DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AERONAUTICAL SYSTEMS CENTER (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

JUL 26 2010

MEMORANDUM FOR AMC/SGXL
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ASC/WNU
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FROM: ASC/WLM
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SUBJECT: Airworthiness Approval of Medical Education Technologies Inc. (METI) iSTAN Patient Simulator Version 2 with iSTAN Instructor's Workstation (SN: ISTAN311), Power Adaptor for the iSTAN Instructor's Workstation (Model No: A1184) and Internal Power Adaptor for the iSTAN manikin (Model No: AML 150PS20)

References: (a) ASC/ENFC email, "STF review of the METI iSTAN Version 2 (with instructor's workstation)," dated 09 June 2010.
(b) 77 AESG/TFL Technical Report No. FY10.009, "Technical Report of the Medical Education Technologies Inc. (METI) iSTAN Patient Simulator Version2," dated 26 January 2010.
(c) 77 AESG/CC memo, "Safe-To-Fly (STF) Recommendation for Medical Education Technologies Inc. iSTAN Patient Simulator Version 2 (with Instructor's Workstation", dated 6 June 2010.
(d) ASC/ENAD email, "RE: Review of the EMI report on the iSTAN Patient Simulator," dated 09 July 2010.

1. Based on the email requesting Airworthiness approval of the METI iSTAN Patient Simulator Version 2 (reference a), we have reviewed associated qualification documentation (reference b through d).

2. The METI iSTAN Patient Simulator Version 2 is suitable for use on the C-17 with the following limitations:

a. The iSTAN wireless communication shall be disabled before the training missions aboard USAF aircraft.

b. The iSTAN system shall be used only during Casualty Evacuation Training, where the aircraft is dedicated to the training.

c. The workstation control of the manikin shall be accomplished via Ethernet cable, no wireless transmissions permitted.

d. The iSTAN system shall be powered off during all VHF radio operations, due to high radiated emissions potentially causing interference with the VHF FM radio (30 – 88 MHz) in the aircraft.

e. The iSTAN shall be operated and stored per these threshold temperatures as follows:

- Cold with IV fluid: 0°C
- Cold without IV fluid: -13°C
- Cold Shock, Operational and Storage: 2°C
- Hot Shock, Operational and Storage Test: 49°C

f. The manikin shall be placed on a litter and tied down during training missions aboard USAF aircraft using two patient straps, as seen in Figure 1, as identified for patients in AFI 10-2909. The manikin shall be secured with two additional straps (one around the head and one around the shins) as seen in Figure 2 when not being used for training purposes.

Figure 1: Manikin Tie-Down, During Training

Figure 2: Manikin Tie-Down, When Not in Training

g. The instructor's workstation shall be tied down on a litter as shown in Figures 3 and 4. However, the workstation shall be stowed away when the system is not being used for training purposes.

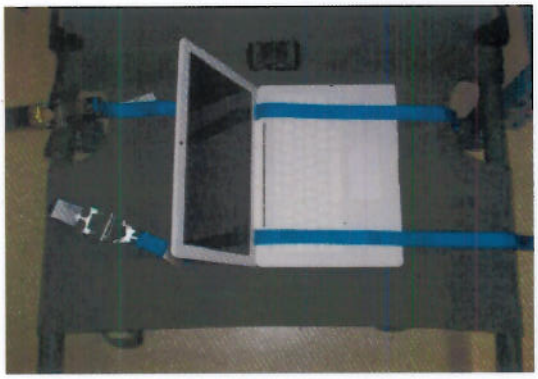

Figure 3: Tie-down with two 1"-wide Straps

Figure 4: Tie-down with 1"-wide Strap

3. Final Airworthiness for the METI iSTAN Patient Simulator Version 2 with iSTAN Instructor's Workstation (SN: ISTAN311), Power Adaptor for the iSTAN Instructor's Workstation (Model No: A1184) and Internal Power Adaptor for the iSTAN manikin (Model No: AML 150PS20) is granted.

4. Any changes to the METI iSTAN Patient Simulator Version 2 configuration that could impact Airworthiness shall be communicated to ASC/WLME for evaluation before the changes can be approved for Airworthiness on the C-17 aircraft.

5. Questions may be addressed to my OPR, [redacted]

[redacted]