TRANSCRIPT

NOAA's 2023 Atlantic Hurricane Season Outlook

May 25th, 2023

Hosted by NOAA National Weather Service Public Affairs

Media Advisory about the briefing

NOAA to announce 2023 Atlantic hurricane season outlook

Hurricane Outlook news release

NOAA predicts a near-normal 2023

0:09

Good morning and welcome to the NOAA Center for Weather and Climate Prediction here in College Park, Maryland.

0:16

Thank you to both the reporters in the room and those joining us virtually for today's announcement of the 2023 hurricane Season Outlook.

0:26

My name is Allison Santorelli and I am the media contact for today's event.

0:31

At the conclusion of this news conference, you may reach me at NWS dot PA at NOAA dot gov The news release and graphics related to today's announcement will be available on NOAA dot gov shortly.

0:49

For those of you joining us by webinar, this news conference is being recorded, so if you do not wish to be recorded, please disconnect at this time.

1:00

And with that, I'd like to introduce our host for today, Dr. Mike Ferrar., Director of NOAA.'s National Centers for Environmental Prediction.

1:16

Thank you, Alison. Welcome.

1:19

I'm really honored to be the host for today's ceremony and event and, uh, welcome you here to this world-class facility here in College Park, Maryland.

1:27

Scientists at NOAA National Centers for Environmental Prediction are dedicated to delivering national and global, weather, water, and climate information to protect life and property, as well as the economic well-being of the nation.

1:40

The building you are in today is home to five of our nine national centers, including first, NCEP, Central Operations, or NCO.

1:49

Who operate the weather, climate, operational, supercomputing system, models, run on, as well as other processing and dissemination systems.

1:57

Secondly, the Environmental Modeling Center or EMC, where the computer model is developed and improve our nation's weather models.

2:05

Third, the Weather Prediction Center or WPC, or national forecasters provide services. 24.7.

2:11

For weather forecasts to support our National Weather Service has 122 local weather forecast offices Fourth, the Ocean Prediction Center. Where our Forecasters provide ocean prediction to support safe maritime activities in commerce.

2:23

And finally fifth, the Climate Prediction Center or CPC, where forecasters develop seasonal temperature and precipitation outlooks.

2:32

It looks at forecasts for El Nino and la Nina, and the Atlantic Hurricane Season Outlook, which is what we're here to talk about today.

2:41

In addition to the five centers, here in this building, we have four other operational centers located across the country, including the Aviation Center in Kansas City.

2:51

The Storm Prediction Center for Tornadoes in Norman, Oklahoma, and the Space Weather Prediction Center in Boulder, Colorado, But perhaps the most well-known, for those of you in the

media, is our National Hurricane Center, which is in Miami, Florida. And I would like to acknowledge that we do have the new director with us today, doctor Mike Brennan.

3:11

So, the folks at the Hurricane Center, Mike And his dedicated team of Hurricane Specialist and marine forecasters have been busy helping communities prepare for the upcoming season.

3:21

And they will provide the trusted hurricane forecasts that people rely on it during the hurricane season this year, which runs, of course, from June first to November 30th.

3:30

Today's news conference, there's about 15 minutes of remarks by our distinguished speakers, followed by a question and answer session with you, the reporters, will first take questions in the room, before we move to those, participating, virtually through our webinar.

3:45

So today's speakers are, US. Department of Commerce, Deputy Secretary, Don Graves.

NOAA administrator, Dr. Rick Spinrad.

3:54

And, similarly, administrator Deanne Criswell.

3:57

Now, it's my true honor to introduce our first speaker, actually, who's gonna give it the introduction to the first speaker.

4:04

My colleague, Dr. Rick SPinrad., who've had the pleasure of working with many years ago when he was the Chief Scientist for NOAA.

4:12

Doctor Spinrad has held many other leadership positions within NOAA, including leading our nation, the National Ocean Service, as well as NOAA Research, and put altogether that gives him, really the depth and breadth. That's really unparalleled in history of NOAA administrators.

4:26

So, with that, it's my pleasure to welcome Dr. Spinrad, or the floor is yours.

4:35

Thank you, Mike, And it is my pleasure to welcome Deputy Secretary Don Graves here today. Deputy Secretary Graves has been a very strong supporter of both NOAA's mission. And our workforce, and, in fact, has really been an integral champion within the Department of Commerce to make sure that the work, we're doing at NOAA is closely coordinated with all of the equities and entities within the department. Especially in the context of our work towards developing a climate ready nation to ensure that the public and communities, and industry have the kind of reliable, actionable, and accessible information needed to make decisions related to weather and climate events. And with that, we're very glad to have Deputy Secretary Graves here today and I will turn the mic over to you, sir.

5:23

Well, thank you so much Dr. Spinrad, and thank you all for for having me here today.

5:30

Welcome to everyone who's participating in this, in this Press Conference, Welcome to NOAA's National Center for Weather and Climate Prediction.

5:41

At the Commerce Department.

5:42

We're fully committed to know his mission to study forecasts, an issue, watches, warnings, and other decision support.

5:50

For tropical systems in our ocean basins here, and in offices across the country, tireless work is being undertaken to forecast storm, major storm systems from the pilots who fly hurricane hunters.

6:04

That collective other data that scientists use that track the patterns of severe weather events to the scientists who use that data to make better predictions.

6:14

It's no mistake that NOAA and the National Weather Service find their home in the Commerce Department, hurricanes, and the destruction.

6:23

They cause can have devastating impacts to affected communities, And to, local economies.

6:28

We know that recent hurricane seasons have been particularly busy, with three back to back La Nina events, which only increased the threat of hurricanes.

6:38

Last year alone we saw 14 named storms accumulate three of them hurricanes that hit the United States, causing a collective $117 billion in damages when adjusted for inflation.

6:51

The World Meteorological Organization retired, the storm names of Fiona and Ian.

6:56

And those destructive storms made landfall in Puerto Rico and south-west Florida respectively and caused billions of dollars of damage.

7:05

The Increasing Impacts and Risks to US communities from these destructive storms make the work of NOAA and its partners in government, the private sector, and NGO's all the more essential.

7:16

It's critical that this work goes a long way to better prepare the United States for storms and effectively addresses environmental, economic, and humanitarian impacts to help communities recover from these events.

7:28

To broaden the impact of NOAAs work, we've we have to make continuous investments focused on innovation aimed at supporting NOAA’s ability to make accurate weather forecasts through implementing more powerful supercomputers developing upgraded forecast models.

7:44

Extending know's decision support services to local officials were responsible for public safety.

7:50

Employing better satellite observations including state-of-the-art GOES and polar orbiting satellites and expanding community outreach to equip every community in the country with the information that they need to appropriately prepare and respond to potential hurricanes.

8:07

These investments are critical because preparedness protects property, informs communities and saves lives.

8:15

NOAAs investments from the bipartisan, by, excuse me.

8:19

Those investments from the Bipartisan Infrastructure Law and Inflation Reduction Act, $6 billion in total, represent transformative opportunities to support all Americans, including vulnerable populations, in efforts to make our communities even more resilient future weather and climate events.

8:37

Just last month, the Department of Commerce, and NOAA announced $562 million in recommended funding for projects across the country to help make coastal communities more resilient to climate impacts through the Climate Ready Coast Initiative.

8:53

These investments are a key part of NOAA's efforts to build a climate ready nation.

8:57

For our country's prosperity, health, and safety benefit from understanding climate change, and taking action at all levels to reduce climate impacts.

9:07

As we continue to make advances in understanding and forecasting hurricanes and extreme weather, our scientists strive to learn from every storm and apply that knowledge to future storm analysis.

9:20

As a result, NOAA''s hurricane predictions are more accurate than they've ever been, based on advancements with our new hurricane model.

9:27

Re-analysis forecast for Storms from 2020 to 2022 has shown that today, the accuracy of our forecast track has improved by 40% since 2017 and the accuracy of our forecast intensity has improved by 46%.

9:44

Since 2017, we've also improved the lead time for hurricane forecasts by two days, and the seven Day Track forecast now has the same accuracy as the five day track forecast.

9:56

The lead time of our storm surge forecast has also grown.

9:59

Our three day advanced storm surge forecast today has the same accuracy as the previous two day forecast.

10:06

These additional days of preparedness can make all the difference in places like Florida, Puerto Rico, and other parts of the country in mitigating the destruction and saving countless lives.

10:19

These improvements not only make our country safer and more informed about hurricanes and their impact, but they also speak to the importance of their work being accomplished each and every day by the dedicated individuals at NOAA.

10:32

As hurricane season approaches, the overarching message today is clear.

10:37

NOAA and FEMA are prepared for the upcoming season.

10:40

Now it's time for communities to prepare as well.

10:43

It's absolutely crucial, that all Americans, living in the potential paths of these storms, even well inland of the coast, follow NOAA''s Guidance for preparation and determine your risk. Develop an evacuation plan, and assemble the disaster supplies that you may need.

10:59

If a severe storm strikes, please stay informed and be ready to heed Warnings from NOAA's National Weather Service. And your local emergency managers.

11:08

NOAA, the Department of Commerce, along with our federal partners, like FEMA, stand ready to serve the nation, before, during, and after each storm, and ensure that communities have the resources they need to overcome the threat that hurricanes pose.

11:22

Thank you for joining us today. Thank you now to NOAA and FEMA for their continued service to make this country a safer place.

11:29

I'm sorry, I won't be able to stay for the rest of today's event. But with that, I am pleased to turn it back over to doctor Spinner.

11:40

Thank you, Deputy Secretary Graves, and good morning to everyone.

11:44

So, welcome to the NOAAt 2023 Atlantic Hurricane Season Outlook.

11:50

Let me start by saying that, whether you're joining us in person or remotely, we really appreciate your attention to this very important announcement.

11:58

I want to extend my gratitude to my friend, doctor Mike Farrrar, for hosting us, along with the many scientists, technologists, technicians who work around the clock in this building and elsewhere to provide weather, water, and climate forecasts and projections to keep the nation safe and informed.

12:16

I want to take a moment to recognize also that, although we're here today, to announce NOAA’s 2023 Hurricane Outlook, I do want to acknowledge the people of Guam, CMI.

12:27

Roda, Tianian, Saipan, as they respond and to begin to recover from the devastating impacts of Typhoon Mawar

12:34

I'd also like to thank the no employees working at the National Weather Service's forecast Office in Guam, who sheltered in place to ensure continuity of forecast operations throughout the storm. I will say personally that to me is kind of the sort of extraordinary activity of our workforce where they're putting mission first. And in many cases when their own lives and livelihoods and families are being threatened. So I can't overstate how much I, as administrator, appreciate the effort they've undertaken.

13:05

And as officials begin to assess the damage, one thing is clear, the forecasts, warnings, and decision support services that NOAA provided saved many lives, that's unequivocal.

13:17

So, as we enter the start of hurricane season, NOAA and the National Weather Service stand ready to provide our nation with the best possible information. You just heard from the Deputy Secretary that best keeps getting better over time from our researchers to our satellite operators or hurricane hunter pilots and specialists and scientists for care, forecasters and communicators. We are prepared to help communities through the upcoming hurricane season with reliable forecasts, warnings, and decision support services. The question is, Are you ready?

13:49

Each year we host this news conference at a different per again, promulgation to highlight the different hazards that a hurricane.

13:57

Since we're in Maryland today, I'll note that this year marks the 20th anniversary of Hurricane Isabel.

14:03

Some of us, myself included, were personally affected by that so we can certainly relate. Many of you who live here on the mid atlantic might recall, now hurricane discipline belt, which made landfall as a cat 2 storm and the outer banks of North Carolina whose storm surge wiped out portion of Hatteras Island.

14:20

Isabel also brought record storm surge up the Chesapeake Bay resulting in significant flooding in Baltimore.

14:26

And Annapolis power outages, including at my own home, were a significant effect of the storm and Isabel's directly responsible for 17 deaths mainly through drowning, 34 indirect deaths. Several of those were attributed to carbon monoxide poisoning from generators running in closed spaces without proper ventilation.

14:49

Carbon monoxide poisoning, in fact, is one of the leading causes of death after storms in areas, dealing with power outages, never use a portable generator inside your home or barrage.

15:01

This year also marks the fifth anniversary of Hurricane Florence, which experienced rapid intensification along the East Coast and brought significant flooding to the Carolinas.

15:12

Riverine flooding, not wind, was the major cause of damage and loss of life and Florence. Damages from Florence are estimated to be twenty four point two billion dollars.

15:23

Recovery efforts from the extensive flooding continued for eight weeks.

15:27

These recovery efforts were prolonged by impacts from Hurricane Michael. A destructive category five storm as it moved inland.

15:36

Michael dumped heavy rain, and brought hurricane force winds across a huge swath of the eastern US from Florida.

15:45

through the mid-Atlantic, many of us remember where we were when these storms hit and how they impacted our communities, marking their anniversaries. It helps us remember that being prepared means staying prepared.

15:59

Another important facet of reviewing previous storms is that we can see the progression of improvements in our observations and forecasting systems that grew out of experience and knowledge each storm provided, whether it be by rapid intensification, intense rainfall storm surge, or other features.

16:17

NOAA is in a constant posture of upgrading and improving our service to this nation.

16:23

Let me give you some examples of key enhancements we're making this year to boost our capabilities for the upcoming hurricane season.

16:31

As you just heard from Deputy Secretary Graves', investments under the bipartisan infrastructure law and the Inflation Reduction Act have afforded NOAA the opportunity to better support coastal communities responding to climate change through NOAA's Climate Ready Coast's Initiative. We have two new forecast model enhancements this year.

16:50

A major upgrade to our storm surge model expands probabilistic forecasts for storm surge, to Puerto Rico and the US. Virgin Islands, now, providing emergency managers and coastal communities with the most likely range of storm surge values, so they can be better prepared and informed.

17:08

Next month, we're launching a new hurricane model that will eventually become our primary hurricane model.

17:14

The model called the Hurricane Analysis and Forecast system, was developed by NOAA researchers with hurricane disaster supplemental funding in 2018, 2019, and 2022, respective, excuse me, retrospective analysis of storms in the North Atlantic Basin from 2020.

17:33

The 2022 showed that the new hurricane model provides up to a 15% improvement in track and intensity forecasts over existing models.

17:44

Directed by the Weather Act of 2017 and developed under NOAAs Hurricane Forecast Improvement program, the new model aims to improve forecasts for rapid intensification.

17:55

All of our forecast models run on NOAA's Operational supercomputing system. In July, we'll be expanding our supercomputing capacity by 20%.

18:02

This upgrade will allow us to run more complex forecast models and provide faster and more efficient computing power for operational prediction, research, and development.

18:14

Once implemented, the system will be able to perform 29 quadrillion calculations per second.

18:20

The expansion will provide the supercomputing power that's necessary to support forecast model upgrades for years to come.

18:28

Additional notable product and services upgrades include this year, the National Hurricane Center extended their tropical weather outlooks from five days to seven days.

18:38

Being able to forecast further out in time helps emergency managers better prepare for the storm also. The weather prediction center's excessive rainfall outlook, will be operationally expanded out to date five this season.

18:53

Flooding is the deadliest Tropical Cyclone Hazard in the US, and these outlooks now provide up to five days of lead time on the threat of flash flooding from intense rainfall. This year, we're also continuing to improve our in our use of various observing tools to better sense the atmosphere within a storm. As well as the ocean states surrounding the system.

19:14

This includes unmanned drones, sounding balloons, as well as additional sail drones and underwater gliders thanks to bipartisan Infrastructure Law funding NOAA’s National Data buoy Center will modernize and upgrade the tropical atmosphere ocean, out.

19:33

Buoy array, data from these buoys are fundamental to understanding our knowledge of El Nino and la Nina, as you just heard the DEP SEC allude to and our ability to better simulate and predict them in climate models.

19:44

The El Nino and La Nina climate patterns can influence Atlantic hurricane season. These are exciting investments and advancement that will help our agency support communities living in the path of tropical cyclones.

19:57

This funding, and these new capabilities, will go a long way, in helping us build a climate ready nation, that's more resilient to the threats posed by climate change.

20:08

So, without further ado, let's dive into this year's Atlantic hurricane season outlook.

20:15

NOAA is predicting a near normal 2023 Atlantic hurricane season.

20:20

Specifically, there is a 40% chance of a near normal season, a 30% chance of an above normal season, and a 30% chance of a below normal season.

20:31

For the range of storms expected, NOAA calls for the Fall 12 to 17 named storms, with top winds of at least 39 miles per hour.

20:41

Of these, 5 to 9 are forecast to become hurricane's, with maximum winds of at least 74 miles per hour.

20:48

This includes 1 to 4, major hurricanes ranking as category three or above, and winds of at least 111 miles per hour.

20:59

Before I close, I'd like to take a moment to remind you now that it's time to prepare.

21:05

Remember it only takes one storm to devastate a community.

21:08

Regardless of the statistics I shared, if one of those names storms, it's hitting your home or your community.

21:14

It's very serious.

21:16

I'd also like to give special thanks to the skilled and dedicated forecasters at the National Hurricane Center in Miami who work around the clock. To deliver timely and accurate forecasts each and every hurricane season.

21:28

As well as the hurricane hunters who fly hundreds of hours, each hurricane season, to support critical hurricane forecasting and research and the numerous members of the emergency management community or so critical protecting lives and property and the experts at the Climate prediction Center to develop seasonal outlooks, including the hurricane seasonal outlook, which are used by as a tool by decision makers, emergency managers, and the public.

21:53

When preparing for the season ahead, and finally the dedicated forecasters of the National Weather Service, who work around the clock and every U S community to provide weather forecasts and warnings.

22:05

The entire nation can depend on the dedication of these public servants, quite literally, saves lives and safeguards are communities and businesses. And now, it's my pleasure to invite FEMA Administrator, Deanne Criswell, to the podium. Thank you.

22:25

Good morning, everybody. Thank you.

22:28

Administrator Spinrad for that incredible briefing on what we're going to be seeing this year, and just for your continued partnership. Right, I think, as we have heard all of the advances that the prediction center has made and how we can better improve our forecasting, It makes such an incredible difference to the emergency management community, and how we can make sure that we're getting the right information to people in a timely manner, so they can take the appropriate actions to protect themselves and their families. We simply just cannot do our jobs without the support of NOAA, the National Hurricane Center, as well as the National Centers for Environmental Protection.

23:10

But I'd also like to take a minute to thank all of the journalists and the media in the room, because you help us amplify that message. Everybody gets their information in different ways and your ability to help get out to all communities really makes a difference in making sure we're getting that critical information in a timely manner.

23:31

I think as we've heard today, the 2023 Atlantic hurricane season is quickly going to be upon us, but we're already in the Pacific hurricane season right now and as we are seeing the impacts of super typhoon ..., what we are seeing is that these types of events are increasing and intensifying more rapidly, which is what we saw over the last few days.

23:56

But it also reminds us, and I think, as we've heard today already, that regardless of the number of named storms that are out there, regardless of the time of year. Whether we're in the peak of hurricane season, or not, it just takes one, and they can happen with the very first storm. Which is what we're seeing right now, very first storm of the Pacific hurricane season, causing significant damage. And so that means that we do need to prepare today. And so grateful to have this opportunity to get that met this message out there.

24:27

FEMA is ready, but we are just one part of the team to make sure that we are increasing the preparedness across the nation. It takes our partners like NOAA and the Department of Commerce, as well as the entire federal family to make sure that we are ready to meet this challenge, and I can tell you that we are ready to meet this challenge.

24:47

We take the time to reflect. Alright? We took the time to reflect on the lessons that we have learned from last year in previous years, and carry those forward into this hurricane season.

25:00

We also want to look at the efforts that we've made and the impacts and the advances that they've made to helping our communities. And so I just want to give you a few examples of some of the things that we have done to make sure that we can help communities before, during and after disasters better every year.

25:18

one of the areas that I have been very focused on is our ability to try to meet people where they are. Instead of having individuals and having communities try to navigate the federal government, How do we bring those services to the people.

25:31

And recognizing that every community and every individual has a unique experience, has unique needs, and their impacts will be specific to them. And so we can't have a one size fits all approach to how we prepare, how we respond, and, most importantly, how we recover from these disasters.

25:50

And so we did a few things over the last year to make sure that we are living up to meeting people where they are.

25:57

We changed our policies to make sure that those who need our help, the most, have the ability to access that help, and that we're removing barriers. so those that are eligible for assistance can actually access that assistance.

26:10

One of these things was a policy change to the types of documentation that we accept to prove that you own your home, or that you occupy your home.

26:19

And because of this update, I'm very proud about the number of individuals that have been able to get assistance.

26:25

Since we made this change, over 128,000 individuals and families have been eligible for assistance bringing over $754 million into their pocket books to help them jumpstart their recovery. These are individuals we would have denied assistance in the past, because of our policies. But because of these simple policy changes have really made a difference in the ability for these individuals to start the recovery process.

26:54

We're also leveraging technology in ways to help us improve our response efforts.

27:01

A couple of examples of things that we've done here during Hurricane Ian last year, we used the first multi-agency deployment of geospatial resources to the field to really help us pinpoint those communities that had the most impact to help direct all of our resources in a way that was more timely, really helped us use the intelligence in a way that we were able to operationalize it and make life saving decisions.

27:27

We also continue our work to help communities build resilience to disasters. We're seeing more and more impacts from these hurricanes and so we have to get ahead of them and we have to make communities more resilient and reduce the impacts that we're seeing. Just last week, we announced over $160 million in climate resilience funding. This is additional funding as part of our mitigation programs in the building resilient infrastructure and communities, and our flood mitigation assistance programs to really help these communities get ahead of the impacts and start to build resilience.

28:04

We also selected an additional 46 communities for direct technical assistance, helping these communities bringing the federal family together to come into these communities and help them think about the ways that they can build resilience the way that they can reduce the impact, and be more eligible for the different grant programs that are available across the federal government.

28:26

And today, I'm also happy to share that our partners at HHS announced $65 million in funding for health care centers in areas that were hit hard from hurricanes last year. This funding is going to help prevent flooding, upgrade emergency generators, and improve communication and mechanical systems ahead of future disasters.

28:48

This is yet another example of the Biden Harris' Administration's Whole of Government Approach to making sure that our communities are more prepared to withstand the impacts of these extreme weather events.

29:00

And as I said, you know, we're just one part of the team, FEMA is not in this fight alone.

29:06

And one of my main focus areas is making sure that those that may have been impacted or may be impacted by a hurricane are also ready.

29:16

Because our best defense against disasters is our local community, our neighbors helping neighbors. They are our true first responders.

29:24

And so, as we heard, the time to prepare is today, the time to prepare is now. And so there's three things that I think everybody should do today.

29:34

First, know what your risk is. Hurricanes, they are more than just the cone that we see.

29:42

They are storm surge. They are significant rainfall, they are carbon monoxide poisoning after. There are so many other hazards. And so you need to know what your risk is, where you live, so you can take the appropriate measures to protect your family.

30:00

Second, know how you're going to get information.

30:03

Again, thank you to the media for helping us do that. We all get information in very different ways. There are a number of resources that are available.

30:12

We always encourage everybody to download the FEMA app.

30:16

You can also download weather apps from NOAA and the National Weather Service, also, in your local community, and sign up for their emergency alerts, so you know how you can get information, so you can take immediate action when needed.

30:29

Then, third, make an emergency plan.

30:33

Do you know where your evacuation zone is? Do you know which evacuation zone you're in?

30:38

Do you know where you're going to go if you're asked to evacuate?

30:43

Remember that if you are asked to evacuate, moving away from the hazards does not necessarily mean that you have to go another state or two away. It could be just five miles away from the hazard into an evacuation center until the threat has passed. So take the time today to learn which evacuation zone you're in and what actions you will take if you are asked to evacuate?

31:08

And as part of your planning process, it's also time to review all of your important documents. Make sure you have them prepared and ready to go with you, in case you need to use them. Review your insurance policies and consider flood insurance if you don't have it already.

31:26

At FEMA, We say that no two disasters are the same, and in that same spirit, being prepared means that it is not a one size fits all solution. You need to understand what your risk is, what your family needs are. What your unique circumstances are, to take those appropriate measures to protect you and your family. So I implore everybody that is watching at home, listening to this in their car or reading this in your local newspaper or social media event, Learn today what your individual risk is and the actions that you're going to take and plan accordingly. These storms are going to continue to develop faster.

32:05

They are going to be stronger.

32:07

They will last longer.

32:09

FEMA will be ready to support you. If one hits you.

32:13

Are you going to be ready? So, with that, I'll turn it back to Dr. Farrar.

32:24

Thank you so much, Administrator Criswell, before we move on to the Q&A portion, I'd like to I'm sorry. It's the wrong one.

32:31

Sorry. For the Q and A portion, I'd like to introduce Matt Rosencrancs, who is our Lead Hurricane Season Outlook Forecaster with NOAA's Climate Prediction Center.

32:40

Matt will be available to answer questions about the science behind today's hurricane Outlook.

32:45

So we'll begin with questions for reporters in the room.

32:48

Please raise your hand, and Allison from NOAA Communications will bring the microphone to you.

32:53

For those of you joining us by webinar, you may also ask a question using the raise hand feature. Until such time as you are called upon, please, everyone on the line, please keep your phones on mute. When we do call on you, then, unmute your microphone, state your name, and media affiliation before asking your question and the same for the reporters in the room as well. If you prefer to submit a written question, you may also do so using the question box on the right of your screen, and we'll read your answer allowed in the room.

33:21

Also, if possible. If you have something to be directed to a specific person of our speakers, please let us know who you're directing your question to, and we'll do our best to answer questions in the time available. So for now, we'll take the first reported question in the room.

33:39

Seth Bornstein, AP for Matt: in terms of the forecast, I assume, like others, you're dealing with the clash between El Nino dampening and the very hot Atlantic increasing.

33:53

Can you explain a little bit the dynamics there in your forecast?

33:59

And more importantly El Nino once it happens, you know it's going to be around for a few months.

34:05

How confident are you that the hot Atlantic, the record hoy Atlantic that we're seeing now

34:10

Will be there for a few months?

34:12

And can you give some insight onto why it is so warm?

34:18

So, yeah.

34:20

Those two things did come into the forecast, the interplay between the El Nino and the favorable conditions across the Atlantic. Not just the sea surface temperatures, but as well as the wind patterns and the shear patterns that are over the Atlantic as well as the predicted shear patterns over the Atlantic.

34:35

So it's kind of like a clash, a clash between those two big features. El Nino can control about 33 to 38% of the variants. So, it's not all of it.

34:45

Um, the sea surface temperatures in the Atlantic should stay around for us through the summer time months once established.

34:52

Over all the patterns in the Atlantic that are favorable, they change in the what we call the Atlantic Multi-decadal Oscillation.

34:59

They change every 25 to 40 years, now the specifics, as far as how warm it is this year, we are warmer than we were last year were about as warm as we were in 2020.

35:11

Once you move it into the summer season, then you established a strong high pressures over the Atlantic Ocean, over mostly ocean basins, its very hard to, you're not gonna disrupt that.

35:22

Tropical temperatures as much you can disrupt the mid-latitudes with storms, but not as much the tropics, once this kind of establish it's likely to hold on, just as long as ENSO is likely to hold on through the entire season. Now El Nino right now they forecast is 93% chance for that to be an El Nino phase during the core of the Atlantic hurricane season, August, September, October. But that is again, that is likely the last many, many months.

35:52

Yeah.

35:58

Hi There, either, for Matthew or Dr. Spinrad, right. Actually, I guess any of the three could address this. Chase Cane with NBC. Wondering about the sort of abnormally warm open ocean temperatures, the impact that can have on rapid intensification.

36:11

People on the coastline might say, oh, a category one. I don't need to evacuate, and then all of a sudden it's cat 3, 4, 5 storm. How do you communicate that risk as these temperatures get warmer and these storms intensify more quickly?

36:25

I'll start . I'd like to do it. But we certainly, We're communicating this risk, through our forecasters at the Hurricane Center. Our Hurricane models have also been able to improve the rapid intensification forecasting over the last several years.

36:39

So, we were able to communicate that earlier than has been possible in the past.

36:44

And there's anything you'd like to add. Anything else? I want to make sure. It talks about the month, but I want to talk a little bit geekier perspective intensification. Because I think I may be the only card

carrying oceanographer in the room and I and I will point out that one of the important things that we're doing at NOAA is looking, obviously at sea surface temperature, but also, it's about total heat content. And so making use of a lot of satellite capabilities and then the new observational capabilities that we alluded to like, gliders, for example, allows us to get better information about how much total energy is in the ocean available to contribute to intensification. So that's part of the improvement that you've seen that then gets reflected in the kind of forecasts it might just alluded to.

37:28

It's a great question. And I think one of the things that we have to focus on as we go into this hurricane season is not just the hazard itself. Right? Not just the category of the storm, but all of the risks that go with it. And so is it going to intensify more rapidly? What are the other pieces that we're concerned about, You know, the new accuracy or the modeling that we're going to be able to do for storm surge, This part of risk communication is where I think that we need to direct our focus to. And using all of the mediums that we have available.

38:02

And it's, it can be even more important that we start to get those types of messages out sooner across all forms of social media. National and local news, that using the Emergency Alert App, so that people have to be able to get that information, To be able to take action quickly. But you can only take action quickly, if you take the steps today, to make sure that you're ready to take that action quickly.

38:26

And so, being able to communicate those risks, and what those risks are, and not just the category, is going to be a cultural shift, right? A mind shift for the people that live in areas that are, are typically going to say, Well, I've lived through a category one, and then all of a sudden, it's a category three, or. I've lived through this before, and now we have intense storm surge. And we have increased rainfall, that's creating additional hazards that they haven't experienced before. The risks of these storms are different than the risks that they face 10 years ago. We have to be able to get that message out to people.

39:02

Hi. I'm Tom Frank from E and E news, I have a question for you, administrator Criswell about FEMA preparation.

39:08

First, the Disaster relief Fund. You said it's gonna run out of money in August and that you're going to ask for more money. I want to ask what? Have you put the question? What's the status, and then also FEMA staffing? The GAO just put out a report talking about shortfalls in staffing.

39:22

What are you doing about that?

39:25

So on the disaster relief fund, yes, we're still projecting a shortfall. I believe it's in August now. It's been pushed back and we are still working with the administration on what a supplemental request would look like. I can tell you that we will always have enough money to be able to respond and make sure that we can support any lifesaving efforts that need to happen. But if we do end up with a shortfall, we would see some impacts to the ability to, to continue ongoing recovery operations, but we continue to work with the administration on that. I mean, as far as Staffing and the GAO report, you know, our staffing models in the past have been paid based on a peak hurricane season, type of planning assumption. But we're seeing the threats and the hazards that we're facing that affect us here around January one through December 31st. And we're seeing an increased in a sustained operational tempo.

40:15

And so, we are taking steps to re look at what our planning assumptions are, throw on top of that, a global pandemic, and supporting other emergency events around the areas that don't necessarily get to Stafford Act declarations like the Ohio train derailment. And we have to re look at what that is. But the GAO report also just focuses on our disaster response force. We also have all of our staff that are at headquarters that we can reassign as needed to support our disaster response. We have our surge capacity where we can tap into all of our DHS partners and other federal partners to come in and support different areas. And we did just get great legislation passed by Congress that gives us USERRA Protection. That's gonna really change our ability to recruit the biggest part and the most critical part of our workforce, which is our reservists. And so they now get job protection. And so now we have the ability to recruit, very specifically, some subject matter experts, but also broaden the pool of individuals that want to be able to support response operations like this, but have a day job.

41:27

Now, they'll have that job protection to be able to go in, support some of our efforts as needed, and so we're using that as a targeted recruiting tool, going forward.

41:44

Good morning, Topper Shott Chief Met WUSA nine here in Washington.

41:48

I love computer models. So I'm intrigued about intrigued with this new hurricane model.

41:53

Can you talk a little bit about the evolution? Is you start from scratch, Did you take some models and blend them?

41:59

And when can I get my hands on it?

42:01

Matt or Rick? I don't know who wants to take that. I can start. So the new Hurricane Analysis and Forecast system is actually being built on the framework of our unified forecast system. This is where we're taking a unified framework for our global and regional models. So it's been built inside that framework. So he did not start from scratch. But we've added new physics, improve data assimilation, and dynamics.

42:23

And as Dr. Spinrad talked about right out of the box, the very first time, we're going to implement it. At least for the three years, we ran it, in retrospect that we're getting around 15% improvement on track and intensity forecasting, that we used to have on our HWRF and HMON limited area of a hurricane models. Those aren't the only models. We still make use of the global models like the GFS, or international models like the European Model as well. And statistical models. So all those

are thrown into the mix. And you add on top of that, the expertise of our forecasters at the hurricane center. So we're continuing to incrementally improve the quality of our modeling.

43:00

Oh, it's going to be implemented about a month from in late June.

43:08

OK, I think we've got our first question online.

43:13

Yes. We have a question online. We have a hand raise from Lance Blocker. Lance. I'm Unmuting you now. You have to unmute yourself.

43:20

Please remember the state or media affiliation before you ask a question. You're good to go Lance.

43:25

Yeah. Thanks a lot. Lance Block, 17 News in Raleigh. We've got a lot of impressive El Nino surface temperatures. How did you guys, this upcoming season, to reach the forecast with some of our prayer, you have any idea of what the upcoming months, and did you use any emerging technologies, like machine learning or AI with that process?

43:52

So we do have a that we use a global models, again, from your own center and from our partners around the world. UK Met European Center. That inherently takes into account the sea surface temperatures in the globe all at once. We have we do have worked with the Atlantic Ocean on her feet oceanographic meteorological laboratory, that has a specific model, that addresses inter basin Pacific versus Atlantic Sea surface temperatures. that was injected into the forecast. And then we have a few other statistical models. So these are all put into the forecast. The team met. We discussed them the weak points of strong points of each one of the models.

44:28

And then our consensus forecast was the forecast we came up with, and what was the second part of the question.

44:36

I was just wondering if there was any technology applied to it, and he learning AI, any of that, or is it still an experimental phase?

44:44

For this product? that is, Machine Learning AI is still in a developmental phase for this product.

44:54

All right. Thank you. We now have a question from Rebecca Hirscher. Rebecca, I'm Unmuting you can you please unmute yourself.

45:03

Yes. Thanks.

45:04

Rebecca Hirscher from NPR I'm wondering if it's abnormal to have this many storms forecast you know 70% chance of a normal or above normal year during the year with El Nino. Has that happened before?

45:19

it seems like a pretty large number.

45:22

Yeah. So when I look back on the historical data we have we've had anywhere from six named storms to 18 named storms during El Ninos. The stronger than an El Nino event, then usually the less amount of storms you have. But we are also in an active era and having a strong El Nino with an active era. And such warm SST is I've only seen one other time in historical records. There's not a lot of analog evidence for it.

45:46

So, there's It's definitely, kind of, a rare setup for this year. And that's why our probabilities are not 60 or 70%. They are a little bit to reflect that uncertainty, that all of our, you know, I mean, combined couple of hundred years of experience doing tropical analysis with the team.

46:07

When we looked at it, we were like, Wow, this is, There's a lot of uncertainty this year, in Outlook. So, that's why we have those probabilities and the range of the way there.

46:19

All right, thank you, Kara.

46:21

Next, we will have a question from.

46:27

We'll have a question from Kara Corte, CBS News, Kara, I'm Unmuting you now, if you can unmute yourself as well.

46:37

Thank you all for doing this. Administrator Criswell touched on this a bit.

46:40

But can you speak to how you anticipate increased intensity of these storms due to climate change this year and beyond?

Then, also, I believe there were storms fairly late in the season last year. Is that a trend we can expect? Again, this year, and in the future? Thank you.

47:02

I mean, yeah.

47:06

This is Rick Spinrad, the other administrator, and I will point out, that, oh, what we do see, with respect to your question on a climate signal, I would say that, for, first of all, fundamentally, we know that with climate change, and increased energy coming into the system, that energy has to go somewhere. So we see it in a variety of different forms. You may see it in slightly more energetic forms, storms rather. You may see it and storms that, for example, yield more precipitation, slightly stronger winds, that kind of thing.

47:38

And so I oftentimes use the case of Hurricane Harvey, where we saw almost five feet of rainfall, as an example of the kinds of manifestations that increased energy coming into the system can produce. And you had a second question. Which I think might be more appropriate for Matt with respect to some of the statistics. Can you repeat that question, please?

48:02

Yes, I believe there were storms fairly late in the season last year, later than normal into November. And so I'm wondering if we anticipate that happening again.

48:15

So this specific outlook does not have any information about early or late season storms within today's outlook. We have during active years like 2020, 2021, we do tend to see more early season and late season activity, but that's generally because the entire situation is more conducive to more

formations. So, if you have an active year you typically do have more front and back end to the season storms. But not necessary, but this specific outlook does not have any information.

48:48

And there's, it's not part of the package that we look at, we're just doing the total season from these numbers.

48:54

So we're not, I can't really give you any information on. Should we expect a late season this year or not?

49:04

Thank You. Next, we'll go to Scott Dance, Scott, I'm unmuting you if you can unmute yourself.

49:13

Yeah, Thank you, Scott Dance with The Washington Post.

49:17

I was just wondering if this forecast is maybe a sign that global warming and ocean warming in particular could change the way that El Nino behaves in the Atlantic Basin and hurricane season, or the effect of it, limit the effect of it and in some way?

49:38

So, there's kind of two parts to that answer. There is open areas of research within NOAA and the academic community on the global response to El Nino or la Nina? And what does that look like in future scenarios with a warming planet.

49:53

And then as far as to that's an open area of research that still needs to be investigated and then as far as this year El Nino versus the sea surface temperatures, as I said, it's a pretty rare condition to have the both of these going on at the same time be unfavorable conditions in the Atlantic, the El Nino developing. So there's not really a lot of analogs for that to look at.

50:23

And our last, audio questions will be from Emily Fox all.

50:27

Emily, I'm gonna unmute you, if you can unmute yourself.

50:31

Hi, I'm in Houston and I write for the Texas Tribune.

50:35

I was wondering that if you guys looked at this regionally at all, and if there's anything in the Gulf that might make things better or worse for us here,

No, this this particular forecast is for the outlook is for the entire basin. There was really no skill or attempt to precipitate Regional Outlook for it. So there's no additional information on where in the Atlantic Basin, it will be, or whether or not it will be making landfall or not. It's just the total number of storms for the season.

51:11

Claire Faceler with the Post and Courier in Charleston, South Carolina, can perhaps Administrator Criswell can talk about this.

51:19

Can you talk about recovery efforts in situations of high frequency storms making landfall within two weeks of each other in the same place?

51:26

This is something that we dealt with in South Carolina.

51:30

Yeah, I mean, that's a great question, right, And so, anytime we have a community that is ongoing orare still going through a recovery from a previous storm. It just makes them that much more vulnerable to any future events that might come through there. And so we pay very close attention to what the current status of recovery efforts are, and where the gaps are, where the weekend infrastructure is, and where it's more vulnerable. So we can put the appropriate measures in place to have the resources available, to quickly stabilize that event afterwards, but also if there's anything that we can do to shore up or stabilize ahead of a storm, I think a good example of that is really some work that we're doing in Puerto Rico right now. After Hurricane Fiona, we used our ability to go in and provide some stabilization to the power grid to help make them more resilient for this coming hurricane season. In effort, that's a temporary measure to increase the number of megawatts that they're able to produce, to help make sure that they can withstand.

52:33

And that's just one example, and those are the types of things that we work with governors in my state directors with, If they are going to experience a storm and understanding what their impacts are and where their recovery efforts are, but really listening to them where their greatest concerns are and where their greatest needs will be. But it's also really important, then, for individuals' right, that are still on going their recovery efforts to be able to take those actions today, to know what they're going to do, how they're going to prepare, where they're going to go to be able to protect themselves and their families.

53:08

We're now going to go to a couple of written questions from the contributor's online.

53:13

Yes, thank you.

53:15

Our first written question is from Judson Jones, with the New York Times. Judson wants to know.

53:20

With above average sea surface temperatures and current weather patterns, is there concern for early season storms forming near the US?

53:35

So, there it is, no information in this Outlook, that would talk about front loaded early season storms or late season. I do know that I looked at the Hurricane Center website this morning, and they do have a small area of potential the next seven days, just off the Carolina coast, but it's only 10% chance that's current hurricane center and do you stick with the hurricane center, watching them day-to-day, hour-by-hour. Forecasters are always updating their tropical weather outlooks. So, that's probably your best source of information for day to day.

54:06

Thank you.

54:08

We have a question from Holly Pauker With W N O. Given the issues of rapid intensification in warmer waters, has that affected how many major hurricanes and forecasts for the season in proportion to the total number of hurricanes at all?

54:31

The rapid intensification, there's did not or the changes in that current years did not play an actual computational impact into the numbers.

54:42

The numbers come out of the models and the statistical models. They all come out at the same time.

54:49

There is a relatively smaller percentage, 1 with 1 to 4 major hurricanes as a percentage of the number of named storms that could make major hurricane.

54:58

So, and that's really a reflection of the potential for increased shear and decreased, an increase stability due to the impacts of El Nino. We tend to see more of an impact on the major hurricanes rather than the number of named storms when we look at the statistics between past El Nino events, and then obviously this current forecast El Nino event.

55:22

Thank you. We have one more question. Chat question, from Matt Brickman from NBC New York.

55:30

Understanding that having these two conflicting factors is unusual.

55:34

Can you speak to the reasons for the warmer than usual Atlantic Sea Surface temperatures this season during an El Nino year.

55:44

No, I don't have the knowledge of the attribution of why the sea surface temperatures in the specific spots in the Atlantic stayed warm this year. I mean, I know I understand the general physics behind it, but the specifics for this year would be more of a bit of an attribution study.

55:58

That could be done be either by the researchers or even some of my colleagues.

56:07

OK, I think we have time for one more question in the room.

56:12

Seth Bornstein, AP, maybe for you or Dr, Spinrad, or Mike Brennan's, if he’s somewhere in the room.

56:20

Um, back to the new hurricane forecast model, in terms of rapid intensification, you're saying it's an improvement of about 15% in How first off, do you think this is the solution to the long problem you've had with the rapid intensification and being caught unaware?

56:45

And second is, are you taking is this the first time you're taking ocean heat content into factoring it in in the modeling or giving it higher credence than you have in the past?

56:59

So I'm wondering how big a factor is ocean heat content in the improvement here.

57:06

So we have always used sea, surface temperature, and ocean content, as a boundary condition for our models, So that part is nothing new. Certainly, better modeling, better, physics, everything else, and better use of data has led to incremental improvements in our intensity forecast. So I mean, this, is not, there's no silver bullet here. Continued observations, continued, improvement in the models, you know, pretend to, potentially higher resolution, and more ensemble members, to get us to get it to the uncertainty. So I think we're just gonna continue to crack this problem just like we do with the atmospheric forecast. Just continued for incremental improvements.

57:43

Did you have anything to add?, just want to add that part of the ocean, is our observation.

57:49

So what are those systems?

57:52

Dr. Spinrad made a good point. Part of our gaps in the past has been really, we have, we have a lot of satellite data, a lot of data over the surface of the land surface. But our Institute Ocean observations are pretty sparse.

58:06

And so we made use, not just with the conventional buoys, but we've been taking advantage to new commercial platforms and mobile platforms such as the gliders, which, and the sale drones, for example, Adding those observations then has really helped us incrementally.

58:22

Is that the last word or we got one more?

58:25

I think we have time for one more, go ahead.

58:29

Chace Cane with NBC for Administrator Criswell. I'm wondering if you could talk about with the overall trend of whether it's hurricanes or other, you know, climate fueled weather events, costing a lot more money causing more damage. How do we shift the conversation to adaptation instead of just the disaster response?

58:46

Incredibly important question, we are definitely seen an increase in the amount of recovery costs that we're doing. I don't have the exact stat in front of me, but it's somewhere of, the amount of money that we've spent over the last five years in recovery, is equivalent to, like, the previous 15 years, right? And so, and we can certainly get you that number. But we have to switch that conversation. We have to be able to get ahead of this and get out of this continuous response, recover, rinse, and repeat cycle, and get ahead of this and reduce the impacts. That's why we've made incredible investments through the programs that we have, through our Building Resilient Infrastructure and Communities Mitigation Program, our Flood Mitigation Assistance Program.

59:30

Also, as we're doing recovery, we have the ability to do mitigation as they're rebuilding, to make sure that they can rebuild their infrastructure in a way that's going to reduce the impacts from future disasters. That's just fema's part in this. But this takes the entire whole of society to be able to have these conversations, to look at what your future risks are going to be, and take the measures today to put the adaptation pieces in place to help reduce those impacts, and it has to be based on the future risks. We can't continuously focus our efforts on what has happened to us in the past, Because the threats and the risks that were experienced today are different than 10 years ago, they're going to be different than what we see 10 years from now. And so through the work of NOAA and all of the different climate products that they're putting out there to help us better understand what those risks are, are going to be critically important as we make these investment decisions today.

1:00:32

What appears to be our last question? So I'd like to, once again, thank our speakers for today. Deputy Secretary Graves, who has had to leave before.

1:00:40

NOAA administrator Dr. Spinrad, FEMA Administrator, Crisswell, and our Lead Hurricane Forecaster Matt Rosencrans. A reminder that the news release for today's announcement is available at NOAA dot gov.

1:00:52

A recording of the event will also be added to the news release later this afternoon. Follow up with questions that interview requests may be sent to NWS dot P a at NOAA dot gov.

1:01:06

So thank you all for coming. I really appreciate all your wonderful questions and interaction. And that concludes today's press conferences. And thank you for joining us, and have a wonderful day.

1:01:28

Thanks.

1:01:44

For our viewers online, just a reminder that the Hurricane Outlook is available online. The Hurricane Outlook is available online.

1:01:50

You can see the link in our chat, And a recording of this webinar will be available by this afternoon. Thank you.

# # #