



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

APR 06 2010

MEMORANDUM FOR AMC/SGXL

ATTENTION: MAJOR ANDREW KACZMAREK
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77 AESG/CC
ATTENTION: COL STEVEN P. GRAY
7980 LINDBERGH LANDING
BROOKS CITY-BASE TX 78235-5119

FROM: 516 AESG/EN
2590 Loop Road West
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SUBJECT: Interim Airworthiness Approval of Hutchinson Technology's InSpectra StO₂ Tissue Oxygenation Monitor (STOM) Model 650

References: (a) 77 AESG/TFL email, "ATB – STF Request: Tissue Oxygen Monitor;" dated 25 Mar 2010.
(b) WR-ALC 802 MXSS/MXD TD report Project Number T8638G02A, "Explosive Atmosphere Test InSpectra StO₂ Tissue Oxygenation Monitor;" dated 27 Jan 2010.
(c) 77 AESG/TFL Test Data Sheet, "Altitude Test Data Sheet;" dated 14 Jan 2010.
(d) 77 AESG/TFL Test Data Sheet, "Rapid Decompression Test Data Sheet;" dated 14 Jan 2010.
(e) 77 AESG/TFL email, "RE: ATB – STF Request: Tissue Oxygen Monitor;" dated 31 Mar 2010.
(f) ASC/ENAD email, "RE: EMI report for Oxygen Monitor;" dated 1 Apr 2010.

1. Based on your email requesting airworthiness approval of Hutchinson Technology's InSpectra STOM Model 650 (reference a), we have reviewed the associated qualification documentation (references b through e).
2. The STOM is suitable for use on the C-17 with the following limitation:
 - a. Per reference e, a 516 AESG-approved pulse oximeter or similar approved device shall be carried on board to monitor patient health in the event of STOM failure due to a rapid decompression event.
3. Interim Airworthiness is provided for the purposes of the study. Final Approval is pending the final documentation and certification from 77 AESG.

4. Any changes to the STOM configuration shall be communicated to 516 AESG for evaluation before the changes can be approved for Airworthiness on C-17.

