I’m glad to be here, and I appreciate both your patience and understanding last year around the confirmation matter and the opportunity to join you today. We’ve done a lot in the time since I’ve last been here with you, and I know Mark Schaefer dropped by and spoke with you last year. Even at that point, we were still in the process of putting together the agenda and game plan, and still assembling the team. That is, of course, a never ending process for all of our organizations, but even a little more never-ending in the federal arena sometimes.

What I would like to do today is do a bit of a broad brush, as much as anything to layout for you how we are thinking about our agency, and where it is; its priorities; and how we can move forward most effectively. These are going to continue to be, we reckon, difficult budget times for the next several years. In our thinking, you don’t modify goals and aims but you adapt your strategies to those challenges, and we have been working hard to do that over the last little while.

So, I’d like to give you a lay down of how we are thinking about our priorities; talk to you a little bit, to the degree which we can, about budget and where we are on FY15 and FY16 process, and then dive a little more into an elaboration of some of our thinking around some of the key dynamics effecting our priorities and our pathway forward. I’d like to do that with plenty of time for you all to steer the conversation in a more detailed direction.

We’re framing our approach— and this is how we will approach things throughout my tenure—we are not going to have a rotation of a set of priorities every single year. We will have focal points and budget variations from year to year, but what we are trying to really drive in steady directions. We are finding that that’s getting us very good traction both with the Hill and inside the Executive Branch.

The focus and discipline and clarity around where we are going, and what outcomes we are trying to steer to: they center around a vision of NOAA as a science-based services agency. We are nothing without science. But we are also not the National Science Foundation, whose raison d’être is science for the sake solely on advancing the field. As we look at both our employees, our stakeholders, and our clients, if you will, whether it’s the National Weather Service’s clients, Fisheries Service, National Ocean Service’s navigation partners, I tend to come back to thinking of NOAA as sitting at a point in a bowtie where the knot would be. One of the unique aspects of our role in the federal family, at any rate, is to be very richly cognizant of and engaged with the entire earth systems science enterprise, including the human dimensions, whether that be funded by us or by NSF, or for that matter, by CIRO in Australia, or in Canada, or England. Know what’s out there, know what state of the art is; but at the same time,
stay keenly aware of what the societal needs and the particular customer and user needs are that are unmet. I call that the “unmet clinical needs” dimension, and to really work hard to try to be the agent and the capitalist that not only fosters the next round of research, the next capabilities, but catalyzes that into practice and into impact on society.

[3:57] That is a bit of a shift of view, that is not in any way meant to discount or overtly lower emphasis on research or science in NOAA. We must have it, we must have extremely high competency in it. We do some very cutting edge work. But it is rather more Pasteur’s quadrant and more richly purpose oriented, if you will, then is probably the case in some other agencies.

During the year that I was serving as Acting Administrator, one of the things I did—very intentionally—was try to get around and meet with customers, real world users, emergency managers, fisheries councils, other stakeholders, and our people, and just take the temperature of our role and of the agency, and see where we are. Initially with the mind that I’m probably preparing to pass down to the next nominee, because I figured I was going home, frankly. Then, as it turns out, I was preparing my own in brief as the nominee for Administrator. The priorities we enunciated really came out of that listening tour, but passed through a particular selection logic. There are schools of thought about how you set priorities for large complex agencies. I adhere to the school that says the agency level priorities should be those things that pass one of these several criteria: there are the unique and important opportunities that the organization has in front of it in the next several years, and/or they are the major risks confronting the organization. They are of unusual complexity or intricacy; or they take an additional or unusual degree of cross-linkage between organizational functions or organizational key partners. And if they pass those criteria, they go on to the agency-level priority list for this reason: unless the agency’s senior leaders intentionally focus on those with some consistency, they will not happen. There are countless other things the organization does that are valuable and important, and the leadership has to support and continue to enable and encourage. But in terms of where should senior leaders focus their time and attention, you want to find that list of things that uniquely need the leverage and perspective of senior leaders. Because unless they have the leverage and perspective of senior leaders, they cannot happen, will yield less, could have more negative consequence. That should be where the senior leadership is focusing its time and attention.

This yields a different taxonomy for priorities then is commonly the case in the Washington space, where the common ground rule seems to be: You must say every favorite child’s name out loud or you haven’t said all the priorities right. This approach to priorities fails that test. You heard it here first. We’ve enunciated four priorities; as I said, these are the ones we intend to pursue through the entirety of my tenure. I will tell you briefly what they are, and then I will circle back and explore a few other dimensions of them, if you’ll let me do it that way.

One is to provide the information and services that help communities become more resilient. The immediate headline I want you to add, if you are taking notes, is when we say “resilience” or talk about the resilience agenda at NOAA, you need to understand, up front, unequivocally, that is always societal, economic and ecological resilience intertwined. All three of those dimensions are really critical. We live that out on the ground in our mission space routinely. So, information and services that help
communities become more resilient—you see there that human dimension. It doesn’t suffice for us to put a paper in a journal and say, “I hope you have fun.” It really is that intentionality about information that is pertinent to decisions that are being made out on the ground.

Second, and these are not in a priority order by the way. A second of our priorities is to invest in observational infrastructure. That is not a clever euphemism for “yes, we do have some large satellites programs” by the way—we also have buoys and ships and airplanes and tide gauges and water level sensors that make up the coastal intelligence network, that make up the ENSO TOGA/TAO network, which is critical to both research and operations. It really is a marker down that says a couple of things: no one has the research-level forecasting capability that the countries in the world, unless we sustain a rich observational network of sensors for this planet. You can’t predict the future of the planet, even in a 3-day weather forecast, without current robust measurements of its data. So, understand, we have to continue to make those investments. It also reminds us to strengthen and improve our internal mechanisms for managing the plethora of systems that we operate as a sensibly, intelligently managed portfolio of observations and sharpen our analytical tools and our cost-benefit tools, so we really know where the priorities are for sustaining current systems. We can be smarter about where we are trying to on-ramp new technologies that might change the equation, whether on ops and maintenance, sustainability, reliability, or density of observations. It contains all of those things in that statement.

Third priority is to evolve the National Weather Service. The technological and organizational patterns of the NWS were set in the 1990s, in a major initiative that was called “Modernization and Restructuring.” It took almost a decade to complete. The technological cornerstone of the “modernization and restructuring” was the, then, radically new NEXRAD Doppler Radar system. The organizational pattern of the Service was conditioned strongly by the second technical reality, which was in the late 80s when you did this, there was no such thing as an Internet. You had really high data volumes coming out of these Doppler Radars, and you needed to locate the forecast station within, literally, about 150 feet of the radar tower because you couldn’t move data around like we move data around today. We are still working substantially in an organizational, and to some degree a technical pattern, set way back when. The range of needs for forecast information, the variety of products and services of the Weather Service of today actually produces and the explications of what it will progress and produce are changing very rapidly. As two National Academy of Science and one National Academy of Public Administration report reminded us, we did this giant gulp modernization and restructuring in the 1990s, and have almost lost the capacity to continually improve and evolve. If our weather service in the United States is going to remain second to none, some will quibble that it’s fallen a bit behind even now, but if it’s going to remain second to none it has to reinvent itself and evolve in ways that let it stay more abreast of technology and more closely synced with the actually evolving needs of society. That will be a combination of operational pattern, some technology, and some organizational process as well.

The fourth priority is really inward focused. It states, to ourselves, that we need to obtain organizational excellence. This starts with a sharpened focus on “mission first, and people always”: stepping up our commitment to training, to education, working hard to make sure that we do sustain some of the education and workforce development programs that NOAA has long had.
National Ocean Science Bowl, one near and dear to this organization’s heart, that has been through some tough budget times under sequestration and the turbulence of the last couple of years. We are encouraged by where we think we are in FY15, and we will hope to move forward from that point, but that horizon is still a little bit cloudy. NOSB, in my view, fits under both our organizational excellence priority because of its focus on people, and talent, and development; as well as really under the resilience agenda, because of the cross-linkages that it helps produce and, to some degree, our own team appreciate, between all the strands of resilience.

So that’s how we are thinking about priorities. How we are working our internal planning process. How we are talking to the Hill. That’s how we are talking to OMB. And as I said earlier, certainly in my observation, that there has been not only great appreciation, but some degree of relief and some really positive support for our being able to enunciate clear, focused outcome-oriented priorities; to enunciate clear logic model, which is now in the case of resilience, for example, very well laid out and amplifies how our Ocean Service mission, our Fisheries’ mission, elements of our research mission—that’s our most integrative of these priorities. It’s probably the one that may be most subject of criticism of, “You didn’t say sanctuaries out loud by name; you didn’t say fisheries out loud by name, you didn’t say George out loud by name—it really means you don’t like George anymore.” That could not be further from the case. We are finding very good traction with those key constituencies who see themselves now in a stronger, more robust context with more impact on society orientation, that frankly is really helping our coastal and ocean programs gain some balance. Frankly, they were getting hammered in the past several budgets, and the feedback we were getting was “we can’t tell what this all amount to, and where it goes, so what is the why and where for all of this.” I think we’ve now established a strong case for that with our approach to resiliency.

Our budget goals, my budget goals as Administrator, are to work as hard as I can to keep NOAA as healthy as possible in all our functions. Our observing infrastructure feeds all of our missions, our modelling infrastructure increasingly is critical to all of our missions. We need to be healthy in each of our key missions portfolios. We’ve been out of balance as we’ve struggled through the post-NPOESS satellite program restructuring. That got more of a skew than any of us wanted. We’ve been making our way back from that. FY14 was a step forward in that direction. Not every degree of progress we would like, but a notable step forward in that direction. Depending on where final budgets come out in FY15, some marks are encouraging in terms of the progress in that direction, others less so. So we will see how that all shakes out. We are certainly looking to build on the momentum that we’ve established since FY14 as we formulate FY16, and you know that process is underway right now. We’ve got a much healthier platform in terms of the priorities and purposes for enunciating and driving forward for the agency. We’ve got much better rapport and standing and engagement with our Executive Branch policy shops that set the framework and set the budget with us, as they do with all Executive agencies. OMB, for example, we are in a much more constructive place with them, and they genuinely get what we are saying and where we are trying to go with our mission areas.

[15:42] As valuably, Secretary Penny Pritzker, whose been aboard for a little over a year now; I couldn’t ask for a better boss and a better advocate then Sec. Pritzker. You all know that is not the stereotypical case with respect to NOAA and our parent department. I will tell you, Sec. Pritzker literally from the day
the President announced her nomination in the rose garden, and all the way through, is not one of those Secretaries who didn’t quite realize that there was this thing called NOAA in her portfolio. She very much realized it, and was very excited about the kind of work we do. From the very beginning, saw a sort of unifying logic that made some good sense, this being an element of her portfolio. She has genuinely embraced it, has intellectually been engaged with us and our work and the dynamics, the challenges and the opportunities that it brings forward. She is not a micro-managing kind of CEO, and has—she and her team have on a number of instances already, just in her first year, very much gone to bat with us and for us to make things happen on our behalf. We have a very, very good alignment for NOAA, I would say right now, in terms of our standing, our platform, the caliber of our team, the working dynamic with our Department, and the working dynamic that we’ve managed to reestablish with OMB and our key patrons on Capitol Hill. Better to have that kind of posture as you’re trying to paddle through rough water, than have a more rugged posture; not to say that we’re going to be the guys who have tail winds while everyone else has headwinds. I’m pleased that we are in the kind of standing that we are, with our Department, with OMB, and with the Hill. It gives us some opportunities to move forward.

Let me talk a little bit more now about, or amplify a little further, on our priorities. I’ll start with resilience. As I said, we will always mean social, economic and ecological when we say that. We will mean both inland, resilience associated with both ecosystems and the human economy; human society—associated with drought, for example, and water resources. We play a critical role, along with many others in the federal family, but really a leading role in the national drought resilience partnership and the integrative drought information system, which again are all about taking the research work that many of your institutions have done, and moving that into data products, applications, and forecast products. We can actually advise people on the ground trying to figure out what to do with the drought that’s affecting them currently. Decision spans that span from days after a rain storm to several years to a decade out, depending on where you sit in the water management space. Not all of those information niches are filled. There are a lot of gaps in what we scientifically can provide to try to help folks dealing with these conditions right now, but that’s quite key to us.

It also means coastal resilience. I don’t need to tell this audience about the concentration of people and economic activity in the United States coastal zone. So the resilience of our coastal communities, again ecologically, economically, and socially is really pretty critical. The consequences to the national economy, the consequences to the diversion of effort after storms like Sandy, of another Katrina in an energy infrastructure intensive area, can really be quite devastating. We’ve got a strong focus, driven and accelerated out of the post-Hurricane Sandy Taskforce work at the White House level on green infrastructure—the value and the benefit of natural defenses—wetlands, marshes, in some small areas of our coasts mangroves, dune lands, all protect and provide resilience against physical hazards to coastal communities. We are working with USACE to put out green infrastructure rebuilding standards to try to fold them into the capital investments that the federal government makes. We are talking with the reinsurance industry and a number of your institutions, and just recently, with Roger’s team across the street about what the work that yet needs to be done to characterize the protected benefits of these natural defenses, so that when communities are making planning decisions, they have an explicit
figure on the balance sheet for the cost per mile of laying concrete. They’ve got some specific data about the engineering attributes about the sea wall, or riprap, or other built structures. It’s blank when you try to factor in could wetland restoration try to take care of some of that protection for you. “Well, I don’t know, I don’t have any engineering data about how well those absorb wave energy, or damps the onrush of the surge.” There’s a research ground that could really change the equation in how we develop the coastal zone, if we could bring some of that engineering and evaluation data into the foreground.

We’ve been intimately involved with the State, Local, and Tribal Leaders Task Force that the President launched under the climate action plan. That groups due to report out soon. One of the pieces of work put out recently was a natural resources priority agenda, which touches on these aspects as well, with strong focus on wetlands, on coastal development. We are putting out new data information tools, we’re advancing some of the work we do on our drought areas, our Digital Coast, information on coastal planning and assessment tools, are all woven into that natural resources strategy. Sea Grant has put $15.9 million out the door, or will do in 2015, to help communities work on coastal adaptation. That’s another advancement that is key in this area. Probably the biggest high-leverage enabler, or game changer in this arena is something I know Mark Schaefer talked with you about last year, when he was here, that’s ecosystem services valuation. Mark has moved on, but this carries on because it is such a pivotal element to our own resilience strategy. The Department of Commerce Chief Economics Sue Helper is directly engaged in this now. We’ve brought on a Chief Economist aboard at NOAA, David Yoskowitz. He’s engaged as well. CEQ has asked us to reach out to the reinsurance industry, which is also quite interested in trying to get these dimensions valued so that they can fit into the equations of pricing of risk of natural versus built infrastructure development. So that’s carrying on.

Another thrust under our resilience agenda is trying to improve the predictive skill that we have around oceans, and particularly around ocean ecosystems and living marine resources. We are really working hard to drive our own internal cross-line offices linkages there. I stood up an ecosystem modeling working group a couple of years ago, with my other hat on as Deputy Administrator overseeing the modelling and predication portfolio. That is continuing on, and moving some interesting things around, like we have embedded a National Marine Fisheries scientist, one of our best, at the geophysical fluid dynamics lab. That caliber of modelling, that modeling mindset that we have in the atmospheric area that we’ve got at a high caliber at GFTL doesn’t exist really in our fisheries world. If you could transform fisheries, if you could be as predictive -- JoAnn Simpson said this once decades ago-- you’ll never really transform fisheries management until you can be as predictive in the fisheries domain as you are in the weather domain. It’s all retrospective. It’s all making the next guess on catch based on statistics based on the past catch. That’s one specific example of the kind of exchanges and linkages that we are making.

The National Ocean Services has issued Harmful Algal Bloom forecasts for coastal waters in the Gulf of Mexico and Lake Erie for a number of years that had a small uptake to knowledgeable audiences at the water management authorities and beach safety authorities in those states, but it was just that little trickle. The light bulb finally went on as we brought them together around storm surge and inundation modelling, and the coast-ocean-land-atmosphere interface. They now have started to put the HAB forecasts out among the forecast products that come out from the National Weather Service. We have
300 million Americans pretty well trained that the National Weather Service is a portal you turn to when you are trying to get foresight about conditions that are coming that you might care about. The traffic on the HABs went up 400% in less than a week. We are just trying to get ourselves out of our own way, and focus on if we are serious about information and services that people use. Let’s get out of our own org chart, let’s get out of our own way and put the information they need, the way they need it, where everyone can most readily get it, so it has the societal impact that that we are interested in.

I want to touch a little bit on observations, just to make one other point, briefly, here. I hope you all will be pleased to know that we just hit this milestone last week: the in-service rate for the TAO array is back up at our 80% performance target. We got lots of letters from lots of you all that focused on the array itself, and the observations and the value of them. We appreciate the drumroll you helped create and all that. But, a message or an insight I would share with you is, what it took to make that happen was not a drumbeat on the observations. It was a drumbeat on the ship time. It was a drumbeat on supporting a different part of NOAA to do the work that it takes to put that piece back into play. NOAA is, and for the rest of its life will be that kind of an integrative, mutually interdependent agency—which we have finally learned, I think, means we need to enunciate our priorities in a way that drives that integration. That helps us advocate and move forward all the pieces of the puzzle. We need to be healthy together around a certain outcome, whether that’s the research data flow from TAO, or the forecasting data flow from TAO. And just picking this piece, or just picking another piece, doesn’t get us that integrative benefit. So we are back at 80%, we will continue to work to stay at that level. But the kicker on this is technology development, to make the array itself more sustainable, more reliable at sea, may be new tech developments that can do some of those measurements in different ways. Until any of those pan out, its ship time. It’s either contract or our ships to get out there and do the actual real hardware work.

Finally, on research—and Rick Spinrad, as you all know, is aboard now for a couple of months as our Chief Scientist. We are now the bookend Chief Scientists of NOAA, I was the last person to hold that title, he’s the next person to hold that Title. There is only an 18 year hiatus in between. I couldn’t be more delighted A. to have the seat filled, but in particular to have it filled with Rick Spinrad. His fusion of Navy, NOAA, and academic background; his understanding of all three of those roles is just going to benefit us tremendously. I’ve asked him to work in particular on two things oriented toward NOAA itself. One is to really get our heads around enunciating the research portfolio logic; NOAA’s portfolio logic for research. Our niches, our game plan, our strategy, our way of thinking about the time and space and disciplinarity of our work. Both in terms of the scientific input and capability we need to do our mission and of where do we play what role: where do we play the role of funder, where do we play the role of lab operator, where do we play the role of harvester, and user someone else’s work. What is the logic that drives that. We are, I think, a relatively small player in the number of dollars that we put out or have available for research, per se. Its way smaller than it should be, we are going to try to move that north. One way to do that is to be able to show ourselves and show the world: here’s the scope of need. Here’s the scope of benefit that can be attained if we can move forward on fulfilling this need. Whatever level of funding we can receive from the Congress, we can certainly show a sound logic for why it’s being spent where it is. We will be much better able to show that really the level should be here, it really should be here. He’s working on that, and also working on both our own internal processes and our
interagency federal family processes for research to operation and application transition. We had a conversation this morning with some OMB folks; we’re engaged with OSTP, with NSF, with NASA as well, to try to do a better job of that within the federal family. We don’t have stranded investments that we can’t get across the line and be sustained for longer term. Those are a couple of key focal points for Rick.

We are also going to work pretty hard, and Roger touched on this in your last round of conversation, the role of social and behavior sciences in our research portfolio. I will illustrate this with a brief story: In 2011, the country was hit in April and May with two massive, record-breaking tornado outbreaks. One hit Tuscaloosa, AL and one hit Joplin. Hundreds of tornadoes and hundreds of casualties. Our post-event service assessment told us that technically and scientifically, from the National Weather Service point of view, the forecasts had been spot-on. They had been timely; there had been four day advanced warning of an outlook of severe convective event. The bulls-eye was right where the tornado outbreaks happened. Then the three day and the two day provided sharper clarity with each of those days. On the day of the events, our actual tornado warning times were typically above the national average, in terms of lead time. And yet, hundreds of people died. We pulled together with partners at the University of Oklahoma, two town hall meetings that included our folks, our researchers, our forecasters, academic partners, broadcast industry partners, emergency managers, you name it. Anyone who touches the weather and the impact of weather forecasting and warnings on the public. We got together; we had about 500 people in the room. We looked each other in the eye and said, “You know what, we got an A on the forecast. And we are really not happy about that, because what we are about at NOAA is the outcomes, the consequence for society. It’s nice that we got an A, but it’s not enough, unless that actually translates to a better societal outcome. So let’s think through the chain, the scientific knowledge to current data forecasting, etc. Where do we need to focus, together as a community to change that outcome?” I actually went down to that meeting thinking that we were going to get some research portfolio direction in something in modelling or atmospheric sciences, and maybe a spur to accelerate the development of the next radar system. Instead, I got told, “You guys need to focus more on the last mile. From when you hit send on a warning or a broadcast to who acts and why and how fast. You don’t actually know what drives that. You don’t know what form or mode of communication would most increase the likelihood of rapid action or accelerate that action.” Of course, this is a problem that varies through time and space, because what you need to send out to Joplin when an EF5 is bearing down on them is a long-mile from what you need to send to a water manager who needs to plan for a couple of years new storage is a different thing. It is of the same cloth. How does the knowledge that we have in this room about how the Earth works, how do the data that we take day in and day out that gives us the pulse of the planet, how do we actually transform those into information that can add to knowledge and shape action. Whether its climate mitigation action, whether its adaptation resilience planning action, whether its emergency severe weather hazard avoidance action. How do we do that? It’s clear that the loading dock model doesn’t work: where there is a lot of science, it’s really good, we’ve got fabulous models, hope you enjoy them, I’m going to go do another one. We know that doesn’t work.

We don’t really know what the best strategies are to change that—that latter part is really pivotal in NOAA’s role in all of this. We are working on that. We aren’t all the way there yet. We will face the same
challenge that Roger was alluding too, what is the right blend and balance of adding that dimension to our own research work. We do know the wrong answer is plan out the physical science agenda and invite social scientist to edit it or put their name on it afterward. We do know that to get closer to the right outcome, we have to weave those questions in. It has to be part of formulating the research questions, not bolted on at the end. That will be an important piece for us. That is one aspect that Roger and his team, and Fran and her team, and Rick and I talked about the other day when we met on their resilience and weather and water agenda. We are driving hard also on the water, food, energy nexus, and the weather, water, climate—total water services on our end.

I’ve taken about the amount of time I wanted to do a water-color wash of the landscape as we are currently thinking about it. Real fulfillment of NOAA’s mission obligation or certainly our mission aims, is only possible through a very rich set of robust partnerships: with our cooperative institutes, with a variety of our academic partners, with a host of multi-lateral organizations like Consortium for Ocean Leadership. We recognize that fully. These are very valuable relationships to us. This one in particular, we do look forward to working with you together. And certainly, if we are going to move and make progress in the direction of we would hope to make progress in, other partners that can come forward clearly and compellingly enunciating a shared vision, some outcome orientation and some focus and drive around that I think will be an important part of how much we can gather and sustain in the years ahead in this tight budget time. We look forward to working with you.