

112th Congress Accomplishments



2321 RAYBURN HOUSE OFFICE BUILDING – WASHINGTON, DC 20515 – 202-225-6371

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~Foreword~

Committee Chairman Ralph Hall

Over the past 32 years, it has been an honor and a privilege to serve on the Science, Space, and Technology Committee, and I am particularly grateful for the opportunity to have served as Chairman in the 112th Congress. This Committee's important jurisdiction over our nation's civilian research and development efforts is critical for advancing innovation, growing our economy, and improving the quality of life of all Americans.

Sustained prudent investments in science and technology fuel innovation and contribute to economic growth. The Committee has focused on strong oversight in order to ensure that taxpayer-funded programs are efficient and effective. Despite a constrained budget environment, federal investments in fundamental basic research have remained a top priority. These investments, along with a renewed focus on improving and promoting STEM education, will allow our nation to remain a global leader in science, space, and technology.

Over the past two years, Committee efforts have focused on oversight of the Environmental Protection Agency's endless attempts to develop complex and costly new regulations, and to stifle domestic fossil energy development. Cheap, clean, reliable and abundant energy is essential for economic recovery. By expanding access to federal lands for energy production, promoting smart investments in renewable and alternative fuels, and reducing the red tape and costly regulations that hamper our domestic small energy producers, we can create jobs and help America's manufacturing sector.

This past year we have had to say goodbye to a leading space pioneer and my dear friend Neil Armstrong. He will forever be revered as a true American hero for his role in one of the proudest moments in American history, but also for his courage, grace, and humility. As America transitions from the Space Shuttle, the Committee will continue to play an important role in keeping our space program moving forward, from the development of commercial cargo and crew systems to NASA's Space Launch System. The Committee held numerous oversight hearings in the 112th Congress, and we will continue to closely monitor the transition to ensure America remains a leader in space.

In the 112th Congress this Committee continued its longstanding tradition of working cooperatively to conduct diligent oversight of agencies and programs within its jurisdiction, holding 111 hearings and receiving testimony from 469 witnesses. In an election year when the media has continually maintained that Congress is hopelessly gridlocked, the Science Committee has worked together, providing bipartisan solutions to some of the nation's most pressing concerns. I am proud to have served as Chairman of this important committee.

Sincerely,

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Ralph M. Hall

Space and Aeronautics (S&A)

Human Spaceflight

• The Committee provided strong oversight of NASA's human spaceflight program as the Agency has undergone a period of uncertainty and transition following President Obama's decision to cancel the Constellation Program.

Hearings held:

- <u>A Review of NASA's Exploration Program in Transition: Issues for Congress and</u> <u>Industry</u> – March 30, 2011
- o <u>A Review of NASA's Space Launch System</u> July 12, 2011
- NASA Human Spaceflight Past, Present, and Future: Where Do We Go From Here? – September 22, 2011
- <u>NASA's Commercial Crew Development Program: Accomplishments and</u> <u>Challenges</u> – October 26, 2011
- Examining NASA's Development of the Space Launch System and Orion Crew Capsule – September 12, 2012
- <u>The Future of NASA: Perspectives on Strategic Vision for America's Space</u> <u>Program</u> – December 12, 2012
- The S&A Subcommittee held a <u>hearing</u> to examine ongoing development of NASA's next generation heavy-lift launch vehicle, called the Space Launch System (SLS), the Orion crew capsule, as well as to discuss how these technologies can be used for future scientific missions. These systems will provide the U.S. a capability that has not existed since the Apollo lunar program (1972) the ability to send humans beyond Earth orbit to lunar or other deep space destinations.
- In the final <u>hearing</u> of the 112th Congress, the Committee reviewed the <u>National Research</u> <u>Council report</u> on *NASA's Strategic Direction and the Need for a National Consensus*, as well as received testimony from a distinguished panel of witnesses concerning the need for a national consensus on NASA's strategic direction and vision for the future.

Federal Aviation Administration (FAA) Research and Development (R&D) activities

- The Committee held a <u>hearing</u> and <u>marked up</u> a bill, H.R. 970, to reauthorize R&D activities within the FAA. The bill passed by the Committee reduced authorized spending at FAA by \$140 million, returning the Agency's R&D budget to FY08 levels.
- Chairman Ralph Hall and S&A Subcommittee Chairman Steven Palazzo were the two Republican conferees representing the Committee in negotiating a <u>final agreement</u> on H.R. 658, a bill reauthorizing the FAA through FY15. Language from the Committee's bill H.R. 970 appeared in the final agreement. Among other things, the bill's Research, Engineering and Development title provides the FAA new policy direction related to research on unmanned aircraft systems, developing technologies to modernize our air traffic control system, and ongoing research enabling safer, more reliable, and more fuel efficient aircraft.

NASA Derived Technologies

• The S&A Subcommittee held a <u>hearing</u> to examine the direct economic and societal benefits that investments in NASA have generated. Witnesses discussed a broad range of technologies developed as a result of NASA research and highlighted areas where continued investments could help stimulate the pipeline for future economic growth.

FAA Commercial Space Transportation

- The Committee has full jurisdiction over FAA's Office of Commercial Space Transportation (referred to as AST), which is responsible for licensing commercial spaceports and launch vehicles. This is an area of increasing interest with the emergence of a number of commercial human suborbital space flight ventures. The Committee has closely <u>reviewed</u> the AST budget proposals to make sure it is in line with the office's increasing responsibilities.
- The Space and Aeronautics Subcommittee also held a <u>hearing</u> examining the potential launch markets and applications for suborbital reusable launch vehicles (SRVs), the unique benefits that SRVs offer the scientific community for research, and the regulatory uncertainties that currently have the most impact on the emerging commercial SRV industry. The introduction of new commercial SRVs in the private sector has enabled the emergence of new markets. A number of these new companies are already testing their vehicles and plan to initiate commercial operations within a few years.
- The S&A Subcommittee held a <u>hearing</u> to review FAA management of its liability risksharing program, commonly referred to as "indemnification." Run through FAA AST, the indemnification regime provides federally-supported insurance against injury or property damage to the uninvolved public during launch and reentry of a licensed commercial launch system. Witnesses discussed the importance of continuing this program.
- In November, the House passed <u>H.R. 6586</u>, a bipartisan bill sponsored by Space and Aeronautics Subcommittee Chairman Steven Palazzo (R-MS), extending for two years the indemnification program.

Commercial Orbital Transportation Services (COTS)

- The S&A Subcommittee held a <u>hearing</u> to evaluate the ability, cost, safety, and reliability of commercial providers to meet NASA requirements to deliver cargo to the International Space Station (ISS).
- NASA recently awarded more than \$1.1 billion to three companies to develop competing concepts for human space transportation launch systems. The Committee held a <u>hearing</u> to review NASA's rationale for selecting the three companies; consider the cost and safety implications of these recent decisions; and given the unique nature of Space Act Agreements, examine NASA's ability to evaluate technical and safety requirements.

Planetary Science

• The S&A Subcommittee held a <u>hearing</u> to receive testimony from NASA and the National Academies of Science on the prospects for future exploration of Mars and the future of U.S. planetary science under increasing budgetary pressures.

International Space Station (ISS) Utilization and Operation

- The Committee held a <u>hearing</u> to <u>review</u> plans for operation and utilization of the ISS, as NASA attempts to fully utilize the unique research opportunities the facility offers, while exclusively relying on logistical services from commercial and foreign providers. Given the significant national investment to date in the facility, Congress has directed that NASA maintain a strong research and technology program to take advantage of ISS's unique capabilities.
- The S&A Subcommittee held a <u>hearing</u> to review the impacts that a short-term loss of crew access has on the safe operation and utilization of the ISS. The Subcommittee discussed return-to-flight plans, and the implications of de-crewing the ISS. The hearing also highlighted the importance of ensuring America's strategic access to space and to the ISS.

Aeronautics Research

• The S&A Subcommittee held a <u>hearing</u> to review NASA's Aeronautics Research Mission Directorate (ARMD) budget, programs, and strategies. Aeronautics R&D is critical to the success of our nation's aerospace industrial base, focusing on long-term investments in fundamental aeronautics research, such as flight management systems, efficient turbine engines, and airframe and wing designs. Additionally, ARMD researches and matures technologies that underpin FAA's modernization of its air traffic management system.

The James Webb Space Telescope (JWST)

• The Committee held a <u>hearing</u> to receive testimony from NASA, along with academic and industry stakeholders, on the progress and remaining challenges associated with completing the JWST. While conveying support for JWST and the advances it would bring to the scientific community, several Members voiced concerns regarding significant cost overruns.

Energy and Environment (E&E)

Department of Energy (DOE) Budget Priorities

• The Full Committee held a <u>hearing</u> examining energy policy and budget priorities related to the President's FY13 budget request, including activities within the DOE Office of Science, Energy Efficiency and Renewable Energy (EERE), Advanced Research Projects Agency-Energy (ARPA-E), Fossil Energy, Nuclear Energy, Electricity Delivery and Energy Reliability, and the Loan Guarantee Program Office.

National Laboratories

• The Committee held a <u>roundtable</u> event at Fermi National Accelerator Laboratory (Fermilab) in Batavia, IL, exploring the future of U.S. high energy physics, particularly as it relates to the development of a deep underground science facility to study fundamental physics processes. Committee Members <u>Rep. Judy Biggert</u> and <u>Rep. Randy</u> <u>Hultgren</u> heard from key stakeholders regarding challenges and opportunities associated with ensuring U.S. leadership in science at the "intensity frontier"—physics research that explores fundamental particles and forces of nature aimed at unlocking secrets of how the universe formed and what it is made of.

DOE National Scientific User Facilities

• The E&E Subcommittee held a <u>hearing</u> to examine the role that DOE national scientific user facilities play in enabling basic research that drives innovation and economic growth. The hearing also examined challenges and opportunities associated with user facility planning and management.

DOE Vehicle Technologies Program (VTP)

- E&E Subcommittee Chairman Andy Harris sent a <u>letter</u> to Secretary of Energy Secretary Steven Chu <u>questioning the merits</u> of the Obama Administration's unprecedented spending on alternative vehicle initiatives and requested additional details on DOE's advanced vehicle activities. In particular, Harris expressed concern with President Obama's proposal to create a new \$1 billion advanced vehicle deployment program. The letter also called on DOE to provide documents regarding over \$126 million in funding provided to Ecotality.
 - The Administration responded to Harris's original letter on May 1, 2012, but provided incomplete answers to many of the questions posed in the original letter, and several requests were outright ignored. Subcommittee Chairman Harris sent multiple follow-up <u>letters</u> requesting additional information and documents.
- The E&E Subcommittee held a <u>hearing</u> to examine the DOE's Vehicle Technologies Program, specifically focusing on management and oversight of DOE's alternative vehicle research, development, demonstration, and commercialization activities. Republicans <u>criticized</u> the Administration's record spending on VTP activities and highlighted frequent examples of poor management, a lack of transparency, and underperformance.

DOE Office of Energy Efficiency and Renewable Energy (EERE)

- The Committee provided close oversight of significant increases in EERE's funding in order to ensure that programs are managed efficiently, duplication is limited, and funding is allocated appropriately and effectively.
- The E&E Subcommittee held a <u>hearing</u> to examine DOE's "green technology RD&D porgrams and analyze DOE's budget request for such programs and the relative prioritization therein. The Subcommittee received testimony from EERE, ARPA-E, and the Department's Loan Guarantee Program Office.
- Committee Chairman Ralph Hall called for DOE's Energy Information Administration (EIA) to prepare an economic analysis, detailing the economic impacts of President Obama's proposal to mandate a national Clean Energy Standard (CES). The report estimated electricity generation costs and economic conditions under various CES scenarios. The analysis projects that in 2035 a CES would increase electricity generation costs by almost 30 percent nationwide, and significantly higher than that in certain regions of the country. Household electricity bills would increase by \$115 per year in 2025, and by \$211 in 2035. Gross Domestic Product would be reduced by between \$74 billion and \$127 billion annually during that time period.
- The E&E and I&O Subcommittees held <u>a joint hearing</u> to examine renewable energy tax preferences, and their impact on the commercial application of renewable energy technologies. Witnesses discussed recently expired, current, and renewable energy tax preferences, including the "Section 1603" tax credit, a major energy subsidy in the President's Stimulus bill that provides companies lump-sum cash payments for up to 30 percent of a project's cost. The Subcommittees received testimony highlighting far fewer jobs resulted from the program than expected.

Federal Climate Research Activities

- The Committee held a <u>hearing</u> to examine processes used to generate key climate change science, and information used to inform policy development and decision-making. Committee Republicans have been adamant that decisions on climate activities must be based on solid and thorough science.
- The Committee held a <u>hearing</u> to review the Administration's budget request proposal to reorganize NOAA to create a climate service. Republicans objected to this proposal based on concerns that the focus to create a climate service would severely harm vital research at NOAA, transferring resources away from fundamental science to mission-oriented research and service-driven products. The House <u>approved</u> an appropriations amendment offered by Chairman Hall to bar NOAA from spending money to create the Climate Service, and in response to Congressional pressure, the Obama Administration withdrew its proposal.

Fossil Energy R&D

Unconventional Oil and Gas

- Throughout the 112th Congress, the Committee held a number of hearings examining various challenges and opportunities associated with development of U.S. unconventional oil and gas resources.
- In April, the Committee held a <u>hearing</u> examining technology and policy pathways to develop more domestic unconventional oil resources. At the hearing, witnesses <u>highlighted findings</u> of a recent report by Citigroup Inc. that declared the U.S. could become "the largest liquid producer in the world and looks almost certain to overtake Russia and Saudi Arabia before the decade is over." Republicans criticized the Administration for pursuing policies that discourage unconventional resource development, such as: opposing drilling in ANWR, restricting development in the Gulf of Mexico and Outer Continental Shelf, rejecting the Keystone XL pipeline, and blocking over a million acres of public land from oil shale development.
- In May, the E&E Subcommittee held a <u>hearing</u> to examine challenges and opportunities associated with expanding development and use of unconventional oil and gas production technologies. Witnesses noted that continued advances and breakthroughs in technology will help facilitate the development of unconventional resources, and stressed the need for access to Federal lands for energy development. DOE Assistant Secretary for Fossil Energy testified that while the Administration considers oil shale part of an "all of the above" energy strategy, the Department was not conducting any oil shale research activities or requesting any funding for oil shale, in spite of the massive potential associated with developing U.S. oil shale resources.
- In November, Chairman Hall introduced legislation to direct DOE to undertake research, development, and demonstration activities to enable the safe and responsible production of America's vast unconventional oil and gas resources. <u>HR 6603</u>, the *Tapping America's Energy Potential through Research and Development Act of 2012*, would increase energy security and affordability by encouraging the prudent development of U.S. energy resources.
- The E&E Subcommittee held a <u>hearing</u> to examine the research needs and priorities related to the development of America's unconventional oil and gas resources, and to receive testimony on H.R. 6603. Witnesses provided testimony on the past successes of unconventional oil and gas research and development at DOE, and discussed the potential impact of future RD&D in the unconventional space.

Coal

• The E&E Subcommittee held a <u>hearing</u> to examine current DOE coal RD&D activities and identify future opportunities and priorities. Despite success of steadily improving efficiency and achieving significant reductions in traditional pollutants associated with coal-fired power plants, the Obama Administration has shifted RD&D activities to focus myopically on carbon capture and sequestration technology. Witnesses <u>discussed</u> the benefits of research into advanced technologies to increase coal utilization efficiency and benefit the environment.

Hydraulic Fracturing

• The Committee held a <u>hearing</u> to review the technology and practices of natural gas production using hydraulic fracturing. Witnesses questioned the methods, scope, and objectivity of a draft study plan released by EPA, looking into the long term effects of hydraulic fracturing on drinking water. All of the witnesses, including Dr. Paul Anastas of EPA, conceded that <u>not a single case of drinking water contamination</u> has ever been substantiated in the U.S. Dr. John Holdren, the President's science advisor, also confirmed this at a separate committee hearing.

- Chairman Ralph Hall, E&E Subcommittee Chairman Andy Harris and I&O Subcommittee Chairman Paul Broun sent a <u>letter</u> to EPA Administrator Lisa Jackson requesting additional information on EPA's planned study on hydraulic fracturing and drinking water. Citing assurances from EPA officials during the May 11, 2011 hearing that the development of the final study plan would be open and transparent, the letter points out several instances where such commitments have been ignored and question the process of data collection prior to the issuance of the final study plan.
- The E&E Subcommittee held a <u>hearing</u> to review the EPA's approach to ground water research in Pavillion, Wyoming. Witnesses highlighted a number of concerns with the EPA's December 8, 2011 release of a <u>draft report</u> which summarized the Agency's findings in its groundwater investigation in Pavillion. The concerns expressed include the failure of the Agency to adequately consult with state and federal experts, the release of conclusions prior to adequate peer review, lack of adherence to information quality guidelines, a lack of data transparency, and sampling and monitoring well issues that call into question many of the results.
- E&E Subcommittee Chairman Andy Harris sent a <u>letter</u> to EPA Administrator Lisa Jackson outlining concerns with "EPA's confusing and questionable approach to hydraulic fracturing." The letter pointed out three highly publicized instances in which the EPA leapt to scientific conclusions before having all the facts, only to later retract or revise its claims. The letter also expressed concern with the Agency's conduct in carrying out their Plan to Study the Potential Impacts of Hydraulic Fracturing.
- Chairman Ralph Hall and Committee Members Rep. Dana Rohrabacher (R-CA) and E&E Subcommittee Chairman Harris sent a <u>letter</u> to EPA Administrator Lisa Jackson expressing concerns about transparency and balance in regards to the forthcoming selection of panelists to serve on an ad hoc Science Advisory Panel. The ad hoc panel will review the Agency's "Progress Report" on the hydraulic fracturing study, due out before the end of the year. The letter outlines concerns with previous panels that reviewed this study, in particular a 2010 SAB ad hoc panel that failed to include experts with applied technical experience in hydraulic fracturing, or adequate state, local, and tribal representation.

Federal Ocean Research Activities

- The Committee continued to evaluate the President's National Policy for the Stewardship of the Ocean, Coasts, and Great Lakes, which adopted the Interagency Ocean Policy Task Force recommendations aimed at addressing the future of our oceans.
- The E&E Subcommittee held a <u>hearing</u> to examine harmful algal blooms (HABs) and hypoxia research, specifically focusing on response needs to develop and implement action plans to monitor, prevent, mitigate and control both marine and fresh water bloom and hypoxia events.
- In July 2011, the Committee approved <u>H.R. 2484</u>, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011, authorizing a targeted research plan to improve efforts to monitor, prevent, mitigate and control algal blooms.

Nuclear R&D

• The E&E and I&O Subcommittees held a joint hearing to examine nuclear energy safety, risk assessment, public health protection, and associated scientific and technical policy issues in the United States in light of the earthquake and tsunami in Japan.

Science at the Environmental Protection Agency (EPA)

- The E&E Subcommittee held a two-part <u>hearing</u> to review R&D activities at EPA and how such activities support program needs. Members discussed how EPA's scientific justification for many of its rules and regulations have been questioned based on concerns with data quality, peer review, lack of transparency, and other process problems. Witnesses examined the need for changes to the Environmental Research, Development and Demonstration Act (ERDDA), which authorizes science activities at EPA.
- The <u>second day</u> of this two-part hearing provided external perspectives on the need to reform science activities at EPA, explore the intersection of Agency-supported science and its regulatory mission, and receive focused recommendations to raise the level, quality, usefulness, and objectivity of EPA science.

Mid-level Ethanol Blends

- The Committee held a <u>hearing</u> to examine the scientific and technical issues related to EPA's waiver decisions permitting mid-level ethanol blends of up to 15 percent ethanol (E15) in gasoline. Witnesses <u>criticized</u> the scientific and technical evaluations used by the EPA in making their decision and highlighted numerous risks that could be extremely costly to consumers.
- The E&E Subcommittee held a <u>hearing</u> to examine motor fuel standards currently in place and under consideration. Witnesses discussed the scientific foundations for such standards and their inherent conflicts and unintended consequences for the U.S. motor fuel supply. In an effort to prevent environmental degradation from increased volumes of biofuels mandated by the Renewable Fuel Standard (RFS) and to accommodate this expanded production, EPA is pursuing several regulatory approaches that threaten to raise the price of fuel and needlessly damage private property.
- In February, the Committee <u>approved</u> H.R. 3199, introduced by Vice Chairman, Rep. Jim Sensenbrenner (R-WI), which requires the EPA to coordinate with the National Academy of Sciences to comprehensively assess scientific and technical research on E15 before such fuels may be approved for consumer use.
- Committee Vice Chairman Jim Sensenbrenner (R-WI) and Rep. Chip Cravaack (R-MN) sent a <u>letter</u> to EPA Administrator Lisa Jackson questioning EPA's decision to mandate consumers purchase at least four gallons of fuel from blender pumps that dispense both E15 and E10 gasoline-ethanol blends. The letter also questions EPA's decision to enact this mandate outside of the normal rulemaking and public comment process, and requests documentation regarding the technical basis for this decision.

Clean Air Act Rules

• The Committee held a <u>hearing</u> to review the scientific, procedural, and technical basis of the EPA's Cross-State Air Pollution Rule, including a discussion of economic, employment and reliability impacts. Witnesses discussed the unclear processes and data EPA used in creating the CSAPR and explored economic, employment, and reliability impacts of implementation.

- E&E Subcommittee Chairman Andy Harris sent a <u>letter</u> to the EPA Assistant Administrator Gina McCarthy following up on questions from Dr. Harris at the Committee's September 15 <u>hearing</u> on EPA's Cross –State Air Pollution Rule. The letter asks for the analysis used in establishing EPA health estimates, more information on potential double-counting of benefits associated with reductions in fine particulate matter, and the basic epidemiological data sets that form the basis for EPA's regulations.
- The E&E Subcommittee held a <u>hearing</u> to examine EPA's process for setting standards under the Clean Air Act. Witnesses <u>described</u> potential shortcoming in the assumptions, models, and data used to project costs of compliance and the associated health and environmental benefits.
- The E&E Subcommittee held a <u>hearing</u> to examine the process used by the White House Office of Information and Regulatory Affairs (OIRA) and the EPA in evaluating the costs and benefits of federal environmental regulations, including the recently announced Carbon Pollution Standard for New Power Plants. Republicans stressed that EPA regulations are often underpinned by secret science, hidden data, and black box models, precluding meaningful peer review and thorough scientific analysis.
- E&E Subcommittee Chairman Andy Harris and I&O Chairman Paul Broun sent a <u>letter</u> to Cass Sunstein, Administrator of the White House Office of Information and Regulatory Affairs (OIRA), questioning the scientific and economic accounting practices used by the Environmental Protection Agency (EPA) to justify numerous Clean Air Act rules. The letter follows up on questions raised at recent hearings on EPA's <u>Cross-State Air Pollution Rule</u>, and the <u>use of science</u> by the Agency and the Clean Air Scientific Advisory Committee when setting ambient air quality standards.

Clean Water

• E&E Subcommittee Chairman Andy Harris and Committee on Transportation and Infrastructure Subcommittee on Water Resources and Environment Chairman Bob Gibbs (R-OH) sent a <u>letter</u> to EPA Administrator Lisa Jackson requesting information on two water studies related to the Agency's efforts to expand regulatory jurisdiction under the Clean Water Act (CWA) through Agency guidance. The letter sought information on the scientific, technical, and legal justifications and bases for the proposed and final guidance. The <u>letter</u> criticizes the process used by EPA to advance the new changes, noting the Agency's use of Guidance circumvents the traditional rulemaking process and threatens to result in de facto new regulations that could potentially cause significant economic harm to numerous industries.

Energy Critical Elements

• The E&E Subcommittee held a <u>hearing</u> to examine research needs and priorities relating to Energy Critical Elements, most notably "rare earths," and to examine <u>H.R. 2090</u>, the Energy Critical Elements Advancement Act of 2011, a bill introduced by Rep. Randy Hultgren (R-IL). China currently holds a position of market dominance of these elements, which are essential for advanced energy technologies. The Subcommittee discussed the role federal research and development could play in addressing supply concerns without interfering with private market forces.

Oil Spill Response and Recovery

• The Committee continued its oversight of the cause and impact of the Deepwater Horizon oil spill, holding a <u>hearing</u> to examine industry and Federal efforts to identify and address safety and response technology challenges since the spill, and how Federal programs in these areas can best be structured and prioritized.

NOAA/NWS Weather Prediction

- The E&E Subcommittee held a <u>hearing</u> to examine how the National Oceanic and Atmospheric Administration (NOAA) develops, evaluates, and executes plans to deliver the best and most cost-effective data necessary to meet requirements for severe weather prediction and other observational needs. The core mission of NOAA's NWS is to protect life and property, and its success is dependent on obtaining data necessary to generate accurate forecasts. This data is obtained through a mix of observing systems located in space, the atmosphere, on land, and in the ocean. Members and <u>witnesses at the hearing</u> questioned the efficiency of NOAA's approach for prioritizing weather measurement systems.
- The Committee held a <u>hearing</u> to examine the state of drought forecasting, monitoring, and decision-making and the role that the National Integrated Drought Information System (NIDIS) serves in drought planning. Representing the culmination of a legislative effort led by Committee Chairman Ralph Hall (R-TX) in 2006, the goal of NIDIS is to improve the nation's capacity to proactively manage drought-related risks by providing those affected with the best available information and tools to assess the potential impacts of drought. Witnesses provided testimony and suggestions on draft legislation to reauthorize the program.
 - Chairman Ralph Hall and Representative Dan Boren (D-OK) <u>introduced</u> legislation to improve Federal efforts to prepare for and respond to drought. The bill, <u>H.R. 6489</u>, would reauthorize the National Integrated Drought Information System (NIDIS), which brings together information from across the federal government and consolidates and disseminates drought-related data on an ongoing basis.

Technology and Innovation (T&I)

Department of Homeland Security (DHS) R&D

- The Committee continued to monitor the maturation of DHS, particularly focusing on the reorganization of the Science and Technology Directorate, and the research and technology programs associated with the Domestic Nuclear Detection Office.
- The T&I Subcommittee held a <u>hearing</u> in which members on both sides of the aisle stressed a need for comprehensive and transparent R&D activities to address technology needs of today and tomorrow. Particularly, they <u>emphasized</u> the need for more efficient screening technologies, both at our nation's borders and airports.
- The Full Committee also held a <u>hearing</u> to examine federally-funded R&D of threat detection technologies. <u>Witnesses discussed</u> the evolution of threat detection, including how future threats are anticipated, as well as the ways in which stakeholders conduct and apply research to protect the public and mitigate threats. Further, witnesses explored how relevant federal agencies and laboratories coordinate and work with the private sector to ensure that research supports marketable and economical products.
- The T&I Subcommittee held a hearing and marked up <u>H.R. 2463</u>, the Border Security Technology Innovation Act of 2011. The bill <u>focuses</u> research at the DHS's Science and Technology Directorate on key long-term endeavors.

National Institute of Standards and Technology (NIST)

- The Committee conducted program oversight for NIST, and other programs in the Department of Commerce, paying special attention to the evaluation of their impact on the private sector. An example of such a program is the National Network for Manufacturing Innovation (NNMI).
- In May, the Subcommittee held a <u>hearing</u> to examine the Administration's plan for NNMI. The NNMI is designed to promote development of manufacturing technologies with broad applications through collaboration between the federal government and public and private sector stakeholders.
- The T&I Subcommittee held a <u>hearing</u> to examine the Administration's budget request for NIST in the context of the President's overall priorities for NIST.
- The Committee is keenly aware that the nation's competitive position can be dramatically improved, or weakened, depending on how standards for different products and processes are developed. NIST is the only federal agency with long-term expertise working in this arena.

Cybersecurity

- The Committee monitored NIST's role in information technology, in particular, keeping federal agencies' cyber systems safe through the Federal Information Security Management Act implementation.
- H.R. 2096, the *Cybersecurity Enhancement Act of 2012*, introduced by Committee Member Rep. Michael McCaul (R-TX), <u>reauthorized and enhanced</u> many cybersecurity R&D activities conducted by NIST and was passed by the House in May 2012.

Department of Transportation (DOT) R&D Programs

- The Committee conducted oversight of federal surface transportation R&D programs, particularly focused on effectiveness and redundancy. The Subcommittee held a <u>hearing</u> that reviewed the research, development, and technology (RD&T) activities of the Department of Transportation.
- Chairman Hall introduced H.R. 3833, the DRIVES Act of 2012, strengthening R&D transportation programs at DOT.
- Chairman Ralph M. Hall (R-TX) and Committee Member Rep. Chip Craavack (R-MN) <u>participated</u> in the Conference Committee that negotiated a final deal on the Transportation Bill that allowed states to undertake major transportation improvements and create jobs.

American Economic Competitiveness

- The Committee held a <u>hearing</u> to evaluate steps to reduce federal barriers to domestic and international competitiveness for U.S. companies and to analyze how the federal government, industry and other organizations promote these principles internationally.
- In March, the T&I Subcommittee held a <u>hearing</u> to better understand how federal policies and regulations affect competition, innovation and job growth, and to solicit input from leaders of innovative companies on ways to improve economic and regulatory policy.
- In September the T&I Subcommittee held a <u>hearing</u> on the adoption and advancement of health information technology (HIT), <u>examining</u> how federal funding for HIT has influenced patient care and encouraged innovation.

Job Creation through Innovation

- In April, the T&I Subcommittee held a <u>hearing</u> to review efforts supporting the flexible and innovative utilization of spectrum, while ensuring continued growth of the wireless economy.
- The Subcommittee held a <u>hearing</u> that examined the status of efforts to develop open standards for smart grid technologies and drive innovation within smart grid development.
- The Subcommittee also held a <u>hearing</u> to examine the current state of small, innovative startup companies, which are engines of both transformative innovations and job creation.
- Last year, the Subcommittee held a hearing <u>examining</u> cloud computing's role in U.S. innovation and competitiveness.

Technology Transfer

- The Committee continued to seek recommendations for improvements in the technology transfer incentives built into law by the Bayh-Dole and Stevenson-Wydler acts and the Small Business Innovation Research (SBIR) Program. The T&I Subcommittee held a hearing that examined the role of SBIR and the Small Business Technology Transfer (STTR) programs in promoting innovation.
- In June, the Subcommittee held a <u>hearing</u> to learn about different approaches universities and nonprofits are taking to transfer the results of federally-funded research.

US Fire Administration (USFA)

- The U.S. Fire Administration is responsible for the Assistance to Firefighters grant program, and the Committee has closely monitored the direction of this program as the organizational structure of the Department has come together.
- The T&I Subcommittee held a <u>hearing</u> to examine the priorities of the fire service community for the future of the USFA. Continuing attention is important to assure first responders have the necessary support and training.
- In response to recommendations to improve the program, Rep. Judy Biggert (R-IL) introduced <u>H.R. 6229</u>, the *United States Fire Administration Reauthorization Act of 2012*, which passed the House as part of the National Defense Authorization Act at the end of the 112th Congress.

Natural Hazards Monitoring and Impact Reduction

- The Committee monitored interagency research programs to identify improvements in building and infrastructure designs to protect and provide early warning for natural disasters. For example, in April of 2011 the Subcommittee held a <u>hearing</u> that examined earthquake risk in the United States.
- In December 2011, the Committee <u>approved</u> H.R. 3479, the *National Hazards Risk Reduction Act of 2011*, reauthorizing the activities of the National Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program. Both programs are targeted federal research and development efforts to mitigate the loss of life and property due to wind and earthquake related hazards.

Research and Science Education (R&SE)

National Science Foundation (NSF)

- With the 2010 reauthorization of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act, the Committee has continued to oversee the NSF and has paid special attention to the implementation, execution, and effectiveness of new programs.
- The Committee held two hearings to examine the Administration's proposed fiscal year 2012 and 2013 budget requests for NSF.
- The Committee held a <u>hearing</u> to conduct oversight of the merit review grant award process, particularly the NSF merit-based process, and its effect on federally funded scientific research in an effort to understand the strengths and potential weaknesses of the process.
- The R&SE Subcommittee held a <u>hearing</u> that examined federal investments in the social, behavioral, and economic sciences in order to better understand the impact of this type of research and to assess its value to the American taxpayer.
- The R&SE Subcommittee held a <u>hearing</u> to ensure the NSF Inspector General is working to provide the best stewardship of American taxpayer dollars.
- The Committee held a <u>field hearing</u> in Chicago, Illinois to examine the NSF Innovation Corps program and assessed its value to the American taxpayer and its potential contribution to the nation's future prosperity.

Research Universities

- The Committee reviewed the future outlook for U.S. research universities. In June, the Subcommittee held a hearing to examine the challenges faced by the nation's research universities. In response to a 2009 Congressional request, the National Research Council of the National Academies assembled a group of experts and, in June 2012, issued the report, *Research Universities and the Future of America: Ten Breakthrough Actions Vital to our Nation's Prosperity and Security.* In it, they provide recommendations to "assure the ability of the American research university to maintain the excellence in research and doctoral education needed to help the United States compete, prosper, and achieve national goals." The hearing examined the 150th anniversary of the Morrill Act and provided insight into the future of these universities and also discussed the recently released National Academies study,.
- R&SE Subcommittee Chairman Mo Brooks sent a <u>letter</u> requesting a Government Accountability Office (GAO) review of regulatory actions that hinder our nation's research universities. The GAO letter was in response to discussions from hearings and with additional stakeholders and a recommendation identified in the June 2012 National Academies report, *Research Universities and the Future of America: Ten Breakthrough Actions Vital to our Nation's Prosperity and Security*, to "reduce or eliminate regulations that increase administrative costs, impede research productivity, and deflect creative energy without substantially improving the research environment."

Academic/Industry Partnerships

• The Committee reviewed the effectiveness and consequences of academic/industry partnerships. In August, the Subcommittee held a follow-up hearing to the June hearing on the National Academies report, *Research Universities and the Future of America: Ten Breakthrough Actions Vital to our Nation's Prosperity and Security*, exploring the necessary relationships between industry and research universities. The hearing examined the challenges and opportunities faced in fueling the research necessary for American economic prosperity and how universities are adequately preparing the future workforce to meet the needs of industry.

Science, Technology, Engineering and Mathematics (STEM) K-12 Oversight

- STEM education is a vital component in the evolving economy and the Committee has actively worked towards improving STEM education activities from pre-K through graduate education and beyond, in order to cultivate a top-notch future scientific and technical workforce, including well-qualified teachers in STEM fields.
- The Committee held a *STEM in Action* series of four hearings that highlighted STEM education activities across the nation.
 - The *STEM in Action* series began with a <u>hearing</u> to showcase the finalists, parents, teachers, and mentors of the ExploraVision Awards National Competition.
 - The <u>second hearing</u> showcased a variety of public/private partnerships and initiatives that are successfully inspiring the future STEM workforce.
 - The third was a <u>field hearing</u> held in Texarkana, Texas that highlighted the role of community colleges, specifically the importance of their partnerships and contributions to the local economy, workforce, and other aspects of the community.
 - The <u>final hearing</u> of the series examined the approaches to encourage and assist STEM professionals looking to transition their knowledge and skills from industry to a second career in teaching or to give back to classroom education as a mentor.
- Last fall, the R&SE Subcommittee held a <u>hearing</u> to review and examine the findings of the National Research Council report, *Successful K-12 STEM Education: Identifying Effective Approaches in Science, Technology, Engineering, and Mathematics*, as requested by Congress in 2009 to identify highly successful K-12 schools and programs in STEM.
- The Subcommittee held a <u>field hearing</u> in Madison, Alabama to highlight local STEM education programs and partnerships and to examine their impact on the next generation of STEM professionals, local jobs, and the U.S. economy.

U.S. Antarctic and Arctic Programs

- The U.S. has conducted operations on the Antarctic continent under the terms of the Antarctic Treaty System which entered into force in 1961, and U.S. research activities in the Arctic predate the Antarctic Treaty Sytem. The NSF serves as the steward for U.S. interests in Antarctica.
- In November, the Committee held a <u>hearing</u> to review the future options and logistical recommendations of the U.S. Antarctic Program Blue Ribbon Panel Report, *More and Better Science in Antarctica through Increased Logistical Effectiveness*, and to <u>examine</u> the work and goals of the U.S Antarctic Program.

NSF Major Research Equipment and Facilities Construction (MREFC) program

- The Committee continued to monitor and oversee NSF's MREFC program, including how priorities for projects are developed, long-term budgeting for such priorities, and decision-making with regards to ever-changing scientific community needs.
- Two hearings were held on NSF's MREFC program. The <u>first hearing</u> highlighted the <u>management</u> and operations of MREFC projects at the NSF. The <u>second hearing</u> examined the <u>planning</u>, management, operations, and stewardship of major multi-user research facilities funded through the NSF.

Government-wide R&D initiatives in emerging fields

- The R&SE Subcommittee held a <u>hearing</u> on nanotechnology to examine the National Nanotechnology Initiative (NNI) and address the nation's R&D priorities for the future. The hearing provided <u>ample background</u> on the science and applications of nanotechnology.
- The R&SE Subcommittee also held a joint hearing to examine Federal agency efforts to <u>improve</u> our national cybersecurity and prepare the future cybersecurity talent needed for national security.
- Finally, the R&SE Subcommittee held a <u>hearing</u> to review the networking and information technology research development (<u>NITRD</u>) program to ensure U.S. leadership in networking and information technology and to discuss priorities for the future.

Investigations and Oversight (I&O)

Yucca Mountain Nuclear Repository

- In a joint Subcommittee <u>hearing</u>, members examined the recommendations contained in the Blue Ribbon Commission on America's Nuclear Future (BRC) Draft Report to the Secretary of Energy. Members questioned the specific direction that Energy Secretary Steven Chu gave the BRC to exclude consideration of Yucca Mountain as an option for spent fuel storage. Republicans <u>stressed</u> that any serious review of spent fuel management has to recognize the decades of research and billions of dollars already invested in Yucca Mountain.
- The full Committee held a <u>hearing</u> in February 2012 to examine the recommendations in the BRC Report, as well as broader science and technology issues associated with spent nuclear fuel management. While not allowed to discuss Yucca as an option, the BRC said that "deep geologic disposal is the scientifically preferred approach." Republicans called for the Nuclear Regulatory Commission to release the Safety Evaluation Report of Yucca Mountain and move ahead with licensing the facility.
- Committee Members wrote a <u>letter</u> to the Nuclear Regulatory Commission (NRC) calling for the release of information related to its scientific and technical evaluation of the Yucca Mountain nuclear waste repository. In particular, the <u>letter</u> requests Volume III of the NRC's *Safety Evaluation Report Related to Disposal of High-Level Radioactive Wastes in a Geologic Repository at Yucca Mountain, Nevada.* After a <u>follow-up letter</u> in March, the Committee obtained a copy of the unredacted report.
- After careful analysis, the Committee released a <u>report</u>, prepared by the Majority Staff, outlining the findings from numerous document requests and official correspondence between Committee Members and Administration officials over the last two and a half years, regarding the termination of Yucca Mountain as a nuclear waste repository. The <u>report</u> details the complete absence of scientific information and analysis used to support the shutdown decision, and reviews Administration actions in the context of promises and specific guidelines on scientific integrity, openness, and transparency set forth by President Obama and senior Administration officials.

Oversight of Deepwater Horizon Gulf Oil Spill

• I&O Subcommittee Chairman Paul Broun sent several letters to agency officials regarding multiple incidents relating to the misuse, mischaracterization, and manipulation of science in the aftermath of the BP Oil Spill. The <u>letters</u> sought answers related to the following: the development of the Administration's Oil Budget, the determination that "75 percent of the oil is gone," the mischaracterization of peer review relating to the Department of Interior's Report titled, " increased Safety Measures for Energy Development on the Outer Continental Shelf," the mischaracterization of peer review associated with the Oil Budget, and the muzzling of National Oceanic and Atmospheric Administration scientists related to worst-case flow rates.

NOAA Satellite Modernization

- The Committee continued close oversight of satellite modernization at the National Oceanic and Atmospheric Administration (NOAA), holding two joint I&O E&E Subcommittee hearings. In a September 2011 <u>hearing</u>, Members reviewed the impact of the Administration's decision to restructure NOAA's polar-orbiting weather satellite system (JPSS) and impacts on the nation's forecasting abilities.
- In June 2012, the Subcommittees held another joint <u>hearing</u> on both NOAA's polarorbiting (JPSS) and geostationary (GOES) weather satellite systems. Witnesses discussed serious problems related to persistent cost overruns, schedule delays, and the implications of an impending gap in weather data.

NOAA Senior Management Travel Expenses

• I&O Subcommittee Chairman Paul Broun sent several <u>letters</u> to NOAA **Administrator Jane Lubchenco** requesting details of travel expenses by senior management at the Agency. Months after the initial request, NOAA still refuses to provide details on senior management travel. At a time when NOAA and the Department of Commerce are <u>scrutinizing</u> scientists' participation in conferences, the Subcommittee questioned whether staff used travel funding appropriately. Both letters can be found <u>HERE</u>.

Secret Alias Email Accounts used by EPA Top Officials

 Letters were sent to the EPA and various agency Inspectors General by Committee Members questioning whether senior personnel conducted official business through secretive means such as aliases and private email accounts. Reports claimed that EPA Administrator Lisa Jackson used an alias email address under the name "Richard Windsor" to conduct official Government business. This reported incident follows similarly secretive and highly questionable methods of communication by senior officials at science agencies within the White House, DOC, and DOE. The letters highlight concerns that such behavior by senior Obama Administration appointees may violate the Federal Records Act, Freedom of Information Act (FOIA), the Presidential Records Act, and other statutes designed to facilitate transparency and oversight.

Mismanagement of Funds at National Weather Service (NWS)

- I&O Subcommittee Chairman Paul Broun sent a <u>letter</u> to Department of Commerce (DOC) Secretary John Bryson and NOAA Administrator Jane Lubchenco requesting details on potential funding irregularities within NWS. He followed up with a <u>letter</u> requesting a full and unredacted copy of an Investigative Report on funding irregularities at NWS.
- The I&O Subcommittee held a <u>hearing</u> to investigate the events that led to the unauthorized reprogramming of millions of dollars at NWS. A 2011 NOAA report and a 2012 joint NOAA and Department of Commerce investigative <u>report</u> provide the basis for memos that acknowledge a financial unit that "operated outside the bounds of acceptable financial management" and employees engaged in the transfer of potentially millions of NWS funds, all without Congressional authorization or notification.

NASA Cybersecurity

• The I&O Subcommittee held a <u>hearing</u> to examine the state of information security at NASA and recent NASA Office of the Inspector General (IG) reports concerning information security, the steps NASA is taking to address the recommendations contained in those reports, and future challenges to the Agency's information security posture. Many of the technologies developed and utilized by NASA are just as useful for military purposes as they are for civil space applications, making cybersecurity at the Agency critical.

NASA Export Control

• I&O Subcommittee Chairman Paul Broun sent a <u>letter</u> to the GAO requesting a review of NASA's export control policies. NASA develops and employs sensitive dual-use technologies that are protected by a variety of controls, but there have been allegations that NASA centers have allowed unapproved individuals access to sensitive technologies.

Critical Minerals, Materials, and Isotopes

• The I&O Subcommittee held a <u>hearing</u> to discuss the federal perspective on a national critical materials strategy, including how the U.S. can assure access to rare earth elements, materials, minerals, and isotopes that are critical to U.S. national interests. Recent shortages and supply concerns highlighted the need for vigilant monitoring of U.S. access to these materials.

American Recovery and Reinvestment Act (Stimulus) Oversight

- The I&O Subcommittee held a <u>hearing</u> to examine efforts to create employment in the alternative energy and energy efficiency industries, particularly through Stimulus. The Subcommittee explored the effectiveness of loan guarantees, subsidies, tax incentives, regulations, mandates, research, and other federal efforts to create green jobs.
- The I&O Subcommittee held another <u>hearing</u> to receive an update on accountability, transparency, and performance issues associated with the Stimulus bill, focusing on efforts by agency Inspector General Offices, the Government Accountability Office, and the Recovery, Accountability, and Transparency Board to monitor Stimulus funding.
- E&E Subcommittee Chairman Andy Harris sent a <u>letter</u> to Energy Secretary Steven Chu questioning the appropriateness of several projects funded through DOE as a result of Stimulus spending. Under one such project, DOE partnered with the state of New York to provide \$1.6 million to a beer distributor to convert its delivery trucks from diesel to compressed natural gas. The <u>letter</u> requests additional details from DOE regarding the programs that funded these projects, and requests that DOE work to improve disclosure and transparency of Stimulus spending.

The Advanced Research Projects Agency – Energy (ARPA-E)

• The I&O Subcommittee held a <u>hearing</u> to review the efforts of ARPA-E, a DOE agency tasked with funding cutting-edge energy research. The Agency's mission is to direct funds to be spent "in areas that industry by itself is not likely to undertake because of technical and financial uncertainty." Members outlined concerns over ARPA-E funds being used to accelerate work already being pursued by the private sector, public sector duplication and the funding of late-stage technology demonstrations.

Risk Assessment

- As the number and complexity of regulations increases throughout federal and state governments, the risk assessments that inform those decisions are garnering more attention. The Committee continued oversight of how risk assessments are developed and how they are used in the regulatory process to ensure that policies are based on the best available science.
- The I&O Subcommittee held a <u>hearing</u> to better understand the process behind the development of EPA's IRIS chemical risk assessments and to explore the recommendations from the National Academy of Sciences on how EPA could improve the program.
- The I&O Subcommittee held a joint hearing with the Small Business Committee Subcommittee on Healthcare and Technology to examine how the HHS's National Toxicology Program (NTP) develops its Report on Carcinogens (RoC) classification, and how these reports affect small businesses. Members discussed concerns about how the RoC is developed and how its findings are communicated.
- I&O Subcommittee Chairman Paul Broun, E&E Subcommittee Chairman Andy Harris, along with Senators David Vitter (R-LA) and James Inhofe (R-OK) sent a letter to Dr. Linda Birnbaum, Director of NTP, and Dr. Paul Anastas, Assistant Administrator of the EPA's Office of Research and Development, regarding the results of a review of research at the Ramazzini Institute in Italy. In their letter, the Subcommittee chairmen and Senators request a complete and unredacted copy of the PWG report, a summary of the weight of evidence placed on the Ramazzini Institute's work in IRIS' assessment for reference doses of methanol, an update on the status of EPA's position on whether to accept recent peer review of the non-cancer effects of methanol and a list of all chemical assessments that include, or may include in the future, work performed at the Ramazzini Institute.

Green Building Rating Systems

• The I&O Subcommittee held a <u>hearing</u> to examine the science that various green building ratings systems are based upon. The General Services Administration (GSA) and DOE invest in green buildings through federal R&D funding and construction choices. Members <u>stressed</u> that building standards that truly save taxpayers money and put Americans to work is a good idea, but that Congress needs solid metrics that identify where federal investments will have the most cost-effective impact.

Scientific Integrity

- In a <u>hearing</u> in June with Dr. John Holdren, Director of the White House Office of Science and Technology Policy, Republicans raised <u>many concerns</u> with the Administration's initiatives and priorities, including:
 - Issues related to scientific integrity, transparency and data access;
 - Concerns over policies to restrict oil and gas exploration and production, and reject the Keystone pipeline;
 - Concerns over EPA regulations on coal plants, refineries, automobiles, and numerous other industries that ultimately will raise energy prices for all Americans;
 - Concerns over the Administration's research direction for nuclear reactors at the Department of Energy (DOE); and
 - Concerns over the President's proposed Clean Energy Standard (CES) that would mandate Americans buy electricity from more expensive and less reliable energy sources such as wind and solar power.

Public Access to Federally Funded Research

• The I&O Subcommittee held an <u>oversight hearing</u> to examine various models for disseminating federally funded research and their corresponding effects on the scientific process. With the federal government funding 31 percent of research conducted in the country, access to the outcomes of the research is of significant interest to scholarly journals, researchers, and taxpayers who want access to what they have already paid for.

The Transportation Security Administration's (TSA) SPOT Program

• The Subcommittee held a <u>hearing</u> to examine TSA's efforts to incorporate behavioral science into its transportation security architecture through its Screening of Passengers by Observational Techniques (SPOT) program. The hearing highlighted that DHS failed to scientifically validate the program before operationally deploying it and examined the state of behavioral science as it relates to the detection of terrorist threats to the air transportation system.

GPS Interference

- The Committee investigated concerns and issues associated with interference on the Global Positioning System (GPS) signal from the proposed LightSquared LLC terrestrial broadband network. Potential interference could disable the GPS signal used for critical U.S. Government services and science missions.
- Chairman Ralph Hall along with a group of seven Committee Republicans sent a <u>letter</u> to the White House Office of Science and Technology Policy and a <u>letter</u> to the Office of Management and Budget (OMB), requesting documents related to the Administration's involvement with the telecommunications company LightSquared.

Nexus of Science and Policy in the Endangered Species Act

• The I&O Subcommittee held a <u>hearing</u> to highlight how science is used in policy decisions that are made under the Endangered Species Act (ESA). Numerous judicial disputes over ESA-related actions underscore the challenges in weighing best available science against other policy considerations, often under short deadlines. Since its passage in 1974, it has been the subject of considerable debate – not only about its impact on our nation's economy— but also about its ultimate effectiveness. Of the roughly 2,000 species listed as endangered or threatened, only about one percent have recovered.

Science of Hunting and Conservation

• The I&O Subcommittee held a <u>hearing</u> to examine the science used to inform wildlife management decisions that involve hunting. In addition to hunting on federal, state, and local public lands, privately owned game ranches also enable hunting of specific species of animals, including some that are either endangered or extinct internationally. Witnesses discussed how these ranches play an important part in the effort to boost the overall numbers of certain species, including their reintroduction into the wild. Existing federal regulations that authorized limited hunting of these species have been challenged in federal courts, resulting in a January 2012 final rule issued by the Fish and Wildlife Service that poses new challenges to these game ranches, ultimately impacting species conservation.

EPA Bristol Bay Watershed Study

• I&O Subcommittee Chairman Paul Broun sent a <u>letter</u> to EPA Administrator Lisa Jackson requesting a briefing on a draft scientific study of the Bristol Bay watershed and its natural resources. The letter notes that the draft assessment is based on a hypothetical mine scenario, and Chairman Broun expressed the concern that EPA is attempting to create a new mechanism to prevent mining, despite the fact that state, local, and federal regulations already exist.

NOAA Fishery Enforcement Cases

- I&O Subcommittee Chairman Paul Broun sent a <u>letter</u> to the DOC requesting the release of two unredacted reports, authored by Judge Charles B. Swartwood, reviewing potential abuses by *National Oceanic and Atmospheric* Administration (NOAA) personnel toward individuals in the fishing industry.
 - The following week, Secretary of Commerce Rebecca Blank announced that NOAA will return fines to eligible fishermen, in the range of approximately \$540,000 to 14 complainants, due to personnel within NOAA "overstepping the bounds of propriety and fairness."

<u>112th Congress Committee Hearings</u>

First Session of the 112th Congress

Feb. 16, 2011 - Subcommittee on Space and Aeronautics - A Review of the Federal Aviation Administration's Research and Development Programs

Feb. 17, 2011 - Full Committee on Science, Space, and Technology - An Overview of the Administration's Federal Research and Development Budget for Fiscal Year 2012

Mar. 2, 2011 - Full Committee on Science, Space, and Technology - The National Aeronautics and Space Administration Fiscal Year 2012 Budget Request

Mar. 3, 2011 - Full Committee on Science, Space, and Technology - The Department of Energy Fiscal Year 2012 Research and Development Budget Request

Mar. 10, 2011 - Full Committee on Science, Space, and Technology - An Overview of the Fiscal Year 2012 Research and Development Budget Proposals at the National Oceanic and Atmospheric Administration and the Environmental Protection Agency

Mar. 11, 2011 - Full Committee on Science, Space, and Technology - An Overview of the Fiscal Year 2012 Budget Proposals at the National Science Foundation and the National Institute of Standards and Technology

Mar. 15, 2011 - Subcommittee on Technology and Innovation - An Overview of Science and Technology Research and Development Programs and Priorities at the Department of Homeland Security

Mar. 30, 2011 - Subcommittee on Space and Aeronautics - A Review of NASA's Exploration Program in Transition: Issues for Congress and Industry

Mar. 31, 2011 - Full Committee on Science, Space, and Technology - Climate Change: Examining the Processes Used to Create Science and Policy

Mar. 31, 2011 - Subcommittee on Technology and Innovation - The Role of Small Business in Innovation and Job Creation: The SBIR and STTR Program

Apr. 6, 2011 - Subcommittee on Investigations and Oversight - Behavioral Science and Security: Evaluating TSA's SPOT Program

Apr. 6, 2011 - Subcommittee on Energy and Environment - Offshore Drilling Safety and Response Technologies

Apr. 7, 2011 - Subcommittee on Technology and Innovation - Are We Prepared? Assessing Earthquake Risk Reduction in the United States

Apr. 13, 2011 - Subcommittee on Investigations and Oversight - Green Jobs and Red Tape: Assessing Federal Efforts to Encourage Employment

Apr. 14, 2011 - Subcommittee on Research and Science Education - Nanotechnology: Oversight of the National Nanotechnology Initiative and Priorities for the Future

May 5, 2011 - Subcommittee on Space and Aeronautics - Office of Commercial Space Transportation's Fiscal Year 2012 Budget Request

May 11, 2011 - Full Committee on Science, Space, and Technology - Review of Hydraulic Fracturing Technology and Practices

May 13, 2011 - Joint Hearing held by the Subcommittees on Investigations and Oversight and Energy and Environment - Nuclear Energy Risk Management

May 25, 2011 - Joint Hearing held by Subcommittees on Research and Science Education and Technology and Innovation - Protecting Information in the Digital Age: Federal Cybersecurity Research and Development Efforts

May 26, 2011 - Subcommittee on Space and Aeronautics - NASA's Commercial Cargo Providers: Are They Ready to Supply the Space Station in the Post-Shuttle Era?

June 1, 2011 - Subcommittee on Energy and Environment - Harmful Algal Blooms: Action Plans for Scientific Solutions

June 2, 2011 - Subcommittee on Research and Science Education - Social, Behavioral and Economic Science Research: Oversight of the Need for Federal Investments and Priorities for Funding

June 14, 2011 - Subcommittee on Technology and Innovation - Transportation Research Priorities: Maximizing Return on Investment of Taxpayer Dollars

June 14, 2011 - Subcommittee on Investigations and Oversight - The Federal Perspective on a National Critical Materials Strategy

June 15, 2011 - Subcommittee on Energy and Environment - An Examination of DOE's Clean Technology Programs

June 16, 2011 - Full Committee on Science, Space and Technology - STEM Education in Action: Learning Today...Leading Tomorrow.

June 22, 2011 - Full Committee on Science, Space, and Technology - Examining NOAA's Climate Service Proposal

July 7, 2011 - Subcommittee on Energy and Environment - Hitting the Ethanol Blend Wall: Examining the Science on E15

July 12, 2011 - Full Committee on Science, Space, and Technology - A Review of NASA's Space Launch System

July 14, 2011 - Subcommittee on Investigations and Oversight - EPA's IRIS Program: Evaluating the Science and Process Behind Chemical Risk Assessment

July 26, 2011 - Subcommittee on Research and Science Education - The Merit Review Process: Ensuring Limited Federal Resources are Invested in the Best Science

September 8, 2011 - Subcommittee on Technology and Innovation - Empowering Consumers and Promoting Innovation Through the Smart Grid

September 8, 2011 - Full Committee on Science, Space, and Technology - Impacts of the LightSquared Network on Federal Science Activities

September 13, 2011 - Full Committee on Science, Space, and Technology - STEM in Action: Inspiring the Science and Engineering Workforce of Tomorrow

September 15, 2011 - Full Committee on Science, Space, and Technology - Out of Thin Air: EPA's Cross-State Air Pollution Rule

September 21, 2011 - Subcommittee on Technology and Innovation - The Next IT Revolution?: Cloud Computing Opportunities and Challenges

September 21, 2011 - Subcommittee on Research and Science Education - Oversight of the Networking and Information Technology Research and Development Program and Priorities for the Future

September 22, 2011 - Full Committee on Science, Space, and Technology - NASA Human Spaceflight Past, Present, and Future: Where Do We Go From Here?

September 23, 2011 - Joint Hearing held by the Subcommittee on Investigations and Oversight and the Subcommittee on Energy and Environment - From NPOESS to JPSS: An Update on the Nation's Restructured Polar

Weather Satellite Program

September 26, 2011 - Field Hearing- Hearing held by the Full Committee - STEM Education in Action: Communities Preparing for Jobs of the Future

October 4, 2011 - Subcommittee on Energy and Environment - Quality Science for Quality Air

October 12, 2011 - Subcommittee on Research and Science Education - What Makes for Successful K-12 STEM Education: A Closer Look at Effective STEM Education Approaches

October 12, 2011 - Subcommittee on Space and Aeronautics - The International Space Station: Lessons from the Soyuz Rocket Failure and Return to Flight

October 13, 2011 - Subcommittee on Investigations and Oversight - The Endangered Species Act: Reviewing the Nexus of Science and Policy

October 13, 2011 - Subcommittee on Energy and Environment - Advancing Coal Research and Development for a Secure Energy Future

October 26, 2011 - Full Committee on Science, Space, and Technology - NASA's Commercial Crew Development Program: Accomplishments and Challenges

October 27, 2011 - Joint Hearing held by Subcommittee on Investigations and Oversight and Subcommittee on Energy and Environment - Review of the Blue Ribbon Commission on America's Nuclear Future Draft Recommendations

November 2, 2011 - Subcommittee on Technology and Innovation - Creating and Growing New Business: Fostering U.S. Innovation

November 2, 2011 - Subcommittee on Energy and Environment - Conflicts and Unintended Consequences of Motor Fuel Standards

November 3, 2011 - Subcommittee on Research and Science Education - STEM In Action: Transferring Knowledge from the Workplace to the Classroom

November 15, 2011 - Subcommittee on Space and Aeronautics - Exploring Mars and Beyond: What's Next for U.S. Planetary Science?

November 17, 2011 - Subcommittee on Energy and Environment - Fostering Quality Science at EPA: The Need for Common Sense Reform

November 30, 2011 - Subcommittee on Investigations and Oversight - Stimulus Oversight: An Update on Accountability, Transparency, and Performance

November 30, 2011 - Subcommittee on Investigations and Oversight - Fostering Quality Science at EPA: Perspectives on Common Sense Reform

December 6, 2011 - Full Committee on Science, Space, and Technology - The Next Great Observatory: Assessing the James Webb Space Telescope

December 7, 2011 - Subcommittee on Energy and Environment - Energy Critical Elements: Identifying Research Needs and Strategic Priorities

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January 24, 2012 - Subcommittee on Investigations and Oversight - A Review of the Advanced Research Projects Agency-Energy

February 1, 2012 - Subcommittee on Energy and Environment - Fractured Science – Examining EPA's Approach to Ground Water Research: Pavillion Analysis

February 3, 2012 - Subcommittee on Energy and Environment - Fostering Quality Science at EPA: Perspectives on Common Sense Reform – Day II

February 8, 2012 - Full Committee on Science, Space and Technology - Assessing America's Nuclear Future – A Review of the Blue Ribbon Commission's Report to the Secretary of Energy

February 17, 2012 - Full Committee on Science, Space, and Technology - An Overview of the Administration's Federal Research and Development Budget for Fiscal Year 2013

February 28, 2012 - Subcommittee on Research Science Education - An Overview of the National Science Foundation Budget for Fiscal Year 2013

February 29, 2012 - Subcommittee on Technology and Innovation - Promoting Innovation, Competition, and Economic Growth: Principles for Effective Domestic and International Standards Development

February 29, 2012 - Subcommittee on Investigations and Oversight - NASA Cybersecurity: An Examination of the Agency's Information Security

March 1, 2012 - Full Committee on Science, Space, and Technology - An Overview of the Department of Energy Research and Development Budget for Fiscal Year 2013

March 6, 2012 - Subcommittee on Technology and Innovation - An Overview of the National Institute of Standards and Technology Budget for Fiscal Year 2013

March 6, 2012 - Subcommittee on Energy and Environment - An Overview of the National Oceanic and Atmospheric Administration and the Environmental Protection Agency Budgets for Fiscal Year 2013

March 7, 2012 - Full Committee on Science, Space, and Technology - An Overview of the National Aeronautics and Space Administration Budget for Fiscal Year 2013

March 8, 2012 - Subcommittee on Research and Science - NSF Major Research Equipment and Facilities Management: Ensuring Fiscal Responsibility and Accountability

March 20, 2012 - Subcommittee on Space and Aeronautics - An Overview of the Office of Commercial Space Transportation Budget for Fiscal Year 2013

March 27, 2012 - Subcommittee on Technology and Innovation - Fostering the U.S. Competitive Edge: Examining the Effect of Federal Policies on Competition Innovation, and Job Growth

March 28, 2012 - Full Committee on Science, Space, and Technology - Securing the Promise of the International Space Station: Challenges and Opportunities

March 28, 2012 - Subcommittee on Energy and Environment - To Observe and Protect: How NOAA Procures Data for Weather Forecasting

March 29, 2012 - Subcommittee on Investigations and Oversight - Federally Funded Research: Examining Public Access and Scholarly Publication Interests

April 17, 2012 - Full Committee on Science, Space, and Technology - Tapping America's Unconventional Oil Resources for Job Creation and Affordable Domestic Energy: Technology and Policy Pathways

April 18, 2012 - Subcommittee on Research and Science Education - NSF Major Multi-User Research Facilities Management: Ensuring Fiscal Responsibility and Accountability

April 18, 2012 - Subcommittee on Technology and Innovation - Avoiding the Spectrum Crunch: Growing the Wireless Economy through Innovation

April 19, 2012 - Joint Hearing held by the Subcommittee on Investigations & Oversight and Energy and Environment - Impact of Tax Policies on the Commercial Application of Renewable Energy Technology

April 25, 2012 - Joint Hearing held by the Subcommittee on Investigations and Oversight and Subcommittee Healthcare and Technology - How the Report on Carcinogens Uses Science to Meet its Statutory Obligations, and its Impact on Small Business Jobs

April 26, 2012 - Subcommittee on Space and Aeronautics An Overview of the NASA Aeronautics Research Mission Directorate Budget for Fiscal Year 2013

April 30, 2012 - Subcommittee Research and Science Education STEM Education in Action: Local Schools, Non Profits, and Business Doing Their Part to Secure America's Future

May 8, 2012 - Subcommittee on Investigations and Oversight - The Science Behind Green Building Rating Systems

May 9, 2012 - Subcommittee on Research and Science Education - Ensuring the Best Stewardship of American Taxpayer Dollars at the National Science Foundation

May 10, 2012 - Subcommittee on Energy and Environment - Supporting American Jobs and the Economy through Expanded Energy Production: Challenges and Opportunities of Unconventional Resources Technology

May 17, 2012 - Subcommittee on Technology and Innovation - Working for Fire Safe America: Examining United States Fire Administration Priorities

May 31, 2012 - Subcommittee on Technology and Innovation - Assembling the Facts: Examining the Proposed National Network for Manufacturing Innovation

June 6, 2012 - Subcommittee on Space and Aeronautics - An Examination of FAA's Launch Indemnification Program

June 6, 2012 - Subcommittee on Energy and Environment - EPA's Impact on Jobs and Energy Affordability: Understanding the Real Costs and Benefits of Environmental Regulations

June 19, 2012 - Subcommittee on Technology and Innovations - Best Practices in Transforming Research into Innovation: Creative Approaches to the Bayh-Dole Act

June 19, 2012 - Subcommittee on Investigations and Oversight - The Science of How Hunting Assists Species Conservation and Management

June 20, 2012 - Full Committee on Science, Space, and Technology - The Office of Science and Technology Policy: Examining Priorities and Effectiveness of the Nation's Science Policies

June 21, 2012 - Subcommittee on Energy and Environment - Department of Energy User Facilities: Utilizing the tools of Science to Drive Innovation through Fundamental Research

June 27, 2012 - Subcommittee on Research & Science Education - The Role of Research Universities in Securing America's Future Prosperity: challenges and Expectations

June 27, 2012 - Joint Hearing held by the Subcommittee on Investigations & Oversight and Subcommittee on Energy & Environment - Continuing Oversight of the Nation's Weather Satellite Programs: An Update on JPSS and GOES-R

July 12, 2012 - Subcommittee on Space and Aeronautics - Spurring Economic Growth and Competitiveness Through NASA Derived Technologies

July 16, 2012 - Subcommittee Research and Science Education - Innovation Corps: A Review of a New National Science Foundation Program to Leverage Research Investments

July 19. 2012 - Full Committee on Science, Space, and Technology - Keeping America Secure: The Science Supporting the Development of Threat Detection Technologies

July 25, 2012 - Full Committee on Science, Space, and Technology - Drought Forecasting, Monitoring and

Decision-making: A Review of the National Integrated Drought Information System

July 26, 2012 - Subcommittee on Energy and Environment - Review of DOE Vehicle Technologies Program Management and Activities: Assuring Appropriate and Effective Use of Taxpayer Funding

August 1, 2012 - Subcommittee Research and Science Education - The Relationship Between Business and Research Universities: Collaborations Fueling American Innovation and Job Creation

August 1, 2012 - Subcommittee on Space and Aeronautics - The Emerging Commercial Suborbital Reusable Launch Vehicle Market

September 12, 2012 - Subcommittee on Space and Aeronautics - Examining NASA's Development of the Space Launch System and Orion Crew Capsule

September 12, 2012 - Subcommittee on Investigations and Oversight - Mismanagement of Funds at the National Weather Service and the Impact on the Future of Weather Forecasting

September 14, 2012 - Full Committee on Science, Space and Technology - Recent Development in NASA's Commercial Crew Acquisition Strategy

November 14, 2012 - Subcommittee on Technology and Innovation - Is "Meaningful Use" Delivering Meaningful Results?: An Examination of Health Information Technology Standards and Interoperability

November 15, 2012 - Full Committee on Science, Space, and Technology - The U. S. Antarctic Program: Achieving Fiscal and Logistical Efficiency While Supporting Sound Science

Committee Bills that Passed the House

H.R. 4158, To confirm full ownership rights for certain United States astronauts to artifacts from the astronauts' space missions

H.R. 6586, To extend the application of certain space launch liability provisions through 2014

H.R. 658, FAA Modernization and Reform Act of 2012 (FAA Reauthorization)

H.R. 1473, Department of Defense and Full-Year Continuing Appropriations Act, 2011 (DOD Appropriations; PL 112-10)

H.R. 1540, National Defense Authorization Act for Fiscal Year 2012

H.R. 1309, Flood Insurance Reform Act of 2011

H.R. 2112, Consolidated and Further Continuing Appropriations Act, 2012 (CR; PL 112-55)

H.R. 3463, To reduce Federal spending and the deficit by terminating taxpayer financing of presidential election campaigns and party conventions and by terminating the Election Assistance Commission

H.R. 2105, Iran, North Korea, and Syria Nonproliferation Reform and Modernization Act of 2011

H.R. 2845, Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011

H.R. 4257, Federal Information Security Amendments Act of 2012

H.R. 4281, Surface Transportation Extension Act of 2012

H.R. 4310, National Defense Authorization Act for Fiscal Year 2013

H.R. 4348, MAP-21

- H.R. 5325, Energy and Water Development and Related Agencies Appropriations Act, 2013
- H.R. 5326, Commerce, Justice, Science, and Related Agencies Appropriations Act, 2013
- H.R. 5855, Department of Homeland Security Appropriations Act, 2013
- H.R. 6064, Temporary Surface Transportation Extension Act of 2012
- H.R. 6213, No More Solyndras Act
- H.R. 970, Federal Aviation Research and Development Reauthorization Act of 2011 (Part of H.R. 658 FAA)
- H.R. 3833, DRIVES Act of 2012 (Part of HR 4348 MAP-21)

H.R. 6229, United States Fire Administration Reauthorization Act of 2012 (Passed the House as part of Conference Report for H.R. 4310 NDAA)

- H.R. 4310, National Defense Authorization Act for Fiscal Year 2013 Conference Report
- H.R. 2096, Cybersecurity Enhancement Act of 2012
- H.R. 3834, Advancing America's Networking and Information Technology Research and Development Act of 2012
- S. 99, American Medical Isotopes Production Act of 2011 (Part of Conference Report for H.R. 4310 NDAA)