



CONCEPT FOR A PRE-DEPLOYMENT ASSESSMENT OF BASIC-MILITARY-FITNESS IN THE GERMAN ARMED FORCES

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INTRODUCTION

Despite technical progress, physical fitness is still a key factor for operational readiness of soldiers. Periodic monitoring of proficiency level is a prerequisite for maintenance and improvement of Military-Fitness.

In the German Armed Forces Military-Fitness is defined as a four-level construct by the Directive "Individual Basic Skills and Physical Ability". The directive establishes the implementation of standard guidelines for regular physical performance assessments of the first two levels.



"Fundamental/Baseline-Fitness" is assessed with the "Basic-Fitness-Test" once a year. It consists of three events that are carried in sports suit:

- (i) 11 x 10m-shuttle-run,
- (ii) Flexed-arm-hang in the chin-up position
- (iii) 1000m-run.



SITUATION

A substantial problem of the worldwide existing "Physical/Basic-Fitness-Tests" is, that they do not reproduce the physical requirements of military missions adequately. Thus, they are no appropriate performance control for these demands.

However, for best possible pre-deployment training it is important to identify and control individual physical performance deficiencies according to the requirements of mission essential tasks on a joint forces level.

PURPOSE

Development of a "Basic-Military-Fitness" assessment tool "BMF", to test the physical demands on a joint forces level.

Basic preconditions the tool has to meet:

- position and mission non-specific
- easy and everywhere applicable
- few material requirements
- few personnel requirements
- objective and reproducible results



Position non-specific



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Mission non-specific



METHODS

Identification of mission essential tasks and corresponding requirements based on:

1. tasks analysis during realistic pre-deployment training of different branches at the Combat Maneuver Training Center
2. interviews of subject matter experts
3. lessons learned

RESULTS

Identified, mandatory mission essential requirements for coping with the physical demands of deployments:



Determinant „Movement“

Repeated high intensive movements with changes of direction, position & velocity



Determinant „Load“

Continuous moving and working with loads (e.g. body armor, equipment, casualties)



Determinant „Load Carrying“

(e.g. stretcher-/materialtransport)



Determinant „Load Lifting“

(e.g. rescue of casualties, loading of goods)

„BMF“

One single, timed test run with four events, wearing field uniform (5kg), body armor (13.4kg) & helmet (1.6kg) ≈ 20kg



BMF Module A

125m course with changes of direction, position & velocity (e.g. maneuver under fire)



BMF Module B:

40m dragging of a 50kg load (e.g. casualty recovery)



BMF Module C

100m carrying of two 18kg loads (e.g. stretcher-/materialtransport)

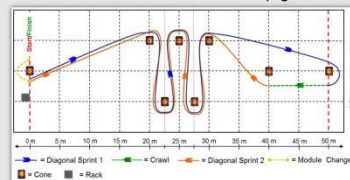


BMF Module D

Five times lifting of a 24kg load on a 1.25m high rack (e.g. load handling respective average sill height of military vehicles)



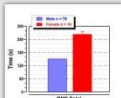
„BMF“-COURSE (e.g. Module A)



The complete "BMF" test run is carried out on a (sports-)field of 55x10m. Material: 8 cones, 3 jerry cans, 1 rack, 1 stopwatch; Personnel: 2 supervisors

CONCLUSIONS

Preliminary analyses showed that the "BMF" meets the required criteria. It is (1) easy and everywhere applicable, (2) requires few personnel and few material, and (3) yields objective and reproducible results.



First results indicate, that the "BMF" is a suitable method to capture relevant physiological components of mission essential tasks on a joint forces level. After completion of the evaluation, it can be applied during pre-deployment training to identify and control individual physical performance deficiencies.

