



TRANSCRIPT

NOAA 2021 Hurricane Season Outlook Virtual Media Briefing

May 20, 2021 at 12:30 p.m. EDT via GoToMeeting

Hosted by NOAA National Weather Service Public Affairs

Media advisory about briefing

[NOAA to announce 2021 Atlantic hurricane season outlook on May 20](#)

Hurricane Outlook news release

[NOAA predicts another active Atlantic hurricane season](#)

0:22

Good afternoon, everyone. Thank you for joining the announcement of NOAA's 2021, Hurricane Season Outlook.

0:29

This media briefing is being recorded, so if you do not wish to be recorded, please disconnect at this time.

0:34

My name is Lauren, and I'm the media contact for today's Hurricane Outlook.

0:39

At the conclusion of this media briefing, maybe contact e-mail, or by phone, using the contact information included in the media advisory to use to access today's webinar.

0:48

Due to a scheduling conflict, the Secretary of Commerce was unable to join us today, but we are very glad to welcome Deputy Commerce Secretary John Graves in her stead.

0:57

In addition to Deputy secretary grades, I'm joined by Ben Friedman, the App to NOAA Administrator, Matthew Rosencrantz. Now as lead hurricane season forecaster and FEMA administrator as well.

1:09

We'll begin today's briefing with remarks from our speakers and then we'll take questions from reporters. If you'd like to ask a question during the question and answer portion of this briefing, please click the hand icon in the GoToWebinar window next to your name.

1:22

I'll then call upon each quarter. this virtually, raise their hand, and your line will be unmuted.

1:27

May use the questions tool also, and the goto Webinar window to type a question for our speakers about today's hurricane, haha.

1:34

Please be sure to state. Or type your full name and media affiliation when asking your question.

1:39

With that, I would like to welcome mister Becker Friedman to open our briefing.

1:49

Alright, thank you, Lauren. And good morning to you and everyone here on the call. Thank you for being here today. I have the pleasure of introducing the Deputy Secretary of Commerce Don Graves to share opening remarks as we begin today's briefing. Although mister Graves is only in his first of all, for a full week, in his new role, I can tell you that I've already had the opportunity to meet with him and brief him on NOAA's Hurricanes effort at Hurricane Efforts. He's a self described weather aficionado who is enthusiastic about working with NoOAA and his new role. And we're very

excited to have him as at at the helm. So, thank you, Deputy Secretary Grace, for being here today. And I now turn the briefing over to you.

2:36

Well, hello, everyone. It's great to be here with you. Thank you, Ben, for that introduction and your continued leadership and no law.

2:43

Nearly all of us have witnessed the impact that weather can have in our communities. Some of us view weather events is a mere nuisance. Extra rain. It's slow traffic or snow that forces us to adjust plans for the day.

2:56

But I've seen firsthand that, the devastating impact that extreme weather can have on American lives and livelihoods.

3:03

After Hurricane Katrina, I traveled to Louisiana to assist small businesses that have been impacted by the storm on their long road to recovery.

3:11

What I experienced there made me realize how important it is to stay informed about the changing environment around us.

3:18

People associate 2020 with the year we experienced the worst global pandemic in over a century.

3:24

But last year was also the most active Atlantic hurricane season in 170 years.

3:30

It involved 100, excuse me.

3:32

It involved 30 named storms, Hooting seven, that each costs more than a billion dollars in damages, and they were among the 20 to record setting weather and climate events in 20 20, that together cost the US over \$96 billion.

3:47

From high winds, heavy rains, hurricanes can have a devastating impact on the safety of our families and the health of our economies.

3:54

It's imperative that we take steps to prepare ourselves ahead of the upcoming hurricane season.

4:00

And that's where no one comes in.

4:01

They're timely forecasts before storms help guide decisions around protecting life and property.

4:07

Their survey work after a storm helps businesses return safely through airports.

4:13

As Deputy Secretary of Commerce, I am so proud of the vital work NOAA team performs every day.

4:19

I have the utmost confidence in the expertise of our scientists and in the integrity of their forecast because they're grounded in facts and data.

4:28

Their world-class research, cutting-edge technology, standard of excellence, are second to none.

4:34

They help ensure that America is ready, responsive, and resilient to natural disasters.

4:40

Today, no, will issue its initial prediction for the number of tropical storms, hurricanes, and major hurricanes for the upcoming season.

4:47

I encourage everyone to take their guidance seriously, prepare.

4:51

Thank you, all for joining us today, and I'll turn it back to Ben.

5:00

Thank you. Deputy Secretary Grace, and I, again, we really appreciate your joining us today. As the Deputy Secretary noted, it was a mere six months ago that the most active Atlantic hurricane season on record ended.

5:14

And here we are now on the cusp of a new hurricane season. Later in this briefing, FEMA Administrator, Dan Criswell will discuss the importance of early preparations for hurricanes in greater detail. But I do want to take a moment to emphasize that if you're in a hurricane zone, now is the time to ensure that you have an evacuation place, Plan in place, disaster supplies on hand, and a plan to secure your home quickly.

5:39

It's also important to note that hurricanes bring not only dangerous winds as they come ashore, but also deadly storm surge and inland flooding. So make sure what you're planning focuses on the impact of water, as well as wind.

5:51

I also want to emphasize that since last year's hurricane season NOAA has continually improved the observations, modeling and hurricane research that are the backbone of our forecasting.

6:02

We're fully dedicated to providing the best scientifically backed data and information to the public, the emergency management community and the entire country, for the hurricane season, and all year long.

6:14

And now, onto this year's Atlanta Atlantic Hurricane Season Outlook.

6:20

Notice the outlook for the 2021 Atlanta hurricane season indicates that at above normal season, is most likely, specifically.

6:29

There was a 60% chance of an above normal season, a 30% chance of a near normal season, and a 10% chance of a below normal season.

6:40

For the range of storms that we expect, the outlook calls for a 70% probability in the following arrangements, 13 to 20 named storms, with top winds of at least 39 miles per hour.

6:56

Of these 13 to 20 named storms, 6 to 10 will become hurricanes with top winds of at least 74 miles per hour.

7:05

This includes 3 to 5 major hurricanes ranked as categories three or four, with top winds of at least 111 miles per hour.

7:17

With that, let me take a moment to tell you about several of the enhancements that NOAA has made to its products and services over the last year to ensure we're providing the best forecast possible to the country.

7:30

First, in March, we upgraded our flagship Global Forecast System, known as the American model to improved for Hurricane Forecasting.

7:39

And for the first time, it has coupled, coupled with a wave model that extends ocean wave forecasts from about 10 days to 16 days out.

7:49

Next forecasters at the National Hurricane Center are now using an upgraded storm surge model known as P surge to better predict tropical cyclone, wind structure and storm sides, some of the most important factors in predicting storm surge flooding.

8:04

Also, this year's knows no apps, or excuse me this year, knows Atlantic Ocean Inaccurate, Oceanographic, and that graphic and meteorological Laboratory will deploy the largest array of air and water

8:19

systems to date to gather data designed, to help improve hurricane intensity forecasts, and forecast models, including new drones that scientists will launch from Derrick, NOAA Hurricane Hunter Aircraft, that flying to the lower part of hurricanes to capture critical data.

8:37

And a variety of unscrewed ocean observing platforms, including sail drones, Berkeley, Hurricane gliders, Global Drifters, and new air deployable technology called Alamo Floats to gather data throughout the life cycle of tropical systems.

8:53

Finally, this summer, know's newest supercomputers will enter their final testing phase before becoming operational in early 2022.

9:03

This significant upgrade will triple the capacity and double the storage of our current systems, unlocking possibilities for Better Hurricane Forecast model guidance in the future.

9:14

Before I close, I want to take a moment to give special thanks to the skilled forecasters at the National Hurricane Center in Miami who kept up with the record season last year and will produce the timely and accurate forecast we all rely on throughout the 2021 season.

9:29

And of course, across the National Weather Service, our forecasters maintain watch around the clock year round to provide the country with the critical forecasts, watches, and warnings that we need.

9:41

I will now turn the briefing over to Matthew Rosenkranz, known as New Lead for the seasonal Hurricane Outlook from the Climate Prediction Center.

9:49

Thank you.

9:53

Thank you, mister Friedman.

9:55

As we look forward to the 2021 Atlantic hurricane season, there are several factors that we took into consideration when developing the mail.

10:02

Last year was a busy season, which was a clear reflection of the Ongoing HIO activity era, which began in 1995, and continues to be a factor in our outlook for 2021.

10:12

Typically, high activity era conditions include warmer than average sea surface temperatures, weaker tradewinds in the Atlantic Hurricane Main Development region, as well as Weaker Vertical Wind Shear, and then enhance West African monsoon.

10:26

The El Niño southern Oscillation, otherwise known as ENSO, is another significant influence of the hurricane season.

10:33

We are currently experiencing ENSO neutral conditions, which do not largely inhibit hurricane information or suppress the features of the ongoing HIO activity.

10:43

Should La Niña return, later in that hurricane season, which does have the potential to occur?

10:49

It could reinforce those directed the error conditions and increase the likelihood that we could see seasonal activity or the upper ends of our predicted ranges.

10:58

Based on our current data and analysis, we do not expect the 2021 hurricane season to be as active as 2020.

11:06

However, we do update our Atlantic seasonal outlook in August, as we do each year, before we move into the peak of the hurricane season during August, September, and October.

11:16

Additionally, last month, we updated the seasonal averages for hurricane season based on the latest information from 1991 through 2020.

11:26

Moving forward, an average Atlantic hurricane season will have 14 named storms, seven hurricanes, and three major hurricanes reflecting data from the latest version of the high activity era.

11:39

The previous averages included 12 named storms and six hurricanes, number of major hurricanes remained the same rate.

11:48

For the eastern and central Pacific basin's, the outages did not change.

11:52

The eastern Pacific averages remain at 15 named storms, eight hurricanes, and four major hurricanes.

12:00

The central Pacific Basin maintains an average of four named storms, three, hurricanes, and two major hurricanes.

12:09

Regardless of the predicted seasonal activity, it's important to remember it takes only one dangerous storm. Debbie devastated community and lives.

12:17

I would encourage everyone to visit the National Hurricane Center website at hurricanes.gov throughout the season to stay on top of watches and warnings as they develop.

12:26

With that, I'd like to welcome our next speaker, FEMA Administrator, Dan Crespo.

12:37

Thank you, Matt, and good afternoon, everybody. Thank you so much for including FEMA in today's outlook.

12:43

After last year's record setting hurricane season in the middle of a global pandemic, I assure you we are more prepared than ever for the threats that may come along this year.

12:53

Due to the adoption of more virtual operations and inspections and no contact service methods, our response has evolved to ensure that we keep the safety of individuals we serve at the forefront of our minds throughout this greatest, throughout their times of greatest need.

13:10

Are also increasing public communications by using social media platforms, virtual town halls, and co-ordinated messaging to survivors from FEMA officials and local community leaders.

13:22

We are ensuring all communications from FEMA are accessible and individuals with disabilities, and limited English proficiency, durian response and recovery efforts.

13:33

But preparation is key, are many, unfortunately, preparing for hurricane season. It's become an annual ritual because you have experienced the impact of these storms so many times before.

13:46

There are two big ideas to keep in mind as you plan to ensure the safety of your family and your personal property.

13:53

First, preparing yourself and your family can often prevent serious injury, or even mean the difference between life and death.

14:01

Preparing your home for hurricanes can mean the difference between minor damage or complete destruction.

14:08

Here are some initial steps that you can take to prepare for any of these storm systems that can affect you or your community.

14:15

First, we encourage everyone to visit [Ready.gov](https://www.ready.gov/hurricane) backslash hurricane's to discover preparedness information that includes tips and planning tools for individuals and businesses.

14:28

You should also download the FEMA App from the Apple and Google Play Stores to receive weather alerts and warnings for up to five different locations in the US.

14:38

Next, make an emergency plan.

14:41

Make sure everyone in your household, knows and understands your hurricane plan.

14:46

Don't forget to plan for the office for your kids daycare and for anywhere that you spend a lot of time.

14:54

Review your important documents.

14:57

Make sure your insurance policies and your personal documents like your ID are up to date.

15:03

Make sure you make copies or digital copies, and keep them in a secure password protected digital space.

15:10

Know your hurricane risk hurricanes are not just a coastal problem.

15:15

Find out how rain, wind, water could happen, where you live. So you can prepare better now.

15:22

Be sure to consider, also, how the COVID-19 environment may affect those plans.

15:28

And finally, know your evacuation zone.

15:30

You may have to evacuate quickly during a hurricane, learn your evacuation routes, practice with your household, your pets, and identify where you're going to stay.

15:42

I mentioned insurance earlier, and I want to emphasize that there's no more important or valuable disaster recovery tool than having insurance.

15:52

Talk with your insurance agent to fully understand your insurance policies, and know what kinds of coverage that you have.

16:00

Everyone can take steps now to make sure that they're prepared for this season, or any other disaster, for that matter.

16:07

Is it ready.gov to learn about how to prepare for disasters that might happen, where you live, where you work, or where you spend your time most.

16:17

FEMA is also ready.

16:18

Community readiness requires the support of stakeholders across the public and private sector.

16:24

It is impossible to do the work of FEMA.

16:27

Is it possible to do the work that FEMA does without the help of federal, state, local, tribal, and territorial partners? Being able to partner with this diverse spectrum of resources helps us do our jobs better and makes our response more effective to meet the needs of the communities that we serve.

16:46

Earlier this week, we released our COVID-19 Pandemic Operational Guidance to support our state, local, tribal, and territorial governmental partners and their planning for disaster response and recovery.

16:59

Will also adhering to the updated public health guidelines to help prevent the further spread of COVID-19.

17:06

You can read this document, and you can sign up for a webinar online at [FEMA.gov](https://www.fema.gov).

17:12

The document updates the guidance that was released during the 2020 hurricane season and highlight some of the best practices and lessons learned from operating in the covert 19 environments.

17:24

Much of Fema's workforce is also getting vaccinated to protect themselves and others while they serve.

17:31

We will also continue to observe and follow CDC guidelines to protect the health and safety of those we serve in times of disaster without reducing the effectiveness of the assistance we provide.

17:44

We will continue to balance and continually adjust the number of in person deployments to disasters. And we'll use virtual deployments, especially for smaller or less complex disasters.

17:57

In closing, I just wanted to say that our preparedness message remains the same.

18:01

The best way to help your community recover from a disaster is by you taking steps now to prepare yourself and your family.

18:10

We urge everyone living in a hurricane prone area to plan now for the possibility of severe weather conditions.

18:17

This notice also extends inland, whereas these powerful storms do not just affect the coast. Heavy rains and flooding can happen far inland from these storms.

18:27

And as an emergency manager, I have always focused on keeping families and communities safe.

18:32

There is nothing more rewarding than being able to serve and help the people at this country as the leader of this agency. I can tell you that the team at FEMA is ready to assist before, during, and after disasters.

18:46

With that, I will turn it back to Laura Geishas for NOAA.

18:55

Thank you very much.

18:56

Will now take specific questions from reporters and our media partners that have joined us in the webinar. I'd like to just remind everyone of the instructions for asking a question that were given at the top of the call.

19:07

If you'd like to ask a question, please click the hand icon in the goto Webinar window next to your name, all then call upon each a quarter that has a virtually raised hand and once you're called upon line will be unmuted. You may also use the questions tool in the GoToWebinar window to type a question for our speakers about today's hurricane.

19:26

Please be sure to state or type your full name and maybe Felicia when asking your question.

19:31

I would ask for your patients now, or moderate your questions, as it may take a moment to bring those in line and to organize them, so please stand by.

19:47

Our first question comes from Seth Orenstein.

19:50

Seth your line should now be oh, thank you for doing this. My question is for Matthew.

19:58

It's actually a two parter here in terms of the forecast you talk about, you know, sea surface temperatures, of course, in the Atlantic.

20:07

It can you tell us, if any, how much of a factor, if anything, human caused climate change would be here, between the sea surface temperatures in the Atlantic.

20:17

And also, there's been this long running debate inside in the hurricane and the climate change community about what Bill Gray used to call these periods of high activity that you referred to.

20:32

There's been some recent studies that show that maybe there are no more, that the HMO really doesn't exist and that there isn't a period, a natural variability between high and low um, activity. So I'm wondering the climate change factor here. And do you think we are there are still these periods that go?

20:57

and when would we get back to one of the lower period's aren't we do.

21:02

Thank you.

21:04

So, yeah, so cheap cheap, directly linked to in modern times too, increased sea surface temperatures, which can then increase the amount of stores that actually reach category 4 and 5 storms, category 4 or 5 I'm sorry reaching that upper echelon of storm strength and intensity.

21:25

It has also been linked to heavier precipitation, in me, from each store.

21:31

And in some basins in the world has been linked to a further a northward shift in the place where the storms generally recur or turn from moving westward to the eastward.

21:44

So the increased rainfall is about 3%.

21:46

That's what's been predicted up through, you know, through the current time, there is some research that says, that can increase 10% of the next 100 years, but we won't have seen that for this year.

21:59

The surface temperatures in the Atlantic are predicted to be about zero point three degrees above normal last year, or point 5 6 degrees above normal.

22:09

For the ammo and the Activity Periods, the Atlantic Multi-decadal Oscillation.

22:14

The data shows clear oscillations only back into the 18 hundreds.

22:18

Some of the recent research has come out about what, what causes the AMO change, and that's kind of a different question from the impact of AMO into the tropical cyclone season.

22:38

Yes. Just one quick question when you talk about zero point three eight zero point 5 6. Are we talking degrees Celsius degrees Fahrenheit?

22:47

That's degree Celsius. Thank you.

22:51

Thank you, Seth.

22:54

Our next question comes from Joe Gorilla with Newsday, and she asks: Is there a decision about changing the start date of the hurricane season?

23:03

And also, what is the latest outlook for the New Yorker Long Island area?

23:12

So I could take that.

23:16

We often have named storms formed before the start of the official season, that's very typical during high activity era to get one named storm. They usually far as before the season. We've had about half of the last 10 to 15 years have had a storm form.

23:33

Um, there is no plans to change the 2021 hurricane season. But it's my understanding that there are discussions both internal to NOAA and when WMO, about changing that potential ramifications of that will be guided by the physical science and the social science.

23:52

As far as the New York City Area and landfalls or anything like that, landfall forecast and direct impacts to the New York area are best made within about a week before landfall.

24:05

So take the time to repair now. If you're in a coastal location, understand the storm surge, heavy and high winds are likely your primary threat if you're a further inland freshwater flooding from me and just the pure amount of rain and high winds is more likely A threat there. So understand your threat and understand where you can work, and then visit [ready.gov](https://www.ready.gov) for help in planning to mitigate those threats.

24:29

Thanks, Matt. I think the next one will be for you, as well.

24:32

This one comes from Ken Miller, with the Palm Beach post. Her question is, with a neutral and so phase. What other specific factors will play a role in creating or strengthening storms?

24:43

So with an answer neutral phase.

24:46

It's a neutral does not kind of inhibit The high activity error conditions are shining through.

24:52

Those high Arctic the error conditions are warmer than normal sea surface temperatures in the Atlantic, weaker than normal Vertical Wind shear, which is the difference between winds at about 35,000 feet and about 5000 feet.

25:05

Weaker than normal tradewinds across the tropical Atlantic.

25:08

Any stronger than average West African monsoon, which is where most of the major hurricanes form they come from waves that move off the coast of Africa.

25:21

Thanks, Matt.

25:22

This next question will be for FEMA.

25:26

The question comes from Julia Mousa with Fox News. And the question is, how are no and female and other government agencies co-ordinating with officials and coastal locations, still recovering from last hurricane season that were hit hard by flooding during the year, like the Gulf Coast States, for example. And what are they doing to help them prepare for 2021?

25:47

Hi. Thank you. This is DN. Chris, while with FEMA, great question, NOAA, and the National Hurricane Center, has been a great partner with FEMA for, for the longest period of time, right. And so, we work together collectively to make sure that we are getting consistent messaging out to state and local jurisdictions. But, a big piece of that, as well from the FEMA point of view, is that we work very closely with our state partners and our local partners, as they are doing their preparedness

efforts, getting ready for this hurricane season. And then, when we do see a storm that has the potential for landfall or impact and the National Hurricane Center along with FEMA work collectively to make sure that we're getting the right messaging out so people can prepare appropriately and take action as early as we need them to.

26:39

Great, Thank you so much Next question comes from Laura Martinez Laura your lunch now be unmuted You just need to unmute yourselves.

26:53

OK, hi, I'm Laura Martinez and with the browser Harold and I live here in Brownsville, Texas, South, Texas a wonder. What are the chances of South Texas being? Affected by another hurricane this year. I know we had Hurricane Hannah last year that she hit between Corpus Christi in the browser area. So what should we be expecting in the South Texas area?

27:17

Max, you want to take that?

27:21

Yes. Specifically, the south X's area for landfalls those forecasts are best made about a week out.

27:28

Um, we do know that during high activity areas, we are more likely to have landfilling hurricanes. There's about a 30% chance increase chance of that anywhere on the coast though.

27:40

but specifically, for the south-east coast, landfall forecasts are definitely made about us a week out.

27:47

So people should take the time to prepare now, um, to get the supplies as if a soil could come to them at any point during this hurricane season.

27:59

Great, thank you.

28:09

Next question comes from Mindy Weisberger with Livescience format.

28:13

Do the new adjusted average number of Atlantic season storms reflect long term sea surface temperature shifts due to climate change?

28:24

Climate change has, does not happen.

28:27

Direct impact on the number of named storms. That's what the latest research has come out with.

28:35

Most of the increase in storms is really a reflection of the better technology to detect the storms such as better satellites called scour Parameters that allow us to really understand that our storm structure. And declare them as, you know, tropical storms rather than so that it may not be tropical storm strength.

28:56

So, that's, that's one of the major impacts is the veterans or the technology. Also, the continued reconnaissance from the hurricane hunters. It's so valuable in determining the actual strength of an investigation area.

29:12

Thank you so much.

29:14

Let's see here, going to the phones.

29:19

Our next question comes from Evan Brown.

29:23

Evan, your line should now be open once you remove yourself mute.

29:32

Can you hear me now? We can hear you. Great. Thanks, Evan Brown Fox News. I think this question is perhaps best directed to the folks at FEMA. How is the condition of infrastructure heading into this?

29:47

This hurricane season, we have had issues in the past that I'm thinking predominantly with the New Orleans area regarding levees.

29:54

And the type of flooding that New Orleans is prone to because if it's its elevation below sea level. But we we have practically up and down the East Coast.

30:05

There are areas of weakened infrastructure that could become in parallel, with the the right or the wrong strike of a tropical cyclone.

30:14

Whether it's city water systems, or, or electrical grids, and the like could could FEMA talk about that about our readiness in that regard?

30:32

Yeah. Thank you so much for that question. You know what? The current one of the concerns we have All the time is the fragility of our infrastructure, and we've seen that in certain parts of the country. It's certainly more fragile than others. We've had recent storms that have impacted that, I think, were Fema's role, really comes to play, is that as these communities are recovering from previous disasters, we really work with them to rebuild and build back better. We have assistance to our Public Assistance Program that can help improve the resiliency of the infrastructure, so it is better protected for future events. And the other way that FEMA can assist with this, as well as through pre disaster mitigation dollars, right? And making sure that we can do this system wide mitigation based on future threats. and knowing what the potential vulnerabilities are, but those vulnerabilities really have to be determined by the state and local level.

31:25

And so we really work with them to better understand their needs, and use these types of grant programs, so they can request assistance based on the needs that they have identified.

31:42

Thank you.

31:44

Our next question, I'm gonna go to Deanne White.

31:48

Your line should now be open.

31:54

If you want to go ahead and unmute yourself, we should be able to hear you.

32:07

All right, Not hearing from her here. It looks like she also included a question in the chat, so I'll go ahead and read that question.

32:14

She is the editor of the Florida Patch Online News Site. And the question is for Matt: How about new modeling, and addition of new satellite technology and drones changed the way now attracts hurricanes and how we receive and report on hurricanes.

32:29

So we have, there's kind of two parts of that question.

32:32

The increase observations, as mister Friedman mentioned before, all the latest technology me, unmanned air, unmanned systems that are being deployed by NOAA, they give us a much better indication of the conditions. Are these the state of the hurricane, the atmosphere on the ocean at any given point in time?

32:51

That information is then fed into our numerical prediction models, which are constantly being I read it and upgraded and there's a new GFS, 16 point, 1.1 going in this year. So that'll make the best use of some of the latest observation and technology.

33:08

So it's really about what's with the best condition of the amateur right now.

33:12

And that's the best starting point to make the most accurate forecast for the next for the lab of the next week or so.

33:21

Thanks, Matt.

33:24

It looks like our next question will be for FEMA, Comes from Shankar. The question is, well, prepared to help with extended shelters in areas like the US Virgin Islands, that are still recovering from Category five stores, 20 17, and have to shelter facilities available, especially in light of 19.

33:46

Thanks for that question again, as I mentioned in my comments, we just released the new guidance for this year to help state and local jurisdictions prepare for the 2021 hurricane season. And, one of the principles that we used based in 20 20 was the ability to use non congregate and congregate sheltering as options. So, state and local jurisdictions can put together plans and prepare for what's gonna work best for. Those communities that worked well in 20 20. We're going to move that forward into 2021.

34:16

And our regional administrators are working really closely with their states to understand where their needs are and how they plan to facilitate the sheltering needs that may be needed when it, whether it's evacuating, people from the threat sound, or after a disaster hits and makes impact. And we have to do extended sheltering. So, we do have some increased options going into this year, based on the lessons learned from last year, and will work closely with our states to help meet their needs, and what's gonna work best for them.

34:49

Great, thank you.

34:50

Our next question, we're gonna go to Darwin, Nelson, Darwin, your launch, now be open.

35:01

Dart, right there.

35:04

Hello. Can you hear me? Yes, we can.

35:07

Hello, this is David Nelson from you. And I've spent news. I have a question for anyone, really. Is there any data that is specific for different regions of the nation? For example, what can states like Florida expect from hurricane season this summer?

35:26

Matt.

35:28

Sure.

35:30

Typically during high Activity aras and above normal seasons, we do see a, more storms that get closer to the US, have more landfalls, but specifically making forecasts for as an individual state or any point along the coastline, for landfills that's best done about a week out and the forecasters at the National Hurricane Center and their local weather forecast office or on top of that.

35:55

So take the time to repair now, because those things are uncertain out into the future, where exactly the storm will go. So understand your risks, and follow all the guidance from FEMA. They really have some great resources.

36:11

Thanks, Matt.

36:13

Looking here again at our questions, Gosh, there are a lot. So please be patient with me while I try to swipe through them here.

36:27

Question for Matt from Carla Falco, how does the Atlantic Multi-decadal Oscillation and some neutral conditions affect the placement of semi permanent hynes, such as Bermuda High and other Steering flow large-scale features?

36:45

So the Atlantic well dedicated Oscillation depending on exactly which phase it's in, can actually change the area of the high pressure over the western US. Or actually over the western Atlantic.

36:58

During the Warmer Phase, it can typically pull it to the north a little bit, um, and it will typically be a little bit weaker and that's why you get the reduced trade winds.

37:08

Lester, a positive phase, the MO, during the high activity era.

37:12

The impacts from La Niña or El Niño, if it changes, that does cause some waves that move across the planet. Those can change on a seasonal basis so they can kind of change throughout the season.

37:24

Typically aligning would result in high pressure, will refer to the north and west sector of the south-east US.

37:33

So that's why again, that's a little bit further to the north and west again, so there would be reinforcing there's a landing gear coming in.

37:41

So there's But there's lots of interplay in that. And then the strength of that high pressure system will wax and wane throughout the season.

37:49

So that's kind of creates those steering occurrence, but then kind of feeds back into landfall forecasts which are best made again within that week or so timeframe.

37:59

Thanks, Matthew, Next questions for you as well, from any Baxter.

38:02

She says, I think you hit on the sidewalk, but could you provide a frame for what we're seeing regarding trends related to climate change, the past few decades, more intense, more frequent storms, and how this forecast does or doesn't match those trends?

38:16

Sure, so climate change has not been directly linked to the frequency of named storms, tropical storms.

38:23

But it has been linked to an increased intensity of storms, so once they do form, they have a possibility to get to those Category 4 and 5 storms to get the intensity level up. Climate change is also linked to heavier precipitation, within storms. About 3%. That's about the estimate, or that we've experienced through the current time. Also, sea level rise can make coastal areas much more prone to after flooding.

38:51

And that's taken into account with our great work on the probabilistic storm search.

38:56

Um, so this forecast is mainly reflecting of the ongoing high activity era and the potential for the, and so neutral to not kept that high activity or those conditions.

39:15

Thanks so much Matt.

39:16

Go into the phone here to Mckell, Hannah Harding, your line should now be open.

39:25

Yes, can you guys hear me?

39:27

We can.

39:28

OK my name is Eliana Harding Unama broadcast meteorologists already that you lose and Augusta, Georgia.

39:35

My question is for NOAA.

39:37

So before that, I believe, and it's just Last year, I noticed that there were a few tropical systems we had that kind of maintained their straight for a decent amount of time unless they moved and moved inland.

39:50

Have you guys done any kind of, like, steadies, or noticed anything about storms, being able to maintain their strength, further inland for this upcoming hurricane season?

40:02

That's not an area of research. That's My X for my expertise, Lauren, that there's probably some GFTO or another part of malware that has looked into it. Absolutely Should follow up with me at the end of today's briefing, and we'll definitely see if we can get you in touch with the best expert for that particular question.

40:21

OK, what's the best way to get in contact with you is Laura, and I'm talking to Yes, it's Laura, and hi there! My content is on the media advisory to use to register for today's event, and I'll repeat it again at the end of the briefing.

40:33

Awesome, That sounds good, thank you, guys. You're so welcome.

40:39

Our next question comes from.

40:43

Let's see here.

40:48

Chris Martinez with W P B X in South Florida. Are there any new models or developments that could help in forecasting rapid intensification mats, probably for you?

41:03

So now I did just recently upgraded its high res models, which are the high-res over the US.

41:10

But as far as any forecast or model upgrade to HR for H one, would really have to refer you back to Lauren for the modeling expert.

41:25

Sure. I'm happy to help with that as well. We can connect with someone from our environmental modeling center to help address that question.

41:35

A question here for FEMA, from Abby Bennett.

41:39

What are the ongoing concerns related to the pandemic and storm response and recovery?

41:47

Know, I think that the biggest concern that I have is that our state and local jurisdictions have been managing the response to cope at 19 for, well over a year now, and their staff are tired, right? And so I think, you know, one of our goals right now is to make sure that our staff here at FEMA are rested and reset and ready for hurricane season. And we are and working, again, closely with our state partners to make sure we understand where their gaps are going to be based on their extended responses that they've experienced over the last 15 or so months. Again, we did release some guidance again for this upcoming hurricane season to help state and locals prepare and a covert 19 environment. And it doesn't address a lot of the lessons learned from last year and best practices. So they can better prepare their responses and do their planning with the Cove in 19 implications in mind.

42:49

Thank you so much.

42:53

I have another question I think hits best here for FEMA.

42:57

This one comes from Elliott well with the Florida Keys Free Press, and the question is, but the key is still recovering from the effects.

43:06

Hurricane Irma in 20 17, are emergency preparedness measures being looked at differently in Ireland settings, such as ours, given that we have especially little protection from storm surge, and if so, what extra protections can be given to island settings like ours.

43:21

I think that the best way to, to address that, right, is we're seeing more storms. We're seeing more intense storms, and we really need to have a focus on how do we reduce the impacts from those storms, whether it's the islands and the keys, or other areas that have been prone to disasters across this country. And so, investing in that system wide mitigation is gonna make a big difference to help reduce the impacts from the storms. Because we're certainly not going to be able to stop the

storms themselves. And so that's, again, FEMA, has released new programs like that Building Resilient Infrastructure and Communities grant program that provides mitigation funding for communities to help build those mitigation measures and reduce that risk for future threats.

44:07

Thank you. I think this next one, maybe for FEMA, we're gonna go down here to Daryl Holly.

44:12

Darryl, her line should now be open.

44:16

Hello, there. Yeah, Miss Griswell made it a point to urge people living inland to remain aware of hurricane threats. What is the cumulative domestic population figure that FEMA is now using in discussion of totals within the risk zone for the Atlantic Hurricane season?

44:35

So I'm off. Yeah. Yeah, so it's important that we look at the inland threats from hurricanes as well as the coastal threats. And state and local jurisdictions are taking all of those factors into play. As youth.

44:48

Heard, Matt say that, you know, climate change is increasing the amount of rainfall that we're seeing from these events, and that rainfall is going to have a tremendous impact on our communities that may not have thought they were vulnerable to hurricanes. As far as the specific numbers, I don't have those in front of me, but I know as we're reaching out and doing more equitable approaches to delivering our services. And especially through Cove at 19, we're using a lot of the data that's out there, the SPI Socially Vulnerable Index data to help us better understand the communities that might have needs the most and so we can better prepare our responses to meet the needs of the communities.

45:29

Thank you.

45:30

Our next question comes from Daniella Medina.

45:33

Daniella your line should now be open.

45:38

Hi, this is Danielle and Edina with the USA Today Network. I have a two part question for Matt.

45:44

We know that Louisiana had a really devastating hurricane season last year with Laura and Delta, and then with the recent flooding now, what kind of impacts can Louisiana expect, and if you could also touch on the South in general?

45:59

Sure. Yeah. The last year was an absolutely devastating year for many parts of southern Louisiana.

46:05

The ongoing flooding.

46:06

Now, the flooding now wouldn't have a direct link to anything, are controlling a number of hurricanes, tropical storms.

46:15

Um, but it does highlight the need to kind of be prepared Cybercrime now, for what Cocom because it can be more flooding, should a storm coming into your area? Again, specific tracks and specific numbers of storms that will impact a specific, very specific region.

46:32

Um, that's really best forecast for the National Hurricane Center forecast as a week out.

46:37

Um, so, take the time, but it's the message today is take a ton of repair Now. You're coastal area understanding you can be flooded by storm surge and high winds, and if you're in when the heavier in threat, especially in low lying and very flat areas, that freshwater flooding is it's very real and very hazardous.

46:59

Thank you.

47:03

Thanks, Matt. I think our next question will probably come to you as well. But our question is about drones. How are they used when they're deployed?

47:10

And how do they improve real-time forecasting from GSA.com?

47:17

OK, so underwater or even aerial drones, they're able to take measurements of the atmosphere and the ocean in places that maybe we don't already have our equipment deployed to, or they may be very risky for humans to go into.

47:34

So, but anytime this, it all comes back to it.

47:36

Anytime we can have a better, more up to date, more accurate measurement of the atmosphere and the ocean, um, around the storm, then that can be fed into not only the computer models, but also be analyzed by the Hurricane Center for staff.

47:54

Then that could result in a better prediction of where that storm could go and the intensity of that storm.

48:04

Thank you so much.

48:06

Going to found here, our next question is from Marcy Shattsman.

48:09

Marsi, your lunch now be open.

48:12

We have a barrier island here in Boca Raton, Florida and a lot of people keep a very close eye on warning said watches. Because evacuations are predicted. Is there anything new in predicting storms and timeframes for morning said watches, leading to evacuations?

48:39

Matt, that's probably a little bit beyond your scope, right. Because that's really a question for the work of the National Hurricane Center. But, why don't I follow up with you where you reach out to

me and I'll make sure that you get in touch with our colleagues there who can speak specifically about their watch and warning process with you.

48:55

Thank you very much. Absolutely. You're welcome.

49:00

Our next question is a follow up from Kimberly Miller. How does the positive phase of the AML affect hurricane season? And what features of the AML contribute to higher storm members and increased intensity?

49:13

So, demo, it kind of set the background stage for the sea surface temperature pattern. Which is related to the wind patterns above it.

49:23

Typically during the high activity, Areas we see warmer than normal sea surface temperatures reduced Vertical wind shear in the Atlantic, weaker than normal tradewinds at an enhanced West African monsoon.

49:34

All of those factors combine two, increasing the both frequency and potential the intensity of this over the season of tropical storms, hurricanes, and major hurricanes for the Atlantic Basin.

49:50

Thanks, Matt.

49:52

one more here, probably for you as well. Let's see, this question is from Chris Van, most now. He's wondering if you're able to provide any color on the number of storms that are expected to enter the US dollar. What the model say about the capability of the formation of major storms in adults?

50:08

So overall, there's during a high activity year or above normal season, you would expect some slightly more activity into the Gulf of Mexico, as well as closer to the US. There are more landfalls in the US. there is almost twice as many landfalls, an active year from major hurricanes as inactive years.

50:28

There's 40% more storms during an active year, in general, than inactive here.

50:34

But as far as specific forecasts of where in the basin, or the land based, and that started to form, that's still an ongoing area of research renewal.

50:46

Thanks Matt.

50:48

We are winding down here, we have time for just a couple more questions so I'll read a few others from the chat here.

50:55

one comes from Michael Williams with whether boy, what is now, Would you like to improve the infrastructure that supports communications and the public and the media during upcoming hurricane seasons you've references here, NWS chat and obviously that now that's sort of an internal function with partners. But will the systems be upgraded or enhanced mat, I'm not sure if you have any expertise in that area, Otherwise, Michael, if you're listing, be happy to follow up with you and connect you with our colleagues at the National Hurricane Center.

51:22

Yeah.

51:22

I can just briefly respond to that and say that we're actively working on improving our dissemination system and our communication systems. We have a plan in place that's been delivered to Congress, and we're working closely with them on that.

51:41

And, and, and that's been a big, big, big point for us recently. So I think you're going to see significant improvements there.

51:53

Excellent, Thank you for that.

51:56

Next question comes for Matt from W R D. And Milton Delaware. Are there any indications that they'll be more quote, home-grown, storms since year or more storms that form well out to sea?

52:07

I know last year we had many storms forming in the Caribbean and Gulf with many impacts to land.

52:14

No, there's no indication that this you're very active, a closer to the US coast or out to sea. So therefore, you have to be prepared for malformations. Ghosts are actually not so many.

52:28

So, that's really not predictable at these timescales months in advance.

52:34

So, take the time to prepare now as if we could have a lot of formations close to the coast.

52:40

That's the real takeaway.

52:43

Thank you so much.

52:44

We're going to take one last question here. I see one from Andrea line felder, Andrea, your line is now open.

52:52

Hi. This question's for theme. I was hoping to get some more specifics on what you learn about, you know, using touch those devices and virtual staff during last year's hurricane season. That can be used when even you know where people are getting vaccinated. So just like very specific things that you guys put in place that you plan to carryover. Thank you.

53:15

Yeah. Thanks for the question. That, you know, as far as specifics, I don't have any specifics right here with me today, and we can certainly get back to you on some of the things that we have learned. I know that we have included some of those best practices and lessons learned and the guidance that we are distributed or that we released earlier this week. But, I would also say that, I think there's a lot of things that we learned through The Cove in 19 response about doing things more personally and remotely that are going to help improve the way we deliver our programs and services in the future. And so there's still a lot for us to kinda unravel from what we learned last year. And as we start to figure out how it can actually be institutionalized and to the way FEMA delivers its programs.

54:01

Thank you so much.

54:06

All right, well, let's say here, I turn my camera back on, so I can thank everybody in person for being on with us today. Again, I just want to say thank you to our speakers. Deputy Secretary Graves, Acting No Administrator been Friedman, Matt Rosenkranz from our Climate Prediction Center at the National Weather Service, and FEMA Administrator, Dan, for Small again for their time and participating in today's briefing.

54:30

A recording of today's briefing will be made available online at the bottom of press release, on NOAA.gov later today. And finally, if you have any questions, please contact me. Lauren ... too.

54:41

7 four oh, 8314. Again, two up to 7 4 oh, 8 3, 1 4. That concludes today's webinar. Thank you so much for joining us.