

forward to continuing to work with you as this measure moves through the legislative process.

Sincerely,

RAÚL M. GRIJALVA,

Chair, House Natural Resources Committee.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Virginia (Mr. BEYER) that the House suspend the rules and pass the bill, H.R. 3952, as amended.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. TIFFANY. Madam Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this motion will be postponed.

# NATIONAL WEATHER SERVICE COMMUNICATIONS IMPROVE- MENT ACT

Mr. BEYER. Madam Speaker, I move to suspend the rules and pass the bill (H.R. 7361) to upgrade the communications service used by the National Weather Service, and for other purposes.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 7361

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

## SECTION 1. SHORT TITLE.

This Act may be cited as the “National Weather Service Communications Improvement Act”.

## SEC. 2. NATIONAL WEATHER SERVICE COMMUNICATIONS.

(a) IN GENERAL.—Title IV of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8541 et seq.) is amended by adding at the end the following new section: “SEC. 415. NATIONAL WEATHER SERVICE COMMUNICATIONS.

“(a) SYSTEM UPGRADE.—The Director of the National Weather Service shall improve the instant messaging service used by National Weather Service personnel by implementing a commercial off-the-shelf communications solution hosted on the public cloud to serve as a replacement for the communications system in use as of the date of the enactment of this section (commonly referred to as ‘NWSChat’). Such communications solution shall satisfy requirements set forth by the Director to best accommodate future growth and perform successfully with increased numbers of users.

“(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$3,000,000 for each of fiscal years 2023 through 2026, to remain available until expended.”.

(b) CLERICAL AMENDMENT.—The table of contents in section 1(b) of the Weather Research and Forecasting Innovation Act of 2017 is amended by inserting after the item relating to section 414 the following new item:

“Sec. 415. National Weather Service communications.”.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from Virginia (Mr. BEYER) and the gen-

tleman from Oklahoma (Mr. LUCAS) each will control 20 minutes.

The Chair recognizes the gentleman from Virginia.

## GENERAL LEAVE

Mr. BEYER. Madam Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to include extraneous material on H.R. 7361, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Virginia?

There was no objection.

Mr. BEYER. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I rise in support of H.R. 7361, the National Weather Service Communications Improvement Act.

This bipartisan bill, introduced by the gentleman from Iowa (Mr. FEENSTRA) directs the National Weather Service to improve its current instant messaging communication service, also known as NWSChat.

NWSChat is a vital tool used by National Weather Service professionals to communicate with emergency managers, the media, and other strategic partners during high-impact and severe weather events. This tool ensures that the media and emergency response managers can retrieve real-time information to help protect Americans and their property during dangerous events.

However, NWSChat has experienced several issues recently which have caused delays in the National Weather Service’s ability to share critical weather information. This bill would help to address these issues by requiring the National Weather Service to transition NWSChat to an up-to-date, cloud-based commercial platform.

Just last week, the National Weather Service announced that it would be upgrading its chat service to use the commercially available Slack collaborative platform. It was reassuring to see the Weather Service take this step to address the recent outages and issues with NWSChat.

This bill will help support the agency with clear congressional direction and corresponding authorization of appropriations language to help ensure a seamless transition of NWSChat to this new platform.

Reliable and uninterrupted communication is critical during severe weather events. The National Weather Service Communications Improvement Act will support the improvement of this lifesaving tool.

Madam Speaker, I urge my colleagues to support this bill, and I reserve the balance of my time.

Mr. LUCAS. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I rise in support of H.R. 7361, the National Weather Service Communications Improvement Act. Right now, the National Weather Service is years behind when it comes to the internal communications system known as NWSChat.

This instant messaging system is how forecasters and local emergency managers communicate with each other before, during, and after a severe weather event unfolds. This instantaneous communication is critical to their ability to warn and prepare communities for dangerous storms quickly and accurately.

It was developed decades ago out of necessity by employees within the National Weather Service, not by a company that specializes in application development. Therefore, NWSChat has had its fair share of hiccups, especially when a large number of users try to access it at once.

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Surprisingly, the heaviest user traffic is usually during a large, destructive weather event when officials are trying to anticipate what is coming toward their communities.

H.R. 7361 will help solve this problem by authorizing the National Weather Service to upgrade their instant messaging service to a commercial, off-the-shelf solution. These services can handle a large number of users and easily adapt to technology upgrades, giving our forecasters a flexible and modern messaging service.

Living in Tornado Alley, I am very familiar with how quickly storms can form and change direction, so I can tell you that if a small upgrade like this makes storm warnings even a few seconds faster, that time can absolutely be the difference between life and death.

Madam Speaker, I thank my Committee on Science, Space, and Technology colleague, Mr. FEENSTRA, for introducing this bill. I urge my colleagues to support this legislation, and I reserve the balance of my time.

Mr. BEYER. Madam Speaker, I reserve the balance of my time.

Mr. LUCAS. Madam Speaker, I yield 3 minutes to the gentleman from Iowa (Mr. FEENSTRA).

Mr. FEENSTRA. Madam Speaker, I thank Ranking Member LUCAS for yielding and for his leadership on the Committee on Science, Space, and Technology.

Madam Speaker, H.R. 7361, the National Weather Service Communications Improvement Act, is a bill that was born from a tragedy in my home State of Iowa.

On March 5, a tornado outbreak in central and southwest Iowa killed seven people. It was the deadliest storm in our State since 2008.

During this storm, an issue at the National Weather Service caused up to a 7-minute delay from when meteorologists issued warnings to when the public was alerted. In Iowa, we know that even the smallest delays can be a matter of life and death.

Then, just a month later, in April, eight tornadoes were confirmed during a storm. Luckily, this time around, there were no deaths. Despite that, we had 135-mile-an-hour winds and severe

building damage. But that didn't stop some National Weather Service websites and NWS Chat, NWS' outdated emergency communications network, from crashing because of increased traffic.

The bottom line is, NWS must have a functional and reliable emergency communications system that can keep people informed and out of harm's way during severe weather crises.

H.R. 7361 specifically authorizes an internal messaging service upgrade by giving NOAA the authority to transition from NWS Chat to a commercial, off-the-shelf solution. This type of commercial solution will allow nearly unlimited users, so future growth and increased traffic will not be a problem. It also allows NWS Chat to take advantage of new technologies as they emerge.

In fact, earlier this month, NWS signed a contract to use Slack as the basis for the next generation of the NWS Chat service. While this is a step in the right direction, the legislation is still needed to ensure the upgrade is fully supported and completed. The sooner this quick and easy solution is implemented, the faster local emergency managers can alert the public to severe weather that will save lives.

I thank my Iowa colleagues, Representatives AXNE, MILLER-MEEKS, and HINSON, for working with me to put this legislation forward.

I also thank my Committee on Science, Space, and Technology colleagues for helping me cosponsor this bill as well. I look forward to its passage and encourage all of my colleagues to support it.

Mr. LUCAS. Madam Speaker, I yield myself the balance of my time for closing.

Madam Speaker, as my colleagues have made clear in their support of this bill today, every second matters when it comes to reacting to extreme weather events.

NWS Chat is yet another tool in our toolbox to make sure that communities have the earliest possible warning of what is heading their way. We need a fast and reliable messaging service that doesn't glitch when we need it most.

That is why H.R. 7361 is a simple but necessary bill. By upgrading the National Weather Service's communications, we can give our most vulnerable communities the information they need to protect lives and property.

I again thank my colleague, Mr. FEENSTRA, for bringing together the entire Iowa House delegation to support this bill after witnessing the destructive power of a tornado outbreak in their State.

Madam Speaker, I urge my colleagues to support this legislation, and I yield back the balance of my time.

Mr. BEYER. Madam Speaker, I also urge my colleagues to support H.R. 7361, and I yield back the balance of my time.

Ms. JOHNSON of Texas. Madam Speaker, I rise in support of H.R. 7361, the National

Weather Service Communications Improvement Act.

We are seeing the impacts of climate change on severe weather events across the country. Inclement weather is more intense than ever and happening more frequently. Fortunately, due to the advancement of forecasting science and dissemination, we have not seen a corresponding increase in deaths. With climate change supercharging severe weather, we need to ensure emergency response professionals can communicate without interruption. This communication is vital to warn and protect Americans during times of severe weather events.

The NWS Communications Improvement Act is a bipartisan bill led by Congressman FEENSTRA of the Science Committee. It would require NOAA to upgrade the aging National Weather Service's instant communications system to current technology standards. The current communication system, known as NWS Chat, has faced delays and outages during recent weather events. This critical tool needs to be updated to address these issues and improve reliability. The safety of all Americans depends on it.

The House's consideration of this bill is very timely as the National Weather Service announced last week that it will be transitioning NWS Chat to a commercially available instant messaging platform. Congressional direction, and the corresponding authorization of appropriations language in this bipartisan common-sense bill will support the Weather Service's ongoing efforts on this important issue.

With today's technology, disruptions in communication during emergency events should never occur, let alone be common. This critical bill will update NWS Chat, a very important communication tool, to be more dependable. I urge my colleagues to support its passage.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Virginia (Mr. BEYER) that the House suspend the rules and pass the bill, H.R. 7361.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. TIFFANY. Madam Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this motion will be postponed.

#### MATHEMATICAL AND STATISTICAL MODELING EDUCATION ACT

Mr. BEYER. Madam Speaker, I move to suspend the rules and pass the bill (H.R. 3588) to coordinate Federal research and development efforts focused on modernizing mathematics in STEM education through mathematical and statistical modeling, including data-driven and computational thinking, problem, project, and performance-based learning and assessment, interdisciplinary exploration, and career connections, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 3588

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

#### SECTION 1. SHORT TITLE.

This Act may be cited as the "Mathematical and Statistical Modeling Education Act".

#### SEC. 2. MATHEMATICAL AND STATISTICAL MODELING EDUCATION.

(a) FINDINGS.—Congress finds the following:

(1) The mathematics taught in schools, including statistical problem solving and data science, is not keeping pace with the rapidly evolving needs of the public and private sector, resulting in a STEM skills shortage and employers needing to expend resources to train and upskill employees.

(2) According to the Bureau of Labor Statistics, the United States will need 1,000,000 additional STEM professionals than it is on track to produce in the coming decade.

(3) The field of data science, which is relevant in almost every workplace, relies on the ability to work in teams and use computational tools to do mathematical and statistical problem solving.

(4) Many STEM occupations offer higher wages, more opportunities for advancement, and a higher degree of job security than non-STEM jobs.

(5) The STEM workforce relies on computational and data-driven discovery, decision making, and predictions, from models that often must quantify uncertainty, as in weather predictions, spread of disease, or financial forecasting.

(6) Most fields, including analytics, science, economics, publishing, marketing, actuarial science, operations research, engineering, and medicine, require data savvy, including the ability to select reliable sources of data, identify and remove errors in data, recognize and quantify uncertainty in data, visualize and analyze data, and use data to develop understanding or make predictions.

(7) Rapidly emerging fields, such as artificial intelligence, machine learning, quantum computing and quantum information, all rely on mathematical and statistical concepts, which are critical to prove under what circumstances an algorithm or experiment will work and when it will fail.

(8) Military academies have a long tradition in teaching mathematical modeling and would benefit from the ability to recruit students with this expertise from their other school experiences.

(9) Mathematical modeling has been a strong educational priority globally, especially in China, where participation in United States mathematical modeling challenges in high school and higher education is orders of magnitude higher than in the United States, and Chinese teams are taking a majority of the prizes.

(10) Girls participate in mathematical modeling challenges at all levels at similar levels as boys, while in traditional mathematical competitions girls participate less and drop out at every stage. Students cite opportunity for teamwork, using mathematics and statistics in meaningful contexts, ability to use computation, and emphasis on communication as reasons for continued participation in modeling challenges.

(b) DEFINITIONS.—In this section:

(1) DIRECTOR.—The term "Director" means the Director of the National Science Foundation.

(2) FEDERAL LABORATORY.—The term "Federal laboratory" has the meaning given such term in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703).