

# The IMSA Great Minds Program®

Engineering the Ocean **Dr. Marcia McNutt**, *Geophysicist, President and CEO, Monterey Bay Aquarium Research Institute*

Tuesday, March 18, 2003, 7 p.m.

Developments in microprocessors, artificial intelligence, and new forms of power and communications for autonomous systems are already bringing about a revolution in our ability to explore, experiment within, and ultimately understand Earth's last frontier: the ocean. It is inevitable, with this growing capability, that there will be pressure to use the same and similar technology to manipulate and enhance the ocean environment, just as we have our terrestrial environment. We will be able to fertilize the ocean to increase its productivity, adjust its climate in an attempt to halt natural and human-induced global change, harvest its internal energy to power our society, mine its raw materials, manage its inhabitants to maximize fish harvest, and exploit its overpowering beauty for human recreation. In this lecture, I present a series of fictional, but not entirely fanciful, future scenarios for man's intervention in the ocean. Such manipulations might end up helping or hurting mankind. Will we have the intelligence to understand the implications of our actions? The humility to admit what we do not know? The unselfishness to take the long-term view on what is the best policy for the planet? We are the first species on Earth to have ever possessed the ability to purposefully change the conditions on our planet. The question is whether we will use this power wisely.

Adults \$10.00

Seniors \$6.00

K-12 students free