

as ocean acidification worsens, it is a very, very real possibility that reefs which we are able to enjoy, that countless species depend on, that many nations depend on for their very survival, some of the coastal nations, our own areas in Florida and elsewhere on the coast depend on for security from storms, when you see these precious resources in peril, it is deeply moving and profoundly troubling.

By recognizing the International Year of the Reef, I hope we can follow what Mr. KIRK said and urge Congress to take more actions to protect these valuable resources. I am proud that we can cosponsor this in a bipartisan fashion, and I will urge passage.

Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Mr. BAIRD. I thank the gentleman from Oklahoma, I thank Mr. KIRK and all the cosponsors of this resolution. Again, this resolution is somewhat of a symbolic act. What we really need to do in addition to this is support the various efforts, both nationally and internationally, to preserve these magnificent resources for generations yet to come and for the entire world.

Mr. Speaker, I have no further requests for time and would yield back the balance of my time and urge a "yes" vote.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Washington (Mr. BAIRD) that the House suspend the rules and agree to the resolution, H. Res. 1112.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the resolution was agreed to.

A motion to reconsider was laid on the table.

CELEBRATING 35 YEARS OF SPACE-BASED OBSERVATIONS OF THE EARTH BY THE LANDSAT SPACECRAFT

Mr. BAIRD. Mr. Speaker, I move to suspend the rules and agree to the resolution (H. Res. 891) celebrating 35 years of space-based observations of the Earth by the Landsat spacecraft and looking forward to sustaining the longest unbroken record of civil Earth observations of the land, as amended.

The Clerk read the title of the resolution.

The text of the resolution is as follows:

H. RES. 891

Whereas the year 2007 represents 35 years of continuous collection of space-based observations of the Earth's land cover by the United States Landsat satellites, which have enabled increased scientific understanding of the interrelationships of the Earth's land cover, energy balance, and biogeochemical processes as well as the realization of numerous societal benefits from the applied uses of the data;

Whereas on July 23, 1972, the National Aeronautics and Space Administration launched

Landsat 1, originally called the Earth Resources Technology Satellite, as the first civilian Earth observation satellite to study the Earth's land cover and monitor natural resources;

Whereas since 1972, the United States Geological Survey has led the data archiving and distribution efforts for the Landsat program, which has continued to collect data without interruption through the successful launches of Landsats 2, 3, 4, 5, and 7, and has established the longest and most comprehensive record of global land surface data ever collected;

Whereas the National Aeronautics and Space Administration, the United States Geological Survey, the Department of Commerce, the Department of Defense, and the private sector have all played a role in Landsat's history;

Whereas Landsat greatly enhanced remote sensing science, helped give rise to a global change research plan and international initiatives to study the Earth system, and led to new types of careers in engineering and natural sciences;

Whereas Landsat data have been used for multiple scientific and applied purposes including cartography, land surveys and land use planning, agricultural forecasting, water resource management, forest management, mapping of sea ice movement, assessment of tropical deforestation, food security, mineral and oil exploration, and global change research;

Whereas Landsat data are being widely used by Federal, local, county, and State governments, and by foreign nations, nongovernmental organizations, private industry, and universities;

Whereas Landsat data are collected at a scale that enables the study of both natural and human-induced changes in land cover over time and their impacts on the Earth's ecosystems;

Whereas Landsat data illuminated for the first time how human decisions, such as the expansion of cities, led to large-scale impacts on the environment;

Whereas the U.S. Climate Change Science Program has recognized Landsat and its long-term data record as instrumental to the study of climate and environmental change, noting that "Landsat data are invaluable for studying the land surface and how it affects and is affected by climate"; and

Whereas the scientific and societal benefits of the Landsat program and its 35-year data record illustrate the significant return on the public investment in Earth observations and the need for continued support for this critical national asset: Now, therefore, be it

Resolved, That the House of Representatives—

(1) expresses its appreciation to all of the dedicated scientists, engineers, and program personnel who have contributed to the successful development and operation of the Landsat program over the past 35 years;

(2) looks forward to another 35 years of continuous Landsat-like observations of the Earth;

(3) urges the continuation of the Landsat program and data record so as to sustain Landsat's value to scientific research, especially the study of global and climate change, and to the myriad applied uses of the data for societal benefit; and

(4) believes that the Nation should continue to support the research, technological improvements, educational outreach, and development of decision making tools required to expand the use of Landsat data separately and as integrated with other Earth observations data.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from

Washington (Mr. BAIRD) and the gentleman from Oklahoma (Mr. LUCAS) each will control 20 minutes.

The Chair recognizes the gentleman from Washington.

GENERAL LEAVE

Mr. BAIRD. Mr. Speaker, I ask unanimous consent that all Members have 5 legislative days to revise and extend their remarks and include extraneous material on H. Res. 891, the resolution now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Washington?

There was no objection.

Mr. BAIRD. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise on this occasion, again I mention it is on Earth Day, to seek support for House Resolution 891, as amended, celebrating 35 years of space-based observation of the Earth by the Landsat spacecraft.

This resolution celebrates the world's longest unbroken record of civil Earth observations of the land beginning with the launch of the first Landsat satellite on July 23, 1972. The data collected from Landsat satellites have helped advance our scientific understanding of global change and fostered applications that benefit our private sector, as well as our State, local, regional and Federal Government activities.

Mr. Speaker, the scientific and applied uses of these space-based land observations are vast. Landsat data are used to monitor crop patterns, manage natural resources such as water and forests, assist in land use and urban growth planning, help protect wildlife habitats and support national security objectives, to name just a few examples. Landsat's 35 year data record has also been critical in helping to understand the interactions between land cover changes and variations in the Earth's climate.

The most recent report of the U.S. Climate Change Science Program Report references Landsat as one of two critical satellites. It states, "Without these satellite observations, the current pace of discovery and innovation in global land use and land cover change climate research would not be possible."

Mr. Speaker, this celebration of Landsat's continuous 35 years record of land observations provides a clear example of the societal benefits derived from our Nation's space program. But there is more to be gained from Landsat data. Increases in computing and communications capabilities are stimulating innovative approaches to using Earth observations data such as Landsat. One need only look to the Internet, where anyone can access images of neighborhoods, cities and regions to see firsthand the ways in which Landsat data are finding their ways into our lives.

Mr. Speaker, in reflecting on the contributions that Landsat has made over

the past 35 years and the growing applications of these data, we must remember that the success of Landsat begins and continues with people. We owe our gratitude to the many talented and hard-working scientists, engineers and other professionals who have been involved in the Landsat program.

I urge my colleagues to support H. Res. 891. As we address the implications of climate change and the pressure on our environment and resources, it is important that we ensure the continuation of the Landsat program and ensure the research, technology and educational investments that are required to expand the use of Landsat data and the benefits they provide to science and society.

Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise to join my colleague in support of H.R. 891, celebrating 35 years of continuous operation of the Federal Government's Earth observing Landsat satellite program. Generations of Landsat satellites have taken and continue to take an uninterrupted record of images of Earth's oceans and lands, enabling resource managers, geologists, climate researchers and scientists to closely monitor land use changes, water consumption, forestry, agricultural and the effects of climate change through the regular acquisition and cataloging of these photographs. This detailed and continuous record of observations offers an unambiguous insight into the changes that are occurring on a global, regional and local scale.

Landsat data and the research findings they enable would not be possible without the excellent cooperation and joint management between NASA, who designs, builds and launches the satellites, and the United States Geological Survey and the Department of Interior, who manage the archives of Landsat data at the National Satellite Land Remote Sensing Data Archives, what a title, located in Sioux Falls, South Dakota. Their data records extend back 33 years.

The early history of Landsat offers a remarkable insight into the events, culture, personalities and institutional jealousies of the 1960s and 1970s. When our earliest astronauts returned from the Mercury and Gemini missions with photographs of the Earth taken from their spacecraft, scientists and engineers quickly began to envision the value of using robotic spacecraft as a means of monitoring land use changes.

However, the Department of Defense initially objected to a space-based civilian reconnaissance satellite out of concern that it would compromise their own spy satellite programs. The Office of Management and Budget also objected, arguing that land use data could be more cheaply acquired by high-flying aircraft.

According to NASA historians, then Secretary of the Interior Stewart L.

Udall, being convinced of the value of space-based civil reconnaissance satellites, announced in 1966 that his department was initiating its own Earth observing satellite program. His pronouncement apparently spurred NASA to take the initiative to proceed in an ambitious manner to build Landsat.

Today, Landsat 5 and Landsat 7 continue to operate in Earth orbit, although both are nearing the end of their operational lives and may not last long enough to overlap the launch of their successor in 2011, called the Landsat Data Continuity Mission. If they both fail, the 35 year record of continuous Landsat coverage will be interrupted, and though it will be disappointing, I am optimistic that other methods of data collection will be able to fill in most of the gaps during that interim.

The Landsat program's data records are an invaluable national resource. The tenacity and the brilliance of the men and women at NASA, at USGS, and the contractors who helped design, build and launch the satellites, as well as manage the huge volume of data generated by the family of Landsat satellites, have created a legacy that will continue to serve our Nation's needs for many, many years to come.

Mr. Speaker, I urge my colleagues to support House Resolution 891.

With that, I reserve the balance of my time.

Mr. BAIRD. I want to thank the gentleman from Oklahoma. It is an astonishing history, isn't it? The fact that we have now got a continuous record of changes at all sorts of levels, changes in ground cover, changes in agriculture, changes in the water resources, et cetera, is an extraordinary resource for a host of uses. Our agriculture community benefits from this, our national parks benefit from this, flood control managers benefit from this.

This Landsat satellite system, which was, as the gentleman from Oklahoma pointed out, once rather controversial, is now seen as something that would be very difficult to plan without. It has produced enormous economic benefits and economic savings.

Who would have thought many decades ago before the space program that one day we would be able to send up remote instruments to look back down on Earth, not from the 40,000 foot level, but much higher, to give us the broad sweep; but not only the temporary snapshot, but the vast look over time, so you can see changes, both constructive changes and the losses. Absolutely incredible and important.

I want to share the gentleman's concern. We need that continuity to continue. Let us hope that the good engineers of NASA have produced an instrument which can last much longer, as they have in many cases, as we see in the Mars rover system, for example. But we need that continuity in the data records so scientists can see what changes have occurred over time with-

out interruption. We need to continue that not only with the proximate, the next Landsat satellite, but future generations as well.

Mr. Speaker, I thank the scientists and engineers, and thank the gentleman from Oklahoma for his support of this resolution.

Mr. Speaker, I reserve the balance of my time.

Mr. LUCAS. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Mr. BAIRD. Again, I want to commend my colleagues for introducing this legislation. I think this is absolutely appropriate, particularly on Earth Day. But it is helpful for us to remember down here on Earth that our lives on Earth are made better by the space program and the observing network that we have up in space that help us anticipate all kinds of potential disasters and avoid those, and also guide us in doing proactive things to improve the health of our great planet.

Mr. Speaker, I yield back the balance of my time and urge a "yes" vote on this resolution.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Washington (Mr. BAIRD) that the House suspend the rules and agree to the resolution, H. Res. 891, as amended.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the resolution, as amended, was agreed to.

A motion to reconsider was laid on the table.

□ 1545

JOHN ARCHIBALD WHEELER

Mr. BAIRD. Mr. Speaker, I move to suspend the rules and agree to the resolution (H. Res. 1118) honoring the life and achievements of John Archibald Wheeler and expressing condolences on his passing.

The Clerk read the title of the resolution.

The text of the resolution is as follows:

H. RES. 1118

Whereas John Archibald Wheeler was born July 9, 1911, in Jacksonville, Florida;

Whereas John Wheeler graduated from high school at age 15 and earned a Ph.D. in physics from Johns Hopkins University at age 21;

Whereas Dr. Wheeler then moved to Copenhagen to work in the field of nuclear physics with pioneering physicist Niels Bohr;

Whereas, while still in his 20s, Dr. Wheeler, then a Professor of Physics at Princeton, along with Dr. Bohr in 1939 worked out the first explanation of how the newly discovered nuclear fission actually worked;

Whereas Dr. Wheeler spent the war years at Hanford, Washington working on the theoretical understanding of nuclear reactions that led to production of plutonium for the bomb dropped on Nagasaki and later worked on the development of the American hydrogen bomb under Project Matterhorn B;

Whereas Dr. Wheeler then returned to Princeton where, after discussion with Albert Einstein, he switched from the study of