Physical fitness is no longer a "nice to have." It is now a factor in combat readiness.

Jumper to Airmen: "Get in Shape"

By Bruce D. Callander

LAST summer, the Air Force Chief of Staff praised his service's combat record in Iraq and overall performance but found weakness in one area.

"All of us can agree that we were disappointed with the [physical] fitness standards we found when we came into the operational Air Force," said Gen. John P. Jumper. "We expected to be required to sustain the standards required in basic training, the Air Force Academy, ROTC, or Officer Training School."

Then, the Chief made his point. "Let's not disappoint ourselves any longer."

True to his word, Jumper was soon releasing a new fitness program, one that gets back to the basics of running, sit-ups, and push-ups.

The new approach comprises:

- A tougher daily physical fitness regimen for basic trainees.
- New fitness tests for all members of the force.
- New demands on commanders and senior NCOs to make sure the members of their units meet the new standards.

The more demanding training took effect at Lackland AFB, Tex., last October. Plans called for USAF to launch a new fitness test for the rest of the force this month. It will be phased in over a number of months.

The drive to improve fitness stems, at least in part, from harsh physical demands of recent operations.

"We deploy to all regions of the world," said Jumper. Airmen are "living in tent cities and working on flight lines in extremes of temperatures. Some of our airmen today are operating from inside Iraq, subject to attack, and could be called upon to help defend the base, a trend that will surely increase in the growing expeditionary nature of our business. The amount of energy we devote to our fitness programs is not consistent with the growing demands of our warrior culture."

"Physical Readiness"

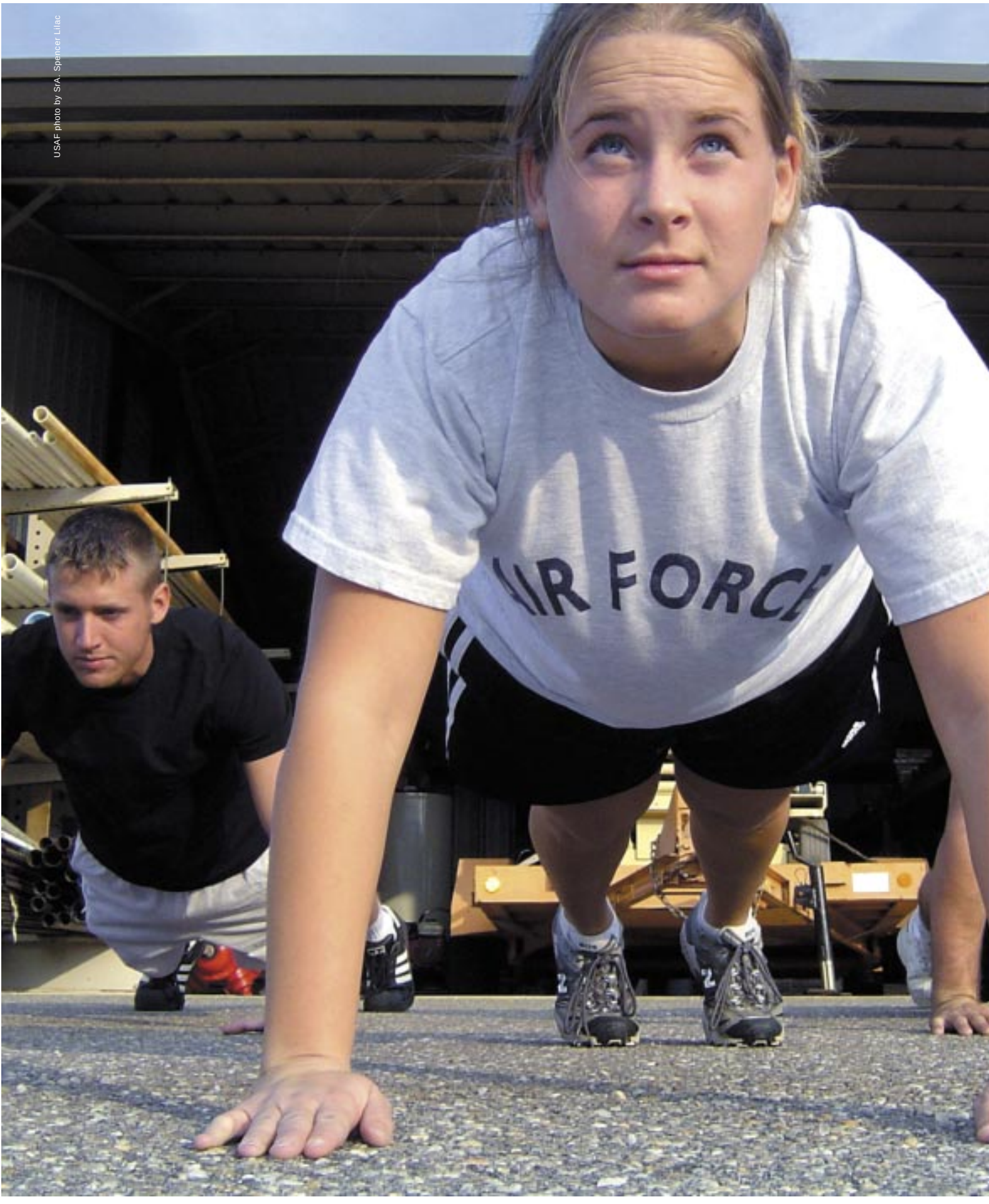
Maj. Lisa Schmidt, the Air Force surgeon general's chief of health promotion operations, noted how increased fitness will help airmen cope with extreme conditions. "It's just one of the benefits of exercise," she said. "Temperature-extremes tolerance, fatigue tolerance, preventing back injuries, preventing illness, ... even something such as coming down with a simple cold that can take you out of the work site for a day or two. You're just more resistant to that, because you've built up that immunity."

At Lackland, the old physical conditioning program for basic trainees has been renamed "physical readiness training."

The new curriculum follows the general outline of the old one but adds a second confidence-course run, a 2.5-mile formation run for graduating airmen, monthly fitness competitions among training squadrons, and special recognition of the most physically fit airmen in each graduating class.

The weekly regimen includes three days of aerobic running and three days of muscular endurance training. The runs involve 40-minute sessions of group-paced running, self-paced running, and six 30-second-sprint interval runs separated by brisk walking. Each week, trainees are timed on a two-mile run.

The endurance training lasts 48 minutes and includes a circuit of crunches, leg lifts, push-ups, flutter kicks, and pull-ups, all designed to


USAF photo by SrA. Spencer Lilac

improve upper body and abdominal strength. (Crunches are like sit-ups but with the knees bent to the chest.)

The new fitness test for the general Air Force population also will merge new elements with old. Schmidt said there are four components—a 1.5-mile run, a body composition measurement, a one-minute push-up test, and a one-minute crunch test. Those who participate are scored from zero to 100.

Although the new program restores the 1.5-mile run for most members, there will be provision for excusing some, Schmidt said, basically for safety reasons. The Air Force is especially concerned about persons with cardiac problems.

How members do on the test will determine what they must do next. Those who score poorly, said Schmidt, will go to the health and wellness center and get more work. Some will be sent to take a "healthy living" workshop, focused on changing diet and other behavior patterns. Those who score below 70, however, also will get more individualized fitness prescriptions that address their specific needs.

Health and wellness centers are under base medical group commanders and staffed by medical personnel. Fitness centers have evolved from the old base gyms into conditioning facilities that rely heavily on mechanical bodybuilding machines. The centers are staffed through the Air Force Services Agency. The two may be colocated or in separate buildings.

Fitness training has gone through a succession of changes, not all of them for the better. During World War II, members received heavy doses of conditioning when they were in basic training or cadet status. After that, however, units often did little more than provide sports equipment and urge members to exercise on their own. Since most members were in their teens or barely beyond them and were in only for the duration of the war, there was little attention given to long-term fitness training.

As USAF matured, it took more interest in physical conditioning. It was particularly concerned about aircrew members handling aircraft that flew progressively longer, higher, and faster. Periodically, leaders would worry, too, about overweight and out-of-shape NCOs in operations support skills and call for more rigorous exercise.

Cooper's Revolution

In the late 1950s, a medical officer had an experience that would influence his approach to fitness and change the habits of millions of Americans. Flight Surgeon Kenneth H. Cooper was still under 30 when he experienced an irregular heartbeat while waterskiing. Although he had run track in college, Cooper had been relatively inactive since. He was overweight and out of shape. He took himself in hand and, within six months, lost 40 pounds. Less than a year later, he ran his first Boston Marathon.

Assigned to the Aerospace Medical Laboratory at Brooks AFB, Tex., Cooper helped develop a conditioning program for NASA astronauts. He also became convinced of the importance of fitness in preventing and treating heart disease. He developed exercises to promote better health. In the late 1960s, he coined the term "aerobics" and used it in the title for his first book. Two years later, he left service as a lieutenant colonel and founded what has become the sprawling Cooper Aerobics Center and Cooper Institute in Dallas.

The Air Force incorporated into its fitness testing program many elements of aerobics, including the annual 1.5-mile run. By the early 1990s, however, several airmen had suffered heart attacks or injuries during the annual test, and the service switched to the safer cycle ergometry test.

Over the years, the mission of improving fitness also has changed. "Up until the early 1990s, the fitness test was part of the personnel program, much like the weight management program," noted Schmidt. "It has just been in the more recent years that the surgeon general has taken ownership of the actual instruction."

In announcing the new tests, Jumper said it was time to change the attitude that was costing the service valuable manpower. "Every year," he said, "we muster out about 400 people from our Air Force because of fitness issues."

Jumper added that fitness should also be an area of concern for Air Force civilian employees.

Battle of the Bulge

Of the four elements in the new fitness test, the measurement of body composition may be the toughest for some members because it will require the most work to show any improvement. The actual measurement is deceptively simple. Schmidt said, "It's a single abdominal measurement with a tape measure, independent of height or age."

The test is based on the recommendations of the National Institutes of Health, which maintains that males with an abdominal circumference

USAF photo by SSgt. Dawn Finniss

Airmen in Southwest Asia begin a group fitness run on Oct. 29. Deployments to regions of extreme temperatures are one reason USAF has instituted a tougher physical fitness program.

greater than 40 inches are at a high health risk and at 35.5 inches, they are at a moderate health risk. For females, 32.5 inches is the moderate risk point and more than 35 inches is high risk.

"If you are over those," remarked Schmidt, "then you go to that body-composition improvement program."

The actual scoring of body composition and other factors will be on a numerical scale. The aerobic fitness component includes the 1.5-mile run. (The run time, based on research from Cooper Clinic, also can be equated to the VO-2 score from the bicycle test.)

On the aerobic fitness test, one can score between zero and 50 points. Scores on body composition can range from zero to 30 points. One can get up to 10 points, each, for push-ups and crunches.

"You will notice that 50 points go to aerobics fitness, because we know that's the best single indicator for overall fitness," said Schmidt.

In contrast, there is little research to help the Air Force determine the fitness component of push-ups and crunches.

USAF has published separate charts for males and females, dividing them into five-year age increments. A male under 25, for example, will have to complete the run in 9.36 minutes or score at least 54 on the bike test to earn the maximum of 50 points. To gain top points on the other components, he will have to have an abdominal circumference of 32.5 inches or less, do 62 or more push-ups in one minute, and do 55 or more crunches in a minute.

A male over 55 still will have to have a 32.5-inch waist. However, he is allowed more than 11 minutes for the run and can score as low as 47 on the bike for a top aerobics score. He can max the other scores with only 35 push-ups and 41 crunches in one-minute periods.

Women are allowed more time for the run than men in the same age brackets and are required to do fewer push-ups and crunches to win the same number of points. In the body composition component, however, women of all ages must have smaller measurements. A waist circumference of 29.5 inches or less is needed for top points.

USAF photo by SrA. Cat Trombley

Two airmen at Kunsan AB, South Korea, wear bomb suits during a PT session designed to to test their ability to work in the suits as well as their fitness. They also ran the 1.5-mile portion of the new fitness test in the 65-pound suits.

Can You Compensate?

If a person's body composition measurement is too high, will it be possible to make up for it by scoring well on the rest of the factors and still pass?

Schmidt has doubts.

"You would probably have to do very well in all the fitness components once you go over the 40 inches," she said. "But let's say you have a 38-inch waist. As long as you do well on the fitness components, you could get a good score. So there are ways that those borderline people could do it, but once they get over that 40, it's going to be a lot more difficult unless they are very fit. We haven't yet seen where there was a very fit male who had a waist over 40 inches. You can just see that their fitness scores are as low as their waistlines are high."

Another major change in USAF's approach to fitness will be how it holds members to account. In the past, the service laid down guidelines but left it pretty much up to the member to follow them. As Schmidt said, "Our Air Force instruction said that you should have 30 minutes of cardio training or aerobic fitness training to include such things as jogging, biking, swimming. So there are some examples there. And the instruction said that it should include strength training, either machine-based or calisthenics-based type muscular fitness and flexibility. That was in there, but it was up to the individual what he or she did."

Now, however, unit commanders will be held responsible for their troops. Jumper said, "We are planning ... to put responsibility for PT in the chain of command, not with the medical community or the commander's support staff. I expect this effort to be led from the top, starting with commanders and senior NCOs, and I expect those who have trouble meeting the standards to be helped by others in their units until they do meet the standard."

The Chief gave this example: "While we have weight and body fat standards that we must meet, there will be some, weightlifters in particular, who may be perfectly fit but not meet these standards. This is where I expect commanders to step in and make a decision. Everyone will have to pass the commander's eyeball test about how fit we are to wear the uniform."

The testing and the remedial efforts will be demanding, but Schmidt said she thinks that supervisors won't begrudge the time members have to take off to comply.

"I haven't really heard a lot of talk about the duty time," she said. ■

Bruce D. Callander is a contributing editor of Air Force *Magazine. He served tours of active duty during World War II and the Korean War and was editor of* Air Force Times *from 1972 to 1986. His most recent article for* Air Force *Magazine, "A Short History of Medals," appeared in the December 2003 issue.*