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Subseries: Correspondence Files

OA/ID Number: 62018
Folder ID Number: 62018-003

Folder Title:
Invitations: Speech (2) [6 of 6] [1991]

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"CORRESPONDENCE TRACKING"

TYPE: INFORMATION DOCUMENT NUMBER: 9124252
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: BRADLEY, Mitchell H.: AMERICAN ASSOCIATION OF ENGINEERING SOCIETIES

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/27/91

SUBJECT: A THANK YOU FOR YOUR PRESENTATION AT THEIR LUNCHEON
ON SEPTEMBER 12.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
Tom Ratchford
Steve Olson

WHITE HOUSE TRACKING #: CONTACT PERSON:
REMARKS: PHONE: EXT:

OSTP RECEIVED: 09/30/91 DEPT RECEIVED:
FILE: P-INVITATION-SPEECH



AMERICAN ASSOCIATION OF ENGINEERING SOCIETIES

1111 NINETEENTH STREET, N.W. • SUITE 608 • WASHINGTON, DC 20036-3690

(202) 296-2237 • FAX (202) 296-1151

91 SEP 30 AM 11:26

MITCHELL H. BRADLEY
EXECUTIVE DIRECTOR

September 27, 1991

OFFICE OF THE
DIRECTOR

The Honorable D. Allan Bromley
Assistant to the President
for Science & Technology
Executive Office of the President
Room 360
Old Executive Office Building
17th Street & Pennsylvania Avenues, N.W.
Washington, DC 20506

Dear Dr. Bromley:

On behalf of the Chairman, Board of Governors and the Engineering Manpower Commission of the AAES, please accept our sincere thanks for your informative and lively presentation at our luncheon on September 12th. It was clearly the highlight of the event and I know it was well received from the many comments heard afterwards.

Please accept also my personal thanks for your attitudes and policies concerning engineers contributions to our common well being. It is my hope that we can arrange for you to meet with the leadership of the profession again before the year is out. I will have a more specific suggestion in the near future.

Again, thank you for an inspiring message. It was much appreciated.

Sincerely,

MHB:er

cc: Tom Ratchford

12/4

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9124244

ORIGINATOR: 02

SPEECH: YES NO

FROM: SCHNIRRING, Bill: NASA TECH BRIEFS

DATE OF EVENT: 12/04/91 THRU:
TENTATIVE DATES:

LOCATION OF EVENT: FAIRMONT HOTEL IN SAN JOSE, CALIFORNIA

TIME OF EVENT: 7:00PM GALA RECEPTION/8:00PM DINNER

SUBJECT: AN INVITATION TO BE THE KEYNOTE SPEAKER AT THIS
YEAR'S TECHNOLOGY TRANSFER AWARDS DINNER.

RSVP: 10/14/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED? YES NO

COPIES TO: INDUSTRIAL

REMARKS: 10/1/91 - Lulu accepted regrets.
mr

CLOSED

DATE OF LETTER: 09/26/91

DATE RECEIVED: 09/30/91

FILE: P-INVITATION-SPEECH

47244

NASA Tech Briefs

41 East 42nd Street, Suite 921, New York, New York 10017-5391 (212) 490-3999

Bill Schnirring/Editor-in-Chief

RECEIVED

91 SEP 30 P 4: 43

OFFICE OF THE
DIRECTOR

September 26, 1991

The Honorable D. Allan Bromley
Assistant to the President
for Science and Technology
Executive Office of the President
Office of Science and Technology Policy
Washington, DC 20506

Dear Dr. Bromley:

The attached formal invitation to keynote the 1991 Technology Transfer Awards Dinner fails, in my opinion, to convey how much we'd like to have you with us.

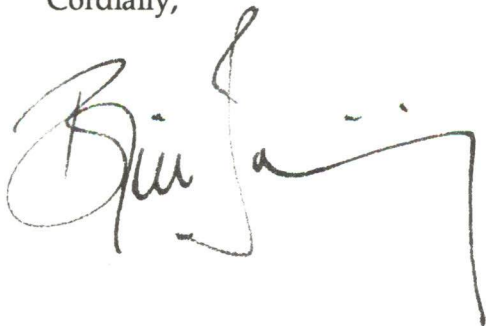
We appreciated your generous involvement in both Technology 2000 and the inaugural Awards Dinner in Washington, DC last November. And having you as my head table dinner companion was a personal pleasure.

The success of last year's effort, as well as the expansion of this year's mission to include FCCSET members, leads us reasonably to expect a dinner audience quadruple that of 1990.

We think you'd be ideal as the major speaker at the dinner, and very much hope you will agree to do so.

If I can answer any questions, please just let me know.

Cordially,



September 26, 1991

The Honorable D. Allan Bromley
Assistant to the President
for Science and Technology
Executive Office of the President
Office of Science and Technology Policy
Washington, DC 20506

Dear Dr. Bromley:

It is my privilege to extend this invitation to you to be the keynote speaker at this year's Technology Transfer Awards Dinner, to be held Wednesday evening, December 4, 1991, at the Fairmont Hotel in San Jose, California.

We were honored to have you as a dais guest at last year's affair, and are pleased to report that we expect 1,000 dinner attendees in December, four times that of 1990.

The increase is due not only to the success of the awards dinner, but also to the expansion of the dinner's scope. In addition to honoring those associated with NASA, we have broadened the awards program to include recipients from the other agencies included on the Federal Coordinating Council.

The awards dinner is being held in conjunction with the Technology 2001 Conference, which has been similarly broadened. Thus, the dinner audience will include a spectrum of industry executives, leaders in science, innovators, entrepreneurs and technical experts, bound together by their common interest in the adaptation of advanced technology to commercial applications.

The evening will begin at 7:00 p.m. with a gala reception, and will be followed by dinner at 8:00.

You can appreciate, we're sure, that such an event requires ample planning. Therefore, we keenly anticipate your early acceptance.

Sincerely,



Rita Nothhaft
President

attachments

FACT SHEET

TECHNOLOGY TRANSFER AWARDS DINNER

Wednesday, December 4, 1991

San Jose Fairmont Hotel

San Jose, California

7:00 - 10:00pm

THE DINNER:

1,000 high-level attendees from industry and government are expected.

THE SPONSOR:

The Technology Utilization Foundation, a not-for-profit organization dedicated to facilitating technological transfer to US industry.

THE AWARD:

The Trigon, designed by Steuben, with base plate suitably engraved to the recipient. (The Awards are donated by the Foundation.)

AWARD RECIPIENTS:

One individual to be designated by each participating Agency, to be the Dais guest of the Technology Utilization Foundation.

AWARD PRESENTERS:

The highest-ranking appropriate official, also to be the Foundation's Dais guest and to present the Award.

EXPENSES:

Travel and hotel expenses for the recipient and presenter are the responsibility of the Agency.

WHO SHOULD BE THE DESIGNEE?

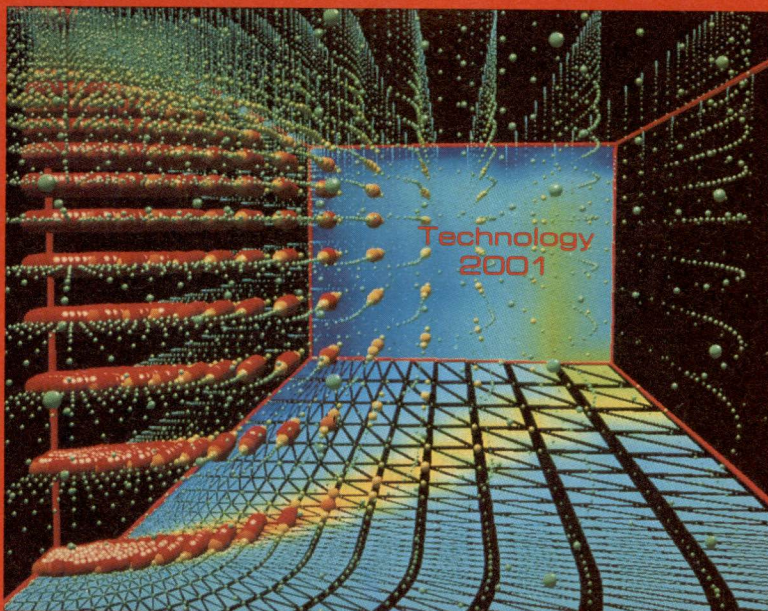
The individual who for a long period of time has facilitated or accelerated the transfer of the Agency's technological developments to the private sector; the individual who has brought about program innovations through his/her efforts.

In your deliberations, please bear in mind that while the Award is for lifetime achievement, it will be given every year. Therefore, you may want to give priority consideration to the more senior qualified individual.

DEADLINE:

October 15, 1991 has been established as the deadline for all designations in order to make the appropriate arrangements and to achieve the most effective publicity for all concerned.

NASA Invites You To America's Premier Technology Showcase



Graphic courtesy Stardent Computer Inc.

Technology 2001

The Second National Technology Transfer
Conference & Exposition

December 3-5, 1991
San Jose Convention Center
San Jose, CA

- Discover the latest advances in Computer Technology and Software Engineering, Electronics, Materials, Manufacturing Technology, and Biotechnology/Life Sciences.
- Learn how to tap into the U.S. government's \$65 billion technology bank.
- Meet key government/industry researchers and technology transfer experts, who will help you turn innovative ideas into profitable products.

Sponsored by NASA, the Technology Utilization Foundation, and
NASA Tech Briefs Magazine

Discover Tomorrow's Innovations Today

**At Technology 2001
December 3-5, 1991
San Jose Convention Center**

Photo: Idaho National Engineering Laboratory

US government R&D programs have created a **\$65 billion technology storehouse** that's available to you now for use in developing new or improved products and processes. Technology 2001 will show you how to tap into this incredible resource to increase your productivity and competitiveness, and will introduce you to America's premier researchers and technology managers, including **top experts from NASA, the Environmental Protection Agency, the National Science Foundation, and the departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, Transportation, and Veterans Affairs.**

Technology 2001 will feature:

- Over 40,000 square feet of exhibits by federal laboratories, their prime contractors, and other high-tech firms and universities with cutting-edge inventions available for license or sale;
- 120 symposia presentations spotlighting new advances with commercial promise in such critical areas as biotechnology, electronics, materials science, and manufacturing technology;
- Government-Industry Workshops covering vital information on patent licensing, Cooperative Research and Development Agreements, and Small Business Innovation Research contracts.

Plus these special events:

- A Pre-Show Reception on Monday, Dec. 2 in the exhibit hall, offering attendees and the media the chance to preview the exhibits and meet the presenters in a relaxed, informal atmosphere;
- The second annual Technology Transfer Awards Dinner, recognizing outstanding achievements in tech transfer to industry. This event offers a unique opportunity to network with government and industry executives in an elegant setting—the Imperial Ballroom of the San Jose Fairmont Hotel. (Seating is limited, so reserve tickets early!)

Concurrently with Technology 2001, the federal government is holding a special conference on Intelligent Processing Equipment—one of four critical manufacturing technologies identified in a recent report to President Bush. Fifteen federal organizations will brief industry on new developments in robotics, sensors, and controls that will shape the future of manufacturing. The conference—consisting of symposia, industry-government discussion panels, and exhibits—is open to Technology 2001 attendees at no additional charge.

Who Should Attend Technology 2001

Research directors, project leaders, design engineers, scientists, business executives, and other professionals who manage technology, and who need to stay on the cutting edge to remain competitive in the global marketplace.

Do not miss this opportunity to access a wealth of federally-developed technology, meet the key players in government and high-tech industry, and discover tomorrow's innovations, today.

Show Schedule

Monday, Dec. 2

6:00 pm - 8:00 pm Opening Reception

Tuesday, Dec. 3

9:00 am - 10:30 am Plenary Session
1:00 pm - 3:00 pm Technical Sessions
4:30 pm - 6:00 pm Govt./Industry Workshops

Wednesday, Dec. 4

8:30 am - 10:30 am Technical Sessions
1:00 pm - 3:00 pm Technical Sessions
4:30 pm - 6:00 pm Govt./Industry Workshops
7:00 pm - 10:00 pm Awards Dinner

Thursday, Dec. 5

8:30 am - 10:30 am Technical Sessions
1:00 pm - 3:00 pm Technical Sessions
4:30 pm - 6:00 pm Govt./Industry Workshops

Exhibit Hours

Dec. 3 10:00 am - 5:00 pm
Dec. 4 10:00 am - 5:00 pm
Dec. 5 10:00 am - 4:30 pm

Technology 2001 Exhibitors

Here are some of the more than 200 government R&D centers, universities, and high-tech firms exhibiting at Technology 2001:

Aerospace Lubricants Inc.
Aerospatiale
Agema Infrared Systems
Air Force Manufacturing
Technology Directorate
Air Force Systems Command
Ambassador Marketing
American Ceramic Society
American Welding Society
Ames Laboratory
Ames Research Center
Ames Spatial Auditory
Display Lab
AMPEX
Analytical Graphics
Armstrong Laboratory
Army Laboratory Command
Arthur D. Little Inc.
Assoc. of American Railroads/
US Department of
Transportation
Astro-Med Inc.
Bend Research
BF Goodrich Aerospace
Super-Temp
Biltech Inc.
Bit 3 Computer Corp.
Brookhaven National
Laboratory
California Institute of
Technology
Carnegie Mellon Robotics
Institute
Center for Aerospace
Information
Ceracon Inc.
Corning Inc.
COSMIC
Crystal River Engineering
Cybernet Systems
Datatape Inc.
Department of Energy
Design & Evaluation Inc.
Digiray Corp.
Earth Observation Satellite
Company
Eastman Kodak Company
European Space Agency
Fabric Development Inc.

Fermi National
Accelerator Lab
FLIR Systems Inc.
Goddard Space Flight Center
Government of Israel
Trade Center
Hamilton Technologies
Hardigg Industries
Heimann Infrared Division/
Pyrometrics Corp.
Hemco Corp.
Hi-Techniques
Hitachi Denshi America Ltd.
HTS Inc.
Idaho National
Engineering Lab
Industrial Materials
Technology Inc.
Information Handling Services
Inframetrics Inc.
Integrated Engineering
Software
Integrated Systems Inc.
Intel Corp.
Interfinance Corp.
IXYS Corp.
James Grunder & Assoc.
Jet Propulsion Laboratory
Johnson Space Center
JP Technologies Inc.
Keane Controls Corp.
Kennedy Space Center
Langley Research Center
Lawrence Livermore National
Laboratory
Lewis Research Center
Los Alamos National Lab
Luxtron Corp., Accufiber
Division
Magna Engineering Inc.
Mantech/NSI
Marshall Space Flight Center
Martin Marietta Energy
Systems
Mathworks Inc.
McClellan Air Force Base
Mechanical Technology Inc.
Metalworking Technology Inc.
Metrum

Mikron Instrument Co.
Morgantown Energy
Technology Center
NASA
NASA Regional Technology
Transfer Centers
NASA Small Business
Innovation Research
NASA Tech Briefs
National Center for
Manufacturing Sciences
National Institute of Allergies &
Infectious Diseases
National Institute of Standards
and Technology
National Space Society
Naval Air Warfare Center
Naval Research Laboratory
NERAC Inc.
NIAC
Novespace
Numerical Algorithms Group
NYMA Inc.
Ohio Aerospace Institute
Olympus Corp.
Oracle Corp.
Pacific Northwest Laboratory
Pasha Publications
Patton & Patton Software
Phillips Laboratory
Pittsburgh Energy Technology
Center
PMS Electro-Optics
Princeton Plasma Physics
Laboratory
Proto Manufacturing Ltd.
Quantum Devices Ltd.
Raytheon Company
RGB Spectrum
RG Hansen & Associates
Ribbon Technology Corp.
Rockwell International
Rome Laboratory
Salco Circuits
Sandia National Laboratories

Simmonds Precision Aircraft
Systems
SMTEK
Solar Energy Research Institute
Sorbillite Inc.
South Carolina Universities
Research
Specialty Steel & Forge
Spiral Software
Stanford Research Institute
Stardent Computer Inc.
Statistical Sciences Inc.
Stennis Space Center
Stephens Analytical
Stereographics Corp.
Strategic Defense Initiative
Organization
Sun Microsystems
Superior Products
Symbolics
TechLaw Group
Technical Insights Inc.
Technology Access Report
Technology Center of
Silicon Valley
Technology Targeting Inc.
Technology Transfer Society
Tennessee Technology
Foundation
Thin Film Technology Inc.
Tiodize Inc.
Ultramet
United Magnet Technologies
University of Dayton Research
Institute
US Geological Survey
VA Medical Center, Rehab
R&D Center
Vector Aeromotive Corp.
Virginia Center for Innovative
Technology
Wisconsin Center for Space
Automation and Robotics
Wolfram Research
Wright Laboratory

For information on having your organization exhibit at Technology 2001, call Justina Cardillo or Evelyn Mars at (800) 944-NASA. In NY, call (212) 490-3999.

See America's most advanced automobile — the Vector W8 TwinTurbo — in the Technology 2001 exhibit hall. Incorporating an array of aerospace technologies, this "supercar" goes from 0-60 mph in less than 3.8 seconds and reaches speeds of more than 200 mph.



Photo: Vector Aeromotive Corp.

Technology 2001 Program

Tuesday, December 3

Plenary Session 9:00 am—10:30 am

(Speakers to be announced)

9:00: Welcome
9:15: Keynote Address
9:50: Technology 2001 Overview
10:15: Intelligent Processing
Conference Overview

Concurrent Technical Sessions 1:00 pm—3:00 pm

Each presentation will last 30 minutes, including a question and answer period. Registrants may attend whole sessions (four presentations) or individual presentations from a number of different sessions. Meeting rooms are situated in close proximity for easy and quick movement during sessions. Room assignments will be listed in the final program distributed at the show.

(Session A1)

Advanced Manufacturing

Ceramic Susceptor for Induction Bonding of Metals, Ceramics, and Plastics

John D. Buckley, Senior Research Engineer, and Robert L. Fox, Electronics Technician, Langley Research Center

Langley researchers have developed a thin flexible carbon susceptor to join ceramics, plastics, metals, and combinations of these materials, using a unique induction heating process that dramatically reduces bonding times. The novel carbon susceptor allows application of heat directly and only to the bond line.

Applying NASA's Explosive Seam Welding

Laurence J. Bement, Senior Pyrotechnic Engineer, Langley Research Center

An explosive seam welding process created for aerospace use is finding a wide range of industrial applications. The process can be used to join aluminum and steel alloys, copper, brass, titanium, and other metals in thicknesses from 0.25 to 4.7 mm, and to remotely plug tubes.

Laser-Based Weld Joint Tracking System

Alan Looney, Welding Engineer, Marshall Space Flight Center

A laser-based system developed to control and monitor welding operations on space vehicles has been modified to provide a weld joint tracking system for industrial applications. The weld beam profiler features a precision laser-based

vision sensor, automated two-axis machine motion, and an industrial PC controller. It eliminates weld repairs caused by joint tracking errors, reducing manufacturing costs.

Precision Joining Center

J.W. Powell, Joining Technology, EG&G Rocky Flats

Mr. Powell will describe a new center designed to provide a training ground for precision joining techniques. The center will transfer this advanced technology from the Department of Energy weapons complex and joining equipment manufacturers to US industries, through the training of technologists and engineers in such areas as process control, data acquisition, and joining.

(Session A2)

Biotechnology

Cooperative Research and Development Opportunities with the National Cancer Institute

Dr. Kathleen Sybert, Deputy Director, Office of Technology Development, National Cancer Institute

The National Cancer Institute's Office of Technology Development negotiates Cooperative Research and Development Agreements with university and industry investigators for the development of new products to diagnose and treat cancer and AIDS. Drug screening, preclinical testing, clinical trials, and AIDS program capabilities form the basis for this new technology transfer vehicle.

Technologies for the Marketplace from the Centers for Disease Control

Frances L. Reid-Sanden and R. Eric Greene, Technology Transfer Office, Centers for Disease Control

The Centers for Disease Control develops and transfers technologies designed to prevent and control disease and injury. Recent innovations include a vaccine against hepatitis A, a recombinant rabies vaccine, monoclonal antibodies for the detection of legionellae, a rapid method to diagnose human cysticercosis, and a variety of devices to ensure worker safety.

Enhancement of Biological Control Agents for Use Against Forest Insect Pests and Diseases

Dr. James M. Slavicek, Project Leader, US Forest Service Northeastern Forest Experiment Station

Dr. Slavicek will describe new biological control agents for use against forest pests

such as the gypsy moth and diseases such as tree vascular fungal wilts.

Use of T7 Polymerase to Direct Expression of Outer Surface Protein A (OspA) from the Lyme Disease Spirochete, *Borrelia burgdorferi*

John J. Dunn, Senior Scientist, Brookhaven National Laboratory

Brookhaven researchers have cloned the ospA gene of *Borrelia burgdorferi*, the spirochete that causes Lyme disease. They are testing the resultant truncated protein for use as an immunogen in a vaccine against Lyme disease.

(Session A3)

Communications

Commercial Applications of ACTS Mobil Terminal Millimeter-Wave Antennas

Arthur C. Densmore, Antenna System Manager, and Rick A. Crist, Microwave Processor Subtask Manager, Jet Propulsion Laboratory

A JPL research team is developing low-profile, high-gain millimeter-wave antennas for future communication systems. Commercial opportunities include advanced land-mobile satellite communications, hybrid satellite/cellular systems, remote satellite news gathering, aeronautical and maritime satcom, and handheld personal satellite communications.

Antennas for Mobile Satellite Communications

John Huang, Jet Propulsion Laboratory

The NASA-sponsored Mobile Satellite Experiment program has generated several innovative microstrip antennas at L-band frequencies. Due to their thin profile, surface conformability, light weight, and low manufacturing cost, microstrip antennas are finding increasing applications in land-mobile satellite communications.

MMIC Linear-Phase and Digital Modulators for Space Communications Applications

Narayan R. Mysoor, Jet Propulsion Laboratory, and Fazal Ali, Pacific Monolithics

This presentation will review the design concepts, analyses, and development of monolithic microwave integrated circuit (MMIC) modulators for the next generation of space-borne communication systems. Commercial applications include phased arrays, satellite systems, and microwave systems that require continuous phase control in trimming multiple channels.

Phased-Array Antenna Beamforming Using an Optical Processor

Louis P. Anderson, Hughes Aircraft Company, and Richard Kunath, Lewis Research Center

Phased-array antennas are playing an increasingly important role in radar and communications applications, and will soon become the preferred way to achieve fixed spot, scanning spot, multiple spot, and other multi-functional beams for satellite communications. The presenters will discuss how a lightweight optical-processor-based beamformer can provide the required aperture excitations using a single lightweight network.

(Session A4)

Computer Graphics and Simulation

Global Positioning System Supported Pilot's Display

Marshall Scott, Systems Engineer, Kennedy Space Center

A new cockpit display for pilots of test aircraft uses the Global Positioning System to calculate aircraft position. This data is displayed graphically along with the runway, the desired flight path, and "fly-by" alignment needles.

Application of Technology Developed for Flight Simulation

Jeff I. Cleveland, Aerospace Technologist, Langley Research Center

Langley researchers are employing supercomputers for mathematical model computation to support real-time flight simulation. Mr. Cleveland will discuss commercial spinoff of these techniques in fields such as nuclear process control, power grid analysis, process monitoring, and chemical processing.

FAST: A Multi-Processed Environment for Visualization of Computational Fluid Dynamics

Gordon V. Bancroft, Fergus J. Merritt, Todd C. Plessel, Paul G. Kelaita, R. Kevin McCabe, and Al Globus, Research Scientists, Sterling Zero One Inc.

This presentation will focus on the Flow Analysis Software Toolkit (FAST), a software system for visualization and analysis of complex fluid flows. FAST is extensible and able to handle a wide range of problems. It can be adapted to new software and hardware configurations through modular structured programming methods, a graphics library standard, and common network communication protocols.

A Full-Parallax Holographic Display for Remote Operations

Helene P. Iavecchia, CSC/Analytics Inc.; Lloyd Huff, University of Dayton Research Institute; and Neville I. Marzwell, Jet Propulsion Laboratory

A near-real-time, full-parallax holographic display system developed for Jet Propulsion Laboratory could provide a 3D display for remote handling operations in hazardous environments on Earth and in Space.

(Session A5)

Electronics

Nonvolatile, High-Density, High-Speed, Magnet-Hall Effect Random Access Memory

Jiin-Chuan Wu, Romney R. Katti, and Henry L. Stadler, Flight Command and Data Management Systems, Jet Propulsion Laboratory

A radiation-hard, nonvolatile random access memory cell (MHRAM) with a density of 1 Mbit/cm² and an access time of less than 100 nsec is being developed using a magnet-Hall effect element. Such a memory will have a very competitive performance/price ratio to replace current commercial nonvolatile memory technologies, including ROM, EPROM, EEPROM, and Flash EEPROM, and will be competitive with static RAM for many applications.

Analog VLSI Neural Network Integrated Circuits

Francis Kub, Head, Microelectronic Device Physics Section, Naval Research Laboratory

Using a standard CMOS foundry process, Navy researchers have fabricated analog VLSI vector-matrix multiplier integrated circuit chips that perform vector-matrix multiplication operations at speeds up to 3 billion multiplications per second. Such high-speed operations are required for artificial neural networks and many signal processing applications, including image processing.

Monolithic Microwave Integrated Circuit Water Vapor Radiometer

L.M. Sukamto, Spacecraft Telecommunications Equipment Section, Jet Propulsion Laboratory

Mr. Sukamto will discuss efforts to design and fabricate a 31.4 GHz monolithic microwave integrated circuit (MMIC) radiometer as one channel of a thermally-stable water vapor radiometer (WVR). With improved thermal stability and signal accuracy, the WVR will have far-ranging commercial applications. It can be used, for example, in weather pattern prediction, calibration of polar-orbiting and geostationary satellites, and monitoring of aircraft icing conditions.

A Noncontacting Waveguide Backshort for Millimeter and Submillimeter Wave Frequencies

William R. McGrath, Technical Group Leader, Jet Propulsion Laboratory

A new backshort design employs a metallic bar with rectangular or circular holes to provide a periodic variation of guide impedance. The size, shape, and spacing of the holes can be adjusted to provide a large reflection of rf power over a useful frequency bandwidth. Mechanically rugged and easy to fabricate for frequencies up to 1000 GHz, the backshort offers applications in radar and communication systems, microwave test instruments, and remote-sensing radiometers, and will help extend waveguide technology into the submillimeter wave band.

(Session A6)

Materials Science

Novel Applications for TAZ-8A

William J. Waters, Sverdrup Technology Inc., and Stephen M. Riddlebaugh, Lewis Research Center

Alloy research for jet engine applications has produced a commercially promising nickel-based alloy called TAZ-8A. The alloy's unique combination of properties includes high temperature strength, oxidation resistance, abrasion resistance, and exceptional thermal shock resistance. Using a plasma vapor deposition technique, TAZ-8A can be applied as a coating with high reflectivity and extreme hardness.

Test Methods for Determining the Suitability of Metal Alloys for Use in Oxygen-Enriched Environments

Joel Stoltzfus, Projects Manager, White Sands Test Facility

Mr. Stoltzfus will describe test methods developed by NASA to study the ignition and combustion of metal alloys, including high- and low-speed particle impact tests, frictional heating and coefficient-of-friction tests, and the promoted combustion test. Test data and the resultant rankings of metal alloys will be discussed, along with licensing opportunities.

A Major Advance in Powder Metallurgy

B.E. Williams, J.J. Stiglich, R.B. Kaplan, and R.H. Tuffias, Ultramet

Under SBIR funding from the Army, Ultramet has developed a process that promises to significantly increase the mechanical properties of powder metallurgy (PM) parts. Conventional PM fabrication processes typically result in nonuniform distribution of the matrix, flaw generation due to particle-particle contact, and grain growth caused by high-temperature, long-duration compaction processes. In Ultramet's process, each particle is coated with

the matrix material, and compaction is performed by solid-state processing, improving the part's homogeneity.

Permanent Magnet Design Methodology

Dr. Herbert A. Leupold, Research Physicist, US Army Electronics Technology and Devices Laboratory

The high remanences and coercivities of rare earth permanent magnets have made possible magnet structures of unusual form and performance, including permanent magnet solenoids, cylindrical transverse field sources, and high-field permanent magnet field sources. Dr. Leupold will describe military and commercial applications such as MR imagers, traveling wave tubes, gyrotrons, free electron lasers, Faraday rotators, and ultraviolet/x-ray telescopes.

Concurrent Government-Industry Workshops 4:30 pm—6:00 pm

(Presenters to be announced)

In these highly-interactive sessions, federal agencies will brief attendees on their present and planned R&D initiatives and technology transfer mechanisms, spotlighting opportunities for industry to work with the government to develop and commercialize technology. Cooperative Research and Development Agreements, Small Business Innovation Research, and patent licensing will be discussed. The objective of these workshops is to begin a dialog that will lead to increased use of federally-sponsored technologies by industry, and better utilization of private sector resources by the government. Agencies holding workshops during this time period will include:

- Department of Defense
- Department of Energy
- Department of Health and Human Services
- Environmental Protection Agency

Wednesday, December 4

Concurrent Technical Sessions 8:30 am—10:30 am

(Session B1)

Advanced Manufacturing

Concentrating Solar Systems: Manufacturing with the Sun

Lawrence M. Murphy, Division Director, Bimleshwar P. Gupta, Program Manager, and Steven G. Hauser, Industry Liaison, Solar Energy Research Institute

Recent advances in concentrating solar systems have produced solar flux densities in excess of 20,000 suns,

creating unique process conditions of very high temperatures and heating rates. These conditions enable applications in manufacturing, materials processing, surface engineering, and toxic waste destruction.

Ultra-Precision Processes for Optics Manufacturing

William R. Martin, Associate Director, Engineering Technology Division, Oak Ridge National Laboratory

The Optics MODIL (Manufacturing Operations Development and Integration Laboratory) is developing advanced manufacturing technologies for fabrication of ultra-precision optical components, aiming for a ten-fold improvement in precision and a shortening of the schedule lead time. Discussion will focus on diamond single point turning, ductile grinding, ion milling, and in/on process metrology.

Integrated Automation for Manufacturing of Electronic Assemblies

T. Joseph Sampite, CIM Program Manager, Naval Ocean Systems Center

Mr. Sampite will describe how a standardized file transfer format developed with the National Institute of Standards and Technology will be used to create generic, open architecture computer-aided engineering tools for the automatic exchange of data between design and manufacturing.

Air Force Manufacturing Technology (MANTECH) Technology Transfer

Tracy J. Houpt, MTX Program Manager, and Margaret M. Ridgely, Technology Transfer Center Director, Wright Patterson Air Force Base

This presentation will illustrate the techniques and concepts employed in Air Force MANTECH's new comprehensive, proactive technology transfer program, using as an example the successful transfer of transmit/receive modules to industry.

(Session B2)

Electronics

Gallium Arsenide Quantum-Well-Based Far Infrared Array Imaging Radiometer

Kathrine A. Forrest and Murzy D. Jhabvala, Electronics Engineers, Goddard Space Flight Center

A new imaging radiometer developed for the thermal infrared (8 to 12 microns) employs a staring 128 x 128 GaAs quantum well detector array for stability, uniformity, high yield, and radiation-hardness. It is suited for thermal imaging in forestry, electronics processing, and medicine. Potential applications include aerial detection of small forest fires and location of hot spots in integrated circuits.

A Video Event Trigger for High-Frame-Rate, High-Resolution Video Technology

Glenn L. Williams, Electrical Engineer, Lewis Research Center

Mr. Williams will describe a highly-parallel digital state machine that generates a trigger signal at the onset of a video event. Random access memory storage coupled with fuzzy comparator logic devices permit monitoring a video stream for long- or short-term changes caused by spatial translation, dilation, or color change. Pretrigger and post-trigger storage techniques allow researchers to archive only significant images, alleviating costly data storage problems.

Camera Orientation of Pan, Tilt, and Zoom with No Moving Parts

Dr. H. Lee Martin, President, and Steven D. Zimmermann, Design Engineer, TeleRobotics International Inc.

Under contract to NASA Langley, TeleRobotics has developed a remote viewing system that provides pan, tilt, zoom, and rotational capabilities with no moving parts. The system features a fisheye lens for complete hemispherical field-of-view imaging and high-speed image transformation to correct peripheral distortion. Applications include remote viewing, inspection, and surveillance.

Fiber Optic TV Camera Direct

John Edward Kassak, Electronics Engineer, Kennedy Space Center

The Kennedy Center is developing a multiple color camera system for installations where video, synchronization, control camera data, and status data are transmitted via a single fiber cable at distances exceeding five miles. Expected benefits include improved video performance, immunity from EMI and RFI, and more broadcast flexibility.

(Session B3)

Environmental Technology

Waste Management Technology Development and Demonstration Programs

Paul D. Kalb, Research Engineer, Brookhaven National Laboratory

Brookhaven researchers have developed two new thermoplastic processes for the disposal of hazardous wastes: polyethylene encapsulation of nitrate salt wastes and modified sulfur cement encapsulation of incinerator fly ash wastes. Both systems provide significant improvements over conventional solidification techniques and result in durable waste forms that meet regulatory criteria.

Regulated Bioluminescence as a Tool for Bioremediation Process Monitoring and Control of Bacterial Cultures

Robert S. Burlage, *Environmental Sciences Division, Oak Ridge National Laboratory*; Armin Heitzer and Philip Digrazia, *Center for Environmental Biotechnology, University of Tennessee*

A new technique for monitoring biodegradation in toxic waste sites employs bioluminescence in a recombinant bacterial strain to detect contaminant levels. The process is rapid, often completed in minutes, and is sensitive in the part-per-billion range.

Fiber-Optic-Based Biosensor

Joel M. Schnur, *Head, Molecular Science and Engineering Center, Naval Research Laboratory*

Mr. Schnur will illustrate a new fiber-optic-based biosensor for environmental monitoring, pollution control, and clinical diagnostics. The device integrates a novel array of components, long fused silica fibers, and proteins for detection.

Ambient Temperature CO Oxidation Catalysts

Billy T. Upchurch, *Senior Research Scientist, Langley Research Center*

Langley researchers have produced ambient temperature oxidation catalysts for the recombination of CO and CO₂ dissociation products formed during CO₂ laser operation. The catalysts allow continuous operation of CO₂ lasers in a closed-cycle mode, and offer applications in other closed environments where the removal or control of CO is required, such as in catalytic converters for control of auto emissions.

(Session B4)

Materials Science

High-Temperature Adhesives

Terry L. St. Clair, *Head, Polymeric Materials Branch, Langley Research Center*

LARC-TPI, a high-temperature linear polymer adhesive developed to bond titanium, offers application as a hot-melt adhesive. Mr. St. Clair will describe the chemical structure and physio-mechanical properties of LARC-TPI and other important new polyimides with commercial potential.

Fluorinated Epoxy Resins with High Glass Transition Temperatures

James R. Griffith, *Research Chemist, Naval Research Laboratory*

The Navy has developed a new class of easily-processed liquid resins with low dielectric constants and high glass transition temperatures. These materials are useful for the manufacture of composite electronic boards.

Polyimides Containing Pendent Siloxane Groups

John W. Connell, *Polymer Scientist, Langley Research Center*

Incorporation of siloxane units into the backbone of aromatic polyimides imparts enhanced solubility, lower moisture adsorption, lower dielectric constant, improved toughness, and protection against atomic oxygen erosion. Mr. Connell will describe the physical and mechanical properties of these materials, as well as potential electronics and aerospace applications.

Corrosion-Protective Coatings from Electrically-Conducting Polymers

Karen Thompson, *Kennedy Space Center*; Brian Benicewicz and Debra Wroblewski, *Los Alamos National Laboratory*

Researchers are investigating the use of processible conductive organic polymers as corrosion-protective coatings on metal surfaces. Recent tests in saline and acidic oxidizing environments have demonstrated greatly improved corrosion resistance of mild steel with these coatings as compared to steel coated solely with epoxy.

(Session B5)

Medical Advances: Computers in Medicine

Computation of Incompressible Viscous Flows through Artificial Heart Devices

Stuart Rogers and Dochan Kwak, *Research Scientists, Ames Research Center*

Ames researchers are applying computational fluid dynamics (CFD) techniques to simulate the blood flow through artificial hearts. Computer modeling will help pinpoint regions subject to clotting and lead to safer, more durable mechanical hearts and valves.

Computer Interfaces for the Visually Impaired

Gerry Higgins, *Computer Systems Engineer, Marshall Space Flight Center*

Mr. Higgins will address current research efforts to provide computer technology for people with vision-related handicaps. One such effort, the Mercator Project, looks to create a prototype system for audible access to graphics-based interfaces.

Extended Attention Span Training System

Dr. Alan Pope, *Leader, Human Engineering Methods Group, Langley Research Center*

A biocybernetic system developed to assess the degree to which automated flight management systems maintain

pilot engagement is being adapted for treatment of youngsters with attention disorders. The Extended Attention Span Training (EAST) system increases the difficulty of a video game as the player's brain waves indicate attention is waning. The player can only succeed at the game by maintaining an adequate attention level.

Man/Machine Interaction Dynamics and Performance Analysis Capability

Harold P. Frisch, *Head, Robotic Applied Research, Goddard Space Flight Center*

As part of its flight telerobotics program, NASA is developing the ability to study the consequences of machine design alternatives as they relate to machine and machine operator performance. This capability will have far-reaching medical applications, such as enabling orthopedic surgeons to study the consequences of surgical options from the perspective of post-operative human performance predictions.

(Session B6)

Software Engineering

Hybrid Automated Reliability Predictor Integrated Workstation (HiREL)

Salvatore J. Bavuso, *Aerospace Technologist, Langley Research Center*

The HiREL system marks a major step toward producing a totally integrated CAD workstation design capability. HiREL uses a graphical input description language to increase productivity and reduce error. It enables reliability engineers to quickly analyze huge amounts of reliability/availability data to observe trends due to exploratory design changes.

Using Ada and the Rapid Development Lifecycle

Lloyd DeForrest, *Technical Group Supervisor, Jet Propulsion Laboratory*

Under contract to the US Army, JPL is developing a multifaceted computerized command center using an accelerated software development approach called the Rapid Development Lifecycle. Through the use of Ada and the X-Window/Motif Graphical User Interface, software developed under this program can be reused in similar projects requiring non-computer-literate users with little or no training to operate advanced command center tools and applications.

Advances in Knowledge-Based Software Engineering

Walt Truszkowski, *Head, Automation Technology Section, Goddard Space Flight Center*

The Knowledge-Based Software Engineering Environment (KBSEE) is designed to demonstrate that a rigorous and comprehensive software

reuse methodology can enable more efficient utilization of resources in the development of large-scale software systems. Designed for use by both government and industry, KBSEE could aid in improving the reliability of future software systems.

Reducing the Complexity of Software Development through Object-Oriented Design

Mary Pat Schuler, Aerospace Technologist, Langley Research Center

Ms. Schuler will illustrate how Object-Oriented Design (OOD), coupled with formalized documentation and tailored object diagramming techniques, can simplify the software design process. The OOD methodology uses a hierarchical decomposition approach in which parent objects are decomposed into layers of lower-level child objects, with the relationships between design layers represented pictorially. This approach makes the resulting code more portable, reusable, and maintainable.

Concurrent Technical Sessions 1:00 pm—3:00 pm

(Session C1)

Data and Information Management

Techniques for Efficient Data Storage, Access, and Transfer

Robert F. Rice, Jet Propulsion Laboratory, and Warner Miller, Goddard Space Flight Center

Advanced techniques for efficient data representation have been placed in practical hardware and software form through the joint effort of three NASA centers. The techniques, which involve the use of high-speed coding and decoding modules as well as machine-transferable software routines, adapt to local statistical variations to continually provide optimum code efficiency when representing data without error.

A Vector-Product Information Retrieval System Adapted to Heterogeneous, Distributed Computing Environments

Dr. Mark E. Rorvig, Library Scientist, Johnson Space Center

The Automated Online Library Management System (AutoLib) provides a ranked list of the most likely relevant objects in collections, in response to a natural language query. AutoLib is constructed with standards and tools such as UNIX and X-Windows, which permit its use in organizations that have many different hosts, workstations, and platforms. Applications include information-intensive corporate management environments, such as finance, manufacturing, and biotechnology.

AutoClass: An Automatic Classification System

Peter Cheeseman, Research Scientist, Ames Research Center

A useful tool for exploratory data analysis, AutoClass enumerates and describes the natural classes in a data set. The program automatically determines the optimal number of classes.

Silvabase: A Flexible Data File Management System

Steven J. Lambing, Marshall Space Flight Center, and Steven T. Harris, Boeing Computer Support Services

Developed for mission planning at the Marshall Center, Silvabase enables efficient forward and backward sequential reads, random searches, and appends to large amounts of data. The system, designed to run on VAX/VMS computers, has unique features applicable to management of data involving time histories and intervals such as in operations research.

(Session C2)

Electro-Optics

Nonlinear Optical Polymers for Electro-Optic Signal Processing

Geoffrey A. Lindsay, Polymer Science Branch Head, Naval Weapons Center

Mr. Lindsay will discuss several new classes of nonlinear optical polymers for use in optical signal processing (photonics). These materials offer large electro-optics figures of merit, high temperature performance, ease of processing into films and fibers, ruggedness, and low cost. They can be applied in electro-optic switches, optical frequency doublers, sensors, spatial light modulators, and optical data storage systems.

High-Resolution Optical Data Storage on Polymers

C.M. Roland, Supervisory Chemist, Naval Research Laboratory

A new thermal method for lithography on amorphous polymer films yields remarkably high resolution images with excellent edge acuity. Images imparted to the films can be made electrically conductive via a single-step process, without using extraneous reagents.

Laser Discrimination by Stimulated Emission of a Phosphor

Dr. V.K. Mathur, Research Physicist, Naval Surface Warfare Center

Dr. Mathur will describe a new method for discriminating near infrared and far infrared laser light sources, based on the use of a magnesium sulfide phosphor which is thermally/optically stimulated to generate a color correlatable to the incident laser radiation. The technology offers potential for discrimination between even smaller bandwidths

within the infrared spectrum—a possible aid to communication or wavemixing devices that need to rapidly identify and process optical signals.

Pulsed Laser Prelasing Detection Circuit

George Eugene Lockard, Engineering Technician, Langley Research Center

Langley researchers have developed a circuit to detect prelasing—the premature leakage of energy from a laser rod—in pulsed laser systems. The circuit, which is small, economical, and easily incorporated into virtually any pulsed laser system, shuts off the laser before the prelasing energy can cause costly optical damage.

(Session C3)

Life Sciences

Application of CELSS Technology to Controlled Environment Agriculture

Dr. Maynard E. Bates, Bionetics Corporation, and Dr. David L. Bubenheim, Ames Research Center

Controlled Ecological Life Support Systems (CELSS) expand the concept of Controlled Environment Agriculture (CEA)—the use of environment manipulation for the commercial production of organisms—to create miniature ecosystems in which food, oxygen, and water in closed habitats are provided by regeneration of waste streams through systems containing microorganisms, plants, and animals. The development of CELSS will provide information needed to improve the efficiency, reliability, and cost-effectiveness of CEA, while reducing its environmental impact to negligible levels.

Advanced Forms of Spectrometry for Space and Commercial Application

Dr. Kenneth J. Schlager, Chief Technical Officer, Biotronics Technologies Inc.

Biotronics has discovered wide commercial application for two spectrometric technologies developed under the Kennedy Space Center's sponsorship. Ultraviolet absorption spectrometry, originally investigated for on-line measurement of hydroponic plant nutrient solutions, is finding utility in a new line of ultraviolet process analyzers for the water treatment market. A second technology, liquid atomic emission spectrometry, holds even greater commercial promise, representing the first application of atomic emission to direct on-line measurements of liquids.

Ion-Selective Electrode for Ionic Calcium Measurements

John W. Hines and Sara Arnaud, Research Scientists, Ames Research Center

NASA has developed a coated wire ion-selective electrode that noninvasively

measures ionic calcium. It can be used to monitor bone calcium changes during extended exposure to microgravity or during prolonged hospital or fracture immobilization, and to conduct osteoporosis research.

A 99% Purity Molecular Sieve Oxygen Generator

Major George W. Miller, Research Chemical Engineer, Air Force Systems Command

A molecular sieve oxygen generator employing a new pressure swing adsorption process produces oxygen concentrations of up to 99.7% directly from air, exceeding the present oxygen purity limitations of 93-95%. The device may find use in aircraft and medical breathing systems, and industrial air separation systems.

(Session C4)

Materials Science

Advanced Composite Materials and Processes

Robert M. Baucom, Group Leader, Composite Materials, Langley Research Center

Mr. Baucom will report on techniques for combining high-performance graphite fibers and resin matrix systems into composite prepreps, innovative tooling concepts, and fabrication procedures for complex structures. The plastics and aerospace industries could benefit greatly by adopting these materials and processing procedures.

RTM: Cost-Effective Processing of Composite Structures

Greg Hasko and H. Benson Dexter, Materials Research Engineers, Langley Research Center

Resin transfer molding (RTM), a method of making high-strength, lightweight composite structures, is used extensively in the automotive, recreation, and aerospace industries. The presenters will compare the material requirements of various industries, methods of orienting and distributing fibers, mold configurations, and processing and material parameters such as resin viscosity, preform compaction, and permeability.

A Low-Cost Method of Testing Compression-After-Impact Strength of Composite Laminates

Alan Nettles, Marshall Space Flight Center

Marshall researchers have developed a new method to test the compression strength of composite laminate specimens as thin as .04 inches and up to 3 inches wide. This method is easier and less costly than the current compression-after-impact standard, and yields more meaningful results.

Resonant Acoustic Determination of Complex Elastic Moduli

Steven L. Garrett, Professor of Physics, and David A. Brown, Electronics Engineer, Naval Postgraduate School

The presenters will describe a new technique for measuring and tracking the complex shear and Young's moduli of nonmagnetic samples using the resonance frequency of an unconstrained bar sample. The same inexpensive electrodynamic transducers are used to excite and detect the sample's longitudinal, flexural, and torsional resonances. Sample data for composites, metals, plastics, and viscoelastic materials will be presented.

(Session C5)

Robotics

A Unique Cable Robot for Space and Earth

James Kerley, Design Engineer, Goddard Space Flight Center

A novel cable robot bends like a worm, moving up and down, back and forth, and even upside down. With magnets on its feet, the robot can climb or adhere to tall structures. It can be used to clean or paint towers, tanks, bridges, and ships, and, with an attached video camera, to inspect structures for damage or rust.

A Lightweight, High-Strength Dexterous Manipulator Arm

Neville I. Marzwell, Jet Propulsion Laboratory; Bruce M. Schena and Steve M. Cohan, Odetics Inc.

The presenters will describe the design and features of a lightweight, high-strength, modular manipulator arm developed for space and commercial applications. Fully operational in 1 g, the arm has seven degrees of freedom, a reach of 55 inches, and can lift 50 pounds. Bilateral teleoperator control can be added to the current robotically operated system.

Real-Time, Interactive Simulator System for Telepresence

Neville I. Marzwell, Jet Propulsion Laboratory; A.H. Chiu, P.G. Gottschalk, F.S. Schebor, and J.L. Turney, KMS Fusion Inc.

The Global-Local Environment Telerobotics Simulator (GLETS) immerses an operator in a real-time, interactive, visually-updated simulation of the remote telerobotic site. Stereo graphics are shown on a computer screen and fused together by the operator's special glasses to form stereoscopic views of the simulated world. The operator, interacting with the GLETS through voice and gesture commands, can form a gestalt of the virtual "local site" that matches his/her normal interactions with the real remote site.

A Hazard Control System for Robot Manipulators

Ruth Chaing Carter, FTS System Safety Manager, Goddard Space Flight Center

Ms. Carter will review system safety management and engineering techniques developed for telerobotic operations in space, focusing on a precise hazard control system for test flight of NASA's Flight Telerobotic Servicer. The same software monitoring and control approach could ensure the safe operation of a slave manipulator under teleoperated or autonomous control in undersea, nuclear, or manufacturing applications.

(Session C6)

Test and Measurement

Knowledge-Based Autonomous Test Engineer (KATE)

Dr. Carrie Belton and Barbara Brown, Computer Engineers, Kennedy Space Center

Developed for ground launch operations at the Kennedy Center, KATE employs concepts of sensor-based and model-driven monitoring and fault-location, and performs control and redundancy management of process control systems. KATE is designed as a generic, model-based expert system shell for autonomous control, monitoring, fault recognition, and diagnostics in the electrical, mechanical, and fluid system domains.

Advanced Computed Tomography Inspection System (ACTIS)

Lisa H. Hediger, Materials Engineer, Marshall Space Flight Center

ACTIS, developed at the Marshall Center to support its solid propulsion test programs, is being applied to inspection problems in the aerospace, lumber, automotive, and nuclear waste disposal industries. Ms. Hediger will discuss the unique capabilities of ACTIS and present a broad overview of computed tomography technology.

High-Resolution Ultrasonic Spectroscopy System for Nondestructive Evaluation

Dr. C.H. Chen, Information Research Laboratory Inc.

Under SBIR funding from the Army, IRL researchers are developing a high-resolution ultrasonic inspection system supported by modern signal processing, pattern recognition, and neural network technologies. This presentation will review the details of the system and its software package.

Force Limited Vibration Testing

Terry D. Scharton, Jet Propulsion Laboratory

An improved method of controlling vibration tests used to verify equipment design and manufacturing workman-

ship closely simulates field conditions. Offering commercial application throughout the aerospace, electronics, and automotive industries, the new test method eliminates costly failures associated with overtesting in the laboratory.

Concurrent Government-Industry Workshops 4:30 pm—6:00 pm

(Presenters to be announced)

Agencies holding workshops during this period will include:

- Department of Energy
- Department of Veterans Affairs
- Environmental Protection Agency
- National Aeronautics and Space Administration

Thursday, December 5

Concurrent Technical Sessions 8:30 am—10:30 am

(Session D1)

Advanced Manufacturing

Development of a Rotary Joint Fluid Coupling for Space Station Freedom

John A. Costulis, Technical Project Engineer, Langley Research Center

Langley researchers have developed and tested a 360-degree rotary joint fluid coupling for the Freedom station's thermal control system. The mechanism can be applied commercially to transfer fluid across rotating interfaces, such as in gun turrets, coal slurries, and farming machinery.

Spline Screw Comprehensive Fastening Strategy

John M. Vranish, Electronics Engineer, Goddard Space Flight Center

A fastener developed for assembly, maintenance, and equipment replacement operations in space also has down-to-Earth manufacturing applications. Use of the "spline screw" fastener in prime subassemblies would enable machines to disconnect and replace parts with ease, reducing product life cycle costs and enhancing the quality, timeliness, and consistency of repairs and upgrades.

Commercial Application of an Innovative Nut Design

Jay Wright, Materials Research Engineer, Johnson Space Center

A nut developed for space station use allows a fastener to be inserted or removed from either side by simply sliding the fastener in or out of the nut. Detentes on either face of the nut ensure positive engagement of the

threads. The nut has applications wherever a fastener needs to be taken on and off quickly or used on a threaded part which could become so damaged that a conventional nut could not be removed.

Inflatable Traversing Probe Seal

Paul A. Trimarchi, Mechanical Engineer, Lewis Research Center

Mr. Trimarchi will describe an inflatable seal that acts as a pressure-tight zipper to provide traversing capability for instrumentation rakes and probes. The seal can replace sliding face-plate/O-ring systems in applications where lengthwise space is limited.

(Session D2)

Artificial Intelligence

CLIPS: An Expert System Building Tool

Gary Riley, Computer Engineer, Software Technology Branch, Johnson Space Center

The C Language Integrated Production System (CLIPS) provides a complete environment for the development and delivery of rule- and/or object-based expert systems. CLIPS offers a low-cost option for developing and deploying expert system applications across a wide range of hardware platforms.

Fuzzy Logic Applications to Expert Systems and Control

Dr. Robert N. Lea, Aerospace Engineer, Johnson Space Center

Commercial use of fuzzy technology in Japan and China indicate that it should be exploited by government and private industry to save energy and reduce human involvement in industrial processes. Johnson Center researchers have applied fuzzy logic in guidance control systems for space vehicles, control of data processing during rendezvous navigation, collision avoidance algorithms, and camera tracking controllers. The technology may also find use in diagnostic systems, control of robotic arms, pattern recognition, and image processing.

Neural Network Technologies

James A. Villarreal, Computer Engineer, Johnson Space Center

Mr. Villarreal will describe the Neural Execution and Training System (NETS), a software tool designed to facilitate and expedite the use of neural network technology in industry, government, and academia. Neural networks have been successfully applied to modeling and data fusion problems, robotics, structural design, speech synthesis, financial forecasting, spectrographic analysis, and many other areas. This presentation will highlight various commercial projects under development with NETS.

From Biological Neural Networks to Thinking Machines

Dr. Muriel D. Ross, Research Scientist, Ames Research Center

Dr. Ross is studying the three-dimensional organization of a simple biological neural network found in inner ear organs of balance to uncover basic principles of neural organization and function. This effort will result in new applications of biological attributes to artificial systems, and could lead to the development of highly-intelligent parallel-processing computers.

(Session D3)

Biotechnology

The Microassay on a Card—A Rugged, Portable Immunoassay

Dr. David Kidwell, Research Scientist, Naval Research Laboratory

The Microassay on a Card (MAC), a portable, handheld immunoassay, can test for a wide variety of substances in the environment. Intended for use as an on-site screen for drugs of abuse in urine or saliva, the MAC may also be applied to test for intoxication, to identify seized materials, and to test for environmental pollutants.

Flow Immunosensor for Drug Detection

Joel M. Schnur, Head, Molecular Science and Engineering Center, Naval Research Laboratory

Dr. Schnur will describe an antibody-based sensor designed to detect drugs of abuse. The biosensor is faster, less expensive, and as sensitive as any current method for cocaine detection. It can be operated outside the laboratory by personnel with no scientific training. Opportunities exist for Cooperative Research and Development Agreements.

Nucleic Acid Probes in Diagnostic Medicine

Phillip A. O'Berry, National Technology Transfer Coordinator for Animal Science, US Department of Agriculture

Mr. O'Berry will discuss the application of nucleic acid probe technology to the diagnosis of disease in humans and animals, and will present examples of commercially-promising probes.

The Rotating Spectrometer: New Biotechnology for Cell Separations

David A. Noever, Universities Space Research Association, and Helen C. Matsos, Marshall Space Flight Center

A new rotating spectrometer, able to separate previously inseparable cell cultures, is intended for use in pharmacological studies requiring fractional splitting of heterogeneous cell cultures based on cell morphology and swimming behavior. Unlike standard separation and concentrating techniques such as filtration or centrifuga-

tion, the instrument can separate motile from immotile fractions.

(Session D4) Electronics

Method for Producing High-Quality Oxide Films on Surfaces

Mark W. Ruckman, Associate Physicist, Brookhaven National Laboratory

Mr. Ruckman will describe a new method for the reactive deposition of metal oxide and other inorganic compound thin films for use in micro-electronic devices fabricated on compound semiconductors and high-temperature superconducting oxides. The technology can be integrated with ion, electron, or photon beam methods used to accelerate or selectively promote deposition and etching.

Advanced Silicon on Insulator Technology

Francis J. Kub, Senior Research Engineer, and David J. Godbey, Research Chemist, Naval Research Laboratory

Navy researchers have developed bonding, thinning, and selective etching techniques for producing ultra-thin silicon on insulator materials. These techniques can be used to fabricate silicon membranes, balometers, and other devices requiring free-standing thin-film silicon. Other applications include high-voltage/high-temperature power devices, backside-illuminated thinned CCD imagers, and x-ray masks.

High-Temperature Superconducting Stripline Filter

J.J. Bautista, Technical Group Supervisor, Jet Propulsion Laboratory

Mr. Bautista will describe the fabrication of a five-pole interdigital stripline filter made of the 93K superconductor $YBa_2Cu_3O_x$ coated on a silver substrate. The filter features a center frequency of 8.5 GHz and an extremely high rejection ratio of 80 dB.

An Adjustable rf Tuning Element for Microwave, Millimeter Wave, and Submillimeter Wave Circuits

William R. McGrath, Technical Group Leader, Jet Propulsion Laboratory; Victor Lubecke and David B. Rutledge, Dept. of Electrical Engineering, California Institute of Technology

The presenters have developed an adjustable rf tuning element consisting of a series of thin plates that can slide in unison along a coplanar strip transmission line to allow active tuning. The structure can be fabricated for frequencies as high as 1000 GHz using existing micromachining techniques. By easing constraints on circuit design, it will aid in extending microwave integrated circuit technology into the high millimeter wave and submillimeter wave bands.

(Session D5)

Materials Science

Passive Chlorophyll Detector

Leonard A. Haslim, Research Scientist, Ames Research Center

Using a low-cost, uniquely-dyed optical filter plastic sheet, the Passive Chlorophyll Detector enhances the visual discrimination of vegetation and trees in varying states of health. The invention's far-reaching applications include enabling farmers to identify and nurse or replant unhealthy sections of their fields to achieve higher crop yields, and serving as an early warning device for environmental scientists monitoring the health of forests and wetlands exposed to acid rain or contaminated groundwater.

Commercial Application of Thermal Protection System Technology

Gordon L. Dyer, Technology Transfer Officer, Martin Marietta Manned Space Systems

Thermal protection system materials and processes developed for the space shuttle's external tank have been reapplied in a new type of children's lunch box—a microwavable urethane foam insulation container that keeps a prepackaged meal warm for four to five hours. Two major food manufacturers are currently considering licensing the high-tech foam container.

Oxynitride Glass Fibers

Donald R. Messier, Research Ceramic Engineer, Materials Technology Laboratory, US Army Laboratory Command

Oxynitride glasses offer exciting opportunities for making high-modulus, high-strength glass fibers. Mr. Messier will describe processes for fabricating oxynitride glasses and fibers in compositions similar to commercial oxide glasses, but with significantly enhanced properties.

Commercial Applications of Advanced Photovoltaic Technologies

R.D. McConnell, Technology Transfer Manager, Solar Energy Research Institute

Mr. McConnell will describe research into high-tech photovoltaic materials including III-V, II-VI, amorphous silicon, and crystalline silicon, and will highlight possible spinoff applications such as optoelectronics and space power systems.

(Session D6)

Software Engineering

Software Reengineering

Ernest M. Fridge, Deputy Chief, Software Technology Branch, Johnson Space Center

During space shuttle development, Johnson Center engineers created a set

of tools to develop and maintain FORTRAN and C code. This tool set forms the basis for an integrated environment to reengineer existing code into modern software engineering structures which are easier and less costly to maintain and which allow straightforward translation into other target languages.

COSTMODL: An Automated Software Development Cost Estimation Tool

George B. Roush, Software Engineer, Johnson Space Center

One of the most widely used software cost estimation tools, COSTMODL can help reduce the risk of cost overruns and failed projects. COSTMODL has an intuitive user interface and extensive on-line help system, and can be customized to a particular user environment. It can be used for in-house cost management, cost analysis consulting, or for research.

Increasing Productivity through Total Reuse Management

Mary Pat Schuler, Aerospace Technologist, Langley Research Center

NASA Langley is promoting total reuse management (TRM) as a way to lower software development costs, reduce risk, and increase code reliability. Ms. Schuler will describe methods used to adopt TRM, and will discuss the reuse of products from all phases of the software life cycle.

How Hypermedia Can Increase the Productivity of Software Development Teams

L. Stephen Coles, Group Chief Technologist, Institutional Data Systems, Jet Propulsion Laboratory

Mr. Coles will describe how the productivity of software developers can be dramatically improved through the use of hypermedia, the seamless integration of disparate data structures—including text, graphics, animation, voice, and full-motion video—in a graphical user interface. The presentation will cover basic machine architecture, special-purpose video boards, video equipment, optical memory, software for animation, voice I/O, and networking and integration issues.

**Concurrent Technical Sessions
1:00 pm—3:00 pm**

(Session E1)

Advanced Manufacturing

Intelligent Robotic System with Dual-Arm Dexterous Coordination and Real-Time Vision

Neville I. Marzwell, Jet Propulsion Laboratory, and Alexander Chen, Scientific Research Associates

The presenters will demonstrate a prototype robot with built-in intelli-

gence. It features 18 degrees of freedom, comprised of two articulated arms, a movable robot head, two CCD cameras for producing stereoscopic views, an articulated cylindrical lower body, and an optional mobile base. The robotic system addresses a broad spectrum of manufacturing demands, including both complex and labor-intensive jobs.

Neural Network Software for Distortion-Invariant Object Recognition

Max B. Reid and Lilly Spirkovska, Research Scientists, Ames Research Center

Ames has created neural network software that performs the complete feature extraction/pattern classification paradigm required for automatic pattern recognition. The software is being used in an autonomous robotic vision system which could have extensive application in robotic manufacturing.

Constraint-Based Scheduling

Monte Zweben, Assistant Chief, Artificial Intelligence Research Branch, Ames Research Center

Mr. Zweben will describe the Space Shuttle Ground Processing Scheduling system, which uses artificial intelligence search methods to solve large-scale scheduling problems. The system can be applied to a variety of scheduling problems. In the manufacturing domain, it can help to minimize set-up time or tardiness.

COMPASS: A General-Purpose Computer-Aided Scheduling Tool

Dr. Barry R. Fox, Project Leader, McDonnell Douglas Space Services Co; and Christopher Culbert, Technical Monitor, Software Technology Branch, Johnson Space Center

COMPASS is an powerful, interactive planning and scheduling system with a mouse-driven, X-Windows user interface. It can be used to manage activities subject to timing constraints, ordering constraints, Boolean conditions, and resource availability, and to manage a wide range of resources including tools, electricity, and water.

(Session E2)

Data and Information Management

ELAS: Powerful General-Purpose Image Processing Software

David Walters, Electronics Engineer, Information Systems Division, Stennis Space Center

Originally developed to process Landsat images, the ELAS software package has evolved to handle a vast range of data types including MRI, soil maps, topographic and rainfall data, and sonar images. Mr. Walters will

describe applications in such fields as agriculture, forestry, and geology, and will highlight important new enhancements to the software.

TAE Plus: A NASA Tool for Building and Managing Graphical User Interfaces

Martha R. Szczur, TAE Project Manager, Goddard Space Flight Center

Transportable Applications Environment Plus is a WYSIWYG tool for designing, building, and tailoring an application's graphical user interface. Its main component is the WorkBench, which allows the application developer (who need not be a programmer) to interactively construct an application screen's layout and manipulate graphical objects such as menus, buttons, icons, and dials. TAE Plus is used in such disciplines as image processing, simulation, network management, real-time command and control, database management, and office automation.

Instrumentation, Performance Visualization, and Debugging Tools for Multiprocessors

Jerry C. Yan and Charles E. Fineman, Sterling Federal Systems; Philip J. Hontalas, Ames Research Center

As part of a major effort to advance multiprocessor parallel computing performance, NASA Ames is developing techniques to efficiently monitor and visualize parallel program execution. Such techniques will help simplify the debugging and tuning of parallel programs. The presenters will describe various prototype software tools and their incorporation into the run-time environments of hardware testbeds.

The Data Egg: One-Handed Text Entry Without Positional Constraints

Gary L. Friedman, Technical Group Leader, Jet Propulsion Laboratory

JPL researchers have devised a small, handheld unit that allows text entry with only one hand. Dubbed the Data Egg, it can be operated in any position, either autonomously or tethered to a personal computer. This invention will benefit the handicapped and those normally barred from using a computer on the job, such as astronauts and journalists.

(Session E3)

Electronics

Thermoacoustic Refrigeration

Steven L. Garrett and Thomas Hofer, Naval Postgraduate School

The presenters will demonstrate the first practical, autonomous thermoacoustic refrigerator, which employs high-amplitude sound in inert gas to pump heat. Scheduled for flight on the space shuttle, the acoustically-resonant refrigerator has only one moving part, no sliding seals, and uses inexpensive components. Since thermoacoustic refrigerators use no CFCs and have

coefficients of performance comparable with vapor compression cycle refrigerators, they are good candidates for food refrigeration and commercial/residential air conditioning applications.

Ambient Temperature Recorder

Larry D. Russell, Electronics Engineer, Ames Research Center

The ATR-4 ambient temperature recorder is a small battery-powered device that records 32 kilobytes of temperature data from four channels, over a range of -40° to +60°C at sampling intervals from 1.88 to 15 minutes. Data is stored in its internal memory for subsequent readout by a personal computer. Developed for use on the space shuttle, the ATR-4 can answer a variety of needs for a small, remote, unattended temperature recorder, such as in transportation of perishables and recording life system or process temperatures over time.

Fiber-Optic Push-Pull Sensor Systems

Steven L. Garrett and David A. Brown, Naval Postgraduate School

The Navy has created fiber optic "push-pull" sensors that greatly enhance the optical fiber's response to the measurand of interest while providing common-mode rejection of spurious environmental effects such as pressure, or temperature changes. The presenters will describe several new fiber optic, interferometric accelerometers and acoustic pressure sensors which generate such large optical phase modulations that their signals can be demodulated with inexpensive lasers similar to those used in CD players.

Commercial Capaciflector

John M. Vranish, Electronics Engineer, Goddard Space Flight Center

Goddard researchers are developing a capacitive proximity/tactile sensor with unique performance capabilities for use on space robots and payloads. The simple, robust sensor will enable robots to avoid collisions with humans in orbit and to dock payloads in a cluttered environment. Mr. Vranish will report on NASA's efforts to "spin" this technology off into the private sector.

(Session E4)

Environmental Technology

Water Quality Monitor

Warren C. Kelliher, Langley Research Center

A portable x-ray fluorescence spectrometer developed for the Viking mission to Mars has been adapted for terrestrial use. Called EMPAX (Environment Monitoring with Portable Analysis of X-ray), the unit answers a critical need for on-site, real-time analysis of toxic metal contamination. The government is seeking a commercial manufacturer for EMPAX.

Remote Semi-Continuous Flowrate Logging Seepage Meter

William M. Reay, Virginia Polytechnic Institute and State University, and Harry Walthall, Langley Research Center

The presenters have created a remote semi-continuous flowrate logging seepage meter that enables direct assessment of ground water discharge and associated solute fluxes. It is designed to replace current manually-operated meters.

Calcification Prevention Tablets

G.A. Lindsay, Naval Weapons Center

The subject invention is a slow-release tablet for preventing or removing calcium crust and build-up in pipes and containers that process hard water and other calcium-containing fluids. Extremely effective in sea water, the tablet is biodegradable and nontoxic. It can be used in urinals, commodes, drain., and holding tanks.

Automated Carbon Dioxide Cleaning System

David T. Hoppe, Marshall Space Flight Center

An environmentally-safe cleaning system jointly developed by NASA, the Air Force, and Martin Marietta uses solidified carbon dioxide pellets to blast the surface to be cleaned. The process can be automated using a programmable robot. Results from cleaning a variety of substrate materials has shown the system to be capable of reducing the amount of chlorofluorocarbon-based cleaning fluids and in some cases totally eliminating their use.

(Session E5)

Materials Science

Applications of Biologically-Derived Microstructures

Joel M. Schnur, Head, Molecular Science and Engineering Center, Naval Research Laboratory

Navy scientists have fabricated hollow 0.5 micron diameter cylindrical-shaped microstructures using modified lipids and the self-assembly provided by nature. Potential applications for the microstructures include controlled release of biocide for antifouling paint, composites for electronic and magnetic uses, and high-power microwave cathodes.

Structural Modification of Polysaccharides: A Biochemical/Genetic Approach

Roger Kern and Gene Peterson, Space Biological Sciences Group, Jet Propulsion Laboratory

This presentation will describe the development of unique biological techniques for adapting polysaccharides for use in electronic and optical devices. The ability to manipulate polysaccharides genetically and chemically will have an immediate impact on current commercial applications based on rheological properties, such as materials coatings, pharmaceutical delivery systems, and food additives.

Cryogenic Focusing, Ohmically Heated On-Column Trap

Stephen R. Springston, Department of Applied Science, Brookhaven National Laboratory

Mr. Springston will present a new method for thermally desorbing volatile solutes that have been cryogenically trapped within a capillary. Advantages of this trap for gas chromatographic analyses include fast response, simplicity, and elimination of connections. Other applications include physico-chemical studies, sample modulation chromatography, and restrictors for supercritical fluid chromatography.

Study of the Effect of Hydrocarbon Contamination on PTFE Exposed to Atomic Oxygen

Morton A. Golub and Theodore Wydeven, Research Scientists, Ames Research Center

As part of an effort to improve the surface properties of PTFE (commonly known as Teflon™), Ames researchers are using x-ray photoelectron spectroscopy analysis to study the effect of hydrocarbon contamination on PTFE exposed to an oxygen plasma. Their work will lead to the development of better surface-modified PTFE products for the medical and industrial markets.

(Session E6)

Medical Advances

Applications of the Strategic Defense Initiative's Compact Accelerator Technology

Nick Montanarelli, Deputy Direct, Office of Technology Applications, Strategic Defense Initiative Organization

The Strategic Defense Initiative's investment in particle accelerator technology for its energy weapons program has produced small and powerful accelerations with a variety of

"spinoff" medical applications. These include a radio frequency quadrupole linear accelerator for a cancer therapy unit, a compact induction linear accelerator to sterilize medical products, and accelerators to produce the radioactive isotopes used as radiopharmaceuticals for positron emission tomography.

Acoustically-Based Fetal Heart Rate Monitor

Allan J. Zuckerwar, Langley Research Center, and Dr. Donald A Baker, Baker Guardian Medical Labs

A new fetal heart rate monitor, using piezopolymer pressure sensors on a belt worn by the mother, can identify the fetal heart tone from among competing background signals and, through signal processing, yield a real-time evaluation of the fetal heart rate. The monitor is inexpensive and lends itself to an ambulatory mode of operation, whereby the mother can conduct fetal non-stress tests in her home.

Surgical Force Detection Probe

Ping Tchong, Charles Scott, and Paul Roberts, Research Engineers, Langley Research Center

A precision electromechanical instrument detects and documents the forces and moment applied to human tissue during surgery. The pen-shaped probe measures just 6 inches long and features a tip with an interchangeable scalpel. A PC-based data system provides signal conditioning, data acquisition, and graphics display.

Correcting Night Myopia with Biofeedback and a Simple Pocket Optometer

Dr. William B. Cushman, Research Physiologist, Naval Aerospace Medical Research Laboratory

Navy researchers are using a pocket optometer to implement biofeedback training to correct night myopia. Although developed to improve pilots' night vision, the lightweight, handheld optometer could benefit others, including children with "student myopia."

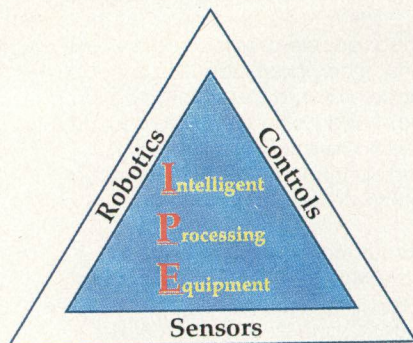
Concurrent Government-Industry Workshops 4:30 pm—6:00 pm

(Presenters to be announced)

Agencies holding workshops during this period will include:

- Department of Defense
- Department of Health and Human Services
- Department of Veterans Affairs
- National Aeronautics and Space Administration

**SAVE TIME AND MONEY: PREREGISTER BY PHONE
(800-944-NASA), FAX (212-986-7864), OR MAIL**



Advanced Manufacturing Technology

IPE Conference Program

The Intelligent Processing Equipment (IPE) Conference will focus on federally-developed innovations in robotics, sensors, and controls that industry can apply to a broad range of manufacturing processes, including machining, forming, welding, heat-treating, inspection, and assembly. Fifteen federal organizations will report on their present R&D efforts in intelligent processing during sessions held concurrently with Technology 2001 symposia in the San Jose Convention Center on Tuesday, Dec. 3 and Wednesday, Dec. 4.

On Thursday, Dec. 5, these presentations will be reviewed and discussed in panel sessions led by select industry leaders in manufacturing. A luncheon featuring a talk by a nationally-recognized expert in advanced manufacturing is also planned for Thursday in the convention center. Proceedings will be published and mailed to attendees after the conference.

The IPE sessions are open to all Technology 2001 registrants at no additional charge. Technology 2001 registrants are also invited to attend the Thursday luncheon, which will involve a small fee for food costs. Further information on the luncheon will be mailed to all Technology 2001 preregistrants prior to the show, and will also be available on-site at an information counter in the lobby.

The final program issued at the show will list IPE Conference speakers and meeting room locations. All the meeting rooms are in close proximity, making it easy for registrants to attend portions of both conferences.

IPE Conference Schedule:

Tuesday, December 3

Technical Session 1:00 pm — 3:00 pm

- 1:00 Department of Agriculture
- 1:30 Department of Commerce
- 2:00 Department of Energy
- 2:30 Environmental Protection Agency

Technical Session 4:30 pm — 6:00 pm

- 4:30 Federal Emergency Management Agency
- 5:00 Department of Interior
- 5:30 NASA

Wednesday, December 4

Technical Session 8:30 am — 10:30 am

- 8:30 National Institutes of Health
- 9:00 National Science Foundation
- 9:30 Department of the Air Force
- 10:00 Department of the Army

Technical Session 1:00 pm — 3:00 pm

- 1:00 Department of the Navy
- 1:30 Defense Advanced Research Projects Agency
- 2:00 Defense Logistics Agency
- 2:30 Strategic Defense Initiative Organization

Thursday, December 5

Industry Review Panels 8:00 am — 11:00 am

- 8:00 Robotics Panel
- 9:30 Controls Panel

IPE Luncheon 11:30 am — 1:00 pm

Industry Review Panels 1:30 pm — 4:30 pm

- 1:30 Sensors Panel
- 3:00 IPE Summary Session

For further information on the IPE Conference, contact Robert Schwingamer at (205) 544-1001.

Visit The "Garage"

While you are in San Jose, be sure to visit the Technology Center of Silicon Valley's new interactive exhibit center, called the Garage (after the place where high-tech companies such as Apple Computer began). Located across the street from the San Jose Convention Center, the Garage features informative hands-on exhibits in the areas of space technology, micro-electronics, materials, robotics, and biotechnology. Technology 2001 attendees are entitled to a discounted admission rate of \$5. You can obtain tickets on the concourse level of the convention center during all three show days.

The Garage contains a 9-foot-square version of a micro-chip. This exhibit lets you ask a question and then watch it process the answer. As different sections light up, the screen explains how the computation is being made.



Reserve Your Place At Technology 2001 Today

Save time and money: Preregister for Technology 2001 using the convenient form below. Mail the completed form with check payable to the Technology Utilization Foundation, or fax it with credit card information to (212) 986-7864 (VISA and Mastercard accepted). To register by phone, call (800) 944-NASA. Government organizations may register using a purchase order. **Deadline for preregistration is November 8.**

Choose from four types of registrations:

- Complete Registration—includes technical sessions, workshops, and exhibits for all three show days; tickets to the opening reception on Monday, Dec. 2 and the Technology Transfer Awards Dinner on Wednesday, Dec. 4; and a copy of the Technology 2001 proceedings.
- Symposia/Exhibits Registration—covers technical sessions, workshops, and exhibits for all three days.
- One-Day Symposia/Exhibits Registration
- One-Day Exhibits Only Registration

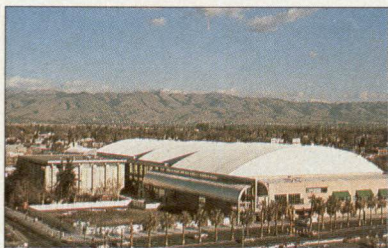
	By 11/8	On-Site
Complete Registration	\$300	\$325
Symposia/Exhibits Reg.	\$200	\$225
One-Day Symposia/Exhibits Reg.	\$100	\$125
One-Day Exhibits Only Reg.	\$25	\$30

Federal government employees are entitled to a 50 percent discount on above prices. Discounts are also available to groups of ten or more; call (212) 490-3999 for details.

Tickets to the Technology Transfer Awards Dinner may be purchased separately for \$150 each using the preregistration form or by calling (212) 966-3100. Preregistrants can pick up their badges and reception/dinner tickets at the San Jose Convention Center, 150 West San Carlos St., during the hours listed below. Registration confirmations will be sent via mail.

On-Site Registration Hours

Monday, December 2	8:00 am - 5:00 pm
Tuesday, December 3	7:00 am - 4:00 pm
Wednesday, December 4	7:00 am - 4:00 pm
Thursday, December 5	7:00 am - 3:00 pm



The new San Jose Convention Center is situated in the heart of Silicon Valley.

Special Hotel Rates

Hotel space is limited, so act early to secure these special conference rates:

	Single	Double
Fairmont Hotel (headquarters hotel) (800) 527-4727	\$105	\$105
Hyatt San Jose (408) 993-1234	\$85	\$105
Red Lion (408) 453-4000	\$80	\$80
Hotel De Anza (800) 843-3700	\$115	\$130

The Fairmont and Hotel De Anza are within walking distance of the Convention Center; the Hyatt and Red Lion are approximately ten minutes away by Light Rail—San Jose's modern, efficient public transit system. When making reservations, you must mention Technology 2001 to obtain the special rates.

Transportation Discounts

Ground: Hertz Corp. is offering special discounted car rental rates with unlimited mileage. For reservations, call Hertz Meeting Services at (800) 654-2240 and identify yourself as an attendee of Technology 2001, meeting #9208.

Air: Discounted air fares are available to Technology 2001 attendees through American Airlines. Call American Airlines' Meeting Service Desk at (800) 433-1790 and ask them to display Star File #S01N1BG. Make reservations at the lowest applicable fare from your departure city and give your mailing address. Nepal Travel Bureau—the official travel agency for Technology 2001—will mail you the tickets. For follow-up inquiries about your tickets, call Nepal Travel at (800) 666-4519.

An Ideal Location

The Convention Center is located just three miles from San Jose International Airport, and offers plenty of indoor parking. At the heart of the downtown cultural center, the Convention Center is within easy walking distance of restaurants, shops, and entertainment. For information on cultural activities, attractions, and tours, call the San Jose Convention and Visitors Bureau at (408) 295-9600.

Questions? Call Joseph Pramberger or Justina Cardillo at (800) 944-NASA.

Technology 2001 Preregistration Form

Use a separate form or photocopy for each registrant. Type or print clearly.

Name _____

Title _____

Company _____

Address _____

City/St/Zip _____

Phone _____

☐ check enclosed charge my: ☐ VISA ☐ Mastercard

Account No. _____

Expiration: Mo. _____ Yr. _____

Signature _____

Registration Fees:

Complete Registration	\$300	\$ _____
Symposia/Exhibits Reg.	\$200	\$ _____
One-Day Symposia/Exhibits (circle day: Tues. Wed. Thurs.)	\$100	\$ _____
One-Day Exhibits Only (circle day: Tues. Wed. Thurs.)	\$25	\$ _____
Awards Dinner Only	\$150	\$ _____

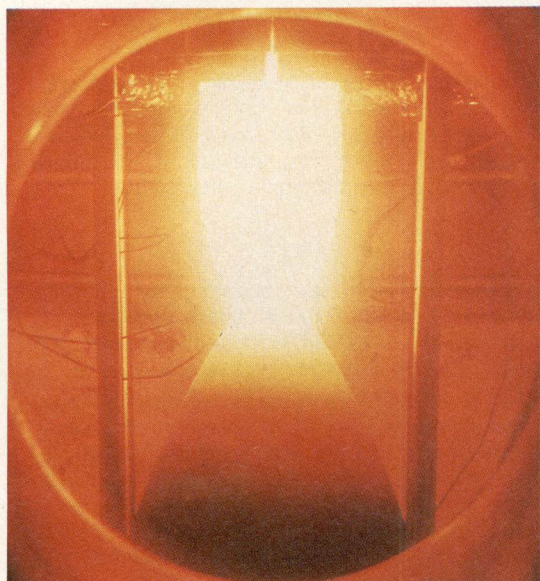
Total: (Fed. govt. employees deduct 50%) \$ _____

Registrations and awards dinner reservations are transferable, and may be cancelled until Nov. 8, 1991 subject to a \$50 cancellation fee. After that date no cancellations will be accepted and no money refunded.

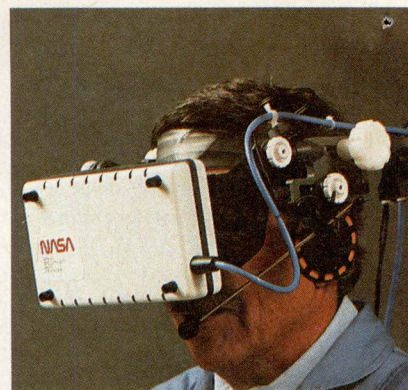
Return with payment to: Technology Utilization Foundation, 41 East 42nd St., Suite 921, New York, NY 10017

Explore The Cutting Edge

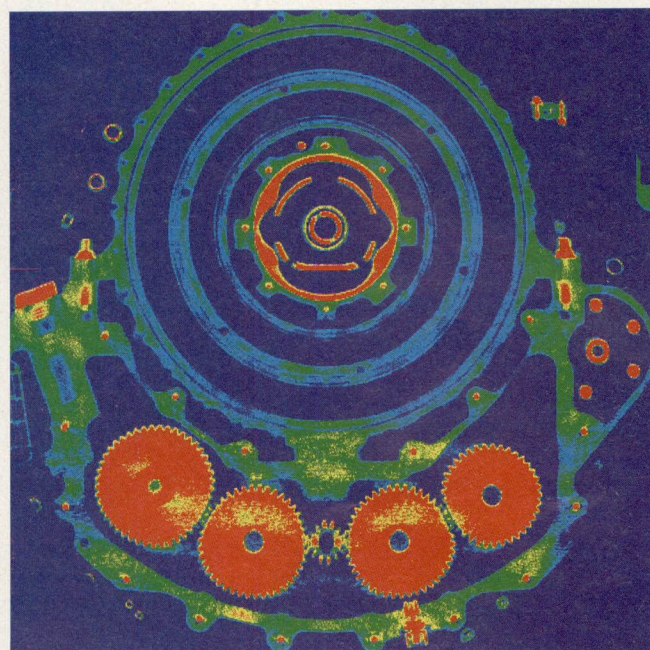
Technology 2001 symposia and exhibits will spotlight the best new inventions from federal laboratories, universities, and leading high-tech companies. Here's just a sample of the hundreds of innovations that await you.



Ultramet will showcase an iridium/rhenium thrust chamber that has been called "the greatest advance in chemical rocket technology in three decades."



The Ames Research Center exhibit will feature a virtual reality system that combines 3D sound and imagery to create "artificial worlds."



A patented recycling system to be displayed by Sorbilit Inc. converts paper, sawdust, and other waste products into high-quality 3D parts.

The Marshall Space Flight Center will demonstrate an advanced computed tomography system, shown here inspecting the gearing inside a Tomahawk Cruise Missile.



Technology Utilization Foundation
41 East 42nd Street, Suite 921
New York, NY 10017

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"CORRESPONDENCE TRACKING"

TYPE: INFORMATION DOCUMENT NUMBER: 9124159
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: GEIL, Merry N.: MATERIALS RESEARCH SOCIETY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/18/91

SUBJECT: RE: AN ADVANCED COPY OF THE 1991 FALL MEETING OF THE
MATERIALS RESEARCH SOCIETY PROGRAM.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
Steve Olson

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS:

OSTP RECEIVED: 09/24/91
DEPT RECEIVED:

FILE: P-INVITATION-SPEECH



MATERIALS RESEARCH SOCIETY

9800 McKnight Road, Pittsburgh, PA 15237
Telephone: (412)367-3003 Facsimile: (412)367-4373

459
RECEIVED

91 SEP 24 P 2:40

September 18, 1991

OFFICE OF THE
DIRECTOR

D. Allan Bromley
Assistant to the President for
Science and Technology
Office of Science & Technology Policy
Old Executive Office Building
17th Street & Pennsylvania Avenue
Washington, DC 20506

Dear Dr. Bromley:

We are delighted you will be the Plenary Speaker at the 1991 Fall Meeting of the Materials Research Society in Boston on Monday, December 2, 1991, at 6:00 p.m., and have enclosed an advance copy of the program for you.

I will be in touch with Steve Olson to confirm the title of your talk, audio-visual requirements, and your travel schedule. We look forward to having you join us in Boston.

Sincerely,

Merry N. Geil
Director of Meeting Activities

cc: B.R. Appleton, ORNL
J.B. Roberto, MRS President
S.T. Picraux, MRS Vice-President
Steve Olson, Director of Communications

MNG:DABPROG.F91



PROGRAM & REGISTRATION MATERIALS

**Technical Symposia
Short Courses
Equipment Exhibit**

Note: Bring this copy of the 1991 Fall Meeting Program with you to Boston. An Abstract Book will be provided at registration, but it will not contain program listings.

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9124069

SPEECH: YES NO

FROM: KIRSCHNER, Marc and Elizabeth Marincola: THE
AMERICAN SOCIETY FOR CELL BIOLOGY

DATE OF EVENT: 12/08/91

LOCATION OF EVENT: BOSTON, MASSACHUSETTS

TIME OF EVENT: 7:00PM

SUBJECT: INVITATION TO BE THE KEYNOTE SPEAKER AT THE OPENING
SESSION OF THE 31ST ANNUAL MEETING.

RSVP: 09/27/91

CONTACT PERSON: JULIE TAYLOR

CONTACT NUMBER: 301/530-7153

INVITATION ACCEPTED?

YES

NO

COPIES TO: LIFE SCIENCES

REMARKS:

11/4/91 - Requested to Peter Krios.
mn

CLOSED

DATE OF LETTER: 09/13/91

DATE RECEIVED: 09/18/91

FILE: P-INVITATION-SPEECH

CLOSED



THE AMERICAN SOCIETY for CELL BIOLOGY

NATIONAL OFFICE • 9650 ROCKVILLE PIKE • BETHESDA, MARYLAND 20814-3998

TEL (301) 530-7153 • FAX (301) 530-7139

RECEIVED

40609

91 SEP 18 AM 11:58

September 13, 1991

OFFICERS:

MARC W. KIRSCHNER
President
University of California
School of Medicine
DONALD D. BROWN
President-elect
The Carnegie Institute
of Washington
GÜNTER BLOBEL
Past President
The Rockefeller University
DANIEL S. FRIEND
Secretary
University of California
MERTON R. BERNFIELD
Treasurer
Harvard Medical School

ELIZABETH MARINCOLA
Executive Director
National Office

COUNCIL:

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University of California
DONALD W. CLEVELAND
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School of Dentistry
ELAINE V. FUCHS
University of Chicago
URSULA W. GOODENOUGH
Washington University
ANN L. HUBBARD
Johns Hopkins University
REGIS B. KELLY
University of California
JANET ROSSANT
Mount Sinai Hospital
Research Institute of Canada
JOAN V. RUDERMAN
Harvard Medical School
RANDY W. SCHEKMAN
University of California
MICHAEL P. SHEETZ
Duke University Medical
Center
SAMUEL C. SILVERSTEIN
Columbia University College
of Physicians and Surgeons

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
Room 358, Old Executive Office Building
725 17th Street, N.W.
Washington, D.C. 20506

Dear Dr. Bromley:

The American Society for Cell Biology will hold its 31st Annual Meeting, December 8-12, 1991, in Boston, Massachusetts. Six to seven thousand scientists from all over the United States will be attending. These scientists are engaged in investigator-initiated biomedical research, funded primarily by the National Institutes of Health.

On behalf of the Society, and in recognition of your leadership in the support of biomedical research, we would like to invite you to be the keynote speaker at the Opening Session, scheduled for 7:00 p.m. on Sunday, December 8. Our congressional affairs representative, Peter N. Kyros, has contacted Dr. Jack Chow of your staff, who has indicated your availability and feels that you would be enthusiastic about addressing our members.

Please confirm this invitation by having a member of your staff contact Julie Taylor, the Society's Public Affairs Coordinator, at 301-530-7153, so that we may make the appropriate arrangements for your travel and hotel accommodations.

Again, the Society is appreciative of your leadership in supporting biomedical research and the programs at the National Institutes of Health, and we greatly hope that you will be able to attend our national meeting.

Sincerely,


Marc Kirschner, Ph.D.
President


Elizabeth Marincola
Executive Director

cc: Dr. Jack Chow
Dr. D.A. Henderson



THE AMERICAN SOCIETY for CELL BIOLOGY

NATIONAL OFFICE • 9650 ROCKVILLE PIKE • BETHESDA, MARYLAND 20814-3998

TEL (301) 530-7153 • FAX (301) 530-7139

RECEIVED

91 SEP 18 AM 11:58

September 13, 1991

OFFICERS:

MARC W. KIRSCHNER
President
University of California
School of Medicine

DONALD D. BROWN
President-elect
The Carnegie Institute
of Washington

GÜNTER BLOBEL
Past President
The Rockefeller University

DANIEL S. FRIEND
Secretary
University of California

MERTON R. BERNFIELD
Treasurer
Harvard Medical School

ELIZABETH MARINCOLA
Executive Director
National Office

COUNCIL:

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DONALD W. CLEVELAND
Johns Hopkins University

CAROLINE H. DAMSKY
University of California
School of Dentistry

ELAINE V. FUCHS
University of Chicago

URSULA W. GOODENOUGH
Washington University

ANN L. HUBBARD
Johns Hopkins University

REGIS B. KELLY
University of California

JANET ROSSANT
Mount Sinai Hospital
Research Institute of Canada

JOAN V. RUDERMAN
Harvard Medical School

RANDY W. SCHEKMAN
University of California

MICHAEL P. SHEETZ
Duke University Medical
Center

SAMUEL C. SILVERSTEIN
Columbia University College
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Sincerely,


Marc Kirschner, Ph.D.
President


Elizabeth Marincola
Executive Director

cc: Dr. Jack Chow
Dr. D.A. Henderson

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9124067

SPEECH: YES NO

FROM: ROSS, Eric: UNIVERSITY OF ROCHESTER

DATE OF EVENT: 02/15/91

LOCATION OF EVENT: UNIVERSITY OF ROCHESTER

TIME OF EVENT:

SUBJECT: INVITATION TO SPEAK AT THE STUDENT ENVIRONMENTAL
SCIENCE CONFERENCE

*computer says
it's closed
9/24/91?*

RSVP: 09/24/91

CONTACT PERSON: ERIC ROSS W-716/275-5713

CONTACT NUMBER: H-716/464-8203

INVITATION ACCEPTED?

~~YES~~

NO

COPIES TO:

REMARKS:

CLOSED

DATE OF LETTER: 09/10/91

DATE RECEIVED: 09/18/91

FILE: P-INVITATION-SPEECH

THE WHITE HOUSE
WASHINGTON

October 21, 1991

Dear Dr. Ross:

Thank you for your letter of September 10 inviting me to address the **Environmental Science Conference** scheduled to be held on February 15 and 16, 1992, at the University of Rochester. My apologies for the much belated response.

As you can appreciate, the number of invitations I receive that entail traveling out of town is overwhelming, and I am finding that I cannot be away from Washington as much as I would like. As much as I would like to join you I must regretfully decline. However, I am coming to Rochester on November 6 to speak at the Center for Environmental Information, and I would be happy to provide you with a written copy of that speech for your conference.

I appreciate your thinking of me and would like to offer my best wishes for the conference.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with the first name "D. Allan" and the last name "Bromley" clearly distinguishable.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Eric Ross
Department of Geological Sciences
University of Rochester
Rochester, New York 14627

4067

UNIVERSITY OF ROCHESTER

ROCHESTER, NEW YORK 14627

Department of Geological Sciences

91 SEP 18 AM : 56

OFFICE OF THE
DIRECTOR

Eric Ross, Coordinator
Student Environmental Science Conference
Department of Geology
University of Rochester
Rochester, NY 14627

10 September 1991

D. Allen Bromley
Assistant to the President for Science and Technology
Suite 358
Old Executive Office Building
Washington, D.C. 20500

Dr. Bromley:

During Washington's Birthday Weekend, February 15 and 16, 1992, I will coordinate an Environmental Science Conference for students to be held at the University of Rochester. I wish to extend to you an invitation to speak at this conference, and would be greatly honored if you would accept.

The Student Environmental Science Conference (SESC) will be an opportunity for students interested in environmental science to hear basic scientific data from the scientists behind the figures. As an intensive two-day lecture series, SESC has the potential to solidify students' interest in and knowledge of the environment. As a freshman in college, I was strongly influenced by a detailed lecture series on chloroflourocarbons and ozone depletion by F. Sherwood Rowland at the University of Rochester--I am now a chemistry major with a strong interest in the study of environmental science. With a forum like SESC, students can see that the study of the environment can provide clear answers, as well as being a fascinating subject to study. A gathering of this sort would create a rare opportunity for students to experience the forefront of environmental science research.

SESC will feature speakers who are prominent research scientists. We hope that they will be an inspiration to the students, faculty, and professionals attending the conference. A few of our suggested speakers are: William Clark, Paul J. Crutzen, Richard Dennison, James E. Hanson, and Carl Sagan.

F. Sherwood Rowland, Wallace Broecker, and John W. Bartlett have accepted our invitation to speak at SESC. Professor Rowland wishes to bring this conference to national attention.

The conference will be divided into three concept series: Atmosphere, Biosphere, and Society. These series will run parallel throughout the entire seven lecture time slots. Attendees will have the opportunity to attend more than one series; the series are simply a convenient way to group lectures and lecturers for educational purposes. The series will also allow students interested in a single field of study to experience a concept in depth. For example, a student in a Biology program may follow the Biosphere series to completion and more fully understand both the ideas presented in the lectures and the invested interest of the lecturers. Several of the more popular lectures will be scheduled with no conflicts as to allow more students to experience the main points of the conference.

The series will be divided as follows:

Atmosphere

- 1 Stratospheric Ozone Depletion
- 2 Atmospheric Methane and the Slowing of the
 Earth's Oxidation Process
- 3 Global Warming Systems
- 4 The Greenhouse Effect
- 5 Acid Rain

Biosphere

- 1 Threats to Biodiversification
- 2 Effects of Deforestation
- 3 Effects of Localized Airborne Toxins
- 4 Efficient Agriculture
- 5 Effects of Overpopulation

Society

- 1 Economics and the Environment in Developing Nations
- 2 Nuclear Energy: Technology and Safety
- 3 Radioactive Waste Disposal: Theory and Practice
- 4 Solar Energy: Theory and Technology
- 5 Efficient Energy Use

We will attempt to convince professors in the area to integrate SESC into their classes. This would insure participation in SESC as well as providing a resource for classes dealing with the environment. Five colleges are within fifteen minutes driving time of the University of Rochester, and five larger universities are well within a two hours driving time (Cornell, Syracuse, Geneseo, SUNY Buffalo, and Buffalo University). We have also asked assistance from the Student Environmental Action Coalition, a national organization of college environmental groups. This association will give us effective publicity of SESC and allow us to target those students who are interested in the environment. With networking through the University's professors (already in progress) and the Student Environmental Action Coalition I am confident we will have a strong turnout.

The Department of Geology, the de facto environmental science department, is the host organization within the University. The Department is very excited with the prospect of having SESC and is providing advise, contacts with potential speakers, and funds.

If you have additional questions about SESC, please feel free to write or call me. You can reach me at home all year at (716) 464-8203, or at the Department of Geology at (716) 275-5713.

I do hope that you are interested in participating in the Student Environmental Science Conference 1992. I look forward to hearing from you.

Sincerely,



Eric Ross.

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9124035

SPEECH: YES NO

FROM: HILL, James E.: UNITED STATES SPACE FOUNDATION

DATE OF EVENT: 04/01/92

LOCATION OF EVENT: COLORADO SPRINGS, COLORADO

TIME OF EVENT:

SUBJECT: A COPY OF THE PROCEEDING REPORT FOR THE SEVENTH
NATIONAL SPACE SYMPOSIUM AND AN INVITATION TO SPEAK
AT THE EIGHTH NATIONAL SPACE SYMPOSIUM WITH A REQUEST
TO PARTICIPATE IN THE SENIOR EXECUTIVES FORUM ON
SPACE 04/04/92.

RSVP: 09/30/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: PHYSICAL SCIENCES

REMARKS:

CLOSED

DATE OF LETTER: 09/10/91

DATE RECEIVED: 09/16/91

FILE: P-INVITATION-SPEECH

9/17/91-
DAB - This is a generally well-attended, broad cross-section of space aficionados. I'm certain the audience would enjoy hearing from you, but I would judge the gathering to be of only marginal importance from your perspective. You may want to do it if you're in the area on other business. (Atwood was Senior Admin. Spokesman last year.) - M

THE WHITE HOUSE
WASHINGTON

October 21, 1991

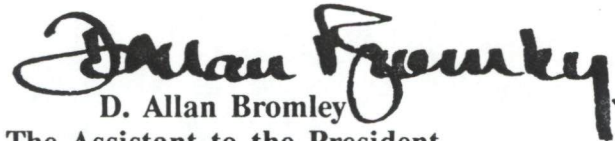
Dear General Hill:

Thank you for your letter of September 10 inviting me to address the **Seventh National Space Symposium** scheduled for April 9-12, 1992. My apologies for the much belated response.

As you can appreciate, the number of invitations I receive that entail traveling out of town is overwhelming, and I am finding that I cannot be away from Washington as much as I would like. As much as I would like to join you and your colleagues, the next several months are already heavily committed, so I must regretfully decline.

I appreciate your thinking of me and would like to offer my best wishes for your symposium.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with the first name "D. Allan" and last name "Bromley" clearly distinguishable.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

General James E. Hill (Retired)
Chairman
United States Space Foundation
Post Office Box 1838
Colorado Springs, Colorado 80901-1838



UNITED STATES SPACE FOUNDATION

GENERAL JAMES E. HILL, USAF (RET)
CHAIRMAN

RICHARD P. MACLEOD
PRESIDENT

September 10, 1991

The Honorable D. Allan Bromley
Assistant to the President
and Director
Office of Science and Technology
The White House
Washington, DC 20500

Dear Allan:

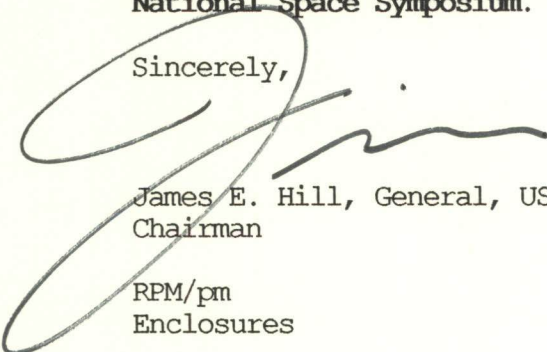
Along with the **Proceedings Report** for the **Seventh National Space Symposium** April 9-12, 1991, I am sending this invitation for you to speak on the topic of your choice at the **Eighth National Space Symposium**, April 1, 2 or 3, 1992. Also, I invite and urge you to participate in a closed door meeting of industry, government and academia representatives at the **Senior Executives Forum on Space** Saturday morning, April 4. We anticipate the attendance of several Senate and House members in addition to again hosting the largest group of United States Space Policy decision makers assembled each year.

The Symposium regularly attracts 120 or more media representatives including the major TV and radio networks, and writers from England, France, Germany, Italy, Japan and Australia.

As a non-profit Foundation, we are unable to fund travel and hotel for speakers. You and your spouse will, however, be guests of the Foundation for the Symposium, the Forum and several luncheons, receptions and dinners.

Please let me know as soon as possible that you will join the civil, military and commercial space leaders as a featured speaker at the **Eighth National Space Symposium**.

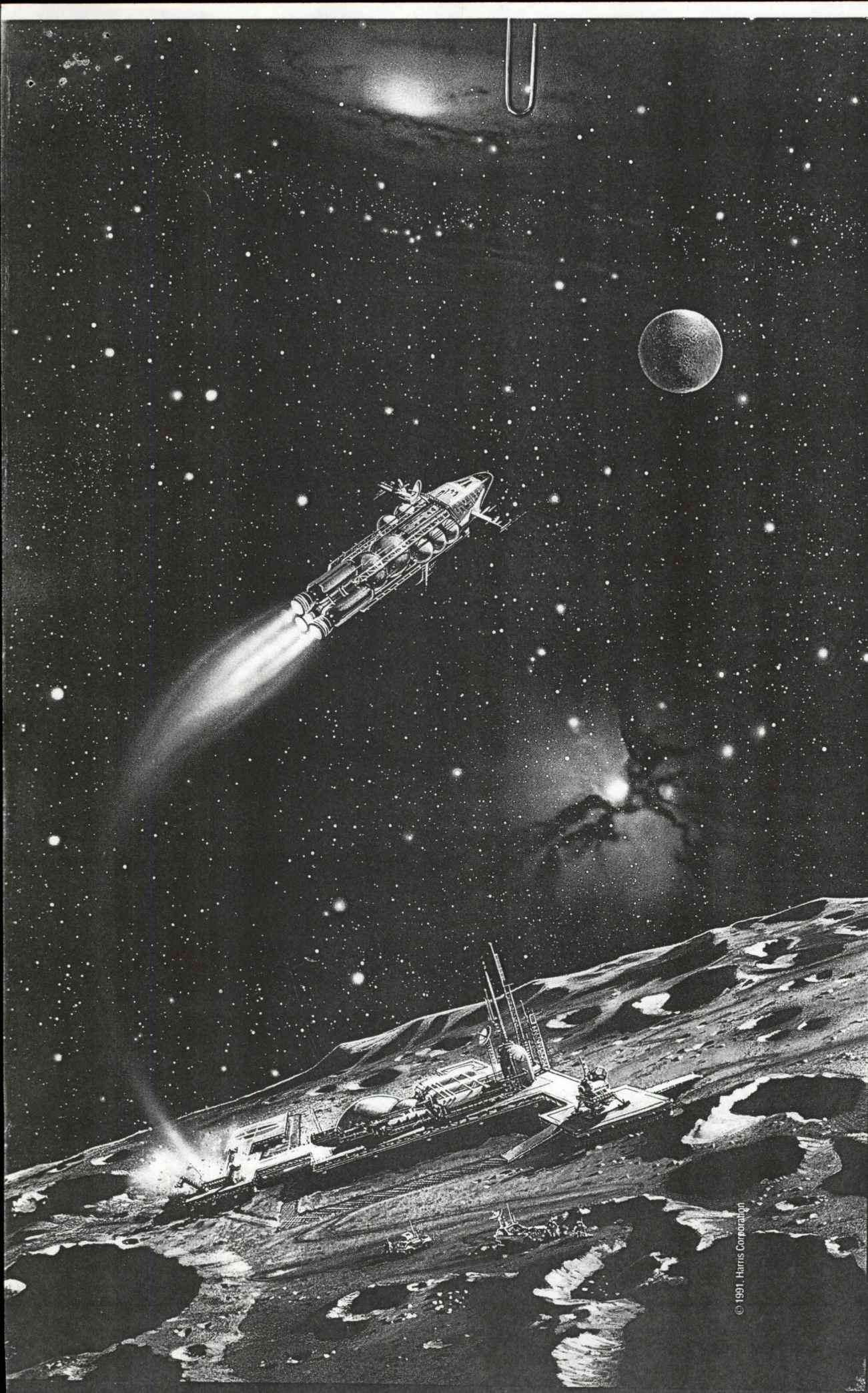
Sincerely,


James E. Hill, General, USAF (Ret.)
Chairman

RPM/pm
Enclosures

Seventh National Space Symposium

April 9-11, 1991
United States
Space
Foundation
PROCEEDINGS
REPORT



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TYPE: INVITATION

"INVITATION FOR DR. BROMLEY"

DOCUMENT NUMBER: 9123986

SPEECH: YES NO

FROM: STOUT, HERB: CHRM, TRIANGLE J COUNCIL OF GOVERNMENTS.

DATE OF EVENT: 10/29/91

LOCATION OF EVENT: CRABTREE MARRIOTT

TIME OF EVENT:

SUBJECT: INVITATION TO BE THE FEATURED SPEAKER AT THE ANNUAL DINNER OF THE TRIANGLE J COUNCIL OF GOVERNMENTS AND TO MEET WITH WORLD LEADERS IN GEOGRAPHIC INFORMATION SYSTEMS TECHNOLOGY.

RSVP: 09/25/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: Dr. Phillips
Steve Olson

REMARKS:

9/27/91 Requested to
Mary Jane. m n

CLOSED

DATE OF LETTER:

09/06/91

DATE RECEIVED: 09/11/91

FILE:

P-INVITATION-SPEECH-~~MEETING~~



TRIANGLE J COUNCIL OF GOVERNMENTS

September 6, 1991

100 Park Drive, P.O. Box 12276
Research Triangle Park, NC 27709
(919) 549-0551
(919) 549-9390 Fax

Apex
Benson
Broadway
Carrboro
Cary
Chapel Hill
Clayton
Durham
Four Oaks
Fuquay-Varina
Garner
Goldston
Hillsborough
Holly Springs
Kenly
Knightdale
Micro
Morrisville
Pine Level
Pittsboro
Princeton
Raleigh
Rolesville
Sanford
Selma
Siler City
Smithfield
Wake Forest
Wendell
Zebulon

Dr. D. Allan Bromley
Assistant to the President for Science and Technology
Old Executive Office Building
17th Street & Pennsylvania Avenue NW, Suite 358
Washington, DC 20506

Dear Dr. Bromley:

You are invited to be the featured speaker at the annual dinner of the Triangle J Council of Governments, to be held on Tuesday, October 29, 1991 at the Crabtree Marriott. We request that you speak on the successful application of technology in solving government problems.

If you are available for this date, we would also like to arrange a meeting during the day with you and world leaders in Geographic Information Systems Technology. The meeting would be arranged by the National Association of Counties and would focus on future directions for this technology. This area of the country is well known to leaders in this field such as Harry Christi of Burnaby, British Columbia; Jack Dangerman, President, Environmental Systems Research Institute; and David Rhind of Birkbeck College, University of London. They would be invited if you are available.

Kaye Braaten, President of the National Association of Counties, has re-arranged her schedule so that she can participate on October 29. I have an indication from other key members of our NACO Technology Focus Group that they will also be present.

Thank you for consideration of this request. We believe this could be a most significant occasion.

Sincerely yours,

Herb Stout, Chairman
Triangle J Council of Governments

cc: Kaye Braaten, President, NACO
Victoria Sutton, Assistant Director for the FCCSET
Jim Golden, Research Director, NACO

A WORLD CLASS REGION

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"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9123930

SPEECH: YES NO

FROM: LEE, KATHRYN & JOSEPH DETWILER: CLOSE UP
FOUNDATION

DATE OF EVENT:

LOCATION OF EVENT:

TIME OF EVENT: OPEN

SUBJECT: INVITE DR. BROMLEY TO DELIVER THE KEYNOTE ADDRESS TO
HIGH SCHOOL STUDENTS OR TEACHERS PARTICIPATING IN
THE 1991/92 PROGRAM OF THE CLOSE UP FOUNDATION.

RSVP: 09/23/91

CONTACT PERSON: KATHRYN LEE

CONTACT NUMBER: (703) 706-3481

INVITATION ACCEPTED?

YES

~~NO~~

COPIES TO: Steve Olson

REMARKS: ENCLOSURES TO DAB.

CLOSED

DATE OF LETTER: 09/04/91

DATE RECEIVED: 09/09/91

FILE: ^R B-INVITATIONS-SPEECHES

THE WHITE HOUSE
WASHINGTON

October 21, 1991

Dear Ms. Lee and Mr. Detwiler:

Thank you for your letter of September 4 inviting me to give the keynote address at the participants of the 1991/1992 Washington Program. My apologies for the much belated response.

With the understanding that it is always possible that Presidential scheduling may force a change in my plans, I would be happy to accept your invitation. May 11 is the best date on my schedule.

I appreciate your thinking of me and look forward to hearing from you again to confirm a date for my address.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is stylized with a large, looping "D" and a cursive "Bromley".

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Ms. Kathryn Lee and Mr. Joseph Detwiler
Close Up Foundation
44 Canal Center Plaza
Alexandria, Virginia 22314

RECEIVED



91 SEP 9 AIO: 32

September 4, 1991

OFFICE OF THE
DIRECTOR

Mr. D. Allen Bromley

Assistant to the President for Science and Technology and Director,
Office of Science and Technology Policy
360 Old Executive Office Building
Washington, DC 20500

Dear Mr. Bromley:

The Close Up Foundation would like to invite you to deliver the keynote address to high school students or teachers participating on the 1991/92 Washington Program.

The Close Up Foundation, a nonprofit, nonpartisan organization, has conducted civic education programs using the nation's capital as its classroom for over twenty years. The Foundation's programs have reached more than 285,000 high school students and teachers from across the United States and around the world. Our week-long program immerses participants in the politics and processes of the United States government. During seminars on Capitol Hill, at meetings in embassies or international organizations, and in sessions with Washington professionals, participants go behind the scenes to discover how our government works.

The keynote address is the most important seminar as it introduces the students and teachers to Washington, D.C. It allows them the opportunity to understand the city through your unique perspective and it challenges them to be active participants by discussing critical issues with you. We conduct separate programs for students and teachers so you may speak to either group. We conduct the student seminars in downtown government auditoriums, and the educator seminar is part of a luncheon series held at the National Press Club or a downtown hotel. Your audience is typically 200 students or teachers.

We have enclosed the entire 1991/92 keynote address schedule as well as literature about the Close Up Foundation. If the Monday keynote address is not amenable to you for any reason, we offer several other speaking opportunities for both students and teachers. We look forward to hearing from your office and, on behalf of the Foundation, we thank you for considering this request.

Respectfully,

Kathryn Lee
Student Speaker Coordinator
(703) 706-3481

Joseph Detwiler
Teacher Program Coordinator
(703) 706-3490

Enclosures

1991-1992 KEYNOTE ADDRESS SCHEDULE
CLOSE UP FOUNDATION WASHINGTON PROGRAM

The Educator Luncheon Series takes place between 12:45 and 1:45 p.m. and is preceded by lunch. The student seminar is held at 8:45, 9:00, or 10:15 a.m. and lasts one hour. Both are conducted on the following Mondays.

1991

October 28
November 4
November 11
November 18
December 2
December 9

1992

January 6	March 16
January 13	March 23
January 20	March 30
January 27	April 6
February 3	April 13
February 10	April 20
February 17	April 27
February 24	May 9
March 2	May 16
March 9	May 23

Allan Browley -

This is a good group;
worthwhile for you to speak
to them, schedule permitting.

JS
9/17/91

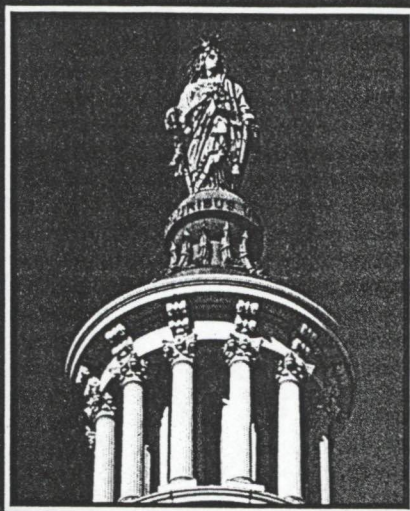
9/16

Comments from RDS
please

DB

James OK Linda Speak
DB

*Twenty Years of Education
for Democracy*




CLOSE UP
FOUNDATION

The ani

SIR — It was good to r clear and critical app faced by the medical r a result of increasingly animal rights groups 1991). Although ther protest against animal years, during the past had to deal with the fa mai rights movement. there have been enorm the welfare of laboratc trols on their use, but seen protests against th fringe status to a mover outright terrorism and campaigning organizati

Nobody would den responsibility to preser animals in our charge; tl toty animals is a prima researchers and technic them. This stands in clea of 'animal rights', whic sentient animals have humans, making it n humans to use them in a ture, zoos, sport, researc

Without animal stu physiology, probably the tal medical science, cou significant progress. Imm neacology could not ha lished without experiment rabbits. Animal studies c crucial part in genetics, l ogy, endocrinology, n developmental biology a huge advance in our abilit treat disease over the past 50 years has, to a great extent, depended on animal research.

Yet despite this, new legal controls on how and why animals can be used in research were introduced in Britain five years ago, and despite the fact that they are regarded internationally as the most comprehensive and exacting anywhere, the animal rights movement continues to push for tougher legislation. The truth is that, in Britain, the controls are so tight that administrative delays are already threatening to hold back progress in some areas of research.

For many years, the general principle of "keep your head down and it will go away" dominated the thinking on how to deal with this problem. But now there is a growing conviction in the scientific and medical community that the problem has become too serious to ignore. The general public is being actively misled by the animal rights movements into believing that animal research is both cruel and pointless. Unless the medical and scientific community makes greater efforts to explain to the press, the public and politicians why animals are used in research and the benefits which have come from that use, we can look forward only to greater pub-

SORRY TO KEEP BUGGING YOU

I'm Sure that
You've missed
my epistles but
I've been on
Vacation for a while

Bob

tronomers still nking too big?

One must give the advocates of "big" credit for persistence in the face of ty. One might have thought that the Space Telescope debacle would ight US astronomers the folly of g all of your eggs in one basket", par y if you plan to put that "basket" into rth orbit, where correcting errors will difficult and costly. Instead, at the e Bahcall committee's "wish list" for onomy, we find the Space Infrared pe Facility (SIRTF).

is only a simple exercise in arithmetic w lopsided the Bahcall committee's endations really are. Of \$1,550 mil- omended for "large projects", would get \$1,300 million. That million is larger than the total of illion allocated to all moderate pro- and more than five times the \$251 ft for small programmes. Although ities of the Bahcall committee are l as those of a limited astronomy ty, I suspect that many of the ers supported by "small pro- " might have dissented, had their een asked.

ROBERT J. YAES
y of Kentucky, Medical Center,
ent of Radiation Medicine,
,
405036-0084, USA

tal display

our article "Secret Service as ultie" (*Nature* 350 553; 1991), you discuss the possibility that a person might transcribe data with a preference for certain digits. This was well documented nearly 40 years ago by H. Gysel (*Mikrochimica Acta* 267; 1953), in the case of analysts weighing samples for carbon and hydrogen elemental analyses where the last place of decimals of the weight had to be estimated. He found that there was an unconscious preference for certain digits that was fairly constant for each chemist, and the errors thus induced could influence the results by up to 0.25 per cent in the analysis. At the time, many journals required accuracy to within 0.3 per cent. Gysel discussed the allowance that should be made for this preference, and later (*Mikrochimica Acta* 577; 1956) he shows how replacing the balances with those using a different system helped.

This not only supports your argument, but it even suggests that if there is not a preference, your random number idea has in fact been used.

ALAN F. THOMAS
Research Department,
Firmenich SA,
Case Postale 239,
CH-1211 Geneva 8,
Switzerland

This is a vexed and troubling question to which I for one certainly do not know the answer. What I do know is that the debate that might help us find it is unlikely to be inaugurated by statements like "The animal rights people go for the heart, the biologists for the head". This is not a contribution to any debate, but an attempt to disqualify one of the possible parties to it.

If my teaching experience in undergrad- uate ethics is anything to go by, many people are ready for a much more serious discussion of these questions than the 'research com- munity' is willing to offer. If it really intends to maintain this tone, it will lose the debate by default, and will deserve to. Someone has to make us think about these questions, and if it isn't the research community or the churches or the universities it will be the animal righ- tists: unattractive, bigoted and disingenuous though they may be. Cromwell would have approved "...since the work must go on, bet- ter plain men than none".

T. E. FORSTER
Department of Pure Mathematics
and Mathematical Statistics,
University of Cambridge,
Cambridge CB1 2SB, UK.

K-918 © 1988 3M

united

INDIRECT COSTS

OMB announces cap

Washington

THE White House Office of Management and Budget (OMB) has revealed the details of its proposed cap on the rates that US universities can charge to federal grant-making agencies to cover the overhead, or "indirect", costs of research. As expected, the new rules would limit the portion of overhead charged to cover universities' administrative costs to 26 per cent of the value of research grants — about the average current rate.

The 26 per cent cap comes into force for any overhead contracts negotiated or amended after 30 September, and is expected to cost US universities at least \$75 million over the coming year.

Robert Rosenzweig, executive director of the Association of American Universities, is concerned about this compressed timescale. "There's a case to be made for phasing the cap in for institutions that are going to be hit hard in the short term," he says. For universities that now receive high rates of administrative overhead, those rates may have been won in the give-and-take of negotiations at the expense of a lower reimbursement for the costs of buildings and equipment. Capping

the administrative overhead without modifying the other parts of the contracts could be unfair to the schools.

Universities have until the end of July to comment on the proposed rules. Given the current scandal over indirect costs, few observers expect major changes in response to university protest.

Michael Hall, a staff member at the Senate appropriations subcommittee responsible for the National Institutes of Health's budget, says that any controls coming from Congress would probably be even stricter.

Rosenzweig concedes that, for the time being, the universities will have to live with a 26 per cent cap on administrative costs.

But he wants federal agencies to agree quickly on a new system of accounting for and reimbursing research overheads, so that the cap does not become a permanent fixture. Rosenzweig's association had been negotiating with the OMB to reform the system, before congressional outrage earlier this year at the inclusion of a yacht and other luxuries in university research accounts at Stanford University forced more drastic action by the OMB.

State universities are particularly concerned about a second provision in the OMB's proposals demanding that money reimbursed for depreciation of buildings and equipment is actually used to cover future building and equipment costs. University officials liken this to an employee submitting an expenses form for a business lunch, and then being forced to spend the reimbursement on another lunch. The lack of budgetary flexibility, says Bill Brophy, a finance officer responsible for indirect costs at the University of California, San Diego, will make it more difficult for state universities to return money owed to their state legislatures.

Peter Aldhous

■ In a separate development last week, the Office of Naval Research announced that it has disciplined six of its civilian employees, responsible for negotiating the indirect cost rate on research grants to Stanford University.

The action against the six civilians ranges from assignment to another job and a cut in pay, to a simple letter of admonishment.

The Navy's move is the first action taken against federal officials who failed to prevent the charging of luxury items to university research accounts. Stanford alone has now returned over \$1 million incorrectly charged to research overhead — a minute fraction of the total sum thought to be charged incorrectly by Stanford to the US taxpayer over the 1980s.

TECHNOLOGICAL RESEARCH

US losing its lead

Washington

THE United States' world lead in technological research is diminishing, according to an analysis of the Institute for Scientific Information's Science Indicators database, published in the latest issue of *Science Watch*. The average citation impact of papers with US authors in most fields rose through the 1980s. But in engineering, technology and applied sciences, those research areas most closely linked to industrial competitiveness, the citation of US papers has fallen by 6.9 per cent, relative to the world average. The sharpest decline was in metallurgy — 20.3 per cent, nuclear engineering — 18.1 per cent, and instrumentation — 13.6 per cent.

Somewhat surprisingly, the declining impact of US technological research papers is not due to a corresponding rise in citations of papers from Japan, whose technologists are no more likely to be cited now than in the early 1980s. Instead, it seems that it is France and Britain that are the growing forces in engineering, technology and applied science. But US technologists should not panic.

Despite the decline in citation impact over the 1980s, US technological research papers are still cited over 60 per cent more often than the average for those from the G7 group of nations.

Peter Aldhous

MATERIALS SCIENCE

Superconductivity hot again

Washington

ADVANCES in high-temperature superconductivity have been so rapid over the past year that the use of superconductors in electric power systems, large motors and other energy applications is likely to come much sooner than most expected.

For that reason, the United States should form a \$250-million, five-year programme to develop electric energy systems that use high-temperature superconductors. So says a report issued late last month by a group of superconductivity specialists from industry, academia and national laboratories.

"The progress has been astonishing," says Alex Malozemoff, vice president of research and development at American Superconductor Corporation in Watertown, Massachusetts, and a member of the group that wrote the report. "In the last year it has been confirmed that one can actually build things with these materials."

After the initial euphoria accompanying the discovery of high-temperature superconductors died down, researchers found several problems with the materials that threatened to slow the development of 'bulk' applications — such as wires, magnets and motors — to a crawl. The superconductors were brittle and inflexible, which made them poor candidates for wires that would be wound in coils, and they exhibited a variety of interrelated problems that limited their critical current density — the amount of current they could carry and still remain super-

conducting.

But the progress in increasing the critical current density has been faster than anyone expected, and American Superconductor and other labs have shown they can make flexible superconducting wire. Suddenly, people are again excited over the potential applications of high-temperature superconductors to such devices as magnets, motors, generators and electrical transmission wires.

That creates an opportunity for US industry, the report says.

Japanese and European researchers are developing superconducting power systems that use the traditional low-temperature superconductors. "With an aggressive program, the United States could leapfrog its competition by demonstrating the components of a high-temperature system within the next five years," the report predicts. One of the most valuable applications would be superconducting motors, it says.

The five-year programme envisioned in the report would be led by the federal government but with significant private-sector investment. For each class of applications, the report recommends establishing "vertically integrated, industry-led teams with representation from manufacturing, universities, national laboratories" and end users of high-temperature superconductor such as electric utilities. The development would take place at "a pre-competitive level but with a long-term, market-driven focus."

Robert Pool

AIDS against the rest of the world

The spread of AIDS through heterosexual contact in Asia and Africa has reached truly epidemic proportions. The rest of the world should take notice while there is time.

THE most important news to come from the seventh international conference on AIDS that just ended in Florence is the worst news possible. While Western nations live with the illusion that the human immunodeficiency virus (HIV) has been somewhat contained within populations of homosexuals and intravenous drug users, data from the World Health Organisation make plain that the heterosexual spread of AIDS in Asia and Africa constitutes an epidemic that threatens the very fabric of the societies affected.

According to figures presented by James Chin of WHO, by the end of this decade 40 million men, women and children will be infected worldwide. In just three years time, he predicts, 10 million people in Africa will be infected; in Asia, where Thailand and India are particularly at risk, 3 million people are likely to become HIV positive. Most of those people will be young men and women in their 20s and 30s, whose deaths in huge numbers will devastate the population. WHO chief Hiroshi Nakajima says the looming pandemic threatens "the socio-economic development, and the very survival of whole communities and countries".

To those who closely follow the epidemiology of AIDS, these figures are not entirely a surprise. Nevertheless, the potential force of the pandemic has been brought home anew by the Florence meeting, where preliminary data on the biology of the AIDS virus makes it clear why a massive tragedy in Asia and Africa portends disaster in the West as well.

For the past decade — in fact, ever since AIDS was first reported in 1981 by the US Centers for Disease Control in Atlanta — Western researchers have emphasized the view that AIDS is difficult to transmit. And, indeed, the epidemic appears for now to have peaked in Western nations where HIV spread has been more-or-less contained among high-risk groups where the number of HIV positive individuals is likely to reach 2 million by the middle of this century. Such numbers are hardly a comfort. However, people have been assured that only unusual homosexual practices, such as anal intercourse, or the sharing of dirty needles among drug users really puts one at risk of getting AIDS. In many regards this is reassuring. Large numbers of men and women can go to sleep at night not worrying about contracting a lethal virus.

For the time being, this is largely true, but only because the virus is not yet as widespread among the heterosexual population as it is in Asia and Africa where the virus spreads with apparently fearsome ease from

man to woman and woman to man.

Studies suggest that the upward spiral of HIV infection in Thailand can be traced to the country's large number of prostitutes — government officials estimate there are 800,000 women working as prostitutes — and the fact that sex with prostitutes is common. One recently reported survey claimed that 75 per cent of Thai men said they have had sex with prostitutes.

Figures recently published by Jim McDowell, the US congressman/physician who is co-chair of the Congressional Task Force on International AIDS, also paint a bleak picture for India. According to McDermott, in Bombay alone, the HIV infection rate among 100,000–150,000 prostitutes has jumped from one per cent in 1987 to 30 per cent in 1990. With prostitutes averaging six contacts per night, and an HIV transmission rate of 0.1 per cent, he estimates that 6,000 men are being infected every month in Bombay alone.

The numbers of men from other nations who purchase what is now known to be high-risk sex in these and other countries can only be guessed at, but it is naive to think that once HIV is firmly embedded in the heterosexual population of international centres such as Bangkok and Bombay, its outward spread can then be contained.

Then there is the issue of HIV spread through what are now regarded as highly unlikely means — from physician to patients, for example, or vice versa. In the United States, Britain and the rest of Europe, current data seem to argue that such transmission is rare to the point of being nearly impossible.

There is a striking counter example — that of a dentist named David Acer in a medium-sized Florida town who, before his death last year, passed on HIV to at least one patient whose death is now being chronicled in the public press. Kimberly Bergalis, age 23, convincingly says that she has never had sex and never used drugs. Indeed, her only exposure to HIV appears to be at the hands of her dentist, who is presumed to have transmitted the virus in the course of an ordinary dental procedure.

Bergalis, who has written vividly about losing weight in her fingers and enduring the growth of fungus like 'white fur' all over her mouth and lips, has come to symbolize a fear that the medical profession has done its best to vanquish. Even if it is true that one is not likely to get AIDS from one's physician, the Bergalis case has created understandable public unease and generated a new fear of

this lethal disease that is entirely rational.

One thinks here of Camus's town of Oran and the day, sometime in '194-', that "When leaving his surgery on the morning of 16 April, Dr Bernard Rieux felt something soft under his foot" — namely a dead rat whose presence he first thought "rather odd, no more than that". But as rats in great numbers began dying, people finally recognised that the plague was upon them and that drastic measures had to be taken. It is not impossible that the few cases of unusual AIDS transmission carry a message we do not want to hear.

Controversial data presented in Florence by William Haseltine of the Harvard-affiliated Dana-Farber Cancer Institute in Boston speaks to a possible route of easy heterosexual transmission. Haseltine argues that dendritic Langerhans cells in the mucous lining the mouth and genital areas may be an important site of infection. Haseltine reports that once these cells are infected by HIV, they produce 80 per cent of HIV in the body — even more than white blood cells. In Haseltine's opinion, it is time to recognise AIDS as a "lethal venereal disease — primarily heterosexual".

Although many of Haseltine's colleagues challenge his views (while he, himself, notes that support for the work on dendritic cells comes not from the US National Institutes of Health but from private sources), the idea that AIDS is really a heterosexual disease is an idea whose time may have come.

Certainly, one's perspective on the disease is pertinent to the heated political debate in Florence that took place over US immigration policy and the next international conference scheduled for Boston in 1992. As it stands, US law forbids travel visas or immigration to persons known to be HIV positive. Taking the view that AIDS is not easily transmitted, and that a ban on travel is really a political decision to ban homosexuals rather than a decision about public health, scientific leaders and gay AIDS activists have threatened to cancel the 1992 conference unless the law is overturned. The issue is cast as one of moralistic conservatives versus compassionate liberals. Cast that way, there is only one side to be on.

But casting the debate that way totally ignores a more important reality that needs to be addressed in medical terms, not political. Is AIDS more easily transmitted than Western researchers have wanted to believe? Is the threat of a worldwide pandemic real and imminent? We need to know.

Barbara J. Culliton

9/10

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH DOCUMENT NUMBER: 9123904

SPEECH: YES NO

FROM: MAXSON, John S.: COMMONWEALTH EDISON

DATE OF EVENT: 09/10/91

LOCATION OF EVENT: ANA HOTEL, 2401 M STREET, N.W.

TIME OF EVENT: 5:00 - 5:50PM

SUBJECT: INVITATION TO SPEAK TO THE Y-GROUP TO PRESENT YOUR
PERSPECTIVE ON AN ISSUE OF YOUR CHOICE AND RESPOND
TO QUESTIONS.

RSVP: 09/06/91

CONTACT PERSON:

CONTACT NUMBER: 202/452-6278

INVITATION ACCEPTED?

~~YES~~ NO **NO**

COPIES TO:

REMARKS: 9/9/91 - Accepted + mailing!
mn

CLOSED

DATE OF LETTER: 09/04/91

DATE RECEIVED: 09/05/91

FILE: P-INVITATION-SPEECH



Commonwealth Edison

One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690 - 0767

3904

September 4, 1991

RECEIVED

Allan Bromley
Assistant to the President and
Director, Office of Science and
Technology
Old Executive Office Building
17th Street & Pennsylvania Avenue, N.W.
Washington, D.C. 20506

SEP 5 P2:55

OFFICE OF THE
DIRECTOR

Re: 52nd Meeting of the Y-Group
ANA Hotel
2401 M Street, N.W.
Washington, D.C.
September 10, 1991
5:00-5:50 p.m.

Dear Dr. Bromley:

Please consider speaking to the Y-Group at 5:00 p.m. on Tuesday, September 10, 1991. You can present your perspective on an issue of your choice for 20-30 minutes then respond to questions from the audience of senior business and professional leaders. Your remarks and the ensuing discussions are informal, should require no special preparation, are strictly "off the record", and will last no longer than 50 minutes.

The Y-Group was established in 1970 to provide a vehicle for strengthened communication between leaders in the public and private sectors. Y-Group membership presently consists of over 100 executives representing a broad spectrum of pursuits. Most members are CEOs or managing partners of their respective companies or firms. Our organization is non-partisan and does not take a position on issues.

Sen. Alan Dixon, Sec. Samuel Skinner, and Peace Corps Director Paul Coverdell are on the program following your presentation.

A list of Y-Group members is enclosed.

I apologize for this late notice but appreciate your consideration and look forward to hearing from you.

Sincerely,

John S. Maxson
Director of Governmental
Affairs
202-452-6278

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MAY 1991

Secretary of Energy - Admiral James D. Watkins
Professional Staff Majority Side, House Energy Committee
Michael Woo
Senate Energy Committee - Senator Don Nickles
Chairman of Senate Energy Committee -
Senator J. Bennett Johnston

SEPTEMBER 1990

Chairman, Securities and Exchange Commission -
Richard C. Breeden
Chairman, Federal Deposit Insurance Corporation
Resolution Trust Corporation - L. William Seidman
Co-Chairman, National Republican Congressional Committee -
Edward J. Rollins
Representative from the 4th District of Arkansas and
Chairman, Democratic Congressional Campaign Committee -
Beryl F. Anthony
Deputy Secretary, Department of Defense - Donald J. Atwood

APRIL 1990

Secretary of Transportation - Samuel K. Skinner
Chairman on the Council on Environmental Quality -
Michael R. Deland
Chairman, House Committee on Ways and Means -
Congressman Dan Rostenkowski
Chairman, Senate Finance Committee and Joint
Committee on Taxation - Senator Lloyd Bentsen

OCTOBER 1989

U.S. Trade Representative, Ambassador Carla Hills
Assistant Senate Minority Leader - Senator Alan Simpson
Secretary of Defense, Richard Cheney
Secretary of the Treasury - Nicholas Brady

APRIL 1989

Chairman, Subcommittee on Telecommunications & Finance -
Congressman Edward J. Markey
Senate Majority Leader - Senator George J. Mitchell
Vice President J. Danforth Quayle
Senate Minority Leader - Senator Robert Dole

OCTOBER 1988

Congressman Beryl Anthony (Arkansas)
National Political Director, Bush for President Campaign -
Richard N. Bond
Deputy Secretary, U.S. Treasury - Peter McPherson
Co-Chairman, Bush for President Campaign - Senator Mitch
McConnell
Co-Chairman, National Economic Commission - Robert S. Strauss

APRIL 1988

Vice Chairwoman, Democratic National Committee - Lynn Cutler
Chairman, Securities & Exchange Commission - David S. Ruder
Senator Rudy Boschwitz
Chairman, Republican National Committee - Frank J.
Fahrenkopf, Jr.
Secretary, Department of Labor - Ann McLaughlin

MAY 1987
Former Governor of Virginia - Charles S. Robb
President, National Rainbow Coalition, Inc. - Reverend
Jesse Jackson
Managing Partner, Winston & Strawn - Walter F. Mondale

NOVEMBER 1986
Senior Advisor, William Blair & Company - Donald H. Rumsfeld
Senator Robert Dole (Kansas)
Former Governor of Delaware - Pierre "Pete" du Pont
Founder/President, Christian Broadcasting Network - Dr. Marion
G. "Pat" Robertson
President, Worldwide Associates, Inc. - Alexander M. Haig, Jr.

MAY 1986
Director, Federal Bureau of Investigation - William H.
Webster
Deputy Director, Central Intelligence Agency - Robert M.
Gates
Senator David F. Durenberger (Minnesota)
Congressman Dave McCurdy (Oklahoma)
Congressman C. W. (Bill) Young (Florida)

OCTOBER 1985
Congressman Don Bonker (Washington)
Ambassador Clayton Yeutter - U.S. Trade Representative
Congressman Frank Guarini (New Jersey)
Senator H. John Heinz, III (Pennsylvania)
Congressman Richard A. Gephardt (Missouri)

MAY 1985
Assistant Secretary of Defense, International Security
Council - Richard N. Perle
Director of Arms Control, National Security Council -
Sven F. Kraemer
Founder and Director, High Frontier - Lieutenant General
Daniel Graham
Minister - Counselor, USSR Embassy - Viktor Isakov

NOVEMBER 1984
Deputy Secretary of Treasury - R. Timothy McNamar
Member of Congress and Chairman of the House Budget Committee
- James R. Jones
Director of the Congressional Budget Office - Rudolph G. Penner
Deputy Assistant to the President and Director, Office of Policy
Development - Roger Porter

MAY 1984
Counsellor to the President - Edwin Meese III
Lyn Nofziger - Nofziger and Bragg
Edward J. Rollins - Campaign Director, Reagan-Bush '84
Ambassador Robert S. Strauss - Akin, Gump, Strauss, Hauer & Feld

NOVEMBER 1983

Office of the United States Trade Representative - Ambassador
Michael B. Smith
Undersecretary for International Trade - Lionel H. Olmer
Member, President's Council of Economic Advisers - William Poole
Administrator, Agency of International Development - M. Peter McPherson
Deputy Secretary, Department of Agriculture - Richard E. Lyng
President, Overseas Private Investment Corporation - Craig A. Nalen
Vice Chairman, Federal Reserve Board - Preston Martin
President and Chairman, Export-Import Bank - William Draper
Director, Institute for International Economics - Dr. C. Fred Bergsten
President, The World Bank - A. W. Clausen

MAY 1983

Secretary of Energy - Donald P. Hodel
Senator Richard G. Lugar (Indiana)
Assistant Attorney General - Antitrust Division - William F. Baxter
Chairman, Council of Economic Advisors - Martin Feldstein

FEBRUARY 1983

Assistant to the President and Deputy to the Chief of Staff -
Richard G. Darman
Senator Robert J. Dole - Chairman of the Senate Finance Committee
Counsel to the President - Fred F. Fielding
Senator Charles H. Percy - Chairman of the Senate Foreign Relations
Committee

OCTOBER 1982

U.S. Trade Representative - William E. Brock III
Associate Director Economics and Planning, Office of Management
and Budget - Lawrence Kudlow
Secretary of the Interior - James G. Watt
Secretary of Defense - Caspar W. Weinberger

MARCH 1982

U.S. Representative Larry E. Craig (Idaho)
Assistant to the President for Policy Development - Dr. Edwin L.
Harper
U.S. Representative John L. Napier (South Carolina)
Secretary of Health & Human Services - Richard S. Schweiker
Legislative Assistant to Senator Strom Thurmond (South Carolina)
- John R. Steer

DECEMBER 1981

Senator Bill Bradley (New Jersey)
Senator Jack Danforth (Missouri)
Chairman of the Export-Import Bank of the United States -
William H. Draper III
Director of the Congressional Budget Office - Alice Mitchell Rivlin

SEPTEMBER 1981	Secretary of Transportation - Drew Lewis Deputy Attorney General - Edward C. Schmults Secretary of Agriculture - John R. Block
APRIL 1981	Vice President of the United States - George Bush Undersecretary of the Treasury for Tax and Economic Affairs - Dr. Norman Ture Chairman of the President's Council of Economic Advisors - Murray Weidenbaum
SEPTEMBER 1980	Energy Secretary - Charles Duncan Reagan Campaign Manager - William Casey Senator Russell Long (Louisiana) Chief of Staff to the President - Jack Watson
MAY 1980	Assistant to the President for National Security Affairs - Zbigniew Brezinski Chairman of the Federal Reserve Board - Paul A. Volcker Senator Charles H. Percy (Illinois)
FEBRUARY 1980	Counsel to the President - Lloyd N. Cutler Secretary of Transportation - Neil Goldschmidt Secretary of the Department of Housing & Urban Development - Moon Landrieu
OCTOBER 1979	Assistant to the President for Domestic Affairs and Policy - Stuart E. Eizenstat Advisory to the President on Inflation - Alfred E. Kahn Senator Richard G. Lugar
JUNE 1979	Son of the President of the United States - Chip Carter Ambassador George Bush
FEBRUARY 1979	Washington Bureau Chief, Newsweek Magazine - Mel Elfin Congressman James Wright (Texas) Director, Central Intelligence Agency - Admiral Stansfield Turner

JOHN S. MAXSON
Director of Government Affairs
202 • 452-6278 (Washington, D.C.)
312 • 294-4361 (Chicago)



Commonwealth Edison

1722 EYE STREET, N.W.
WASHINGTON, D.C. 20006
POST OFFICE BOX 767
CHICAGO, ILLINOIS 60690

91

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9123859

SPEECH: YES NO

FROM: PUMARADA-O'NEILL, Dr. Luis: CO-HEMIS

DATE OF EVENT: 11/13/91

LOCATION OF EVENT: MAYAGUEZ CAMPUS OF THE UNIVERSITY OF PUERTO RICO

TIME OF EVENT:

SUBJECT: INVITATION TO MAKE THE OPENING REMARK AT THE
HEMISPHERICAL COOPERATION CONFERENCE ON ENGINEERING
AND APPLIED SCIENCE RESEARCH.

RSVP: 09/06/91

CONTACT PERSON: GISELA GONZALEZ

CONTACT NUMBER: 809/265-3826

INVITATION ACCEPTED?

~~YES~~

NO

COPIES TO: INTERNATIONAL/POL

REMARKS: 9/4/91 - Regrettled to Wm 778-0727!
m

CLOSED

DATE OF LETTER: 09/03/91

DATE RECEIVED: 09/03/91

FILE: P-INVITATION-SPEECH



CONFERENCIA DE COOPERACION HEMISFERICA EN
INVESTIGACIONES DE INGENIERIA Y CIENCIA APLICADA
*HEMISPHERICAL COOPERATION CONFERENCE ON
ENGINEERING AND APPLIED SCIENCE RESEARCH*

Centro de Investigación y Desarrollo, Universidad de Puerto Rico, Recinto de Mayagüez,
Puerto Rico, 00709-5000 Tel. (809) 832-4040 ext. 3200 FAX: (809) 832-0119

91 SEP 3 ALL 56
August 22, 1991

OFFICE OF THE
DIRECTOR

Hon. D. Allan Bromley
Assistant to the President for Science and Technology
Old Executive Office Building
Room 358
Washington D.C. 20506

Dear Dr. Bromley:

Aware of the interest which you have on the subject, we are hereby extending you a formal invitation to make an opening remark the Hemispherical Cooperation Conference on Engineering and Applied Science Research (Co-Hemis), to be held at the Mayagüez Campus of the University of Puerto Rico from November 13 to 15, 1991. This event, which has the purpose of setting the guidelines and facilitating the creation of a center for hemispherical technological cooperation, will bring together persons designated by national research institutions of most countries in the Western Hemisphere as well as representatives of universities and entities which presently sponsor joint research programs. Government officials from the United States and Puerto Rico and regional development banks, among others, are also being invited.

The University of Puerto Rico, particularly its Mayagüez Campus, has for several years been interested in a linking role between the countries of this hemisphere for matters related to technology. We have offered conferences which have been attended by scientists and engineers from different corners of the Americas on such themes as earthquakes, natural disasters and infrastructure. Convinced of the fact that all the countries in our hemisphere would benefit from effective cooperation in technological research, our campus developed this initiative, which is being funded by the National Science Foundation. Our university system is involved at present in other hemispheric-scale activities, such as computer-networking with OAS, environmental protection with EPA and information standardization with the US Department of Commerce.

This conference will identify research and post-graduate education issues in applied science and engineering for which hemispherical cooperation would be helpful. Co-Hemis will produce a plan of action and the design of a hemispherical center for cooperation in applied science and engineering research. This center will facilitate international cooperative efforts from headquarters in the University of Puerto Rico's Mayagüez Campus, in whose bilingual, bicultural, multi-racial and multi-national environment persons from every country in America can feel at home. The research projects coordinated by this center could take place in any of the participating countries, with the actual role of the center to be defined at the Co-Hemis conference. In the year following the conference, the Co-Hemis staff will begin to implement the conference recommendations. It will publish a quarterly newsletter and procure the necessary resources to establish the hemispherical center defined at the conference.

Each country will submit short papers in either Spanish or English, the official languages of the conference, dealing with issues related to the technology research and education in the country and providing suggestions for the future Center. The agencies will

COMMISSIONER OF THE GENERAL LAND OFFICE
WASHINGTON, D.C. 20548
JAN 10 1968
TO: THE SECRETARY OF THE INTERIOR
FROM: THE SECRETARY OF THE ARMY
SUBJECT: PROPOSED CONSTRUCTION OF A DAM AND RESERVOIR ON THE
RIVER IN THE STATE OF TEXAS

Enclosed for the Secretary of the Interior are two copies of a report
dated January 10, 1968, and captioned as above. The report was prepared
by the Army Corps of Engineers, District Office at Fort Worth, Texas.
The report contains a description of the proposed project, a statement of
the purpose and objectives of the project, and a statement of the
benefits to be derived from the project.

The report also contains a statement of the estimated cost of the project,
and a statement of the estimated benefits to be derived from the project.
The report was prepared in accordance with the provisions of the
Federal Water Project Administration Act of 1966, and the
Federal Water Control Administration Act of 1964.

The report was prepared by the Army Corps of Engineers, District Office
at Fort Worth, Texas, and is being submitted to the Secretary of the
Interior for his review and approval. The report is being submitted
to the Secretary of the Interior for his review and approval.

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at Fort Worth, Texas, and is being submitted to the Secretary of the
Interior for his review and approval. The report is being submitted
to the Secretary of the Interior for his review and approval.

Invitation to Co-Hemis

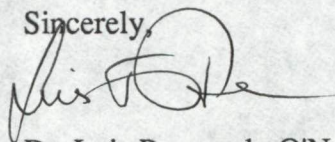
2

address the participants in a special panel-workshop. Speakers can use any of the two official languages of the conference; simultaneous translation will be provided. A preliminary schedule is enclosed, together with a copy of the newsletter we are presently sending to the expected participants with additional information.

This conference will provide a fertile environment in which to discuss plans, achievements and problems. The solution of those problems would be greatly beneficial to people from every part of the Americas, and your participation could be crucial to that effect, especially if your remarks could mention some degree of backing from the executive branch on behalf of the center.

We look forward to receive your answer before August 31 specifying the activities which you will be able to attend and the travel and lodging arrangements which may be needed. Conference coordinator Eng. Gisela González can answer any questions through (809) 265-3826 and (809) 832-0119 (fax), while my direct line is (809) 265-3816. We remain,

Sincerely,



Dr. Luis Pumarada-O'Neill
Conference Director

RACERASE BOND
SOUTHWORTH CO. U.S.A.
25% COTTON FIBER

Hemispherical Cooperation Conference on Engineering and Applied Science Research

Nov. 13 - 15, 1991
University of Puerto Rico at Mayagüez

PRELIMINARY CONFERENCE SCHEDULE

Nov. 12, Tuesday

Participant Arrivals

8:00 - 10:30 pm Welcomed Cocktail

Nov. 13, Wednesday

8:00 - 9:00 am Registration

9:00 - 10:00 am Opening Remarks

10:00 - 10:40 am Keynote Address

10:40 - 11:00 am Recess

11:00 - 11:20 am Presentation of the conference objectives

11:20 - 12:00 pm Presentations by participants, 20 minutes
each (2)

12:00 - 1:30 pm Lunch

1:30 - 3:30 pm Presentations by participants, 20 minutes
each (6)

3:30 - 3:50 pm Recess

3:50 - 5:30 pm Presentations by participants, 20 minutes
each (5)

7:30 - 11:30 pm Puerto Rican Night at the
Chancellor's House

Nov. 14, Thursday

7:30 - 8:00	am	Breakfast
8:30 - 9:00	am	Invited Speaker
9:00 -10:20	am	Presentations by participants, 20 minutes each (4)
10:20 -10:45	am	Recess
10:45 -12:30	pm	Presentations by participants, 20 minutes each (5)
12:30 - 1:30	pm	Lunch
1:30 - 5:00	pm	Workshops Place: Luis Stefani Building (room 113)
6:00	pm	Social Meeting

Nov. 15, Friday

8:00 - 10:30	am	Panel of agencies which sponsor joint research programs in the hemisphere
10:30 - 12:00	pm	Campus Tour
12:00 - 1:00	pm	Lunch
1:00 - 4:30	pm	Plenary Session: workshop reports Conference Adjourns
6:00	pm	Closing Dinner

Nov. 16, Saturday

10:00	am	Optional: Visit to Marine Laboratory at Isla Maguelles;boat rides and opportunity to go swimming. Lunch
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<u>CO-HEMIS:</u> November 13-15, 1991 Mayagüez, Puerto Rico	Update...August 8, 1991. Vol. 1, No. 1
Sponsors: National Science Foundation & University of Puerto Rico	
Office of the Hemispherical Cooperation Conference on Engineering and Applied Science Research, Research and Development Center, School of Engineering, Mayagüez Campus, University of Puerto Rico, Mayagüez, Puerto Rico 00681-5000; Tel. (809) 265-3826; FAX (809) 832-0119	

This newsletter includes up-to-date information on the latest developments related to the forthcoming Hemispherical Cooperation Conference on Engineering and Applied Science Research (Co-Hemis).

The latest version of the schedule is enclosed. We have reduced the number of working days to three, each day followed by socialization activities. The only activity scheduled for Saturday November 16th is a relaxing day of boating with the option of going to a beach. Our next newsletter will deal with details on reservations and airline scheduling. Remember that Co-Hemis will send pre-paid airline tickets to the person selected by the respective national research agencies for the trip from each capital city to Mayagüez and will cover hotel and meals for the duration of the conference.

Warm welcome to the possibility of a Hemispherical Center

The initiative of creating a center which would facilitate joint efforts directed towards research and technological education from a location in bilingual, bicultural Puerto Rico has met with positive responses throughout. Undoubtedly, the present situation favors activities dealing with international cooperation in scientific and technical matters. On the other hand, the pervasive feeling for the role of technology in development and competitiveness with respect to other regions in the globe has pushed technological advances and divulgation to a degree which transcends into the field of financial institutions. (See *El BID*, April, 1991, pp.4-7.)

We expect that the appropriateness of the timing produces the support and participation needed for this idea to go beyond our original expectations for the benefit of all peoples in the hemisphere.

Scope of the term "applied sciences"

The term "applied sciences" has been narrowed down within the context of the conference and the future center. The Hemispherical Cooperation Conference on Engineering and Applied Science Research will cover fields related to research and education in engineering and in those branches of science which converge with some field of engineering.

Participation in Co-Hemis has been broadened

In addition to those persons selected by the national research institutions (NSF counterparts) of the participating countries, we will be expecting delegates and speakers from regional development banks and from organizations which sponsor joint research programs. We look forward to the presence, among others, of the Interamerican Development Bank (IDB), the World Bank, the Division of Scientific and Technological Affairs of the Organization of American States (OAS), Office of Scientific Affairs of the United Nations. The following research agencies are also expected to participate: National Institute for the Standard of Technology (NIST), Environmental Protection Agency (EPA), U.S. Geological Service (USGS), National Oceanographic and Atmospheric Administration (NOAA) and National Science Foundation (NSF) from the United States, and Canada's National Science and Engineering Research Council (NSERC).

Countries expected

We expect the presence of the following countries, most of which have confirmed and named their delegates: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Paraguay, Peru, Dominican Republic, Trinidad-Tobago, United States, Uruguay and Venezuela.

Workshop on existing programs by sponsors of joint research

The research organizations named above will constitute a panel and make a series of presentations followed by a question and answer period as part of the conference workshops. The topics to be covered in the presentations will be the following:

- priorities and levels of funding which the organization assigns to different joint research projects within the hemisphere.

- the requisites and limitations which apply and how to start a project at present within its programs.
- examples of on-going programs and projects.
- benefits derived by persons who obtain grants for joint research as well as their countries and institutions.
- benefits derived by the granting organization and its country from joint research as well as their countries and institutions.
- the contributions which the organization could make to the center and the benefits which it could derive from it.
- regional education and research needs which would benefit most from hemispherical cooperation.

Additional designated participants would be exempt from paying the registration fee

Those one or two additional persons designated by the respective national research agencies, other than the one-per-country to be sponsored by Co-Hemis, will not be required to pay registration. The fee will be required only for those persons whom we sponsor and to observers; it will amount to \$100 and \$70 respectively. Payment shall be made to *Co-Hemis*, and it can be either mailed in or made upon registration on November 13th.

New deadline for papers and resums

The participant's resums and the papers to be presented by the different countries which were requested in the official invitations to the national research agencies should be received in Mayagüez before September 15th.

Presentations

Each delegate will have 15 minutes for presenting the key points in his paper in the initial plenary meetings. After the last presentation in a session of two to six speakers, there will follow a short question and answer period addressed to all the session's speakers.

After discussing the ideas and alternative plans in separate workshops, each covering specific topics related to the future center, the participants will meet in a final plenary session for considering the recommendations made by each workshop. Out of this session will come a blueprint for the future center.

All plenary sessions will have simultaneous translation.

Guests:

The following persons will address plenary sessions:

Vitelmo Bertero: world-known Latin American from the field of seismic engineering and Director of the University of California at Berkeley's Earthquake Engineering Research Institute (EERI).

Rafael Brás: Puerto Rican engineering educator, presently Director of MIT's Parsons Laboratory (related to global change); a former faculty member of our School of Engineering and with great experience in international technological cooperation.

Alberto Pignotti: world-known Argentinean physicist dedicated to applied science research; he has participated in joint projects sponsored by the *National Science Foundation*.

Rafael Lorán: computer expert from the University of Puerto Rico's President's Office, presently participating in an OAS project for establishing a hemispherical computer network.

We have invited officials who are interested in the objectives of the Conference and who may be able to contribute to the funding of the future center in order for them to hear first-hand testimony on the needs and benefits involved and the impact which an effective center would have on the development and economy of our hemisphere. Among these are: Congressmen sponsoring a bill seeking to promote technological cooperation in the hemisphere, José Serrano, the Puerto Rican-born U.S. Representative from the Bronx, Jaime Fuster, Puerto Rico's Resident Commissioner in Congress, and John Bowen, from the US State Department. We are also expecting executive officials from the government of Puerto Rico and our university's central administration. These persons would be with us on the opening day of Co-Hemis.

Hotel Alternative

The Campus Hotel, which will be available free of charge for participants, is a clean, adequate facility. Its fans will provide sufficient evening comfort *in lieu* of air conditioning, but there are no private bathrooms.

Those participants who prefer to pay their own expenses at the Mayagüez Hilton may do so. The opening day activities will take place at

the hotel's facilities and we will provide transportation in subsequent days. We will help with reservations if we are notified before November 1st. Conference attendees will be awarded a special price of US\$98 plus 9% tax per night for single occupancy.

Request for information and publications

We hereby ask agencies and organizations related to research and education which receive this newsletter to mail us information on their respective activities, especially those on an international level. Eventually we expect to publish a bulletin which will keep our hemisphere's technological community abreast of international and joint projects and programs.

superlativity conflicts
with PDS meeting

Document Originally
Attached to
Following Page

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9123934

SPEECH: YES NO

FROM: PLASIL, FRANZ: CHAIRMAN, QUARK MATTER '91
ORGANIZING COMMITTEE.

DATE OF EVENT: 11/14/91

LOCATION OF EVENT: TENNESSEE

TIME OF EVENT: EVENING

SUBJECT: INVITATION TO GIVE AN ADDRESS REGARDING THE
"POLITICS OF SCIENCE" TO THE QUARK MATTER '91
CONFERENCE DURING THE BANQUET DINNER.

RSVP: 09/23/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

~~YES~~

NO

COPIES TO:

REMARKS:

*Regretted to
9/27/91 Page Only. mxx*

CLOSED

DATE OF LETTER: 08/31/91

DATE RECEIVED: 09/09/91

FILE: P-INVITATIONS-SPEECHES

19 QM 91

RECEIVED

QUARK MATTER '91

Ninth International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions

November 11-15, 1991
Gallinburg, Tennessee, U.S.A.

SEP 9 AIO: 37

OFFICE OF THE
DIRECTOR

August 31, 1991

International Advisory Committee

G. Baym
P. Braun-Munzinger
A. Capella
W. Greiner
H. A. Gustafsson
H. H. Gutbrod
O. Hansen
M. Jacob
K. Kajantie
T. W. Ludlam
L. McLerran
S. Nagamiya
K. Nakai
I. Otterlund
A. M. Poskanzer
E. Quercigh
A. Romana
H. Satz
E. Shuryak
B. Sinha
H. J. Specht
R. Stock
G. M. Zinovjev

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J. B. Ball
T. Barnes
M. Gyulassy
R. Ledoux
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F. E. Obenshain
F. Plasil (Chairman)
S. P. Sorensen
M. R. Strayer
C. Y. Wong
G. R. Young

Conference Secretary

Shirley J. Ball
Oak Ridge National Laboratory

Telephone: 615-574-4681
Fax: 615-576-2822
Bitnet: QM91@ORPH01
Telex: 854468

Dr. D. Allan Bromley
Science Advisor to the President
Old Executive Office Building
Washington, DC 20500

Dear Dr. Bromley:

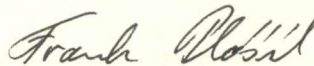
As you are probably aware, the Quark Matter '91 Conference is scheduled to be held from November 11 to November 15, 1991. It is the major conference in the field related to the possible production and characterization of the quark-gluon plasma. About 300 participants are expected to attend, and plans for the Relativistic Heavy Ion Collider at BNL will be discussed, together with many other topics.

On behalf of the Organizing Committee, it is my pleasure to ask you to address the conference during the banquet dinner, scheduled for the evening of Thursday, November 14. We would very much welcome a presentation on the topic of "the politics of science."

I realize that this request is an imposition on your busy schedule. However, your presence would be particularly appreciated by many of your old friends likely to be in the audience, as well as by all conference participants, who are proud of the fact that the Science Advisor to the President can be regarded as "one of their own."

I am sending you our second circular under separate cover, together with a preliminary program. I hope to be able to welcome you, once again, to Tennessee.

With best greetings and regards,



Franz Plasil, Chairman
QM '91 Organizing Committee

sjb

Conference Mailing Address

Quark Matter '91, Building 6003, MS 6372
Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, Tennessee 37831-6372, U.S.A.

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9123881

SPEECH: YES NO

FROM: ROBINSON, Wallace H.: NATIONAL SECURITY INDUSTRIAL
ASSOCIATION

DATE OF EVENT: 10/09/91

LOCATION OF EVENT: SHERATON PREMIERE HOTEL, TYSONS CORNER

TIME OF EVENT:

SUBJECT: INVITATION TO BE THE DINNER SPEAKER AT THE FIRST
ANNUAL DEFENSE INDUSTRY AND THE ENVIRONMENTAL AGENDA
FALL SYMPOSIUM.

RSVP: 09/16/91

CONTACT PERSON: COLONEL D. BRENT POPE

CONTACT NUMBER:

INVITATION ACCEPTED?

~~YES~~

NO

COPIES TO: Tom Welch

REMARKS:

9/11/91 - Regretted to Stacy!

mn

CLOSED

DATE OF LETTER: 08/30/91

DATE RECEIVED: 09/03/91

FILE: P-INVITATION-SPEECH



NATIONAL SECURITY INDUSTRIAL ASSOCIATION

National Headquarters

1025 Connecticut Avenue, N.W.

Suite 300

Washington, D.C. 20036

Telephone: (202) 775-1440

FAX: (202) 775-1309

OFFICE OF THE
DIRECTOR

3881
M.C. Baird, Jr.
Chairman,
Board of Trustees

J. F. Caligiuri
Vice Chairman,
Board of Trustees
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Executive Committee

F. J. Lewis
Vice Chairman,
Executive Committee

W. H. Robinson, Jr.
President

AUG 30 1991

The Honorable D. Allan Bromley
Assistant to the President for Science & Technology
Old Executive Office Building, Suite 358
Washington, DC 20500

(ATTN: Dr. Tom Welch)

Dear Dr. Bromley:

On behalf of the officers and trustees of the National Security Industrial Association (NSIA), I am pleased to invite you to be the dinner speaker on Wednesday, 9 October 1991, at our first annual Defense Industry and The Environmental Agenda Fall Symposium at the Sheraton Premiere Hotel, Tysons Corner, Vienna, VA, 9-10 October 1991. Approximately 500 professionals from industry and government are expected to attend.

The theme of the conference is "Defense Technology Applications for a Cleaner Environment," and we expect to provide a forum for exchange of information on DoD and DoE environmental requirements and the defense industry capabilities to meet those needs.

It would be most valuable for the conferees to hear your remarks on the Administration's commitment to improving the environment, the importance the Administration attaches to turning the technological resources of our industry to this objective, and any other matters you desire to address to this audience.

NSIA was founded in 1944 at the instance of James Forrestal, then Secretary of the Navy and later our first Secretary of Defense. It is a not-for-profit, non-political association of some 400 industrial, research, and service organizations of all types from all segments of defense industry throughout the United States.

We hope you can join us on the 9th of October at this very significant and timely event. Please have your staff call Colonel D. Brent Pope, USA (Ret), Ph.D, for assistance as required.

Sincerely,

Wallace H. Robinson, Jr.
Lieutenant General, USMC (Ret)
President

WHR:sd

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9123578

SPEECH: YES NO

FROM: HARMAN, Kenneth D.: SIRC

DATE OF EVENT: 11/14/91

LOCATION OF EVENT:

TIME OF EVENT: 10:30AM

SUBJECT: INVITATION TO SPEAK TO AT THEIR BRIEFING ON RISK
ASSESSMENT, SPECIFICALLY ABOUT YOUR OBSERVATIONS ON
VARIOUS ASPECTS OF THE GOVERNMENTAL PROCESS FOR
BALANCING HEALTH, ENVIRONMENTAL AND ECONOMIC ISSUES

RSVP: 09/05/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

~~YES~~

NO

COPIES TO:

LIFE SCIENCES

REMARKS:

*9/5/91 - Requested to
Robin!
mn*

CLOSED

DATE OF LETTER: 08/21/91

DATE RECEIVED: 08/23/91

FILE: P-INVITATION-SPEECH



3578

RECEIVED

August 21, 1991

91 AUG 23 AM : 15

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
Director, Office of Science and
Technology Policy
Old Executive Office Building
17th Street & Pennsylvania Ave., NW
Washington, DC 20500

OFFICE OF THE
DIRECTOR

Dear Dr. Bromley,

As chairman of the Styrene Information and Research Center, which represents a major segment of America's chemical and plastics industries and many thousands of small manufacturers throughout the United States, I would be most grateful if you would accept this invitation to speak to our groups at a briefing in the Old Executive Office Building on the morning of November 14 at 10:30 a.m.

We have made initial contact with the Office of Public Liaison, which will be making the arrangements for the briefing, but I wanted to take this early opportunity to issue a personal invitation.

The overall focus of the briefing will be on the risk assessment process and we are hoping you will be able to share your observations on various aspects of the governmental process for balancing health, environmental and economic issues. We are also inviting Mr. Allan Hubbard of the Council on Competitiveness, Dr. Richard Belzer from the Office of Management and Budget and Mr. Eric Bretthauer from EPA's Office of Research and Development to participate.

The briefing will be the concluding event of our annual meeting which is being dedicated to an exploration of risk assessment procedures at the national, international and state levels, and progress toward consistency of analysis and regulation. Other speakers invited to address our meeting are Rep. John Dingell, Rep. Don Ritter, and Dr. John Graham, director of the Risk Analysis Institute of the Harvard School of Public Health.

**Styrene Information
and Research Center**

1275 K Street, NW
Suite 400
Washington, DC 20005
(202) 371-5314

Dr. D. Allan Bromley

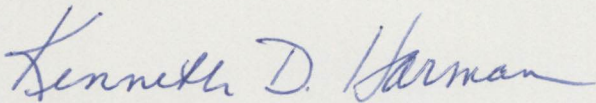
August 21, 1991

Page two

The audience will be senior executive of major companies such as Dow, Amoco, Arco, Fina, GE Plastics, Dart and Huntsman, who are major manufacturers of styrene and polystyrene, as well as the heads of smaller companies and their trade groups, representing the nation's boat manufacturers, makers of insulation and construction materials, medical equipment, food packaging and fast-food restaurant supplies.

I greatly hope you will be able to accept our invitation and look forward to your reply.

Sincerely,



Kenneth D. Harman
Chairman, Styrene Information and
Research Center

Business Director, Resource
Recovery and Conservation
Dow Chemical Company

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER

SPEECH: YES NO

FROM: GRANT, ROBERT T.: PRESIDENT & CEO, CRC PRESS,

DATE OF EVENT: 02/12/92

LOCATION OF EVENT:

TIME OF EVENT:

SUBJECT: INVITES DR. BROMLEY TO BE A KEY SPEAKER AT A MEETING
OF THE ASSOCIATION OF AMERICAN PUBLISHERS, WHICH
WILL BRING TOGETHER OVER 150 SENIOR EXECUTIVES
RESPONSIBLE FOR PUBLISHING IN THE AREAS OF SCIENCE,
TECHNOLOGY, & THE SOCIAL SCIENCES.

RSVP: 09/04/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: Steve Olson
PHYSICAL SCIENCES
Michelle Van Clea

REMARKS: THE ASSOCIATION OF AMERICAN PUBLISHERS OFFERS AN
HONORARIUM OF \$1,000.

CLOSED

11/20/91 - Regretted to Diane in Rbt. Grant's office.

DATE OF LETTER: 08/16/91

DATE RECEIVED: 08/19/91

FILE: P-INVITATIONS-SPEECH



CRC PRESS, INC.

PUBLISHERS SINCE 1913

CRC Press, Inc.
2000 Corporate Blvd., N.W.
Boca Raton, FL 33431
(407) 994-0555
Telex 568689
FAX (407) 241-7856

Robert T. Grant
President and Chief Executive Officer

August 16, 1991

Dr. Allan Bromley
Office of the President
Department of Science
The White House
1600 Pennsylvania Avenue
Washington, DC 20500

Dear Dr. Bromley,

On behalf of the Association of American Publishers (AAP), I would like to invite you to be a key speaker at the Scholarly and Professional Publishing Division's Annual Meeting to be held in Washington, D.C., February 12 - 14, 1992. This meeting will bring together over 150 senior executives responsible for publishing in the areas of science, technology, medicine, social sciences, etc.

We would very much like to hear your views on major issues in general, including the challenges facing scholarly and professional publishers in the future. We would also be interested in your comments concerning the proposed national Digital Information Systems and Supercomputer Interconnection.

Ideally, we would wish you to be the Key Note Speaker at our luncheon on Thursday, February 13, at the Grand Hotel. An alternative date would be the luncheon on Friday, February 14.

I do hope your schedule will allow you to be with us on one of those two days. We are able to offer an Honorarium of \$1,000.00.

Sincerely,

Robert T. Grant

ESSENTIAL INFORMATION FOR PROFESSIONALS

 Times Mirror
Books

FAX TRANSMITTAL FORM

TO: Dr. Allan Bromley
COMPANY: Office for Science & Technology
FAX NO.: 202-395-3261
TEL. NO.: 202-456-6272

FROM: Elizabeth Thorndike
THE CENTER FOR ENVIRONMENTAL INFORMATION, INC.
FAX NO.: 716-271-0606
TEL. NO.: 716-271-3550
COMMENTS: _____

Date: 11/22/91Pages to follow cover: 1

11.22.91 - *Delivered in*

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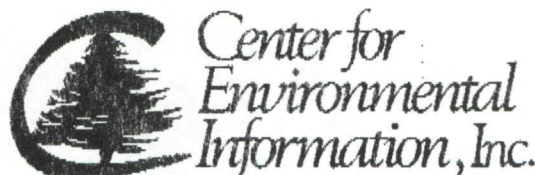
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46 Prince Street Rochester, New York 14607-1016
Phone 716-271-3550 • Fax 716-271-0606

November 22, 1991

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Dr. Lawrence Lundgren
Richard Shultz
Dr. Edward H. Thorndike
Andrew Wolfe

D. Allan Bromley
Assistant to the President
for Science and Technology
Old Executive Office Building
17th Street and Pennsylvania Ave., NW
Room 358
Washington, D.C. 20506

Dear Dr. Bromley,

We have just learned that due to a conflict with the General Assembly, Noel Brown, Director of the North American office of the UN, will be unable to give the keynote address at our Washington conference at 9:00 a.m. Thursday, December 5.

Is there any possibility that you could deliver the speech you gave in Rochester to this very different audience? A copy of the program is enclosed.

We will phone your office later today to learn if there is a possibility. Thank you very much for your consideration.

Sincerely,

Elizabeth Thorndike
Elizabeth Thorndike
President

ET/sc

Enc.

100% Recycled Paper

FAX TRANSMITTAL FORM

TO: Dr. Allan Bromley
COMPANY: Office for Science & Technology
FAX NO.: 202-395-3261
TEL. NO.: 202-456-6272

FROM: Elizabeth Thorndike
THE CENTER FOR ENVIRONMENTAL INFORMATION, INC.
FAX NO.: 716-271-0606
TEL. NO.: 716-271-3550
COMMENTS: _____

Date: 11/22/91

Pages to follow cover: 3

Purposes:

Production and consumption of energy, which powers human development, is a major cause of environmental stress.

The objective of this conference is to explore alternatives for meeting future global energy demand, in the face of possible large-scale environmental impacts and increasing concerns for equity and cultural integrity.

The conference will identify and examine quantitative data and will analyze distinctions between the theoretically possible and global societal realities. The following questions will be addressed:

- What technologies are available to meet the multiple requirements of enhancing economic development, improving quality of life and sustaining the environment?
- How far can energy efficiency, conservation, and renewable energy sources take us toward this goal?
- How sensitive are cost projections to underlying assumptions?
- What are the costs of overcoming existing barriers to change-in government policy, corporate culture and practice, and individual lifestyle?
- How do we account for energy damage costs not normally paid in the marketplace?
- How is our approach informed in ethics and values?

Who Should Attend:

- Environmentalists
- Government Agency Staff
- Utility Representatives
- Research Administrators
- Legislative Staff
- Economists
- Industry Representatives
- Scientists
- Educators
- Consultants
- Trade Association Representatives

Conference Steering Committee:

- Priscilla Auchincloss, Congressional Fellow,
U.S. House of Representatives
- Jan Beyer, Senior Staff Scientist, National Audubon Society
- Alex Cristoforo, Director, Air & Energy Policy Division,
U.S. Environmental Protection Agency
- Roger C. Dower, Director, Climate, Energy and Pollution
Program, World Resources Institute
- Michael P. Farrell, Section Head, Earth Systems,
Oak Ridge National Laboratory
- T. J. Glautier, Director, Energy and Climate Change, World
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- Marcel Halberstadt, Director, Environmental Department, Motor
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- Richard Richels, Senior Program Manager, Environmental Risk
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Global Environmental Change, Lyman Laboratory of
Physics, Harvard University

Cosponsors:

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 - Oak Ridge National Laboratory,
 - Center for Global Environmental Studies
 - U.S. Environmental Protection Agency
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- **Contributing Cosponsors:**
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 - Izaak Walton League
 - National Audubon Society
 - National Institute for Emerging Technology
 - National Resources Defense Council
 - National Science Foundation
 - National Wildlife Federation
 - Quebec Ministère de l'Environnement
 - Union of Concerned Scientists
 - United Nations Environment Programme
 - U.S. Council for Energy Awareness
 - U.S. Department of Agriculture/Economic Research Service
 - World Meteorological Organization

December 5-6, 1991,
Washington Plaza Hotel,
Washington, D.C.

Eighth Annual Conference
of the Air Resources
Information Clearinghouse,
a project of the
Center for Environmental
Information, Inc.



7:45 a.m. - 3:30 p.m.

Friday, December 6, 1991

7:45 a.m. - 5:30 p.m.

Thursday, December 5, 1991

Dates and Times:

202-842-1300 or 800-424-1140

Washington, DC 20005

Massachusetts and Vermont Avenues, NW

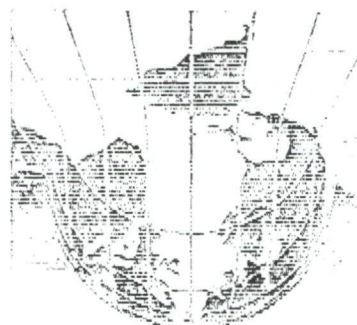
Washington Plaza Hotel

Location:Center for Environmental
Information, Inc.a project of the
Information Clearinghouse,Eighth Annual Conference of the Air Resources
Washington Plaza Hotel, Washington, D.C.
December 5-6, 1991

Center for Environmental Information, Inc.

46 Prince Street

Rochester, New York 14607-1016



GLOBAL CLIMATE CHANGE: LINKING ENERGY, ENVIRONMENT, ECONOMY and EQUITY



Global Climate Change: Linking Energy, Environment, Economy and Equity

Accommodations:

CEI has reserved a block of hotel rooms at the Washington Plaza Hotel. Special room rate for this conference, guaranteed through November 17, is \$88 per night, single or double occupancy. Hotel reservations should be made directly by contacting the Washington Plaza, 800-424-1140. To obtain the reduced rate, be sure to mention the Center for Environmental Information conference.

**Special Airline Rates -
United Airlines:**

Save on travel by taking advantage of airfare discounts offered by United Airlines to all attendees of this conference: 40 percent off unrestricted coach fares or 5 percent off lowest applicable fares. To make reservations with United Airlines, call 800-521-4041 and refer to Meeting Plus I.D. #5190W.

Note on Duplicates:

Use of multiple mailing lists from various sources makes elimination of duplicates impossible. If you receive duplicates of this brochure, please pass them on to colleagues.

Registration Form:

Register me for Global Climate Change: Linking Energy, Environment, Economy and Equity

Name _____	Registration Fee	\$ _____
Address _____	CEU Fee (add \$15)	\$ _____
City/State/Zip _____	Invoicing Fee (add \$15, vouchers only)	\$ _____
Phone _____	TOTAL FEE ENCLOSED	\$ _____

Affiliation _____ Charge to my Mastercard/Visa Account # _____

Title _____

Signature _____

Exp. Date _____

Please review Registration Information before completing this form.

Mastercard/Visa registrations may be faxed to CEI at 716-271-0606.

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**Center for
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November 22, 1991

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We will phone your office later today to learn if there is a possibility. Thank you very much for your consideration.

Sincerely,

Elizabeth Thorndike
Elizabeth Thorndike
President

ET/sc

Enc.

Program - Thursday, December 5, 1991

7:45 a.m. Registration desk open; Continental Breakfast

8:45 Welcome and Introduction

Elizabeth Thornelike,

Center for Environmental Information, Inc.

9:00 Keynote address

RISKING CLIMATE CHANGE: ACTION IN THE**FACE OF UNCERTAINTY****Noel Browne,** Director, Regional Office of North

America, United Nations Environment

Programme (invited)

9:30

Session I: A SUSTAINABLE ENERGY FUTURE:

TECHNOLOGICAL OPTIONS FOR CHANGE

Supply side: How far can efficiency,

conservation and renewables take us in meeting

global energy demands?

Robert Friedman, U.S. Congress, Office of

Technology Assessment

10:00

Break

Demand side: What are options and barriers to

change in engineering, end-use applications and

lifestyle?

Lee Schipper, Lawrence Berkeley Laboratory

Why do cost analyses differ? Model sensitivity

to alternative assumptions.

Richard Richels,

Electric Power Research Institute

11:45

Lunch

12:45 p.m.

Session II: INTEGRATING ENERGY, ECONOMY

AND ENVIRONMENTAL CONCERNSChair - **Nelson Hay,** American Gas Association**"No regrets" Tax Reform****Alex Cristofaro,** Air & Energy Policy Division,

U.S. Environmental Protection Agency

Multiple Benefit Environmental Policies

Daniel Lashof, Natural Resources

Defense Council

Market Mechanisms

Daniel J. Dudek, Environmental Defense

Fund, Inc.

Local/Regional Policies -

Acting Globally by Thinking Locally

Edward Hillsman, Oak Ridge Nat'l. Laboratory

Break

2:45

Session III: IMPLICATIONS FOR DECISION MAK-

3:00

ING

Chair - **Jan Beyea,** National Audubon Society

Sectoral Perspectives

Government - **Howard Gruenspecht,**

U.S. Department of Energy

Electric Utilities - **William Fang,**

Edison Electric Institute

Auto Industry - **Samuel Leonard,**

General Motors Technical Center

Manufacturing - **Ross Stevens, III,**

E.I. DuPont de Nemours & Co., Inc.

4:15

Societal Considerations
Population - **Gretchen Kolrud,**
U.S. Congress Office of Technology

Assessment

The Public as Decision Maker - **Rob Coppock,**

National Academy of Sciences

5:00

Adjourn

Program - Friday, December 6, 1991

7:45 a.m.

Continental Breakfast

8:30

Session IV: STRATEGIES FOR INTERNATIONAL

NEGOTIATIONS

Chair - **William Nize,** Alliance to

Save Energy

Status of Framework Convention Talks

Daniel Reifsnnyder, U.S. Department of State

Equity in International Agreements

Richard Stewart, Georgetown University

Law Center

Break

9:45

Break

10:15

Session V: THE ETHICS OF LIVING IN A

GLOBAL GREENHOUSE

Corporate and Personal Responsibility

Dale Jamieson, University of Colorado

Intergenerational Equity

Douglas McLean, University of Maryland,

Baltimore County

Session VI: EXAMINING THE LINKAGES -

WHICH POLICIES WILL WORK?

Chair - **Milton Russell,** University of Tennessee

and Oak Ridge National Laboratory

A panel of experts representing the perspectives

of science, economics, society, U.S. government,

international agencies, developing nations and

oil producing nations will address the topic.

Richard Wilson, Harvard University**Roger Dower,** World Resources Institute**Charles Herrick,** National Oceanic and

Atmospheric Administration

12:15 p.m. Lunch

1:15

Session continued

U.S. Government (To be announced)

International Agencies - (To be announced)

Ambassador A.H.S. Ataul Karim,

Permanent Mission of Bangladesh to the

United States

Sheik Zaki Yamani, Centre for Global

Energy Studies (invited)

SUMMATION - **Milton Russell**

Adjourn

3:00

3:30

SUMMATION - **Milton Russell**

Adjourn

About the Center:

The Center for Environmental Information (CEI) was established in Rochester, New York in 1974 as an answer to the growing dilemma of where to find timely, accurate and comprehensive information on environmental issues. To meet this need for current and comprehensive information, CEI has developed a multi-faceted program of publications, educational programs and information services. It is a private, nonprofit organization funded by membership dues, fees, contracts, grants and contributions.

CEI acts as a catalyst to advance the public agenda toward soundly conceived environmental policies. CEI's communication network provides a link among the scientific community, educators, decision makers and the public, so that informed action follows the free interchange of information and ideas.

Registration Information:

Fee includes registration materials, proceedings, two continental breakfasts, two lunches, and breaks.

Registration Fee:

Early, postmarked by November 15, \$225
Regular, \$300

Scholarships:

Scholarships are available to a limited number of individuals affiliated with nonprofit organizations and educational institutions. People requesting a scholarship should submit a letter explaining their affiliation, along with the registration form and scholarship fee of \$35 (includes registration materials and breaks; no meals or proceedings). APPLICATIONS MUST BE POSTMARKED BY NOVEMBER 8, 1991. Notification of scholarship award will be made by November 22.

For further information on scholarships, CEI member discounts or multiple registrations, call CEI, 716-271-3550.

Continuing Education Units:

1.2 CEUs will be awarded for satisfactory completion of the program. A \$15 fee for CEU application, processing and award should be added to the registration fee. The CEU is a nationally recognized unit of achievement which may be used as evidence of increased performance capabilities and for job advancement.

Cancellations:

Refunds for cancellations received at the Center by November 22 will be made in full. Cancellations received by December 2 will be charged a \$50 administrative fee. No refunds thereafter. Registrants who fail to attend and do not cancel by the given deadlines are liable for registration fee. Substitutions are allowed.

Confirmation:

Registrations received by November 22 will be confirmed by return mail.

Payment:

Check or voucher must accompany registration, or charge to Mastercard/Visa. A \$15 invoicing fee should be added to the registration fee for voucher use. Make checks payable to Center for Environmental Information.

Please mail the registration form with your payment to:

Center for Environmental Information

46 Prince Street

Rochester, NY 14607-1016

For Information Call:
716-271-3550

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9123602

SPEECH: YES NO

FROM: NEREM, Robert M.: AMERICAN INSTITUTE FOR MEDICAL &
BIOLOGICAL ENGINEERING

DATE OF EVENT: 02/25/92

LOCATION OF EVENT: Nat'l Academy of Sciences Bldg.

TIME OF EVENT:

SUBJECT: INVITATION TO BE THE KEYNOTE SPEAKER ON THE SECOND
DAY OF THE INAUGURAL MEETING OF THE AIMBE.

RSVP: 09/09/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: LIFE SCIENCES

REMARKS:

CLOSED

DATE OF LETTER: 08/14/91

DATE RECEIVED: 08/26/91

FILE: P-INVITATION-SPEECH

THE WHITE HOUSE
WASHINGTON

September 9, 1991

Dear Dr. Nerem:

Thank you for your letter of August 14 inviting me to be the keynote speaker on the 25th at the meeting of the American Institute for Medical and Biological Engineering scheduled for February 24-25, 1992.

I am happy to accept your invitation but must caution you that occasionally I have to cancel engagements at the last moment due to Presidential scheduling. I sincerely hope that this does not happen.

As the time of the meeting approaches, my office will contact your staff to work out details for the event.

I am looking forward to meeting with you.

Sincerely yours,

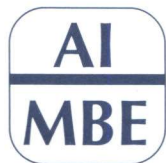
A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written in a cursive style.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Robert M. Nerem
Co-Chairman
School of Mechanical Engineering
Georgia Institute of Technology
Atlanta, Georgia 30332-0405

3602

AMERICAN INSTITUTE FOR MEDICAL AND BIOLOGICAL ENGINEERING



August 14, 1991

RECEIVED

91 AUG 26 P 3:13

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Georgia Institute of Technology
Atlanta, GA 30332-0405
404/894-2768 fax 404/894-2291

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619/534-4278

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305/444-4649

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
Office of Science and Technology Policy
Executive Office of the President
17th Street and Pennsylvania Avenue, N.W.
Washington, D.C. 20506

OFFICE OF THE
DIRECTOR

Dear Dr. Bromley:

This is to invite you to be the keynote speaker on the second day, February 25, of the inaugural meeting of the American Institute for Medical and Biological Engineering. This meeting will be held in the National Academy of Science Building in Washington, D.C. February 24-25, 1992. The theme of this meeting is Medical and Biological Engineering: Past Achievements and Challenges for the Future. The second day of the meeting will address new frontiers in medical and biological engineering, and we believe that this would be an appropriate and desirable forum for you to discuss initiatives being launched due to your leadership, e.g. in the area of biotechnology and biomaterials.

AIMBE is the result of a joint activity between the Alliance for Engineering and Medicine and Biology (AEMB) and the U.S. National Committee for Biomechanics (USNCB). This joint effort was funded by NSF. AEMB has twenty member organizations and USNCB has sixteen member organizations. Although there is some overlap, together the total number of societies represented by these two organizations is thirty. Of course some societies have been more active than others in our joint effort, and these societies are listed below:

American Institute of Chemical Engineers
American Medical Informatics Association
American Society for Artificial Internal Organs
American Society for Mechanical Engineers
Biomedical Engineering Society
IEEE Engineering in Medicine and Biology Society
Orthopaedic Research Society
RESNA, The Rehabilitation Engineering Society
for North America
Society for Biomaterials

This project was an outgrowth of the feeling of many, including some at NSF, that the biomedical

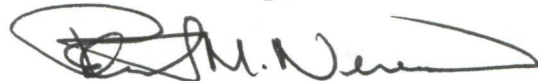
engineering community was not working together. The purpose of this new organization thus is to unify the community and to provide a vehicle where the different societies can work together on issues of mutual interest. To date it has received wide support, and I believe this inaugural meeting will be an auspicious occasion. Since the spirit is to unify, all organizations are being included.

We do expect an attendance of at least 300, and the sessions will be held in the main auditorium of the National Academy of Sciences Building. In addition to the two days of sessions, there will be a dinner on the evening of February 24 where the founding members of the AIMBE College of Fellows will be inducted.

For your information, the organization of this meeting and the extension of an invitation to you has been discussed with Dr. D. A. Henderson, and a copy of this letter is being sent to him. Although he warned us that your schedule is an exceedingly complex one and that the demands on your time are very great, he did encourage us to write you.

I do look forward to hearing from you and hopefully to a favorable reply. We believe that this meeting, with the key people in the country in bioengineering and biotechnology-related applications being in attendance, will be an appropriate forum for you to articulate your views in this area.

Yours truly,

A handwritten signature in dark ink, appearing to read "R. M. Nerem", enclosed within a large, loopy oval flourish.

Robert M. Nerem

RMN/kb

cc: D.A. Henderson

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9123526

SPEECH: YES NO

FROM: WYNNE, JAMES J., Ph.D.: CHAIR, COMMITTEE ON
EDUCATION.

DATE OF EVENT: 03/16/92

LOCATION OF EVENT:

TIME OF EVENT:

SUBJECT: LETTER TO THE PRESIDENT REQUESTING THAT DR. BROMLEY
STAND-IN IF THE PRESIDENT IS UNABLE TO ATTEND A
MEETING OF THE AMERICAN PHYSICAL SOCIETY DURING
WHICH OUTSTANDING HIGH SCHOOL TEACHERS WILL BE
HONORED AS PRESIDENTIAL AWARD RECIPIENTS.

RSVP: 09/04/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

~~YES~~

NO

COPIES TO: INTERNATIONAL/POL
Ken Yale

REMARKS: THE LETTER WAS SENT TO PRESIDENT BUSH. A COPY WAS SENT TO
DR. BROMLEY.

DATE OF LETTER: 08/14/91

DATE RECEIVED: 08/19/91

FILE: P-PRES*INVITATIONS-SPEECH

August 14, 1991

President George Bush
The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

Dear President Bush,

We invite you to present an address on education to the membership of the American Physical Society during its meeting from March 16-19, 1992, in Indianapolis, IN, right in the heartland of America. For this meeting, our Committee on Education is putting together a special session on education, tentatively entitled "Outstanding High School Teachers: The Presidential Awardee Session." It seems especially appropriate to couple you with outstanding teachers, since one of the focal areas of your education agenda, "America 2000," is recognition and professional development of teachers, especially in science and mathematics. We offer you this opportunity to address the nation's professional research physicists on your education agenda, and to share the stage with several of our most outstanding educators, high school teachers who have received Presidential Awards. The message to the audience of physicists will be that all of us must support our teachers, the first line of offense in raising our educational standards, and that we especially honor and recognize the efforts of our outstanding teachers.

In the way of background, the American Physical Society, with a membership in excess of 42,000, has as its goal the advancement and diffusion of the knowledge of physics. To achieve this goal, the APS holds meetings, publishes journals, considers public issues such as nuclear materials proliferation, global warming, and biomedical hazards from low frequency electromagnetic fields, deals with human rights and minority issues in physics, and has an active program concerned with physics education. The March meeting is our largest meeting and is the leading internationally recognized meeting in condensed matter physics, with a regular attendance in excess of 5,000. If you are able to address us, you can be assured of a large and influential audience.

President George Bush
Page 2
August 14, 1991

For our planning purposes, we need to know by December 1, 1991, whether you are able to accept our invitation. Should you accept but are unable to attend because of unplanned demands on your time, we suggest that your science advisor, Allan Bromley, a physicist and a Fellow of our society, would be the best person to appear in your behalf. We look forward to your early response.

Sincerely yours,

ORIGINAL SIGNED BY

James J. Wynne, Ph. D.
Chair, Committee on Education, American Physical Society

cc: D. Allan Bromley
Nicolaas Bloembergen, President, American Physical Society
Ernest M. Henley, President-Elect, American Physical Society
N. Richard Werthamer, Executive Secretary, American Physical Society

P.S. for Dr. Bromley: For planning, coordination, and announcement purposes, we would prefer to schedule this education session for 4-6 pm, on either Monday, March 16 or Tuesday, March 17. We would announce it in the APS Bulletin and make arrangements to have the Presidential Awardee teachers attend the meeting on those days. If the President accepts our invitation with the understanding that you will be his stand-in if he cannot attend, please let us know which day, Monday or Tuesday, to pick for the announcement. Of course, if the President is able to attend but only at a different time and/or on a different day, we will change the plans to accommodate his schedule.

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9123541

SPEECH: YES NO

FROM: GRANT, ROBERT T.: PRESIDENT & CEO, CRC PRESS, INC.

DATE OF EVENT: 02/12/92

LOCATION OF EVENT:

TIME OF EVENT:

SUBJECT: INVITES DR. BROMLEY TO BE A KEY SPEAKER AT A MEETING
OF THE ASSOCIATION OF AMERICAN PUBLISHERS, WHICH
WILL BRING TOGETHER OVER 150 SENIOR EXECUTIVES
RESPONSIBLE FOR PUBLISHING IN THE AREAS OF SCIENCE,
TECHNOLOGY, & THE SOCIAL SCIENCES.

RSVP: 09/04/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES NO

COPIES TO: Steve Olson
PHYSICAL SCIENCES
Michelle Van Clea

REMARKS: THE ASSOCIATION OF AMERICAN PUBLISHERS OFFERS AN
HONORARIUM OF \$1,000.

CLOSED

11/20/91 - Regretted to Diane in Rbt. Grant's office.

DATE OF LETTER: 08/16/91

DATE RECEIVED: 08/19/91

FILE: P-INVITATIONS-SPEECH