

passengers aboard suffered fire in one engine. Both events ended without severely injured patients.

**Conclusions:** The continuous training program diminished the consequences following a disaster. Adequate coordination of the planned operations and continuous education proved to be the best way to face the effects of a disaster.

## 095.

### Medical Support for Space Shuttle Operations: The Role of Emergency Medicine

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Manned space flight operations (MSFO) are ripe with the potential for disaster. The United States National Aeronautics and Space Administration (NASA) and the Division of Emergency Medicine at the University of Florida (UF) have created a unique program to provide medical coverage in the event of MSFO contingencies. Participants are recruited from emergency medicine, anesthesia, and the surgical specialties, and are required to complete a one-day training course at the NASA John F. Kennedy Space Center prior to deployment. Trainees learn about space physiology, spacecraft hardware, and aerospace toxicology with special attention to the needs of astronauts and rescue crew. Other program elements include physician recruitment, certification, team configuration, and logistical support. Opportunities exist within the program to interact with NASA crew surgeons and international space medicine physicians, to participate in simulated contingency exercises, and to achieve NASA Flight Surgeon certification. Since 1988, UF teams have attended 63 launch and landing opportunities of the United States Space Transportation System (STS-Space Shuttle). No operational incidents have occurred necessitating the mobilization of UF personnel. The NASA-UF program represents a unique application of the principles of emergency and disaster care.

## 016.

### An Experimental Study of Aeromedical Evacuation by Helicopter and Fixed-Wing Airplane of Japanese Ground, Self-Defense Forces

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In the case of big disaster and catastrophe, the Japanese Ground Self-Defense Forces (JGSDF) usually has been asked to help with rescue and evacuations services under the Disaster Relief Act in Japan. Also, JGSDF occasionally has transported many emergency, critical patients from isolated islands or depopulated areas to well-equipped, big hospitals. But JGSDF has no airplanes and no helicopters that are specially fitted with any equipment for use in emergency medical services (EMS).

Recently, the government and people have requested that the JGSDF participate much more with peaceful purposes. So, the medical school of JGSDF has begun experimental studies of aeromedical evacuation using aircraft, with both helicopters and fixed-wing airplanes which are provided with some equipments for the EMS.

Studies have included the effects of monitoring and treatments used with attached equipments, such transmitting the electrocardiogram to the base and evaluation with physiological in men.

The results of these studies will be used for the dispatch of JGSDF using helicopters and fixed-wing airplanes in the near future.

## 123.

### Computer Program to Compute Different Trauma Scores

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Various considerations make it desirable that the severity of accident injuries can be mutually compared. As described by Draaisma, these scores are used for a number of purposes: 1) Evaluation of trauma care; 2) Evaluation of specific therapeutic measures; 3) Triage or sorting of casualties in the field; 4) Making clinical decisions; 5) Prognosis of the individual patient; 6) Organization of the reception and treatment of casualties; 7) Recognition of changes in the epidemiology of injuries and/or deaths resulting from trauma; and 8) budgeting of costs.

A computer program has been developed for the calculation of each of these scores. This program works on personal computers with a MS-DOS operating system. It consists of the following parts:

- A. Input the data of a patient.
- B. Read components on the screen.
- C. Records alterations.
- D. Calculations of the trauma scores.
- E. Sort the data for names.
- F. Sort the data for age.
- G. Sort the data for hospital numbers.
- H. Sort the data for trauma mechanism.
- I. Sort the data for trauma scores.
- J. Sort the data for a specific injury.

The output consists of 26 variables:

1. Name
2. First name
3. Birth date
4. Location (emergency department)
5. Hospital number
6. Date of accident
7. Blunt/Penetrating injury