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1990 Army Siphons off
Wesleyan Technologies to
6 and - Start its own concurrent
competitive in-house R & D

23 Jan 90

STRNC-ICCC (70)

MEMORANDUM FOR C, SOLDIER SCIENCE DIRECTORATE (ATTN: DR. C. BENSEL)

SUBJECT: Development of a Human Factors Test Protocol for Evaluation of the Mask Drinking System-Interim (MDS-I)

1. LSSD/Chemical Protection Section requests SSD to develop a Human Factors test protocol which will determine optimum system location of the MDS-I (compatibility with clothing and equipment), as well as its effectiveness in comparison to the current system/method.
2. The MDS Program has been restructured into two separate efforts. The MDS-I Program, which is the one with which you are familiar, utilizes a modified, non-developmental item (NDI) design prototype and will provide an interim hydration system to be used in lieu of the current system/method. The MDS Program is a research, development, test and evaluation effort which began 1QFY90 and will eventually replace the MDS-I system as the primary hydration system for soldiers wearing a chemical protective mask with a drink capability (e.g. elevated Mission Oriented Protective Posture (MOPP) attire).
2. The modified NDI prototype, Fluid Intake Suction Tube (FIST) Hydration System manufactured by Mine Safety Appliances, is scheduled to undergo a series of tests in 2Q/3QFY90 which will determine the feasibility of a limited procurement in 4QFY90. In addition to chemical agent testing, the MDS-I will be subjected to a User Test to determine its durability and effectiveness during battlefield use. An effort is currently underway to locate an Army or Marine agency who may have a User Test (UT) or exercise scheduled within the next two months, in the hopes of including the MDS-I in that test. LSSD anticipates conducting the Human Factors testing prior to commencement of the UT, which has not been scheduled as yet, to inform and teach the UT subjects the proper procedures and use of the system.
3. In a response to a request by LSSD, the U.S. Army Infantry School has provided information relating to the field use of a mask hydration system when in MOPP IV attire. This information is provided as an enclosure to assist in the development of a Human Factors test protocol. In addition, a copy of the draft report pertaining to physiological effects of soldiers using the MDS-I prototype versus the current system/method, conducted by U.S. Army Research Institute of Environmental Medicine (ARIEM), is available through the Chemical Protection Section. Contained within the report are a series of questionnaires developed by ARIEM personnel to gauge the effectiveness of both systems, they may be of use in developing questionnaires for human factors evaluation.
4. LSSD POC for this action is Mr. Don Davio, Jr., X5434. It is requested that a SSD POC contact LSSD POC at earliest possible convenience.

Encl

RONALD GRANCHELLI
Chief, Chemical
Protection Section

CF:
LSSD W. Goodwin

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