



## Radiation Blocking Lenses

**B**elow, former America's Cup yacht-racing champion Peter Isler is modeling a new type of sunglasses, the polarized Eagle 475 produced by Biomedical Optics Company of America, Inc. (BOCA), North Hollywood, California.

The Eagle 475 lens represents a spinoff from a spinoff. It is a BOCA advancement of a NASA-derived technology used in the 1980s as the basis for the Suntiger line of sunlight-filtering lenses that protect human vision by blocking potentially harmful blue, violet and ultraviolet light. In 1991, BOCA acquired the rights to the Suntiger technological process-

es and conducted further development of the lens.

The Eagle 475 is designed to absorb 100 percent of all photowavelengths considered hazardous to eye tissue, including ultraviolet and blue light. The "475" designates the point at which visible light is allowed to transmit through the lens, in technical language 475 nanometers. According to BOCA, there is scientific evidence that this is the point most beneficial to the human eye, not only in protection from the Sun but in increased visual perception, contrast and reduced chromatic aberration (blue light haze).

Ultraviolet and blue light have been identified as contributors to cataract and age-related macular degeneration (retinal damage). Selective light filtration, a feature of the Eagle 475 lens, absorbs the hazardous wavelengths while allowing a higher percentage of visually useful areas of the spectrum to pass through. Polarization blocks out irritating glint and glare and heightens visual acuity.

The Eagle 475 product marks the latest evolution of a series of spinoffs that originated more than a decade ago in research performed by James B. Stephens and the late Dr. Charles G. Miller, both of Jet Propulsion Laboratory. Drawing on NASA radiation know-how and problem-solving methodology, the JPL duo conducted an industrial research project intended to develop a protective welding curtain that filtered out harmful irradiance, in particular blue light. Their successful effort resulted in a formula that included light filtering dyes and small particles of zinc oxide, and produced a commercial curtain that absorbs, filters and scatters light and thus provides protection for industrial personnel in welding areas. That success led to further research focused on protective industrial glasses and eventually to the Suntiger line of consumer products. ●

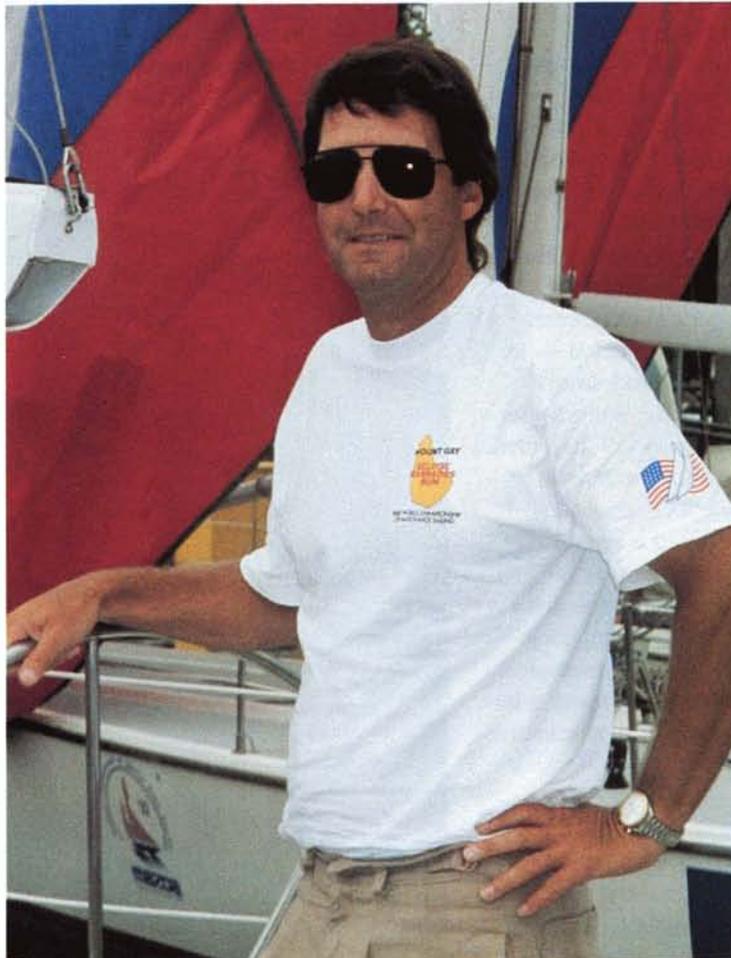
NASA INDUSTRIAL

SAFETY TECHNOLOGY

YIELDS SUNGLASSES

THAT BLOCK EYE-

HARMFUL RADIATIONS



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