



Weather in More Languages: The NWS Translation Project at WFO New York, NY

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WEATHER IN MORE LANGUAGES
[WEATHER.GOV/TRANSLATE](https://www.weather.gov/translate)





NWS New York, NY

County Warning Area

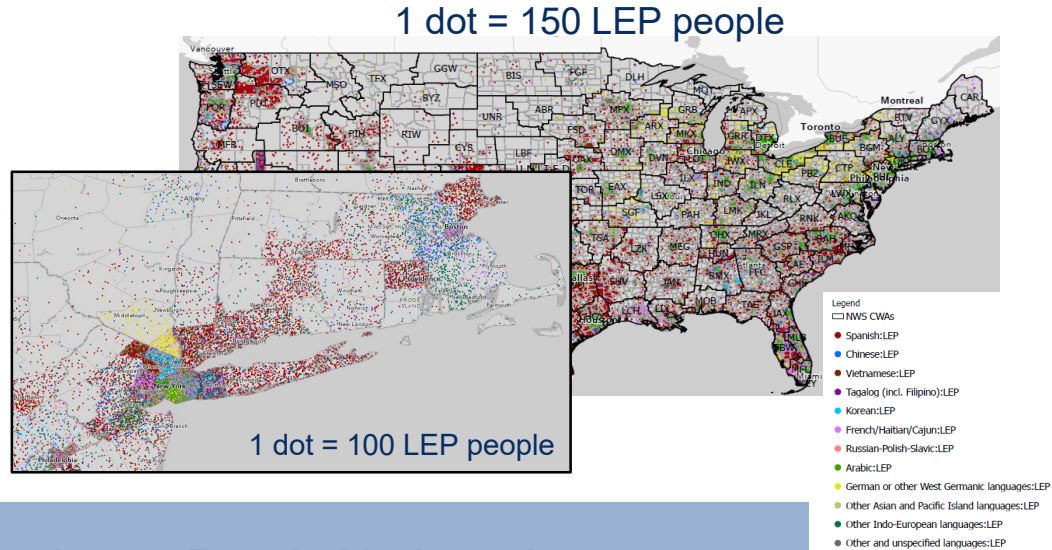
- Located in Upton, NY on the grounds of Brookhaven National Laboratory
- Serve 20 counties across southeast New York, northeast New Jersey, and southern Connecticut as well as the surrounding waters
- 19.4 million people (6% of U.S. population)





Weather Ready Nation

- NWS Vision: build a Weather -Ready Nation
 - Nationwide: ~25 million people are considered LEP
 - Locally (OKX CWA): ~3,000,000
 - Top languages:
 - Spanish
 - Chinese
 - Other Indo -European
 - Russian/Slavic
 - French/Haitian/Cajun




CHALLENGE: How do we build a Weather -Ready Nation when many people can't access or understand the information we provide?





NWS & Service Equity

Equitable Services for a Weather-Ready Nation
 NWS Service Equity Priority Actions
 2023-2026
 Last Update: 17-Mar-2023



NOAA | National Weather Service


National Weather Service Eastern Region
SERVICE EQUITY TEAM

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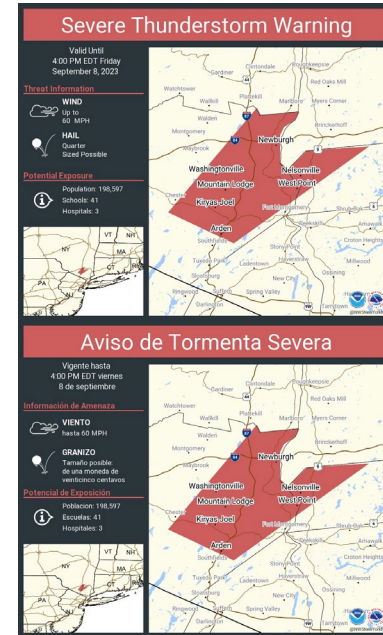
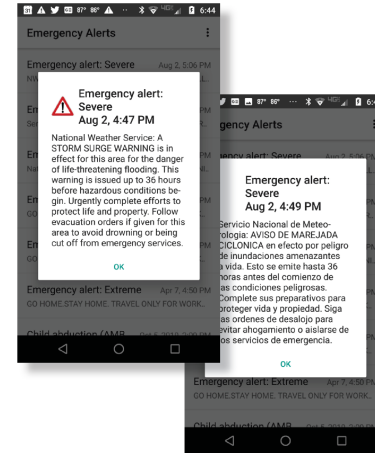
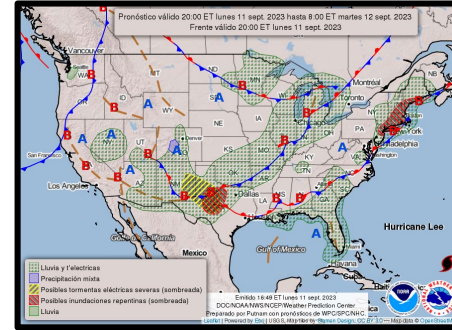



Accurate forecasts are only a starting point. If the forecast isn't received AND understood, we are falling short of meeting our mission.



NWS Translation Efforts

- **WFO San Juan and WSO Pago Pago**
 - Manual translations of some forecast information into Spanish (San Juan) and Samoan (Pago Pago)
- **National Forecast Chart**
 - Template -based automatic translations into Spanish since 2011
- **Severe Thunderstorm/Tornado/Flash Flood warning tweets**
 - Template -based automatic translations into Spanish since 2016
- **Multimedia Assistance in Spanish Team**
 - Developed in 2017 to provide on demand translation services for media interviews and other messaging
- **Wireless Emergency Alerts**
 - Template -based automatic translations into Spanish since 2020



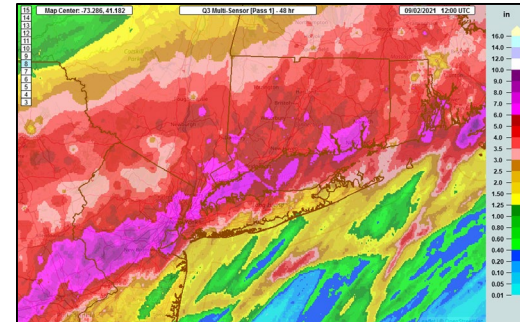


NWS Translation Expansion

- September 2021 – 13 fatalities in NYC as a result of catastrophic flooding from the remnants of Hurricane Ida
 - Majority were of Asian descent and either did not speak or had limited proficiency in both English AND Spanish
- However....
 - NWS does not have language expertise
 - Manual translations are time consuming
 - Template -based translations lack flexibility



<https://ag.ny.gov/press-release/2022/attorney-general-james-calls-national-weather-service-increase-language>



MRMS Multisensor QPE ending 12Z 9/2/21

Solution: Leverage Artificial Intelligence (AI) to expand translations to reach more LEP people



NWS AI Translation Project

Project Objectives

Optimize Accuracy

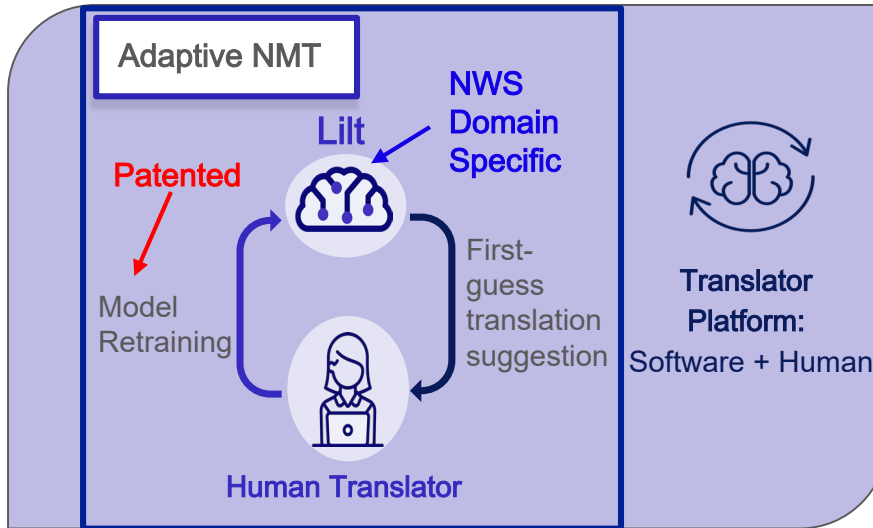
High accuracy needed to minimize risk from mistranslation

Reduce Forecaster Burden

Easier checking/editing for forecasters

Unresourced Languages

Build a process that easily scales into additional languages



As the model learns NWS terms and language, the model becomes more specialized



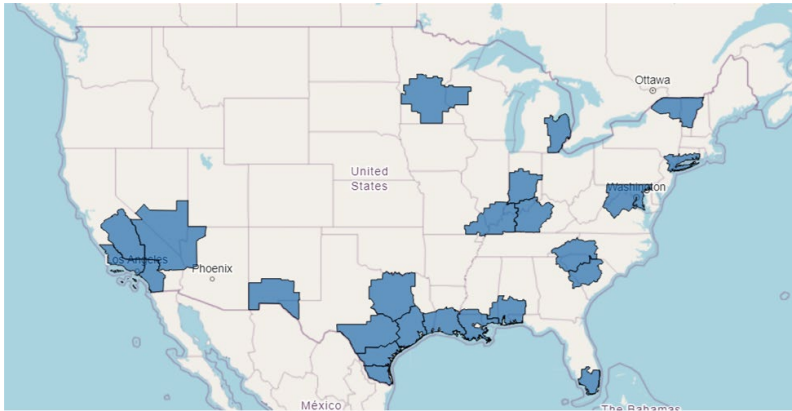
Instant Translate:
Software only



NWS Translations

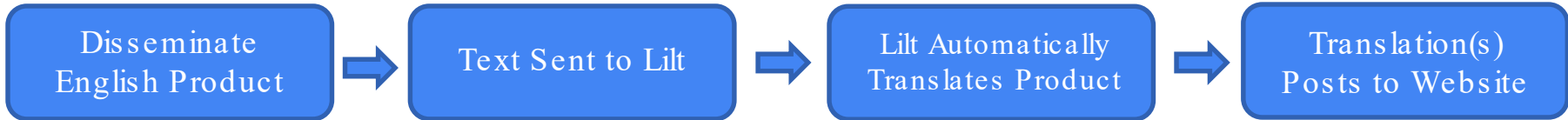
www.weather.gov/translate

- Translations available from NWS New York on an *experimental* basis since Spring 2023



Office	Español	中文	Tiếng Việt	Français	Samoan
Austin/San Antonio, TX	✓		✓		
Baltimore/Washington		✓			
Brownsville, TX	✓				
Burlington, VT		✓			
Columbia, SC				✓	
Corpus Christi, TX	✓				
Detroit/Pontiac, MI	✓				
El Paso, TX	✓				
Fort Worth/Dallas, TX			✓		
Greenville-Spartanburg, SC	✓				
Hanford, CA	✓				
Houston/Galveston, TX	✓		✓		
Indianapolis, IN	✓				
Lake Charles, LA	✓		✓		
Las Vegas, NV		✓			
Los Angeles, CA	✓				
Louisville, KY	✓				
Miami - South Florida, FL				✓	
Mobile, AL	✓		✓		
National Hurricane Center	✓		✓		
New Orleans, LA	✓		✓		
New York, NY	✓	✓	✓	✓	
Pasadena, KY	✓				
Pago Pago					✓
San Diego, CA	✓				
San Juan, PR	✓				
Twin Cities, MN	✓		✓		

- 26 offices + NHC as of October 2024
- Translations are completely hands off for forecasters





Translation Website

www.weather.gov/translate

Experimental - No se debe confiar en él para la toma de decisiones operacionales.

New York, NY - Comunicado Especial sobre las Condiciones del Tiempo - Español

WwUS81 KOKX 111020
SPSOKX

Mapa de peligros

Haga clic sobre el peligro para obtener información adicional

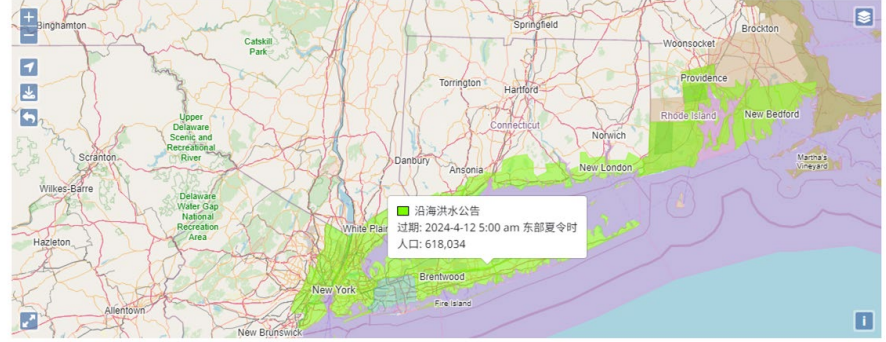


Peligros

- Advertencia de Inundaciones Costeras
- Vigilancia de Inundaciones
- Aviso de Vientos de Galerna
- Advertencia de Viento
- Vigilancia de Inundaciones Costeras
- Comunicado de Inundaciones Costeras
- Vigilancia de Vientos de Galerna

风险插图

单击危险以获取更多信息



风险

- 大风预警
- 沿海洪水短期公告
- 大风警告
- 强风公告
- 沿海洪水预警
- 沿海洪水公告
- 洪水预警

programa de traducción y puede contener omisiones y errores. El Servicio Nacional de Meteorología no puede garantizar la precisión del texto convertido. De haber alguna duda, el texto en inglés es siempre la versión autorizada. ***

Ultimo Producto





Challenges

- Hard to advertise www.weather.gov/translate to those who need it most
 - No single agency/group to serve as a contact point
 - Distrust of government
 - Translate website requires some knowledge of existing NWS products and services



Social Media

US National Weather Service New York NY
Published by Ross Dickman
November 2 at 8:00 AM

It's Winter Weather Awareness Week!

Today's topic is safety. Arctic air combined with brisk winds can lead to dangerously cold wind chills. As temperatures drop, remember to protect the 4 P's: People, pipes, and plants.

Learn more: weather.gov/safety/cold

Protect People, Pets, Pipes, & Plants from cold weather

People
Minimize time outdoors. Prepare for power outages. Check on elderly & other vulnerable people to make sure they're ok.

Pets
Keep your pets warm, dry and indoors as much as possible. Ensure their food & water doesn't freeze. Limit outside time & keep them bundled up.

水管
防止水管在室外时间过长。做好电源准备。检查老人和其他弱势群体，以确保他们没事。

宠物
尽可能让您的宠物待在温暖、干燥并呆在室内。确保它们的食物和水不会结冰。限制在室外时间并把它们捆扎起来。

US National Weather Service New York NY
Published by Ross Dickman
November 2 at 8:05 AM

The following winter safety post has been translated because weather affects us all! English content can be found at facebook.com/NWSNewYorkNY

Es la Semana de la Concienciación del Tiempo

El aire del Ártico combinado con vientos a pasado peligrosamente frío. A medida que las temperaturas bajan, las tuberías y las plantas.

Aprenda más: weather.gov/safety/cold

Proteja del frío Mascotas, Tub

Personas
Minimize el tiempo afuera. Prepárese para interrupciones de la energía eléctrica. Verifique a las personas de edad avanzada y a las personas vulnerables para asegurarse de que están bien.

Mascotas
Mantenga a sus mascotas calientes, secas y en interiores tanto como le sea posible. Asegúrese de que sus comederos y agua no se congelen. Limite su tiempo afuera y manténgalas protegidas.

Tuberías
Si es posible, abde sus tuberías. Abra los grifos de la cocina para proteger las tuberías si are más difíciles. Desconecte mangueras y apague los radiadores.

Plantas
Conozca la capacidad de tolerancia de sus plantas. Si es posible, cubra sus plantas antes de condiciones de tiempo frío para evitar aminorar parte del calor.

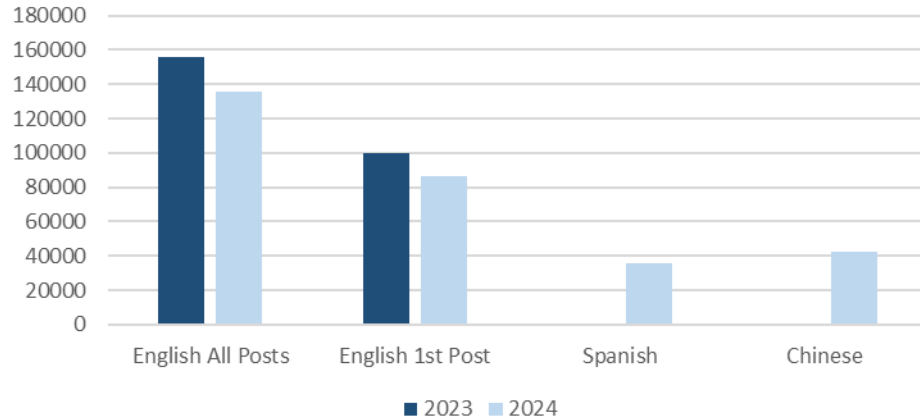
US National Weather Service New York NY
April 11

Wind Advisory has been issued for parts of the region tonight:

- Wind gusts 45 to 50 mph in Advisory area:
- Friday 2 am – 8 am
- Secure any loose outdoor objects!

En Español: <http://weather.gov/translate/TransSPA&urlfo=OC&title=UV>

Winter Safety Social Campaign Total Reach



See insights and ads

36 Likes 3 Comments 16 Shares

Boost post

Possible Inundaciones Repentinhas Esta Tarde hasta el miércoles por la mañana

Mensajes Clave

- Observado numeros casos de inundaciones repentinhas esta tarde hasta temprano el miércoles por la mañana.

Jueves hasta el sábado con el Cién Tran Digital Debby.

PELIGROSOS IMPACTOS

- Impactos de Inundaciones Repentinhas: Se pueden observar numerosos casos de inundaciones repentinhas de áreas urbanas y de mal drenaje y a lo largo de rios y arroyos de respuesta rápida. Las inundaciones podrían ser localmente significativas, causando interrupciones importantes al transporte, basamentos inundados, primeros pisos de residencias y negocios, infraestructura subterránea y planteando una amenaza severa para la vida.
- Riesgo de tormentas eléctricas aisladas fuertes a severas principalmente con ráfagas de vientos fuertes a dafinas esta tarde y noche.
- Vigilancia de Inundaciones: Para toda el área esta tarde hasta el miércoles por la mañana.
- Comunicado de Corriente Marina: Alto riesgo de corrientes marinas hasta esta noche.

Servicio Nacional de Meteorología New York, NY

星期三早上可能发生暴洪

关键信息

星期三晚上夜雨/暴雨: 洪水泛滥情况

内流强降雨: 今天下午至星期三, 全区降雨量为1至2", 局部地区可达3至5"。

降雨: 今天下午至星期三强降雨(小时)短时, 局部强降雨可能多达暴雨, 局部地区可造成严重, 导致交通严重受阻, 地下室, 住宅和商业建筑等危险, 地下室可能面临严重威胁。

今天下午强降雨有可能引起房屋开裂或结构严重受损的风险, 主要影响房屋结构损坏风险。

洪水泛滥相关事件: 可能出现更多大雨和洪水。

洪水相关: 今天下午至星期三上午整个地区。

离岸洪灾: 今天晚上有离岸洪灾高风险。

注意: 从今天下午到今晚, 沿海的精度范围在三州地区出现暴雨和强雷雨, 暴雨可能集中在该地区的南部, 但具体位置仍存在一定不确定性。

时间: 虽然很有信心预计今天下午到今晚可能出现的暴雨的持续时间较短, 但预计强降雨和强降雨将在周三上午推移, 对这一时期的降雨提供信心支持。

国家气象局 New York, NY



NWS Translations – Future Plans

- **Locally:**
 - Developing a social media strategy for translated content
 - Best practices
 - Triggers for posting product links vs. full translations
 - Developing a library of pre-translated content – simple phrases that can be reused
- **Nationally:**
 - Incorporate translated text into NOAA Weather Radio broadcasts
 - Expand automated Twitter/X posts to additional languages
 - Integrate translations directly into a new and improved weather.gov

GOAL: Every office will have the ability to automatically translate products into Spanish and select other languages based on local need

(Languages: Arabic, Chinese, French, Haitian Creole, Korean, Portuguese, Russian, Samoan, Somali, Spanish, Vietnamese)