## The original documents are located in Box 56, folder "1976/02/09 - Briefing on the Science and Technology Exhibition" of the James M. Cannon Files at the Gerald R. Ford Presidential Library.

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## THE WHITE HOUSE

February 5, 1976

MEMORANDUM FOR:

JOHN O. MARSH, JR.

JAMES CANNON PAUL O'NEILL

GOVERNOR RAYMOND SHAFER

FROM:

THEODORE C. MARRS

This will confirm an earlier call to your office advising of a special meeting scheduled for Monday. February 9, 1976 at 12:15 p.m. in the Cabinet Room at which time the President will be briefed on the Science and Technology Exhibition planned for Cape Canaveral, Florida and then will make an announcement to the Press concerning the project.

In attendance will be representatives from each of the Federal agencies which are involved in the project.

We shall look forward to your attendance.



## U.S. Bicentennial Exposition on Science and Technology

sponsored by the United States Government



## U.S. BICENTENNIAL EXPOSITION ON SCIENCE AND TECHNOLOGY

#### FACT SHEET

The U.S. Bicentennial Exposition on Science and Technology is being organized and managed by NASA at the request of President Ford. All federal agencies concerned with science and technology will exhibit at the Exposition, as will a number of industrial firms, universities, and other institutions.

The Exposition will open May 30 and close September 6. It will be open daily in that period.

The 30-acre Exposition site is adjacent to the impressive Vehicle Assembly Building at Kennedy Space Center, Cape Canaveral, Florida. Fifteen geodesic domes, the VAB and other KSC facilities comprise the site's primary structures. These will house Exposition exhibitry representing the beneficial effects of science and technology to American life in the future.

Each dome is constructed of extruded tubular aluminum, covered by vinyl-coated nylon. The modernistic domes are 120 feet in diameter and provide more than 8,800 square feet of exhibit area.

The Exposition site is one hour from Disney World, two hours from Sea World, and close to many other well attended attractions in Central Florida. Kennedy Space Center, itself, attracted nearly 1.5 million tourists last year; in excess of one million visitors are expected for the Exposition.

Government agencies actively participating in the Exposition include: the Department of Agriculture; American Revolution Bicentennial Administration; Department of Commerce; Community Services Administration; Department of Defense; Environmental Protection Agency; Energy Research and Development Administration; Department of Health, Education and Welfare; Department of Housing and Urban Development; Department of Interior; NASA; National Endowment of the Arts; National Science Foundation; Department of State; Department

of Transportation; Department of Treasury; and the U.S. Postal Service.

Representative descriptions of federal agency exhibits are attached.

USA \*76: THE FIRST TWO HUNDRED YEARS is an exhibition designed by George Nelson and Company, New York, for the ARBA. An overview of the Bicentennial celebration, It will be presented through photographs, sound, films, and a special computerized information center.

A three minute film, "Celebration", will show ways in which the Fourth of July has been commemorated in the past two hundred years. The film expresses, the joy and tumult of the traditional celebration and the idea inherent in the phrase from the Declaration, "Life, Liberty and the Pursuit of happiness."

Another film entitled, "Wilderness", assembled from color transparencies of great landscape paintings, portrays the wonders of the beautiful, awesomely empty and unnervingly quiet landscape that confronted the first explorers and settlers.

"The Making of a Nation" an audio visual display will show how a new society took shape — the frontier town meetings, the quilting bees, the grid plans that became the basis of our urban design, early methods of travel, the influence of Indian culture, the pioneer's "survival kit", early American inventions and the mid-19th Century development of railroads, towns and industry.

A four-minute film, "People, People, People", capsulizes how North America was filled by immigrants from all over the world, beginning with the first arrival of a Mongol on the Bering Land Bridge to the first landing of an astronaut on the Moon.

A visual exhibit, "Changing Times", presents a future American full of problems and promise and emphasizes the citizen's responsibility to deal with the problems and to bring the promise to fruition.

"Portraits of Americans", portrays through 88 photographs, people from all over the country, different and yet somehow alike, and whose common experiences and hope have left a mark of openness, optimism and purpose on their faces.

The final section deals with the three major bicentennial themes, HERITAGE '76, urges us to reexamine our origins and values. FESTIVAL USA — brings all of the country and the world to our doorsteps through Bicentennial special events. HORIZONS '76 challenges every American to become involved with the future. Included is a computer terminal connected

to memory banks of information on Bicentennial plans of communities all over the U.S. Visitors may ask for information on activities in any region, get the answers on a monitor and printout copy for personal use.

#### DEPARTMENT OF AGRICULTURE

The exhibit is planned to demonstrate the USDA capability to assist American agriculture to become the most efficient production, marketing and distribution base in the world and to emphasize the value of these efforts to all American citizens.

There will be three major exhibit areas:

The first area will portray future demands for agriculture; American agricultural growth requirements to meet needs at home and abroad; problems the farmer has now and will face to meet those demands; difficulties of land management as agriculture begins competing with the problems of limited land area.

The second area will present USDA resources the farmer will have in order to meet future demands for production such as plant genetics, insect control and eradication, land management, multiple crop tillage, waste recycling, and food inspection to protect the consumer.

The last area will be an audio visual presentation of some of the most recent research projects that will support future agriculture.

#### COMMUNITY SERVICES ADMINISTRATION

The Community Services Administration (CSA) participation in the U.S. Bicentennial Exposition at Cape Canaveral will present the Agency's basic concept of self-help for low-income citizens and improvement in the quality of life for America's poor. The exhibit will explain the agency's programs and encourage participation of Americans outside the client area of each Community Action Agency.

In approximately 2000 sq. feet of space, CSA will include a retail sales area for various Community Action Agencies and Community Development Corporations' products such as Appalachian crafts, Louisiana crafts, Indian products and Kentucky furniture. Such retail efforts will be complemented by activities showing their construction and use or by special heritage demonstrations.

CSA will share a dome with the National Science Foundation and is working closely with them to assure a harmonious overall presentation.

# DEPARTMENT OF DEFENSE EXHIBITS for the SCIENCE AND TECHNOLOGY EXPOSITION

### Department of the Army

## US Army Satellite Communications

This display depicts through color photos, text and models, the Army's participation in military satellite communications. It describes historic and current Army programs in communications, current and future communications terminals and depicts the Washington-to-Moscow hotline.

## Opto-Electronics Around the World

This display shows the marriage of optical and electrical systems and the applications of the systems. Included are such things as night viewing systems, thermal viewing devices and image intensifiers and other devices of this nature, many of which are finding wide civilian application.

### DOD Food Program

This multi-media presentation shows research underway in special types of food technology. It includes special purpose foods, food preservation and preparation, food life extension research, preparations for special applications and environments, and special foods.

### Department of the Air Force

## Bicentennial Multi-image Production

This production features 777 slides projected on five separate screens during a period of 16½ minutes. The show depicts the history of the Air Force and its contributions to society, making extensive use of sound and famous voices associated with the history of American aviation.

#### Nacelle Fire Detectors

This exhibit consists of an optical infra-red sensor system that demonstrates the reaction time difference between a conventional cable system and the nacelle fire detection system. The new system will make fire detection systems more reliable and more sensitive, both for aircraft and buildings.

#### Energy and Strategic Materials Conservation

This display illustrates how the Air Force seeks to create new ways to conserve expensive and important resources. It demonstrates with pictures and transparencies how the Air Force reclaims scrap to conserve rare and strategic materials.

#### Magno-Hydro Dynamics Coal Research

This display illustrates a concerted Air Force effort to conserve energy by getting more "mileage" from our country's most plentiful fuel resource. Magno-Hydro Dynamics is a new method of burning coal so that more energy (about 75 percent more) is produced from the fuel.

#### X-24B Experimental Lifting Body

This exhibit is the actual test airframe used until recently in a joint Air Force and National Aeronautics and Space Administration flight research program at Edwards Air Force Base. Tests were to determine the wingless craft's handling qualities for an extended near-Earth flight and for conventional runway approach and landing.

#### Engine Emission Research

This exhibit concentrates on methods to improve the environment by making engine emissions less polluting to the atmosphere.

#### Department of the Navy

Final determination of Navy and Marine exhibits has not been made. However, it is expected to include a film-clip of 3 to 5 minutes showing current R&D programs; closed circuit TV showing the "100 Knot Navy" and a piece on the Marine STAMP vehicle; an oceanography exhibit using prints and transparencies, and a variety of models of current and developing systems and vehicles.

#### ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

The exhibit will follow the ERDA plan for energy research, development and demonstration. Fossil and nuclear energy programs will be emphasized and advanced energy technology programs will be described. Conservation programs will be explained as well as environment and safety programs.

A film traces the development of energy in the U.S. for the first 200 years, describes present day energy problems and ERDA's role in alleviating these problems. A second film details alternative solutions to the energy problem.

Audiovisual materials will explain highlights of ERDA's research, development and demonstration programs including synthesizing oil and gas from coal, the technique of recovering oil from shale, the methods of insuring reliability of present day nuclear reactors, the economics of energy generated from nuclear fission, managing radioactive waste and insuring safeguards for fissionable materials.

Presentations will include the breeder reactor and its impact on the efficient use of uranium resources; development of solar energy applications for heating and cooling and for the production of electricity; development of geothermal energy, wind energy in. proper perspective; the promise of nuclear fusion; energy conservation programs; architectural innovations; energy conserving building materials; efficient transmission and distribution of energy; energy conserving transportation systems; and protecting the environment and insuring the safety of all the energy sources.

#### ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency will follow the theme of "Making it Better" in its Bicentennial Exposition exhibit. The exhibit will explore how environment errors of the past can be corrected and prevented from recurring in the future. In following the theme the exhibit will have portions devoted to Understanding the Problem, Finding the Solution and concluding with the Challenge of the Future. Throughout the exhibit the use of science and the latest sophisticated research equipment, technological innovation and the necessity of public support for environmental programs will be highlighted.

## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

A Medical-Health Pavilion "Freedom From Dependence", will feature technological advances in diagnosis, treatment, and instrumentation which, combined with preventive medicine, enables the individual to enjoy better health and a longer life, more free from disabling illness and injury than ever before.

NASA's contributions in the bio-medical field will be portrayed as they now exist and look to their greater future promise. Stress will be placed on research and treatment in cancer and hypertension, and upon little known applications of modern technology to medicine and health care in social security and welfare programs. The role of communications satellites in medicine and health care and in the education of practitioners will be emphasized.

Plans include coordinating a small outdoor area with the HUD exhibit, directed toward young children, and strictly for fun and relaxation.

#### HOUSING AND URBAN DEVELOPMENT

HUD's exhibit "America's New Neighborhoods" incorporates the process of community planning and development with the revitalization of our nation's cities.

It will include technology developments in community planning and housing management such as: management information systems, capacity building for state and local government, fire station location and deployment, public sector productivity and environmental assessment guidelines for state and local officials.

Audio visual displays will deal with new ideas for neighborhood life in a rapidly urbanizing society; the relationship of transportation, and more efficient use of scarce natural resources in crowded metropolitan settings. Special treatment will be given to the subjects of crime, safety, fire safety, barrier-free homes for the handicapped and elderly, energy conservation and solar energy.

#### DEPARTMENT OF THE INTERIOR

The Department of the Interior exhibit at the exposition will have the theme "Development, Utilization and Conservation of Our Natural Resources." Toward this end the exhibit will be organized in seven theme areas—Minerals, Fuels Exploration and Development; Energy; Recycling; Water Resources; Environmental Hazards and Controls; Land Use and Management; and Mapping the Earth's Surface. Displays will include a working model of a river basin, working seismograph, remote sensing, geothermal energy and satellite and aerial photography. Two 40—seat theatres will show Department of Interior films. In addition a six—mile wildlife tour of the Merritt Island National Wildlife Refuge will be available to visitors.

An attractive feature of the exhibit will be a display of 100 aerial photos covering major U.S. cities. Visitors may order copies of their home town if it is available.

#### NATIONAL ENDOWMENT FOR THE ARTS

NEA has commissioned artist Rockne Krebs to execute a laser light, sun and fire sculpture in space, which will occupy one of the exhibit domes. Krebs also will design a poster based on his exhibit, which will be available in a limited silk screen edition.

The theme of Krebs' exhibit is "Home". His intent is to create an imaginative, inspiring experience for the viewer within the dome, incorporating mankind's most ancient and important light source—the sun— along with his first technologically-produced light source—fire—and his most advanced technologically-produced light source—lasers.

Krebs was selected for this work by a special visual arts panel convened to advise NEA on an exhibit. He is the recipient of Guggenheim and NEA Fellowships. His first laser light piece was presented in 1968. Now he is recognized throughout the art world for pioneering the application of laser technology to the creation of works of art.

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

### SPACE, THE NEW FRONTIER

NASA's exhibit will feature major achievements of the United States' space exploration and aeronautical research and future programs under development.

Visitors will tour the Vehicle Assembly Building, largest building America, in which the 360-foot tall Apollo/Saturn space vehicles were assembled for 15 successful manned space flights, including six manned landings on the Moon.

A simulated Apollo/Saturn space vehicle countdown and launch will be viewed in the Launch Control Center. All display consoles and data readouts will be activated to create the identical atmosphere of launching astronauts from Earth to land on the lunar surface.

A lunar exploration will be recreated on a synthetic surface of the Moon, a lunar module, lunar roving vehicle and astronaut manikins.

Viking, the unmanned spacecraft now on a trajectory to orbit and land on the planet Mars this summer will be exhibited in a diorama of the fullscale Viking lander on a simulated martian surface.

Special exhibits will feature current applications satellites which are transmitting Earth resources data and photographs and trans-oceanic television signals.

Displays will demonstrate the operational versitility of the Space Transportation System, which consists of the manned reusable Space Shuttle Orbiter, the Spacelab being developed by the European Space Agency, and the Space Tug.

Aeronautical research displays will explain research programs such as hypersonic design, supercritical wing, quiet engine, airplane fuel conservation, and activities in general aviation and emphasize their contributions to more economical, safer and improved commercial air flight.

#### NATIONAL SCIENCE FOUNDATION

NSF's exhibit will consist of a central core together with four satellite exhibits, concentrating on the promoting the progress of science to assure the national well-being.

The central core exhibit developes a view of science as a human activity which can be better understood through an appreciation of the ways in which scientists perceive familiar phenomena. The visitor will see:

- 1. The processes by which <u>Earth</u> is continually changing its physical features—plate tectonics, continental drift and seafloor spreading.
- 2. How the unique physical characteristics of water make it a universal solvent, a stabilizer of the Earth's temperature, and a major component of all living creatures.
- 3. Fire (energy) as it is transformed from one kind of energy to another, how it is controlled by man to do his work, and also how man is attempting to obtain new sources of energy.
- 4. Air, as a mixture of gases in the atmosphere, as a supporter of life, and as a weather maker.

The satellite exhibits will illustrate current and future applications of developments in scientific research, from the most basic to the most applied, they help us understand ourselves and our world, and their contributions to our daily lives.

- 1. Weather and Climate What's the weather going to be a week from now-or perhaps a thousand years from now? Meteorologists, climatologists, oceanographers, paleobiologists seek to understand short- and long-range phenomena.
- 2. Man's Place in the Universe Astronomers help us understand life-giving Earth-sun relationships and the distant stars and galaxies.
- 3. Learning About the Brain Understanding the brain involves understanding its function as a whole organ and understanding its components and operations down to the molecular level.

4. Underground Space - As environments become more and more crowded, and as space to build becomes harder, or costlier to find, attention turns underground. The prospects for using "under-space" involves research and technology from better ways to remove materials to emerging ways to "see" what's beyond the tunnel face.

#### TREASURY DEPARTMENT

The Exhibit will consist of:

- 1) A film strip on the use of science and technology in law enforcement. It will include: atomic absorption analysis, gun tracing systems, gas chromatography and ink analysis.
- 2) A film strip on the regulation of electronic banking which explains the regulatory aspects of electronic banking, automated teller machines and direct deposit of government checks.
- 3) A display demonstrating the application of technology in law enforcement: sensors, night vision devices, forward-looking infra-red radar (FLIR), Treasury enforcement communications and gas chromatography.
- 4) Sale of the Bicentennial Coin Sets from a special sales area.
- 5) Sale of a specially-designed souvenir card. As tentatively proposed, the card will contain a vignette of Benjamin Franklin discovering electricity contrasted with the Apollo Moon Stamp. Also being considered is a special display of the die carried on the Apollo mission and later used in making the plates for the Apollo Moon Stamp.

#### ITEM TRANSFER REFERENCE FORM

The item described below has been removed.

New File Location: And Tovisual Collection

Document Description: 4 8" x 10" glossy color

photographs relating to the

Bicentennial Exposition on Science

and Technology, Cape Canaveral

Florida

Old File Location: Domestic Council

Files of Vames Cannon

Meetings File

2/9/76 - Briefing on the

Science and Technology

Exhibition

By W.H.M. Date 2/8/82