# ESA Counterplan

## 1NC Solvency

### The ESA can do the plan and the data is shared across the world – they’ve been doing it for decades

**ESA No Date Cited** (<http://www.esa.int/esaKIDSen/SEMZHFXJD1E_UsefulSpace_0.html>) MFR

The weather can suddenly change for the worse, so it is vital that forecasters receive continuous updates from space. Every 15 minutes, day or night, Europe's Meteosat-9 sends back images of weather across almost one third of the world. Perched 36 000 km above West Africa, it looks down on the same area all the time. A standby satellite is always waiting nearby to take over if a problem occurs. Visual, infrared (heat), water vapour and other crucial data are sent to the Meteosats operator, Eumetsat. The raw data are processed in Darmstadt, Germany, then sent to users. Since October 2006, weather data have also been sent back by Europe’s MetOp-A satellite. Data from this polar orbiter are relayed via a ground station on the Norwegian island of Spitsbergen. Images and information about the atmosphere and the oceans are also sent continuously to the ground for local users. Europe's satellites are part of a global weather watch. Many different countries **share information** from their satellites. The Meteosats have also helped Europe's partners in other ways. **When an American satellite failed in 1991, Meteosat-3 crossed the Atlantic to take over its duties.** In 1998, Meteosat-5 was moved over the Indian Ocean. As part of an international experiment, it helped to monitor this area, which is famous for its monsoons.

### There’s a reason why it’s called “joint” polar satellite system – because it consists of a joint operation between the U.S. and the ESA and they could fill in – they have the requisite technology to do so

**ESA** 6/27/**06** (“MetOp-A gets green light for 17 July launch date” www.esa.int/esaLP/SEMOGREFWOE\_LPmeteomiss\_2.html) MFR

MetOp-A has successfully completed the first phase of testing at the Baikonur Space Cosmodrome in Kazakhstan, confirming the launch date of the first European polar-orbiting satellite dedicated to operational meteorology for 17 July 2006. With an array of sophisticated instrumentation, MetOp-A – jointly established by ESA and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) – promises to provide data of unprecedented accuracy and resolution on a host of different variables such as temperature and humidity, wind speed and direction, ozone and other trace gases. Since the arrival of the MetOp-A satellite at its launch site in Baikonur on 18 April 2006, the Service Module, Payload Module and Solar Array, which were shipped as individual items, have been integrated and tested. Following a review of the satellite status and results of the testing to date, together with the outputs of EUMETSAT’s review of the readiness of the ground segment, launcher and overall system, EUMETSAT and ESA authorised EADS Astrium on 17 June to commence the MetOp-A satellite fuelling activities, marking a milestone in the EUMETSAT Polar System (EPS) programme. Following the completion of the MetOp-A fuelling, the satellite will be integrated with the so-called Fregat upper stage before being encapsulated in the fairing. The resulting upper composite will then be integrated with the Soyuz launcher and the complete system will be rolled out to the launch pad three days prior to the launch. The MetOp programme, which consists of three satellites to be flown sequentially to ensure the delivery of continuous data until at least 2020, forms the space segment of the EPS programme and represents the European contribution to a new cooperative venture with the American National Oceanic and Atmospheric Administration (NOAA). Until MetOp-A launches, meteorological data from polar-orbiting satellites has had to be procured from NOAA weather satellites. After the launch, responsibilities for meteorological satellite services will be shared between Europe and the United States. Consequently, through the Initial Joint Polar Satellite System (IJPS), which is a cooperative venture between EUMETSAT and NOAA, MetOp-A has been designed to work in conjunction with the NOAA satellite system, whereby MetOp-A replaces the NOAA 'morning orbit' service whilst a NOAA satellite occupies the 'afternoon shift'. This means that the two satellites fly in complementary orbits, thus offering maximum coverage. This global observing system is able to provide invaluable meteorological data from polar orbit to users within 2 hours and 15 minutes of the measurements being taken. MetOp-A is equipped with a set of new-generation European instruments that offer advanced remote sensing capabilities to both meteorologists and climatologists along with a set of 'heritage' instruments provided by NOAA and the French Space Agency (CNES). In addition to its meteorological observations and climate monitoring objectives, MetOp-A will contribute to other missions, such as research and rescue and the monitoring of charged particles present in the orbital environment near Earth. The MetOp-A satellite was developed by a consortium of European companies led by the main contractor EADS-Astrium, France.

## 2NC Data-Sharing

### NOAA always conducts data-sharing with other countries – the counterplan would spill over

**NOAA** 2/23/**10** “NOAA's Geostationary and Polar-Orbiting Weather Satellites” <http://noaasis.noaa.gov/NOAASIS/ml/genlsatl.html>) MFR

Operating the country's system of environmental satellites is one of the major responsibilities of the National Oceanic and Atmospheric Administration's (NOAA's) National Environmental Satellite, Data, and Information Service (NESDIS). NESDIS operates the satellites and manages the processing and distribution of the millions of bits of data and images theses satellites produce daily. The primary customer is NOAA's National Weather Service, which uses satellite data to create forecasts for the public, television, radio, and weather advisory services. Satellite information is also shared with various Federal agencies, such as the Departments of Agriculture, Interior, Defense, and Transportation; with other countries, such as Japan, India, and Russia, and members of the European Space Agency (ESA) and the United Kingdom Meteorological Office; and with the private sector.

### The counterplan solves – the NOAA constantly cooperates with the European Space Agency and utilizes data-sharing - it’s a contractual mandate

**OTA 93** (U.S. Congress, Office of Technology Assessment, “Weather and Climate Observations” <http://www.ciesin.columbia.edu/docs/005-356/005-3563.html>) MFR

To provide complete U.S. coverage, NOAA normally maintains two GOES satellites in orbit (box 3-A). However, difficulties experienced in constructing the next series of GOES satellites, GOES-Next, and the lack of a backup for the current series, have left the United States dependent on a single satellite, GOES-7, the last in the current series. To maintain critical weather observations over the United States, NOAA has signed an agreement with ESA and Eumetsat (box 3-B), the European Organisation for the Exploitation of Meteorological Satellites,[1] to lend the United States Meteosat-3 to supplement observations from GOES-7 and to stand in should GOES-7 fail (figure 3-1). This arrangement illustrates the high level of international cooperation in meteorological remote sensing, which is carried out in other areas as well. Because weather patterns move across national boundaries, international cooperation has been an important component in the collection of weather data. Governments need to cooperate with each other in order to follow weather patterns that transcend national boundaries.

### Weather is an international phenomenon – normal means for the counterplan is that the data gets shared

**Haynes No Date Cited** (Robert, space policy correspondent, “S E N T I N E L S I N T H E S K Y : W E A T H E R S A T E L L I T E S” <http://www.friends-partners.org/oldfriends/jgreen/weather.html>) MFR

The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) is the government agency that directs the nation's system of weather satellites. NOAA manages the processing and distribution of the millions of bits of data and images these satellites produce daily. The prime consumer is NOAA's Weather Service, which employs satellite data to create forecasts for television, radio, and weather advisory services. Satellite information is also shared by government departments such as Agriculture, Interior, Defense, Transportation, and Energy. Weather satellites create an international network. Information is routinely shared among the member nations of the World Meteorological Organization as well as with nations that operate their own weather satellites such as Japan, India, the Soviet Union, and members of the European Space Agency.

### Observational data is shared across multiple countries – the U.S. will get the information

**Allick 7/18**/11 (CHANTAIE, Staffwriter “U.S. weather satellites run into budget storm” http://www.theglobeandmail.com/news/technology/science/us-weather-satellites-run-into-budget-storm/article2100491/) MFR

In February, 2009, the last of the first generation of weather polar-orbiting weather satellites was launched from Vandenberg Air Force Base in California. Now, with the launch plan for the replacement JPSS pushed back to 2017 by budget woes, NOAA is preparing to launch a spaceraft called the NPP that was only intended for experimental use in preparation for JPSS. NOAA will receive $382.2-million (U.S.) of the $1-billion (U.S.) it requested for fiscal 2011 and expects to receive a similar amount for 2012. “What that means is, we’re not going to be able to launch to ensure continuity of satellite observations. We’re going to have a gap,” says Ajay Mehta, NOAA’s deputy program manager for JPSS. Canadian forecasters and climate researchers rely on a number of polar orbiters owned by Europe, the United States and China, said Mike Manore of the Meteorological Services of Canada. “Satellite data from both polar and geostationary satellites are absolutely critical to Environment Canada’s weather forecasting operation,” he said.

## 2NC Yes Tech

### Europe has the technological capabilities to shoot better satellites into space – recent tests prove

**Macintosh** 8/9/**10** (Zoë, Staffwriter “Europe's Next Weather Satellite Passes Vacuum Test” <http://www.space.com/8911-europe-weather-satellite-passes-vacuum-test.html>) MFR

A new European weather satellite has passed a vital vacuum test to prove it is fit for the rigors of space, the European Space Agency has announced. With the month-long test complete, the satellite ? called MetOp-B ? is now a step closer to being ready to launch in spring 2012 as planned. The instrument, built by the European Space Agency endured temperatures ranging from over 212 degrees Fahrenheit (100 degrees Celsius) to minus 184 degrees Fahrenheit (minus 120 degrees Celsius), simulating the harsh environment it will encounter in Earth orbit. "Some of MetOp-B?s sensors work under much colder conditions still, because they are actively cooled for optimal performance verification" said ESA MetOp program manager Luciano Di Napoli in a statement. The satellite will house a group of sensitive instruments needed to collect continuous data on temperature, humidity, cloud cover and gases in the atmosphere of our planet. "These data are essential for operational meteorology and climate research," said lead researcher Rob Oremus. The vacuum test was conducted at ESA?s Large Space Simulator at the European Space Research and Technology Centre in the Netherlands, which houses a vacuum chamber large enough to hold a double-decker bus standing upright. "Now that the module has overcome the vacuum test, the path is clear for the run-up to the launch," Oremus said. After more tests and outfitting work, MetOp-B is scheduled to launch atop a Russian Soyuz rocket

# Japanese Disaster Response CP

## 1NC—Japan Disaster Response CP

### The Japanese Government should propose a multilateral convention to facilitate international relief efforts in line with the relevant resolutions of the UN General Assembly concerning natural disaster and the Red Cross and IASC Guidelines.

### Counterplan solves disaster relief – creates international norms

Elizabeth Ferris, Co-Director, Brookings-Bern Project on Internal Displacement AND Kei Hakata, Seikei University, The Brookings Institution, March 22, 2011, “Beyond the Disaster: A Call for Japanese Leadership in International Disaster Response Law”, http://www.brookings.edu/opinions/2011/0322\_japan\_leadership\_ferris.aspx

When the immediate crisis is over, the Japanese government could propose a multilateral convention to facilitate international relief efforts in line with the relevant resolutions of the UN General Assembly concerning natural disaster and the Red Cross and IASC Guidelines. The building blocks for such a convention already exist in the various resolutions, guidelines, and legal initiatives, but they are scattered and need to be brought together into a comprehensive legal instrument. Such a Convention could reiterate the responsibility of sovereign states to both facilitate and regulate international assistance through adoption of national policies and procedures before a disaster strikes. The earthquake and tsunami in Japan, the 2010 earthquake in Haiti and the Pakistani floods illustrate that both developed and developing countries need to take such actions.

### Japan should take the lead and would solve best

Elizabeth Ferris, Co-Director, Brookings-Bern Project on Internal Displacement AND Kei Hakata, Seikei University, The Brookings Institution, March 22, 2011, “Beyond the Disaster: A Call for Japanese Leadership in International Disaster Response Law”, http://www.brookings.edu/opinions/2011/0322\_japan\_leadership\_ferris.aspx

After the 1995 Kobe earthquake, the Japanese government developed new guidelines and policies for reducing the risk of damages from future earthquakes and today is widely recognized as being a world leader in disaster risk reduction. Ten years after the Kobe earthquake, the Hyogo Plan of Action for Disaster Risk Reduction [7]was developed at an international conference in Japan to provide a framework for international action to mitigate the most harmful effects of natural hazards. Today, in the aftermath of one of the deadliest disasters in the country’s history, it would be both appropriate and inspirational for Japan to exercise leadership in developing and supporting a legal framework to expedite international assistance when disaster strikes. The East Japan earthquake could serve as an impetus for countries around the world to make sure that policies are in place to ensure that international assistance can be delivered quickly and effectively when the need arises. Each disaster gives us a moment to reflect – and to act. Just as the Kobe earthquake led Japan to a world leadership role in urging disaster risk reduction, it is timely and appropriate that Japan take the lead in developing and promoting a new legal framework on international relief. This would be a fitting legacy, we believe, of the terrible tragedy that Japan has experienced in recent days.

### The counterplan is a pre-requisite to aff solvency – only the counterplan creates effective responses

Elizabeth Ferris, Co-Director, Brookings-Bern Project on Internal Displacement AND Kei Hakata, Seikei University, The Brookings Institution, March 22, 2011, “Beyond the Disaster: A Call for Japanese Leadership in International Disaster Response Law”, http://www.brookings.edu/opinions/2011/0322\_japan\_leadership\_ferris.aspx

On a more technical level, the International Conference of the Red Cross and Red Crescent Societies adopted Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance in 2007.[6] Though not binding, these Guidelines spell out the core responsibilities of affected states and assisting actors. They detail needed early warning and institutional frameworks, procedures for initiating and terminating international disaster relief (including by military actors), and legal facilities for entry and operations of both personnel and relief goods. For example, they call for expedited visa processing and customs clearance for relief personnel, goods and equipment; facilitation of relief transport, and exemptions from taxes, duties and fees on relief activities. At one level, these are technical issues, but in the aftermath of a disaster, they can mean the difference between life and death. When a disaster strikes – whether an earthquake in Japan or flooding in Pakistan or a hurricane in the US -- it is difficult for stressed authorities to develop the necessary policies to facilitate needed international assistance quickly and in a way which respects the fundamental right of national governments to oversee the relief effort. These policies need to be developed before a disaster occurs and to be ready for implementation in the days immediately after a crisis. Experience has shown that the wake of a major disaster is the wrong time to try to develop new rules and systems to address these kinds of problems. While the Japanese Red Cross has provided important support to the efforts of the International Federation of Red Cross and Red Crescent Societies to promote these guidelines, the time is right for the Japanese government to assert leadership in this area.

# Net-Centric CP

## 1NC—Net-Centric CP

### The United States federal government should establish a network of partners approach with all us cities, states, and all other nations, including but not limited to a shared database of resources for emergency response and recovery, a geo-mapping tool to identify, select, activate, track and manage response assets

### CP creates a new dynamic that solves for disaster relief – overcomes every problem in the status quo.

Robert J. O'Neill Jr, GOVERNING contributor, executive director of ICMA (International City/County Management Association), August 16, 2006, “A New Model for Disaster Response” , <http://www.governing.com/columns/mgmt-insights/A-New-Model-for.html>

As I write, we are in the midst of hurricane season and have seen massive wildfires in the West. And, despite the considerable analysis and discussion that occurred following Hurricanes Katrina and Rita, we are still operating from basically the same playbook in our approach to emergencies -- a "command and control" approach. Consider the possibilities of a disaster-assistance system that relies instead on a network of partnerships among cities and counties, supported by a sophisticated database of human and material resources for emergency response and recovery. Consider, too, changes in the intergovernmental system that allow officials to cut through bureaucracies to get help into affected areas more quickly. In such a model, assets could be identified and local government response teams could be certified, trained and deployed for all four phases of a disaster -- preparation, response, recovery and restoration. The system would have multi-disciplinary teams with a full range of local-government expertise, not just police and fire personnel as first responders. The states' Emergency Management Assistance Compact would be involved in developing the pre-certification criteria, and the local-government personnel would be certified to respond across state lines in specific functional areas, such as information technology, utilities, code enforcement, public works, finance and accounting, housing, EMS, police and fire, and other essential operations. In addition to a comprehensive database of human and physical assets -- from the public, private and nonprofit sectors -- available for rapid deployment, the system should include a geo-mapping tool to identify, select, activate, track and manage response assets. Equipment and materials not in use would be stored in accessible locations, such as available military base facilities, which are well suited for this function. The network of relationships would need to include the military officials who have been tasked with support to local governments in disaster situations. All too frequently, the initial outpouring of support after a disaster is not sustained. But, look at how many local governments found ways to get help into communities affected by Hurricane Katrina through their personal relationships with individuals. Some regional teams provided recovery assistance for more than three months by rotating personnel and establishing clear management protocols. In this way, they were able to retain essential capabilities in their own regions while providing long-term assistance in another state. The regional teams included several cities and counties that had trained together and supported each other in earlier disaster recoveries. This networked approach makes available pre-certified local government professionals who can be deployed as individuals and/or teams to provide assistance in addressing the steps necessary for recovery. Elements of a recovery process would typically include restoring basic community services, identifying long-term housing solutions, coordinating with federal, state, and regional organizations, finding and managing public and private aid, and recruiting and managing volunteer networks. Recovery assistance from an individual local government would be provided on a relatively short-term basis, such as a six- to 12-week period, rotating teams and individuals as necessary. Restoration can take place over a period of years. It works best when communities that need ongoing, long-term support and technical assistance are matched with local governments able to provide such assistance. The assistance may include redevelopment advice and capacity building in areas such as housing, economic development, environmental management and public works. The assistance would be provided over an extended period of time agreed upon by the participating local governments. Local governments interested in participating would identify the technical areas in which they are willing to provide pro bono assistance, and this information would be maintained in the database for easy identification and retrieval. Reimbursable expenses would be limited to materials, equipment, and other non-labor costs. By way of example, with financial support from the U.S. Agency for International Development, the International City/County Management Association has been able to deploy local government teams to provide restoration support to areas in Sri Lanka devastated by the tsunami; there is no comparable system to assist devastated communities in the U.S. Historically, the U.S. has tried to manage disasters with a "command and control" approach. What is needed now is a dynamic and network-centered approach that has the flexibility to move resources and assets where they need to be, when they need to be there. Working together gives us the greatest hope of not repeating the past.

# Ounce of Prevention CP

## 1NC—Ounce of Prevention CP

### The United States federal government should adopt an ounce of prevention approach with reforms that increase the efficiency and effectiveness of disaster response mechanisms including but not limited to the establishment of the OFDA as the single lead federal agency for disaster preparedness and response.

### Counterplan makes response more effective – and solves your aff

CNA and Oxfam America, A study Under, E.D. McGrady led the research; at Oxfam, Marc J. Cohen led the research. June 2011, “Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster ResponseAn Ounce of Prevention”, PDF

At the same time that fiscal pressures are putting more strain on budgets, the US is likely to face substantially increasing demands on its humanitarian response systems as a result of climate change. These factors will have major implications for global stability as well as for the capacity of humanitarian response providers. In light of these dynamics, the US government should adopt an “ounce of prevention” approach hand in hand with reforms that increase the efficiency and effectiveness of disaster response mechanisms. Such a strategy would reduce long-term costs of humanitarian response, increase the impact of emergency relief programs, and lay a stronger foundation for stability in developing countries.

### The counterplan solves all of your impacts and in the event of disaster allows for proper allocation of assistance

CNA and Oxfam America, A study Under, E.D. McGrady led the research; at Oxfam, Marc J. Cohen led the research. June 2011, “Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster Response An Ounce of Prevention”, PDF

In addition, an “ounce of prevention is worth a pound of cure” strategy that emphasizes disaster risk reduction goes hand in hand with increasing the effective use of resources, because it will reduce the need for assistance over time. Effective resource use, in turn, requires decisions about aid that are based, to the maximum extent possible, on need rather than short-term political concerns. Political decisions can undermine long-term strategic priorities and divert aid from meeting the needs of displaced people or those affected by drought to other requirements such as influencing civilians in conflict countries.

### The establishment of OFDA as the single lead agency means it avoids politics

CNA and Oxfam America, A study Under, E.D. McGrady led the research; at Oxfam, Marc J. Cohen led the research. June 2011, “Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster Response An Ounce of Prevention”, PDF

Establish OFDA as the single lead federal agency for disaster preparedness and response, in practice as well as theory. A single lead agency will reduce balkanization of emergency response and politicization of whether to respond and what to send.

### Empirics prove – Bureaucracy and regulations ensure no effective response – the counterplan creates the most effective means of response

CNA and Oxfam America, A study Under, E.D. McGrady led the research; at Oxfam, Marc J. Cohen led the research. June 2011, “Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster Response An Ounce of Prevention”, PDF

From disaster assistance to long-term development A major factor that leads to inefficiency is the division between disaster aid and long-term development. This division masks the critical role that development plays in providing a stable, effective government and social base from which to respond to disaster within countries and within a region. The current system of bureaucratic silos (particularly at USAID) that divides disaster response and development severely limits the US government’s ability to plan for dealing with both. For example, currently a major gap exists in US foreign aid between emergency assistance and development in what is known as the early recovery, or transition, period.30 No apparent coordinated or explicit division of labor addresses this problem. Neither OFDA, FFP (the USAID food aid office), nor USAID field missions, whose budgets are heavily earmarked, have the explicit mandate or resources to lead transition and early recovery activities. Some practitioners, including Oxfam, see increased emphasis on DRR and emergency agriculture aid as having considerable potential to bridge this gap. In the 2005 earthquake in Kashmir province, Pakistan, there was a UN breakdown in getting money to partners because of bottlenecks in the aid delivery system. However, OFDA was extremely quick in responding, and some partners were operating solely using OFDA money. Nevertheless, OFDA was either not authorized or chose not to fund livelihoods development or protection—interventions that many people in the situation could have benefited from as aid in these areas would have kept them from slipping into destitution or brought them out of a destitute spot.31

## 2NC CP Popular

### Obama spins disaster relief to be popular

NYT, New York Times, April 30, 2011, “Government’s Disaster Response Wins Praise”, http://www.nytimes.com/2011/05/01/us/01fema.html?pagewanted=all

It has been the deadliest natural disaster on American soil since Hurricane Katrina. But the government response to the tornadoes that devastated the South last week has, at least in the first few days, drawn little of the searing criticism aimed at federal agencies back in 2005. In numerous interviews in the low-income Alberta neighborhood here on Friday, shortly before President Obama and other officials toured what is now an unimaginable wasteland, residents said they had few complaints about the handling of the aftermath by state, local and federal agencies. Many expressed mild frustration about limits on their access to damaged homes, the pace of road clearing and power restoration, and traffic jams caused by roadblocks and nonfunctioning signals. But most agreed that government and charitable agencies were coping as effectively as feasible with immediate demands for shelter, food, water and medical care, along with search and rescue operations. “It ain’t like Katrina,” said Darius Rutley, 21, whose house in Alberta was obliterated. “We’re getting help.” Axavier Wilson, 20, who survived the storm in a closet as the rest of his house blew away, said he had been impressed that both Gov. Robert Bentley and Mr. Obama had visited right away. “I don’t think there’s much to mumble and grumble about,” he said. “Everybody feels secure about getting help.” There was a single cry of “Help us!” on Friday from a man who watched the president’s motorcade roll through a treeless lunar landscape, but hardly the wails of stunned desperation shouted from New Orleans rooftops. It was a very different kind of storm, of course, with different demands for response. And clearly, disaster recoveries should be judged over months, not days. But the early moments of this operation suggest that certain logistical and political lessons have been learned. Stung by criticism that he waited 12 days to tour the Gulf Coast after last year’s BP oil spill, Mr. Obama took barely 40 hours to land in Tuscaloosa, the hardest-hit area in the eight Southern states struck by tornadoes last week. The death toll stands at 349 people; Alabama officials said that included 250 in their state, with 39 in Tuscaloosa County. “I’ve never seen devastation like this,” Mr. Obama said after Friday’s tour. “It is heartbreaking.” “We’re going to make sure that you’re not forgotten and that we do everything we can to make sure that we rebuild,” he added. Top federal officials, including Janet Napolitano, the secretary of homeland security, were in touch with Mr. Bentley shortly after the tornadoes landed Wednesday, according to a timeline from the Federal Emergency Management Agency. FEMA officials contacted the White House about the need for a federal emergency declaration even before Alabama had submitted a formal request that evening, said Art Faulkner, the state’s emergency management director. It was quickly granted. Mr. Obama spoke to Mr. Bentley, a Republican, on Wednesday night and to the governors of four other affected states on Thursday. He sent the FEMA administrator, W. Craig Fugate, to Alabama on Thursday. Five members of the cabinet are expected in the state on Sunday. “We can’t control when or where a terrible storm may strike,” Mr. Obama said Thursday afternoon, “but we can control how we respond to it.” By late Thursday, Mr. Obama had signed the disaster declaration for Alabama, and later did the same for Georgia and Mississippi. The declarations mean the federal government will pay 75 percent of the uninsured costs of repairing public buildings, like a damaged fire station here; that residents can qualify for modest recovery grants; and that businesses can apply for low-interest loans, Mr. Fugate said in an interview. As of Friday afternoon, FEMA had placed liaison officers in Alabama, Georgia, Kentucky, Mississippi and Tennessee, according to a spokesperson. In Alabama, as in other affected states, the White House was winning early praise from state, local and Congressional leaders of both parties. “I like what we’re doing thus far,” said Senator Richard C. Shelby of Alabama, a Republican. “They seem to be taking this very seriously,” said Representative Robert B. Aderholt, a Republican from northern Alabama. “They have been very proactive and very reactive to our requests.” David Maxwell, the emergency management director in Arkansas, where 14 people died in storms and flooding this week, said that Gov. Mike Beebe, a Democrat, reminded him on Friday that it had taken FEMA three weeks to deny a disaster-relief request after a 2007 tornado. “Now,” Mr. Maxwell said, “he’s singing their praises so far.” Mr. Obama and his emergency management team have, in turn, commended the state and local response. On Friday, Mr. Obama quoted Tuscaloosa’s Democratic mayor, Walter Maddox, as saying the destruction had brought people together. “Politics, differences of religion or race, all that fades away when we are confronted with the awesome power of nature,” Mr. Obama said. “And we’re reminded that all we have is each other.”

# Private Sector CP

## 1NC—Private Sector CP

### Text: The NOAA should use the funds currently allocated for JPSS to purchase weather data from GeoOptics’ CICERO program.

### Free market satellites are cheaper, effective, and stay within budget

Overly 3-20-11 (Steven, covers the Washington region’s technology, life sciences and venture capital communities for The Washington Post and its weekly Capital Business publication. Steven graduated from the Philip Merrill College of Journalism, “Satellite firms pitch the government on off-the-shelf commercial products”, <http://www.washingtonpost.com/capital_business/2011/03/18/AB65mh2_story.html> )

When the Obama administration set down its National Space Policy last summer, the guidelines for government agencies with missions in outer space boded well for commercial satellite companies. It told agencies to avoid building satellites from scratch if products on the market could fulfill their needs with few adjustments. The directive's message was not lost on the satellite operators and manufacturers attending last week's annual industry conference in Washington. Although the government's practices don't yet mirror policy, many local companies were touting ventures that executives said could help the government to conduct missions on budget and on time. “The policy backdrop is reinforcing the role that commercial space and commercial satellites play for the defense department and conversely government customers are an increasingly important sector for the commercial satellite world,” said Patricia Cooper, president of the Satellite Industry Association. Iridium, a McLean satellite operator, was eager to discuss “hosted payloads,” a term the industry uses when one company leases space on its satellites to someone who wants to send sensors or other equipment into orbit without the cost or hassle of doing so themselves. The company will launch a network of 66 satellites starting in 2015 that should cover the entire globe from about 480 miles above the planet. Chief Executive Matt Desch said its a distance ideal for climate scientists to collect data or air traffic controllers to monitor aircraft. But Desch said the government has been a tricky customer to court, despite the fact that Obama's policy specifically urges agencies to take advantage of hosted payloads. “It requires some initiative and courage, frankly, on behalf of people who have done things a certain way for the last 20 years and have to consider taking this unique opportunity for what it is and taking advantage of it,” Desch said. The government business at Orbital Sciences in Dulles has been gaining momentum, particuarly as some agencies shy away from large, complex procurements that can cost more money and take longer to complete than planned, said Vice President for Corporate Communications Barron Beneski. “The concept, on paper, of building one satellite with lots of different sensors on it is that it will save you money. In reality, it busts the budget,” Beneski said. The company specializes in small, lower-powered satellites that it can deliver on a set schedule and budget. Agencies are now looking for those criteria, Beneski said, “and that's a new trend.” Other local companies, including Columbia's Integral Systems and District-based Intelsat, unveiled services that executives said could save money for the government and commercial satellite operators by extending the lifespan of satellites already in orbit and improving their efficiency while there. Intelsat has partnered with MacDonald, Dettwiler and Associates to launch the first spacecraft capable of refueling satellites in orbit. Intelsat will use the tanker on its own satellites and provide a similar service to the U.S. government. Kay Sears, president of Intelsat General, said it could keep a satellite in operation for an additional three to five years. “Just about every [government] program has some kind of delay where gaps are created” between when a satellite expires and another is launched, Sears said. “If we can go in and offer them a solution where they refuel and bridge that gap, I think that's going to be a nice service.” And while the satellites are in orbit, Integral Systems aims to sell monitoring software that would allow the government or a company like Intelsat to keep tabs on its network. A demonstration at the company's exhibit showed real-time atmospheric weather, radio signal interference and other data meant to ensure a network functions properly. The software “allows you to use the core [product] that we bring . . . and tailor it into a solution that will meet any mission requirements,” said James Kramer, senior vice president and general manager of civil and commercial systems. “We don't do custom development each time.”

## 2NC Solvency

### GeoOptics solves the affirmative

Brinton 9 (Turner, writer for spacenew.com, November 20th, “GeoOptics aims to sell weather satellite data to NASA”, <http://www.spacenews.com/earth_observation/091120-geooptics-sell-weather-data-noaa.html>, date accessed: 7/30/11)

WASHINGTON — U.S. startup firm GeoOptics LLC says it has secured private funding to build and launch six Earth-observing satellites in 2011 to collect weather and climate data it expects to sell to the U.S. government among others. The envisioned satellites would employ an Earth-observing technique called GPS radio occultation (GPS-RO) that the Pasadena, Calif.-based company has been studying on behalf of the U.S. National Oceanic and Atmospheric Administration (NOAA), which is interested in purchasing weather data from private firms. GeoOptics plans to launch the first six satellites of its Cicero constellation in late 2011, followed about a year later by as many as 18 more satellites. GeoOptics is confident NOAA will buy Cicero data, but even if it does not, there are enough interested research institutions around the world to make the endeavor profitable, GeoOptics President Tom Yunck said in a Nov. 17 interview. GeoOptics’ board of advisers includes former NOAA Administrator Conrad Lautenbacher and retired U.S. Army Gen. Wesley Clark, who ran for president in 2004. The company has received an undisclosed amount of financial backing for Cicero from Near Earth LLC, Rodman & Renshaw LLC and Social Wealth Partners, according to Yunck. GeoOptics plans to buy the six 30-kilogram Cicero satellites and instruments from Broad Reach Engineering, a Golden, Colo.-based spaceflight hardware firm that has built GPS occultation receivers for multiple in-orbit spacecraft. Broad Reach Engineering has done preliminary design work forGeoOptics, Yunck said, and a satellite production contract is expected to be signed late this year or early next year. The two companies have collectively spent more than $15 million developing the satellite and the next-generation GPS-RO instrument, which Yunck said will be the most sensitive ever built. GeoOptics intends to contract in early 2010 with Hawthorne, Calif.-based Space Exploration Technologies Corp. to launch the first six satellites on a Falcon 1e rocket, Yunck said. The radio occultation technique at the heart of the Cicero concept was pioneered by NASA’s Pasadena, Calif.-based Jet Propulsion Laboratory and Stanford University of Palo Alto, Calif., for determining the size and atmospheric composition of distant planets. When a planet occults, or passes in front of, a star, the star’s brightness decreases. The amount of the decrease can be used to approximate the height of the planet’s atmosphere. The way in which the star’s radio waves bend and change relative to the observer can be used to characterize the planet’s atmospheric composition. Radio occultation also has been used to make measurements of Earth’s atmosphere. As relatively high-flying GPS satellites fall below the horizon, nearby satellites with GPS-RO receivers, such as Taiwan’s Constellation Observing System for Meteorology, Ionosphere and Climate (COSMIC) constellation, pick up the emitted GPS radio waves as they pass through the atmosphere. The observed frequency changes are used to measure atmospheric temperature, humidity,pressure and electron density. Yunck said the COSMIC constellation’s GPS radio occultation data has more than 1,000 users worldwide, including NOAA which since 2007 has been incorporating GPS-RO data into its weather forecasts. Launched in 2006, the six-satellite COSMIC constellation is designed to last through 2011. There currently are no firm plans for a replacement. GeoOptics has secured financial backing to build and launch a constellation of commercial GPS-RO satellites that would keep the atmospheric data flowing to a COSMIC user base that spans 50 countries worldwide — assuming those users can be converted to paying customers. Yunck expressed confidence that NOAA will be among the first in line to buy Cicero data. “We believe this will be a fundamental departure for NOAA and a continuation in the trend toward commercializing space,” Yunck said. “We don’t want to wait for NOAA to take the initiative because that might take another year or two or three. So we’re just going to move forward and get the satellites up and running. At the end of 2011, we know NOAA will have the money by then and there will be no practical alternative to buying our data.” The Cicero constellation would also be well suited to providing the U.S. military with space weather information, Yunck said. GeoOpticsresponded to an April request for information from the U.S. Air Force regarding the possibility of obtaining commercial space weather data. The company believes it could provide all 13 types of ionospheric data that the Air Force is interested in, and it may in fact choose to add these sensors to its next 18 satellites without a firm commitment from the service to buy the data.

### CICERO can replace the NPOESS

Brinton 10 (Turner, writer for spacenew.com, March 19, <http://www.spacenews.com/civil/031910noaa-budget-funds-end-npoess.html>, “NOAA budget Request Includes Funds to End NPOESS Contract”, date accessed: 7/30/11)

WASHINGTON — Northrop Grumman faces possible termination of its multibillion-dollar contract to build a next-generation weather satellite system for the U.S. government, and many of the company’s key responsibilities on the newly revamped program are being handed over to NASA, according to a senior government official. Jane Lubchenco, administrator of the U.S. National Oceanic and Atmospheric Administration (NOAA), told lawmakers March 17 that the government’s 2011 budget request for civilian weather satellites includes termination fees for Northrop Grumman’s contract, which was awarded in 2002. The program in question, dubbed the National Polar-orbiting Operational Environmental Satellite System (NPOESS), has been dramatically restructured following years of cost growth and delays, leaving Northrop Grumman’s future role uncertain. The restructuring, announced in early February with the rollout of U.S.[President Barack Obama’s budget request](http://www.spacenews.com/policy/102001-nasa-2011-budget-puts-exploration-sustainable-path.html), effectively ended the NPOESS program, which was intended to merge the separate polar-orbiting weather satellites of NOAA and the U.S. Air Force. NOAA and the Air Force will now pursue separate systems, with the civilian program taking ownership of the assets that were developed as part of NPOESS. As NPOESS prime contractor, Northrop Grumman Aerospace Systems of Los Angeles was to build the satellite platforms and also was responsible for overall integration of the system, including the instruments and ground segment. Testifying before the House Appropriations commerce, justice, science subcommittee, Lubchenco said NASA will take over the instrument and ground-segment integration duties for what is now called the Joint Polar Satellite System as part of a transition plan being finalized by NOAA and the U.S. Department of Defense. NOAA’s budget request includes $1.06 billion for the Joint Polar Satellite System in 2011. “The federal budget includes contingency funding, termination costs for the Northrop Grumman contract, and a cost estimate that is at or close to the 80 percent level,” Lubchenco said. “So this will ensure that lack of funding won’t drive day-to-day decisions, which has been a giant problem with this program. “What [the Defense Department] decides to do in the out years still has potential for affecting our costs. … Termination liabilities are of particular concern for us. We’re working with [the Defense Department] to minimize those liabilities, and we’re still in the process of negotiations.” NOAA spokesman John Leslie said March 19 no final decision has been made to cancel Northrop Grumman’s contract. NOAA had previously announced that it would use a different satellite platform for the Joint Polar Satellite System, with a supplier to be selected at a later date. NASA’s Goddard Space Flight Center, Greenbelt, Md., will manage the development of two spacecraft, planned for launch in 2015 and 2017, that will retain all of the instruments that were slated to fly on NPOESS, Lubchenco said. The Defense Department still has two of its legacy Defense Meteorological Satellite Program spacecraft yet to launch and has not yet decided on its approach for acquiring weather satellite data in the latter part of this decade. The Air Force’s budget request for 2011 includes nearly $352 million for NPOESS. “Northrop Grumman continues to work with NOAA, NASA and the [Defense Department and Air Force] on the transition activities related to the NPOESS program,” Northrop Grumman spokesman Lon Rains said in an e-mailed statement. “As this transition proceeds, the Northrop Grumman team remains dedicated to fulfilling the contract of record. We continue to believe that the capacity that has been built up by our NPOESS team — the design work, the hardware, an active supply chain and the team itself — will be the fastest and most reliable way to provide civil and military users the capabilities they so critically need.” Northrop Grumman’s NPOESS contract is with the Air Force. At the hearing, Lubchenco also defended decisions related to other NOAA satellite programs in its 2011 budget request. NOAA uses GPS radio occultation data for operational weather forecasting that comes from a satellite system built in cooperation with Taiwan. In planning to acquire this type of data after that system ceases operations, NOAA considered purchasing the data commercially. It awarded study contracts last year to GeoOptics of Pasadena, Calif., and Iridium Communications of Bethesda, Md., to perform cost and feasibility studies on providing commercial GPS radio occultation data. Instead, NOAA chose to request $3.7 million to begin developing a follow-on constellation in cooperation with Taiwan. Lubchenco said agency officials determined that this would be the most economical way to obtain the data in the future, but she did not have a comparative cost analysis at hand. She said NOAA would provide the analysis to the committee. Rep. Adam Schiff (D-Calif.) questioned NOAA’s decision not to request funds to replace the QuikScat satellite, which [stopped working late last year](http://www.spacenews.com/civil/091127-demise-quikscat-deprives-scientists-data.html) after providing ocean wind data for a decade. While the capability is important for weather forecasting, NOAA has other ways to monitor ocean winds along the coastlines, Lubchenco said. And though the agency no longer has the ability to monitor these conditions in the middle of the oceans, it has other ways of predicting hurricanes, making a QuikScat replacement a less urgent priority than other needs, she said.

### Radio occultation solves- empirics.

Brinton 10 (Turner, 4/9/10, staff writer for spacenews.com, “NOAA, Taiwan developing plan for Weather Satellite Program” <http://www.spacenews.com/civil/100409-noaa-taiwan-plan-weather-satellite-program.html>)

WASHINGTON — The U.S. National Oceanic and Atmospheric Administration (NOAA) and Taiwan have developed initial requirements for a collaborative weather satellite program, and will spend the rest of the year putting together an acquisition strategy with an eye toward launching the satellites starting in 2014, U.S. government officials said. The satellites will use a relatively new method for obtaining atmospheric data called GPS radio occultation, which has been used in operational weather forecasting since a demonstration constellation was launched in 2006. That system, called the Constellation Observing System for Meteorology, Ionosphere and Climate (COSMIC), also was a joint U.S-Taiwanese program. In addition to building the follow-on COSMIC-2 constellation, NOAA also might purchase additional GPS radio occultation data from commercial firms if companies have them available, David Ector, NOAA’s COSMIC-2 program manager, said in an April 8 interview. GPS radio occultation was conceived as a way to obtain atmospheric density, pressure, moisture and temperature data from space. A low-orbiting satellite with a GPS receiver can observe the signal that is transmitted by a particular GPS navigation satellite operating in a much higher orbit. As the GPS satellite approaches the horizon relative to the observing satellite, its signals pass through the atmosphere, which can cause frequency variations depending on environmental conditions. Software is then used to infer atmospheric characteristics based on the frequency changes. The first COSMIC system consists of six satellites designed to collect more than 2,000 atmospheric soundings each day. The constellation was designed to operate through 2011, but is expected to retain some residual capability until around 2013. The COSMIC-2 system will feature 12 satellites designed to collect more than 8,000 soundings per day. In addition to operating with the U.S. GPS satellites, COSMIC-2 will be able to use signals from the planned European Galileo satellite navigation constellation and possibly the Russian Glonass constellation, Ector said. Whereas Taiwan paid about 80 percent of the demonstration system’s cost, COSMIC-2 is notionally an even funding split between the two nations, Ector said. NOAA has requested $3.7 million for COSMIC-2 in 2011, and Taiwan has approved the program but not yet provided funding for it, Ector said. NOAA spokesman John Leslie was not able to provide an estimated total cost to build and launch the system. With a set of initial requirements in place, NOAA and Taiwan are putting together an acquisition plan. NASA’s Jet Propulsion Laboratory in Pasadena, Calif., built the receivers for the first constellation, and will develop a more sophisticated receiver for the follow-on constellation, Ector said. Taiwan will be responsible for procuring the satellite platforms, or buses, which are expected to weigh less than 100 kilograms each, Ector said. Taiwan chose Orbital Sciences Corp. of Dulles, Va., to build the demonstration COSMIC platforms, which are based on the bus Orbital designed for the original Orbcomm data communications system. The governments are considering a variety of launch options, Ector said. The satellites may be launched on the Minotaur rockets built by Orbital, the Falcon 1e rocket built by Space Exploration Technologies Corp. of Hawthorne, Calif., or as secondary payloads on an Evolved Expendable Launch Vehicle built by United Launch Alliance of Denver. The number of COSMIC-2 ground stations to be built and their locations has not been determined. With only a few ground stations around the world for the demonstration system, the data take as long as three hours to be received, processed and disseminated. The latency requirement will be far shorter for COSMIC-2, and that can be achieved with either more ground stations or satellite-to-satellite data links, Ector said. The University Corporation for Atmospheric Research, a nonprofit academic organization in Boulder, Colo., developed the software now used to exploit GPS radio occultation data. Exploitation of COSMIC-2 data will still rely on this software, but it has not been determined whether the organization will still be responsible for processing of the data. “We would hope to be the lead climate data processing center because we’ve had so much experience in that, and we are certainly one of the top three or four processing capabilities in the world for radio occultation data,” Rick Anthes, president of the University Corporation for Atmospheric Research, said in an April 6 interview. At least one commercial firm has announced plans to build and launch its own constellation of GPS radio occultation satellites. GeoOptics of Pasadena, Calif., plans to launch six or 12 satellites around June 2012. NOAA has expressed a strong interest in buying data from the satellites, as have a host of other governments around the world, GeoOptics President Tom Yunck said in an April 9 interview. Broad Reach Engineering of Golden, Colo., has been developing the GPS receiver for GeoOptics’ planned satellites, and the firm was recently put under contract to begin work on the satellite platforms, Yunck said. GeoOptics soon plans to sign a contract to launch the satellites on a Falcon 1e rocket, he said. GeoOptics and Iridium Communications of Bethesda, Md., completed studies for NOAA last year on the cost and feasibility of providing commercial GPS radio occultation data. GeoOptics has said it will launch its constellation with or without a firm commitment from the U.S. government to buy the data, but would prefer to have some up-front investment.

### We can utilize the private sector – hyperspectral information from commercial satellites exists now, government data-sharing key

Brinton 10/25/10 (Turner, Staffwriter. “Startup GeoMetWatch Awarded U.S. License To Sell Hyperspectral Satellite Data” http://www.geometwatch.com/selling-hyperspectral-satellite-data.html) MFR

Start-up firm GeoMetWatch on Sept. 15 was awarded a U.S. Commerce Department license to sell space-based hyperspectral sounding data, which it hopes to sell to government weather organizations around the world, according to the company's top official. Las Vegas, Nev.-based GeoMetWatch has tapped Utah State University's Sapce Dynamics Laboratory to design a hyperspectral instrument that could be hosted on a commercial geostationary communications satellite, David Crain, the company's chief executive officer, said in an Oct. 20 interview. Once a customer agreement is in place, the first sensor could be on orbit as soon as 2014, he said. Weather organizations around the world see spacebased hyperspectral sensing as a way to improve weather forecasting and severe storm tracking. Optimally, a space-based hyperspectral capability would include sensors in both low Earth orbit and geostationary orbit. Europe's Eumetsat meteorological satellite organization has a hyperspectral sounding instrument on it low Earth orbiting MetOp-A satellite that was launched in 2006, and the capability is planned to fly on the Meteosat Third Generation geostationary satellites that are first slated for launch in 2016. The U.S. National Oceanic and Atmospheric Administration (NOAA) and NASA plan to deploy hyperspectral instruments on the low Earth orbiting Joint Polar Satellite System spacecraft scheduled to begin launching in 2015, as well as an operational precursor satellite set to launch next year. The agencies planned to field hyperspectral sensors on the next-generation Geostationary Operational Enviromnmental Satellite (GOES)-R series spacecraft first planned to launch in 2015, but budgetary pressures caused the Hyperspectral Environmental Suite to be elminiated in a 2006 restructuring. With a U.S. Commerce Department license to operate as many as six hyperspectral instruments in space, GeoMetWatch is in discussion with a number of government organizations interested in purchasing the data through various business models, Crain said. The optimal arrangement for the company would be to have one anchor tenant with an unlimited license to redistribute the data. Other options that would not provide unlimited access to redistribute the date also are possible, Crain said. GeoMetWtach will consider several options for financing the project, including arrangements and debt financing, Crain said. GeoMetWatch has contracted with the Space Dynamics Laboratory for initital design work for the hyperspectral sounder and hopes to sign a production contract in early 2011, Crain said. The instrument will be based on the Geosynchronous Imaging Fourier Transform Spectrometer that the Space Dynamics Laboratory was involved with developing. That instrument was to be a precursor to the Hyperspectral Environmental Suite but got shelved when NASA's Earth Observing-3 satellite was canceled in 2008. NOAA's current generation GOES satellites have multiband spectrometers that are used for atmospheric profiling, but they are not adequate for tracking fast moving storms, Crain said. "They can make one observation of [the continental United States] every 45 minutes to an hour, and they take about eight hours to profile [their full field of view], " he said. "That time is really too slow to be of much benefit for severe weather tracking or forecasting." "The benefit of the hyperspectral sensor we will fly is it will have much higher spectral resolution, which gives you much higher vertical resolutions in the atmospheric profiles. We can profile [the continental United States] in five to 15 minutes and [a full field of view] every 30 minutes to an hour." GeoMetWatch is in negotiations with several potential industry and academic partners that it would contract with to operate the hyperspectral instruments and develop algorithms for processing and exploiting their data, Crain said. At least one other U.S. company has announced plans to try to sell space-based weather data to government customers. GeoOptics of Pasadena, Calif., plans to launch 12 small satellites into low Earth orbit to gather atmospheric density, pressure, moisture and temperature data throught a relatively new method known as GPS radio occultation. GeoOptics and its satellite and instrument manufacturer, Broad Reach Engineering of Golden Colo., the week of Oct. 11 unveiled its nearly completed first prototype satellite in a public ceremony in Boulder, Colo., GeoOptics President Tom Yunck said Oct. 21. The two companies expect to move into the satellite production phase in the coming months, Yunck said. GeoOptics plans to contract by the end of the year with Hawthorne, Calif.-based Space Exploration Technologies Corp. to launch all of its satellites on a single Falcon 1e rocket in late 2012, Yunck said. The company has not yet applied for a Commerce Department license to sell this data, he said. NOAA does not currently have plans to buy space-based commercial weather data of any kind, agency spokesman John Leslie said in an Oct. 21 e-mailed response to questions.

## 2NC Solvency – Military

### We can use private sector satellites for military use – buying key, its more efficient and cheaper

AP 7/1/08 (Associated Press, “Pentagon will buy satellites to do more spying” <http://www.komonews.com/news/boeing/22756799.html>) MFR

WASHINGTON (AP) - The Pentagon will buy and operate one or two commercial imagery satellites and plans to design and build another with more sophisticated spying capabilities, according to government and private industry officials. The satellites could spy on enemy troop movements, spot construction at suspected nuclear sites and alert commanders to new militant training camps. The Broad Area Surveillance Intelligence Capability (BASIC) satellite system will cost between $2 billion and $4 billion. It would add to the secret constellation of satellites that now circle the Earth, producing still images that are pieced together into one large mosaic. A single satellite can visit one spot on Earth twice every day. BASIC's additional satellites will allow the photos to be updated more often, alerting U.S. government users to potential trouble, humanitarian crises or natural disasters like floods. The announcement of the BASIC program, expected this week, has been delayed for months, with Pentagon, Air Force, and National Reconnaissance Office officials fighting over who should be in charge of buying, building and operating the satellites. They have also debated whose needs the system will cater to: senior military commanders or policymakers in Washington, D.C. At stake was not just money but power: billion-dollar budgets are up for grabs, and the agencies' traditional missions and way of doing business have been hanging in the balance. The National Reconnaissance Office ultimately won the right to buy and operate the satellites, besting the Air Force. And military commanders' needs trumped the White House. They will, for the first time, have the power to dictate what satellites will photograph when they pass overhead. The concept is known as "assured tasking."

## 2NC A2: Links To Politics

### GeoOptics doesn’t cause political backlash and no risk of accidents.

Clark and Lautenbacher 10 (Clark, a former NATO supreme allied commander and U.S. presidential candidate, Lautenbacher, former NOAA administrator, is vice president of polar programs for CSC Corp, “Better weather forecasting at a lower cost”, January 18th)

Climate change is increasing the need for accurate atmospheric and storm forecasting. While large satellites, daily use of radiosondes, special flights into storms and real-time linkage of ground-based weather stations have greatly improved weather and climate modeling, they still lack the required precision in forecasting, as we have seen with so many major storms and weather events, from powerful hurricanes to unexpectedly heavy rainfall and flooding. Yet there is a new methodology available, at much lower cost, that can dramatically strengthen climate modeling and weather forecasting. It is called GPS radio occultation (GPS-RO), and with it comes a new acquisition strategy based on procurement of satellite information as a service. This new technology is based on the principles of radio propagation through the atmosphere. Scientists have long known that radio signals at a particular frequency are distorted in a predictable manner, and by measuring the distortion, specific atmospheric parameters — such as air density, pressure, temperature and moisture — may be determined. If thousands of such exact measurements could be collected simultaneously or near-simultaneously, over large areas of the Earth, and at varying altitudes, from the surface high into space, far more accurate weather forecast models could be constructed. Fortunately, there is a way to collect such measurements, using the signals emitted by GPS radios. All that is required is a constellation of small, inexpensive, GPS-receiving satellites in orbit to sample the GPS satellite radio signals as they are distorted by the atmosphere. Properly deployed and programmed, these small GPS receivers in low Earth orbit would continuously track the signals of the numerous GPS (and soon Galileo and Glonass) satellites as they rise and set through the atmosphere, yielding thousands of data points of atmospheric variables at varying locations and altitudes, including deep within storms and over areas of the Earth difficult to sample but critical in weather formation. GPS-RO offers temperature accuracy and vertical resolution 20 times better than any other spaceborne sensor operating or planned. As to cost, the instrument is not very different from the GPS receiver in an automobile, though of a scientific grade. A typical space-qualified RO instrument costs about $500,000, while the average atmospheric sensor on the National Polar-orbiting Operational Environmental Satellite System (NPOESS) is over $300 million. An RO instrument can be flown on a microsatellite costing less than $4 million to build. Eighteen can be launched together on a $10 million Falcon 1e. The total cost for an 18-satellite constellation is less than $100 million. This GPS-RO technology has been successfully demonstrated in a small research constellation called the Constellation Observing System for Meteorology, Ionosphere and Climate (COSMIC). In 2006, scientists at the National Center for Atmospheric Research used a handful of RO profiles to achieve an unprecedented forecast of the development of a weak tropical depression into a full-blown hurricane (Ernesto) four days in advance. Scientists at the U.S. National Oceanic and Atmospheric Administration (NOAA) have shown impacts from RO on forecasts in the Southern Hemisphere surpassing those of any other space instrument, though COSMIC provides only 5 percent of the data volume of proposed operational systems. Weather services on three continents are using the experimental COSMIC RO data operationally, and eagerly looking forward to more. But, unfortunately, this research system will die shortly. Yes, this is disruptive technology. It means taking advantage of the revolution in microelectronics to launch instruments in space that are small, simple and relatively inexpensive, rather than large, complex and costly. It means using small rockets to reach orbit rather than behemoth boosters. And all this makes it possible for the government to procure weather data from commercially sound private companies. Cost studies have been developed that indicate a private company can deploy an equivalent system for less than a third of the government procured system. Moreover, the system will be in operation at least three years sooner. The cost of that system can be spread over a dozen or more international government subscribers. The cost to any one subscriber will be only a fraction of the cost of a traditionally acquired government system. The crushing burden to U.S. taxpayers could be relieved and the recognized international need for sustained, low-cost information could be met to support the U.S. commitment to the Global Earth Observation Systems of Systems (GEOSS.) This is an innovative alternative acquisition method in line with the policies of the administration of U.S. President Barack Obama to reduce costs and improve efficiency. It answers NOAA’s recognized need for new ways of doing business and responds to a call the agency formally made to industry two years ago. Clearly, we cannot continue on the path that brought us NPOESS. As a consequence of the response to this initiative, private investors in the United States have offered to fund development of commercial RO systems. They are prepared to deploy the first operational constellation two years from now. A private operation will offer data on a trial basis, at no charge, for customers to evaluate. If they like it, they can subscribe with payment on delivery. Upfront financial risk to the government is eliminated. With a traditional government funded procurement, most of the system cost is incurred building and launching the satellites, before any data begin to flow. As we know, long delays may ensue, further driving up costs. And then the launch might fail, handing the taxpayer a total loss. With the commercial approach, that risk is absorbed in proven ways. Moreover, in a traditional mission program, the question of successor systems must inevitably arise. When a mission approaches its end of life — or rather, long before — the government must consider if and how to fund a follow-on. The painful and costly process begins again. In the commercial approach, continuing coverage is factored into the subscription price. Keep paying the subscription fee and the data will continue to flow, in perpetuity. In maintaining and replenishing their constellations, system proprietors will introduce technical advances as they become available. As we see with every variety of consumer device, suppliers will compete on both cost and performance, and the customer — in this case, the U.S. taxpayer — will be the winner. There is a tradition of technological revolutions first propelled by government needs and investment and then ultimately establishing a commercial foothold. In space, we saw it first with telecommunications, then with remote Earth imaging. The NextView model for commercial Earth imaging, which was pioneered by the U.S. National GeospatialIntelligence Agency and spawned the successes of DigitalGlobe and GeoEye, has set a standard for the rest of the government to follow. The savings to the government and the stimulus to American technology and private enterprise are beyond dispute. This is surely the way of the future. The value and impact of GPS-RO for weather and climate applications (and space weather too, though that’s another story) are unquestionable. The price-performance combination is unbeatable. It is time to support the future of GPS-RO as a sustained, operational asset in the U.S. environmental observing system, and procure the resulting information as a service. Buy the data, don’t buy the system.

### GeoOptic’s Cicero solves the aff and avoids political backlash

Scharder 9 (Ann, December 17th, staff-writer, Denver post, “Golden companies, CU put new ideas in orbit”, <http://www.denverpost.com/business/ci_14013921>)

Two companies with operations in Golden are teaming with the University of Colorado on a program that some believe offers a new model for how space research is designed and funded. GeoOptics LLC, founded in 2005 by a consortium of scientists, has joined Broad Reach Engineering of Golden to develop a fleet of microsatellites to monitor Earth's atmospheric processes. Delivered in real time, the highly accurate temperature, density, pressure and moisture data promise to improve weather forecasting, hurricane and storm-track predictions, climate-change research and space-weather monitoring. Customers for the information may include the Air Force, mapping firms, airlines and the National Oceanic and Atmospheric Administration. GeoOptics is based in Pasadena, Calif., and has offices at several sites, including Golden. The first of GeoOptics' 18 suitcase-size satellites is scheduled for launch in 2012 and will orbit at 450 miles high. Called CICERO — the Community Initiative for Continuing Earth Radio Occultation — the satellites borrow the best of space technology, cost a fraction of government missions and leave risk to investors instead of taxpayers, said Christian Lenz, GeoOptics chief engineer and Broad Reach senior space-systems designer. Retired U.S. Army Gen.[Wesley Clark](http://www.denverpost.com/business/ci_14013921), who chairs an investment group in Washington, D.C., is on GeoOptics' board. Clark said he likes the concept "because satellites have gotten to be complicated and expensive. This is a much more efficient use of space." The approach could spawn other businesses, Clark said, adding: "When America is looking for jobs and looking at budget deficits, this could save $1 billion and create several thousand jobs in the process." Collaborating with GeoOptics will be CU's Laboratory for Atmospheric and Space Physics. LASP director Dan Baker said there is a need to explore "a more innovative way of doing space missions." "The big ones have become so long, so unwieldy and so costly," Baker said. "There has to be a better way." The partnership will give students hands- on opportunities, from design to operations. The students, Baker said, can go to work at space companies and agencies "with a new set of insights on how to do things quickly. It can be important to the whole space community." The specific arrangement with GeoOptics is new for CU. "With the expectation that these types of partnerships will advance the basic research, education (and) technology-development missions of the university, we expect to cultivate these types of relationships in the future," said Russell Moore, CU's interim vice chancellor for research.

# Politics Links

## Plan Unpopular

### Plan is spun as climate – that makes it political suicide

Boyle 5/23/11 (Rebecca, Staffwriter “As Congress Fusses Over Climate Semantics, the U.S. Faces a Weather Satellite Gap” http://www.popsci.com/technology/article/2011-05/satellite-funding-cuts-us-could-face-weather-satellite-gap) MFR

This year has seen some phenomenally bizarre weather, from deadly tornadoes ripping through the Midwest and South to historic snowmelt-related flooding on the Mississippi River. Most hurricane forecasters are saying it’s about to get worse — the National Oceanic and Atmospheric Administration projected Thursday that the Atlantic basin is likely to see 12 to 18 named storms this season. Amid all this, the country’s future weather prediction capabilities could be stymied by a battle in Washington. During the budget battle earlier this spring, Congress cut funding for a new polar-orbiting satellite, which is designed to monitor atmospheric temperatures and pressure, severe weather, fires and other manmade and natural disasters, and to provide continuous climate data. If it does not get built, the country faces a satellite gap, which could affect forecasters’ ability to predict the weather. The key word here is climate. “Weather is apolitical, but climate is unfortunately not,” Bill Sullivan, a director at Raytheon Intelligence and Information Systems and program manager for the new satellite, said in an interview. NOAA Administrator Jane Lubchenco said at a news conference Thursday that the agency’s satellite program is in limbo. This is at least the fourth time in the past few years that a climate-monitoring project has fallen victim to either terrible luck or bad politics. First the Orbiting Carbon Observatory failed to reach orbit, then NASA’s aerosol-monituring Glory mission also died during launch. Last month we told you about the Deep Space Climate Observatory, languishing in a box in Maryland. Now a satellite called JPSS is in danger of losing its funding. Here’s a bit of history: Until last year, NASA, NOAA and the Department of Defense were going to share a brand-new polar-orbiting satellite called the National Polar Orbiting Operational Environmental Satellite System (NPOESS). But after a few years of planning and design work, the government decided the military and civilian agencies didn’t play well together and divorced the project, giving the DOD its own satellite. The existing civilian project, called NPP for NPOESS Preparatory Project, will serve NASA and NOAA only, and is planned for launch in October. It just completed a thermal test. It is supposed to have a companion successor called the Joint Polar Satellite System, and NOAA requested $1.06 billion in this year’s budget to build it. Then the federal budget stalemate happened, and everything was funded at 2010 levels as Congress and the White House wrangled. “The message that was getting to Congress was that NOAA needed a billion dollars to do climate research,” said Sullivan, who is Raytheon’s program manager for the JPSS. As a result, the funding was not approved.

## 2NC Links

### Plans bundled with broader climate projects – angers GOP

Morello 2/14/11 (LAUREN, Staffwriter “Republicans Gut EPA Climate Rules, Slash Deeply Into Climate Research, Aid and Technology Programs” http://www.nytimes.com/cwire/2011/02/14/14climatewire-republicans-gut-epa-climate-rules-slash-deep-87716.html?pagewanted=all) MFR

House Republicans introduced spending legislation Friday that would strip U.S. EPA of its ability to regulate carbon dioxide emissions, gut the State Department's climate aid programs and slash funding for energy and climate research across the federal government. The continuing resolution (CR), which would fund government operations through Sept. 30, seeks to trim $100 billion from the fiscal 2011 budget President Obama proposed last year. House Appropriations Committee Chairman Hal Rogers (R-Ky.) initially floated $32 billion in cuts but backtracked last week under pressure from lawmakers aligned with the tea party. First on the House GOP's chopping block: U.S. EPA. The proposed CR takes direct aim at the agency and its role as the cornerstone of the Obama administration's twinned efforts to regulate CO2 emissions and boost climate change-related research. The new bill would slash the agency's budget by $3 billion, 29 percent below the fiscal 2010 level of $10.3 billion. It would also block funds for all current and pending EPA greenhouse gas regulations on stationary sources for the remainder of the fiscal year. And, in a dig at the White House, the bill would prevent the president from replacing departing climate and energy czar Carol Browner or creating "any substantially similar position." The chairman of the House Appropriations subcommittee that deals with EPA, Rep. Mike Simpson (R-Idaho), said the new bill's rider on greenhouse gas regulation would give the House Energy and Commerce Committee "time to craft thoughtful, effective legislation to clarify EPA's authority under the Clean Air Act and provide certainty for job creators." Obama has said he will veto any legislation that strips EPA of its authority to regulate greenhouse gases. "Nothing has changed," EPA Administrator Lisa Jackson told reporters earlier this month. GOP leaders plan to bring the legislation to the House floor tomorrow. The current budget resolution expires March 4, leaving little time for the House and Senate to come to agreement on spending through the end of the current fiscal year. Knives go deep into climate, carbon storage research The bill faces a rocky reception in the upper house. Senate Appropriations Committee Chairman Daniel Inouye (D-Hawaii) issued a statement Friday decrying the House CR as "an ineffective approach to deficit reduction." "The priorities identified in this proposal for some of the largest cuts -- environmental protection, healthcare, energy, science and law enforcement -- are essential to the current and future well-being of our economy and communities across the country," he said in a statement. Meanwhile, House Budget Committee Chairman Paul Ryan (R-Wis.) defended the cuts in an appearance on "Fox News Sunday." "Last year, these agencies got double- and triple-digit increases," he said. "They have thrown so much money at these bureaucracies that they can't even spend all the money." Other proposed cuts to EPA include the agency's Global Change program, a research effort focused on the potential impacts of climate change. The House bill would cut $7 million from the $21 million the program received in 2010. The new CR would also slash financing for EPA's Energy Star program $10.5 million below the 2010 level, bringing its budget to roughly $43 million. It would strip $107 million from climate change programs under the jurisdiction of the Interior-EPA spending subcommittee, a 29 percent drop from the 2010 funding level. They include the U.S. Geological Survey's Climate Effects Network and its Science Application and biological carbon sequestration programs. The House proposal would slash spending on land and water acquisition and conservation programs by more than $200 million compared to the 2010 funding level. The bill would also prevent the Bureau of Land Management from implementing its new "wildlands" policy, established in December by Interior Secretary Ken Salazar. The policy, which has been in Western Republicans' cross hairs, allows BLM to survey and provide interim protections for certain public lands that have not received a formal wilderness designation from Congress. Climate aid cuts weaken U.S. stance Meanwhile, among a Republican majority loath to send money overseas and largely skeptical of global warming, international climate change assistance seemed to have a double bull's-eye on its back. The continuing resolution would gut most global climate aid, raising the prospect of significantly weakening the U.S. hand in global treaty talks. It would zero out $500 million included in the White House's 2011 budget request for major World Bank programs that help developing nations transition to clean energy, cope with the consequences of weather disasters and protect tropical forests. The House bill would also slash the U.S. contribution to the Global Environment Facility (GEF) from $90 million in the president's proposed 2011 budget to $32 million. The House's proposed spending schedule does not single out pots of funding for climate change within the GEF, nor does it appear to cut a program that was set up specifically to help the world's poorest nations cope with climate disasters. But those who work with the agency said a cut of that magnitude would effectively paralyze the agency's biodiversity protection and climate assistance. Elliott Diringer, vice president for international strategies at the Pew Center on Global Climate Change, said the funding cuts "could seriously undermine our position in the negotiations" leading to a new global climate treaty. "After the progress made in Cancun, pulling the plug on U.S. support for climate funding in developing countries would be a very unhelpful signal," he said. "The U.S. made progress in advancing a pragmatic international approach. Our ability to influence that process going forward will hinge heavily on being able to fulfill our pledges." Obama had requested about $575 million for major World Bank programs that help developing nations transition to clean energy, cope with the consequences of weather disasters and protect tropical forests. The proposed GOP budget zeroes out the entire collection of funds. The prospect of losing that money could create an unlikely alliance between the World Bank and the environmental community. Green groups fought the creation of the World Bank's Clean Technology Fund and other projects, and have long tried to block the institution's entry into the business of addressing climate change because of its history of funding fossil fuel. But Jake Schmidt, international climate policy director for the Natural Resources Defense Council, said he believes the World Bank is "moving in the right direction" in phasing out coal lending and argued that pulling out of clean energy deployment is the wrong direction for the United States. The Climate Investment Funds (CIFs), the umbrella term the World Bank uses to describe several different programs, have helped launch low-emission and climate resilience projects in 45 countries. The Clean Technology Fund, which is the largest program of the group, has directed $2.4 billion to Algeria, Mexico, Thailand and nearly 20 other countries to finance an estimated 4,255 megawatts of clean energy that could scale up to 39,200 megawatts. Schmidt said the money also helps create American jobs. "The [World Bank funds] very directly helps the U.S.," he said, adding that by defunding them, "we would miss this opportunity to help create clean technology throughout the world and help U.S. companies tap into that." "The innovative climate investment funds are a shift from the old model because they harness the private sector to bring technology solutions for improved transport, cleaner energy, more resilient agricultural yields, such as in Africa, and a host of other global benefits," said Andrew Steer, World Bank special envoy for climate change. "Because of the way the CIFs are designed, grant funds can attract a lot of private investors, so the impact of the initial funds are multiplied -- on average, tenfold," Steer said. "With a growing number of developing countries also now putting their own resources into programs, the CIFs are great value for money," he said. "They are simply changing the way we do business on climate change." The fate of other global climate funding remains vague. The U.S. Agency for International Development would take a major haircut, but none of the substantial funding in there for climate change programs is singled out. Clean technology research and innovation targeted GOP lawmakers also proposed whittling the Energy Department's budget, in a clear shot at the White House's plan to encourage economic growth by funding the development of new energy technologies. The Energy Department's Office of Science would see a cut of $893.2 million below the 2010 spending level of $4.9 billion. Obama had requested $5.1 billion for the office in 2011. The Energy Efficiency and Renewable Energy program would take a $900 million cut, relative to the White House's $2.3 billion request last year. Republicans haven't yet specified which sub-programs they will trim. The EERE office does applied research from wind and solar power to buildings, biofuels, electric cars and fuel cells. EERE and the science office would take an additional hit because the new bill would strip agencies of any remaining stimulus funding. EERE has more than $10 billion in such funds and the Office of Science $800 million, according to Appropriations Committee Republicans. The House package would also slash funding for the Advanced Research Projects Agency-Energy, a DOE office looking for breakthrough energy technologies. Last year, the White House requested $300 million for ARPA-E, a crown jewel of its energy strategy. Republicans want to chop that by $250 million. Other DOE divisions escaped with smaller cuts. Obama requested $760 million for the Fossil Energy office last year, a number Republicans intend to cut by only $66 million. The president requested $824 million for the Nuclear Energy program last year, and Republicans want to trim $169 million. NOAA and NASA climate-related science hit The House bill would also cut spending at the National Oceanic and Atmospheric Administration and NASA, two agencies that the Obama administration and congressional Democrats have targeted in recent years for budget increases. NOAA and NASA were also major beneficiaries of the 2009 economic stimulus package, receiving a collective $1.8 billion largely targeted for climate satellites and science programs. The House proposal would reverse some of those gains. NOAA's budget would fall to $4.3 billion from approximately $4.7 billion in 2010 -- well below the White House's proposed 2011 budget of $5.5 billion. The GOP plan would cut the agency's operations, research and facilities account by $454.3 million, to $2.85 billion, 13 percent below the 2010 level and roughly in line with the amount allocated in 2008. NOAA's procurement, acquisition and construction (PAC) account would receive $1.46 billion, a 7 percent increase over the 2010 level of $1.36 billion -- though more than 30 percent below the White House's proposed 2011 funding level of $2.18 billion. The increase in PAC funds is likely explained by House appropriators' decision to make allowances for NOAA's weather satellites, including "necessary funding increases ... that will help protect Americans from weather-related natural disasters." The majority of NOAA's satellite funding is distributed through the procurement, acquisition and construction account. Regardless of House Republicans' new budget bill, Congress' failure to pass a 2011 spending plan has already delayed one NOAA weather and climate satellite program, Spaceflight Now reported last week. The Obama administration established the Joint Polar Satellite System last year, after it decided to end a troubled joint satellite venture between NOAA and the Air Force. Although JPSS was formed out of elements of that defunct program, the National Polar-orbiting Operational Environmental Satellite System, it was considered a new program for budget purposes. As such, it has not been fully funded by the series of continuing resolutions that have allowed the government to operate since October. That has delayed the launch of the first JPSS satellite by two years, Spaceflight Now reported.

### The plans unpopular – criticism of climate science and considered wasteful spending

Chameides 4/19/11 (Bill, of Duke's Nicholas School of the Environment since 2007, combines more than 30 years in academia as a professor, researcher, teacher, and mentor with a three-year stint in the nonprofit world as the chief scientist of Environmental Defense Fund “The Ayes Have It, Congress Hunting For Green Monster” <http://www.nicholas.duke.edu/thegreengrok/budgetsketch>) MFR

The House’s frontal attack on Obama’s climate efforts came in the form of the earlier Continuing Resolution bill: H.R. 1 would have stripped the Environmental Protection Agency of its authority to regulate greenhouse gases and slashed funding for climate change programs by 29 percent of their 2010 levels. Passed in the House in February, the bill failed in the Senate, but Congressional refudiaters were able to make some small inroads in the budget compromise. These inroads, largely in the form of spending cuts, included the following: Defunding of salaries for the president's special advisers — the so-called “czars” — including the Special Envoy for Climate Change (Todd Stern), the Special Advisor for Green Jobs, Enterprise and Innovation (formerly Van Jones), and the Assistant to the President for Energy and Climate Change (formerly Carol Browner who, perhaps seeing the writing on the wall, had resigned her post earlier in the year. (See how Representatives voted.) Cuts to the budget of the Council on Environmental Quality and the Office of Environmental Quality. The disallowing of any expenditures “to implement, establish, or create" a "climate service" within the National Oceanic and Atmospheric Administration, the idea for which has been gaining favor in the scientific community for some time (see, for example, recommendations here and here). Much like the U.S. Weather Service, a climate service would provide a clearinghouse for information and data relevant to climate. (See NOAA’s vision of such a service.) Will this vision ever see the light of day? Maybe. We’ll have to wait and see what Congress comes up with when they get around to the budget for fiscal year 2012. Cuts of $25 million in funding intended for states' compliance with new climate regulations (see here and here). Uncertainty and delays for U.S. Joint Polar Satellite System, a critical data-monitoring and -collecting system for climate and weather. (More on this here, here, and here.)

### Scientific research bundling and the deficit battle means the plan is a political firestorm

Reich 4/19/11 (Eugenie Samuel, Staffwriter. “US budget a taste of battles to come” <http://www.nature.com/news/2011/110419/full/472267a.html?WT.ec_id=NATUREjobs-20110421>) MFR

Rush Holt calls it "deficit attention disorder". Speaking earlier this month at a science-policy luncheon on Capitol Hill, the New Jersey Democratic congressman and nuclear physicist was reflecting on the fiscal climate that has settled over Washington DC. Last week, the impact of that climate was felt acutely, as Congress passed a federal spending bill that makes the deepest cut ever to the US budget. For scientists employed or supported by government research agencies, the news would seem to be dire. The deal, which President Barack Obama signed into law on 15 April, applies the first significant funding cuts to most of those agencies in a generation — with the strong possibility of deeper cuts to come. Yet, given what might have been, the outcome is a relief to most research advocates. "The basic-research agencies all did pretty well," says Patrick Clemins, director of the research-and-development budget and policy programme at the American Association for the Advancement of Science in Washington DC. Back in February, the Republican-led House of Representatives proposed a budget that would have ripped billions of dollars from the science agencies. That would have left the agencies not only well below the funding levels specified by Obama when he tabled his budget request more than a year ago, but also well below the 2010 levels they have been operating under since October. The deal restores the bulk of those lost billions. Most science agencies now face cuts of about 1% (see 'Splitting the difference'). That is a reassuringly small portion of the US$38.5 billion, or 5.8%, cut from the 2010 allocation for non-military discretionary spending from which most academic research is funded. "In the end," says Barry Toiv of the Association of American Universities in Washington DC, "it is clear they decided that while it was important to cut federal spending they would continue to prioritize research and education." Nevertheless, the fractious debate that has enveloped Congress for the past six and a half months foreshadows a much tougher battle over the 2012 budget. Although Obama has called for investments in science and technology to "win the future", Republicans have vowed to fight for deep cuts to reduce the escalating deficit without resorting to tax hikes. The remainder of the 2011 fiscal year — around five and a half months — therefore offers science agencies a short window of stability in which to take stock and prepare for renewed turmoil.

### We control link uniqueness – the GOP is focusing on cuts to climate satellite research

Rowan 7/5/11 (Linda, Government Affairs staff for AGI “Earth Observations and Space Policy” [www.agiweb.org/gap/legis112/earthobservation\_cont.html](http://www.agiweb.org/gap/legis112/earthobservation_cont.html)) MFR

The implications for NASA’s Earth observing program are stark. Weakened by years of low budgets, a backlog of planned satellites and the loss of two expensive rockets, the program needs to recoup costs for the failed launches and continue with planned launches as Congress and the Administration look to reduce discretionary spending. House Republicans in the 112th Congress are targeting any projects related to climate change science for cuts (see H.R. 1 and AGI’s congressional hearing summaries) and those reduction efforts include programs with NASA’s Earth Science division.

## 2NC Link Booster – Climate

### Climate issues spells death for any policy – it’s a political lightning rod in CongressFreedman 4/12/11 (Andrew, environmental journalist with a lifelong fascination with the weather. He has also worked for NOAA's National Weather Service and on the summit of Mount Washington as a weather observing intern. He holds a Masters Degree in Climate and Society from Columbia University, and is completing a Masters in International Affairs from the Fletcher School at Tufts University. “Congress turns a blind eye to climate science” <http://www.washingtonpost.com/blogs/capital-weather-gang/post/congress-turns-a-blind-eye-to-climate-science/2011/04/12/AFxAqQQD_blog.html>) MFR

Let me state right off the bat that I tend to shy away from directly discussing politics in this column, instead sticking to scientific developments in the sprawling and fascinating field of climate research. At the same time, I recognize that climate science has become so politicized that it’s impossible to steer clear of politics entirely. This is understandable considering that many of the potential solutions to climate change could involve major policy changes, from federal regulations of emissions from cars, trucks, and power plants to a carbon tax on gasoline. The controversy surrounding the science is largely a front for concerns over potential regulation, as is vividly demonstrated in the book, “Merchants of Doubt”, by Naomi Oreskes and Eric Conway. With the passage on April 6 of a bill that would stop the U.S. EPA’s regulations of greenhouse gases from moving forward, the House of Representatives signaled in crystal clear legislative language that it flat out does not believe that manmade climate change is a real phenomenon that poses risks to Americans’ health and welfare. I say this because, during the debate on the EPA measure (which failed in the Senate and was not attached to the 11th hour budget agreement), the House held a separate vote on an amendment which for the first time put all Members on record about whether they agree with the scientific evidence showing that the global climate is warming, and this warming is likely due in part to human activities. This vote was as close to a climate science litmus test as you’re ever going to get. Offered by three Democrats - Henry Waxman, Jay Inslee, and Diana DeGette - the amendment would have added language to the bill stating that Congress agrees with the EPA’s findings on climate science. The amendment stated: “Congress accepts the scientific findings of the Environmental Protection Agency that climate changes is occurring, is caused largely by human activities, and poses significant risks for public health and welfare.” The EPA’s findings were in turn based on peer reviewed scientific research and the findings contained in reports from groups such as the U.N. Intergovernmental Panel on Climate Change (IPCC), the U.S. government’s Global Change Research Program, and the National Academy of Sciences. From a scientific perspective, the amendment’s language was rather benign. It was not a climate alarmist statement, nor did it overstep the science as expressed by highly-regarded research groups, not to mention the trove of peer reviewed scientific studies on climate change that seem to multiply by an order of magnitude each week. The fact that it failed by a vote of 184 to 240 (three Democrats were among those who rejected the amendment; one Republican supported it) signals the depth of the problem that scientists, environmental policy advocates, environmentalists, and others face in pushing for climate change action at the federal level. A majority of one chamber of the Congress just does not agree with the conclusions of most publishing climate scientists. This is a remarkable turn of events, considering that the last Congress narrowly passed a sweeping greenhouse gas regulation bill, which died in the Senate. Speaking on the House floor, Congressman Waxman said it best when he stated last week, “As long as Congress pretends that climate change isn’t occurring, we can justify not addressing it.” Rep. DeGette also framed the issue well. “We in Congress can certainly change the laws of this country, but last I heard we cannot change the laws of nature.” Now before I portray all Republicans as a bunch of climate science know-nothings bent on destroying the planet, there are many reasons one might vote to halt the EPA’s climate regulations and oppose the Waxman amendment, reasons that have nothing to do with the climate science. Climate policy scholars have long argued over what the best way to reduce greenhouse gas emissions, and EPA regulations have typically been viewed as a last resort rather than a front line weapon because they are thought to be more cumbersome and potentially more costly as other regulatory tools. In fact, during the debate last week many Republicans argued that Congress, not the EPA, should address this issue.

## 2NC Plan Unpopular Link Shield

### Economic concerns happening now outweigh the future – JPSS is perceived as irrelevant and there’s no perception that lack of funding will create a forecasting gap

Smith 6/4/11 (Marcia, Staffwriter. “Congress Not Convinced JPSS Need Is Urgent” <http://spacepolicyonline.com/pages/index.php?option=com_content&view=article&id=1617:congress-not-convinced-jpss-need-is-urgent&catid=67:news&Itemid=27>) MFR

Yesterday's Women in Aerospace conference, Aerospace 2011: The Road Ahead, offered interesting perspectives on why Congress was not willing to increase NOAA's FY2011 budget to pay for the new Joint Polar Satellite System (JPSS). By the end of the day, it was clear that NOAA and the Obama White House have a lot of work to do if they want a different result for FY2012. The need for weather satellites seems obvious. The value of increasingly reliable weather forecasting has been recounted many times not only in terms of lives saved, but in broader economic terms. Kathy Sullivan, a former astronaut who was recently confirmed as Assistant Secretary of Commerce for Environmental Observation and Prediction for NOAA, reviewed some of that data in a luncheon speech to the conference. NOAA, Europe and the Department of Defense have complementary polar orbiting weather satellites in different orbital planes. Data from all of them are combined to provide the increasingly reliable forecasts available today. On average, Sullivan said, weather forecasts would be 50 percent less accurate without the NOAA satellite data. NOAA's satellites are getting older every day and there are no others awaiting launch. When the existing satellites die, there will be no more data. If JPSS is not funded quickly, NOAA asserts there very likely will be a gap of as many as 18 months in weather satellite data in the 2015-2016 time frame. NOAA Administrator Jane Lubchenco has issued that warning to Congress in several recent hearings. Why then would Congress not fund JPSS? Sullivan and colleague Mary Kicza portrayed the problem as a primarily structural issue in how Congress handles funding for these satellites. NOAA is part of the Commerce-Justice-Science (CJS) appropriations bill and Congress must set priorities between weather satellites and the varied other programs under that jurisdiction, including NASA and community police services, for example. Kicza, head of NOAA's National Environmental Satellite, Data and Information Service (NESDIS), which manages NOAA's satellite programs, spoke on a panel later in the day. She also noted that **appropriators feel they have to focus on today's problems**, not something that will happen in 2015-2016. The message from both NOAA representatives was that JPSS is a simply a victim of bad timing. In February 2011, the White House decided to dissolve the tri-agency National Polar-orbiting Operational Environmental Satellite System (NPOESS) program due to repeated cost increases and schedule delays. NPOESS was to merge the historically separate military and civil weather satellite systems. Instead, the White House decided to revert to separate systems and directed NOAA to build JPSS while DOD builds its own system to meet its requirements. The White House requested $1.1 billion in NOAA's FY2011 budget for JPSS, but when the dust finally settled on FY2011 appropriations two months ago, Congress maintained NOAA's polar weather satellite program at its previous level of $382 million. Tara Rothschild, a staff member of the subcommittee on Energy and Environment of the House Science, Space and Technology (HSS&T) Committee, agreed that priority setting ultimately is the issue, but provided deeper insight into Congress's mindset. While asserting that Congress does recognize the need for weather satellites, she revealed that some Members of Congress do not believe NOAA's contention that there will be a weather satellite data gap. Even NOAA couches its warnings by saying a gap is "very likely" or "almost certain" since the projection is based on statistics on how long these satellites operate, but many satellites work years beyond their design lifetime. Even if there is a gap, Rothschild continued, it will not be until 2015-2016 and on Capitol Hill everyone is focused on today: "it's about right now," she stressed. Rothschild's message was that the Administration needs to help Congress determine priorities. When Congress asks executive branch agencies what is most important, she said, they usually reply that all of their programs are important. "When everything is important, nothing is important," she remarked, "We can't fund it all." The possibility of commercial providers stepping into the weather satellite business was broached as an option. Some instruments could fly as hosted payloads on unrelated satellites, for example, or weather satellites could follow the lead of the commercial remote sensing industry with guaranteed government data buys as the cornerstone of their business. The 1992 Land Remote Sensing Policy Act (P.L. 102-555) prohibits the commercialization of government weather satellites. It does not appear to preclude the government from buying commercial weather satellite data, however. Meanwhile, NOAA is requesting $1.1 billion for JPSS in FY2012, the same increase Congress just rejected for FY2011. Rothschild said that she had not seen any indication yet from House appropriators as to what they plan to do with the request. With Republicans demanding deep budget cuts in exchange for raising the debt ceiling, it is clear that NOAA and the White House have their work cut out for them in convincing Congress that JPSS is a priority worthy of such an increase.

## 2NC A2: No Link – Agency

### There’s a link –

### A. Obama’s responsibility over heads of the Program

McDermott 12/19/08 (Matthew, Staffwriter “Obama Picks For Science Advisor, NOAA Head Strong on Climate Change” <http://www.treehugger.com/files/2008/12/obama-science-advisor-noaa-head-picks-strong-on-climate-change.php>) MFR

You probably have heard the news that Barack Obama will have two more top notch scientists who have advocated for strong limits on greenhouse gas emissions on his team: Oregon State University marine biologist Jane Lubchenco to head the National Oceanic and Atmospheric Administration, and physicist/environmental policy expert John Holdren of Harvard and the Woods Hole Research Center to be Assistant to the President for Science and Technology. The choices have been widely hailed, but what really stands out to me is the way in which Holdren has described current climate change policy as like, “being in a car with bad brakes driving towards a cliff in the fog.” (LA Times) Here’s more of what Holdren has said about climate change that gives me some hope that the issue will be taken seriously at the highest levels of US government:

### B. Funding is cut and delegated from the Admnistration and Congress

Turley 7/7/11 (JONATHAN, B.A. at the University of Chicago and his J.D. at Northwestern. In 2008, he was given an honorary Doctorate of Law from John Marshall Law School for his contributions to civil liberties and the public interest. “Tomahawks Over Turtles: Congress and Obama Administration Move To Slash NOAA Budget” <http://jonathanturley.org/2011/07/07/tomahawks-over-turtles-congress-and-obama-administration-move-to-slash-noaa-budget/>) MFR

Wondering where the money is coming from for our three wars, including the over $1 billion for the latest war in Libya? Well, as we spend billions on the wars (including one for an oil-rich nation which has refused to re-pay any of the costs), the White House is slashing domestic programs. A good comparison is that the cost to date of the Libyan war is basically what Congress is about to cut from the budget of the National Oceanic and Atmospheric Administration (NOAA). **The cuts from Congress are above those asked by the Administration**. Trillions of cuts are being worked out in light of budget shortfalls. Hundreds of millions will be cut from the Joint Polar Satellite System, a reorganized satellite system and hundreds of millions more will be cut from NOAA’s Operations, Research and Facilities budget. NOAA is already a lean organization with an expanding mission. Other countries are increasing oceanic and weather monitoring to protect lives and property. However, with yet another war launched by President Obama, we can hardly be tossing away money on the environment and science while tossing cruise missiles at Tripoli.

### C. Obama push necessary to get plan passed – funding restraints

Smith 6/4/11 (Marcia, Staffwriter. “Congress Not Convinced JPSS Need Is Urgent” <http://spacepolicyonline.com/pages/index.php?option=com_content&view=article&id=1617:congress-not-convinced-jpss-need-is-urgent&catid=67:news&Itemid=27>) MFR

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## Plan Popular

### The plans popular – weather predictions and disaster states

Orndoff 7/13/11 (Mary, Staff writer for the Birmingham News “Weather satellite funding expected to pass key congressional committee” <http://blog.al.com/sweethome/2011/07/weather_satellite_funding_expe.html>) MFR

WASHINGTON -- Funding for weather satellites that gave Alabamians several days' notice of the April 27 tornadoes, now endangered by federal budget cuts, would be restored with extra money expected to pass a key congressional committee today. The move to restore funds, especially in the current climate of debt reduction, is a sign that storm-weary lawmakers from the South and Midwest were able to convince their colleagues that the loss of the low-orbit satellites was a threat to public safety that should be prevented. The House Appropriations Committee today is expected to add $429.5 million to the Joint Polar Satellite System for 2012. While it's not a full restoration of the cuts the National Oceanic and Atmospheric Administration sustained in 2011, it would speed the process of launching new replacement satellites and shorten the time the country will go without the important atmospheric information they collect. "In NOAA, this bill includes the necessary funding to better protect Americans from natural disasters such as tornadoes, hurricanes and tsunamis," said U.S. Rep. Frank Wolf, R-Va. and chairman of the subcommittee that allocates spending for the U.S. Department of Commerce, which includes NOAA. The polar-orbiting satellites are closer to the Earth than other kinds of satellites, and the data they provide are critical to making weather forecasts beyond 48 hours, according to NOAA. That data was crucial in giving forecasters the ability to warn Alabama residents about the likelihood of a tornado outbreak five days before the April 27 storms killed 244 people in the state. Emergency managers had time to plan, and several schools and government offices closed early, likely saving many more lives. NOAA's satellite budget, like most other federal agencies, was slashed when Congress trimmed $38 billion in spending for the remainder of the 2011 budget year. The cuts slowed down work on replacing the aging satellites and pushed back launch dates for new ones. NOAA's administrator, Jane Lubchenco, has said that, even if Congress granted the $1 billion President Barack Obama requested for the polar satellite system next year, the shortfall in 2011 would cause a gap in coverage after the temporary replacement satellite ended its mission in 2016 or 2017 and before the new one would have been launched. NOAA had estimated the funding cuts could cause about an 18-month gap in weather satellite coverage, but there was no estimate Tuesday on how much of a gap would be left if part of the funding was restored. U.S. Rep. Spencer Bachus, R-Vestavia Hills, has been especially vocal about the need for the satellite coverage, even though the money was cut in a compromise package to avoid a government shutdown that he and the rest of the Alabama delegation voted for. This week, he wrote to Wolf supporting the increase. "The proposed funding represents important progress in addressing two enduring lessons of the storms in the Southeast and Midwest: Lives are saved when there is adequate advanced warning and when citizens have access to safe shelters," Bachus wrote in a Tuesday letter. The legislation being debated today by the House Appropriations Committee would spend about $900 million on the Joint Polar Satellite System, which is $429.5 million more than in 2011 but $168.7 million less than what Obama had requested, according to the bill. A group of 14 senators, including U.S. Sen. Richard Shelby, R-Ala., has urged Senate appropriators to also protect the program, which provides long-range weather information used by farmers, shippers, military planners, pilots and fishermen. "As we enter a predicted above-average hurricane season, we hope that the early warnings these satellites provide will continue to save lives but we are concerned that lack of funding now will bring about unnecessary death and destruction in the future, when there are not accurate multi-day forecasts of severe weather," the group of senators wrote. Legislation to fund the commerce, justice and science agencies has not yet been introduced in the Senate. The American Red Cross and the American Meteorological Society also have supported the increased funding for the satellites, according to letters written to the Senate Appropriations Committee.

# Spending Links

## 1NC Link

### The plan costs a billion in the short term and more in the longer term

Brinton 7/8/11 (Turner, staffwriter “U.S. House Bill Would Boost Funding for JPSS Program” http://www.spacenews.com/earth\_observation/110708-bill-boost-funding-jpss.html) MFR

WASHINGTON — A U.S. House of Representatives appropriations panel that oversees the National Oceanic and Atmospheric Administration (NOAA) approved a spending bill July 7 that would provide just over $900 million in 2012 for a cash-starved polar weather satellite program. Despite the $429.5 million funding increase recommended for the Joint Polar Satellite System (JPSS), the House Appropriations commerce, justice, science subcommittee would provide only $4.5 billion for NOAA next year, $1 billion short of the administration’s request. In total, the panel slashed $7.4 billion from the White House’s $57.7 billion request for all commerce-, justice- and science-related spending.

### The plan costs over a billion initially

Brinton 7/24/11 (Turner, Staffwriter. “NOAA Asks To Move $90M into Cash-strapped JPSS” <http://www.spacenews.com/policy/110624-noaa-asks-move-cash-jpss.html>) MFR

NOAA was provided with $382 million for its share of NPOESS in 2010 and requested $1.06 billion for JPSS in 2011. Congress was unable to pass any of the 12 government spending bills for 2011, and instead funded the federal government with an all-in-one spending bill that held most agencies to 2010 funding levels. As a result, NOAA was left with a $678 million shortfall that it says has already delayed the launch of the first JPSS spacecraft by at least a year.

### And the entire program really costs 15 billion

GAO 2010 (Government Accountability Office “Polar-Orbiting Environmental Satellites: Agencies Must Act Quickly to Address Risks That Jeopardize the Continuity of Weather and Climate Data” Google Books) MFR

Cost: NOAA anticipates that the JPSS program will cost approximately $11.9 billion to complete through 2024.Although this estimated cost is less t han the baselined cost of the NPOESS program, DOD will still need to fund and develop satellites to meet the requirements for the early morning orbit. DOD's initial estimates are for its new program to cost almost $5 billion t hrough fiscal year 2015.w Thus, it is likely that the cost of the two acquisitions will exceed the baselined life-cycle cost of the Nl'OKSS program.

# Case

## 1NC—Solvency Frontline

### The NPP solves – its functionally the same program but used by a different agency

Gumley 9 (Liam, Correspondent for the Space Science and Engineering Center <http://www.ssec.wisc.edu/media/newsletter/winter09/nppsatellite.pdf>) MFR

The NPOESS Preparatory Project (NPP) satellite mission is a joint project between NASA and the NPOESS Integrated Program Office (IPO). Currently scheduled to launch in mid-2010, NPP will provide a first look at a new generation of products from U.S. operational polar-orbiting Earth observing satellites. The NPP mission will (a) provide a bridge mission between the current constellation of NASA Earth Observing System (EOS) satellites including Terra, Aqua, and Aura and the future constellation of NPOESS satellites; (b) continue the record of global climate observations established by EOS; and (c) provide the NPOESS project and customer community with risk reduction for selected NPOESS instruments, algorithms, products, and ground processing. The NPP spacecraft will be launched into a sun-synchronous polar orbit at an altitude of 825 kilometers with an equator crossing time of 1:30 pm, a period of 100 minutes, and a repeat cycle of 16 days. The planned mission duration is five years. Global data will be downlinked via the Svalbard Ground Station once per orbit, and all mission data will be made available in real-time via X-band direct broadcast. The NPP instrument payload includes the following sensors: • Visible Infrared Imager Radiometer Suite (VIIRS): Multispectral scanning radiometer with 22 spectral bands, FOV 370/740 meters; • Cross-Track Infrared Sounder (CrIS): Michelson interferometer with 1297 spectral bands, FOV 14 kilometers; • Advanced Technology Microwave Sounder (ATMS): Passive microwave radiometer with 22 channels, FOV 75/33/15 kilometers; • Ozone Mapping & Profiling Sensor (OMPS): three hyperspectral imaging spectrometers (Nadir Mapper, Nadir Profiler, Limb Profiler); • Clouds and the Earth’s Radiant Energy System (CERES); broadband scanning radiometer. The prime contractor for NPOESS (Northrop Grumman) is responsible for NPP product generation within the Interface Data Processing Segment (IDPS) of the NPOESS Ground System. The IDPS will create global products in real-time from VIIRS, CrIS, and ATMS, while OMPS and CERES products will be generated by NASA GSFC and LARC, respectively. NPP products generated by the IDPS will include: • Raw Data Records (RDRs): raw instrument packet level data • Sensor Data Records (SDRs): calibrated and geolocated Earth observations • Environmental Data Records (EDRs): derived geophysical products

### JPSS requires repairs which means forecasting gaps are inevitable

GAO 2010 (Government Accountability Office “Polar-Orbiting Environmental Satellites: Agencies Must Act Quickly to Address Risks That Jeopardize the Continuity of Weather and Climate Data” Google Books) MFR

Although the first JPSS satellite launch is planned for 2015, it may need a year or more to perform an on-orbit accuracy check. " Thus, it is very likely that, there will be gaps in climate and weather data if NIT cannot survive beyond its design life. Further delays in the development and launch of t he next satellite will increase the risk of a gap. NOAA officials acknowledge this limitation and are evaluating ways to mitigate the risk of a gap. NASA officials reported that the NPP spacecraft is based on a legacy design; thus, they estimate that the spacecraft will likely last for 7 years or more. However, they questioned the reliability of key sensors— particularly VIIRS, CrIS, and OMPS— on NPP, due to poor workmanship and mission assurance weaknesses during development.

## 2NC NPP

### The NPP solves – it will fill-in and has been filling in for the Joint Polar Satellite system

O'Carroll and Leslie 5/24/11 (Cynthia M, NASA's Goddard Space Flight Center John, NOAA Communications and External Affairs “NASA's NPP Satellite Successfully Completes Thermal Vac Testing” <http://www.nasa.gov/centers/goddard/news/releases/2011/11-036.html>) MFR

The NASA National Polar-orbiting Operational Environmental Satellite System (NPOESS) Preparatory Project (NPP) climate and weather satellite has successfully passed all environmental testing with the recent completion of thermal vacuum testing at Ball Aerospace & Technologies Corp's production and test facility in Boulder, Colo. The two months of testing verified that the NPP spacecraft is ready to operate in a space environment. In August, the satellite will be delivered to the Vandenberg Air Force Base in Lompoc, Calif., for final preparations for a planned Oct. 25 launch. The NPP mission will help link the current generation of Earth-observing satellites called the Earth Observing System (EOS) to a next-generation of operational polar-orbiting environmental satellites called the Joint Polar Satellite System (JPSS), managed by the National Oceanic and Atmospheric Administration (NOAA). NPP data will also be used as input to numerical weather models until the JPSS system is deployed. "I am very proud of the entire NPP satellite team for successfully conducting a very thorough and complex environmental test program. The satellite performed very well and the teamwork during thermal vacuum testing was outstanding," said Ken Schwer, NPP project manager at NASA's Goddard Space Flight Center, Greenbelt, Md. Data from NPP will be used in a range of situations to address an array of research questions. Climatologists will use the data to enhance their understanding of climate change, meteorologists to make more accurate live-saving weather forecasts and warnings, and emergency responders to monitor and react to natural disasters. NPP contains a suite of five sensors that will retrieve key data products about Earth including, for example, measurements of cloud and vegetation cover, ice cover, ocean color, and sea and surface temperatures. All of NPP’s data products have some bearing on understanding global change and climate science. Four of the data products – especially measures of the vertical distribution of moisture and heat in the atmosphere – will help meteorologists improve weather forecasts. Two data products relate to ozone, the colorless gas that shields the planet from harmful ultraviolet radiation and has declined in abundance over Antarctica in the last few decades. The five-instrument suite includes: the Visible/Infrared Imager Radiometer Suite (VIIRS); the Cross-track Infrared Sounder (CrIS); the Clouds and Earth Radiant Energy System (CERES); the Advanced Technology Microwave Sounder (ATMS); and the Ozone Mapping and Profiler Suite (OMPS). NPP's advanced visible, infrared, and microwave imagers and sounders will provide quality climate observations critical to the nation’s civil and military users of operational satellite data. NPP's five advanced sensors are prototypes for the JPSS missions to follow. In addition to completing environmental tests on the spacecraft, NPP engineers have completed key tests on a network of ground-based stations that will be used to retrieve and process data from NPP when the satellite reaches orbit. "The ground system is nearly ready to support launch, satellite commissioning and the risk reduction phase of the NPP mission," said Dan DeVito, JPSS Ground Project Manager, at NASA's Goddard Space Flight Center. "The team has really pulled together over the past year to prepare the Ground System for NPP." NASA's Goddard Space Flight Center manages the NPP mission on behalf of the Earth Science Division of the Science Mission Directorate at NASA Headquarters, Washington. The JPSS program is providing the ground system for NPP. NOAA will provide operational support for the mission. For information about NPP and NASA agency programs on the Web, visit:

## 2NC A2: NPP = Fail

### Nope, that evidence is old and the bureaucratic mess has been fixed – it will be launched soon

CLARK 2/3/11 (STEPHEN, staffwriter “NPP weather satellite nearly ready for crucial mission” http://spaceflightnow.com/news/n1102/03npp/) MFR

The oft-delayed NPOESS Preparatory Project, once a symbol of bureaucratic mismanagement, is back on track for liftoff in October on an essential mission to supply weather and climate data to meteorologists. The U.S. weather satellite is more than halfway though a series of environmental tests to verify the craft's ability to withstand the harsh conditions of rocket flight and low Earth orbit. Originally planned to launch in 2006, the NPP satellite was conceived as a research and technology demonstration mission. But cascading delays of the country's next-generation polar weather satellites thrust NPP into a make-or-break role as an operational asset for forecasters. NPP was the victim of a cumbersome, ineffective management structure and development delays of its suite of weather and climate sensors. The satellite's last instrument was installed in July 2010, setting the stage for environmental tests in the fall and winter. "We're on track to launch this October," said Ken Schwer, NPP project manager at NASA. NASA oversees the acquisition and development of civilian weather satellites, while NOAA operates the observatories once they reach orbit. A launch mishap or premature satellite failure could spell major trouble for forecasters relying on polar satellite data to observe global weather patterns, study the changing climate, and measure temperature, moisture and ozone levels around the world. The data are fed into climate models to help produce short-, medium-, and long-range forecasts for civilians and the military. NPP will also continue long-term climate research now being conducted by NASA's Terra, Aqua and Aura remote sensing satellites. NOAA, the U.S. Defense Department and Eumetsat, the European weather satellite organization, share responsibility for collecting climate observations from polar orbits. The agencies operate spacecraft in different orbital planes spread around the globe at any given time. The U.S. military provides satellites flying over parts of the Earth in the early morning, Europe oversees mid-morning coverage and NOAA assets do observations in an afternoon orbit. The polar-orbiting satellites complement observatories at geosynchronous altitudes, which provide real-time imagery to track severe storms, hurricanes and other rapidly-developing weather systems. The higher-altitude satellites also beam back imagery seen on television newscasts. NPP is heading for the afternoon orbit, where NOAA has three satellites available to collect weather data. But two of those spacecraft are aging and only partially operable. NOAA 19, the agency's newest polar satellite, was launched in February 2009 and designed to work for more than three years. NASA expects NPP will be ready to launch as soon as Oct. 25 on a Delta 2 rocket from Vandenberg Air Force Base, Calif. It is scheduled to be the final flight of the Delta 2. "It's not a real tight schedule," said Preston Burch, manager of the Joint Polar Satellite System program at NASA's Goddard Space Flight Center in Greenbelt, Md. The JPSS office was opened at Goddard last year to replace the civilian portion of the cancelled NPOESS program. The troubled NPOESS program attempted to combine civil and military polar weather satellites, but the effort fell years behind schedule and billions of dollars over budget. The cost of NPOESS soared to more than $15 billion by the beginning of 2010. The U.S. government called it quits on NPOESS last year, opting to go back to the tried-and-proven concept of separate defense and civil programs. Officials at Ball Aerospace and Technologies Corp. in Boulder, Colo., say the NPP spacecraft has completed a series of integrated dynamics tests simulating the violent environment of a rocket blastoff. According to Schwer, the satellite also finished up electromagnetic interference testing earlier this month. Next up is a thermal vacuum test to subject the spacecraft to the extreme heat and cold of space. Schwer said the project has about 40 days of schedule slack to address potential last-minute problems before they impact the October launch target. "We're maintaining schedule very well and have been very successful throughout the environmental [test] campaign," Schwer said. "We're working very well with the JPSS ground system. We have all the interface and compatiblity testing lined up. It looks like we have a very good path to get to that October 2011 launch." NASA's focus since restructuring the weather satellite program has been on accelerating the development and testing of a common ground system. The new ground system, a holdover from the NPOESS program, will be first used by the NPP satellite once it is safely in space. Future Air Force satellites will also rely on the JPSS ground system for spacecraft control and data collection. "The ground system is absolutely enormous," Burch said. "Right now, our No. 1 priority is getting the JPSS ground system ready to support the NPP launch." Managed by Raytheon Co., the ground system encompasses crucial command, control, communications, data processing and operations functions. Officials rushed to prepare the ground system for integrated testing with the NPP spacecraft. "The ground system needs to participate in that [testing]," Burch said. "It's an opportunity to test the spacecraft with the ground system to ensure compatibility. Raytheon has been working very hard to get these issues identified and fixed and be in a position to run all the tests with the spacecraft." The Government Accountability Office, a federal watchdog agency, last year identified the NPP ground segment as one of the highest risks still plaguing the program. Budget overruns last year forced managers to temporarily scale back work on the ground system, slowing progress in the latter half of 2010. But officials have made up for lost time since that setback. "Right now, we've got the ground system back on track to support the NPP launch," Burch said. Compatibility checks between the Raytheon ground system and the NPP spacecraft are planned for the coming months. If those tests go well, engineers will prepare the satellite for its final exam -- several weeks inside a thermal vacuum chamber designed to subject NPP to the airless environment of space. Officials expect to ship the spacecraft in August from Boulder to Vandenberg Air Force Base for launch preparations. "We have confidence that we're going to hit the Oct. 25 launch date," said Scott Tennant, NPP program manager for Ball Aerospace. Ball's development of NPP was managed by Northrop Grumman Corp., the prime contract of the NPOESS program until it was disbanded in 2010. Northrop Grumman answered to the NPOESS Integrated Program Office, a tri-agency oversight organization that included the Air Force, NOAA and NASA. The acquisition and launch of NPP and future JPSS satellites will now be managed by NASA, much like the heritage weather satellites the new craft are replacing. The cumbersome tri-agency structure was blamed for rising costs and mounting schedule delays facing the NPOESS program. NPP fell victim to similar problems, falling more than five years behind schedule since 2002. Officials blame technical snags with NPP's weather instruments for most of the delays. The last of the satellite's five sensors was integrated on the spacecraft in July 2010, finally clearing the way for NPP's final environmental tests and launch campaign. According to Christian Meyer, NPP's chief engineer at Ball, assembly of the spacecraft bus was completed in 2005. The extra time didn't go to waste. While waiting for instrument deliveries, the Ball team put the NPP spacecraft through extra tests to raise engineers' confidence in its performance. "There was a lot of risk reduction testing with the instruments, risk reduction testing with the ground control station back in Suitland, Md," Meyer said. "That's how we filled in the gap to a large extent." Workers bolted dummy instruments to the satellite and put the observatory through a series of functional checks, including verifying new 1394 data bus technology. "We reduced as much risk as we could in terms of the instrument interfaces and the overall system operability," Meyer said. "We actually upgraded the spacecraft in a few different areas." The Visible/Infrared Imager Radiometer Suite, or VIIRS, was delivered to Boulder in January 2010. The Cross-track Infrared Sounder, or CrIS, was plugged into the spacecraft in July 2010. Circuit card design flaws in the CrIS instrument forced NPP's most recent launch delay. Rework on CrIS was responsible for a nine-month delay, according to NASA. CrIS was manufactured by ITT Geospatial Systems. Engineers designed NPP for at least five years of service in space, but officials expect the satellite to function into the second half of this decade. That might be necessary given the possible complications in the development of the first JPSS satellite, which would take over for NPP in NOAA's afternoon polar orbit. NASA and NOAA selected Ball to provide a clone of NPP as the first next-generation climate satellite, surmising it was the least risky solution to close the weather satellite gap. JPSS 1 won't launch until at least 2015, and possibly later depending on technical progress and the flow of government funding. An early end to NPP's mission or major delays in the JPSS schedule could spell trouble for weather forecasters, a dire outcome the GAO and others have warned of for years. The stakes aren't lost on weather satellite officials. "A major concern with restructuring NPOESS was ensuring that we minimize the risk of any potential gap in weather coverage in the afternoon orbit," Burch said. "NOAA is kind of thin on assets in that orbit, so we want to get the first JPSS spacecraft launched as soon as possible." "NPP will be the weather satellite for our nation for the next several years," Meyer said. "We take our role seriously."

## 1NC—Disaster Relief Fails

### Disaster relief fails –

### A. Coordination and lack of knowledge

Mener 7 (Andrew S., senior Political Science major, PhD candidate for polysci “DISASTER RESPONSE IN THE UNITED STATES OF AMERICA: An Analysis of the Bureaucratic and Political History of a Failing System” CUREJ - College Undergraduate Research Electronic Journal – UPENN, http://repository.upenn.edu/cgi/viewcontent.cgi?article=1068&context=curej) MFR

In contrast, if you surveyed my American colleagues, you would find little to no understanding of the disaster response system. Virtually nobody has read the 426 page all-hazards plan titled the National Response Plan, and with the exception of some major cities, few emergency response agencies have reinforced or protected emergency infrastructure. In attempt to correct this problem, as of October 2005, the federal government began requiring that all local and state emergency response organizations adopt the federal incident command recommendations. Each agency was required to demonstrate that all employees completed a series of federal incident command classes to remain eligible for federal emergency preparedness dollars. However, even this requirement has been loosely enforced since it can be fulfilled through short online courses for which the test answer keys are widely circulated. From my experience, the plan has not become a part of the institutional culture, is rarely reviewed during inservice training, and is criticized by most people for being so complex as to be impractical. While the disaster response system may be adequate in small-scale disasters when a handful of agencies must coordinate, as I embarked on this research project I became astonished by our nation’s **striking lack of preparedness**. Disasters often strike with limited or no warning, and by definition they result in large-scale death, destruction, and mass hysteria. They often have long-lasting and large-scale economic, political, and psychological effects. While individual disasters may not be predictable, we can be assured that another disaster will occur in the not too distant future. It may come in the form of a hurricane, earthquake, tsunami, or other natural disaster; or, it may be the result of an intentional human act such as war, terrorism, bioterrorism, or some yet unforeseen destructive act. The American public and political officials have a choice. They can continue, however illogical, to live in denial that another destructive event is forthcoming, or they can learn from the past and finally create a political and bureaucratic system capable of curtailing destructive effect

### B. Prohibitive positioning laws, interagency conflict, and federal-local coordination

Mener 7 (Andrew S., senior Political Science major, PhD candidate for polysci “DISASTER RESPONSE IN THE UNITED STATES OF AMERICA: An Analysis of the Bureaucratic and Political History of a Failing System” CUREJ - College Undergraduate Research Electronic Journal – UPENN, http://repository.upenn.edu/cgi/viewcontent.cgi?article=1068&context=curej) MFR

During the period following the immediate catastrophe, government agencies and independent analysts had the opportunity to carefully evaluate the overall disaster response plan. Interestingly, the reports by the House Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, the Senate Homeland Security and Governmental Affairs Committee, the White House Homeland Security Council, the Department of Homeland Security Inspector General, the Department of Homeland Security, and FEMA all agreed about the overall weaknesses in the response. In short, many of the same weaknesses that were highlighted following Hurricane Andrew reemerged. In particular, FEMA did not have the administrative capacity nor the authority within the federal bureaucracy to effectively coordinate the implementation of the National Response Plan. Just as it had been in the past, strong presidential leadership was necessary to promote the needed interagency cooperation. Additionally, although FEMA did preposition supplies and personnel for Hurricane Katrina, this was not explicitly authorized by the Stafford Act before an official disaster declaration. Furthermore, although FEMA prepositioned supplies, other federal, state, and local agencies may not have prepositioned supplies since federal reimbursements are not guaranteed until an official disaster declaration is issued. For that reason, it is widely held that this law ought to be revised to ensure that appropriate resources are prepositioned when a disaster is predicted. Lastly, and perhaps most importantly, there was no adequate system in place during Hurricane Katrina to provide rapid and accurate damage assessment. For that reason, key decision makers were forced to proceed without critical information. In the National Response Plan, state and local authorities are charged with providing these assessments. However, there is no adequate provision to obtain this information when state and local resources are completely overwhelmed as was the case during Hurricane Katrina.

## 2NC Disaster Relief Fails

### Centralized model spells failure for disaster relief – no coordination, confusion, and private sector co-option

Leeson and Sobel 8 (\*PETER T., \*RUSSELL S. “Centralization Proves Inadequate to Disaster Aid” JOURNAL OF INTERNATIONAL PEACE OPERATIONS — www.PeaceOps.com — VOLUME 3, NUMBER 4 : January-February 2008http://www.peterleeson.com/Centralization\_Proves\_Inadequate.pdf) MFR

The largest failures following Hurricane Katrina were results of government attempts to centrally plan the disaster relief response. Private sector entrepreneurial efforts were thwarted, delayed, and stifled by FEMA and other government agencies that insisted on centrally planning disaster relief efforts. The few pockets of success that existed were the result of private, decentralized decisionmaking undertaken by for-profit businesses, such as Wal-Mart, and non-profit organizations, such as the Red Cross. In many cases these success stories are tales of how private individuals were able to circumvent the layers of bureaucracy and restriction imposed on economic transactions in the wake of the storm. Central planning fails to coordinate economic activity under “normal” circumstances. It fails even more miserably under conditions of uncertainty and rapidly changing supply and demand, such as those that attend natural disaster. Government’s failed response to Katrina was simply a reflection of the inherent failure of central planning itself. The superiority of private decision making over central planning is as pronounced for natural disaster relief as it is for traditional economic activities. When the Soviet Union crumbled in 1991, the entire world witnessed the unavoidable failure of central planning. Despite this, societies have continued to run various aspects of their organization in the same way the Soviet Union ran its economy, as though if only the central planning were limited to certain critical aspects of our lives its failure could be avoided. Unfortunately, this view is seriously mistaken. Nowhere can this be seen more readily than in the case of natural disaster relief in the U.S., evidenced most recently by Hurricane Katrina. Any activity involving multiple and disparate actors must overcome a basic “coordination problem” to be successful. Whether we are dealing with how to organize the production and distribution of shoes, or how to respond effectively following a category-five hurricane, somehow the plans and decisions of relevant individuals must come into alignment for the required cooperation to take place. The reason for the omnipresence of the coordination problem is simple enough. The information needed to align the interests and activities of diverse individuals is dispersed. It does not exist in a centralized form in the hands of any one individual or group of individuals. Information always exists in scattered, fragmentary form. It is held by individual actors and often inaccessible by others

### FEMA is 37 for 37 scenarios behind killing effective relief

GAO, Government Accountability Office, Statement of William O. Jenkins, Jr., Director Homeland Security and Justice Issues , March 17, 2011, Testimony Before the Committee on Homeland Security and Governmental Affairs, U.S.Senate, “MEASURING DISASTER PREPAREDNESS FEMA Has Made Limited Progress in Assessing National Capabilities”, PDF

In April 2009, we reported that establishing quantifiable metrics for target capabilities was a prerequisite to developing assessment data that can be compared across all levels of government. At the time of our review, FEMA was in the process of refining the target capabilities to make them more measurable and to provide state and local jurisdictions with additional guidance on the levels of capability they need. Specifically, FEMA planned to develop quantifiable metrics—or performance objectives—for each of the 37 target capabilities that are to outline specific capability targets that jurisdictions (such as cities) of varying size should strive to meet, being cognizant of the fact that there is not a “one size fits all” approach to preparedness. However, FEMA has not yet completed these quantifiable metrics for its 37 target capabilities, and it is unclear when it plans to do so.

### Kills efficiency - Increased DATA only risks delays – conflicting data and lack of uniformity mean effective response is impossible

GAO, Government Accountability Office, Statement of William O. Jenkins, Jr., Director Homeland Security and Justice Issues , March 17, 2011, Testimony Before the Committee on Homeland Security and Governmental Affairs, U.S.Senate, “MEASURING DISASTER PREPAREDNESS FEMA Has Made Limited Progress in Assessing National Capabilities”, PDF

We reported in July 2005 that DHS had identified potential challenges in gathering the information needed to assess capabilities, including determining how to aggregate data from federal, state, local, and tribal governments and others and integrating self-assessment and external assessment approaches. In reviewing FEMA’s efforts to assess capabilities, we further reported in April 2009 that FEMA faced methodological challenges with regard to (1) differences in data available, (2) variations in reporting structures across states, and (3) variations in the level of detail within data sources requiring subjective interpretation. We recommended that FEMA enhance its project management plan to include milestone dates, among other things, a recommendation to which DHS concurred. In October 2010, we reported that FEMA had enhanced its project management plan. Nonetheless, the challenges we reported in July 2005 and April 2009 faced by DHS and FEMA, respectively, in their efforts to measure preparedness and establish a system of metrics to assess national capabilities have proved to be difficult for them to overcome. We reported that in October 2010, in general, FEMA officials said that evaluation efforts they used to collect data on national preparedness capabilities were useful for their respective purposes, but that the data collected were limited by data reliability and measurement issues related to the lack of standardization in the collection of data.

### Lack of uniformed framework on national preparedness capabilities mean FEMA wont get ground data necessary for effective response

GAO, Government Accountability Office, Statement of William O. Jenkins, Jr., Director Homeland Security and Justice Issues , March 17, 2011, Testimony Before the Committee on Homeland Security and Governmental Affairs, U.S.Senate, “MEASURING DISASTER PREPAREDNESS FEMA Has Made Limited Progress in Assessing National Capabilities”, PDF

We reported in October 2010 that FEMA officials said they had an ongoing effort to develop measures for target capabilities—as planning guidance to assist in state and local assessments —rather than as requirements for measuring preparedness by assessing capabilities; FEMA officials had not yet determined how they plan to revise the list and said they are awaiting the completed revision of Homeland Security Presidential Directive 8, which is to address national preparedness. As a result, FEMA has not yet developed national preparedness capability requirements based on established metrics to provide a framework for national preparedness assessments. Until such a framework is in place, FEMA will not have a basis to operationalize and implement its conceptual approach for assessing federal, state, and local preparedness capabilities against capability requirements to identify capability gaps for prioritizing investments in national preparedness.

### Bureaucracy means response fails

CNA and Oxfam America, A study Under, E.D. McGrady led the research; at Oxfam, Marc J. Cohen led the research. June 2011, “Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster Response An Ounce of Prevention”, PDF

A major factor that leads to inefficiency is the bureaucratic siloing of disaster aid and long-term development assistance. This siloing severely limits the US government’s ability to deal with both immediate aid and long-term development. The skewing of US humanitarian assistance toward short-term programs and food aid—and away from emergency agricultural assistance and other livelihood support—exacerbates the failure to link relief and development.

### Geopolitics mean nations in need don’t get funds

CNA and Oxfam America, A study Under, E.D. McGrady led the research; at Oxfam, Marc J. Cohen led the research. June 2011, “Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster Response An Ounce of Prevention”, PDF

In examining individual responses, we found that the decision to respond to humanitarian crises could be skewed by considerations such as US foreign policy concerns (the current relationship between the recipient and the US, the political system of the affected state, and the level of development in the affected state), and domestic influences within the US.26 Such findings are in contrast to the humanitarian principles of impartiality and neutrality in delivery of emergency aid and, moreover, are not consistent with efforts to deliver aid in the most efficient way possible (defined as the greatest effect on need per dollar expended). For example, at the time of writing, the Department of State has been attempting to deter NGOs and OFDA from providing humanitarian assistance in Somalia owing to fears of leakage to armed insur- gents designated as terrorist groups by the United States. The State Department is requiring NGOs to sign agreements that they will not aid these insurgents “with or without their knowledge,” holding up assistance despite the estimated two million people who needed it as of November 2010.27 In other cases, some populations may be given preferential treatment in order to positively influence their view of the United States, whether or not they are in areas of the greatest need. Although these policy-driven processes may allocate aid to further short-term foreign policy objectives, the short time horizon of such considerations too often gets in the way of need-based allocations that may, in fact, have a more meaningful impact on long-run national security.28 In the future it will be important for key decision makers to understand how their decisions introduce inefficiencies into the system and to realize the additional cost to the system of those decisions. In this way decision makers can realistically assess the cost of their political determinations and modify them to incorporate need as a greater priority.

### Legal barriers mean food assistance fails

CNA and Oxfam America, A study Under, E.D. McGrady led the research; at Oxfam, Marc J. Cohen led the research. June 2011, “Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster ResponseAn Ounce of Prevention”, PDF

US food aid also currently operates within a prob- lematic legal framework.35 This legal framework severely limits the US government’s capacity to procure food aid commodities in the recipient country or surrounding region. Food produced in the US is often more expen sive and takes much longer to get to beneficiaries than local commodities. During 2004–2008, US food aid to Africa required an average of 147 days for delivery versus 35–41 days for food from the African continent.36

### Disaster relief fails- Haiti proves

Canham 5-11-11 (Matt, Reporter for the salt lake tribune, <http://www.sltrib.com/sltrib/politics/51797578-90/agency-assistance-chaffetz-countries.html.csp> , “Chaffetz rips U.S. disaster relief efforts”)

Washington • House Republicans on Wednesday called U.S. disaster relief efforts in earthquake-ravaged Haiti "pathetic" and charged the nation’s foreign assistance agency with failing to track its money appropriately or monitor the results of its efforts. Rep. Jason Chaffetz, R-Utah, led the attack in a House hearing focused on the United States Agency for International Development (USAID). The hearing was an outgrowth of trips Chaffetz and other House members made to Haiti, Afghanistan, Pakistan and Iraq — places where USAID has a major presence. He became frustrated with a lack of information and became convinced the agency had mismanaged its money. "Americans are paying top dollar for foreign assistance. Unfortunately, the taxpayer is not getting top-dollar results," said Chaffetz, chairman of the House subcommittee on foreign affairs, pointing to USAID’s programs in Haiti where rubble and trash overwhelm many streets and many still have no electricity. USAID Administrator Rajiv Shah defended his agency’s response, calling the initial disaster relief effort "tremendous," which included feeding hundreds of thousands of suddenly homeless Haitians and providing medical care. He said the agency has been hampered by bureaucratic delays within the Haitian government and also stressed that progress in Haiti is relative, reminding the congressmen in attendance that it is the poorest country in the Western hemisphere. But Chaffetz pointed to reports from the inspector general that said USAID was far behind its own goals for rubble removal and the building of temporary shelters, despite having roughly $1 billion in funds. "The totality of the U.S. response has been pathetic and disappointing," he said Rep. Darrell Issa, R-Calif., the chairman of the Committee on Oversight and Government Reform, told Shah that if this kind of response happened in the United States, he would be fired. USAID administers $18 billion in foreign assistance and oversees development projects in more than 80 countries, but Afghanistan, Pakistan and Haiti accounted for more than one-fourth of its budget in fiscal year 2010 in large part because of the war and natural disasters.

### International efforts fail- No funding

Beaumont 10 (Peter, Foreign affairs editor for the guardian, “Britian accuses G20 countries of failing to contribute to disaster relief fund, <http://www.guardian.co.uk/global-development/2010/dec/26/britain-accuses-g20-disaster-relief>)

The international development secretary, Andrew Mitchell, is set to deliver a withering critique of the failure of some of the world's most economically developed countries to contribute to international disaster relief. In a year in which 263 million people were affected by natural disasters – 110 million more than in 2004, the year of the Boxing Day tsunami in south-east Asia – Mitchell will say that lack of support from [G20](http://www.guardian.co.uk/world/g20) countries risks undermining the world's ability to respond to future shocks. His criticism comes amid evidence that, despite the Haitian earthquake and Pakistan floods this year, many governments are cutting back on donations to emergency relief funds, with the UN's disaster fund already facing a $100m shortfall. It comes, too, as experts have been predicting that increasing incidences of floods, famines and other climate-related natural disasters could affect 375 million people every year by 2015, even if incidents such as earthquakes and conflicts are excluded. Earlier this year, Mitchell set up an independent review of how the UK government responds to disasters. It is chaired by Lord Ashdown and led by an advisory board of humanitarian experts. At the heart of Mitchell's concern is the level of contributions to the UN's central emergency response fund, set up in 2005 in the aftermath of the Boxing Day tsunami and designed to speed up delivery of emergency funds. The fund has given money to relief efforts for every major disaster this year, including many that did not make the news, such as locust infestation in Madagascar, lead poisoning in Nigeria and a measles outbreak in Lesotho. Many of these relief efforts are severely underfunded. "It is vital that countries back the fund and make sure we are ready to help when it will be needed most," said Mitchell last week, adding he had felt it necessary to fly to the UN in New York to urge members to give more after the floods in Pakistan earlier this year. "Passing the hat around after the disaster has hit is not a satisfactory way of doing things." Despite a UN general assembly resolution that it should be funded annually to the tune of $500m, a replenishment conference earlier this month saw only $358m raised, with China, the world's second-largest economy, pledging only $500,000 in 2011. Italy has been identified as another relatively poor contributor, promising only $1.5m. By contrast, Britain, which has been the largest donor to the fund, ahead of the Netherlands and Sweden, will announce this week that it is giving £40m ($61.7m). Since the fund's foundation, Britain has given almost six times as much as Germany, more than twice as much as Spain and 14 times as much as the US. As well as the shortfall in funding, Mitchell added that the recent experience showed that the UN still needed to improve its leadership and co-ordination on the ground, to avoid both delays and duplication of provision. Indeed, during the Haiti earthquake and the Pakistan floods this year, there was criticism that the international response was slow, and once it had begun there was poor co-ordination between humanitarian organisations. Mitchell said: "2010 will be remembered as a dreadful year for humanitarian disasters. Even in difficult economic times, Britain can be proud that it stood by people in their hour of need. Sadly, the scale and intensity of disasters is predicted to increase. "We must restock and replenish our response to emerging disasters and make sure the system is fit for purpose. The UN has a central role to play in this, but a lack of support for its disaster fund threatens to undermine its ability to deal with future shocks." Mitchell's department is one of only two – the other is the department of health – that has not seen its budget slashed by chancellor George Osborne in the current round of spending cuts. Instead, its funding will be increased until 2014. How it spends its money, however, came under criticism last week from MPs concerned that it did not have enough resources adequately to monitor how its [aid](http://www.guardian.co.uk/global-development/aid) was spent. In addition to supporting the central emergency response fund, Britain will give £19m to the UN High Commissioner for [Refugees](http://www.guardian.co.uk/world/refugees). Refugees are the most one of the most vulnerable groups affected by conflicts and natural disasters. At the end of 2009 there were 43 million people displaced across the world as a result of conflict alone. The £19m could help buy and deliver 118,000 lightweight tents in new emergencies, provide basic shelter for 14,500 displaced people or help 290,000 Afghan refugees to return home and restart their lives.

### FEMA spread too thin to solve

Mayer and DeBosier 10 (Matt Mayer, former U.S. Department of Homeland Security official and Mark, writer for heritage, april 13th, “Federalizing disasters weakens FEMA Hurts Americans Hit by catastrophes, <http://www.heritage.org/Research/Reports/2010/04/Federalizing-Disasters-Weakens-FEMA-and-Hurts-Americans-Hit-by-Catastrophes>)

The Federal Emergency Management Agency has been responding to almost any natural disaster around the country, be it a contained three-county flood, or a catastrophe of near-epic proportions like Hurricane Katrina. As a result, many states and localities have trimmed their own emergency-response budgets, often leaving them ill prepared to handle even rain- or snowstorms without federal assistance. This leaves FEMA stretched far too thin and ill prepared to respond to grand-scale catastrophes. The "federalization of disasters" misdirects vital resources, leaving localities, states, and the federal government in a lose-lose situation. FEMA policies must be overhauled to let localities handle smaller, localized disasters, and to allow FEMA to respond fully and effectively when it is truly needed. If the status quo continues, it will be a disaster for everyone. Since 1993, the Federal Emergency Management Agency (FEMA) has been federalizing "routine" natural disasters--such as floods, fires, and storms--that had historically been dealt with entirely by state and local governments.[[1]](http://www.heritage.org/Research/Reports/2010/04/Federalizing-Disasters-Weakens-FEMA-and-Hurts-Americans-Hit-by-Catastrophes%22%20%5Cl%20%22_ftn1%22%20%5Co%20%22) Because of this federalization of routine disasters, two consequences emerged. First, many state and local governments cut funding to their own emergency management, thereby rendering themselves less prepared to handle natural disasters. Second, FEMA spends too much time responding to routine natural disasters and not enough time preparing for catastrophic natural disasters--such as hurricanes, earthquakes, or volcanic eruptions, which could have a national impact--thereby increasing the likelihood that the federal response for the next catastrophic event will be insufficient. Examining the recovery efforts in Louisiana in the five years since Hurricane Katrina devastated New Orleans and many Gulf Coast communities, a third consequence of FEMA's federalization of natural disasters has become evident: Vital resources are increasingly diverted to responses to routine natural disasters. Congress should establish clear requirements that limit the situations in which federal emergency declarations can be issued, while eliminating certain types of disasters from FEMA's portfolio altogether. These actions, coupled with changes in the public assistance program that reflect the on-the-ground fiscal challenges of the affected areas, would help states and localities to better recover when catastrophe strikes. **Sizing Up the Problem** Unless one has personally experienced a catastrophe, one cannot fathom the depth and breadth of the devastation that can occur. Hurricane Katrina, by any measurable standard, was a catastrophe. Based on FEMA's top ten list of costliest disasters since 1954, Hurricane Katrina is by far the most expensive.[[2]](http://www.heritage.org/Research/Reports/2010/04/Federalizing-Disasters-Weakens-FEMA-and-Hurts-Americans-Hit-by-Catastrophes%22%20%5Cl%20%22_ftn2%22%20%5Co%20%22) In fact, the recovery cost for Hurricane Katrina will be more than the cumulative costs for the other nine disasters on the list combined. Hurricane Rita, which struck 30 days after Katrina, is fourth on the top ten list. Hurricanes Gustav and Ike (which only barely missed the top ten list), struck Louisiana three years later. This means that Louisiana is now recovering from the collective damages of four of the worst natural disasters in recorded history. The recovery efforts have overwhelmed the local communities, the state of Louisiana, and the federal government. Funding from FEMA's Public Assistance Grant Program (in operation since 1988) for Hurricane Katrina and Hurricane Rita is estimated to be over $12 billion. The average total Public Assistance Obligation funding per major disaster is only $58 million.[[3]](http://www.heritage.org/Research/Reports/2010/04/Federalizing-Disasters-Weakens-FEMA-and-Hurts-Americans-Hit-by-Catastrophes%22%20%5Cl%20%22_ftn3%22%20%5Co%20%22) Louisiana has 16 individual government agencies that each receive more than $58 million in funding, and at least three entities that each receive more than $500 million in funding. More than 22,000 projects rely on funding from the Public Assistance Grant Program for repairs of damaged property. Of these, 10,994 projects are categorized as "large projects," requiring at least $55,600 each. All 120 public school campuses in the city of New Orleans were damaged or destroyed during Hurricane Katrina and will require an estimated $2.6 billion to restore. The Louisiana Office of Facility Planning and Control is responsible for the repairs or replacement of more than 1,700 damaged facilities. More than 25,000 homes and business were destroyed in a five-parish area. Only one building remained standing in Cameron Parish in the wake of Hurricane Rita. Roughly 80 percent of New Orleans was inundated by toxic waters for several weeks. Nearly every fire station and police station in the parishes surrounding New Orleans was destroyed or rendered functionally impaired. In the aftermath of a disaster, the focus is normally on response--saving lives and property. But recovery, which follows thereafter, can be a much more difficult process--restoring services and attempting to make the community operate again-- and it is bewildering to even know where to begin. Local staff has been decimated, operating revenues are dramatically reduced, rumors and confusion abound, andeverything is a political priority. A period of chaos and frustration is inevitable as food and water are scarce, there is no electricity to operate air conditioners in 98 degree heat, fuel and pharmaceuticals are difficult or impossible to locate, and shelters are overcrowded and looting threatens to spiral out of control. Eventually, order is restored, the local workforce begins to return, and state and federal support arrives. Next, the daunting task ahead begins to materialize and the really hard work starts: Community by community, damage assessments proceed and recovery strategies and priorities begin to take shape. Sooner, rather than later, the stark reality sets in that such a large-scale recovery program is heavily reliant on the federal government through the Public Assistance Grant Program as a primary source of funding.

## 2NC Empirics

### Empirically disaster relief has failed even with advanced warning

Mener 7 (Andrew S., senior Political Science major, PhD candidate for polysci “DISASTER RESPONSE IN THE UNITED STATES OF AMERICA: An Analysis of the Bureaucratic and Political History of a Failing System” CUREJ - College Undergraduate Research Electronic Journal – UPENN, http://repository.upenn.edu/cgi/viewcontent.cgi?article=1068&context=curej) MFR

Despite having responded to thousands of natural disasters and numerous terrorist attacks, at present the United States government at the federal, state, and local levels is exceedingly unprepared to handle the immediate aftereffects of disasters. The federal government has created numerous large bureaucracies and congressional panels as well as generated hundreds of official reports each of which purports to detail appropriate disaster response guidelines. Nonetheless, the improvements since the first disaster response plan was implemented during World War I are not palpable. During the most recent major Hurricanes – Katrina and Rita – despite having significant advanced notice of the impending natural disaster as well as years of investigative reports warning about the fragility of the New Orleans levy system, the disaster response system failed the citizens of Louisiana and the Gulf Coast. That the system requires repair is not debatable. The questions which remain are how the current system came to be, what our expectations of the system should be, and how we ought to shock the political bureaucracy into action to repair the obviously ailing system.

## 1NC—Warming Frontline

### The rate of warming is slowing – newest projections and objective evidence

Eilperin 7/21/11 (Juliet, “Volcanic ash, soot helped slow recent warming, study shows” http://www.washingtonpost.com/national/health-science/volcanic-ash-soot-helped-slow-recent-warming-study-shows/2011/07/20/gIQAg7k8RI\_story.html) MFR

Tiny solid and liquid particles in the atmosphere, including volcanic ash and soot from fossil fuel burning, have kept the Earth from warming as fast as it otherwise would have in the past dozen years, according to a new study published online Thursday in the journal Science. The findings show that both natural and human factors have slowed the rate of global warming 20 percent since 1998. Small particles, otherwise known as aerosols, help cool the Earth’s climate by blocking out sunlight. The study is significant because although average global temperatures last decade were higher than in the 1990s and 1980s, it appears the rate of warming has slowed compared with previous decades. Now, scientists say, persistent aerosols in the stratosphere — the region of the atmosphere that contains the ozone layer — might account for why warming has not been as rapid. John S. Daniel, who co-authored the paper and is a research scientist at the National Oceanic and Atmospheric Administration’s Earth System Research Laboratory in Boulder, Colo., said the analysis shows the impact minor volcanic eruptions and soot from coal burning is “certainly not negligible.” By looking at both ground-based and satellite data, “you could see without a doubt volcanoes were having an impact” even though there has not been a colossal eruption since Mount Pinatubo erupted in 1991, Daniel said. The six researchers, from France and the United States, did not determine how much of the cooling effect stemmed from natural causes and how much was from human activities such as sulfur dioxide emissions from power plants and vehicles. Alan Robock, a professor at Rutgers University’s Department of Environmental Sciences who specializes in analyzing volcanic activity’s climatic impact, said the paper buttresses the argument that the climate change taking place is consistent with computer modeling. “It makes it clear that our theory is consistent with observations,” he said. “It also means we have to fund satellites to observe the stratosphere.” Congress cut NOAA’s Joint Polar Satellite System this spring by more than $500 million as part of a broader budget deal, and lawmakers are engaged in a debate right now over how much to fund the program in the future. Other factors, including sunspot activity, also help account for why the rate of recent warming has not been faster, the study found. Robock, who studies volcanic activity going back 1,500 years by analyzing ice core data, said that volcanic ash can persist in the stratosphere for “a year or two,” while soot from coal burning lasts in the tropospheric level of the atmosphere for “about a week.” Humans emit about 70 million tons of sulfur dioxide into the lower atmosphere every year, compared with a major eruption such as Pinatubo, which put 20 million tons of sulfur dioxide into the stratosphere. As a result, he said, stratospheric aerosol pollution has “a 50 times larger effect, because it lasts so much longer.”

## 2NC Warming False, duh

### All your warming data is false – global cooling is the overall trend, cites the newest, most objective, and peer-reviewed studies

Taylor 7/27/11 (James, senior fellow for environment policy at The Heartland Institute and managing editor of Environment & Climate News. “New NASA Data Blow Gaping Hole In Global Warming Alarmism” <http://news.yahoo.com/nasa-data-blow-gaping-hold-global-warming-alarmism-192334971.html>) MFR

NASA satellite data from the years 2000 through 2011 show the Earth's atmosphere is allowing far more heat to be released into space than alarmist computer models have predicted, reports a new study in the peer-reviewed science journal Remote Sensing. The study indicates far less future global warming will occur than United Nations computer models have predicted, and supports prior studies indicating increases in atmospheric carbon dioxide trap far less heat than alarmists have claimed. Study co-author Dr. Roy Spencer, a principal research scientist at the University of Alabama in Huntsville and U.S. Science Team Leader for the Advanced Microwave Scanning Radiometer flying on NASA's Aqua satellite, reports that real-world data from NASA's Terra satellite contradict multiple assumptions fed into alarmist computer models. "The satellite observations suggest there is much more energy lost to space during and after warming than the climate models show," Spencer said in a July 26 University of Alabama press release. "There is a huge discrepancy between the data and the forecasts that is especially big over the oceans." In addition to finding that far less heat is being trapped than alarmist computer models have predicted, the NASA satellite data show the atmosphere begins shedding heat into space long before United Nations computer models predicted. The new findings are extremely important and should dramatically alter the global warming debate. Scientists on all sides of the global warming debate are in general agreement about how much heat is being directly trapped by human emissions of carbon dioxide (the answer is "not much"). However, the single most important issue in the global warming debate is whether carbon dioxide emissions will indirectly trap far more heat by causing large increases in atmospheric humidity and cirrus clouds. Alarmist computer models assume human carbon dioxide emissions indirectly cause substantial increases in atmospheric humidity and cirrus clouds (each of which are very effective at trapping heat), but real-world data have long shown that carbon dioxide emissions are not causing as much atmospheric humidity and cirrus clouds as the alarmist computer models have predicted. The new NASA Terra satellite data are consistent with long-term NOAA and NASA data indicating atmospheric humidity and cirrus clouds are not increasing in the manner predicted by alarmist computer models. The Terra satellite data also support data collected by NASA's ERBS satellite showing far more longwave radiation (and thus, heat) escaped into space between 1985 and 1999 than alarmist computer models had predicted. Together, the NASA ERBS and Terra satellite data show that for 25 years and counting, carbon dioxide emissions have directly and indirectly trapped far less heat than alarmist computer models have predicted. In short, the central premise of alarmist global warming theory is that carbon dioxide emissions should be directly and indirectly trapping a certain amount of heat in the earth's atmosphere and preventing it from escaping into space. Real-world measurements, however, show far less heat is being trapped in the earth's atmosphere than the alarmist computer models predict, and far more heat is escaping into space than the alarmist computer models predict. When objective NASA satellite data, reported in a peer-reviewed scientific journal, show a "huge discrepancy" between alarmist climate models and real-world facts, climate scientists, the media and our elected officials would be wise to take notice. Whether or not they do so will tell us a great deal about how honest the purveyors of global warming alarmism truly are.

### Aerosols are slowing warming and preventing it – your data analysis is WRONG

Rice 7/21/11 (Doyle, Staffwriter. “What happened to global warming?” <http://content.usatoday.com/communities/sciencefair/post/2011/07/global-warming-slowed-aerosols-stratosphere-volcanoes/1>) MFR

This week's heat wave notwithstanding, scientists have been puzzled as to why global warming has occurred at a slower pace since 1998, following decades of increasing temperatures. A new study out today in the journal Science reports the cause could be an increase in the amount of aerosols – tiny, airborne solid and liquid particles from both natural and man-made sources – high up in the stratosphere. In the study, scientists from the National Oceanic and Atmospheric Administration (NOAA) and other agencies found that an increase in stratospheric aerosols decreased the global warming that would have otherwise occurred by 25 percent since 1998. "There was less warming than you would have had without the aerosols," says study co-author John Daniel of NOAA's Earth System Research Laboratory in Boulder, Colo. Sea salt, dust and volcanic ash are three common types of natural aerosols; these airborne particles can also come from man-made sources from the burning of fossil fuels. "Most of the global warming of the past half-century has been driven by continuing increases in anthropogenic greenhouse gases," the study reports, "but natural aerosols from particular 'colossal' volcanic eruptions have significantly cooled the global climate at times, including for example the 'year without a summer' experienced after the eruption of the Tambora volcano in 1815 and notable cooling after the Pinatubo eruption in 1991." Daniel added that he wouldn't have thought that the aerosols would still be a factor now, this long after the 1991 volcanic eruption of Pinatubo. The stratospheric aerosol increase could also be due in part to human emissions of sulfur precursors (such as sulfur dioxide from burning coal), the authors point out in the study. This study follows another study earlier this month in the Proceedings of the National Academy of Sciences, which found that China doubled its coal consumption from the years 2003 to 2007, leading to a huge increase in sulfur emissions that may have had a cooling effect on the planet. The researchers in that study suggested that this cooling effect may have counteracted ongoing warming due to increased carbon dioxide concentrations, permitting natural forces to predominate the planet's temperature. Will there be a point in the future at which the impact of aerosols on global temperatures will be less of a factor than it is now? "What happens in the future depends on the cause of the aerosols," says Daniel. "If it's volcanic, it depends on what volcanoes do. If its sulfur, it depends on what our pollution is." The paper does not address how man-made versus natural activities contribute to aerosol creation, which they say is a question to be explored in further studies. As for aerosols' impact on climate models used to estimate future global warming, according to the study, "climate model projections neglecting these changes would continue to overestimate the … global warming in coming decades if these aerosols remain present at current values or increase."

### Prefer our analysis – it cites HARD OBSERVATIONS instead of speculative models and your authors are flawed

Mick 7/29/11 (James, Staffwriter “Study Finds "Huge Discrepancy" Between Hard Data and Warming Models” [http://www.dailytech.com/Study+Finds+Huge+Discrepancy+Between+Hard+Data+and+Warming+Models/article22301.htm](http://www.dailytech.com/Study%2BFinds%2BHuge%2BDiscrepancy%2BBetween%2BHard%2BData%2Band%2BWarming%2BModels/article22301.htm)) MFR

Alarmism and climate profiteering is dealt yet another serious blow Many are still operating under the perception that current global warming models are "good enough" to make drastic economic decisions. That party line has been pushed, in part, by certain individuals like ex-U.S. Vice President and Nobel Prize winner Al Gore, who have stood to gain tremendously in personal finances by promoting alarmist and sensationalist rhetoric. Indeed, Mr. Gore's "documentary" An Inconvenient Truth painted a grim picture of a pending apocalypse and made Mr. Gore hundreds of millions in sales and speaking fees -- but its accuracy is hotly debated. I. New Study Blasts a Hole in Current Models In a new study, Roy Spencer, Ph.D -- a prestigious former National Aeronautics and Space Administration (NASA) climatologist who currently works at the University of Alabama -- has examined data between 2001 and 2011 gathered by the Advanced Microwave Scanning Radiometer sensor housed aboard NASA's Aqua satellite. The study was published [PDF] in the peer-reviewed journal Remote Sensing. The data reveals yet another thorough analysis of atmospheric heat dissipation -- an important factor in heating or cooling. And like past studies, it found that the Earth's atmosphere shed heat at a much faster rate than what's predicted in widely used global warming models. The hard facts show that both the predictions of the amount of heat shed during a a full warming scenario, and the amount of heat shed as warming begins were understated. As the data shows the Earth's atmosphere to be trapping less heat; that means the outcomes of any sort of human-based warming caused by the emission of carbon greenhouse gases and other compounds is likely overstated. Thus the dire predictions of models used by the United Nation's International Panel on Climate Change (IPCC) and researchers are likely flawed. States Professor Spencer in a press release from University of Alabama, "The satellite observations suggest there is much more energy lost to space during and after warming than the climate models show. There is a huge discrepancy between the data and the forecasts that is especially big over the oceans." This is a critical conclusion as it shows that the secondary "indirect" trapping from atmospheric water may be far less than previously predicted. II. Supporting Evidence Builds Stronger Case The new study isn't necessarily cause to abandon climate models altogether. After all, understanding our planet's climate is the key to growing better crops and protecting people from natural disasters. That said, the models likely will need a major overhaul, one which some leading climate alarmists may regret. Supporting evidence strengthens the case that such an overhaul is needed. Researchers at NASA and the National Oceanic and Atmospheric Administration (NOAA) have been baffled by the fact that the widely used climate models were failing to properly predict atmospheric humidity and the rate of cirrus cloud formation -- phenomena driven by atmospheric heat. Few public voiced such thoughts, likely for fear of persecution by their more sensationalist warming colleagues. Still, despite the politics, the data crept silently into several studies. Additionally, sensors aboard NASA's ERBS satellite collected long-wave radiation (resulting from escaping atmospheric heat) between 1985 and 1999 than was predicted by computer models. Between the relatively comprehensive volume satellite and atmospheric data, the picture appears clear -- the climate models are badly flawed. III. Indirect v. Direct Warming So what's the difference between direct and indirect warming? Well, direct warming is caused by substance like carbon dioxide, which trap a certain amount of heat when they're found in large quantities in the atmosphere. While carbon dioxide has been vilified in the media, peer reviewed research states with relative certainty that it is actually a very weak greenhouse gas and a weak contributor to "direct" warming. The fearful hypothesis, which alarmists have been pleased to promote, is that carbon's direct heating -- while small -- will somehow throw the environment out of whack, causing an increased abundance of atmospheric water. As water is a far better greenhouse gas at trapping heat, this could lead to a domino effect -- or so they say. But the new study shows that the predictions of runaway indirect heating are likely badly flawed. IV. The New Climate Picture The new study doesn't dismiss that warming will occur if man keeps burning fossil fuels. Rather, it indicates that it will likely occur at a much gentler pace than previously predicted, and that the maximum temperature reached will likely be lower the predicted, as well. This is significant as alarmists have tried to use the hypothesis of rapid runaway warming as a justification for sweeping economic changes. Under a gentler warming scenario, slowly rises in sea levels would not be that big a deal as mankind would have plenty of time to adjust to them. Plus the levels would not rise as fast as previously predicted. Of course, this means some of the "good effects" of warming -- such as resource harvesting in an ice-free Arctic -- won't be realized either. Thus the more temperate, data-based climate picture has both advantages and disadvantages versus the more fantastic past models. V. A Brave Scientist Professor Spencer deserves to be commended for his thorough analysis and outstanding work. It takes a bold man to defy some of one's colleagues when they're clearly perpetrating a factual inaccuracy. It's not hard to imagine how difficult it must have been for Professor Spencer to get his work funded and published in a field dominated by NASA, whose higher ranks are heavily dominated by pro-warming advocates like James Hansen. The Nov. 2009 "climategate" email scandal at the University of East Anglia seemingly confirmed what many suspected -- it's hard for scientists to voice alternate opinions given the dogmatic state of climate research. And yet it's tremendously important to do so. For the most part, everyday environmentalists who have bought into the rhetoric of wealthy entrepreneurs like Mr. Gore, or powerful research chiefs like James Hansen did not personally profit off of the alarmism and approached the climatology debate with the best of intentions. Sadly, in doing so pressing real environmental crises like the destruction of the Earth's rainforests faded into the background. Further, the climate emphasis led, in some cases, to lesser cuts to toxic gases such as nitrogen and sulfur compounds produced in the burning of fossil fuels. Regulators allowed greater levels of these gases, so they could focus on forcing industry to adopt stricter carbon standards. These toxic gases have contributed tremendously, according to thorough peer review, to problems like asthma. Thus the climate alarmism may have indirectly cost the public's money, the health of the environment, but the public's health, as well.