

40-1.1  
AA  
1959  
pt 1  
5097  
RCC2.950227.005

Department of the Army  
Office of The Surgeon General  
Washington, D.C.

S U M M A R Y  
of  
M A J O R E V E N T S A N D P R O B L E M S  
1 July 1958 Through 30 June 1959

PART I: UNCLASSIFIED

Prepared  
Under Direction of  
The Surgeon General  
by  
The Historical Unit, U.S. Army Medical Service

Army Center for Military History  
Washington, DC  
Call Number: 40-1.1  
AA  
1959  
Pt. 1

# Table of Contents

## PART I

	<u>Page</u>
Foreword-----	1
Summary-----	1
Patient Care and Related Activities-----	13
Hospital Clinic Care-----	13
Professional Consultant Activities-----	16
General Medicine-----	17
Surgery-----	18
Psychiatry and Neurology-----	19
Social Work-----	24
Clinical Psychology-----	25
Pathology and Laboratory Activities-----	26
Pharmacy-----	28
Professional Inquiries-----	29
Nursing Services-----	30
Accreditation of Army Hospitals-----	31
Economy Program-----	31
Armed Services Medical Regulating Activities-----	32
Army Health Experience and Trends-----	35
General Trends-----	35
Admissions-----	36
Noneffectiveness-----	36

Patient Care and Related Activities - continued

Army Health Experience and Trends - continued

Hospitalization-----	40
Utilization of Hospitals and Dispensaries-----	40
Preinduction Examination Results-----	43
Dependents' Medical Care Program-----	49
Major Revisions in the Program-----	49
Medicare Permit Reporting System-----	53
Impact of Revised Program on Army Installations-----	53
Restoration of Certain Care in Hardship Cases-----	54
Dental Care-----	55
Trends-----	56
Effect of Medicare Program on Morale-----	56
Budget Request for Fiscal Year 1960-----	57
Payments to Contractors-----	58
Standards of Medical Fitness-----	61
Preventive Medicine-----	64
Communicable Disease Control-----	64
Common Respiratory Disease and Influenza-----	64
Streptococcal Disease and Rheumatic Fever-----	64
Enteric Diseases-----	65
Insect-borne Diseases-----	65
Venereal Disease-----	65

Preventive Medicine - continued

Communicable Disease Control - continued

Staphylococcal Disease-----	66
Rubella-----	66
Polioomyelitis-----	66
Tuberculosis-----	66
Meningitis-----	66
Smallpox-----	66
Epidemic Hemorrhagic Fever-----	67
Miscellaneous-----	67
Biological Warfare-----	67
Immunization Activities-----	68
Influenza Vaccine-----	68
Adenovirus Vaccine-----	68
Combined Tetanus and Diphtheria Toxoids and Pertussis and Polioomyelitis Vaccines-----	69
Combined Tetanus and Diphtheria Toxoids and Polioomyelitis Vaccine-----	69
Lyoophilized Smallpox Vaccine-----	69
Recruit Training at Fort Carson-----	69
Occupational Health-----	69
Occupational Medicine-----	70
Industrial Hygiene-----	71
Radiological Hygiene-----	72
Occupational Vision and Conservation of Hearing-----	74
Safety-----	74

	<u>Page</u>
Preventive Medicine - continued	
Civil Public Health-----	74
Environmental Hygiene-----	75
Entomology-----	75
Sanitary Engineering-----	76
Nutrition-----	77
Army Health Nursing-----	78
Preventive Medicine Personnel and Training-----	78
Publications-----	83
Combat Development-----	84
Organization of Forces-----	85
Revision of TOE-----	85
Conversion to Machine Processing of Supply Manuals-----	87
Preparedness-----	88
Lebanon Situation-----	88
Mobilization Planning-----	90
Continuity of Operations Plan-----	91
Conference of Planning Officers-----	91
Military Personnel-----	91
Legislation-----	91
Provision for Calling Doctors to Active Duty-----	91
Extension of Special Pay-----	92
Credit for Wartime Service to ANC and AMSC Officers-----	92

	<u>Page</u>
<b>Military Personnel - continued</b>	
Reduction in Officer Authorizations and Strength-----	92
Officer Procurement-----	95
Medical Corps-----	97
Dental Corps-----	101
Medical Service Corps-----	103
Veterinary Corps-----	105
Army Nurse and Army Medical Specialist Corps-----	106
Warrant Officer Program-----	110
Officer Assignment-----	112
Officer Promotions-----	114
Enlisted Personnel-----	114
Strength-----	114
Reenlistment Program-----	115
Training at Military Installations-----	115
Training at Civilian Institutions-----	117
Classification and Assignment-----	117
MOS Imbalance in Grades E-5, E-6, and E-7-----	118
Authorization of Two Higher Enlisted Grades-----	119
Proficiency Testing and Evaluation System-----	120
Proficiency Pay-----	121
Training of Officers-----	123
Residencies-----	123
Internships-----	126

	<u>Page</u>
<b>Training of Officers - continued</b>	
<b>In-Service Training-----</b>	127
<b>Professional Specialty Courses-----</b>	131
<b>Service School Courses-----</b>	131
<b>Training in Civilian Institutions-----</b>	138
<b>In the United States-----</b>	138
<b>Overseas-----</b>	144
<b>Institutes-----</b>	145
<b>Training Guidance-----</b>	147
<b>Training of Foreign Nationals-----</b>	148
<b>Medical Education for National Defense-----</b>	148
<b>Civilian Personnel-----</b>	149
<b>Career Planning-----</b>	149
<b>Training-----</b>	150
<b>Procurement of Top-Grade Medical Scientists-----</b>	151
<b>Revision of Army-Air Force Wage Board Pay System-----</b>	153
<b>DCI/AFR Survey-----</b>	153
<b>Recruitment and Strength-----</b>	154
<b>Incentive and Suggestion Awards-----</b>	155
<b>Research and Development-----</b>	156
<b>Changes in Organization and Emphasis-----</b>	156
<b>Bioastronautics Research-----</b>	158
<b>Biophysics Research-----</b>	159
<b>Medical Research-----</b>	161

	<u>Page</u>
<b>Research and Development - continued</b>	
Surgical Research-----	162
Dental Research-----	162
Preventive Medicine Research-----	163
Research in Human Resources-----	163
Oversea Research-----	164
Development of Material-----	165
<b>Medical Supply and Equipment-----</b>	<b>166</b>
Supply Distribution Under Single Manager System-----	166
Medical Material Program for Nuclear Casualties-----	167
Reconstitution of Assemblages-----	168
Fabrication of Spectacles-----	168
Procurement-----	169
Classification of Supply Items-----	170
Medical-Dental Division, Army Stock Fund-----	170
Reconstitution of Major Medical Assemblies in USAREUR-----	172
Mutual Security Program-----	173
<b>Aviation Medicine-----</b>	<b>173</b>
Army Aviation Medical Officers-----	173
Aviation Medicine Training-----	174
Medical Service Corps Aviators-----	175
Medical Air Ambulance Company-----	176
Medical Helicopter Ambulance Detachments-----	176
Types of Aircraft-----	176



	<u>Page</u>
Veterinary Services-----	177
Construction-----	179
New Hospitals-----	179
Army Medical Research Institute-----	181
Quarters for Female Officers-----	181
Family Housing Programs-----	182
Other Projects-----	183
Management-----	184
Revision in Hospital Staffing Report-----	184
Hospital Command Management System-----	185
Hospital Methods Improvement-----	186
Hospital Staffing Guide-----	186
Revision of Hospital Organization Manual-----	187
Outpatient Medical Records-----	187
Medical Reserve Program-----	188
Troop Program-----	188
Status of Units-----	189
Actions and Programs-----	190
Advisory Council Meeting-----	192
Training-----	193
Public Information-----	194
Medical History Program-----	197

Tables

	<u>Page</u>
1. Movement of Patients Authorized by Armed Forces Medical Regulating Office-----	34
2. Admission Rates to Hospital, Dispensary, and Quarters, 1957, 1958, 1959-----	37
3. Disease Admission Rates to Hospital, Dispensary, and Quarters, 1957, 1958, 1959-----	38
4. Noneffective Rates, 1957, 1958, 1959-----	39
5. Hospital Admissions, Patient Census, and Final Dispositions, 1957, 1958, 1959-----	41
6. Patient Census, Admissions, and Bed Occupancy, U.S. Army Fixed Hospitals, Fiscal Year 1959-----	42
7. Outpatient Visits by Category of Patient, 1957, 1958, 1959-----	44
8. Results of Preinduction Examinations of Selective Service Registrants, 1956-59-----	45
9. Total Calls for Inductees, 1956-59-----	48
10. Physicians Claims-----	59
11. Hospital Claims-----	60
12. Authorized and Actual Strength of AMEDS Officers by Corps-----	94
13. Projects Strengths of and Requirements for Army Medical Corps Specialists-----	125
14. Professional Specialty Courses-----	128
15. AMEDS Service School Courses-----	134
16. Service School Courses Other Than AMEDS-----	135
17. Long Courses in Civilian Institutions-----	139

Radiological Hygiene.--The protection of Department of the Army military and civilian personnel against hazards to health from ionizing radiation is a dominant part of The Surgeon General's occupational health program. Although some 30,000 persons were exposed to ionizing radiation, no acute damaging exposures occurred during the year.

Among the varied sources of exposure were radium, medical and dental X-ray equipment, industrial radiography, linear accelerators, betatrons, power reactors, nuclear weapons and weapon materials, industrial and medical radioisotopes, and high-voltage X-rays.

The excellence of the control program was due to the conscientious and intelligent application of good radiological hygiene by the installations, activities, and troops utilizing such material and equipment. Through the universal use of film badges throughout the Army and from reports of overexposed badges, The Surgeon General is able to monitor continuously the results of these control programs. Periodic surveys of all sources of ionizing radiation made by representatives of The Surgeon General provide the means for furnishing direct consultation and advice to local commanders on radiological hygiene.

Each month during the year, there was an increase in the number of special problems in radiation protection requiring specific answers. The uses of radium in lensatic compasses and in emergency telephone switchboards were evaluated and steps were taken to reduce

to a minimum the use of radium in Army equipment. A policy was developed on the use of tritium in luminous paints. The single-value criterion was set for radioactivity permissible in drinking water for combat troops. Simultaneously, a workable concept was developed for the purpose of evaluating for radioactivity the quality of drinking water in the field. The design of the high-energy linear accelerator for the Quartermaster ionizing radiation facility for food irradiation was evaluated for health hazards. The problem of exposure of personnel to radiation during the on-site storage and loading of nuclear weapons was studied. A calibrator for radiation detection equipment was evaluated, and means were provided to distribute it to field units in order to give them maximum protection against health hazards.

There is every reason to expect that the number of radiation producing materials and equipment possessed by the Army will continue to increase. The use of radioisotopes for research and industrial process control is expanding; the power reactor program is only beginning, and in the next few years mobile and semimobile reactors will have been built; nuclear weapons, especially tactical weapons, are increasing in number and are being handled by more people; and development can be expected of many pieces of equipment that will use radiation as a source of energy for low-level illumination at night or to activate atomic batteries and generators. For each new development, the radiological hygiene program will have to provide thorough and practical protection for personnel that will not impede the Army mission.

This makes it possible to screen thousands of persons in a short time and determine those seriously affected. She was also nominated for the Department of Defense Distinguished Civilian Service Award. The other Exceptional Civilian Service Award was presented to Miss Agnes Adam upon her retirement as an employee of the Supply Division, OTSG, after more than 40 years of service.

Suggestions submitted by AMEDS employees during the fiscal year resulted in an estimated first-year savings to the Army Medical Service of \$114,548. The number of suggestions received declined from 2,545 in fiscal year 1958 to 1,566, and 473 were adopted, as compared to 755 the previous year. The employees whose suggestions were adopted received awards totaling \$7,822.

References: (1) OTSG Administrative Letter 690-6, 30 Sep 58, sub: Civilian Management Program. (2) OTSG Administrative Letter 690-6-1, 30 Sep 58, sub: Civilian Career Management Programs for Comptroller Occupations. (3) OTSG Administrative Letter 690-6-2, 30 Sep 58, sub: Civilian Career Management Programs for Civilian Personnel Administration. (4) OTSG Administrative Letter 690-6-3, 30 Dec 58, sub: Civilian Career Management Programs for Supply Occupations. (5) Changes 1, OTSG Administrative Letter 690-6, 16 Jan 59.

## RESEARCH AND DEVELOPMENT

### Changes in Organization and Emphasis

Major changes were made during fiscal year 1959 in the Army Medical Service organization for research and development and in the emphasis placed on certain types of research studies. In order to

achieve more effective coordination and control of research and development activities, the U.S. Army Medical Research and Development Command was authorized and established on 23 August 1958 as a class II activity under The Surgeon General. Brig. Gen. Joseph H. McNinch, MC, was assigned as its first commanding general and was also designated as Special Assistant to The Surgeon General for Research and Development Affairs. Following the establishment of the new organization, all of the seven medical research units in CONUS and the two overseas were transferred to the Command. In addition, two new medical research units were established -- one at Landstuhl, Germany, and the other in Panama. In order to provide the proper means for conducting the entire Army medical research program, the Research Contracting Office, previously a part of the Supply Division, OTSG, was transferred to and incorporated into the headquarters of the new Command in the Office of The Surgeon General. Experience during the last 9 months of the fiscal year proved the validity of the reorganization.

The objective of the AMEDS Research and Development Program continued to be that of providing new or improved means for the prevention and treatment of disease and injury. A basic budget of \$12,478,000 supported research and development efforts in 32 major projects covering priority military medical problems. Decreased emphasis was placed on X-ray and photographic techniques, physical standards research, and research on biomedical effects of blast.

Work was initiated on the biomedical aspects of missile transport, and there was a marked increase in activities in the field of ionizing radiation. Productive results were obtained with the promise of major improvements in the prevention of radiation injury and in the treatment of nerve injury, major fractures, and acute renal failure.

#### Bioastronautics Research

During the year, the Army Medical Service for the first time entered the field of bioastronautics. A project entitled "Biomedical Aspects of Missile Transport" was established, and a research program was instituted in coordination with The Surgeon General of the Navy. Even in the infancy of this effort, a major first was achieved -- successful flight into space by living primates.

Utilizing space available in the nose cone of the Army Jupiter missile, two bioflights were conducted. The first, in close coordination with the Naval School of Aviation in Pensacola, Fla., was made by a 1-pound squirrel monkey on 13 December 1958. Although the launching and the flight were entirely successful, the nose cone was not recovered. Physiological data telemetered from the capsule in flight did provide valuable information concerning the bodily reactions of the small monkey while traveling into space. Even before the first launching, preparation had been initiated for a more extensive medical experiment using both a squirrel monkey and a larger rhesus. On 28 May 1959, the historical flight took place. Two monkeys, both

female -- one, the Army monkey (Able), a 7-pound rhesus, and the other, a Navy monkey (Baker), a 1-pound squirrel monkey -- were successfully transported to an altitude of 300 miles and to a distance of 1,500 miles. A maximum speed of 10,000 miles per hour was attained. In this flight, the nose cone was quickly retrieved, and the primates were recovered in excellent physical condition. The preliminary analysis of the data telemetered during the flight and obtained from the animals after the flight indicated that they sustained no adverse effects from the experience.

The most important result of the test was that ordnance engineers, with the advice and assistance of AMEDS personnel, proved that they were capable of predicting the requirements for sustaining life during rocket travel and of constructing capsules which would completely protect the occupants. Four days after the flight, during the administration of an anesthetic prior to removal of an electrode placed in her body for the space flight, the monkey Able went into cardiac fibrillation and expired. Autopsy findings indicated complete absence of injury resulting from the missile flight. The bioflights were carried out under the auspices of the National Aeronautics and Space Administration in support of the national space program.

#### Biophysics Research

One of the most promising research advances of the year was made in the field of ionizing radiation. It was determined that large animals could be given significant protection against radiation



through preexposure administration of a combination of chemicals. This was the first time that large animals had been successfully protected against lethal doses of ionizing radiation. Sufficient promise was shown by this work that the Department of Defense provided emergency funds in the amount of \$1,600,000 to expand efforts to develop a safe, practical, long-lasting oral medication. Action was taken to modify existing chemicals in order to decrease toxicity and to increase length of action. The objective is to provide a practical drug or combination of drugs which will increase threefold to fourfold man's resistance to radiation. Concurrently, studies were conducted on the mechanisms of radiation injury, on the effects of radiation on immunity, infection, and wound healing, and on the results of low-level chronic exposure to radiation. Progress was also made on improving radiation treatment.

Methods have been developed for assessing medical impact to be expected from nuclear warfare. These studies will continue in order to provide planning data on personnel and on the logistic support that would be required in the event of nuclear hostilities.

Research continued on the biomedical effects of microwave radiation. Some evidence has been obtained showing that microwave radiation may have other than thermal effects on living tissue. Research directed toward development of a lightweight, battery-powered pulsed X-ray machine neared completion. Trial radiographs indicate that the pulsed X-ray may provide the solution to the requirement for X-ray support in forward field medical units.