



Editorial

H. J. Caulfield, Editor *Optical Engineering*

Optical Engineering on the Grand Scale

While most of us regard optical engineering as a small-scale laboratory activity, one of my friends at the Max Planck Institut in Munich, Dr. Gerhard Haerendel, and his colleagues from around the world are about to use a much larger laboratory. Project *Firewheel* is an enterprise which uses the magneto sphere as its optics laboratory. Two plasma clouds, one of lithium and one of barium vapor, will be generated at various distances from the earth. The aim is to study the interaction of the injected dense and cool plasmas with their dilute and hot environment. To this end, more than twenty diagnostic instruments have been installed on the *Firewheel* satellite. The clouds will also be studied by optical means from Earth. The optically visible display will be the largest man-made display in history.

The occasion for this project is a free ride on the second development flight of the European satellite launcher Ariane, which is scheduled for the end of May 1980. Sometime after the successful launch of Ariane and the injection of *Firewheel* into its final orbit, the period of active experimentation will be selected. The most probable period is during the new moon between June 8 and 20, 1980. The barium and lithium events will be about five hours apart. Times and coordinates of these events will be determined at least five days ahead. The events should be visible from essentially anywhere on the American Continent.

Optical Engineering readers with adequate optical instruments who would like to participate in this event can obtain more information from Dr. Haerendel at the Max Planck Institut for Extraterrestrial Physics, 8046 Garching b. München, West Germany. His phone there is (089) 32 99, Ext. 516.

OPTICAL ENGINEERING EDITORIAL SCHEDULE

JULY/AUGUST 1980

Feedback in Optics

Stuart A. Collins, Jr., Guest Editor

Environmental Optics

Tomas Hirschfeld, Guest Editor

SEPTEMBER/OCTOBER 1980

Holography

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George O. Reynolds, Guest Editor

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Sunnyvale, CA 94087 (415/493-1212)

Chris L. Koliopoulos, Guest Editor
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University of Arizona
Tucson, AZ 85721 (602/626-3020)

Optical Particle Measurement

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Spectrum Development Labs., Inc.
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Costa Mesa, CA 92626 (714/549-8477)

JANUARY/FEBRUARY 1981

Optical Polarizing

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Atmospheric Optical Communication

Prof. Cardinal Warde, Guest Editor
Massachusetts Institute of Technology
Dept. of Elec. Engineering & Computer Sci.
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MARCH/APRIL 1981

Optical Assembly & Tolerancing

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Norwalk, CT 06856 (203/762-1000)

MAY/JUNE 1981

Optical Data Recording

A. Jamberdino, Guest Editor
Rome Air Development Center
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JULY/AUGUST 1981

Application of Optics to Energy Processes

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