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OFFICE OF THE DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
WASHINGTON, D. C. 20301

5 January 1968

MEMORANDUM FOR: See Distribution

SUBJECT: Minutes of the 70th Joint Medical Research Conference

The following attended the conference at 1030 hours, November 17, 1967, Conference Room 4, 1E801, the Pentagon.

Theodore C. Bedwell, Major General, USAF MC, Acting DASD(H&M)
 Hamilton H. Blackshear, Lt Colonel, USAF MC, Hqs USAF (AFRDDG)
 Joe M. Blumberg, Major General, MC USA, CG, USAMRDC
 Joseph E. Brannock, Major, USA, OTSG, DA
 C. J. Buckley, Captain, USAF MC, Hq ARRS(MAC)
 R. E. Hays, Jr, Lt Colonel, USAF, Hqs USAF (AFBSA)
 R. R. Hessberg, Colonel, USAF MC, Hq USAF (AFRDDG)
 R. R. Hippler, Lt Colonel, USAF, Hq USAF (AFRDDG)
 P. B. Holtwick, Lt Colonel, USA, OTSG, DA
 Frank Kiel, Lt Colonel, MC USA, OACSI, DA
 Dr. Carl Lamanna, PL-313, OCRD, DA
 Richard S. Malone, Colonel, USAF MC, Hq USAF (AFMSP)
 J. J. McCambridge, Major, USAF BSC, Hq USAF (AFRDDG)
 G. M. McDonnell, MC, Chairman
 C. J. McGrew, Commander, MC USN, BuMed, DN
 Alvin F. Meyer, Jr, Colonel, USAF BSC, Hq USAF (AFMSP)
 Lloyd F. Miller, Captain, MC USN, BuMed, DN
 Henry S. Parker, Colonel, MC USA, ODASD(H&M)
 Irvin C. Plough, Colonel, MC USA, USAMRDC
 Herbert Pollack, MD, IDA
 Carl E. Pruett, MC USN, OPO7E, DN
 Richard R. Taylor, Colonel, MC USA, ODDR&E
 H. R. Unger, Colonel, USAF MC, Hq USAF (MSPAB)
 M/Sgt Wachter, USAF, Hq ARRS
 Harold W. Whitcher, Colonel, MC RAMC, British Medical Liaison Officer,
 OTSG, DA

The minutes of the 69th JMRC were distributed at the meeting. Comments are to be forwarded to Colonel Taylor.

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Beryllium Air Quality Standards-
Environmental Pollution

Colonel Meyer presented the results of many meetings with HEW regarding atmospheric emission of beryllium enriched propellant exhausts. The USPHS policy, an exception only for tests essential to national defense, provides interim standards while preparing for 100% containment of Be products or off-shore testing. USPHS will support their policy providing: (1) each motor firing is essential to national security and (2) the interim standard of 75 mcg min Be/M³ between 10 and 60 minutes is used as a peak value upper limit rather than an average. This precludes uncontained motor firings larger than 400 pounds at CONUS test sites. The Air Force has been requested to discontinue small motor firings for meteorological diffusion tests and to determine if further large motor firings are technically essential to national security.

Senator Muskie has scheduled hearings on environmental pollution from the beryllium enriched propellants for January 15, 1968.

Colonel Meyer stated that the military environmental pollution problem is broader than beryllium and that adequate advisory services do not exist at this time. The problem is beyond the scope of the contract with the NRC Toxicology Committee.

Automated Armed Forces
Entrance and Examining Stations (AFEES)

Colonel Unger reviewed the activities of the DoD Hospital Management Evaluation Committee's Working Group on Modernization of the Routine Physical Examination.

Routine physical examinations are performed at several hundred different locations and vary in complexity and sophistication of examining equipment. The examinees are of varied background, intelligence, and motivation and are examined by personnel with considerable variation in experience and training. In FY 1966 over 4.9 million routine examinations were reported.

The Working Group has reviewed (1) the requirements for routine medical examinations as contained in statutes and regulations, (2) the frequency and validity period of the routine medical examination, and (3) the scope of the current medical examination. In the absence of valid statistical data upon which to base any change, the current requirements, validity periods and scope were retained. The frequency of examinations for flying and other special duties were retained at one year and a recommendation was made that the frequency of periodic examinations for other

purposes should eventually be made uniform for officers and enlisted personnel of the three Military Departments.

A large number of the routine physical examinations are performed at the Armed Forces Entrance and Examining Stations (AFEES). The rated daily capacity of AFEES varies from 500 in New York to 25 in Boise, Idaho. In FY 1967, approximately 2 million physical examinations are accomplished at the 73 AFEES. The total operating cost of the medical sections of AFEES was \$7,129,000 or an average of \$3.61 per examination (this cost includes the civilian personnel cost and supplies, but does not include military personnel or any major construction cost). It is anticipated that this cost will exceed \$3.80 by FY 69.

There was an over-all medical rejection rate of 24% at the AFEES in FY 1966. Review of rejection rates shows little correlation among such variables as geographic area or ethnic origin. This leads one to believe the variation to be primarily a result of varying examination techniques as practiced by different examiners. This relatively high rejection rate has an important impact upon the nation. In the majority of cases an individual who is found medically unfit at the time of his preinduction or other procurement program medical examination is lost to the reservoir of manpower available to Selective Service.

The rate of separation from military service for medically disqualifying defects existing prior to service varies greatly. Again there appears to be little correlation to discernible factors which leads to a conclusion that the difference in medical examination is responsible.

In 1965, 6,254 members of the Armed Forces were discharged from the service for physical defects classified as having "existed prior to entrance into the service" (EPTS). A GAO report of 1963 indicates the costs incurred by the services for pay and allowances, uniforms, and travel to and from the training centers are \$477.00 for each "EPTS" discharge or approximately \$3 million each year. This estimate of total cost does not include (1) recruiting costs; (2) training facilities cost; (3) pay, allowances, and other costs of personnel associated with the recruiting training programs; (4) hospitalization cost. There is current Congressional interest in this problem (Enclosure).

The requirement is to provide a standard, rapid, accurate and effective physical examination for large numbers of people, with a reliable capability of recalling data.

The Working Group initially proposed the planning, construction, and test of a pilot automated physical examination station in the AFEES in Philadelphia designed to: (1) increase the accuracy, validity and quality of the examination; (2) conserve time of medical and paramedical personnel; (3) complete

forms automatically; (4) improve record storage and retrieval of required reporting and statistical material; (5) provide statistical data for further evaluation of scope and frequency of the physical examination.

The Working Group perceives the development of an automated physical examination system in three major steps: (1) development of a detailed narrative description system; (2) a systems engineering study and description of the proposed system; and (3) prototype development, test and evaluation. A "Narrative Description of the Automated Medical Evaluation System AFEES" and a supplement, "Detailed Narrative Requirements," have been prepared defining the concept and requirements of the physical examination and an extensive description of the output desired.

The development of a preferred system configuration, the design criteria, levels of cost effectiveness and trade-off studies to determine the best selection of automation, semi-automation or manual accomplishment of specific tasks associated with the examination favored a systems engineering approach to the problem.

Following consultation with various members of the military research community, it is the opinion of the Working Group, the Review Group, and the Hospital Management Evaluation Committee that the USAF SAM, Brooks AFB has the technical expertise and capability to develop the prototype system and is ideally suited for the task. Steps are now being taken to have the project initiated as a Research and Development Project with the Air Force as Executive Agent. SAM is in a position of readiness to assume the task when a mission directive is signed and resources provided.

Colonel Hessberg stated that Air Force has a related project under Engineering Development. He has reviewed the requirement with the Working Group and believes R&D is needed rather than procurement. AMD has developed a plan. Funds and manpower would be required. It will take 3 years to develop and install the prototype unit at an estimated cost of \$2.0M.

Doubts were expressed on potential cost effectiveness of automation in view of the very low average cost per examination (\$3.60). However, there may well be overriding factors such as (1) improved utilization of scarce medical manpower; (2) more uniform application of induction standards; and (3) obtaining information which could provide a basis for frequency and scope of routine physical examinations. Colonel Witcher stated that the Royal Army Medical Corps is now doubting the value of routine examinations more often than at 4-year intervals. Dr. Pollack believes that the examination should be focussed on the important prognostic part, i.e. diabetes, EKG, etc. Dr. McDonnell stated that many other agencies are working in this area.

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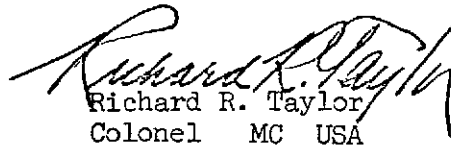
OASD(M) is planning to send this requirement to DDR&E requesting initiation of the project in the near future.

Operational Basis
of Rescue Research Requirements

Captain Buckley presented the life support aspects of the global air search and recovery activities of ARRS, particularly related to combat rescue in hostile areas of South Vietnam and out of the country recovery. For helicopters the additional weight from armor and safety equipment has so reduced aircraft performance that most has been discarded in favor of performance. The much greater mobility required for helicopter crews negates use of a universal armored vest and a lighter vest is needed. More attention is needed on protection of the spine, ankles, and shoulders.

In SEA the USAF now has a significant number of men living in bare bases under field conditions, decaying maintenance of sanitary standards. This has resulted in increasing incidence of infectious diseases.

The next JMRC will meet at 1030 hours, Friday, January 12, 1968, in Room 2A312, Pentagon.


Richard R. Taylor
Colonel MC USA

Enclosure

Distribution:

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Major General J. M. Blumberg, MC, USA, CG, USAMRDC, DA
Lieutenant Colonel Jerome G. Bricker, Hqs OAR (RROSL)
Colonel Rufus R. Hessberg, MC, Hqs USAF (AFRDDG)
Colonel Donald L. Howie, MC USA, ARO, DA
Dr. D. M. MacArthur, DD(R&T), ODDR&E
Colonel Richard S. Malone, MC, Hqs USAF (AFMSPB)
Dr. G. M. McDonnell, Chairman
Colonel Henry S. Parker, MC USA, ODASD(H&M)
Dr. Herbert Pollack, Institute for Defense Analyses
Dr. Joe P. Pollard, Office of Naval Research
Captain Carl E. Pruett, MC, USN, ODCNO(Dev), DN
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Mr. Richard A. Rettig, Bureau of the Budget
Colonel Harold Witcher, RAMC, British Medical Liaison Officer

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U.S. Medicine 11/15/67 p.8

Seek Probe Of Draftee Physicals

A MEMBER OF THE House Armed Services Committee has charged that physically unfit men are being drafted into the Army as a result of "appallingly sloppy" physicals.

Representative Richard Schweiker (R., Pa.) made the accusation in a letter to Defense Secretary Robert S. McNamara.

A spokesman said DoD is preparing a letter to Representative Schweiker in response to the allegation.

The legislator asked a formal investigation by the U.S. Comptroller General after reviewing the cases of a number of draftees.

The cases, he said, "indicate that the preinduction physical examinations approach has been an outrageous sham."

Representative Schweiker said the Pentagon was warned three years ago that the government was wasting \$1.5 million annually by accepting physically unfit men for military duty.

"A 1964 investigation by the Comptroller General," he said, "estimated that 3,250 enlisted personnel were separated from the services during fiscal year 1963 after entering active duty because of physical defects that should have been disclosed before they were accepted for service."

"The investigation by the Comptroller General more than three years ago uncovered exactly the same problems which are still present and about which I complained to Defense Secretary McNamara," he added.

The present system "shows a callous disregard for the well-being of prospective inductees," Representative Schweiker told Mr. McNamara.

The performance of some Armed Forces Examining Stations, he added, "is grossly unfair to our young men, their families and to the military services themselves."

The legislator said he was familiar with many examples to substantiate his criticism and he listed five cases in his letter to the Defense Secretary.

Enclosure