



**THE JOINT STAFF
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**MEMORANDUM FOR CHAIRMAN, JOINT FIRE SUPPORT EXECUTIVE
STEERING COMMITTEE (JFS ESC)**

**SUBJECT: US Air Force Special Operations Command (AFSOC) Joint Terminal
Attack Controller (JTAC) Simulator Accreditation Assessment Report.**

1. **PURPOSE:** An Initial JTAC simulator accreditation assessment of the AFSOC JTAC Simulator was conducted in accordance with (IAW) the Joint Close Air Support (JCAS) Action Plan at the request of USSOCOM and direction of the Joint Fire Support Executive Steering Committee (JFS ESC) Working Group. A JTAC Simulator Accreditation Team assessed the capabilities of the AFSOC JTAC Simulator to replace live controls required for JTAC qualification (currency) training in accordance with the JTAC MOA.

2. JTAC SIMULATOR ACCREDITATION TEAM MEMBERS:

Mr. John Twiddy, JS J6 DDC2I/JFD/JCAS Section, Team Lead

Mr. Brad Kephart, JS J6 DDC2I/JFD/JCAS Section

LCDR Lee Brewster, USN/NSAWC

TSgt Nate English, USAF ACC/A3FC

3. **ITINERARY:** Date of the visit: 24 May 2012, Hurlburt Field, FL.

4. **CRITERIA:** Scoring Criteria were developed and approved by the Joint Fire Support Executive Steering Committee. Simulators are classified based on demonstrated capability, specifically type of control (Type 1, 2, and 3), Day/Night, and laser target designator capability. Each criterion is consistent with and mapped to the Joint mission task list contained in section 5.3 of the JTAC MOA. A detailed description of the criterion development methodology can be found in enclosure 1, attached to this report. Scoring criteria can be found in enclosure 2.

5. **OBSERVATIONS:** The AFSOC JTAC Simulator is a semi-portable configuration which is known by several different names; (1) JTAC-TACP/Operational Simulation Suite (J-T/OSS) Version 2.0, used by active duty Air Force, (2) JFIRES currently in use at ANG at Camp Grayling Joint Maneuver Training Center (JMTC) and (4) JTAC TRS used by the Air Force Research Lab (AFRL) (5m domes, 220+ degree FOV).

a. The AFSOC JTAC Simulator combines Battlespace Simulations, Inc. (BSI) Modern Air Combat Environment (MACE version 1.0), used for scenario/entity generation, with MetaVR Virtual Reality Scene Generator (version 5.7), used for image generation. The combination produces a realistic virtual environment where entities behave in a realistic manner.

The simulator demonstrated a full complement of aircraft and ground system models, to include threat systems, which accurately depict the unique behavior of each system.

- b. The AFSOC JTAC Simulator included an integrated software based Distributed Interactive Simulation (DIS) radio which provided a push to talk communications capability, a generic handheld laser range finder/laser designator (compatible with AFSOC's form fit and functioning SOFLAM and MK-VII) and was configured with a 50 inch liquid crystal display monitor. Although not optimum, the 50 inch monitor used in conjunction with a head-mounted display provided the field-of-view (FOV) required to sufficiently accomplish assessment tasks.
- c. The configurations at AFRL and Grayling JMTC include 5 meter domed displays (220 degree FOV). AFSOC plans to purchase a domed display in the future when funding is available.
- d. The AFSOC JTAC Simulator utilizes Falcon View as the mapping tool within the simulation and is capable of importing existing military topographic database information to allow operators/instructors to quickly develop scenarios appropriate for mission rehearsal.

6. RECOMMENDATIONS: JFS ESC accredit the AFSOC JTAC Simulator (to include AF J-T/OSS, AAJTS, and JFIRES) to replace live controls (type 1, 2, and 3), for both day and night, and employ a functional laser target designator.

- a. When conducting type 1 control, trainees are required to use a display with a FOV of 220 degrees or greater or an HMD in the terminal phase of the control to assess the aircraft attack geometry.
- b. Laser accreditation is contingent on the employment of a system integrated form-fit and functioning laser target designator.

7. SUMMARY: A JTAC Simulator Accreditation Team assessed the capabilities of the AFSOC JTAC Simulator to replace live controls required for JTAC qualification (currency) training IAW the JTAC MOA. The Team recommends accreditation utilizing software versions MACE v. 1.0 and VRSG v5.7 as the common baseline. Type 1 accreditation is contingent upon the use of an HMD or domed display with greater than 220 degree FOV. Laser accreditation is contingent on the employment of a system-integrated, form-fit laser target designator.

8. Any questions or comments regarding this report should be directed to Mr. John Twiddy (DSN 836-6312) or Mr. Brad Kephart (DSN 836-8496).



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