

## **OBSTACLE, CONFIDENCE & TARZAN COURSE SAFETY**

By Code 481

The obstacle course predates the confidence course and its origins are lost in antiquity. The confidence course however, was originally conceived, built, and used to train the British Royal Commandos starting in 1946. The concept was adopted by the Marine Corps and one of the original Marine courses is located at Parris Island, SC. Plans for this course were approved in 1957 and construction was completed in 1958. The course has changed very little since then. Many Marine Corps bases have similar courses. (A note of interest - the tarzan course also originated in England.)

One problem with these courses is that there is no published guidance pertaining to safety. While guidance is available, on conducting physical conditioning programs ("Marine Physical Readiness Training for Combat" (FMFRP) published by MCCDC in 1988 which also includes these courses), this guidance does not address safety aspects.

Every year we see reports of Marines being injured on these courses. Injuries **range from permanent partial disabilities to lost time mishaps**. There are many more cases that are not reported, either by the individual and/or their command, so the exact numbers are indeterminable. An informal analysis of mishap data from one of the recruit depots showed that, **of the top four mishap producing events, the obstacle and confidence courses ranked third and fourth**. The vast majority of mishaps are from falling and a lot of these injuries are preventable by adding safety to the picture, something we're already supposed to be doing!

If your command is responsible for one of these courses, here are some recommendations to increase your personnel's safety. Some of these come from OSHA, some from other research and studies, and some have been developed here at the safety center as a result of our safety surveys in the field.

### 1. **Course Safety:**

a. Ensure that the course is placed on a **regularly scheduled inspection/maintenance program**. (This is normally on a quarterly basis and covers such items as: inspection, repair (as required), retensioning of ropes/cables, replacement/repair of any padding used, replenishment of wood mulch, etc..) This can be done by command personnel, public works department, or private contract.

b. Based on studies conducted, it is recommended that **wood mulch be used for all areas where personnel will be landing**. Ensure the landing area is large enough to accomplish its intended purpose. Recommend the mulch be roughly **24 inches (uncompressed)** in depth.

c. **OSHA requires fall protection for all unguarded surfaces.** For these type courses, recommend a safety net system be utilized. 29CFR1926.501 and 502 give excellent guidance for installation, testing, inspection, type of nets required, etc.. ANSI A10.11-1989, paragraphs 7 through 10, also apply. Your Safety Office should have copies.

d. **Copies of plans that have been approved** by a qualified architect/engineer should be available for all courses. In addition, copies of a civil/structural engineer's certification letter, manufacturer's safety net certifications, and certification of net drop tests also need to be on hand. If these aren't available, or haven't been done, steps should be taken immediately to rectify the situation.

## 2. Personnel Safety:

a. Ensure the obstacle course is **inspected each day** prior to use by the using unit. Personnel assigned to inspect should be knowledgeable in what to look for.

b. Ensure the **landing area mulch for each obstacle is loosened up** immediately prior to running the course. If large numbers of personnel are going to be run through the course on any given day, the mulch should be loosened up more often.

c. Ensure that there **are two separate means of communications available** on site. At a minimum, ensure that communications with both the hospital as well as the fire department are available for both of these means of communications.

d. Ensure that **potable water is available** on site for personnel.

e. Ensure that a **qualified corpsman is on site with an emergency vehicle** and, as a minimum, the below listed equipment prior to commencing:

|           |               |            |
|-----------|---------------|------------|
| Backboard | Splints       | Neck Brace |
| Oxygen    | First Aid Kit |            |

f. Ensure that all **participants are physically qualified** to undergo this training.

g. Recommend **participants undergo two weeks of conditioning** exercises prior to attempting the obstacle course.

h. During warm weather, ensure **all participants are well hydrated** prior to commencing the course.

i. Brief participants by **explaining (and demonstrating) the proper techniques** for each obstacle.

j. Make the [obstacle course a mandatory prerequisite](#) for running the confidence course.

k. Conduct [warm up/stretching exercises](#) for all participants prior to starting.

l. [Adverse weather considerably increases the hazard](#) factors for these type of events. Therefore, these factors must be taken into account by a knowledgeable individual in order to make the proper decision concerning running the course or not.

m. While nothing in writing stipulates what the [student to instructor ratio](#) should be for these courses, a general rule-of-thumb is [roughly a 10:1](#) ratio. This normally ensures adequate control and supervision. For obstacles that have an instructor assigned specifically to it (higher hazard obstacles or obstacle blocks continuous sight of students), both instructors will work together to control the students on that obstacle.

n. Recommend instructors be assigned to the following obstacles (additional instructors may be assigned as deemed necessary):

Obstacle Crs: Wall

Confidence Crs: Slide For Life, Skyscraper, Confidence Climb, The Tough One