Aerospace Medicine Training in Support of Manned Space Exploration

This article is the fourth in a series on Space Medicine, and was written by Stanley R. Mohler, M.D.

The aerospace medicine residency program at Wright State University (WSU) was initiated in 1978 by Dr. Arnauld Nicogossian of NASA. He took note of the disappearance of four prior civilian programs: Ohio State University, Harvard School of Public Health, University of Oklahoma—in connection with the FAA, and Stanford University—this latter not quite getting airborne. He also foresaw the growing NASA needs in regard to trained civilian aerospace medicine specialists. The U.S. Air Force and Navy conducted aerospace medicine residency programs, but these were limited to uniformed personnel and the training was tailored to specific military needs.

Dr. Nicogossian approached Dr. John Beljan, Dean of the new (1976) medical school at WSU, and proposed that an aerospace medicine residency program be established. Dr. Beljan concurred, agreeing that there existed a high potential for an aerospace medicine training program at WSU. The University is located in a geographic area that is rich in aerospace, medical, and scientific resources. A major asset for a WSU-based aerospace medicine training program is the adjacent Wright-Patterson Air Force Base (WPABF), with its outstanding medical and clinical facilities. The Base is adjacent to the campus and has affiliation agreements with WSU and the medical school. Another asset is the rich civilian aerospace heritage (for example, the Wright brothers’ papers and other memorabilia) and military documents and aircraft (the U. S. Air Force Museum) in the area. In addition, the on-going aerospace research and development programs, both civilian and military, are important additional resources.

The Wright State aerospace medicine residency program was developed as an integral part of the Department of Community Medicine. The program is based at Good Samaritan Hospital, which is affiliated with WSU, and received provisional approval from the Preventive Medicine Residency Review Committee in 1978. The first resident and a permanent director (Dr. Mohler) were brought on board. Although the program is primarily for civilian candidates, it also began accepting candidates from other countries, who, following training, would return to their home country as key leaders in their aerospace medicine programs. They are proving to be a valuable resource for NASA with respect to its international collaborative activities. One fourth of the international candidates have been military officers. International medical support personnel necessary for current and planned manned spaceflight missions. Examples include operations with the Orbiter, the Space Station Freedom, manned lunar bases, and asteroid and Mars missions.

In September 1989, the resources available to the aerospace medicine program became enlarged and enhanced as Dean Stephen Kaplan combined various medical school components into a new Department of Community Health. These include the elements of the Community Medicine Department, the Medicine in Society Department, the Human Biology Division in Yellow Springs, the Department of Post Graduate Medicine and other organizations. The aerospace medicine program, thus, thrives within a new enlarged Department that is active in research areas of human growth and development, aging, alcohol, and substance abuse studies, disease prevention, and health promotion.

Those interested in learning more about the WSU Aerospace Medicine training program should write to:

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