

Spaceflight First Responder Certification: Enhancing the Culture of Safety & Medical Support

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Wilderness medicine has established that having greater numbers of people certified in first aid, first response, and advanced life support has made entry into the wilderness environment safer for greater numbers of people. Commercial spaceflight can be considered a 'remote wilderness' environment in which unexpected adverse health events may occur. Such unexpected events may be incidental or related to the spaceflight causal chain.

Spaceflight Medical Support Certification

The *Spaceflight Medical Support Certification Program* is rooted in the certification by Wilderness Medical Associates International (WMA), which carries the rigors of its 30-year history of wilderness medicine professionals. The WMA curriculum has been overseen and continually revised by a committee of medical practitioners and academics, and has been taught on all seven continents.

Sovaris Aerospace, in exclusive partnership with WMA, has evolved these wilderness-based medical support certification programs into specialized Commercial Spaceflight Medical Support Certification Programs for commercial spaceflight participants. Certifications include the following:

- Spaceflight First Aid (SFA)
- Spaceflight First Responder (SFR)
- Spaceflight Advanced Life Support (SALS)

The curriculum devotes considerable time to practical sessions and realistic simulations that prepare students for the stress of actual emergency situations in the field. Emphasis is placed on good patient assessments and hands on practice. The program uses a systems-based approach to medicine, to identify a progression of problems within each system and to be able to make informed risk/benefit decisions for each problem. An understanding of risk assessment and prevention/early intervention is emphasized, as part of a decision-based assessment.

Faculty & Purpose

The faculty has widespread experience and has conducted trainings in extreme environments, including aviation, spaceflight (ISS), battlefield medical response (Delta Force, Special Forces), search and rescue, remote space analogues (Antarctica), high altitude research, oceanic research (NOAA), oceanic expeditionary (National Geographic), artificial gravity research (NASA), HALO Parachuting (high altitude, low opening), Naval Aerospace Medicine Operations, parabolic flight research, and others.

These *Spaceflight Medical Support Certification Programs* are designed to:

- Elevate the safety of suborbital flight
- Build a culture of safety, as we evolve to orbital flight
- Assure that more passengers, crew, and support teams are first-responder enabled
- Build a growing community of space aspirants on earth who seek specialized training relevant to space.

A Culture of First Responders

We envision a near future in which all space participants will have, at minimum, **Spaceflight First Aid** certification. We further envision that every flight will have one or more participants certified in either **Spaceflight First Response** or **Spaceflight Advanced Life Support**.

This will enable a professional capability in pre-mission risk management, a congruent response to unanticipated events in flight, and assure a capable cohort of passengers and crew, should telemedicine directives be required from ground-based medical staff.

This should be of particular relevance to flight providers, ground crews, ground emergency services, training sites like NASTAR, paying spaceflight participants, physicians, government, and others. It will also give birth to a robust safety capability, as the field evolves to point-to-point transport and orbital excursions.