Another subunit of the center is the 1099th Physiological Training Flight, which is responsible for training in aviation physiology and related fields for Air Force and other DoD personnel in the Mid-Atlantic Region. Annually, 4,000 military and civilian personnel are given comprehensive instruction in aerospace physiology, using the 1099th's two decompression chambers and live-charge ejection seat.

Aeromedical evacuation flights and squadrons supporting MAC assist in worldwide medical airlift, while TAC-gained aeromedical evacuation squadrons, known as TAMES, are designed to airlift casualties from combat zones.