

Training to Train: MMSIV Team 'Suits' Up!



Instructor from Strategic Ops teaches our sim staff how to repair, moulage, & set up casualty simulations utilizing cut suits for more realistic casualty care scenarios. From left to right: Mr. Oliver Allen, Mr. Zachary Buono, and Mr. James "Jimmy" Gaudaen get trained by the STOP instructor on the art of moulage.

ATRC's Medical Modeling, Simulation, Informatics, and Visualization (MMSIV) Division welcomed the new year in January by hosting three days of intensive hands-on training on their newly acquired Strategic Operations (STOPS) Total Combat Casualty Care (TCCC) and Surgical CutSuits. This interdisciplinary training brought staff together from multiple TATRC labs for the opportunity to become familiarized with the CutSuits capabilities. Participants also got a taste of what special effects and moulage capabilities MMSIV has to offer as they gained first-hand experience with the STOPS Hyper-Realistic Moulage Kit (HRMK).

The CutSuits are task trainers designed to be worn by role-playing actors called Standardized Patients (SP), which enable the efforts of the MMSIV lab to create environmental realism of battlefield injuries as needed in the research and development process. Realism in the research domain is important as it contributes to participant's suspension of disbelief allowing for more accurate data collection. Both the Surgical and TCCC CutSuits provide the ability to perform the following medical procedures on a SP: extremity hemorrhage control with tourniquets application or arterial ligation/ clamping; cricothyroidotomy; bilateral anterior and axillary chest needle thoracentesis; bilateral surgical chest tube thoracotomy; suturing and stapling of skin in all locations; peripheral IV access; and iliac arterial hemorrhage control. The Surgical CutSuit offers additional medical procedures such as: foley catherization; external bladder tap;



Mr. Zach Buono wearing the Surgical CutSuit vest as MMSIV's Rob Shotto assists in the background.



MMSIV Human Factors Engineer, Mr. James "Jimmy" Gaudean puts on the TCCC CutSuit vest and skin.

thoracotomy and intra-thoracic exploratory surgery with hemorrhage control of gross organ structures; laparotomy and intraabdominal exploration with hemorrhage control of gross organ structures; and suturing of gross organ structures. Team TATRC was able to get up close and personal with the CutSuits to gain a full understanding of what the SP will experience while wearing these task trainers. The SP wears a large 25-35lb simulated rib-cage (think of wearing



Various simulated wounds created on synthetic skin during moulage training.

a heavy vest) with a synthetic skin bodysuit pulled over, thus giving the ability to perform invasive procedures on a real person without causing any harm. The CutSuits are equipped with hard protective shields throughout to prevent injury to the SP and require the supervision of a safety SME during use at all times. The safety SME is always embedded into scenarios to ensure the physical and psychological safety of the SP at all times. The following nine TATRC team members are officially certified as TCCC & Surgical CutSuit SME's: Ms. Christen Phillips, Ms. Holly Ortman, Mr. Carl Manemeit, Mr. Oliver Allen, Mr. James "Jimmy" Gaudaen, Mr. Robert Shotto, Mr. Zachary Buono, Mr. Mike Jenkins, and Ms. Lynn Difato. In addition to the three-day CutSuit training, the team was introduced to the art of moulage, a type of special effects makeup used to simulate everything from disease to traumatic injury. The main focus for this training was battlefield-type injuries using the Hyper-Realistic Moulage Kit (HRMK). The kit includes standard moulage tools and products like alcohol activated paint, makeup brushes, and tools. It also includes prosthetics with different caliber gunshot wounds, blast injury sleeves for the extremities, ocular evulsions, and more.

MMSIV personnel put their newly honed skills from this training into practice by utilizing the HRMK and components of the CutSuit with Human Patient Simulators (HPS) during the annual Cyber Quest 21 demonstration that took place at Fort Gordon this past March.

For more information on this MMSIV initiative, and the CutSuit training, please contact Mr. Geoff Miller at <u>geoffrey.t.miller4.civ@mail.mil.</u>

