-ups and sit-ups.

Each soldier will train at least 20 to 30 minutes at THR two to three times a week.

Road marches will be conducted at least once every other week.

Tobacco cessation classes will be established to reduce the number of tobacco users.

### **DESIGN FITNESS TASKS**

Once all training requirements are identified, the next step is to use them to design fitness tasks which relate to

the fitness objectives. In developing the fitness tasks, CPT Jones must address collective, individual, and leader tasks as well as resources required.

Fitness tasks provide the framework for accomplishing the training requirements. By accurately listing the fitness tasks that must be done and the resources required to do them, the subsequent step of developing a training schedule is greatly facilitated.

An example of designing fitness tasks is provided in Figure 10-3 by using the activities which might occur during one week of physical training.

The collective tasks for the unit are to perform the following: develop muscular endurance and strength, improve CR endurance, and improve flexibility.

The individual tasks all soldiers must perform during the week are as follows. For developing strength and muscular endurance, they must perform appropriate strength circuit exercises, PREs, sandbag circuits, to include performing bent-leg dead lifts exercises, and training for push-up/sit-up improvement. To improve cardiorespiratory endurance, they must

do ability-group runs, interval training, road marching, and they must calculate their THR and monitor THR when appropriate. To improve their flexibility, they must do stretching exercises during their daily warm-up and cool-down.

The leader's tasks are to organize and supervise all strength- and muscle endurance-training sessions and CR training sessions so as to best meet all related fitness objectives. Similarly, the leader must organize and supervise all warm-up and cool-down sessions to best meet the fitness objectives for the development and maintenance of flexibility.

To provide specific examples of leaders tasks in the area of training for strength and muscle endurance, the leader will ensure the following:

- Each strength- and/or muscle endurance-training session works all the major muscle groups of the body.
- High priority is given to training those muscles and muscle groups used in mission-essential tasks.
- Areas where weaknesses exist, with respect to strength/muscle

<b>FITNESS TASKS FOR ONE WEEK OF PHYSICAL TRAINING</b>			
<b>COLLECTIVE</b>	<b>INDIVIDUAL</b>	<b>LEADER</b>	<b>RESOURCES</b>
Improve strength and muscle endurance	Do STR CIR EX*, PRE, SNDBG CIR, SU-PU IMP	Organize & supervise STR CIR EX, PRE, & SNDBG CIR	STR RM, Gym, Sandbags, PT Field
Improve CR endurance	Do AGR, CAL/MON THR, road march, do intervals (4x440) IND AB	Organize & supervise CR workouts, CAL/MON THR, MON work/relief ratio for intervals	Track, Running Trails
Improve flexibility	Do stretching exercises	Organize & supervise activity	Gym
* A list of abbreviations appears at the end of Figure 10-4.			

Figure 10-3

endurance, are targeted in all workouts.

- Problem areas related to APFT performance are addressed in appropriate workouts.
- The duration of each strength training session is 20-40 minutes.
- Soldiers train to muscle failure.
- All the principles of exercise, to include regularity, overload, recovery, progression, specificity, balance are used.

In a similar manner, the leader would ensure that the guidelines and principles outlined in this and earlier

chapters are used to organize training sessions for improving CR endurance and flexibility.

The resources needed for the one-week period are as follows: a strength room, a gym, a PT field, a running track and/or running trails, and sandbags.

### DEVELOP A TRAINING SCHEDULE

The next step was to develop a fitness training schedule (shown at Figure 10-4). It lists the daily activities and their intensity and duration.

12-WEEK TRAINING PLAN				
JULY				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>START ASSESSMENT*</b> ACT: AGR** INT: 70% HRR*** DUR: 20 MIN  ACT: PLT 1 & 2 WT STR CIR; PLT 3 & 4 SNDBG CIR/PU-SU IMP INT: MF DUR : 30-35/4 MIN  ACT: FIXED CIR I INT: 70% HRR DUR: 30-40 MIN  ACT: PLT 1 & 2 STR CIR; PLT 3 & 4 SNDBG CIR/PU- SU IMP INT: MF DUR: 30-40/5 MIN	<b>FINISH ASSESSMENT</b> ACT: PLT 1 & 2 STR CIR; PLT 3 & 4 SNDBG CIR/PU-SU IMP INT: MF/MF DUR: 30/4 MIN  ACT: AGR/ PAR COURSE INT: 70% HRR DUR: 20/15-20 MIN  ACT: PRE/PU-SU IMP INT: MF DUR: 40/5 MIN  ACT: AGR INT: 70% HRR DUR: 25 MIN	ACT: AGR/LINE SOCCER INT: 70% HRR/NA DUR: 20/30 MIN  FLIP - FLOP MONDAY'S WORKOUT  ACT: AGR/GDR INT: 70% HRR DUR: 22/20 MIN  FLIP - FLOP MONDAY'S WORKOUT	ACT: PRE/PU-SU IMP INT: MF DUR: 35/4 MIN  ACT: AGR/GDR INT: 70% HRR DUR: 20/15- 20 MIN  ACT: SNDBG CIR/PU-SU IMP INT: MF DUR: 35-40/5 MIN  ACT: AGR INT: 70% HRR DUR: 25 MIN	ACT: ROAD MARCH, 5 MLE W 35 LBS IN 90 MIN  ACT: PRE/PU-SU IMP INT: MF DUR: 35/4 MIN  ACT: ROAD MARCH, 5 MLE W 35 LBS IN 90 MIN  ACT: OBS CRS/ PRE/PU-SU IMP INT: MF DUR: 25/20/5 MIN
* Initially, assessments must be made of each soldier's level of physical fitness. Particularly important is assessing a soldier's strength and muscular endurance by determining his 8-12 RM for each resistance exercise he will be doing. As mentioned in the Phases of Conditioning section in Chapter 3, this will take two weeks and should be planned for accordingly. The other components of fitness should also be addressed as the need arises. ** A list of abbreviations and acronyms appears at the end of this training plan. *** Those soldiers with a fairly good level of CR fitness ( that is, the average soldier) should exercise at about 70 percent HRR. Those with very high levels of CR fitness may benefit most from training at around 80 to 85 percent HRR during a CR training workout.				

Figure 10-4

## 12-WEEK TRAINING PLAN

### AUGUST

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>ACT: AGR INT: 70% HRR DUR: 27 MIN</p>	<p>ACT: PLT 1 &amp; 2 SNDBG CIR; PLT 3 &amp; 4 PRE/PU- SU IMP INT: MF DUR: 40/6</p>	<p>ACT: INTERVALS INT: 8 x 440 IND AB DUR: 45 MIN</p>	<p>FLIP - FLOP TUESDAY'S WORKOUT</p>	<p>ACT: ROAD MARCH, 7.5 MLE W 35 LBS IN 2.5 HOURS</p>
<p>ACT: PLT 1 &amp; 2 SNDBG CIR; PLT 3 &amp; 4 STR CIR/PU SU IMP INT: MF DUR: 40/6 MIN</p>	<p>ACT: LAST MAN-UP RUN IN AG/ PAR CRS INT: 70-80% HRR*/70%HRR DUR: 30/20 MIN</p>	<p>FLIP - FLOP MONDAY'S WORKOUT</p>	<p>ACT: AGR/FIT- NESS RELAYS INT: 70% HRR/NA DUR: 30/20 MIN</p>	<p>ACT: PLT 1 &amp; 2 SNDBG CIR; PLT 3 &amp; 4 PRE/ PU-SU IMP INT: MF DUR: 40/6 MIN</p>
<p>IN FIELD: PLAN FOR</p>	<p>IN FIELD PLAN FOR</p>	<p>IN FIELD: PLAN FOR</p>	<p>IN FIELD: PLAN FOR</p>	<p>IN FIELD: PLAN FOR</p>
<p>ACT: LAST MAN-UP RUN IN AG INT: 70-90% HRR* DUR: 32 MIN</p>	<p>ACT: PRE/PU- SU IMP INT: MF DUR: 40/7 MIN</p>	<p>ACT: FARTLEK IN AG INT: 60-90% HRR* DUR: 32 MIN</p>	<p>ACT: PRE/PU-SU IMP INT: MF DUR: 40/8 MIN</p>	<p>ACT: ROAD MARCH, 10 MLE W 35 LBS IN 3.5 HOURS</p>
<p>ACT: PRE/PU- SU IMP INT: MF DUR: 35/10 MIN</p>	<p>ACT: INTERVALS INT: 8 x 440 IND AB DUR: 45 MIN</p>	<p>ACT: PU-SU, PULL-UP IMP INT: MF DUR: 45 MIN</p>	<p>ACT: FARTLEK IN AG INT: 60-90% HRR* DUR: 35 MIN</p>	<p>ACT: PU-SU, PULL-UP IMP INT: MF DUR: 45 MIN LC: APFT FOR GRADERS</p>

\* During the Last-Man-Up and Fartlek running, the heart rate will vary depending on whether it is taken during the slower or the faster portion of the run. The smaller and larger numbers provided for percent HRR should set the lower and upper limits, respectively, for a soldier's heart rate during this type of training. During interval running, the soldier should concern himself with running at the appropriate pace; he should not monitor THR during interval work.

Figure 10-4 (continued)

## 12-WEEK TRAINING PLAN

### SEPTEMBER

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
ACT: DEVEL- OPMENTAL STRETCHING INT: SLIGHT TENSION, NOT PAIN DUR: 20-30 MIN	ACT: APFT DUR: NA	ACT: UNIT OLYMPICS, PART I DUR: NA	ACT: UNIT OLYMPICS, PART II DUR: NA	ACT: APFT & OLYMPIC AWARDS CEREMONY/ UNIT RUN INT: NA/CD DUR: NA/30-40 MIN
ACT: PLT 1 & 2 STR CIR; PLT 3, & 4 PRE INT: MF DUR: 40 MIN	ACT: PLT 1 & 2 AGR; PLT 3 & 4 EX TO MUSIC INT: 70% HRR DUR: 35/45 MIN	FLIP - FLOP MONDAY'S WORKOUT	ACT: ROAD MARCH, 10 MLE W 35 LBS IN 3 HOURS	ACT: PLT 1 & 2 SNDBG CIR; PLT 3 & 4 PRE INT: MF DUR: 40 MIN
ACT: AGR INT: 70% HRR DUR: 35 MIN	ACT: PRE/PU-SU IMP INT: MF DUR: 40/8 MIN	ACT: FIXED CIRCUIT/RELAYS INT: 70% HRR/NA DUR: 20/20 MIN	ACT: UPPER BODY PRE/PU-SU IMP INT: MF DUR: 30/8 MIN	ACT: ROAD MARCH, 12 MLE W 35 LBS IN UNDER 4 HOURS
ACT: PLT 1 & 2 LOG DRILLS; PLT 3 & 4 SNDBG CIR/PU-SU IMP INT: MF DUR: 30/8 MIN	ACT: PLT 1 & 2 FIXED CIR; PLT 3 & 4 AQUATICS INT: 70% HRR/NA DUR: 30 MIN	FLIP - FLOP MONDAY'S WORKOUT	FLIP - FLOP TUESDAY'S WORKOUT	ACT: PRE/PU-SU IMP INT: MF DUR: 35/8 MIN

### NOTES

1. Push-ups and sit-ups are done as part of each strength workout. In the above sessions, they have been placed near the end of the workout. However, they can occasionally be done before the strength workout for variety. An example of a beginning PU-SU improvement workout lasting about three minutes follows:
  - a. Perform one timed set of push-ups for 50 seconds. Follow this immediately with one 50-second, timed set of sit-ups. For all timed sets, each soldier must perform as many repetitions of the exercise as he can during the allotted time period.
  - b. Perform a second set of push-ups for 40 seconds. Follow this immediately with a timed set of sit-ups of equal duration.

As the soldier adapts to this, the difficulty of the session can be increased by adding more timed sets and/or by decreasing the rest interval between like or unlike sets of exercises. For example, the rest period between timed sets of push-ups and sit-ups can be decreased. Also, all of the timed sets for push-ups may be done back-to-back (as can the sit-ups), the rest interval between these timed sets of push-ups can be progressively reduced to make the workout more demanding. Many more options exist for increasing the difficulty of, and adding variety to, these sessions.
2. Activities are planned for the FTX; duration is determined on site.
3. The unit's olympic events include the following:
  - a. Ammo-box shuttle-run (fastest time by section).
  - b. Biceps, barbell curl (most reps with 60 lbs., total by section).
  - c. Leg press (most weight lifted by section).
  - d. Standing-toe touch (most soldiers touching toes by section/must hold five seconds).
  - e. Highest APFT score by section.

Figure 10-4 (continued)

## ABBREVIATIONS AND ACRONYMS

ACT	activity
AG	ability groups
AGR	ability group run
ANA ACT	anaerobic activity
AOTR	assessment of training requirements
CAL/MON	calculate/monitor
CD	commander's decision
CFA	competitive fitness activities
CIR	circuit
CR	cardiorespiratory training
DL	dead-lift (bent-leg)
EX	exercise
GDR	grass drills
GUD	guerilla drills
HRR	heart rate reserve
IMP	improvement
IND AB	at the individual's ability
INT	intensity
LBS	pounds
LC	leader's class
MIN	minute(s)
MF	muscle failure (due to fatigue)
MLE	mile(s)
MS/E	muscle strength/endurance
NA	not applicable
OBS CRS	obstacle course
PLT	platoon
PRE	partner-resisted exercise(s)
PT FLD	physical training field
PU-SU IMP	push-up, sit-up improvement
R	run
SNDBG	sandbag
STR CIR EX	strength circuit exercise
STR RM	strength room
THR	training heart rate
TNG	training
W	with
WT STR CIR	strength circuit with weights
% HRR	percent of heart rate reserve
2-MR	2-mile run

Figure 10-4 (continued)

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## **CONDUCT AND EVALUATE TRAINING**

Conducting and evaluating training is the final phase of the training process. This phase includes the evaluation of performance, assessment of capabilities, and feedback portions of the training management cycle. These portions of the cycle must be simultaneous and continuous. To be effective, the evaluation process must address why weaknesses exist, and it must identify corrective actions to be taken. Evaluations should address the following:

- Assessment of proficiency in mission-essential tasks.
- Status of training goals and objectives.
- Status of training in critical individual and collective tasks.
- Shortfalls in training.
- Recommendations for next training cycle (key in on correcting weaknesses).
- Results of educational programs.

### **Using the Principles of Exercise**

As CPT Jones developed his program, he made sure he used the seven principles of exercise. He justified his program as follows:

- **Balance.** This program is balanced because all the fitness components are addressed. The emphasis is on building muscular endurance and strength in the skeletal muscular system because of the many lifting tasks the unit must do. The program also trains cardiorespiratory endurance and flexibility, and warm-up and cool-down periods are included in every workout.
- **Specificity.** The unit's fitness goals are met. The sand-bag lifting and weight training programs help develop muscular endurance and strength. The movements should, when possible, stress muscle groups
- **used in their job-related lifting tasks.** Developmental stretching should help reduce work-related back injuries. The different types of training in running will help ensure that soldiers reach a satisfactory level of CR fitness and help each soldier score at least 70 points on the APFT's 2-mile run. Soldiers do push-ups and sit-ups at least two or three times a week to improve the unit's performance in these events. The competitive fitness activities will help foster teamwork and cohesion, both of which are essential to each section's functions.
- **Overload.** Soldiers reach overload in the weight circuit by doing each exercise with an 8- to 12-RM lift for a set time and/or until they reach temporary muscle failure. For the cardiorespiratory workout, THR is calculated initially using 70 percent of the HRR. They do push-ups and sit-ups in multiple, timed sets with short recovery periods to ensure that muscle failure is reached. They also do PREs to muscle failure.
- **Progression.** To help soldiers reach adequate overload as they improve, the program is made gradually more difficult. Soldiers progress in their CR workout by increasing the time they spend at THR up to 30 to 45 minutes per session and by maintaining THR. They progress on the weight training circuit individually. When a soldier can do an exercise for a set time without reaching muscle failure, the weight is increased so that the soldier reaches muscle failure between the 8th and 12th repetition again. Progression in push-ups and sit-ups involves slowly increasing the duration of the work intervals.
- **Variety.** There are many different activities for variety. For strength and muscular endurance training the soldiers use weight circuits, sandbag circuits, and PREs. Ability group runs, intervals, Par courses,

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Fartlek running, and guerrilla drills are all used for CR training. Varied stretching techniques, including static, partner-assisted, and contract-relax, are used for developmental stretching.

- **Regularity.** Each component of fitness is worked regularly. Soldiers will spend at least two to three days a week working each of the major fitness components. They will also do push-ups and sit-ups regularly to help reach their peak performance on the APFT.
- **Recovery.** The muscular and cardiorespiratory systems are stressed in alternate workouts. This allows one

system to recover on the day the other is working hard.

### **Conclusion**

CPT Jones's step-by-step process of developing a sound PT program for his unit is an example of what each commander should do in developing his own unit program.

Good physical training takes no more time to plan and execute than does poor training. When commanders use a systematic approach to develop training, the planning process bears sound results and the training will succeed.