

# IASLS NewsLetter

Institute for Advanced Studies in Life Support

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Number 1

April, 1991

## President's Greeting

Hello! It's a pleasure and an honor to be sending you this welcome to, and greetings from, the newly formed Institute for Advanced Studies in Life Support. The Institute (IASLS) is a nonprofit corporation, with a Board of Directors, President, Vice-President, Secretary, Treasurer and Newsletter. Not bad for a newborn! But that's only the small part of it. **You're the big part!** The Institute to me is the hundred or so individual members and scientists who have and continue to dedicate a portion of their precious time and money to promote the study of life support systems and biospherics.

So we all seem to agree on what life support systems are, but what is this biospherics stuff? Biospherics, as originally conceived by Vernadsky in the 1920s is the study of biospheres which he defined as all interrelated biological organisms and the abiotic media on which they depend **studied from the point of view of one organism.** Earth is often described as humankind's biosphere. The now famous NASA-JPL scientist, Dr. J. Lovelock, popularized the study of biospherics, the "Gaia Hypothesis," postulating that the abiotic elements of Earth were and continue to be made fit and comfortable by the interrelated biological organisms which inhabit it. This subtly but profoundly differs from conventional wisdom which holds that biological life forms evolve independently and principally by adapting to their environment. It's through the study of human-made, "artificial" life support systems and their biospheres, such as spacecraft or off-world habitats, controlled ecological life support systems, submarines and closed terrestrial habitats that we hope to learn not only how to more prudently direct our lives in space, but also on Spaceship Earth. This is a lot of what NASA and other organizations have intimated in "Mission to Planet Earth."

So what does this have to do with our Institute? Everything! The purpose of our Institute, according to our Bylaws, is to "stimulate basic and applied research in advanced life support; facilitate global cooperation in advanced life support research; recognize and unify those involved in life support research and applications; provide an expert body and a forum through which individuals and private and governmental organizations can address life support issues of concern; and increase public awareness of the need for and importance of advance life support activities." Life support, as I discussed it above, the heart of biospherics. The study and understanding of life support systems and how they operate is absolutely essential to the understanding of biospherics and to our continued presence on Spaceship Earth.

So what do we do now? Where do we go from here? What are we doing? I'd like to propose some broad goals (or missions) for the Institute for the coming years for your consideration and, hopefully, animated discussion. Clearly one goal is to increase both individual and corporate membership. The Institute is only as strong as its membership! Know anyone who hasn't joined? Now's the time to recommend it to them! A second goal is to establish a scholarly Institute Journal of Biospherics and Life Support. A third and closely linked goal is to establish a Newsletter that will eventually be dedicated to reviewing and interpreting Journal articles in lay language for the public. A fourth goal is to sponsor an international meeting on Life Support. A fifth goal is to establish a physical location for the Institute, a sort of "home away from home" or Institute boarding house for visiting scientists and local meetings. An integral part of this goal is to sponsor and execute an international scientist exchange. That's it. I believe these goals, as they are met, will lead us into a position of strength and preeminence in the near future. Did you know we have a Planning Committee dedicated to just this sort of thing? How about the Meeting Committee or the International Committee? Interested? Volunteer. Take part. Become involved in one of the most exciting adventures of our time. Help take part in the intelligent development of mankind on our Spaceship Earth!

Daniel Janik, President