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Congress of the United States
House of Representatives
Washington, D.C. 20515

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Dr. John Naugle
Associate Administrator
National Aeronautics and Space Administration
Washington, D. C. 20546

Dear Dr. Naugle:

We have supported the inclusion of funding for applications payloads, particularly earth resources systems, in the fiscal 1978 NASA budget. Of particular interest is the Large Format Camera, a precision color mapping camera designed to be operated from the space shuttle. This technological development, which promises the first high resolution photographs of our earth, can provide significant national benefits in the global exploration for energy and mineral resources, as well as a wide range of other uses for engineering, resource management, cartography, and environmental monitoring.

The energy situation, particularly our diminishing supplies of oil, gas, and minerals, will grow increasingly worse over the next several years, as numerous authoritative studies indicate. Considering the need for enhanced energy exploration techniques, as well as the desire to show the potential of our multi-billion dollar space shuttle capability early in its operation, we cannot understand NASA's reluctance to fly this camera system on an early shuttle mission. NASA has advised us that the possibilities which exist for its use in the shuttle are currently limited to the second orbital flight test, in July 1979, and the Space Lab 5 mission, some two years later. We have also been advised that the camera could be easily produced within sixteen months after it is authorized, based on similar experience with the Apollo and Skylab camera systems. Furthermore, there is considerable confidence among potential manufacturers and experimenters based on experience with the Apollo hardware, that the systems integration of the LFC with the shuttle can be accomplished in less than six months, especially considering the shuttle's quick payload change-out capability.

Enclosed are several letters from potential users of this camera's data, indicating the camera's ability and need and recommending an early shuttle mission for its use. The three capabilities it offers, including color, stereoscopic and high resolution photography offer important advantages that are lacking in similar and more costly

systems, such as LANDSAT. Each of these advantages is significant in the search for energy resources and economic mineral deposits. It should be noted that several users, including the U.S. Geological Survey and the GEOSAT committee, representing numerous petroleum and geologic companies have indicated strong support for its use on an early mission.


The benefits in flying the large format camera include the following:

- An early demonstration of the shuttle's capability to fly operational, not only experimental payloads.
- An early demonstration of the camera and its potential uses to geologists, cartographers, and others.
- Wide coverage of the earth. Even the low inclination of OFT-2 (38 degrees) offers photography of major areas in the U.S., Mexico, Central America, Europe, South America, North Africa, the Mideast, and portions of Australia. This coverage includes substantial land area, particularly oil and mineral rich lands surrounding our world's equatorial regions.
- The discovery of a single mineral or oil deposit by this camera could easily demonstrate its value and the shuttle's capability, as well as helping to alleviate serious resource shortages world-wide.
- The early provision of DATA would establish a data-handling base for photography and mapping information some two years earlier.
- The production of this camera for an early mission would also enhance its early use on high-altitude aircraft flights.
- The data base provided at an earlier time could be used in the training of photo geologists, geoscientists and others, in itself a long process.

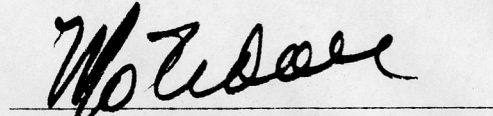
It appears that this camera, which can be produced in the required time on schedule, and would not interfere with the engineering test requirements of these test flights, is not being considered only on the grounds that additional funding would be necessary to integrate the system to the shuttle, at a \$2 million cost, a cost which NASA will probably pay even for the 1981 flight.

We urge you to consider these points in your decision concerning the use of this camera on an earlier shuttle mission.

Sincerely,



PAUL E. TSONGAS, M.C.



MORRIS K. UDALL, M.C.

cc:Dr. Robert Frosch, NASA Administrator
Dr. Frank Press, Science Advisor to the President
Dr. Joe Allen, NASA Legislative Affairs
Mr. Cecil Andrus, Secretary of Interior
Speaker Thomas P. O'Neill, Jr.