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				Comment	Complimentary	Minor	Substantive						
Ocean Fertilization and DAC	Andrew Lockley	Verbal	The first thing is the idea that "ocean fertilization is benign." I think it might be so, but I don't think that we know that it is so. And there are two major risks that I can see with ocean fertilization. The first one is that it tends to scavenge nutrients that might otherwise end up in other areas, thus, creating a nutrient desert, um, in areas that might otherwise be quite rich in nutrients and might therefore affect the near surface biota. The other point is that, um, iron fertilization potentially in combination with other all the fertilization such as by fertilizer runoff, um can potentially push the benthic ecosystems, well, outside what they have, um uh, had to deal with in geologically recent past, in terms of, the fluxes of our organic matter to the sea floor, or a third, or an order of magnitude given as an estimate, for the increase in organic massive flux to the seafloor, which would be potentially quite a remarkable intervention near a system, not just the local [ ], but something which affects the global climate system. By contrast, I work on ocean alkalinity and enhancement, uh, using ships or aircraft or various other contraptions to spread the alkalinity. And the experiments we've are done suggests that its somewhat benign, although, as others sensibly pointed out, potentially rather expensive. Um, the other point I wanted to take shake issue with, is regarding to DAC. DAC is expensive, if you take current DAC and then try to scale it, but that's just not how things work., We don't have 1950s computers. We have iPhones and by incrementally scaling computers, we've grown accustomed to having evera better computers and in, DAC is likely to be no exception to that rule. There are forms of DAC that we perhaps don't know about yet. For example, you might have direct carbon dioxide reduction on solar panels that may, in theory become dominant. Over time, that helped drive costs down. And, there are intermediate bridge technologies like, for example, [E- Fios] making jet fuels like [Lancae Tech] does, for example, uh, not exactly as [Lanca Tech] but these kind of bridge technologies can potentially, um, reduce the cost of that while we're waiting for, the [ ] to make sense. No one would have proposed an Apple iWatch in 1954, but we now have them, not by trying to make an Apple iWatch but by making lots of intermediate technologies and then an Apple iWatch tops out of the back end of that development flow. So that summarizes...	XX				N	Just a comment	Kitch, Tedesco, C	N/A	KT-Resolved because it was a comment. No action needed	
Ocean Fertilization	Indigenous Environmental Network // Panganga Pungowiyi	Verbal	in terms of ocean fertilization, there's a wide scientific agreement that ocean fertilization could have negative impacts in the marine food web. This also has huge negative impacts on fisheries, [...] Studies conducted so far, show how how communities quickly become dominated by large diatoms, which is very concerning from the ecological viewpoints. Species form the base of marine food webs, any changes in this type of community will have unknown, unpredictable, and potentially highly damaging impacts on the food web and marine ecosystems. These types of blooms also reduce oxygen levels impacting negatively on marine organisms and modeling studies of large-scale iron fertilization predicts that it could lead to significant deep ocean oxygen depletion. And in the region studied OF could also lead to […] harmful toxin producing algae blooms.	XX				N	Commenters talking to each other	Kitch, Tedesco, Osborne	N/A		
Ocean Fertilization	Michael Hayes	Verbal	As far as ocean fertilization, there is two varieties, there is it as pasture fertilization and there is ocean fertilization. The original ocean fertilization was meant to be out in the oceanic deserts. Anybody who tries to fertilize a coastal pasture, likely needs pressure, put on them to not do that. They are already over neutral. Now that doesn't mean we can't help the pastures. There's a recent study, shows that they're building up simple sugars, sucrose. Can we extract that sweet mud to grow [...]? If we can do that, we've got [...] a very carbon rich resource that needs to be drawn down. If these pastures die, all of that sugar is going to open up to bacteria. The seagrass produces antimicrobials that keeps this from happening. I will just end with, as every commercial fishermen that I know of has heard about the claims of […] feeding Salmon a few extra bytes. So [....] is going to double or triple their production. I mean, it was just unbelievable. And it needs to not be relied upon. Andrew, Which, by the way, this is the first time I've talked to you, Andrew. But [Andrew] has been something of a adversarial mentor for 10 years. Andrew greatly appreciated the elegance in what you put your position. And I agree with most of it. I will state there was [...] believes that fully contained, CDR, oceanic CDR isn't possible due to the cost. But that's not necessarily the case. Because we now have bioplastics, like, you'll be largely self replicating, in that if you use a high density polyethylene tank to grow biomass and take the bio oil from that biomass, and use it to produce more high density polyethylene grow tanks, you've got a largely self replicating infrastructure at the basic materials.	XX				N	Commenters talking to each other	Kitch, Tedesco, C	N/A		
Ocean Fertilization	Michael Hayes	Verbal	The next area I want to talk about is the seagrass pasture issue. Again, one of the previous speakers addressed quite a bit of concern about what happened uh 10 years ago, of, and there, there is new no science. And really, just this last year, there's been a plethora of papers published about very interesting things about seagrass pasture. One of the beginning opening phases of a young family getting involved with this type of industry is learn your, you learn your sticks at the pastures.	XX				N	Out of scope; Just a comment; commenters talking with each other	Kitch, Tedesco, C	N/A	Wednesday PM	
General	Essex University - East Anglia, UK // Phil Williamson	Verbal	There are lots of things there that I like, I like the diagrams, I like the first part		XX			N	Out of scope	NA	N/A	Monday PM	
General	Fishery Friendly Climate Action Campaign // Sarah Schumann	Verbal	In my capacity as a coordinatorco-ordinator of the Fishery Friendly Climate Action Campaign, I'd like to offer the campaign as a conduit to ensure collaborations between NOAA and the US fishing industry. And ensuring these objectives are incorporated as coastal and ocean based CDR move forward.		XX			N	See parnterships box	Kitch	N/A	Wednesday PM	

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General	Fishery Friendly Climate Action Campaign // Sarah Schumann	Verbal	Commercial fishermen feel a strong duty to uphold the integrity and resilience of marine ecosystems. And that desire has led to the formation of the Fishery Friendly Climate Action campaign that I mentioned earlier to call for swift action to reduce, sequester, and avoid greenhouse gas emissions at scale sufficiently, sufficient to hold warming well below two degrees Centigrade while pursuing efforts to limit warming to less than 1.5 degrees. But, that also contends that such actions must, wherever possible, avoid collateral impacts on ocean, and coastal, estuarine and watershed environments, avoid interference with the harvest and provision of wild seafood for the public, and contribute conservation, cobenefits that enhance the resilience of these ecosystems to climate change and other stressors. In a recent letter to the White House Office of Science and Technology Policy, 14 fishery organizations, and 34 businesses and individuals outlined a position on coastal and ocean based CDR that calls for, quote, a two track approach that maximizes and front load strategies that pose little risk to ocean and other ecosystems, especially, those that offer environmental and social co- benefits while holding back riskier strategies for deployment at a more gradual pace that allows for a thorough study and development of precautionary governance approaches. End quote. The draft CDR research strategy represents a vital piece of intellectual infrastructure that will be necessary to accomplish this two track approach.		XX			N	Complimenary; none required	NA	N/A	Wednesday PM	
General	Fishery Friendly Climate Action Campaign // Sarah Schumann	Verbal	Ramping up carbon removal is vital and doing so in the coastal and ocean environment raises the potential both for valuable win-wins when whales and for potentially severe unintended consequences. A greater understanding is urgently needed to help planners understand where solutions lie along the spectrum of impacts and how scale sidting and other aspects of implementation may be able to help ameliorate negative impacts and enhance positive non- emissions, admissions co- benefits from the CDR approaches. Given the urgency of the climate crisis, NOAA should invest available resources in this research as expeditiously as possible. Robust participation of the National Marine Fisheries Service should be a cornerstone of that effort. Helping to leverage the expertise at NOAA Fisheries Science Centers and to engage fishery stakeholders early and often to ensure that all potential interactions are considered from the get go. Commercial fishermen represent a diverse constituency with a strong commitment to ensuring that the root causes of climate change are both addressed and addressed in a way that is harmonized with the objective, objective of sustaining fishery ecosystems, resources and communities. Objectives that NOAA also shares.		XX			N	NA		N/A	Wednesday PM	
General	National Resources Defense Council // Lisa Suatoni	Verbal	Given NOAA's deep experience in biogeochemical research and monitoring, and the fact that NOAA's no is responsible for stewardship of our nation's coastal and marine ecosystem resources, we're happy to see, NOAA you know, taking a leadership role in CDR Research. We think NOAA is well positioned to take a holistic view of ocean based CDR and its related tradeoffs.		XX			N	complimenary; none required	NA	N/A	Wednesday PM	
General	Ocean Conservancy // Sarah Cooley	Verbal	Thanks for putting together this research strategy. It's really important that we have a whole of NOAA view of how the agency views the topic. NOAAs role in monitoring the changing baseline in our ocean really makes it a central part of this effort.		XX			N	Complimentary; none required	NA	N/A	Wednesday AM	
General	Ocean Conservancy // Sarah Cooley	Verbal	congratulations on a nice draft research strategy.		XX			N	Complimentary; none required	NA	N/A	Wednesday AM	
General	Ocean Visions // Brad Ack	Verbal	We are very much supportive of the draft strategy that NOAA has developed.		XX			N	Complimentary; None required		N/A	Monday PM	
General	Ocean Visions // David Koweek	Verbal	Ocean Vision's believes thate accelerated and expanded research and development of ocean based carbon dioxide removal pathways are urgently needed, and the core of an accelerated research and development program in our opinion are controlled field trials. These controlled field trials, which are informed by observations, modeling, and laboratory studies, are an essential component of a complete research and development program because they provide the best information to evaluate efficacy and impacts both environmental and social in a real environment. This research and development must be accompanied by rigorous and transparent monitoring and evaluation frameworks to study environmental, social, and economic effects. This is critical, we think, to avoid unintended consequences and to expand public confidence in the research, emphasis on research. Planning, testing, and development in any considerations about future deployment of ocean based carbon dioxide removal methods also require sound and inclusive governance systems. These governance systems must provide mechanisms to balance the risks of testing ocean based carbon dioxide removal technologies against the risks of failing to develop adequate solutions to the climate crisis. Governance system should also facilitate information sharing to ensure that ocean based carbon dioxide removal develops equitably and globally.		XX			N	No action technically requested or criticism shared... but see partnerships, code of conduct, stakeholder involvement sections	Kitch	N/A	Wednesday PM	
General	Project Vesta // Peter Ravella	Verbal	we wanted to commend NOAA Noah for taking the initiative to put this strategy together. It's a tremendous fit for the organization and the capabilities that the agency brings to the table. So we're fully in support of the NOAA initiative, and the outline that you have prepared.		XX			N	Complimentary; None Required	NA	N/A	Monday PM	
General / Part IV	Project Vesta // Peter Ravella	Verbal	We wanted to reinforce the comments of others, that the field trials are an absolute necessity. In addition to extensive laboratory experimentation, the field trials is the only way to really get a sense of effectiveness and potential broader ecosystem impacts of these technologies. We're in favor of the field trials.		XX			N	Complimentary; None Required	NA	N/A	Monday PM	
Part IV	University of Rhode Island // Jaime Palter	Verbal	The idea of controlled field trials, I think is a really important step in gaining understanding at scales, where we can monitor for all the environmental impacts and measurability and permanence, that kind of thing.		XX			N	Complimenary; none required	NA	N/A	Wednesday PM	

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Part III	Advisory Council for the Greater Farralones National Marine Sanctuary // Mary Miller	Verbal	some of the strategies that are outlined are controversial with the public, um, and unlikely, too, to overcome that without a lot of really concerted efforts being made, in both, you know, in both communicating to the public, but also in the verification that it actually works and doesn't harm the environment. And my comment is really about emphasizing the things that we know have an additional benefit, especially protecting ecosystems and species. And the fact that all of that needs very good, biological observing systems to track the species and to track ecosystem impacts um, whatever strategy is chosen for the carbon dioxide removal.			XX		N	already appears in report	McElhaney	Y	Monday PM	
Direct Air Capture	Global CO2 Initiative at University of Michigan // Volker Sick	Verbal	One thought on what I think is missing from the report. ... I think you see that here, and read frequently, that direct air capture, indirect ocean capture, is described as a CDR method. Neither are actually CDR methods, they only become CDR methods in combination with something else. Just capturing the CO2 two alone doesn't help. I think you may want to strengthen that argument, including your, in your table of contents, that it's direct air capture plus, something downstream. That makes it easier for people to understand what's happening.			XX		N	See Geologic Storage breakout box and text	Cross	Y	Monday PM	
General / Parts III and IV	IOOS // Kristen Yarincic	Verbal	I was a little bit surprised that there was not more in the report about the potential to leverage IOOS for some of the observational needs related to the Research Plan, especially in the coastal environment... a place where you can deploy new sensors or get baseline ecosystem information that can support the field trials as well as, you know, maybe deploy instruments during field are unfilled trials. So I think there's leveraging capability there that hasn't been uh explored, or articulated. And Um and also, they (IOOS) are coastal data integrators, you know, with that are certified by the government, and so I think an opportunity there to store and serve some of the data related to this research. Thanks.			XX		Y	See written IOOS comments and associated revisions	Cross	Y	Monday PM	
General / Part IV	Oceanid MRV // Ben Swainbank	Verbal	this kind of public private partnerships is really going to be essential. ... So, I can see that like in the Aalkalinity Grant Opportunity that's currently available that kind of specifically spells out, you know, that these must be kind of cross disciplinary groups that you're looking for. And so I think some guidance on, you know, how that can operate, and kinda, what's your, what your vision for that is, especially on the project scale for existing, either aspiring or active CDR operators. Is there an opportunity for NOAA to use, you know, the work that they are already doing as a, uh as a, as a part of the partnership opportunity to kind of deploy our resources or guidance for the work that they're doing.			XX		Y	See PPP Breakout box	Kitch	Y	Monday PM	
General / Part IV	Project Vesta // Peter Ravella	Verbal	We would like to better understand the role of the private sector in those field trials and how to cooperativelyco-operatively work with NOAA no and its partners. These efforts are difficult to permit, I think, and can be expensive. We're hoping that the NOAA no initiative leads to greater collaboratives, public private partnerships in the area of field trials. So we thank you very much for the NOAA Noah team and the work that you're doing, such a refreshing view from the federal government. We sure appreciate it.			XX		Y	See PPP breakout box	Kitch	Y	Monday PM	
Part II	Carboniferous // Drew Felker	Verbal	I would like to request that biomass sinking within anoxic zones be added to the list of potential CDR pathways ... Or that there be language about less well-known CDR pathways be put into the draft paperwork.				XX	N	Out of scope	Carter / Cross	Y	Wednesday AM	
Ocean Fertilization // General	Carole Douglis	Verbal	I would urge NOAA to ... focus more on those that can scale, those methods that have the ability to scale to the point that they can really take in 50, between 10 and 50 gigatons of CO2 two a year. The three requirements to be a real climate restoration solution as opposed to a carbon based business, there's lots of business ideas going on. But to be a real climate restoration solution, they need to be permanent. They need to be scalable, and they need to be financeable. So I hope you also take into account the fact that certain, some of these such as ocean iron fertilization, they finance themselves. When you look at DAC, ak Direct Air Capture, it would take more than the entire world's GDP to pull out the legacy CO2 from the air. Ocean iron fertilization more than pays for itself with about a billion dollars a year in, or less actually in investment. You restore fisheries, you restore economies. You build private, public-, private partnerships, of course, with, with people who would be involved in the coastal nations andin areas, So, please, yes, I would urge you to prioritize those that can scale, and those that can finance themselves. Because if ... a message is, it's going to need trillions of dollars to work, it's probably not going to happen. So, Climate Rrestoration, by the way, I urge you to take a look at the book. We discuss the ways that we can get back to pre- industrial levels of CO2 by 2050. It's possible, it's doable and we need, uh, it would be great for places like NOAA to take some, take leadership in that area.				XX	N	Out of scope	N/A	N/A	Wednesday PM	
Parst I and IV	Essex University - East Anglia, UK // Phil Williamson	Verbal	For the scientific review, it they got so far, but it didn't really finish the job. Because it was talking about taking the carbon dioxide out of the system, but not, from a climate point of view, the accounting, the governance, and actually knowing that it worked. For the last 20 or 30 years, I have been involved in these issues. And really, that is just the hardest part. I recognize that for the land based, there are established methods; for the marine based ones, it is much more uncertain ... just, doing another field trial won't really sort that out.				XX	Y	governance here is somewhat out of scope; CF new breakout box on MRV	Cross	Y	Monday PM	

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Parts I and IV	Essex University - East Anglia, UK // Phil Williamson	Verbal	the second issue related to governance is the international acceptability. I appreciate that the e US isn't signatory to the Convention of Biological. Diversity, but I think it is linked in with the London Convention, London Protocol, that there are the rules about carrying out experiments at sea, and international regulations ... Let's just say that there's a failure to sort of to to turn to endorse this ... effectively is illegal to carry out large scale experiments unless you can couldn't demonstrate there aren't any impacts act that might be adverse for the environment, and that's just going to be very difficult to do.				XX	N	Governance is out of scope in the research strategy	Cross	Y	Monday PM	
Coastal Blue Carbon	Essex University - East Anglia, UK // Phil Williamson	Verbal	had coastal blue carbon as a sort of separate section, is that included, in mCDR or is it included in the soil, or will it be a the category of its own? And I'm particularly interested in that, there's not a lot of funding going in that direction. There's also a lot of challenges, lots of co-benefits, but it's also another area where it's very difficult to the carbon corporate accounting.				XX	N	CF new breakout box on MRV, CBC section	Cross	Y	Monday PM	
General // Part II	Global CO2 Initiative at University of Michigan // Volker Sick	Verbal	the one thing that I was very surprised to see entirely missing in the report is utilization of CO2. Because if you make products such as um, construction materials, concrete, or uh aggregates, that is equivalent to sequestration. It's durable storage. You've seen that actually in, in the recent reason release of our own study, at the Global CO2 Initiative and National Academy study, I think it would be an incredible opportunity missed if you're not including this, because there's gigaton potential on an annual basis.				XX	N	Out of scope	NA	Y	Monday PM	
Part IV	Indigenous Environmental Network // Panganga Pungowiyi	Verbal	We are deeply concerned that NOAA is taking a look at large scale carbon dioxide removal. Oone of the reasons being that many forms of geoengineering are already being tested on lindigenous lands without our free prior and informed consent. Many of these risky forms of geoengineering, including solar radiation management and ocean fertilization, have had detrimental impacts even at the smaller scale that they've been tested on our lands. For instance, Russ George off the coast of Haida, with the Haida Gwaii, they, they, they dumped iron ore into the ocean and the following year, we had more, uh, shellfish poisonings and toxic algal blooms than we had ever had between the years of 2012 and 2013. In addition, I saw that in your report, you talked about working with the London Protocol. The London Protocol has actually put a ban on ocean fertilization and other forms of marine geoengineering. And there has been a moratorium against all forms of geoengineering with the UN CBD, which I'm currently attending at COP in Montreal. We need to ensure that those who are directly impacted, mostly impacted, lindigenous communities, are at the forefront of engagement with these large-scale, risky forms of testing and manipulation of Earth systems. So, we're just asking that you reach out to us and consider our, our perspective on the matter. We have people who have been studying and following these forms, and addressing, quote, unquote climate change for decades, So please reach out to us, and involve us in the conversations.				XX	Y	See new code of conduct section and partnerships section	Kitch	Y	Wednesday PM	
General	Kevin Wolf	Verbal	One of the things I was wishing we had more of was an assessment of risk versus reward for the various options. So, the risk for example, in mimicking volcanic iron, it seems to be very low from everything we read in the literature. No studies have shown any negative impacts for such an iron fertilization and yet, the rewards could be massive, You know, whether it's ian ocean deserts or all over the place. So there should be an assessment of the risks versus rewards, and we should be willing to take more action in the low risk, high reward area and not make a low risk high reward project like large-scale studies on iron fertilization have to go through the same difficult process of more risky actions. So I'd like to see that as spelled out, and if you can find anything in the literature that shows anything negative, I'd be very interested in, in seeing it. And then of course, these in the risk reward are what are the secondary benefits that could come from various actions. So, ocean iron fertilization has benefits done well in terms of increasing fisheries which is great for local economies and the ocean itself and all those migrating fish out there on the ocean. So that is, um those are my, you know, the things I think you need to really improve in this report. Because without this, you're going to stick things like ocean iron fertilization into an area that, well, you haven't really assessed the risk versus the reward.				XX	N	Out of scope / already included	NA	Y	Wednesday PM	
General	Kevin Wolf	Verbal	What we have to do is move faster. If we go through the the the similar ways in which we've done in the past could be a long time. Before we actually do large, large scale experiments like we're done by the Haida Indians off the coast of British Columbia, on 10000 square kilometers of ocean. Those are the kinds of experiments we should be doing now. To do that, one when is we should be supporting legislation that funds it. And, and I don't care whether it goes to USGS or NOAA ... or where the funds go, before it goes out to the universities, and out to the other folks who will be doing the research. And enter the causative of code of conduct. I like that, but it's a longer process to do. I would like to see NOAA support in legislation to increase funding for this kind of, um of research that it can speed up permitting and not to have the difficult processes of the environmental impact statement stop a low risk, high reward experiments being done. So I don't know what NOAA's position on that is, but my encouragement would be to take action as if the world depended on NOAA, moving faster, and getting the wheels of bureaucracy to move faster so that we can do the large-scale experiment's off the coast of the United States and in national waters that need to be done.				XX	N	Out of scope / illegal for us to advocate for money or legislation	NA	Y	Wednesday PM	

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Ocean Fertilization	Michael Hayes	Verbal	one of the most important one is getting the USDA involved. USDA does have a beginner farmer and ranching equipment loan program that's up to 300,000 donors. This is one of the best ways, a young family can get involved with farming. USDA has is not always had an active presence in the marine environment, but with, I think, the right equipment package for this type of missionelection, they would, I think welcome. Managing the long term growth out of the industry that we're all trying here to promote. This loan program can obviously help address many of the social issues as far as equitable, uh, access to the good parts of the CDR industry, marine CDR industry. And it can open up literally billions of dollars per year, with expansion funding.				XX	N	Out of scope; too specific; but see partnerships box	Kitch, Tedesco, Osborne	N/A	Wednesday PM	
General	National Resources Defense Council // Lisa Suatoni	Verbal	As Research expands into field trials, NOAA should ensure that the budget in the research design accommodates multi-disciplinary research that goes beyond geochemistry and includes research on ecosystem species of interest and social impacts. We think it will be critical to allocate more attention to understanding the long term ecological and social impacts of the type of large-scale ecosystem manipulations that would be needed to affect atmospheric CO2 two concentrations. We're happy to see NOAA mentioned stakeholder engagement throughout the document. But before finalizing this strategy, it would be great to see a model of stakeholder or community engagement fully developed. Listening sessions like this are great for staff but additional community outreach is warranted when sizable field of research trials are initiated.				XX	Y	Stakeholder Engagement section	Kitch / Cross	Y	Wednesday PM	
Part IV	National Resources Defense Council // Lisa Suatoni	Verbal	In the same vein, potentially risky novel research technologies are often accompanied by research code of conduct to ensure the safety and well-being of people in the environment. And, there is growing interest in developing such a code of conduct for ocean based CDR. For example, AGU is developing an ethical framework to guide climate intervention research. So, we think that NOAA and the federal government should adopt a code of conduct to guide this ocean based CDR research program, particularly given that wave two of the research plan, will likely entail large field experimentation. Such a code of conduct could also be adopted by federal grantees.				XX	Y	See new code of conduct section	Kitch / Jewett	Y	Wednesday PM	
General	Ocean Conservancy // Sarah Cooley	Verbal	NOAA has a track record of partnering to multiply its impact. There's a few partnerships alluded to in the draft strategy, but as one of the first federal movers on the topic, NOAA should be more explicit in the research strategy about what types of partnerships with other agencies or civil society organizations are going to be necessary.				XX	Y	See Partnerships breakout box	Kitch	Y	Wednesday AM	
General	Ocean Conservancy // Sarah Cooley	Verbal	I was also the coordinating lead author for the Oceans and Marine Systems Chapter of the IPCC Working Group II to report. We really focused on adaptation and development of solutions to climate impacts, and it strongly underscored the need to co- develop solutions with communities, to develop solutions that address multiple priorities at once. So, here, I'd like to encourage NOAA to consider spelling out how ocean CDR research can shed light on ... addressing multiple ocean concerns at once. And so this really means emphasizing social science research and collaborative, multi-disciplinary activities in addition to the governance and economic research that's already underway.				XX	Y	See Partnerships breakout box	Kitch	Y	Wednesday AM	cross-cutting research highlighted in parnerships breakout box
General	Ocean Conservancy // Sarah Cooley	Verbal	I would encourage NOAA to explore ways to effectively engage communities around this research, in addition to the legally mandated methods, so that the research can really involve communities, address their priorities, and develop the body of evidence that we need to make decisions about these technologies.				XX	Y	See Partnerships breakout box	Kitch	Y	Wednesday AM	Text included to stress participation in communities of practice, and mention to engagement with tribal communities and aquaculture
General / Part IV	Ocean Visions // Brad Ack	Verbal	there will be no substitute for field trials... we're going to need to focus somehow on facilitation, permitting and regulation of these field trials if we're not to wait 5 to 10 years to see them in the water. So, if that is not fully part of the strategy, so far, I think we need to highlight the fact that this is not just going to happen without additional federal intervention in and actually facilitating the permitting of these of these needed trials.				XX	N	Out of Scope; implementation plan	NA	Y	Monday PM	
Part IV	University of Rhode Island // Jaime Palter	Verbal	partnering with Iindigenous stakeholders and other partners ... I think is so important. As an academic person, ... I would urge, NOAA, and I think that a lot of thought has already gone into this, is to find ways to facilitate that. Because in the normal grant cycle, where you spin up a proposal in a, just a month, or two, or three, it's very challenging. Not only to be interdisciplinary but inter-stakeholder and bring in private partnerships, NGO's, Iindigenous peoples, and like really for meaningful, true, co- design. And that's on top of doing co- design of modeling, observations, et cetera. So I think when we need to do that, if we're going to do it on the normal grant cycle, we need some help and support to identify and forge those very true genuine partnerships.				XX	Y	See partnerships box	Kitch	Y	Wednesday PM	
				4	12	5	17						
			NO	4	12	2	9	27					
			YES	0	0	3	8	11					