NISSION ESSENTIAL FITNESS

Takes Hold at Fort Bliss

n the Army, physical training is being reinvented. As tactical athletes, soldiers today are pushing the limits of human performance, and the Army's Mission Essential Fitness (MEF) program is training them using functional exercises directly tied to what they will be asked to do physically in combat situations. As Fort Bliss, Texas, puts the final touches on its new 96,000-square-foot physical fitness center — the state-of-the-art facility is due to open in June — its Human Performance department, headed by Director Doug Briggs, Ph.D., has been busy spearheading the Army's MEF initiative.

In November 2008, *GRF* covered the opening of the Ironworks Gym at Fort Bliss, a first-of-its-kind functional strength and conditioning facility. Since its opening, soldiers coming through Fort Bliss have embraced this new training and facility, which provides numerous circuits with varying degrees of difficulty, all aimed at strengthening soldiers for the mission ahead. The facility is also home to a thriving Civilian Fitness Program, a commander-directed initiative that provides fitness evaluations, fitness guidance, personal trainers, fitness classes three times per week for six months and follow-up evaluations using comparative data over a six-month period.

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Because of Ironworks success. Fort Bliss was able to move this MEF facility to a new clamshell to create a bigger and better Ironworks, with more space and equipment, men's and women's showers and double the number of lifting platforms, racks and benches. The new clamshell has Mondo flooring throughout, and the training space features Samson power platforms and kettlebells, Fitness Anywhere (TRX) straps for suspension training and numerous pieces of functional equipment including Bosu balls, wobble boards, medicine balls, elastic bands, agility ladders, hoops and hurdles, etc., which were purchased from Power Systems, Gopher and MF Athletic, Traditional strength and cardio machines are also available — such as treadmills, bikes, steppers and selectorized equipment — from Life Fitness, Hammer Strength and Precor. Gravity trainers from EFI Sports Medicine are also an important part of the training, and Korr indirect calorimeters and the MicroFit FAS-2 system are used for assessment purposes.

With more space at the new clamshell, Briggs was also able to add more glute-ham raises; step-up platforms; reverse hyperextensions for lower back and quads; and Samson Sprinters that can handle weight-bearing exercises. In addition to the traditional cardio equipment, there are more sleds and tires, as well as more TRX straps to do suspension training, which is very popular with soldiers. A larger outdoor area adds versatility, allowing soldiers to work outside with the sleds, tires and other apparatus, such as vokes, which soldiers can load weight on and move with.

According to Briggs, this new functional approach to fitness is being embraced Army-wide, and has been getting great support from Army leadership.

"The Army is on board big time with this new approach and facility," says Briggs, who recently traveled to four different installations in Germany to help other fitness departments better understand how to start a similar program and facility.

"They are trying to learn what we

are doing here and understand the whole process, based on our experiences and knowledge so far," he added.

Briggs also has a request to go to Italy to set up the program, and is excited to be able to spearhead this important fitness initiative, and bring this new type of training and facility to installations Armv-wide.

"This is great for the Army," he says. "I'm really looking forward to it. The stuff that we have seen over the past two vears with training has been phenomenal. We've had zero injuries, improvement on PT scores - the whole nine yards with this training and this facility."

MISSION ESSENTIAL FITNESS

Briggs points out that the goal for training at the Ironworks Gym is to prepare soldiers for combat, and to reduce injuries. "Our goal is to teach unit PT leaders how to train soldiers as tactical athletes, and how to do it right. The circuit training pushes soldiers while

training muscles and parts of the body they will need to call on in combat, ultimately making them stronger, faster and better pre-



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He adds that the center and training will also aid in the retention of soldiers by increasing PT scores, decreasing injuries and improving return time after injuries by using an aggressive approach to rehab and reconditioning. Functional exercises lead to better muscular balance and joint stability, impacting the number of injuries sustained and a soldier's performance in the demands of combat.

Over the past few years the Army has found that due to a lack of core training, soldiers are returning from deployment with preventable injuries. MEF, which is part of the Army Force Generation Model, was developed to provide the proper training to condition soldiers to perform their mission, in garrison as well as in any operational environment.

Functional exercises use training that emphasizes the body's natural ability to move forward/backward, side-to-side, up/down and rotationally to mimic the movements a soldier is required to make in combat situations. For a tactical soldier those movements must replicate an unbalanced movement pattern due to a heavy ruck, while maintaining explosive, agile movements required in urban environments.

Briggs points out that the goal of MEF is to not only teach soldiers how to prepare for combat but also to continue to stay in shape in theater, using what they learned at Ironworks.

"Everything that we do here we teach them how to do it in theater," he notes. "So, if you are in the mountains of Afghanistan, you can use ammo boxes, logs, tires, chains — anything you've got over there — to basically do the functional training that we are doing here. So, we are teaching them here how to take stuff that you would have available to you in a combat zone or in theater, and apply it to training.

To help soldiers in deployed locations, Briggs has created fitness deployment kits, which include equipment such as the TRX straps and kettlebells. "We can tailor it to where they are going and what they need to do," he points out.

BIGGER AND BETTER

As the Army transitions into this more functional — mission essential — training, a larger and improved Ironworks center allows Briggs to train more soldiers than ever before.



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"This is a much larger facility, about 13,500 square feet indoors, so many days we will be running upwards of 200 soldiers at a time through here, four groups a day," he notes. "We can go from 15 to 200 based on need. We can really adjust it to what they need from a platoon size or just an individual need."

Briggs and his staff set up different types of circuits, from entry level to high

intensity, as well as pre- and post-hab circuits, notes Briggs.

"We set up one circuit a week," he says. "We run the soldiers through that circuit and then at times when our staff are not there (the facility is open from 5 a.m. to 11 p.m., Monday-Friday, and is open on weekends), the units can run the circuit based on what we have set up. We change the circuits on a weekly basis to



avoid stagnation. And for units that are on profile — physically limited — we can train any of them because we can adjust the workout or the circuit. So, if a soldier has an injured leg, we can take that out of the workout and keep going with the good leg and their upper body — adjust the program to meet their specific needs."

The Human Performance department works with the National Strength and Conditioning Association (NSCA) to provide Tactical Strength and Conditioning (TSAC) training and certification courses, and with Fitness Anywhere to provide TRX training and certification.

"We bring in the NSCA and we do certifications on the Tactical Strength and Conditioning program, so we actually train the leaders (50 at a time) within the units to get them certified, and then we run TRX certification sessions with these groups as well," notes Briggs.

The TSAC program's primary purpose is to develop operational fitness for military personnel. TSAC trainers work with the Human Performance department at Fort Bliss to develop a comprehensive strength and conditioning program that considers the physical demands of operational-related activities.

By training the operators in the same fashion as professional athletes, the TSAC program offers the same expertise in developing the tactical athlete, while providing the knowledge and science to help soldiers avoid injury.

"The TSAC program helps in teaching proper form and technique and approach, which the unit leaders can bring back and teach to their units," notes Briggs. "Then, when they are actually doing their training on the circuits, we will have our staff (2-6 different people based on the group) watching and correcting form. Unit leaders and our staff allow us to handle such big groups and provide direction and instruction."

In addition, by training and certifying unit and PT leaders in TRX Suspension Training, the system has become an integral part of this new functional approach to fitness. The TRX is a new category of exercise for athletes of all abilities that leverages one's own bodyweight and gravity to develop strength, balance, flexibility and joint stability simultaneously. Using the TRX, soldiers harness their own bodyweight to create resistance as they train through the many military-specific exercises that can be done with the system.

Gravity Training using EFI Sports Medicine equipment (15 pieces in total) is also a popular element of the Ironworks facility. "We use them for group exercise training, as well as post-rehabilitative training," notes Briggs.

Fort Bliss also has a RealRyder unstationary exercise bike, which allows riders to lean and move as if they are riding a real cycle. The Bliss community had a chance to try the bike out during its recent Fitness Resolution 2010 fitness day, which included a 5K Run, a variety of group exercise classes, massages, a bench press contest, and a health fair.

"The bike is great," says Briggs. "We've gotten very positive feedback and it is a definite core workout."

In the area of physical assessments, the Indirect Calorimeter from Korr is used at Ironworks to measure energy expenditure. It is called "indirect" because the caloric burn rate is calculated from a measurement of oxygen uptake. Because it relies on the direct relation-



ship between caloric burn and oxygen consumed, measurements of oxygen uptake (VO2) and caloric burn rate are virtually interchangeable. Oxygen uptake requires a precise measurement of the volume of expired air and of the concentration of oxygen in the expired air.

Another important tool in the Ironworks arsenal is the MicroFit FAS-2 interactive system, which provides comprehensive assessments and objective measurements. The system also promotes staff efficiency and professionalism while motivating and empowering personnel. The Advanced MicroFit program flexibility and utility allows Bliss personnel to create tests, standards, protocols and formats customized to meet their specific objectives.

"We are having great success using the MicroFit system with both civilians and soldiers," notes Briggs.

The Civilian Fitness Program (CFP), which is run by Briggs, uses the gym and the MicroFit system as well. Full-time civilian employees at Fort Bliss are eli-—Continued on page 46, Fort Bliss



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-Continued from page 29, Fort Bliss

gible for the six-month intense program, scheduled on Monday, Wednesday and Friday, from 12 noon -1 p.m. Now in its 14th class, the program has been full (at capacity) since day one.

"We use the same training and fitness concepts with the civilians that we use with the soldiers," notes Briggs. "When they come in, we do a full assessment on them using the MicroFit FAS-2 and then we provide them with instruction all the way through the six-month program, from all the uses of the different equipment and different circuits to the whole concept. At the end of it we do a post assessment using the MicroFit FAS-2 so we can do a side-by-side comparison."

In addition to its use in the CFP, MicroFit assessments are offered to soldiers as well.

"We use it for the soldiers too," notes Briggs. "For someone who is trying to achieve a goal or may want lose to some weight and is not making any gains, we can do the assessment, a BIA or an indirect calorimeter on them."

In addition to helping to work circuits, the staff at Ironworks is there to help develop individual programs — "whatever is needed for the soldiers," says Briggs. "I look for people who are coming out of a university setting and are used to handling large groups of athletes. We very much model after the athletic training model, and our staff has experience on the Division 1 level, typically."

Moving forward, Fort Bliss is putting another MEF facility, similar to Ironworks, at Biggs Army Air Field, and another MEF at the main post. The new MEF on post will be smaller but has a classroom. "It will be nice to have the ability to use the classroom for the educational component," notes Briggs. "We can do more instruction, follow-ups and expand the number of soldiers getting exposure to this training." –GRF